Alcohol
and
the media
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The European Region is characterized by the large number of languages spoken by its peoples, and the resulting difficulties in disseminating information to all who may need it. Applications for rights of translation of Regional Office books are therefore most welcome.
Alcohol and the media

by

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Alcohol Policy and the Mass Media

An overwhelming volume of research reports and reviews addressing issues related to alcohol and the mass media has been published during the last two decades. A large part of this literature has focused on the way mass media messages contribute to the role of alcohol in society, particularly to the maintenance of or changes in drinking habits, and to the development or prevention of alcohol-related problems. This review will focus on research in three areas: alcohol education programmes and campaigns, alcohol advertising and representations of alcohol on television and in the press.

As research literature on alcohol and the mass media published during the 1970s and the early 1980s has already been reviewed, for instance, in an earlier publication of the WHO Regional Office for Europe (1), the present review will highlight trends and issues characteristic of the literature published since the mid-1980s. The literature being reviewed comes mainly from western European countries and North America, reflecting the geographical distribution of the bulk of publications and publication channels.

Alcohol education is among the most widely used tools in the primary prevention of alcohol-related problems. It is generally assumed that providing people with information about alcohol and about the risks related to drinking will contribute to the formation of attitudes that are unfavourable towards drinking, and this in turn will contribute to changes in drinking behaviour. Much hope has been invested in prevention education, despite research evidence showing
that educational interventions are rarely effective. A general conclusion that can be drawn from previous reviews (2–13) is that alcohol education educates but education alone rarely influences behaviour. Chapter 2 looks at the limitations of prevention education, discusses some suggestions for improvement that have been made in the literature and describes some recent education initiatives.

Discussions about alcohol advertising have centred on the influence that it has on the formation of the individual’s and society’s stance towards alcohol. Empirical studies have focused mainly on the direct effect of advertising on people’s beliefs, attitudes or behaviour, or on the direct macro-level effects of advertising on alcohol consumption. A number of reviews (14–21) have noted that the findings have for the most part been mixed and inconclusive. Since the late 1980s, some studies based on sounder research designs and more sophisticated methods have strengthened the evidence of the impact of alcohol advertising, both at the individual and at the aggregate level, thus providing more solid ground for the formulation of alcohol advertising policies. Alcohol advertising research, as well as different approaches to controlling alcohol advertising, are examined in Chapter 3.

Representations of alcohol in the news and entertainment media have been examined in many recent content analyses. These studies have mapped the images and issues available to the public, and examined how the portrayal of alcohol by the media has changed over time. The interest of researchers is usually based on the assumption that the media play a role in shaping the public’s views on alcohol, drinking, alcohol-related problems and alcohol policies. Studies have been carried out particularly in the United States, where the alcohol-related content of both the print (22) and broadcast media (23–28) has been studied extensively. Recent research approaches include studies on the reception of alcohol-related content by the public and on the various attempts to change the image of alcohol, either in the news or in the entertainment media. Research related to mass media representations of alcohol is examined in Chapter 4.

Although public education about alcohol, alcohol advertising and media representations of alcohol are all important elements of our symbolic environment, exist simultaneously and compete with each other, empirical research has tended to examine these elements separately.
Educational interventions, and the theories they are based on, may address alcohol advertising and other media images of alcohol, but evaluations of education programmes fail to take account of the influence of these images. Studies examining individual-level effects of exposure to alcohol advertising rarely consider exposure to other media portrayals or to alcohol education. Studies using aggregate data to examine the potential effectiveness of alcohol education (29) or the potential impact of media representations (30) are seldom found. Macro-level examinations of the effects of alcohol advertising on consumption could try to adjust for the volume of public education about alcohol, but this appears not to have been done. It is mainly in research reviews that the different forms of public communication about alcohol are addressed simultaneously. Some reviews have integrated findings from advertising studies and media content analyses (31–37), while others have also covered research on the effectiveness of educational interventions (1,38,39).

In some recent reviews (40–42) public education about alcohol, alcohol advertising and media representations of alcohol have been examined in the context of a broad public health and alcohol policy. In these reviews the focus is more on questions of efficiency, that is, how well the educational strategy and the strategy of restricting alcohol advertising have done compared with other strategies aimed at preventing alcohol-related problems.

A common factor in alcohol education and alcohol advertising controls is that both strategies focus on the individual. Alcohol-related behaviour is seen to depend on the individual's decisions, and it is the individual who is held responsible for his or her own health. Approaches centred on individual responsibility and individual change fail to consider the social factors governing behaviour, including the various environmental constraints and pressures that limit individual choice. According to the available research evidence, such strategies have been far less effective than those aimed at controlling or altering relevant factors within the individual's immediate environment. Such strategies include policies affecting the physical and economic availability of alcohol, formal social controls on alcohol-related behaviour (such as drink-driving legislation) and initiatives aimed at changing alcohol-related practices in the drinking environment through broad-based community action.
PRINCIPLES OF SOCIAL PROPAGANDA

The division of public communication about alcohol into separate fields such as alcohol education, alcohol advertising and other media representations loses the interconnections between them and provides an inadequate view of the role that public communication plays in modern society.

One reason for the limited success of alcohol education is that it competes against a barrage of messages that promote the use of alcohol. The primary source of pro-alcohol messages is social reality itself, the widespread and visible availability of alcoholic beverages, and the presence and acceptability of alcohol in a variety of everyday situations and contexts. The influence of experience on people's conceptions of health-related issues tends to be more powerful than that of any information provided (13,43). Wise counsel given by alcohol educators is often discredited by personal experiences of social norms and behaviour.

This does not mean, however, that communication about alcohol plays no role in shaping people's beliefs and perceptions. As the range of our direct experience is limited, many of our views and notions are based on what we learn from other people or from the mass media. The media convey a steady flow of images and views on alcohol and drinking. These images mainly represent alcohol consumption as a harmless practice, playing down the potential health risks and other negative consequences. When the media do depict negative social, economic or health consequences, they tend to present these as occasional afflictions rather than as risks inherent in alcohol use.

The position of alcohol education in this context can be examined in the light of the classic principles of social propaganda (44). For public education about alcohol to have a marked impact, at least one of three conditions would need to be fulfilled: monopolization, meaning the absence of competing messages; canalization, which means building on existing beliefs or attitudes rather than attempting to create new ones; or supplementation of media messages with interpersonal communication.

Monopolization is impossible, if for no other reason than the fact that alcohol advertising exists in most countries. Although alcohol
education probably costs more than any other prevention effort, this expenditure is dwarfed by the expenditure on alcohol advertising. Compared with the resources at the disposal of alcohol advertisers, those of public health agencies are so limited that it is unlikely that the volume of educational messages could match or exceed that of alcohol-promoting messages – unless the volume of such messages were severely restricted through outside controls.

The current situation can be illustrated with findings from studies on the prevalence of alcohol-related advertising on television. A recent study that examined 444 hours of television sports programming in the United States found 25 advertisements aimed at the prevention of alcohol-related problems or containing moderation messages, and a total of 685 commercials promoting alcohol (45). Another study, examining 104 hours of television in the United Kingdom, found a total of 1258 alcohol commercials and not a single anti-alcohol advertisement (46).

The visibility of commercial advertising in the public’s eyes may be high even when the volume of advertising has been to some extent restricted. In a longitudinal study carried out in New Zealand, some 670 respondents were asked – without specifying any period – whether they had seen or heard anything about alcohol in the mass media (47). In 1985/1986, when the respondents were aged 13, advertising of alcohol accounted for 38% of the total number of alcohol-related communications recalled, while moderation messages accounted for 40% and portrayals of alcohol in the entertainment media 22%. Of the messages recalled by the same respondents in 1987/1988, alcohol commercials accounted for 58%, moderation messages for 19% and entertainment portrayals for 23%. In the period preceding the first interview, a large number of moderation advertisements had been broadcast on New Zealand television. The only types of television alcohol commercials that were allowed were sponsorship advertising and corporate image advertising. Before the second survey was conducted, a shift in advertising practices had enabled beer companies to use brand names in their commercials, resulting in an increase in television alcohol promotion.

A study conducted in Finland in the late 1980s found that over 50% of young people aged 12–18 recalled having seen an alcohol advertisement during the previous four weeks (48). Alcohol advertising
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had most frequently been seen on television. At the time of the survey the only type of alcohol advertising allowed on Finnish television was for low-alcohol beer, used by the breweries for indirect advertising of ordinary-strength beers. In the late 1980s expenditure on low-alcohol beer advertising equalled 20% of the value of low-alcohol beer sales, and was three times that on public education about alcohol (49).

It is not surprising, therefore, that educational initiatives rarely succeed in bringing about behavioural change. They are simply swamped by the massive flow of messages conveying the social acceptability and high level of prevalence of alcohol use. A large part of these messages are commercial advertisements that portray the use of alcohol as an essential component of desirable lifestyles.

The strategies of canalization and supplementation, too, have been more characteristic of alcohol advertising than of alcohol education. Commercial advertising campaigns, based on market segmentation analyses and consumer opinion surveys, are designed around existing frameworks of beliefs, attitudes and values (50). Rather than attempting to change cultural models, alcohol advertising amplifies and reinforces pre-existing tendencies that uphold the position of alcohol in contemporary society. A basic strategy of alcohol promotion is not to rely on a single message or a single campaign, but on a synergy created by a variety of messages and channels. Direct advertising through mass media channels is only one example of the range of promotional activities. Other tactics used to secure the visibility of alcohol products include sponsorship of cultural and sports events, on-site promotion in alcohol outlets, drinking paraphernalia and other products carrying brand names or symbols, and product placement in the entertainment media.

In the past - in alcohol education, too - emphasis was placed on targeting specific audiences and on designing messages that were relevant and acceptable to the target groups (51–53). It is no longer expected that single campaigns or programmes would be able to achieve significant and lasting changes in alcohol consumption. Alcohol education is increasingly conceived of as a continuous effort that may contribute to a gradual shift in the social climate surrounding alcohol use. More emphasis is being placed on using multiple channels of communication and on supporting and reinforcing educational campaigns with
interpersonal or community activities (6,13,53–57). In the field of school-based alcohol education, classroom programmes are being supported by school policies, parental involvement and cooperation with the surrounding community (3,5,8,9,12,13,58,59). Educational initiatives are also increasingly incorporated into community-wide prevention programmes, based on intersectoral collaboration and on attempts to change both the social climate and alcohol-related practices. These programmes are aimed at changes that might not be achievable through any single strategy but might be achieved through the concerted use of several mutually reinforcing strategies.

**EDUCATION, ADVERTISING AND PUBLIC HEALTH POLICY**

Alcohol advertising needs to be examined, not in isolation and only in terms of its direct effects on individual or aggregate alcohol consumption, but as an influence that shapes the context in which alcohol education is delivered and in which alcohol-related policies are formulated.

Some recent macro-level studies on the effects of alcohol advertising on consumption suggest that, within stable and saturated markets, alcohol advertising is likely to reinforce or weaken existing trends (60,61). An aspect that is overlooked in macro-level econometric studies is the role of advertising in keeping the mature markets stable and saturated (34). From such a perspective, the main function of alcohol promotion would be to ensure that old consumers are replaced by new ones, and that educational interventions do not diminish alcohol consumption. Through its “meta-message” (42) and “norm-sending” effects (13) alcohol advertising maintains the social desirability of drinking, obscures the risks of alcohol use to individual and public health, and contradicts prevention objectives.

These indirect effects alone should be sufficient to justify the need to control the volume and content of alcohol advertising. With regard to outside controls, the position occupied by alcohol advertising is quite different from that of other media representations of alcohol. While alcohol advertising conveys a consistent and uniform flow of promotional messages, there is more variation in the representations of alcohol in the entertainment and news media. While media representations could be
characterized as "normative noise" (13), alcohol advertisements are explicit incentives to buy and consume alcohol products.

Subjecting the news or entertainment media to direct censorship — even if it were in the interest of public health — would not be consistent with the principles of democratic society. In contrast to this, advertising in most industrial countries is subject to restrictions aimed at the protection of consumers. Such measures are perhaps most commonly aimed at preventing false or misleading claims about the products, and restricting the targeting of children or the advertising of products that are pertinent to health, such as medicines and tobacco. Even in a country such as the United States, where the possibility of restricting alcohol advertising through federal legislation has been debated for the past decade, advertising as a whole has been subject to regulation through most of the country's history, and alcohol advertising is currently restricted in five states (62). The possibility of extending the constitutional protection of freedom of expression to commercial speech did not become an issue in the United States until the mid-1970s (63).

While alcohol advertising is not a negligible influence in society, the fallacy of assuming that placing restrictions on such advertising would be sufficient to reduce the level of alcohol consumption or of alcohol-related problems should be avoided. Another fallacy is that of assuming that intensified public education about alcohol could achieve substantial social change in the absence of a supportive public policy. The use of alcohol is a multifaceted phenomenon, the causes and consequences of which exist across different levels of the broader social and physical environment. Strategies conceived and carried out in isolation are not consistent with the complex nature of alcohol-related issues. The prevention of alcohol-related problems requires an integral approach that encompasses several strategies and, rather than reducing problems to the level of individual behaviour, addresses them as properties of the social and physical environment (64).

Currently available research evidence suggests that the most effective policy tools for reducing alcohol consumption and related problems consist of controls affecting the physical and economic availability of alcohol. Public education and restrictions placed on alcohol advertising receive far less support. These two strategies are best conceived of as additional components that can
be used to support the more robust measures within the context of a coordinated and comprehensive alcohol control policy (40–42).

THE MEDIA, THE PUBLIC AND ALCOHOL POLICY

One function of alcohol education programmes and campaigns is that of serving as a public statement about the position of alcohol in society. Visible public education about alcohol may set alcoholic beverages apart from ordinary consumer products and signal that alcohol-related harm is an issue of concern to society. In the same manner, greater controls over alcohol advertising may indicate increased concern, and the failure to control alcohol advertising or the liberalization of advertising controls may show a lack of concern (42, 65). Education and advertising may, through their mere existence or nonexistence, affect the social climate surrounding alcohol use and the context in which other prevention activities are taking place.

Even though the symbolism of alcohol education and advertising is likely to be important, it is not easily manipulated and should not be relied on as the only justification for action. Restrictions on alcohol advertising may have adverse effects on the social and political climate if they are not accompanied by a monitoring and enforcement system. Like any other public health policy reforms, advertising controls should receive some degree of public support (13, 42). The introduction of extensive restrictions on alcohol advertising in France in 1991 is a case in point. The legislation was preceded by more than ten years of public debate, public campaigning and advocacy (66). In this process it was the public health perspective that eventually gained the upper hand. The recent changes in Finnish alcohol legislation provide an opposite example. In Finland a law relaxing alcohol advertising controls was passed in December 1994. The shift in advertising policy took place in a political climate favouring free market ideology, and was preceded by a public debate in which the public health perspective was overshadowed by issues related to individual freedom and to competition within the alcohol industry.

Considering the modest achievements of educational campaigns and programmes, it could be argued that the educational strategy has hardly done more than serve as an expression of concern, creating an illusion that something is being done to address a societal problem.
Increasing the volume of alcohol education without reconsidering its tasks would not advance public health, but inhibit efforts to improve its quality and divert attention from more effective prevention strategies (42,67).

If public education about alcohol is to advance public health, its tasks should include building support for alcohol control policies and for community prevention initiatives. Both school-based programmes and media campaigns can be used to explain the rationale of public health policy and to redefine alcohol issues as public health issues.

The New Zealand Community Action Project, carried out in six cities in 1982–1985, is probably the most extensively evaluated initiative in which the mass media have been used to gain support for alcohol policies (68,69). Four cities were subjected to a media campaign consisting of television and radio commercials aimed at young male drinkers and highlighting alternative non-alcoholic drinks, and of printed advertisements focusing on alcohol policy issues. In two cities the campaign was supplemented with community organization, in which media advocacy was used. In two reference cities no planned alcohol-related activities were carried out.

Media advocacy – based on the agenda-setting function of the mass media (70,71) – has been described as the strategic use of the media for advancing a social or public policy initiative (72,73). A range of techniques may be used to stimulate media coverage, and to reorient public discussion about health issues. The aim is to increase awareness of the issues and to gain support for healthy public policies. The community organizers involved in the New Zealand project focused on the availability of alcohol and on alcohol advertising, and used various methods to engage the attention of the media and the public. These two issues have also been raised frequently in the United States by citizens’ groups and organizations, using media advocacy to gain support for healthy alcohol policies (Jernigan, D. & Wright, P., unpublished data, 1994).

