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Alcohol marketing and young people's drinking: What the evidence base suggests for policy.

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Abstract

As the influence of alcohol marketing on young people remains a highly contested topic we review the recent literature to examine if the debate has moved on. The extant literature shows that while many econometric studies suggest alcohol marketing to have a minimal effect on youth alcohol consumption, more focused consumer studies, particularly recent research employing sophisticated longitudinal designs, demonstrate clear links between alcohol advertising and drinking behaviour. Encouragingly, some of the more recent research studies assess marketing activity beyond advertising; sponsorship, new media, viral marketing, price promotions, new forms of distribution, product development and increased point of sale activity. The literature presents increasingly compelling evidence that alcohol marketing is directly impacting upon young people's drinking behaviour. The implications of this on the current policy debate surrounding alcohol marketing activities and regulation in the UK and beyond are discussed. Furthermore a research agenda for alcohol marketing for the future is offered.

- **Alcohol Marketing**
- **Young People**
- **Policy**
- **Regulation**
- **Research**

INTRODUCTION

The influence of alcohol marketing on the drinking behaviour of young people is still a matter of considerable debate despite more than three decades of research. The alcohol and advertising industries have steadfastly contested that alcohol marketing does not influence drinking behaviour, citing econometric data that suggests advertising has a negligible effect on consumption. Public health academics, conversely, reach the opposite conclusion, but do so by drawing on the broader evidence base. The debate becomes even more complex when other elements of marketing are factored into the argument, such as pricing, distribution, point of sale activity and new product development. Existing reviews of the evidence base suggest that marketing may have an effect on drinking behaviour but stop short of drawing a causal link (Hastings *et al.*, 2005). This article focuses on new research evidence that has emerged since then. The impact of the current evidence base on the policy process will be examined, and the issue of how alcohol marketing can, and perhaps should be regulated is considered.

Alcohol marketing and young people

The last few years have witnessed growing concern at the rising rates of alcohol consumption amongst the UK population, and in particular young people. The level of youth drinking, between 2000 and 2006, has risen by a disconcerting 43.4% for 11-13 year old boys to a staggering 82.6% for 11-13 year old girls. Concomitant with this linear increase in alcohol consumption has been a 20% rise in hospital admissions among youth (Diment *et al.*, 2007), equating to 20 children a day due to excessive alcohol use. Given the deleterious health and social impacts associated with problem drinking alcohol is now high on the social, political and public health agenda. The gravity of alcohol-related harm has also sparked a proliferation of research examining which factors may causally influence drinking behaviour. One risk factor identified is that of alcohol marketing.

There has been considerable discourse on the strength of the evidence base and whether it has adequately demonstrated causality between alcohol marketing and youth drinking. The UK government raised doubts in 2004 over the comprehensiveness of the evidence base, stating 'There is no clear case on the effect of advertising on behaviour. One recent study suggests that such an effect may exist, but is contradicted by others which find no such case. So the evidence is not sufficiently strong to suggest that measures such as a ban on advertising or tightening existing restrictions about scheduling should be imposed by regulation' (Prime Minister's Strategy Unit, 2004, p. 32). Since this time however our understanding of alcohol marketing has improved as new evidence has emerged.

The evidence concerning the influence of alcohol marketing on consumption primarily comes from two separate lines of inquiry; econometric studies, which involve a statistical examination of the relationship between overall levels of alcohol consumption (typically in terms of sales) and overall levels of advertising (typically in terms of expenditure) and; consumer studies, which examine how people's drinking knowledge, attitudes and behaviour vary with their exposure to alcohol advertising.

The evidence base: Econometric studies

The majority of econometric studies have focused on alcohol advertising in broadcast and print media, with alcohol marketing suggested to have little or no effect on aggregate alcohol consumption or on drink demand, when compared to other variables (Duffy, 1989; Duffy, 1991; Nelson, 1999 and 2003). Other econometric studies however suggest a link between alcohol advertising and consumption. For instance, a cross sectional econometric study found a significant relationship between alcohol advertising and motor vehicle fatalities (Saffer, 1997). Similarly, time series studies have demonstrated that countries with alcohol advertising bans had lower levels of alcohol consumption, and that alcohol advertising bans do, or could, decrease consumption by up to 24% amongst adolescents (Saffer, 1991 and 2000; Saffer and Dave, 2003). Recent years have witnessed a scarcity of econometric studies on the impact of alcohol advertising on drinking behaviour. However since the Hastings et al 2005 review two further econometric studies have been published.