The newspaper advertisements used in the New Zealand project focused on the availability of alcohol, on alcohol promotion and on non-alcoholic alternatives. The first two issues proved to be controversial: the advertisements generated criticism and most
newspapers refused to publish an advertisement dealing with alcohol promotion.

A newspaper content analysis indicated an increase in the coverage of issues related to moderation and social policy in the cities where mass media campaigns had been employed. Survey interviews also indicated that in these four cities the level of support for policies affecting advertising and pricing of alcohol had remained unchanged, whereas in the reference cities the level of support had declined. The findings suggested that media campaigning had inhibited a national trend towards support for the liberalization of alcohol policies.

These results show that media campaigning and other techniques to influence the public agenda and public discourse can be used to gain support for alcohol control policies – or at least to prevent the level of support from falling. The scope of the evaluation did not allow a determination of how long the support would last without reinforcement, and whether or not it would translate into action.

A three-year campaign launched in Norway in 1993 aims at reducing the demand for illicit spirits and at increasing support for comprehensive alcohol control policies. Consumption of smuggled or home-made spirits is widespread in Norway and entails, among other things, a considerable loss of revenue for the government. The campaign combines mass media advertising with efforts to involve government and private agencies, and to encourage information dissemination and other activities at the local level. The key theme of the media campaign is that the illicit spirits trade supports organized crime. A specific target group consists of young people at school, among whom the use of illicit alcohol is prevalent. Additional activities include a range of cultural events. An evaluation report examining changes in the public’s attitudes towards the illicit trade and alcohol control policies, and changes in the availability and use of illicit spirits, is expected to be ready in 1996. A baseline survey conducted before the launch of the campaign found that, while few respondents had smuggled or produced illicit spirits, one out of three had consumed them (74).

Placing emphasis on the potential role of public communication campaigns and educational programmes in building support for public
health policies does not mean that their basic information function and content should be overlooked. The educational strategy is not likely to make a difference at the cultural or societal level unless the information and messages that are conveyed make sense at the individual level. As changes in the social and political climate are more likely to occur through gradual shifts than leaps, designing effective communication strategies requires an understanding of where the public stands with regard to the issues and problems that are addressed. Existing knowledge, beliefs and feelings will determine the perceived relevance of such communications and possibly modify or challenge them (53,57,75). To effect change, educational campaigns and programmes need to start from the experiences, needs and interests of their audiences, and to convince them that the information, advice and suggestions that are presented will make a positive contribution to their lives.
Alcohol Education

School-based education and mass media information campaigns are the most widely used approaches in the primary prevention of alcohol-related problems. Available research evidence, however, compiled into a number of reviews (2–13,40–42) and meta-analyses (76–78) suggests that the widespread belief in the ability of information and education to solve the basically social problems related to the use of alcohol is misplaced. Providing people with information about alcohol may increase their awareness of alcohol-related issues, and improve their level of knowledge, but improved awareness and knowledge do not necessarily, or even probably, translate into changes in alcohol-related behaviour.

This review draws on literature relating to both school- and media-based programmes. One reason for this is that many conceptual and methodological problems involved in the development and evaluation of educational interventions are shared by both approaches but have received more attention in the literature related to school-based interventions. A second reason is that intensifying both types of intervention has been proposed as a way of balancing or counteracting the influence of alcohol advertising. The potential and limitations of both need to be addressed to determine whether they are likely to accomplish such a task. A third reason is that, during the last few years, both school- and media-based approaches have been supplemented with or integrated into wider community-based prevention programmes. This is why some issues characteristic to community-based programmes will also be discussed.

Within the domain of school-based education there is a great deal of overlap between programmes on alcohol, tobacco and drugs. This
review draws on literature in which alcohol has been included, and on health education literature. Alcohol education can be seen as part of health education, or health education as part of alcohol education. Within the broader field of health education, however, alcohol appears to be singled out for special attention – it has been noted that “one of the biggest challenges to health promotion is posed by alcohol” (13).

The popularity of school-based alcohol education can be illustrated with data from Canada. A review of alcohol- and/or drug-specific health promotion activities being carried out in Ontario in 1990 identified over 520 separate programmes. The majority sought to provide education and increase awareness about alcohol and drug issues, with the aim of influencing knowledge, attitudes, behavioural intentions, behaviour or skills. Half of the programmes targeted children or young people, and one in four was aimed at the general public. Four out of ten programmes were implemented in elementary or secondary schools (41).

Since the late 1980s, drug education for grades 4–10 has been mandatory in Ontario schools. Alcohol is the substance most frequently addressed in classroom drug education. In 1991, 78% of some 4000 respondents representing all grades reported that they had received some alcohol education during the past school year; 66% had received education about tobacco and 49% about cannabis. A study using cross-sectional survey data for 1979–1991 indicated an increase in self-reported exposure to drug education, and a decrease in self-reported drug use (29). A correlational analysis showed a strong inverse relationship between exposure to education and substance use, especially for alcohol. During the period under examination, total alcohol consumption had declined and the general approach to drinking appeared to have become more cautious. Although no causal relationship could be demonstrated, it was concluded that classroom drug education supports more broadly based changes in attitudes and behaviour.

Quasi-experimental evaluations of school-based alcohol and drug education programmes have shown that not much can be achieved with sporadic, short-term programmes. A large-scale evaluation of school health education conducted in the United States indicated that, while it takes about 15 classroom hours to improve knowledge levels,
some 50 hours are necessary to change behaviour (8). Without repetition and reinforcement, any positive effects achieved in school programmes tend to be short-lived. There is, however, little evidence of a cumulative effect. The effects of education on alcohol use have been found to be minimal or nonexistent even when students have been exposed to drug education for as long as three years (79,80).

The main advantage of mass media campaigns is their capacity to reach large audiences. The main weaknesses include the heterogeneity of the mass audience, lack of control over audience exposure, and lack of feedback. Often the only characteristic that defines the target audience is that they are residents in the area where the campaign messages are disseminated. Campaigns aimed at the general population, attempting to convey the same message for all, have been found to be of limited value. When attempts at more precise targeting are made, young people tend to be the favourite group.

Effective use of the mass media for preventive education is seen to require targeting specific groups using media channels that are the most accessible to the target groups and tailoring messages to their views and interests. Repeated exposure of the target group to campaign messages, ideally through several media channels, is needed for the messages to have any impact (53,57,75).

Long-term mass media campaigns, as well as evaluations of such campaigns, are rare. An example is a long-term media campaign conducted in Alberta, Canada during the 1980s and aimed at adolescents. The campaign used television, radio and the print media, including a magazine featuring articles of general interest and specific themes related to alcohol and drug prevention. A study evaluating the impact of the campaign over a four-year period found that teenagers and their parents were aware of the campaign and thought it had helped them personally. During the period under examination the prevalence of drinking among teenagers declined in Alberta and increased in the control province of Manitoba. Another follow-up survey covering the years 1981–1987 found that, although awareness of the campaign remained high, the positive trends found in earlier evaluations had disappeared: the prevalence of drinking among teenagers had continued to decline in Alberta, but it had declined in Manitoba even faster. Alberta teenagers were found to start to drink at a younger age than their
Manitoba counterparts. This reversal in trends was attributed to the withdrawal of radio and television messages in favour of the magazine (41).

It is worth noting that in this type of study, like in the study examining drug education in Ontario schools, it is not possible to demonstrate a causal relationship between the educational intervention and alcohol consumption. In this sense, both studies fall short of the criteria that are commonly placed on studies examining the effects of alcohol advertising.

COMPREHENSIVENESS AND RESPONSIVENESS

During the 1980s two central themes emerged in the literature discussing the effectiveness of school- and media-based alcohol education. Both reflect a general acknowledgement that the efficacy of educational efforts is far less accounted for by their design than by the target groups' interests and motivations, and by the social and cultural context. Educational messages will not be heeded unless they have some personal relevance or usefulness for the recipients. If the messages provide assistance for changes people are ready and able to make, and if the social and cultural environment is supportive, they may even contribute to behavioural change (13, 53, 81).

One recurring theme in recent literature is comprehensiveness. It has been emphasized that more than communication activities is needed. Media campaigns need to be supported by interpersonal interaction, such as counselling or group activities, or to be incorporated in wider community prevention initiatives aimed at changing social and environmental factors that have an impact on alcohol-related behaviour (6, 13, 53–57). In the same vein it has been emphasized that, to be successful, school-based alcohol education needs to be supported by school policies, parental involvement and cooperation with the surrounding community (3, 5, 8, 9, 12, 13, 58, 59).

Another theme of the 1980s has more to do with the design of educational interventions. It has been widely acknowledged that efficacy requires responsiveness to the public's needs and interests. The social marketing approach, applying advertising and marketing principles to the "selling" of healthy behaviour, has been propounded as one way to
improve the design of educational campaigns (13,82,83). The social marketing approach has also incited discussion, and has been criticized for being manipulative and for offering simple solutions to complex problems (72,84,85). Some of its central components, however, such as message pretesting and audience research, have been accepted as integral parts of good campaign development (51–53).

The centrality of the requirement of comprehensiveness, as well as the wide acceptance of certain social marketing principles, are evident in a recent book based on interviews with 29 communication scholars and media professionals experienced in designing or evaluating health communication campaigns (57). The experts were asked *inter alia* to indicate the most successful mass media health campaign they had known, and to give their opinion on the reasons underlying its success. The most frequently mentioned factor contributing to a campaign’s success was comprehensiveness, followed by prolonged duration and effective use of the mass media. Successful campaigns were most often exemplified by heart disease prevention programmes, especially by long-term community-wide efforts such as the Stanford Heart Disease Prevention Program, the Minnesota Heart Health Program and the North Karelia Project.

Another set of successful campaigns mentioned by the interviewees consisted of antismoking campaigns run in the United States during the 1960s and 1970s, which were referred to as a continuous prevention effort rather than as individual campaigns. The success of smoking prevention was seen to have stemmed from a combination of various factors occurring at the same time: prolonged campaigning exposing the public to mutually supportive messages through a number of channels, presentation of medical evidence by credible sources such as the Surgeon General, a change in norms and values regarding smoking and environmental changes such as legislation restricting public smoking and insurance practices affecting smokers’ insurance premiums.

Only one example of a successful alcohol-related campaign was mentioned: Mothers Against Drunk Driving, a citizens’ movement initiated in the United States in 1980 by mothers of drink-driving victims (86). Its important achievements were seen to consist, not in an actual reduction in drink-driving, but of an ability to gain media coverage through its “outrage approach” and of its contribution to the
diminished social acceptability of driving while under the influence of alcohol.

The experts' views of successful health communication campaigns reflect the difficulty of obtaining positive results in the area of alcohol use; examples of successful alcohol prevention campaigns are few. In school-based education, too, it appears to be easier to get positive results in areas such as dental hygiene, diet, exercise and even smoking than in that of drinking (3).

THE ROLE OF THEORY IN PROGRAMME DEVELOPMENT AND EVALUATION

The recipe for designing an effective educational programme seems simple: provide the right information through the right channel to the right people at the right time. In practice, programme developers are faced with a number of complications and obstacles.

Formulation and application of a sound theoretical framework have been considered one prerequisite for success (53). Every programme developer and evaluator has at least an implicit theory that relates the programme components to the desired effects. More often than not, however, this underlying theory is not clearly articulated and tied to programme components (2, 11, 87).

The significant features of a phenomenon, the relationships within it and the phenomenon's relationship to a larger context can be expressed in the form of a theoretical model. Theoretical models tend to be more widely used in evaluation research than in programme development. They could, however, be helpful tools for identifying the aim of an intervention, determining whether education is a feasible intervention strategy, defining the scope and content of an intervention, clarifying the relationships between the intervention and its aim, stating the contextual conditions for achieving the aim, specifying the objectives and selecting appropriate measures of success (13, 75).

If an adequately conducted evaluation demonstrates that the aims and objectives of an intervention have not been achieved, this may be due to inappropriate or inadequate implementation, unanticipated or
uncontrollable events in the context of the intervention or inadequacy of the underlying theory. A sound theoretical framework has been considered crucial for experimental studies in which the aim is to establish a causal relationship between an intervention and given outcomes.

**Knowledge, Attitudes and Behaviour**

Even in the simplest models underlying educational initiatives, the intervention is assumed to have an impact on some mediating variables rather than directly on alcohol-related behaviour. The knowledge–attitude–behaviour (KAB) model is the most widely used “theory” in alcohol education. It assumes that increased knowledge, especially about the risks associated with the use of alcohol, will lead to more negative attitudes towards alcohol, which in turn will prompt a change in behaviour.

There is little empirical evidence to support the causal chain implied in the KAB model. The relationships between knowledge and attitudes, and between attitudes and behaviour are far from clear cut. The empirical evidence suggests that improvements in knowledge are a necessary but not a sufficient condition for behavioural change. Although this view seems to have been accepted among the developers of more sophisticated educational programmes (11), the belief that providing information of some sort is an effective prevention strategy continues to occupy a foothold within less structured educational activities undertaken in schools (88).

**Knowledge**

It is not uncommon that a mixture of positive and negative attitudinal and behavioural effects is found in evaluations of school-based alcohol and drug education. Instead of decreasing the likelihood of drug use, some programmes seem to have increased it. The mechanisms by which a programme may produce undesired effects is as unclear as the mechanisms by which desired effects may be achieved. Counterproductiveness has often been associated with first-generation drug prevention programmes emphasizing information, or with information dissemination as such (4,64). Negative effects have, however, been observed in evaluations of both early information-based programmes (78) and modern programmes based on psychosocial models (11).
The problem may lie in the content of the information delivered rather than in information delivery as such. In a recent study carried out in Australia, group interviews were conducted with students aged 10-17 years, to probe how they understood terms such as "drug" or "drug problem" (89). "Drug" was commonly defined by giving an example of a hard, illicit drug or by describing highly addictive or lethal properties. Pain-killers - the most widely used drugs in secondary schools but less frequently included in drug education - were rated low in terms of dangerousness.

Although nearly all students had received alcohol education at school, they tended to see alcohol as a minor drug, or not as a drug at all. Some of the students did not seem to understand the relationship between potency and quantity. Wine coolers (mixtures of wine and fruit juices) were perceived to be less dangerous than beer. The explanations given included the fact that wine coolers have a low alcohol content or are non-alcoholic, or that they are made from fruit. Wine coolers had recently been introduced into Australia, and had not yet been addressed in classroom alcohol education. To illustrate or justify their (mis)conceptions, the students referred to personal or vicarious experience, or to advertisements.

Information about the sources of students' beliefs about drugs was gathered by asking them where they thought they got most of their ideas about drugs, and by analysing references to different sources made during the interviews. Both direct and indirect measurement indicated that the most important sources were the media, friends and parents. By the indirect measurement, personal experiences were as important as friends and parents, while the importance of school was negligible. The placement of their own experiences was seen to suggest that students see life outside school as separate from learning in school.

It has been argued that the aim of information provision should be to develop understanding that is transferable and applicable to real life, and that a more specific and a more holistic approach is needed in drug education (13,89). A holistic approach would emphasize general cognitive skills, such as the ability to appraise different sources of knowledge. Specifically focused education could tackle common misconceptions, such as prototypical definitions of drugs that make it
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harder to recognize that alcohol can also be harmful, and misconceptions about the potency of alcoholic beverages.

**Attitudes**

While the idea that a change in attitudes will lead to a corresponding change in behaviour seems to prevail in the practice of alcohol education, the relationship between attitudes and behaviour has long been subject to debate among social scientists. The three basic positions hold that attitudes and behaviour are unrelated, that their relationship is weak because behaviour is determined primarily by situational or individual factors, or that attitudes and behavioural tendencies are closely related but the causal direction varies.

A recent meta-analysis, which integrated findings from nearly 140 studies on attitude-behaviour correlations, examined which of the basic positions is supported by empirical evidence (90). Behaviour covered 19 different areas, including drug and alcohol consumption. The results showed a strong overall attitude–behaviour relationship that held true across different areas. As the correlations were practically always above zero, the unrelatedness of attitudes and behaviour did not receive support. The generally high correlations were seen to override the situational factors employed in the studies. The third position was seen to be the most consistent with the findings.