The first econometric study, similar to that of Saffer and Dave (2003), examined the link between alcohol advertising and adolescent alcohol consumption and found that reducing alcohol advertising can produce a modest decline in consumption, although effects may vary by race and gender, with black men more susceptible to effects (Saffer and Dave, 2006). This updated study used supplemental data from the Monitoring the Future survey of 8th, 10th and 12th graders, and merged data on advertising and prices to individual records. Confounding variables were also controlled for and the datasets were used to design and test an alcohol demand specification which included alcohol advertising. Results suggested that a 28% reduction in alcohol advertising was accompanied by reductions in adolescent monthly alcohol use from 25% to between 24 and 21%, and for binge drinking from 12% to between 11 and 8%.

In contrast to the previous findings, another econometric study, examining the effects of youth readership, price of advertisements and audience size on alcohol advertising in 35 major magazines in the US, found no evidence that alcohol advertising in magazines is targeted towards youth (Nelson, 2005; Nelson, 2006; Nelson and Young, 2008). Unlike previous econometric work, readership demographics (age, income, gender, race), magazine characteristics (sales, number of issues) and type of beverage (beer, wine, spirits) were accounted for in the analyses (regression models with count data). The findings indicated significant effects for price, audience size and adult demographics but did not support claims that alcohol advertisers target adolescent readers. Instead it was found that alcohol advertisements were less likely to appear in magazines with a high youth readership and that overall ad placements were unrelated to youth readership.

The alcohol industry have used selected econometric findings to bolster their, entrenched, position that advertising does not influence demand for alcohol, but merely brand choice (Waterson, 1989; Shoup and Dobday, 1990; Mitchell, 1994). In many respects this is akin to the stance unsuccessfully adopted by the tobacco industry. Importantly however, the methodological weaknesses inherent in econometric studies question the contribution they can make to the evidence base. A premise of econometric research is that advertising

spend accurately reflects advertising effectiveness, neglecting the importance of creative themes and the media channels used (Strickland, 1982a). The deconstruction of these econometric models also reveals their relative simplicity, given that they have no measure of consumer involvement in the communication process; a vital component of understanding how advertising works (Hastings, 1990; Caswell 1995; Caswell and Zhang, 1998; Wu, 2001). Data is also incomplete or absent in several of these studies, particularly for advertising expenditure, largely due to issues of commercial confidentiality (Saffer, 1997). Further, the focus on overall consumption figures provides little insight into individual consumer's knowledge, attitudes or behaviour and, as such, limits our understanding of particular target markets such as youth. Finally, the often exclusive focus on alcohol advertising is at the expense of the other components of the integrative marketing mix. This again limits the power of econometric research given that the majority of alcohol marketing spend does not go on advertising, but on below the line activities such as new media, viral marketing and sponsorship (Prime Minister's Strategy Unit, 2003; AC Nielsen, 2006)

The evidence base: Consumer studies

Consumer studies are an alternative approach to assessing the impact of marketing on consumer behaviour, and the preferred industry option when evaluating the effectiveness of their own marketing activities. These studies use individuals as the unit of analysis and attempt to examine, or predict, the responses of young people to alcohol marketing. Early consumer studies examining the impact of alcohol marketing on young people's behaviour, like econometric studies, predominantly focused on the effect of advertising. Early consumer research provided support for many econometric findings by suggesting that advertising had a small effect (Strickland, 1982b; Atkin *et al.*, 1984; Aitken, 1989; Wyllie *et al.*, 1998a and 1998b; Grube and Wallack, 1994), or indeed no effect, on alcohol consumption (Adlaf and Kohn, 1989). The cross-sectional nature and simplicity of the designs employed by these early consumer studies however prohibited a causal link between alcohol marketing and drinking behaviour from being established.

The subsequent emergence of longitudinal consumer studies added considerably to the evidence base. Although early longitudinal studies did find some evidence of causality (Connolly *et al.*, 1994; Caswell and Zhang, 1998), it is more recent, and sophisticated, longitudinal consumer studies that persuasively suggest that alcohol marketing influences young people's drinking behaviour.