The findings also suggested that research related to educational campaigns can be expected to be translated into action on three conditions:

- the attitude construct needs to be conceptually relevant to the behaviour being predicted;
- the behaviour needs to be in an area in which most individuals perceive they are capable of exercising control over their behaviour; and
- the measures of attitude and behaviour need to be adequate, and preferably not dichotomous.

Conceptually valid, relevant and adequately operationalized attitudes may thus have some predictive use in alcohol education research, on the condition that the subjects perceive they have a certain range of control over their alcohol-related behaviour.
Psychosocial Models

The ineffectiveness of information-based alcohol education led, during the 1980s, to the development of broader and more sophisticated approaches, particularly within school-based prevention. While retaining the traditional information component, the programmes incorporated elements derived from a number of cognitive and psychosocial theories. The combinations of constructs and programme components derived from the theories has varied from one programme to another, which has made it difficult to classify them in a consistent manner and to determine which if any of the modern approaches has been the most successful (11,76-78).

One source of ideas has been theoretical models focusing on the likelihood of the adoption of health-related behaviour, such as the theory of reasoned action and the health belief model.

Fishbein & Ajzen’s theory of reasoned action (91,92) assumes attitudes to be important predecessors to action, but makes a distinction between attitudes and beliefs. The model stresses the role of an individual’s beliefs about the likelihood that certain behaviour leads to certain consequences. These beliefs, combined with evaluations of the outcomes, determine the attitude towards the behaviour. Behavioural intentions are also seen as influenced by beliefs about the expectations of others, and by the individual’s motivation to comply with the perceived expectations. The model was later developed into a theory of planned behaviour (93) in which action was also seen to depend on the extent to which an individual believes an intention can be translated into action.

The role of beliefs is stressed in the health belief model as well (94,95). The likelihood of preventive action is seen to depend on an individual’s perception of personal risk, on beliefs about the severity of the harm and on perceived benefits of and barriers to the action. Preventive action will not be adopted unless the individual believes that the action is feasible and effective, and that the benefits will outweigh any costs or disadvantages involved. It is assumed that the likelihood of action is increased if some cue is provided to trigger the cost–benefit analysis and decision-making process. The cue might be internal, such as perceived symptoms of harm to health, or external, such as a public communication message.
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calling attention to particular health risks. Only a few studies have been conducted to assess the contribution of cues.

Another source of ideas for programme development has been the "inoculation" strategy developed by Evans for smoking prevention (96,97). The term "inoculation" evokes the domain of medicine in which the spread of diseases from one person to another is prevented by immunization. The inoculation theory holds that the initiation of smoking can be prevented by inoculating adolescents against social influences promoting smoking. The practice of inoculation consists of correcting normative expectations concerning the prevalence of smoking, and of teaching techniques for resisting peer and environmental pressures. Evidence for the extrapolation of the inoculation approach to other forms of substance use is limited (80).

**Multicomponent Programmes**

Alcohol and drug education programmes based on psychosocial theories and models have used a variety of techniques to address beliefs about risks, consequences, benefits and barriers; to promote clarification of values and to correct normative expectations; to enhance self-esteem and self-efficacy; to develop coping, problem-solving and decision-making skills; to teach specific skills such as refusal skills, and more general skills such as communication skills; and to provide behavioural alternatives and social support.

The effectiveness of contemporary classroom alcohol and drug education programmes was examined in a review of evaluative studies published between 1980 and 1990 (11). The content of these programmes was determined from the theoretical concepts used in the programme descriptions. In the 41 separate curricula examined, 12 types of programme component were identified. Nearly all programmes included multiple components, reflecting a diversity of theoretical perspectives, and a lack of agreement on the essential components of effective prevention education. The only aspect on which a consensus seemed to exist is the importance attached to information: nine out of ten programmes addressed knowledge and beliefs about substances, and about the risks and consequences of substance use.

Nearly half of the programmes included a resistance skills component, focusing on peers more often than parents or advertising. Two
out of five programmes taught rational decision-making, and one out of three encouraged students to make a personal commitment not to use drugs. One out of four programmes included a norm-setting component, seeking to correct perceptions of the prevalence and acceptability of substance use or to establish conservative group norms. The less common components included values clarification, identification of behavioural alternatives, coping and stress management training, and enhancement of self-esteem.

Cluster analysis was used to group the programmes into distinctive approaches. The effectiveness of the approaches was examined using two procedures: a simple comparison and a comparison from which findings weakened by inadequacies of the evaluation design had been eliminated. The latter indicated that "comprehensive" and "social influence" approaches were the most effective. The comprehensive programmes used a broad spectrum of strategies, typically including information, decision-making and resistance skills components. In comprehensive and social influences approaches most behavioural outcomes were positive; negative outcomes were either absent or less frequent than in other approaches. In the "affective" approach (emphasizing decision-making, values clarification, stress management and self-esteem) nearly half of the outcomes were positive. In the "information/values clarification" approach nearly half of the outcomes were neutral, indicating little impact on behaviour.

Definite conclusions about the efficacy of specific strategies, however, could not be made. While some programmes within each approach were effective at preventing the onset of alcohol, tobacco or drug use, all approaches produced neutral or negative outcomes. The most promising approach appeared to be the comprehensive one but, as it embodied almost the whole spectrum of programme components, it was not possible to specify which would be the most essential components or the most successful combinations.

The presence of an information component in nearly all programmes supported the view that, although not sufficient in itself, information is an important component of prevention programmes. Based on the findings it was suggested that, within the area of perceived risks, the emphasis should be on establishing and reinforcing
personal susceptibility to the consequences of behaviour, rather than
generalized beliefs.

**Mediating and Moderating Variables**

It has been argued that, in the evaluation of both media- and school-based programmes, insufficient attention has been paid to specifying the process by which the programmes have worked or might work \(2,81,98\). As many links postulated in the theoretical models cannot be substantiated with empirical evidence, it has been suggested that more attention be paid to the mediating processes and intervening characteristics of both the programmes and their recipients.

Evaluations of school-based programmes often find a mixture of positive, negative and neutral effects among the students. The outcomes may be different for different substances, for different subgroups and at different points in time. Research on moderating variables has focused most often on gender, age group, socioeconomic status, ethnicity and degree of urbanization \(76\). The range of variables that have been addressed is limited, and the results have been inconsistent and in many cases ambiguous because statistical tests of the observed differences have not been conducted \(98\).

The success or failure of school-based programmes may be related to a number of factors such as the training, motivation and background of teachers, methods of instruction, or the fidelity, consistency and extent of programme implementation. Relatively little research has been conducted on the mediating effects of implementation variables \(11,98\). Studies examining the mediating effect of delivery methods have most often compared peer-led and teacher-led instruction. The results are inconsistent and inconclusive \(76,77\).

The same holds true for studies examining links between programme effects and mediating cognitive, affective or attitudinal variables. On the basis of the available evidence, none of these can be pointed out as the most crucial \(98\). The potential of this type of variable to influence drinking behaviour seems more limited than that of other individual or environmental characteristics. A study examining the effectiveness of a curriculum widely used in alcohol education in the United States used bivariate and multivariate analyses to determine how much "room" there was for the variables the curriculum
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was meant to change – knowledge, attitudes, self-esteem and decision-making skills – to influence students’ drinking behaviour (5). While bivariate analyses suggested that the curricular variables were related to drinking behaviour, multivariate analyses indicated that, when adjusted for gender, ethnicity, religion and peer or parental control and influence, the curricular variables contributed little to the explanation of drinking behaviour.

Hierarchy of Effects

The psychosocial theories used in school-based drug education have also been used to guide the design and evaluation of mass media information campaigns. Another theoretical framework used in campaign design and evaluation consists of the hierarchy of effects models, of which probably the most widely known is McGuire’s communication/persuasion matrix (75). It provides a framework for examining possible linkages between inputs (communication components) and outputs (possible outcomes among the audience). The communication components consist of the variables that can be manipulated: source, message, channel, recipient and target behaviour. The outcomes are conceptualized as 12 successive information-processing and behavioural steps – ranging from exposure, attention, interest, comprehension and learning to behavioural change and postbehavioural consolidation – that must be elicited for the intended persuasive effect to occur. The probability that a communication will evoke any particular response step is seen as conditional on the occurrence of all preceding steps.

Any particular input variable may have different and even opposite effects on the output steps. The attractiveness of the spokesperson may, for instance, increase the audience’s interest in the message but simultaneously distract from the understanding of the message. Maximum effectiveness in communication would require assessing the potential of each input alternative for evoking each step in the output chain. The audience’s movement through the output steps also depends on individual predispositions and motivations, which can be considered within the framework of different psychological and psychosocial theories.

Other hierarchical models describe the persuasion process as a less linear one. The elaboration likelihood model developed by Petty & Cacioppo (99,100) assumes “central” and “peripheral” routes to persuasion. The central route is seen to involve cognitive effort in
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which an individual, drawing on prior knowledge and experience, generates favourable or unfavourable thoughts in response to persuasion. The goal of the cognitive effort is to determine whether the argument has any merit. The likelihood of cognitive elaboration depends on an individual’s motivation and ability to engage in reflection. The most important variable affecting motivation is the perceived personal relevance of the message. The ability to process messages cognitively is affected by situational factors and by various features of the persuasive argument. The central route is seen to result in well articulated and relatively persistent attitudes that are incorporated into an individual’s beliefs.

When an individual’s motivation or ability to process arguments is low, persuasion can occur by a peripheral route in which attitudes are influenced by simple cues in the persuasive argument. A number of variables, such as the attractiveness or credibility of the message source, or the impression that most other people agree with the argument, can serve as cues to its validity. Passive acceptance or rejection of simple cues is seen to result in attitudes that are less well articulated and less enduring than those based on the active processing of arguments.

Within the framework of the elaboration likelihood model, a change of attitude does not require reception of knowledge, and the reception of knowledge does not invariably lead to a change in attitude. Information will only lead to lasting change if an individual is motivated and able to process the information, and if this processing results in favourable thoughts and ideas. Constructing an effective communication based on the elaboration likelihood model seems complicated. Any particular communication variable may serve in different roles in different contexts and for differently motivated individuals. The attractiveness of the spokesperson, for instance, can serve as a peripheral cue in some contexts and as an issue-relevant argument in others. With highly motivated recipients, the “wearout” effect of repeated messages may be avoided, for example, by varying the substantive arguments, but with recipients low in motivation variation in simple cues may be more effective.

Different conceptualizations of the output steps can be found in other hierarchical models. In a model presented by Atkin & Freimuth (52)
recipients are seen to move through five response stages, each of which is seen to incorporate several substeps. The exposure stage involves encountering the message and paying attention to it. The information processing stage involves comprehension of the content, selective perception of the source and of the appeals, and evaluative reactions such as liking, agreeing or counterarguing the message. The learning stage involves the acquisition of knowledge and skills. The yielding stage involves formation or change of affective orientations including beliefs, attitudes or behavioural intentions. The internalization stage includes motivation, behaviour, postbehavioural consolidation, and continuation and maintenance of the behavioural practice.

The main merit of the hierarchy of effects models may lie in their implications for goal-setting and evaluation research. The models call for different measurement strategies and different criteria of success for each potential level of effect. They also point out common fallacies to avoid, such as the attenuated-effects and distant-measure fallacies (75). The attenuated-effects fallacy stresses the importance of setting reasonable goals: given that each of the response steps is likely to be only partially effective, the total impact of any campaign is likely to be modest. The distant-measure fallacy stresses the importance of differentiating between immediate and long-term goals and effects. Measuring campaign effects at an early response stage is not necessarily valid for more long-term behavioural effects.

In some cases, a change in attitude and even a desire to act on the attitude may be insufficient to produce the desired behavioural responses. Translating attitudes into behaviour may require particular knowledge and skills, and the presence of positive environmental incentives. In both school- and media-based interventions, these phenomena are often considered in the framework of the social learning theory developed by Bandura (101). The theory relies on the concept of reciprocal determinism, a web of dynamic interactions among cognitive, affective, behavioural and environmental influences. Behaviour is seen to be influenced by the consequences of one’s past actions, and by the observed consequences of the actions of others. The principle of modelling (based on the importance of direct and vicarious learning) and the concept of self-efficacy (stressing the role of an individual’s self-confidence and perceived behavioural competence)
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are among the most widely applied components of the social learning theory.

Modern public communication campaigns are often supplemented by interpersonal support or by small group or community activities. The combination of mass media and interpersonal communication may aim, for instance, at stimulating interpersonal communication and networking, at involving family members and friends in the behavioural change process, or at changing the social environment towards one that encourages collective change. The diffusion of innovations theory (102), emphasizing the role of opinion leaders, has sometimes been used to conceptualize the interpersonal processes of communication and change.

Practicability of Theoretical Models

Theoretical models tend to be more widely used in evaluation research than in programme development. The health communication expert interviews (57) mentioned above provide insights into why the models may not seem very practicable from a programme developer’s point of view. Theoretical models are considered remote from the reality of educational interventions. Much of the empirical evidence supporting psychological and psychosocial theories is derived from studies conducted in the laboratory. As the assumed correspondence between the models and reality is seldom determined, it is difficult to translate models into working methods or operational applications. Many psychosocial models of individual behaviour are oriented towards short-term effects and strategies. For planning effective interventions, process-oriented models focusing on long-term changes would be more useful.

Another problem is the quantity and diversity of potentially relevant theoretical perspectives, factors and relationships. Choosing among them is difficult, and as the theories and models focus on particular issues from particular angles they may even seem contradictory. Many issues relevant to programme planners have not been adequately addressed by the available models. Such issues include the balance between the cognitive and emotional elements of a message, the proper mix of interpersonal and mass communication components, cultural and subcultural differences among audiences, the relative influences of individual differences and structural constraints,
and the relative influences of educational interventions and the symbolic environment at large.

The health communication experts provided some ideas for making theoretical models more helpful in programme development. These included training programme developers in the application of theoretical concepts and in fitting models to real-life constraints, supplementing theoretical models with practical experience, and translating models into practical guidelines and standards.

As no single theory or model is likely to be sufficient and totally adequate for designing educational interventions, it was suggested that more attention should be paid to exemplifying how different theoretical approaches, or combinations of the elements of different approaches, can be used at different stages of a programme. From a programme developer’s point of view there appears to be a need for comprehensive syntheses that integrate different theoretical approaches and strive for a system-level understanding of health communication processes.

One example is the multi-component motivational stages model developed by Werch & DiClemente (103). The model is propounded as an integrative framework for the selection of intervention and communication strategies for the prevention of alcohol and drug use among young people. Despite the emphasis on youth, the model may also be applicable to preventive action in adult populations.

One general problem of prevention education has been that the strategies employed are assumed to be applicable to entire populations or subgroups. In reality any subgroup defined by demographic characteristics, such as age, is likely to represent a range of motivation and experience with respect to alcohol or drug use. People may: have decided not to use drugs, expect to use them in the future, no longer use them, or use them occasionally, regularly or to the point of causing problems to themselves. Educational programmes that fail to acknowledge these differences are unlikely to contain elements relevant to the full range of recipients, and may not reasonably be expected to be equally effective for all (2). While smoking has sometimes been examined as a moderator of programme effect,
evaluation studies taking into account initial alcohol use are rarely found (104).

The framework developed by Werch & DiClemente (103) provides means of selecting subgroups according to their experiential and motivational stages, and of matching prevention strategies and content to those stages. Werch & DiClemente started from the concept of behavioural change stages developed in the field of smoking cessation, and extrapolated the stage concept to the initiation of behaviour and acquisition of habits. The model assumes that different learning and motivational processes are needed in prevention action, depending on an individual’s stage of change.

Both habit acquisition and habit change are seen to involve five stages:

1. in the precontemplation stage the person is not considering using drugs or giving up using drugs;
2. in the contemplation stage the person is seriously thinking about starting to use drugs or about giving them up;
3. in the preparation stage the person is intending to use or to stop using drugs in the near future;
4. in the action stage the person is starting to use or is making attempts to stop using drugs; and
5. in the maintenance stage the person is continuing use or non-use of drugs.

The model also incorporates the “revolving door” idea of habit change. Since few people are able to stop substance use the first time they try, the stages of change may be re-engaged, and the cycle may be repeated several times before control over the habit is gained.

By focusing on both habit acquisition and habit change, the model provides a two-level prevention plan in which the habit acquisition stages make up the primary prevention level, and the habit change stages make up the secondary prevention level. The objective of primary prevention is to help individuals to stay in the precontemplation stage, to prevent the progression from the three middle stages towards maintenance of drug use, and to promote regression towards the precontemplation stage. The objective of secondary prevention is
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to promote the progression from the precontemplation stage towards successfully stopping drug use and continuing non-use.