In 1998 the US National Institute on Alcohol Abuse and Alcoholism funded three such studies. Ellickson *et al.* (2005) followed 3,111 students in middle schools in South Dakota (13-15 years old in age) over three years using an in-school survey. Drinkers and non-drinkers were compared at baseline and regression models, with multiple control variables, employed to examine the relationship between exposure to alcohol advertising after one year and drinking behaviour after two years. It was found that exposure to in-store beer displays predicted drinking onset for non-drinkers after two years, and that exposure to advertising in magazines and beer concession stands at sports or music events predicted frequency of drinking after two years. No significant predictive effect of exposure to TV advertising was found for either drinkers or non-drinkers. Data did come

however from only one US state, and the reliability of self reported data on alcohol outcomes and predictors is, as with other addictive behaviours, open to question.

The second study in the series used a school-based questionnaire design to examine for effects of television advertising on consumption (Stacy *et al.*, 2004). They began with a cohort of 12-13 year olds (N = 2,250) and, using a combination of exposure and recall variables, found that an increase in viewing television programmes containing alcohol advertisements was associated, a year later, with a 44% increased risk of beer use, a 34% increased risk of wine or liquor use and a 26% increased risk of engaging in binge drinking episodes. Similar methodological limitations apply to this study as with the first study in the series (Ellickson *et al.*, 2005) and the authors acknowledge that numerous confounding variables, such as parental monitoring and pro-social extracurricular activities, may explain away the effects of assessed exposure.

The third study in the series was conducted using telephone surveys with 1,877 youths aged 15 to 26 across 24 media markets, up to four times over a 21 month period (Snyder *et al.*, 2006). Multi-level analyses, controlling for covariates, demonstrated a significant link between both self-reported advertisement exposure on four types of media (TV, radio, magazines and billboards) and advertising expenditure on each of these media, and increased drinking. It was also found that both advertising variables were positively associated with increased drinking over time. The findings are weakened somewhat by several factors; relatively high attrition rates, with heavier drinkers at baseline more likely to drop out; incomplete industry data, used to measure advertising expenditure, in some markets; and failure to examine other forms of marketing that may influence behaviour, such as product placement and sponsorship.

Despite the limitations of the three aforementioned studies, the prospective nature and greater methodological rigour of these studies represents definite progress from previous research, and subsequent research has added to these findings. For example, a school based survey evaluated the impact of exposure to alcohol marketing on beer consumption amongst a cohort of 1786 grade 6 students (11-12 year olds) and found, one year later, that seventeen percent reported drinking beer in the past year (Collins *et al.* 2007). The odds ratios from various marketing channels on beer drinking were as follows; ESPN cable network (a 24-hour cable television network dedicated to sports broadcasting and programming) 1.08; other sports beer ads 1.19; other TV beer ads 1.13; magazines 0.96; radio 1.17; beer concessions 1.01; in-store beer displays 1.03; beer promotional items 1.76. The joint effect of exposure to advertisements from all sources was highly significant and also significant from three TV sources (ESPN beer ads, other sports beer ads and other TV beer ads). Twenty percent of young people with high alcohol marketing exposure at baseline reported past year beer drinking one year later, compared with 13% with low exposure at baseline.

A randomised control trial study carried out in 63 Chicago schools investigated the impact of exposure to outdoor alcohol advertisements near school premises on alcohol use (Pasch *et al.*, 2007). It was found that on average each school had 14.8 alcohol advertisements within 457m of a school. Of a baseline sample of 2586 students, 2027

(78%) followed up were non-drinkers. Exposure to alcohol advertisements at grade six did not predict drinking behaviour amongst grade six drinkers or grade eight non-drinkers. However, amongst grade six non-drinkers exposure did predict intention to drink alcohol at grade eight.

Another study using a non-random longitudinal survey investigated the influence of alcohol advertising and promotions on the initiation of alcohol use amongst 1080 non-drinking students in California (Henriksen *et al.*, 2008). Twenty nine percent of non-drinkers at baseline had initiated alcohol use at follow-up one year later. It was found that brand recognition (OR=1.15), brand recall (OR=1.16) and high receptivity to alcohol marketing (OR=1.77) predicted initiation. When receptivity to alcohol marketing was controlled for however other confounding variables (parental and peer alcohol use, perceived prevalence, peer norms, recall, recognition), no longer significantly predicted alcohol initiation.