The movement of individuals through the motivational stages is associated with a host of factors that can be considered through the psychosocial theories that have been commonly applied in the field of prevention education. For instance, constructs of the health belief model are assumed to be most relevant for a person’s movement through the precontemplation, contemplation and preparation stages. Some constructs of the social learning theory, such as observational learning and reciprocal determinism, are assumed to be relevant for all stages, while others are considered more relevant for earlier or later stages.

The model provides a framework for designing combinations of intervention delivery channels, techniques and messages that are responsive to the stages of readiness for change, whether it be habit acquisition or habit change. The mass media are seen as most appropriate for influencing recipients in the precontemplation, contemplation and preparation stages. Interpersonal channels (such as school-based education or self-help groups) are seen as more effective in influencing those in the preparation and action stages. Environmental approaches, ranging from interpersonal support through legislation, are seen as the most relevant in the action and maintenance stages.

As habit acquisition and change differ with different drugs, interventions need to be tailored not only to the motivational stages but also to the specific drug. Those should be identified using epidemiological or survey data. Werch & DiClemente (103) take the position that preventive efforts should begin by targeting the most commonly used drugs within a subpopulation and, depending on the level of resources, continue by targeting less commonly used drugs.

Werch & DiClemente also acknowledge that, although the primary goal of preventive efforts based on their model would be to promote total abstinence from drug use, in the case of legal drugs such as alcohol this goal may be extremely difficult to achieve. The model can also be used for developing programmes in which the primary goal is the prevention of alcohol-related problems rather than
alcohol use. The focus of such programmes would be on risk avoidance or risk reduction, and the overall aims could be translated into a number of objectives such as a reduction in consumption levels, avoidance of certain consumption patterns such as binge drinking or the use of spirits, or mitigation of the adverse consequences of particular situations such as driving after drinking. Knowledge about risks is evidently a prerequisite for risk avoidance, but in each specific area specific behavioural skills and practice are also needed.

The model emphasizes the importance of making a distinction between prevention education aimed at influencing the beliefs and motivations of those in the precontemplation and contemplation stages, and supportive education aimed at those in the preparation or action stages. The task of supportive education is to facilitate change by providing triggers for action as well as the requisite knowledge and skills. Building on pre-existing motivations, supportive education is likely to have a greater chance of success than prevention education that tries to create new motivations in people who are resistant to change (13,53).

THE ROLE OF EVALUATIVE RESEARCH IN PROGRAMME DEVELOPMENT AND IMPLEMENTATION

It has been commonplace in reviews of alcohol education research to note that most educational activities have not been formally evaluated, and that, when evaluation studies have been conducted, their quality has in general been inadequate (2,8,10.11,13,40,41,55). The shortcomings of evaluation research have been considered a major obstacle to the development of more effective interventions.

Common deficiencies of evaluative studies include inadequate measurement procedures and statistical analyses, small sample sizes, high attrition rates and a failure to examine the characteristics of those who leave the study, inappropriate control or comparison groups, and the lack of random assignment into control or intervention groups. The reporting of evaluation studies, too, has been deemed inadequate. Many reports do not provide sufficient information about essential aspects of the research design and methods. Findings may be reported for selected variables or subgroups, but without explicit justification. Reports rarely document adequately the structure, content
and implementation of the programmes under evaluation, or discuss the theoretical models underlying the programme's design. Many reports present just a "black box" evaluation of a programme's impact.

The shortcomings of evaluative studies and their reporting have been seen to limit the possibility of attributing observed effects to educational interventions, or of generalizing findings to other populations or contexts. As a result, knowledge about the efficacy of educational interventions remains limited and uncertain. It has been argued, particularly regarding school-based alcohol education, that the general inadequacy of evaluation research forbids the drawing of conclusions on effectiveness (2,9).

Several factors have been seen to contribute to the inadequacy of evaluative studies (81,87,98). Weaknesses may be due to the unavailability or unfamiliarity of appropriate measures and methods of analysis. As the knowledge and skills needed to conduct comprehensive evaluations are multidisciplinary, they are rarely commanded by a single researcher or found within a single research institution. Conducting sound research may be difficult because of time and budget constraints. The quality and integrity of evaluation research may be undermined by pressures created by the research funding system, or by a situation where a programme is evaluated by its developers, for marketing on a larger scale. The academic pressure to "publish or perish" may lead to premature publication of research results, or to the "sanitization" of results by omitting details that might lead to alternative explanations. The editorial practices of professional journals, such as page limitations, constrain the form and content of evaluation reports. "Clean" and positive results may be more publishable than "messy" details, or null or negative results.

Some problems faced in evaluation studies are characteristic of the type of intervention. In evaluations of media campaigns, the ability to control audience exposure to the messages is limited. Finding appropriate control groups for national campaigns may be difficult, because of both the wide reach of the mass media and competing campaigns or programmes carried out locally, regionally or nationally.
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School-based alcohol education is delivered to children and adolescents while they are assumed to be receptive, with the aim of preventing or postponing the acquisition of risky "adult" behaviour. To achieve such an aim, a long-term intervention involving repetition and reinforcement would be needed, and, to evaluate such an intervention, long-term follow-up would be necessary. During the intervention the target behaviour may not yet be prevalent enough, or there may not be enough variation for evaluative research to be able to ascribe any changes to the intervention. On the other hand, it may be difficult to track young people's behaviour over an extended period, especially outside the school environment.

Some problems stem from the nature of the target behaviour. Self-reported measures of behaviour such as smoking, drinking or illicit drug use are subject to both unintentional and intentional biases. Unintentional biases may result from problems of recall, intentional biases from the subjects' perceptions of the social acceptability of the behaviour. It has been argued that sufficiently valid and reliable indicators of behaviour can be obtained with a carefully conducted survey administration that stresses confidentiality (87). It is, however, not uncommon that self-reports are validated by other methods, such as biochemical measurements, the "bogus pipeline" variant in which biochemical samples are collected but not analysed, and collateral data gathered from family members (80,104–106). Another possibility is to shift the focus from individuals to groups, situations or settings. A study comparing five methods of estimating the use at school of cigarettes and alcohol found that an inexpensive and quick method — counts of cigarette butts and packages, beer cans and alcohol bottles on school grounds — agreed with self-reporting by students and estimates by staff, and correlated with student estimates and impressions based on observation (107).

A basic problem in prevention initiatives stems from the idea of prevention: people are encouraged to change their current behaviour, which may be pleasurable and rewarding, in order to reduce the possibility of unpleasant consequences that may or may not occur until some time in the future. While the loss of gratification may be clearly perceptible, the advantages are invisible. It has been argued that people in general, and young people in particular, lack the ability to anticipate the consequences of their current action and tend to view
themselves as more or less "invulnerable", especially concerning long-term health consequences. It has been recommended, therefore, that more emphasis be placed on immediate social consequences and visible rewards than on distant health consequences (53,57).

Another crucial aspect is that the determinants of alcohol-related behaviour and problems may change over time and vary across cultures and settings. Many aspects both of the etiology of alcohol and drug use and of preventive action are still only partially understood. Despite extensive research, there is no consensus about the variables that would be essential in preventive interventions. With an increased realization that the contribution of several factors is needed to foster change, preventive interventions have become broader and more complex – and more difficult to evaluate.

**Uses of Evaluative Research**

To disentangle the problems involved in evaluative research, a distinction is often made between three types of evaluation that have a different focus, may employ different methods and give findings that can be used for different purposes.

Formative evaluation involves audience research and pretesting of messages. Audience research is conducted in the development phase of a programme to gather background information for use in identifying the populations to be reached, selecting channels, and devising messages and materials. Pretesting involves obtaining audience reactions to the messages and materials before their final production. Formative evaluation can also be used to produce feedback for the continuing improvement of a programme.

Process evaluation addresses the content and implementation of a programme, with the aim of making the activity visible and understanding the process of change that may be generated by the intervention. Process evaluation may also address the context in which the intervention takes place. Information provided by process evaluation may be useful for making adjustments to the programme during its implementation, for interpreting findings from summative evaluation and for replicating successful elements of programmes.
Summative evaluation addresses the overall impact of a programme, specific cognitive, attitudinal or behavioural changes and the maintenance of change. A comprehensive summative evaluation would be directed towards both immediate and delayed effects, and would consider both intended and unintended effects as well as non-effects.

It is also useful to make a distinction between studies that aim to produce feedback for programme and resource management, or simply to find methods and approaches that work, and studies conducted to test theories and hypotheses for the purpose of building knowledge of why certain approaches or methods do or do not work (11,108). It has been argued that, while criticisms such as lack of random assignment into control and intervention groups are valid for the latter type of research, it would be inappropriate to level the same criticism at all evaluation studies (41). As statistically significant findings may have little practical significance, more methodological rigour in evaluation research would not necessarily make for better evaluations. A utilitarian goal for evaluation research would be to maximize usable practical information about different types of interventions carried out in different contexts. For such a purpose, flexibility rather than rigour would be needed (109).

In recent discussions about evaluation research, increased attention has been paid to formative and process evaluation (40,41,53,57,110–112). Process evaluation has been found lacking in quantity and quality. As pointed out by Wallack (109) more than a decade ago, the question “What happened?” is at least as important as the question “Did it work?”. Besides implementation, a comprehensive process evaluation would also address the programme’s context. Prevention interventions occur within a sociopolitical context that has a bearing on the salience and definitions of alcohol and drug problems, and on the feasibility of different types of intervention.

Several explanations have been offered for the scarcity and poor quality of process evaluation research (41,57,87,112). One reason appears to be funding agencies’ lack of interest in process evaluation. If research resources are limited, formative and process evaluation tend to be cut to preserve summative evaluation. The methods of process evaluation are less well defined than those of summative evaluation.
and, perhaps, also less familiar to many researchers. The status of "soft" process evaluation among researchers and in professional journals is lower than that of summative evaluation. The page limitations of professional journals may contribute to the superficiality of process evaluation. Much of the process evaluation research that has been conducted may have remained unpublished and presented only in reports with limited circulation.

Some people question whether any findings from summative evaluation research, besides some general principles, can be generalized to other issues, populations or contexts (57). This pertains particularly to experimental studies in which high internal validity (the ability to infer cause–effect relationships) may entail reduced external validity (the ability to generalize results to other populations or contexts) (13). The determinants of behaviour and the conditions for effective communication are different for different issues, populations and contexts, and may change over time. It has been argued that some transfer of knowledge is possible but, to be successfully replicable at other times and in other contexts, interventions may need to be modified through formative evaluation.

**Approaches to Summative Evaluation**

The choice of research design and outcome indicators are the key questions of summative evaluation. Many considerations will have a bearing on the solutions, including the nature and objectives of the activity to be evaluated, available time and resources, and the purposes for which the evaluation will be undertaken.

The main task of summative evaluation is to establish causal relationships between the delivery of a programme, or of particular components, and an outcome among the individuals exposed to the intervention. Although the ultimate desired outcome may be behavioural change, a range of intermediate indicators – such as changes in knowledge, attitudes, beliefs, particular skills or behavioural intentions – are often used to determine effectiveness. The intermediate variables tend to be difficult to define, and even more difficult to measure.

For causal inference the experimental design, involving pre- and post-test measurements and random assignment into intervention or
control conditions, has been established as the ideal model. As fully controlled experimental studies are not always feasible, quasi-experimental designs such as those employing naturally occurring groups, temporally phased introduction of intervention or planned variation in intervention intensity, are commonly used. In situations where quasi-experimental designs are not feasible, evaluation studies may employ “triangulation” or “critical multiplism” (113), based on a combination of maximally different methods and an examination of the convergence of results across the different perspectives.

The advantages and weaknesses of the commonly used research designs, the uses of different outcome indicators and problems commonly encountered in summative evaluation have been discussed in many articles, textbooks and handbooks (13,40,81,87,112,114,115). There is no absolute standard for what constitutes a successful educational intervention. Each programme has to be evaluated in its own context, and in relation to the range of possible observable effects that it is designed to have. If a media campaign is not expected to do more than raise public awareness of particular issues, then its success may be examined in terms of audience exposure to the campaign, attention paid to the messages, and perceptions of the messages and issues (81). If a campaign aims at influencing the system of social norms, success could be measured in terms of changes in perceptions of the prevalence and acceptability of particular behaviour, or in perceptions of the “norm sending” aspects of the environment such as the presence or absence of alcohol advertising, or the availability of alcoholic and non-alcoholic beverages in different settings or situations (13). If a media campaign aims at behavioural change, a feasible and measurable objective could be, for instance, encouraging people to call a hotline or information number or to join in some activity (53,57).

A broad range of approaches, data collection methods and outcome measures is required in the evaluation of community-based programmes (109,112). Since the possibility of selecting intervention and control areas or of controlling relevant variables is in general limited, the model of experimental research is not easily applicable. Communities are complex and dynamic, and causal relationships within them hard to trace. As community-based programmes are often devised to affect the community at several levels, evaluation research should be
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able to address effects at different levels, for which different data collection methods and different indicators of success would be needed.

**Approaches to Process Evaluation**

Process evaluation involves documenting a programme’s structure, content and implementation, and analysing both programme-specific and contextual factors influencing implementation. The type of information provided by process evaluation is useful for both programme-specific purposes, such as making adjustments in content or delivery where needed, and for more general purposes, such as replicating successful programmes or components. Process information may also be useful for interpreting findings from summative evaluation.

As educational interventions can be organized in different ways and set in different contexts, a variety of factors may be relevant in process evaluation. Evaluations of the fidelity and extent of implementation of school-based programmes may focus, for instance, on the training, motivation and background of teachers, and on the availability of teaching materials, time and administrative support (11,79,98,116). Evaluations of media campaigns may focus on the extent of message delivery through different channels, the audience subgroups reached, and the success of the strategies used to target different audiences through different channels (110). Evaluations of both types of intervention may need to examine what other activities occur in the community that might support or compete with the intervention being evaluated.

Evaluations of programmes that include community components may need to examine the programme’s relationship to the field workers and target groups. A top-down approach is generally considered less likely to be effective than a participatory one. For process evaluation some measure of participation is usually needed, but the views and experiences of the participants may also be valuable. Field workers and even target group members may contribute to the improvement of a programme with their specific skills and knowledge (13,57).

Other factors that may have a bearing on the implementation of a broadly based programme include organizational aspects, such as the degree of balance between effective leadership and the sharing of power necessary in any collaborative effort (57,117). Effective
management of a programme may require communication and negotiation skills to resolve potential conflicts between the various members. The collaboration of administrators, practitioners and researchers may be hampered by communication problems and by conflicting aspirations arising from professional differences. Specific skills and understanding may also be needed to establish collaborative relationships with media professionals.

In community-based programmes especially, it is important to direct evaluative research towards understanding the process of change in the system that restrains or supports the modification of individual behaviour. A variety of methods can be used to describe and analyse the progress of a community-based programme, as well as the opportunities and obstacles faced (57,81,109,112). Data can be collected at the individual, group, institution or community level. Surveys and interviews with key groups such as civic organizations, health and social service personnel, teachers or police officers can be used to monitor perceptions of the programme, relevant practices and policies, or spin-off activities. Meeting agendas and other official documents can be used to trace the diffusion of a programme through a community, or to monitor responses at the institutional level. Observations in different types of context, ranging from official meetings to leisure activities, can be made to gauge group response.

Data derived from existing archives or recording systems can be used to monitor a programme’s impact on the community. Statistics may be available, for instance, on hospital emergency admissions involving alcohol, arrests for drink-driving or alcohol sales. It may also be possible to supplement routinely kept records with programme-specific data: health and treatment services could, for instance, record requests for programme-related information.

Other methods of collecting community-level data include monitoring the content of the mass media (118,119). Media coverage can be used to assess a programme’s public image and visibility, as well as the reaction of the community. Content analysis can provide information on both the media’s and the public’s perceptions of programme-related issues, as well as on potentially relevant events and trends in the community.
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Approaches to Formative Evaluation

The importance of formative research has been particularly stressed in relation to mass media campaigns (51,52,57,110). Formative research involves audience research and the pretesting of messages and materials. Audience research is needed to identify target groups, select appropriate communication channels, and determine the receptivity of target groups to potential messages and appeals. A variety of audience characteristics may be relevant, and useful as baseline data against which any changes may be measured. Preproduction testing of messages and materials is needed to tailor them to the target groups.