A study in the North East of England surveyed 298 students (aged 17 to 21 years), from secondary schools and universities, on their alcohol consumption habits: frequency and amount consumed, types of alcohol consumed, exposure to alcohol advertising, and other confounding variables (Gunter *et al.*, 2009). Multiple regression analyses failed to find a significant relationship between exposure to any type of alcohol advertising and general alcohol consumption. However, exposure to TV advertising for alcopops and ciders in each case emerged as a significant predictor of consumption for each of those types of alcohol. It was concluded that although there was no evidence that alcohol advertising plays a significant role in shaping general consumption patterns among young people, it does seem to drive consumption of certain types of alcoholic beverage. The finding helps illustrate the folly of research which focuses only on general advertising or consumption, although the small sample, cross sectional nature of the study and recruitment from educational institutions limits generalisability.

Other Marketing Channels

Recent research has begun to look beyond advertising to consider other marketing communications. One study in New England which aimed to evaluate the impact of exposure to alcohol use in contemporary movies and incident alcohol drinking involved a randomised cross sectional school based design following 2406 non drinkers for 12 to 26 months (Sargent *et al.*, 2006). Fifteen percent (N = 357) started drinking alcohol during the study period and analysis revealed a curvilinear association between higher exposure to alcohol use in movies and increased risk of prevalent and incident alcohol use.

A non-random prospective cohort study in the US examined the impact of ownership of, or willingness to use, alcohol branded promotional items on initiation of alcohol use and binge drinking (Fisher *et al.*, 2007). Of the 3283 girls and 2228 boys, nineteen percent (N = 611) and 17 percent (N = 384) respectively initiated alcohol use within one year. Initiation of alcohol use during this period for girls (OR=1.74) and boys (OR=1.78) who owned or were willing to use an alcohol branded promotional item was significantly higher than for those who did not own, or were not willing to use, such an item. It was found that 24% of girls and 29% of boys who drank alcohol engaged in binge drinking.

The odds ratio of binge drinking amongst drinkers was 1.79 for girls and 0.87 for boys for those who owned or were willing to use an alcohol branded promotion item compared with those who did or would not.

Another US study examined ownership of alcohol branded merchandise (ABM) upon initiation of alcohol use and binge drinking amongst an adolescent cohort (McClure *et al.*, 2009). ABM ownership increased from 11% of adolescents at baseline (an eight month measurement period) to 20% 16 months later. It was also found that 10% of adolescents tried drinking for the first time and 5% tried binge drinking for the first time during each of the two separate eight month periods. A reciprocal relationship between susceptibility to alcohol use (three survey items that assessed response to peer offers, intentions and positive expectancies) and ABM ownership was found. Ownership of ABM at baseline did not have a significant direct impact on alcohol initiation at 8 months, on alcohol initiation between 8 and 16 months, nor on initiation of binge drinking between 8 and 16 months, but did have a significant impact on initiation of binge drinking at 8 months (HR=1.80). New ownership of ABM at eight months had a significant direct impact on alcohol initiation at 16 months (HR=2.31) and initiation of binge drinking at 16 months (HR=2.22).

One of the first experimental studies examining the portrayal of alcohol on television and actual drinking behaviour was conducted in the Netherlands (Engels *et al.*, 2009) in a naturalistic setting (a bar lab) with 40 young adult male pairs (80 participants). The participants watched a movie clip with two commercial breaks for one hour and were allowed to drink non-alcoholic and alcoholic beverages. Two movies from between 2001 and 2002, 'American Pie 2' and '40 Days and 40 Nights', were selected on the basis of relevance to contemporary youth culture. The characters in American Pie 2 were found to drink alcohol 18 times, with alcoholic beverages portrayed an additional 23 times. In 40 Days and 40 Nights characters consumed alcohol three times and alcoholic beverages were portrayed an additional 15 times. The movie clips were then interrupted after 14 and then 33 minutes, by a commercial break which contained either exclusively neutral advertisements (e.g. promoting a car or a video camera) or neutral advertisements combined with two alcohol advertisements. Participants were randomly assigned to one of four conditions varying on type of movie (many versus few alcohol portrayals) and commercials (alcohol commercials present or not). The results indicated that, independently, participants assigned to the conditions with substantial alcohol exposure in either movies ($F = 4.44; p < .05$) or commercials ($F = 4.93; p < .05$) consumed more alcohol than other participants, controlling for the participant's weekly alcohol consumption. The respondents in the condition with higher alcohol portrayal in movie and commercials drank on average three glasses within a period of one hour, double that drank by those in the condition with little or no alcohol portrayal.

With contemporary studies examining the impact of alcohol marketing on youth drinking in marketing channels other than advertising there is growing evidence suggesting that there may be a cumulative effect (Gordon and Hastings, 2007). These communications activities are, in turn, just part of the overall marketing effort. Research has demonstrated that other elements of the marketing value chain such as product development

(McKeganey *et al.*, 1996; Hughes *et al.*, 1997; Goldberg *et al.*, 1994), price and price promotions (Osterberg, 1995; Godfrey, 1997; Chaloupka, 2004, Wagenaar *et al.*, 2009) and distribution and point of sale (Kuo *et al.*, 2003) have an impact on drinking behaviour. Other studies have shown a strong link between availability in the form of number of outlets and increased consumption (McGuinness, 1980; Huckle *et al.*, 2008), problem drinking (Scribner *et al.*, 2000) and alcohol related harm (Kypri *et al.*, 2008).

The convergent findings from recent consumer studies are that alcohol marketing impacts upon youth drinking, with three recent systematic reviews concluding that alcohol marketing has a causal effect on youth drinking. The first review which examined only longitudinal consumer research included a total of 13 studies, and concluded that ‘alcohol advertising and promotion increases the likelihood that adolescents will start to use alcohol and to drink more if they are already using alcohol’ (Anderson *et al.*, 2009, p229). A similar review came to the same conclusion that there is ‘evidence for an association between prior alcohol advertising and marketing exposure and subsequent alcohol drinking behaviour in young people’ (Smith and Foxcroft, 2009, p7). A third review similarly revealed that the ‘available evidence suggests that price promotions do increase binge drinking and that exposure to point of purchase advertising predicts the onset of youth drinking. Consistent with this, evidence suggests that exposure to such interventions as TV, music videos and billboards, which contain alcohol advertisements, predicts onset of youth drinking and increased drinking’ (Meier *et al.*, 2008, p91).

Findings from recent longitudinal consumer studies and systematic reviews have therefore reframed the debate; from one questioning whether alcohol marketing has an effect on behaviour to one questioning what can be done to regulate the effect of alcohol marketing on behaviour - particularly in relation to young people. This brings the issue of alcohol marketing and regulation very much on to the policy agenda.

Alcohol marketing and policy

The issue of alcohol marketing and its impact upon behaviour has been the subject of considerable attention in the public policy arena in the UK and further afield recently. The UK government commissioned a report on the impact of pricing and promotions on drinking behaviour and on associated health harms which included a review on alcohol marketing and drinking behaviour (Meier *et al.*, 2008). Furthermore, a separate review of industry self regulatory standards commissioned by the Home Office and conducted by KMPG concluded that the ‘review has noted many poor practices...going unchecked...A new agency or new regulatory body, possibly with enforcement powers and a range of sanctions to oversee and monitor practice within the industry, may offer an independent solution’ (Home Office, 2008, p66).

This activity clearly indicates that policy makers are beginning to consider the marketing of alcohol as a live policy issue. Exemplifying this point, following a period of consultation the Scottish Government have announced plans to introduce a ban on alcohol price promotions and the introduction of minimum pricing based on a cost of 50 pence per unit of alcohol (Scottish Government, 2009). Since then, the UK Chief Medical Officer Sir Liam Donaldson has similarly called for the introduction of minimum pricing

and a ban on price promotions in his annual report (Chief Medical Officer, 2009). Despite this the Prime Minister rejected the calls claiming that such measures would penalise the responsible, sensible majority of moderate drinkers as a result of the excesses of a small minority. However it seems that this minority appears to be growing (Diment *et al.*, 2007). Nevertheless, despite the ever more convincing evidence base restrictions on alcohol marketing cannot be assumed to be forthcoming.

Alcohol marketing is also an important issue at the European level and in 2006 the European Commission (EC) published a strategy to help European Union (EU) member states reduce alcohol related harm (European Commission, 2006). As part of the process more than 40 businesses and non-governmental organisations responded to an initiative by the EC and signed a charter establishing the European Alcohol and Health Forum (EAHF). The forum meets regularly and is focused on concrete actions to protect children and young people, and to prevent irresponsible commercial alcohol communications and sales. Within the EAHF a task force on marketing communications, and a task force on youth, have been set up to discuss issues such as the impact of alcohol marketing on drinking behaviour and the nature and effectiveness of regulatory systems governing alcohol marketing. As part of the work of the forum a Science Group was also formed and asked to produce a report on the impact of marketing communication on the volume and patterns of consumption of alcoholic beverages, especially by young people. The report highlighted consistent evidence to demonstrate an impact of alcohol advertising on the uptake of drinking among non-drinking young people, and increased drinking among their drinking peers (EAHF Science Group, 2009).