A variety of data-gathering techniques can be used, ranging from standardized surveys and interviews, and focus group discussions employed in audience research to small-scale pilot projects used to test multicomponent programmes. For pretesting of messages and materials, a range of techniques is available such as individual in-depth interviews, focus group discussions, interviews, scaled rating of messages and readability tests (13,52,110,114). Besides research conducted for planning a particular programme, data collected for other purposes, including studies of past programmes, may also be usable.

Neither funding agencies nor programme developers seem to have realized the value of background information. Formative research may be overlooked because it is considered time-consuming and difficult to conduct. While quantitative methods are emphasized in summative evaluation, in process and formative evaluation qualitative methods may be more powerful. For programme developers and researchers trained in quantitative techniques, however, qualitative techniques may appear complex and even lacking in validity. It has been recommended, on the one hand, that formative research should be open-ended and encourage the participation of the subjects and, on the other, that conclusions drawn from qualitative research should be backed up with quantitative research. The need for strategic planning has also been stressed: formative evaluation should not be conducted in a haphazard manner but in a way that contributes to the development of an action plan (57).

Audience segmentation

Audience segmentation – devising and directing different messages to different sectors of the audience – is considered a more fruitful
approach than communicating universal messages to the general public. Determining the most appropriate segmentation strategy is among the crucial tasks in programme development.

Strategies based on demographics are widely used but are not necessarily the most adequate (57). The use of demographic variables, such as age, tends to create an illusion of homogeneous subgroups. In reality the attitudes, values, beliefs and behaviour within any subgroup may differ in relation to gender, social class, ethnicity or other social and cultural dimensions. Potentially fruitful alternative segmentation strategies include lifestyle segmentation, and composing segments based on differences in experience or motivation concerning the use of a particular substance.

The purpose of audience segmentation is to choose and develop appropriate communication channels, messages and materials for each target group. Although it is possible to find in the literature lists of message attributes that have been found to work (for instance, for adolescents) there is no guarantee of their applicability at other times or in other contexts. Whatever strategy is chosen for segmentation, stepping beyond demographics and devising appropriate strategies requires formative research.

**Responsiveness**

Formative research can play a crucial role in specifying issues that need to be addressed in message and programme development, and in identifying barriers for effective communication. It is not uncommon that media campaigns are based on the creative inspiration of educators or media professionals, or on practices established in past programmes. Even creative and professionally produced materials are, however, likely to fail if the messages and appeals are inappropriate or culturally insensitive to the target audiences. To be successful, messages and appeals need to relate to the existing knowledge, beliefs, feelings, motives, needs and interests of the target audiences (52,53,57,110).

Formative research can be used to identify what the audience already knows, what knowledge gaps exist and what notions or misconceptions need clarification or correction. Formative research can be used to determine the audience’s stance towards the target issue or behaviour, and to find out about the audience’s perceived needs for information or support.
To be accepted, the messages and materials need to have some personal relevance to the recipients, and the recommended behaviour needs to be feasible within the context of the recipients' everyday lives.

**Pretesting**

Pretesting can be used to help the development of concepts and the execution of messages. At the concept development stage, tentative messages, visual sketches or key phrases can be presented to samples of the target audience to determine what would be likely to produce the desired reactions. At the execution stage, pilot products are tested to assess the appropriateness of different production techniques, and to determine how the content is being interpreted and whether the messages are getting across. Specific techniques have been developed for assessing attention, measuring comprehension, determining relevance and believability and identifying strong and weak points, including sensitive or controversial elements (13, 52, 110, 114).

A technique with a long history both in marketing research and social sciences (120), and which appears to be increasing in popularity within alcohol and health education research, is the focus group interview (13, 121-124). The technique is used to gain insight into the characteristics of particular issues by recording and analysing discussions by representatives of the target audiences. The discussions can be organized as free conversations, use structured questioning or even use specific approaches such as the projective technique. The main advantage of the focus group approach is its open-endedness: it allows the participants to use their own words and select their own priorities.

Focus group discussions and interviews can also be useful for testing the reactions of different gatekeeper groups. It may be useful to determine whether ideas proposed by educators can be translated into concrete products by professional message and materials developers or whether the form and content of the materials that have been produced are acceptable to key intermediaries, such as teachers or health or media professionals (57, 110, 114).

**Meta-analysis**

The aim of evaluation research is to provide insight into the efficacy of educational interventions. Despite the number of studies that have
been conducted, the accumulated knowledge about the efficacy of different educational approaches remains scattered and uncertain. Differences in research designs and methods, and variation across studies in intervention tactics, populations and settings make it difficult to derive more than very general conclusions from the findings.

The use of meta-analysis, the statistical integration of summative evaluation findings, has been seen as one way to solve this problem (13,81). Formal meta-analysis, typically applied to experimental studies employing a control or comparison group, treats the results of individual studies as components in a larger study examining the distribution of programme effectiveness. The outcomes of individual studies are described on a common metric that make it possible to test statistically relationships between effect sizes and characteristics of the interventions, and possibly compare effectiveness across different types of programmes.

Meta-analysis has been proposed as one way to enhance both the internal and the external validity of summative evaluation research. It is assumed that, when studies with different designs, populations and settings are included, the possible biases in individual studies will be counterbalanced and the basis for generalizations extended. There is, however, no guarantee that biases in different studies will cancel each other, especially if the studies are plagued by similar problems or share a common source of bias. The validity of conclusions based on the aggregate may be jeopardized by inadequate documentation of methods and results in the original evaluation reports. The results of meta-analysis will also depend on the population of studies being examined. It may not be easy to locate all studies that might be relevant, or the number of studies addressing a particular question may simply be too limited for statistical synthesis (77,81,87).

In alcohol and drug education research, meta-analysis has been used to examine the effectiveness of school-based programmes (76–78). The conclusions have not differed much from those drawn from narrative reviews. As the range of programmes and variables that can be examined in meta-analyses is limited, narrative reviews tend to provide more nuanced information.
A recent study examined the effects of nearly 80 school-based programmes designed to reduce or prevent smoking or drinking (78). Meta-analysis was used to determine the overall cognitive, attitudinal or behavioural impact, to examine whether the size of effects differed for smoking and drinking, and to determine whether programmes based on different theoretical models had different levels of behavioural effectiveness. The answers given to the first two questions do not add much to the conclusions drawn in other reviews. Most programmes did increase knowledge of health risks; attitudes were more difficult to change, and changes in behaviour were modest at best. While smoking education was more successful in changing long-term behaviour, smoking and alcohol education had equally modest effects on immediate behaviour.

The programmes were found to employ four theoretical models: a rational approach, seeking to change attitudes or to modify behaviour by imparting information; a social reinforcement approach, emphasizing the modelling effects of the social environment; a social norms approach, focusing on the expectations and standards for adolescent behaviour that are present in the environment; and a developmental approach, focusing on features such as self-esteem and the attainment of life goals. As many programmes combined elements from several models, examination of the effectiveness of different models had to be limited to a comparison of traditional programmes – in which the rational approach was dominant – with innovative programmes based on one or another of the remaining three approaches. The heterogeneous group of innovative interventions was found to be more effective in changing behaviour than the traditional programmes. Thus, despite its systematic nature, the ability of meta-analysis to identify the most effective approach in prevention education seems limited.

**Improving the Use and Usefulness of Evaluation Research**

To enhance the efficacy of educational interventions, an effort to improve the use and usefulness of evaluation research appears to be needed. This has been seen to require adequate funding, training, the development of evaluation tools and practices, and more efficient dissemination of knowledge (13,41,57,87,112).

The potential users of evaluation studies include scientists, practitioners, administrators, funding agencies and policy-makers. Each group may place different expectations on educational interventions
and on evaluation research. To benefit from research results, all user groups would need to understand the key concepts and terminology used, as well as the potential and limitations of different types of study. It has been suggested that cooperation among practitioners, administrators and evaluators would be easier if researchers knew more about the practical aspects of educational interventions.

Suggestions have also been made on how to solve problems related to potential conflicts of interest that may arise when researchers are evaluating their own interventions, or programmes developed by their own institutions for broad distribution (87). It has been suggested that such relationships should be fully documented, and research data made accessible to other researchers who may wish to conduct secondary or alternative analyses. A more general recommendation is that evaluators should learn to be more critical about their research, and to pay more attention to reporting flaws and discussing plausible alternative hypotheses.

Advancement of evaluation research has been seen to require the development and use of better tools and practices. Conducting an evaluation assessment has been proposed as one way to improve research planning (41). An evaluation assessment could include a description of the programme, a clarification of its objectives, an assessment of the suitability of the objectives for evaluation, and an examination of the rationale linking the intervention to anticipated outcomes. An evaluation assessment would help to choose key questions, data collection strategies and outcome indicators.

As prevention action is increasingly undertaken at the community level, practical and feasible evaluation models and measures are needed that could be incorporated into the routine operation of programmes. Producing feedback for programme and resource management, and documenting different types of programmes and their effects, do not necessarily require extensive research and methodological rigour. Usable and useful information could be produced by practitioners themselves with somewhat streamlined methods (114,115).

Evaluation research could be viewed as a collective effort oriented towards developing a pool of practical knowledge and skills. To advance the accumulation, sharing and recycling of evaluation
findings, more efficient practices of information dissemination would need to be developed. Evaluation results are typically published in academic journals, with the purpose of informing the scientific community. Less attention is paid to other audiences that might benefit from the findings. It has been suggested that evaluation findings should be published in a variety of forms to make them available for all those who have a stake in the research (13,41). Research findings should be reported to health authorities as well as to other local or national decision-makers who might respond to them in the interest of promoting public health. Questions related to effectiveness and costs are likely to be of interest to those involved in planning and decision-making. An equally important task is to inform those who design and deliver programmes, especially those involved in a particular programme. For practitioners, the most relevant questions are likely to be those concerning programme implementation and the processes that relate interventions to effects. Exchange of information among practitioners could be facilitated through local, regional or national workshops and seminars, and through the establishment of networks, clearing-houses and databases. Increased communication may also contribute to more effective cooperation among practitioners, agencies and organizations that have different working methods but the same goals or objectives (125).

Despite proposals and efforts to improve information dissemination, not much is known about how research on educational interventions and their effectiveness is used in practical work and decision-making, or how different approaches and programmes penetrate into communities and societies. Few studies examine the diffusion and institutionalization of educational interventions, factors that may ease or act as barriers to the adoption of different strategies, or the way programmes and approaches are adapted to different settings and contexts (126–128).

**Economic Evaluation**

An issue related to the replication and dissemination of alcohol education interventions is the costs involved in programme development and implementation. Although the rationale of primary prevention is to produce savings on expensive health service treatment, economic evaluations of alcohol education programmes are scarce. Economic
Alcohol education evaluation is also an underdeveloped area in the broader field of health education (112).

The main approaches in economic evaluation are cost-effectiveness and cost-benefit analysis. Cost-effectiveness analysis compares the total costs involved in an intervention – or in different interventions – with the extent to which a given goal has been achieved. Cost-benefit analysis compares the costs with the benefits gained, which can be measured in monetary terms (for instance, as savings in health service costs) or nonmonetary terms (for instance, as reductions in health hazards) (13,81).

Extensive and high-quality school-based alcohol education may prove to be expensive. Apart from the costs involved in programme planning and production, funds may be needed for promotion, administrative support, teacher training and supplying teaching materials (9,116,129). In the United States, a major evaluation study conducted in the 1980s examined the effectiveness of four different school health programmes in preventing smoking and in encouraging other healthy habits (13,40). The degree of success was related to the extent to which the programmes were adequately implemented, which in turn was related to the amount of teacher training. The most effective programme was also the most costly one.

Cost-effectiveness analysis can also be used to determine what would be a justifiable level of expenditure, for instance, in a mass media campaign. In the early 1970s, a series of experiments was conducted in Britain to assess the cost-effectiveness of media advertising encouraging seat-belt use (13). The campaign was launched in different regions with different levels of expenditure on television advertising and poster displays. Increases in the rate of observed seat-belt use reflected to some extent the level of expenditure. It was concluded that a burst of television advertising over three weeks, followed by supportive posters for a further three weeks, would be the most effective way to encourage seat-belt use. If the initial level of seat-belt use were around 15%, as it was in the experiment, a three-week media campaign could be expected to raise it by 3–16%. The size of the change would represent a high level of success compared with what tends to be achieved by commercial advertising.
Questions related to cost-effectiveness are likely to increase in importance when the resources for preventive action shrink. Although realism about costs and benefits is needed in programme and policy planning, one should remember that some contributions of prevention education, such as a long-term influence on the cultural and political environment, are not easily measurable in monetary terms.

USING THE MASS MEDIA TO RAISE AWARENESS AND DISSEMINATE INFORMATION ABOUT ALCOHOL

The following section describes some recent alcohol education programmes and campaigns. The examples illustrate short- and long-term initiatives, broad and more focused approaches to information dissemination, different linkages between mass media and other activities and different approaches to evaluation research. The illustrations are meant to draw attention to both the potential and the limitations of different approaches to preventive alcohol education.

A Time-limited Awareness Campaign

A typical way of utilizing the mass media, particularly television, for alcohol prevention has been to produce one-off information campaigns aimed at improving the public’s awareness and knowledge about particular health risks.

A Canadian study, examining the effects of a television campaign providing information about the risks of drinking during pregnancy, illustrates the potential and limitations of this strategy (130). In 1991 a thirty-second television spot was shown a total of 585 times over a period of ten weeks, during both prime-time and off-peak periods, by five television stations in Manitoba. The announcement was produced in cooperation with medical and lay consultants and a local television station. It provided information (in English, French and Cree) about the risks of drinking alcohol during pregnancy, and advised viewers to contact their doctors for more information. Before the campaign, all doctors in Manitoba were sent a brochure containing information on fetal alcohol effects.

To examine the campaign’s impact, pre- and post-campaign questionnaire surveys were conducted with 3000 women aged 15–45 years.
The survey instrument consisted of five alcohol-related questions and five questions about other health risks in pregnancy. The respondents were also asked to indicate from which source they had obtained the information used to answer the questions.

The level of awareness that alcohol ingested by a pregnant woman will reach the fetus was already high in the pre-campaign survey. Awareness that alcohol consumption during pregnancy can cause mental, physical and behavioural abnormalities in the baby was lower, and significantly increased in the post-campaign survey. Most respondents of the pre-campaign survey knew that one drink daily could place the baby at risk. Perception of the risk for occasional consumption was lower, and showed significant improvement in the post-campaign survey.

No post-campaign differences were observed in the responses given to health questions unrelated to alcohol; more respondents attributed information about alcohol to television in the post-campaign than in the pre-campaign survey, and no other province-wide activities related to drinking during pregnancy were carried out during the study period. It was therefore concluded that the campaign had been successful in increasing awareness of the risks associated with drinking during pregnancy. It was noted, however, that the findings mainly reflected respondents’ ability to recognize facts, not their ability to recall or use the information when a critical decision had to be made.

A Long-Term Paid Mass Media Campaign

In the Netherlands, a long-term national alcohol education project was started in 1986 by the Ministry of Welfare, Public Health and Cultural Affairs as part of a broader prevention programme. The aim of the project is to increase awareness of the risks associated with drinking, to change attitudes towards drinking and ultimately to decrease alcohol consumption. Large-scale mass media campaigns form the core of the project. Other components include campaigns targeting specific municipalities, schools or youth organizations, and small-scale local prevention programmes using the national campaign as an umbrella (131).

The themes and primary target groups of the mass media campaigns have varied. The first campaign aimed at placing alcohol on the public agenda. The next three campaigns targeted heavy drinkers. Since 1990, young people aged 15–25 years have been the primary target
group. The 1990 campaign, which concentrated on the broadcast media, was built around a music-video-style television spot, also shown internationally on Music Television. Strategies using popular music and entertainment media channels to convey health messages to young audiences have become popular in several countries since the late 1980s (57).

Since 1986 four interview surveys, including a baseline survey, have been conducted to monitor the public’s awareness of the campaigns, as well as changes in knowledge levels and attitudes (132,133). The public’s awareness of the project has been high. During the years, unprompted recall of the project’s main slogan has increased and was over 40% in 1994.