As yet there have been no concrete policy decisions made and the exclusive focus of the EAHF, for the time being at least, is on self regulation, given the current problems with member state competency on policy. Nevertheless the very consideration of regulatory change for alcohol marketing within the European policy arena signifies its importance as a live policy issue. With alcohol marketing clearly now on the political and policy agenda the requirement for good quality research to help inform decision making has never been greater. Considering the strength of the current evidence base the pertinent issue is how best to regulate alcohol marketing.

Regulating alcohol marketing

Policy options for regulating alcohol marketing range from no regulation to complete prohibition, with the on-going dialogue around alcohol marketing tending to cluster around three potential policy options: banning alcohol marketing, statutory regulation and self regulation. Each of these three options can, and often does, overlap. For instance, bans on advertising certain types of alcoholic drinks can be supplemented by statutory regulation covering other forms of alcohol marketing. In France the 'Loi Evin' includes bans on sports sponsorship, alongside statutory regulation restricting alcohol advertising on television and cinema (STAP, 2007). Self regulation is unsurprisingly the preferred industry option, who argue that this represents the most efficient and effective means of regulating alcohol marketing. Self regulation should enable effective control of inappropriate advertising content, and the involvement of industry and advertising trade bodies is often embraced and welcomed by governments who favour self regulation as it

is less expensive and time consuming solution than other policy options. However self regulation can often lack teeth, with penalties for non compliance often minimal or non existent. Further, self regulation cannot control the level of exposure of young people to alcohol marketing; it fails to address the full marketing mix (price, place and product); and it does not limit the quantity of advertising, instead focusing on content and scheduling. In addition, proper evaluatory assessment of the effectiveness of self regulatory systems is generally lacking, therefore clouding the issue of whether or not it actually works. Lastly, it is arguably not marketing that is the problem but what is marketed and self regulatory systems cannot resolve this issue.

Politically, self regulation seems to be the most favourable option as the experiences from the EAHF and the situation in the UK suggest (Prime Minister's Strategy Unit, 2004). Yet this may change at any time, especially given the conclusions reached by the KMPG produced report for the UK Home Office on alcohol industry self regulatory standards. If self regulation is to be the preferred option then appropriate checks and balances need to be in place to ensure the optimal regulatory environment is achieved.

Statutory regulation ensures that the regulatory environment is clear to everyone: industry, marketers, regulators, policy makers and members of the public. It therefore can avoid the confusion often surrounding the enforcement of self regulatory systems. Also statutory regulation can control the level of exposure by controlling the amount of alcohol marketing in some channels. However statutory regulation can be costly to implement, and needs to be well constructed to be effective. It can often produce complexity and result in the loss of flexibility in the system, particularly relevant in a fast and ever changing domain such as alcohol marketing. Yet given the recent examples of failures within self regulatory systems, the likelihood of statutory regulation of alcohol marketing is increasing in some countries.

The third option is to introduce outright bans on alcohol marketing. As previously discussed there is some evidence that bans can have an impact upon drinking behaviour (Saffer, 2002). It is the one policy option that we know works, as is clear for tobacco. It can be viewed as a draconian measure, and arguably the reasons for introducing an outright ban for alcohol marketing are less relevant than for tobacco marketing. Nevertheless both still seem to appeal to young people, normalise behaviour and encourage initiation. Bans also fail to do anything to promote responsible marketing, or recognise the potential positive contributions of marketing such as social marketing. Nevertheless there is strong support for these measures in the public health community (Anderson, 2009), and a 2006 survey found that three-quarters of the EU population would approve an EU wide banning on alcohol advertising targeting young people (Eurobarometer, 2006).

Whether governments decide to embrace advertising bans such as in Norway, continue with self regulatory systems such as in the UK, impose statutory regulation such as a ban on advertising products over 2.5% ABV, as in Sweden, or indeed follow plans to introduce minimum pricing, as proposed in Scotland, none of these options in isolation will effectively curb youth drinking. A multi-faceted, long-term and comprehensive

package of interventions is required to attempt tackle the problem. No one measure can act as a definitive measure to tackle young people's drinking, and regulation should be complemented with other policy levers and interventions, and given adequate time to have an effect.