The 1994 survey indicated a tendency for more tolerant attitudes towards alcohol. A tendency to regard alcohol as a normal commodity had become stronger, while the tendency to associate alcohol with social problems had weakened. The results were seen to suggest that, in the absence of a long-term national campaign, the public’s tolerance towards alcohol might have been even more accentuated. Hard drugs were perceived to cause more problems for the wider community than alcohol, which in turn was perceived to cause more problems than smoking. The salience of the consequences of substance use in the respondents’ own lives was equally low for alcohol, tobacco and drugs.

A set of ten questions has been used to measure the public’s knowledge about alcohol. Most questions have addressed short-term physiological effects of alcohol consumption, or the relative strength of different alcoholic beverages. Since 1986, no changes have been observed in the knowledge levels. Young heavy drinkers tend to be the most knowledgeable group, as well as the respondents who recall spontaneously the campaign slogan. Variables found to correlate with heavy drinking include a high level of knowledge as measured by the survey questions, a tendency to regard alcoholic beverages as normal consumer goods and an interest in limiting one’s alcohol consumption.

A Long-term Campaign Aimed at Generating Media Interest

A different media strategy has been adopted in the national Drinkwise campaign in England, run by the Health Education Authority since 1989. The campaign, aimed at adults aged 16 years and over, promotes
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“sensible drinking” by encouraging people to think about their drinking and by providing information considered necessary for the assessment and monitoring of alcohol intake. The campaign has been organized around yearly national Drinkwise Days, which since 1992 have been supplemented with diverse other initiatives carried out throughout the year (134, 135).

The Drinkwise campaign has been designed as an umbrella mechanism for raising public awareness of sensible drinking, and for providing mass media interest and a supportive context for local activities. Thousands of local groups and organizations – ranging from statutory health education units, voluntary alcohol agencies and workplaces to schools and youth organizations – have participated in the activities in some way. The media strategy of the campaign has been geared to obtaining maximum free coverage for the Drinkwise Days in national, regional and local media, and to sustaining this coverage with other initiatives throughout the year. The tactics used range from high-profile public relations activities and media events to the placement of campaign messages in popular television soap operas.

A central objective of the campaign has been to familiarize the public with certain key concepts considered necessary for applying the idea of sensible drinking. The basic concept is the unit of alcohol, intended to make comprehensible and measurable the alcohol content of drinks. The campaign has advocated consumption guidelines, formulated as sensible levels of weekly consumption, for women and men separately. The sensible drinking concepts have been used in a variety of public education materials developed by the Health Education Authority, and distributed free or at low cost to local groups and organizations. Since 1992, the campaign has moved towards targeting particular drinking locations – such as the home, public houses, clubs and restaurants, and the workplace – and tailoring messages to specific settings and audiences. Sensible drinking has also been linked with safer sex in activities centring on St Valentine’s Day.

Recent developments in the Drinkwise campaign include increased attention to the needs and interests of ethnic and cultural minorities. For this purpose, a study based on individual interviews and group discussions with adult drinkers representing different ethnic backgrounds was carried out in 1993 (124). The findings pointed out a
need for information in different languages, and a preference for culturally specific images in campaign materials. Although prevention education activities are undertaken in an increasingly multicultural context in many countries, little attention has been paid to the differing needs and concerns of ethnic groups, or to the cultural and language barriers to information dissemination. Studies addressing the development of culture- or community-specific materials for alcohol prevention (123) or for health education (136, 137) are scarce.

The position taken by the Drinkwise campaign has been seen as crucial to the acceptance of the sensible drinking messages among the public. The campaign has emphasized positive aspects of sensible drinking rather than negative images of problem drinking. This approach has eased cooperation with the drinks industry and alcohol distributors, aimed for instance at developing information materials to be distributed by retailers, and at placing information about units of alcohol on container labels. The campaign is oriented towards attracting sponsorship from and developing collaborative promotional opportunities with the drinks industry and the retail sector (135).

The advantages and limitations of cooperation with industry can perhaps be looked at in the light of experience from the United States, where voluntary and government agencies have cooperated with the Advertising Council to produce public information campaigns about alcohol and drugs. The Advertising Council, formed by major advertising agencies during the Second World War, has been engaged in diverse health and social issues, including drink-driving and drug use. The expressed purpose of the Advertising Council is to use public service campaigns to promote goodwill towards the advertising industry (67). The Council provides creative resources for the production of public service messages, as well as media time and space. The views of health communicators about cooperation with the Council appear to be mixed (57). The Council's resources have been seen as crucial to the implementation of many national media campaigns. Creative services and broadcast time are so expensive that few campaigns can afford to pay for them. On the other hand, the large number of campaigns run by the Council has made it difficult to place messages in the most desirable times or spaces. The voluntary nature of the services has been seen to limit the campaign initiators' ability to choose an advertising agency and to control message design. The
Council has also been criticized for taking the task of developing public service campaigns less seriously than that of developing commercial campaigns.

The Drinkwise campaign has been accompanied by an ongoing evaluation, based on annual surveys on samples of the adult population (138). Awareness of the Drinkwise campaign has been at a lower level than awareness of the national campaign run in the Netherlands. With its focus on specific information, the Drinkwise campaign seems, however, to have achieved some improvement in the public’s knowledge about alcohol. The greatest changes appear to have occurred during the first years of the campaign. Since 1989, the public’s awareness and knowledge of the key concepts of sensible drinking have increased. While in 1989 approximately half of the respondents had heard of the term unit, in 1992 nine out of ten were aware of the term. Some improvement has also occurred in the knowledge required for the practical application of the concept. While in 1989 only one in ten respondents estimated correctly the number of units contained in a pint of beer, one in three gave the correct answer in 1992. Awareness of the recommended weekly consumption limits is at a lower level, but has increased over the years.

On some points the survey findings from England and from the Netherlands are parallel. In England, too, heavier drinkers tend to be more knowledgeable about the issues addressed in the surveys. Although alcohol consumption is considered a factor that influences health, only a few respondents are concerned about their own drinking habits. Attempts to cut down are not uncommon, however, and an interest in limiting consumption appears to be more common among heavier drinkers. Survey findings from 1992 indicated that information on cutting down was most often obtained from personal sources or from the mass media. Most respondents who had attempted to reduce their drinking were, however, unable to point out any information source as particularly useful.

The Drinkwise campaign is an example of an educational approach, increasingly popular since the late 1980s, that targets the drinking public and seeks to provide tools for those drinkers who wish to control their alcohol consumption. Sensible or responsible drinking is seen to require awareness of the strength of alcoholic
bottes, and a yardstick for comparing the alcohol content of differ-
et drinks. The yardstick varies from one country to another: in
Britain it has been defined in terms of units, while in Australia, for
example, it is expressed in terms of standard drinks. Although these
measures have been found more easily understandable than, for in-
tance, percentage of alcohol by volume, their application seems to
involve complications.

The Drinkwise evaluations and other studies (139–142) have
shown that, while the public may be aware of units or standard drinks,
only a minority can define these measures in practical terms. One
factor limiting the applicability of units and standard drinks is that
different brands of the same beverage may vary in strength. A study
carried out in the United Kingdom found that, while most people were
able to apply the unit system to drinks of typical strength, its applica-
tion to high-strength variants of the same beverage type resulted in
serious errors (139). Other complications stem from variations in the
size of containers, and in the size of servings used on licensed prem-
ises or at home. Studies conducted in Australia have shown that,
whether drinking occurs on licensed premises or at home, the
amounts served tend to exceed the standard drink (140,142). These
findings suggest that the use of units or standard drinks to measure
the amount of alcohol consumed may result in underestimates of ac-
tual alcohol intake.

Nevertheless, it has been suggested that, to spare alcohol con-
sumers from complicated calculations, information about alcohol
content should be displayed on beverage container labels in terms of
units or standard drinks. A minimum requirement would, of course,
be that information about the alcohol content is provided in some
consistent fashion. In the United States, where different measures are
used for distilled spirits, wine and beer, and where the practices of
content labelling vary across beverage types and across states, alcohol
consumers tend to lack the information necessary for comparing dif-
ferent drinks and for estimating their alcohol intake. Studies con-
ducted with students in American colleges (143) and high schools
(144) have indicated a widespread ignorance of the strength of differ-
ent alcoholic beverages. Only a minority of students can classify dif-
ferent beverages according to their strength, even when allowed to
read the container labels.
A Long-term Campaign with a Two-part Media Strategy

In Denmark, the National Board of Health recently reached an agreement with the alcohol industry about including unit information on container labels. The introduction of unit labelling is tied to yearly national alcohol education campaigns run by the Board of Health since 1990 (145). An objective of the campaigns has been to familiarize the public with the concept of the unit, and with drinking guidelines expressed in units consumed per week. The national campaigns serve as an umbrella for a variety of local activities carried out by county councils throughout Denmark.

The first campaign advocated an alcohol-free week and targeted a heavy-drinking subgroup: well-off people in their forties. To reach the target group, a wide range of media channels was used, including letters sent to all those reaching the age of 40 during the year. The subsequent campaigns have continued to target adult drinkers with either general moderation messages or practical advice. Several questionnaire surveys have been conducted to examine the public's levels of knowledge and awareness. The findings have indicated a gradual long-term increase in awareness of the drinking guidelines, with sharp temporary increases occurring immediately after the yearly campaigns. The public's ability to estimate the alcohol content of drinks in units has shown less improvement (Iversen, L. & Strange, H., unpublished data, 1994).

The campaign's media strategy has combined paid media space and time with efforts to generate media interest in campaign-related topics and other alcohol issues. Quantitative and qualitative analyses of alcohol-related content in Danish newspapers have been conducted to monitor the campaign's coverage (146). Sharp increases in the volume of both campaign-specific and other alcohol-related articles have occurred immediately before and during the campaign. The first campaign in particular received wide press coverage, partly because of its straightforward message and provocative style and partly because of its sheer novelty: alcohol education in Denmark had traditionally targeted children and young people, and no high-visibility nationwide campaigns had been carried out (65).

An analysis of 950 alcohol-related articles published during a nine-week period in 1991 sheds light on the media's role as mediator
of campaign messages. Alcohol was treated as a health issue in one out of three articles, related to crime in one out of four, and linked with social problems in one out of six. In the normal articles with a health angle, the primary focus was on young people’s drinking, on alcoholism or on the combined use of alcohol and drugs. In contrast, the coverage of the educational campaign focused on problems related to everyday “moderate” consumption. On some campaign-related issues – such as total alcohol consumption in Denmark – the articles presented mixed and contradictory information, which was seen to create an unfavourable context for campaign messages.

An analysis of the campaign-related articles (16% of all articles) indicated that the main messages – such as the drinking guidelines, and the idea that the average Dane’s consumption is too high – were getting across to the media. A key goal of the campaign has been to generate debate about the role of alcohol in people’s everyday lives. The approach aims, not at avoiding criticism, but at finding ways by which criticism can be used constructively for the purposes of alcohol education. Of the articles covering the first campaign in 1990, 21% took a critical stance. The controversy was seen to have paved the way for a smoother media reception of the subsequent campaign: in 1991 critical articles accounted for only 12% of the coverage. The criticisms focused on the general ineffectiveness of educational campaigns, or specific issues such as the trustworthiness of the drinking guidelines. While the 1991 campaign received less coverage than the first campaign, the local initiatives received more attention than in the previous year. A conclusion drawn from the findings was that, while a provocative approach is required to ensure continued visibility, more emphasis needs to be placed on local initiatives to prevent the public debate from blocking their coverage.

Focused Information Dissemination through Mass Media Channels

Vague moderation messages can hardly be expected to be able to produce changes in alcohol behaviour. In the campaigns reviewed above, some effort has been devoted to translating the message of sensible drinking into practical advice. In a field experiment carried out in Australia in 1987 a combination of broadcast television spots and direct mail was used to provide instruction in controlled drinking to a particular audience subgroup (147).
A 30-second television spot entitled "Make the next one last" was produced, drawing on behavioural self-control training principles used in the short-term treatment of problem drinking and in self-help materials. Research on the usefulness of information materials for drinkers who want to cut down on their own has indicated that materials containing specific instructions are more beneficial than those providing general information about the effects of alcohol (148). In the wider field of health education, too, it has been established that, to make an impact on behaviour, the information given needs to be specific (13).

The television spot provided information about hazardous drinking levels, encouraged viewers to set themselves gradually lower intake levels, and demonstrated specific techniques for controlling the rate of drinking. The spot was broadcast on a regional commercial television channel, mostly during prime time, a total of 25 times over a three-week period.

A controlled experimental design was used to assess the impact of the television spot and of a direct mail stimulus on viewers' alcohol consumption. The spot was transmitted in a region in which a survey of drinking habits had been conducted 12 months earlier. Respondents identified as drinkers were randomly assigned to receive a letter or not to receive a letter. Before the screening of the spots, those in the former group were sent a notice announcing that some television spots were to be screened during the next few weeks, as part of Australia's national campaign against drug use. At the time, the national campaign, aimed at raising public awareness of drug use, had been running for two years. Respondents in one viewing area, from which the television spots were withheld, served as control groups with or without a letter. Post-intervention data were gathered in an interview survey conducted three weeks after the screening. The total number of respondents in the four groups was close to 100.

The findings indicated lower post-intervention alcohol consumption in the spot-and-letter group, while all other groups showed a trend towards higher alcohol consumption. The results of multivariate analysis indicated a significant interaction between the television spots and the letter, suggesting that both had been necessary for the short-term reduction in alcohol consumption.
The experiment is notable, not only because a mass media campaign appears to have contributed to a behavioural change, but also because this appears to have occurred without any corresponding change in attitudes towards alcohol. The baseline and post-intervention data showed only small fluctuations in responses to attitude statements presented in the interview questionnaires.

A long-term experiment, using printed materials to convey alcohol-related information to women employed in business and professional jobs, was carried out in the United States (149). After completing a pre-intervention postal questionnaire, some 450 subjects, recruited through professional organizations, were randomly assigned to an experimental or a control group. Both groups were sent a series of 12 newsletters over a two-year period. The newsletters contained articles of interest to professional women; the experimental group’s newsletter also contained alcohol-related articles intended to help light or moderate drinkers avoid risky behaviour.

Post-intervention questionnaires were sent to all participants three and five years after the baseline questionnaire. Over the course of five years, alcohol consumption increased slightly and knowledge about alcohol increased significantly in both groups. Self-reported negative health and social consequences decreased in both groups, but the change occurred earlier in the experimental group. Some of the articles dealt with unhealthy reasons for drinking, such as using alcohol to ease pain or to sleep, to become less depressed or to forget problems. The experimental group showed a significant decline in these reasons for drinking, while no changes were observed in the control group.

The findings thus suggest that the alcohol-related information conveyed through the newsletters affected subjects’ perceptions of certain uses of alcohol, and to some extent accelerated a change in drinking behaviour that occurred independently of the intervention.

Supplementing School and Community Activities with Mass Media Programming

The Midwestern Drug Prevention Project (MPP), in the United States provides an example of a school- and community-based programme with an important mass media component (105, 119, 150). The MPP is
Alcohol education

a multicommunity drug abuse prevention programme primarily for adolescents, but also for their parents and other community residents. The behavioural objective is to reduce the onset and prevalence of smoking, drinking and other drug use among young people.

The MPP is being carried out in the Kansas City and Indianapolis metropolitan areas and has five components: mass media programming, a classroom curriculum, parent organization and education, community organization and health policy change. In Kansas City, the project was initiated in 1984 as a spontaneous community reaction to a local event that raised concern about drug use problems. In Indianapolis, chosen as a matched replication area, the project was initiated by researchers in 1987. In Kansas City the programme components were introduced sequentially, six months to one year apart, except for the mass media and school components, which were initiated simultaneously. In Indianapolis the rate of introduction was escalated. The organizational aim of the project is to develop permanent community structures to plan, implement and monitor drug use prevention campaigns in each city. The long-term evaluation of the project is planned to continue through 1995.

The effects of the interventions have been assessed annually. The data-gathering methods include self-reporting surveys, telephone surveys, observations and archival records. To examine the effects among adolescents and their parents, schools in each city have been assigned either to the project’s school-based programme, or left to decide for themselves whether to provide health education, as a control. In Kansas City the research design is quasi-experimental, with most schools assigned to the intervention or control group depending on the flexibility of the school administration. In Indianapolis the design is experimental, with the schools randomly assigned to the different groups. The school-based programme follows the social influences approach and is delivered from elementary through high school. Parent organization and education aims at developing communication and prevention support skills, and at initiating activities to keep the school and the surrounding neighbourhood drug-free.

Findings from the annual evaluations for the first four years of the project’s implementation in Kansas City indicated that the prevalence of smoking, drinking and other drug use increased over time.
among students of both intervention and control schools. Adolescents in the intervention schools showed less increase, however, and had a lower prevalence of substance use than those in control schools.

In Kansas City the prevention project was initially stimulated by spontaneous media coverage of drug use problems among the Kansas City Royals, a successful professional baseball team. These problems led the owner of the team, an influential Kansas City businessman and philanthropist, to initiate a local drug use prevention effort, begun immediately to capitalize on the enormous mass media interest. At the time the researchers stepped into the project, the initial media coverage of drug issues had facilitated the process of identifying and contacting key community leaders. In Indianapolis no equivalent local event occurred when the project was introduced. The community organization activities coincided, however, with national mass media coverage of drug use issues, resulting from the "Just Say No" campaign with Nancy Reagan as its spokesperson.

Both cases thus serve as examples of how current trends and events in society or the community may give impetus to a prevention initiative, and increase community receptivity to prevention messages. The right timing, with respect to the position of a topic on the public, political and media agenda, has been considered one key condition to the success of prevention initiatives (57).

The project’s mass media strategy has been based on the assumption that early use of the media is needed to develop expectations in the community for subsequent interventions. Activities in Kansas City started with training teachers and television station managers in drug prevention. During the project’s implementation the use of mass media channels and messages has been varied to saturate the community with prevention messages without producing a “wearout” effect. In both cities, the media activities have been planned with the assistance of communication or public relations professionals.

The mass media component has included paid advertisements and public service announcements in the broadcast media, radio and television talk show interviews with project staff, news broadcasts, and newspaper articles and editorials. Part of the project-related media content has been spontaneous coverage; another part was generated.
by planned mass media events. Mass media broadcasts have been used to introduce the purpose and content of each year’s new project component, and press conferences have been arranged to present findings from annual evaluation studies.

Evaluation of the project has indicated that the mass media and community organization are mutually supportive. Mass media programming prepared each city for community organization while the latter increased support to the project from the mass media. In each city the mass media component has changed the pattern of drug-related reporting: greater prominence has been given to prevention issues that normally tend to be overshadowed by coverage of treatment, drug use and drug-related crime.

The MPP illustrates some problems involved in the evaluation of large-scale multi-component prevention initiatives. Assessment of the school component may be difficult as the students in all schools are exposed to the same media coverage and community activities. Although a long-term follow-up design is being used, with a subsample of adolescents being tracked throughout the project, the span of the evaluation may not be long enough to be able to determine whether any behavioural effects can be maintained when the students leave school.

The greatest difficulties may be encountered in determining which of the project’s five components were the most crucial or the most effective. The design of the MPP, with its sequential introduction of components, was intended to permit examination of the effects of the total intervention in relation to its component parts. The evaluation may be complicated by factors such as Indianapolis being used as a replication rather than as a control site, the partly uncontrollable and variable nature of the central mass media component, and other national and regional prevention activities operating simultaneously with the project.

Other Linkages between the School, the Community and the Mass Media

Project Northland, running from 1990 to 1995 in Minnesota, is another example of a community-wide project addressing adolescent drinking (106). While the MPP was started in a community displaying
readiness to mount a prevention programme, Project Northland has been designed as a randomized experiment: a total of 20 communities were randomly assigned to receive an intervention programme or to serve as control communities.

The intervention aims to reduce alcohol consumption and related problems among young people aged 15–20 years. A basic assumption is that, to affect behaviour, alcohol alone rather than a range of drugs needs to be targeted. Project Northland, too, is based on a school component consisting of two successive peer-led curricula (also involving the parents through homework) and alcohol-free and family events at school.

The materials used in alcohol education at school include a series of activity books, designed to be used by students together with their parents. The materials, produced in comic book style, are an example of the adaptation of the entertainment mass media to the production of alcohol education materials. After a rise in the production of educational videos in the 1980s, educational comic books (51,151), games and interactive computer programs (152) now appear to be increasing in popularity. The video format provided an opportunity to combine the attractiveness of a novel technology with presentation styles assumed to capture the interest of young audiences. The effectiveness of the video format, or the response of audiences to videos, have received little attention from researchers (153,154). As educational videos tend to be compared with television programmes, high quality appears to be necessary, which almost inevitably implies high production costs. It also seems that, where videos have been extensively used, students are beginning to become bored with them.

The comic book format has emerged as another popular mass media device that combines visual and verbal elements. While both videos and comic books have been seen, at least potentially, to be able to overcome barriers such as inadequate literacy, the comic book has the advantage of being less expensive but more distributable and reusable. Although little research appears to have been conducted on the effectiveness of the comic book, it seems that educational comics ought to be able to compete with their commercial counterparts. In Canada, a series of four genuine Spider Man albums addressing drugs issues have been produced by Health and Welfare Canada in
cooperation with professional writers from the American company holding the rights to the Spider Man character (15/1). The adventures, addressing Canadian themes and set in Canadian localities, have been used to convey information about drugs to children aged 7–12 years. Feedback from the audience has shown that the stories have been well received, and limited testing has suggested that retention of information from comic books is higher than that from videos.

In Project Northland, the community is seen as a vehicle rather than as a site for the intervention. The project utilizes a standardized process of community mobilization. The first steps involve identifying and educating community leaders, and hiring coordinators to form community-wide task forces. The task forces are expected to develop and implement new policies around adolescent alcohol use. Rather than imposing on the task forces a predetermined set of strategies, the intervention encourages them to consider alternatives such as educating alcohol merchants to avoid sales to people under the legal drinking age, enforcing existing laws, developing local by-laws restricting the placement of alcohol advertising and outlets, and developing school policies. Mass media information campaigns, considered of limited use, are not included among the strategies proposed to the communities.

The intervention is intended to reduce tolerance by the community of underage drinking, and to change local practices that allow young people access to alcohol. At least in principle, the practices investigated by the task forces may include local alcohol advertising. In the United States, outdoor advertising falls in general under the regulatory authority of local officials. In several communities across the United States, advocacy groups have with varying success worked to restrict billboard advertising for alcohol in their neighbourhoods (73,155).
Alcohol Advertising

Since the mid-1980s, pressures for tighter controls over alcohol advertising have increased in many countries. The main question in discussing this issue is whether advertising contributes, directly or indirectly, to the maintenance of high levels of alcohol consumption. In a study conducted in New Zealand, 15 academics specializing in communication or education, and 20 representatives of the advertising industry were interviewed about their views on alcohol advertising and its influence on young people (156). A majority of both groups thought that advertising in general is an important influence on young people’s opinions and attitudes. All of the academics and most of the advertising professionals thought alcohol advertising tended strongly to suggest that drinking is an essential part of becoming an adult. Over two thirds of the academics and about half of the advertising professionals thought that exposure to alcohol advertising was likely to contribute to reducing the age at which young people start drinking with their peers. More than half of the academics and one in four of the advertising professionals considered alcohol advertising contributed to a climate of opinion that did not support health education about alcohol.

This chapter reviews recent research on alcohol advertising and its effects, and discusses approaches to controlling the volume and content of alcohol promotion.

CONTENT AND EFFECTS OF ALCOHOL ADVERTISING

Research on alcohol advertising has recently been reviewed in several publications. Most reviews have integrated findings from different research areas (16–18,21,31–35,37,39–42), while some have focused on
specific subjects such as econometric research \((14,15,19,20)\) or studies related to children \((36)\) or to drink-driving \((38)\). The main areas of research include studies on the prevalence and content of alcohol advertisements, experimental and survey studies examining individual effects of exposure to alcohol advertising, and econometric research examining the relationship between the volume of advertising and total alcohol consumption. Since the late 1980s, several studies exploring the public’s perceptions of alcohol advertisements have also been conducted.

Although many theories suggest that the advertising of alcoholic beverages is likely to affect the public’s perceptions, attitudes and alcohol-related behaviour, the effects found in empirical studies have been weak. One reason for the meagre findings is that the impact of advertising, like the impact of any form of public communication, cannot easily be separated from other cultural, social and economic influences. Empirical studies have examined separate elements of the relationship between alcohol advertising and the public, and have tended to focus on the most direct effects. The need to measure alcohol advertising and advertising exposure has forced most researchers to concentrate on the most measurable types of advertising. Various forms of alcohol promotion such as sponsorship, advertising through products carrying brand names, product placement in media content and promotion in alcohol outlets have been excluded from the studies. In addition, such research has been weakened by methodological problems, some of which have been resolved in recent studies.

All theoretical frameworks used in alcohol education research are also applicable to the study of the individual-level effects of alcohol advertising. The more theoretical discussion about advertising effects has focused mainly on psychosocial theories and social learning \((17,33,37–39)\). The mediating processes of awareness, appreciation and interpretation have only recently been addressed in studies probing the public’s perceptions of alcohol advertisements, particularly of television commercials \((157,158)\). Television is considered a powerful medium by advertisers, researchers and policymakers, and this has led to restrictions on television advertising for alcohol. One reason for this is that television advertisements are virtually inescapable, compared with those in the print media, which require more activity from the user and provide more opportunities for selectivity.
Findings from studies examining the public's perceptions build a link between studies of individual-level effects and content analyses mapping the images and messages of alcohol advertisements. The findings indicate that recipients tend to see alcohol advertisements as attractive, pro-drinking, and about the pleasure and lifestyles attached to the products rather than about their qualities. These findings point to the narrowness of the view that the function of alcohol advertising is to provide consumers with information about the product (159). Although advertisements may to some extent be informative, they are to a much larger extent a form of social communication (50). The content of advertising has changed during this century from a focus on products and their characteristics and uses, to defining consumers as an integral part of the social meaning of the products. Since the 1970s, lifestyle advertising has been the dominant type. Modern advertisements communicate more about the meaning and desirability of the products, and about the social contexts in which they are used, than about the products themselves.

Most studies examining perceptions of alcohol advertisements have been conducted with children or adolescents. One reason for this appears to be the alcohol industry's - and especially the brewing industry's - marketing aimed at young drinkers (31,34,160,161). As tastes developed in early adulthood tend to be maintained in later years, the drinking habits and brand loyalties established in young people are of interest to advertisers. A cause of concern is that children and adolescents have been found to interpret alcohol advertisements as encouraging drinking (157,162).

The ability of children to analyse the content of alcohol advertisements has been found to increase with age (163,164). Children and adolescents may express scepticism about promotional messages in advertisements, but also accept product claims (165) or derive pleasure from advertisements (166). Teenagers may relate to television commercials as a programme type, and enjoy advertising in and for itself. It has been argued that a commercial can succeed in producing brand name familiarity precisely through its quality as a communication per se (167). There is, however, no indication that awareness of the commercial function of advertising would protect children from the influence of pro-drinking messages (158). Rather than a protective effect, recent findings suggest that exposure to alcohol advertising
Alcohol advertising may prime children and adolescents for a point later in their lives when alcohol becomes available and drinking is reinforced by other social influences.

As children tend to watch television extensively, television messages about alcohol have been seen to play a role in the development of their alcohol-related beliefs (158,168). Children begin to acquire knowledge about alcohol long before they have any experience of drinking. Young children tend to relate to alcohol in cognitive rather than affective terms (169). As children grow, the affective dimension increases in importance, and attitudes towards alcohol become increasingly negative. At about the age of 10 years, this trend is reversed, and during adolescence attitudes towards alcohol become more positive. Transition from late childhood to early adolescence is also the period in which involvement with alcohol begins. A survey conducted in 1990 in 12 European Community (EC) countries on children aged 11–15 years indicated that 61% had tried alcohol and 14% were regular drinkers (170). One out of four had first tried alcohol before the age of 11 years.

Important factors in children’s socialization to alcohol include parental and peer influence, and mass media messages about alcohol (158). While school-based alcohol education enters this process late and is delivered sporadically, exposure to alcohol advertising begins at an early age and is continuous.

As children approach adolescence, parental influence tends to decrease and peer influence to increase (17,165,169). While several studies on the long-term effects of exposure to alcohol advertising have controlled for peer influence, the mechanisms of peer influence or the sources of peers’ attitudes and behaviour have received little attention. It has been suggested that alcohol advertising may have an indirect influence, for instance, through peer opinion leaders (33,34). The theory of diffusion of innovations, which has been used in other areas of consumer research (171), appears not to have been applied in alcohol advertising research.

Macro-level research on the effects of alcohol advertising has been based on economic theories about the relationship between advertising and the demand for various products. The alcohol and advertising industries have taken the position that advertising affects
only market share and does not increase the overall consumption of alcoholic beverages (159). Although econometric research on alcohol advertising and consumption has not provided support for Galbraith's theory about a decisive impact of advertising on demand through the allocation of consumer expenditure between product categories (172), cumulative evidence shows that advertising has a small contributory impact on alcohol sales. Findings from recent studies, examining the impact of variations or changes in restrictions placed on alcohol advertising, suggest that advertising may reinforce or weaken overall trends in alcohol consumption (60,61). It is worth noting that the findings of econometric studies apply to the "mature" markets of those industrialized countries in which research has been carried out, and cannot be extrapolated to dynamic and non-saturated markets. An aspect that has been overlooked in econometric studies is the role of advertising in keeping the mature markets stable and saturated (34). From such a perspective, the main function of alcohol promotion would be to ensure that old consumers are replaced by new ones, and that educational interventions do not diminish alcohol consumption.

It has been emphasized that the indirect long-term influences of alcohol advertising on the cultural and social climate are likely to be more significant than the direct effects that have been traced in empirical research (42). The cultivation theory developed by Gerbner provides one framework for the examination of long-term effects (34,173). Empirical research on cultivation effects has focused mainly on television. The approach does not make a distinction between information, entertainment and advertising. It assumes that the most significant impact of the media stems from a steady flow of coherent and repetitive symbolic representations. Exposure to the mass media cultivates conceptions that conform to the media's symbolic reality rather than to social reality. Cultivation is a collective rather than an individual phenomenon, considered to result in a relative homogenization of assumptions and conceptions.

The mere existence of alcohol advertisements in major mass media and in a variety of everyday contexts communicates a legitimizing "meta-message" contributing to the social availability of alcoholic beverages (33,42). When advertisements bond together images of people, products and wellbeing, they draw from the surrounding culture, reformulating cultural models to suit the purpose of selling
alcoholic beverages (50). This selective process of appropriation and transformation amplifies and reinforces some cultural tendencies, and plays down others. Alcohol advertising represents drinking as a safe and problem-free practice, playing down the potential health risks and other negative consequences. These recurring representations shape perceptions of social norms and practices, and contribute to the maintenance and reinforcement of the position of alcohol in contemporary culture.

**Prevalence and Content of Alcohol Advertising**

Content analyses provide estimates for potential exposure to alcohol advertising, and show trends in the volume, placement and content of such advertising. Since the mid-1980s, the frequency and content of alcohol advertising in print and broadcast media have been studied, particularly in the United States. While many earlier studies carried out there were large-scale analyses intended to form a general view of alcohol advertising in the mass media, recent studies have been more focused. The areas that have been examined include advertising for alcoholic beverages in television sports programming (45), in college newspapers (161) and in a women's magazine (174). Other countries where content analyses have recently been carried out include Australia (175), Canada (176), Spain (Torres Hernández, M. et al., unpublished data, 1994) and the United Kingdom (46). Qualitative studies of themes and images employed in television beer commercials have been carried out in Finland (177) and the United States (178).

On network television in the United States, alcohol advertising concentrates markedly on sports programming. Data from the early 1990s indicated that, while 1.5% of commercials in prime-time programming were for alcohol, alcohol advertisements accounted for 7% of all commercials in sports programming (36). In a sample of network sports programmes covering almost two years, three out of four beverage commercials were for alcohol, most frequently for beer (45). It has been noted that, as the heaviest-drinking sections of the population are overrepresented among sports viewers, it is not surprising that the volume of alcohol advertising on sports programming is disproportionate (35). On the other hand, the exposure of children to beer commercials on American television has been found to occur primarily through sports programming and other weekend viewing (157). The visibility of alcohol advertising in American sports programming was found to be
even more marked when indirect advertising was taken into account (45). While commercials for alcoholic beverages occurred at a rate of 1.5 per hour, indirect advertising, such as visible on-site promotions or announcements of sponsorship, occurred 3.3 times per hour.