Key facets of any regulatory system will be independent monitoring to assess the effectiveness of the system and record new marketing techniques and their potential effect. Moreover to prevent any breaches of the rules as much as possible, pre-vetting and copy advice should be available. The involvement of increased numbers of independent lay people on adjudication juries to rule on any breaches of regulation would be sensible. Further, stronger and more robust penalties for non compliance, such as bans on marketing products for a specific time period, may prove to be suitable deterrents. Finally, clearer guidance for the public concerning regulatory rules and the complaints procedures would allow for a more balanced assessment of whether regulation works, or indeed bans are necessitated.

Alcohol marketing: A research agenda

Our review of the recent evidence base and accompanying developments and discourse on policy and regulation generate ideas for a research agenda for alcohol marketing. Although we have argued that there is a need to move on from the debate surrounding causality, additional longitudinal consumer research on the impact of alcohol marketing and youth drinking would further strengthen the evidence base. A key focus would be to conduct such research in markets outside North America where most research hails from. For Europe, in particular, the EAHF has highlighted the startling lack of research emanating from EU member states.

However the EC has funded a research programme, which started in 2009, entitled the AMPHORA project which involves a multi-country (Germany, Italy, Poland, the Netherlands) longitudinal project assessing the impact of alcohol marketing on young people's drinking. Furthermore longitudinal research is nearing completion in the UK (Gordon and Harris, 2009). These findings will further contribute to the existing evidence base and will also help inform national and EU policy. Future longitudinal consumer research would benefit from examining the below the line marketing channels used by the alcohol industry such as sponsorship, social networking sites, experiential marketing, Short Message Service (SMS) and viral marketing, given the paucity of research concerning these marketing channels. Additionally, investigation of the cumulative effect that all forms of alcohol marketing, as opposed to just one or two, have on youth drinking behaviour is an important consideration.

There are other areas in which research is currently lacking. As the focus of most of the existing consumer research is on the content of alcohol marketing and not the level of exposure. Given that research carried out in the US indicates that young people are being over-exposed to alcohol marketing in a range of media (Jernigan *et al.*, 2008; Centre for Alcohol Marketing and Youth, 2008) the extent, as well as the nature and content, of marketing activity is an important concern. The research carried out by the Centre for Alcohol Marketing and Youth has yet to be replicated elsewhere. Therein lies an

opportunity for research in this area to make a contribution to learning and understanding, and help shape an optimal regulatory environment.

A third area for prospective research on alcohol marketing consists of the evaluation of the effectiveness of regulatory systems, particularly self, statutory, and co-regulation. Academic research on advertising bans does exist, but there is very little in these other three areas. Given the current debates around the regulation of alcohol marketing and the alcohol industry's strong preference for the use of self regulation, it is important that good quality evaluation research can be carried out to assess whether such systems actually work. Reports such as the ELSA study on alcohol marketing and regulation have attempted to begin mapping the regulation of alcohol marketing and assessing the effectiveness of regulatory systems but there are major gaps (STAP, 2007). There is little detailed evaluation of the effectiveness of alcohol marketing regulation within, and indeed between countries. Certainly there is little evidence currently to support the alcohol industry's view that self regulation works. Moreover analysis on the effects of changes in marketing laws or regulations would help to assess what can work and what does not. The current situation is exemplified by the fact that there is no reliable evaluation of the effectiveness of the Loi Evin laws and regulations on alcohol marketing in France on consumption levels. Consumption levels in France have been falling from an admittedly high peak level for almost two decades, yet it is impossible to assess what, if any impact the Loi Evin has had on this trend.

Conclusion

The evidence base now favours the conclusion that alcohol marketing is having an effect on youth alcohol consumption. That exactly the same conclusions have been drawn for tobacco (Lovato *et al.*, 2004; Davis *et al.*, 2008) and food marketing (Hastings *et al.*, 2003; McGinnis *et al.*, 2006) suggests that plausibility is moving to veracity. As such, it is down to policymakers and regulators to shape the direction of alcohol marketing policy and regulation. Furthermore research in new areas such as examining new channels of communication, the impact of level of exposure to alcohol marketing on youth drinking, and the effectiveness of regulatory systems should be the focus. Attention must now turn more to protecting young people from exposure to, and the effects of, alcohol marketing, by ensuring the issue remains on the political agenda, that optimal regulatory systems are deployed, and by making use of relevant, high quality research.

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