In Australia, Canada and the United Kingdom, the prevalence of alcohol advertising in television programming was examined in the mid-1980s. Alcohol advertising was found to be negligible in a sample of Canadian network television programming covering two weeks (176). In the United Kingdom, advertising for beer and wine accounted for 12% of commercials in a sample of programmes covering 10 weeks (46). Often, alcohol commercials were longer than other commercials, and shown first in a commercial break. Alcohol advertising was most prevalent in the early evening and in sports programming. Advertising for alcohol increased before Christmas: in the two-week period preceding the holiday period, 23% of commercials were for alcohol. It has been noted that in the Christmas period, promotion for alcohol also increases markedly in British magazines and newspapers (160).

A study conducted in Australia in the mid-1980s found beer and whisky to be the most advertised alcoholic beverages in regional television programming (175). Alcohol commercials were most prevalent in special programmes, and in sports and drama programmes. Beer predominated in sports programming. An examination of Australian newspapers and magazines, covering one year in the mid-1980s, indicated that publications with different readerships tended to carry advertisements for different types of beverage (175). Alcohol advertising was most frequent in expensive men's magazines. Daily papers and men's magazines tended to carry beer advertisements. Wine advertising was most prevalent in magazines aimed at both women and men, and virtually absent from the tabloid press. Advertisements for white wine and spirits were concentrated in magazines aimed at women.

An analysis of alcohol advertising in a magazine aimed at young women in the United States found alcohol to be the second largest advertisement category, preceded only by the combined category of food and clothes (174). A comparison of special health issues and of a random sample of ordinary issues published in 1983–1986 indicated that alcohol advertising occupied 21% more space in the health issues than in the ordinary issues.
Another study carried out in the United States compared alcohol advertising in two nationally representative samples of college newspapers, one dating back to the late 1970s and the other from the mid-1980s (161). Nearly all drinks advertisements were for beer. In the more recent sample, alcohol advertisements were more frequent in newspapers published on campuses with higher proportions of female students. Since the 1970s, the proportion of national advertising for alcoholic beverages had decreased and the proportion of local advertising for bars and taverns, frequently containing special offers or promoting “happy hours”, had increased. There was also an increase in indirect advertising for alcohol, such as sponsorship by breweries of sports pages and coverage of sponsored campus events.

Content analyses of alcohol advertisements carried out in the late 1970s and early 1980s showed that the appeals were in general based on desirable values, such as wealth, prestige and success. Recent studies have noted the same features (Torres Hernández, M. et al., unpublished data, 1994) but also that the prevalence of lifestyle advertising and the themes employed in advertisements vary across media channels and across beverage types.

In the case of the women’s magazine mentioned above, product-oriented advertisements were found to be the most common, followed by advertisements emphasizing sex and romance (174). Advertisements built on a health theme were frequent in the special health issues. The magazine also carried advertisements challenging traditional sex roles, such as by depicting women in baseball or jockey outfits. Of the unique beer commercials contained in American television sports programming, only 10% were product-oriented. Some of the beer commercials associated alcohol with situations and activities in which drinking is hazardous: 16% contained images of cars or other motor vehicles and 26% showed water sports or scenes with people in boats or near water (45). Themes of masculinity and challenge are characteristic of beer commercials (178). A semiotic analysis of two Finnish television beer commercials ostensibly promoting low-alcohol beer found that, although no excessive drinking was shown, intoxication played a central role in the stories (177). By getting high, the beer drinkers became true men, able to attain self-esteem, freedom and independence.
The relevance of content analyses to advertising effects research has sometimes been questioned. It has been suggested that the themes and meanings identified by researchers may not coincide with the public’s interpretations, let alone the advertising professionals’ views of their products (35). Recent studies examining the public’s perceptions of alcohol advertisements, however, suggest that the public’s views may not be too far from those of researchers.

The Public’s Perceptions

Studies focusing on perceptions of alcohol advertisements have been carried out since the late 1980s. The views of children and adolescents on television commercials have been studied in Canada (165,179), Israel (180), New Zealand (162), Scotland (163,164) and the United States (31,144,166,181). The perceptions of adults have received less attention (165,182), although some recent studies have focused on those of heavy drinkers (183,184). Most studies have utilized qualitative data collection methods, such as open-ended questioning, group discussions or individual interviews that give the participants an opportunity to use their own words and select their own priorities.

Alcohol advertising is often regarded as advertising at its best; television commercials especially tend to be stylish and entertaining. It is no wonder children pay attention to them, may mention alcohol commercials as their favourites, and be more familiar with them than with commercials for soft drinks (163,166). Children in California (166), Canada (179) and Scotland (164) have been found to appreciate alcohol commercials for features such as good music, bright colours, action, style and humour. In a study conducted with a sample of American junior and senior high school students, the features most commonly appreciated in alcohol advertisements included attractive people, and the fact that advertisements made drinking look like fun (144).

A large-scale study carried out in New York City, with close to 2800 children aged 11–12, indicated that 85% were able to recall an alcohol advertisement (181); of those who did, more than 90% were able to describe it and more than 60% also recalled the brand, usually a beer brand. The content features most frequently noted by the children were the drinking acts themselves: 38% described the people in the advertisements as drinking, holding drinks or asking for a drink. The most frequently cited types of people were sports figures, celebrities, models,
Alcohol advertising

actors and wealthy people. Those who used a single adjective to describe the people typically characterized them as rich. Although the people were predominantly seen as young adults, a small minority described them as teenagers or kids.

A study conducted with Glaswegian children aged 10–17 years found that drinkers tended to be more aware and appreciative of alcohol advertising than nondrinkers, and better at identifying brands in pictures of television commercials from which the brand names had been removed (164). The drinkers' greater awareness and appreciation of alcohol advertising was found to be independent of age, peer group drinking and perceived parental attitudes towards underage drinking.

Studies conducted with Scottish children have indicated that, with age, they become more aware of alcohol advertising, and more adept at analysing the content of alcohol commercials (163,164). While younger children tended to focus on what was shown in the commercials, those aged 14 years or more tended to give more complex descriptions: beer commercials were seen as promoting masculinity, sociability or working-class values, and commercials for drinks such as vermouth as portraying sociability, style or attractiveness.

The perceptions of children and adolescents and their evaluation of alcohol advertisements have been found to vary between the sexes (165,180) and cultural backgrounds. A study carried out in Israel on adolescents aged 15–18 years found that positive evaluations of newspaper and magazine alcohol advertisements were more predominant among Jews and Christians than among Druzes and Moslems (180). The study also compared adolescents’ perceptions of Israeli advertisements and those originating from nine other countries. While Israeli advertisements were seen as more positive than foreign ones, the latter were more often seen as portraying wealth and success.

Children's perceptions of indirect advertising for beer have been studied in New Zealand (162). At the time of the study only sponsorship and corporate image advertising by alcohol companies was allowed on New Zealand television. A corporate advertisement showing beer barrels in a wagon was perceived by boys aged 9–14 years as promoting beer and encouraging drinking. A sports sponsorship advertisement featuring a rugby team was less often perceived as promoting
Alcohol and the media

beer, and was associated with the brand rather than with beer as such. While beer advertising appears to be easily recognizable, advertisements for other beverages may create the wrong impression. A study carried out in the United States with young people aged 11–19 found that magazine advertisements for liqueurs were often believed to advertise food or non-alcoholic drinks (31).

A study carried out in Canada compared the evaluations of children (aged 12–16 years) and their parents of image-oriented and product-oriented magazine advertisements for alcohol (165). Both groups liked image-oriented advertisements more, and considered them more persuasive. An Australian study compared young adults’ perceptions of television commercials for alcoholic and non-alcoholic beverages (182). The commercials for beer, wine or spirits were perceived as utilizing themes such as friendship or relaxation, whereas commercials for soft drinks and mineral water were perceived as referring to the taste of the drink.

Findings regarding perceptions of alcohol advertisements confirm the overall view of alcohol advertising provided by content analyses: alcohol advertisements are generally seen as attractive, pro-drinking and more about the pleasures and lifestyles attached to the products than about their qualities. The degree of awareness and appreciation of alcohol advertisements may vary with age, sex, cultural background or familiarity with alcohol. Different types of advertisement may elicit different interpretations; while some are easily recognized as messages promoting alcohol, others may be misinterpreted. From the perspective of the potential effects of alcohol advertisements, awareness, appreciation and interpretation appear to be important mediators between the messages and individual responses.

**Experimental Studies**

The mediating processes of awareness, appreciation and interpretation have received little attention in experimental studies on individual-level, short-term effects of exposure to alcohol advertisements. Another major limitation of experimental studies is the brevity of people’s exposure to advertisements and the artificiality of the setting.

Repetition is a key principle of both effective advertising and effective alcohol education: a single exposure is not expected to have a
marked effect on beliefs or behaviour. It is not surprising, therefore, that experiments in which people have been exposed to a single set of alcohol advertisements have tended to produce meagre results. Children in the United States, who were ostensibly taking part in a memory test, watched a set of 40 videotaped television commercials including either five soft-drink commercials, five beer commercials or five beer commercials and two anti-alcohol spots (185); exposure to different commercials produced no differences in the children’s alcohol-related beliefs.

Most experiments have focused on the effects of advertising on the drinking behaviour of adults. Little attention has been paid to specifying the mechanisms that might underlie the stimulus-response relationship. The possibility of transitory stimulation effects has been discussed by Atkin (33). Television advertisements for alcohol may prompt favourably predisposed persons to have a drink or, if they are already drinking, to consume more than they had intended. The alcohol advertisement would act as a trigger that elevates awareness of the drinking option, as a reminder of the perceived benefits of drinking, or as a reinforcing or disinhibiting factor. In each case the effect would be based on previously learned attitudes or behaviour.

In recent experiments focusing on drinking behaviour, efforts have been made to simulate contexts in which people have the opportunity to drink and may be exposed to alcohol advertisements. Australian students aged 18–20 years were led to believe that they were participating in a study on television programmes (186). The students were exposed to 90 minutes of videotaped prime-time programmes, including 6, 12 or no alcohol (beer, wine or spirits) commercials. Beer, soft drinks and snacks were provided, ostensibly to make the television viewing situation natural. The viewing sessions were held at times at which college students were considered most likely to consume alcohol. The students who were exposed to six alcohol advertisements were found to consume more beer than those not exposed. Exposure to 12 alcohol advertisements did not, however, increase alcohol consumption. This was assumed to be due to a plateau effect, or to students limiting their alcohol consumption to be able to complete the task of rating the television programmes.

The researchers also examined whether the amounts of beer consumed by the students were related with their intentions to drive a car;
no relationships were found. The possibility of detecting significant effects appears to have been limited by the arrangements: the experiment took place in a residential college in a location from which the students were able to walk home. The researchers also noted that college students in general have limited access to cars, and tend to oppose drink-driving.

Some recent studies have focused on the responses of heavy drinkers to alcohol advertisements. An experimental study carried out in Canada examined the effects of exposure to alcohol commercials and alcohol use in television programmes on male alcohol users recruited from a detoxification unit and from an outpatient clinic (187). The interest in this group was based on previous research findings suggesting that people with excessive consumption, in contrast to normal drinkers, are more responsive to environmental than to internal alcohol-related stimuli. The ostensible purpose of the study was to evaluate a television fiction programme, shown to the subjects either with drinking scenes or with these scenes edited out, and including either beer, soft drink or food commercials. As it was not deemed ethically justifiable to assess effects on actual drinking, the study examined the subjects’ ability to resist the urge to drink in typical relapse situations, measured by a questionnaire completed before and after viewing the videotape.

The subjects who had a more severe drinking history were found to be significantly less confident in their ability to resist the urge to drink after viewing the programme with drinking scenes. Those who viewed the programme with drinking scenes and beer commercials were more confident than those who viewed the programme with drinking scenes only. No effects were found for beer commercials only. The findings were interpreted with reference to cognitive response theory. This theory suggests that, when faced with a persuasive message with which they disagree, people may knowingly argue against the message, thereby negating its effects. This would explain why beer commercials, readily identifiable as encouraging drinking, were not found to affect the subjects’ ability to resist the urge to drink. Counterarguments incited by the beer commercials may also have negated the effects of drinking portrayed in the programme. The researchers recommended that clinical
service providers prepare their clients to recognize the alcohol-
related cues in television programmes.

The perceptions of alcohol advertisements by heavy drinkers who
were recovering or in treatment have been explored in two interview
studies. In a study carried out in France, verbal responses to magazine
advertisements varied from resistance to yielding (183). In a study car-
ried out in New Zealand, using videotaped television commercials
(184), the responses were sometimes mixed: some advertisements were
considered enticing or well made but also offensive or intrusive. Nearly
all the New Zealand subjects reported that, at some stage of their cur-
rent sobriety, exposure to alcohol advertising had made it more difficult
for them to abstain from drinking. The findings from these studies, as
well as those from the Canadian experiment, suggest that participation
in treatment may contribute to the ability of heavy drinkers to cope with
the pro-drinking messages in alcohol advertisements.

The findings also point to the importance of studying the responses
of heavy drinkers who are not undergoing treatment. It has been sug-
gested that the effects of alcohol advertising are curvilinear with respect
to involvement with drinking (35). Non-drinkers who have little involve-
ment with alcoholic products would not be interested in or affected by
alcohol advertisements. At the opposite extreme, heavy drinkers striv-
ing for abstinence or moderation would be able to resist the appeal of
advertisements, at least if supported by treatment. The effects of alcohol
advertising would be greatest for drinkers, and thus possibly a factor
contributing to the maintenance of or increase in heavy drinking.

Survey Studies

The impact of long-term exposure to alcohol advertising is likely to be
more significant than the immediate effects that have been traced in
experimental studies. Most studies examining long-term effects have
been based on cross-sectional survey data. Exposure studies involve
both conceptual and methodological problems. One major problem in-
volves establishing a causal relationship between exposure to advertis-
ing and the observed effects on beliefs or behaviour, and determining
the direction of causality. It has been difficult to determine whether
subjects hold positive beliefs about alcohol because they have inadvert-
ently been exposed to alcohol advertising, or whether a positive pre-
disposition entails greater attentiveness to such advertising.
A second problem involves adequate measurement of long-term exposure to advertising. As it is virtually impossible to find control groups not exposed to alcohol advertising, comparisons have to be made between low- and high-exposure groups or individuals. The validity of exposure measures used in some earlier studies has been questioned (21,33,36,188,189). It has been argued that the media types and contents that have been considered have not been the most appropriate ones, that exposure to media content does not necessarily entail exposure to the accompanying advertisements, and that differences in attention and comprehension have been overlooked.

These problems have been solved in a recent study based on survey data from close to 500 Californian children aged 10–14 years (157). Advertising effects were conceptualized within the framework of an information processing model that – in line with the hierarchy of effects models – holds that advertisements may affect knowledge, beliefs and behaviour only if they are attended to and remembered. The level of awareness about alcohol advertising was thus considered a more crucial factor than the level of mere exposure. Awareness was measured by presenting the respondents with a series of still photographs taken from current television beer commercials, from which references to the advertised brands had been blacked out. Respondents were asked whether they had seen the commercials and whether they could identify the brands.

Self-reported viewing of televised sports events and of 18 prime-time fictional programmes was used to estimate exposure to alcohol commercials and other alcohol-related content. The selection of these crucial types of programming was based on information from long-term monitoring of alcohol-related television content. Awareness of beer advertising was associated with watching sports, weekend afternoon and evening viewing, and exposure to fictional programmes portraying alcohol use.

Non-recursive modelling techniques were used to estimate the effects of awareness on knowledge and beliefs about alcohol and on intentions to drink as an adult, and the simultaneous effects of these variables on awareness. The findings indicated that, while alcohol-related knowledge and beliefs increased awareness of alcohol advertising, this effect was weaker than the influence of awareness on knowledge and beliefs. An increase in positive beliefs was found to be linked
Alcohol advertising to an increase in the intention to drink as an adult. These effects were maintained even when differences in perceived parental and peer attitudes and drinking behaviour, and the effects of beliefs and knowledge on awareness, were controlled for. As most of the children had never had a whole drink, it was not possible to examine any effects on actual drinking behaviour. The study was the baseline of a longitudinal survey, and behavioural effects will be addressed as the population ages.

So far only one longitudinal study, carried out in New Zealand, has been reported (47). Survey data gathered from some 670 young people was used to examine associations between recall of alcohol advertising and other media alcohol content at 13 and 15 years of age, and alcohol consumption at 18 years. Recall was measured by asking the respondents, without specifying any period, whether they had seen or heard anything about alcohol in the mass media. As advertisements for beer accounted for more of the commercial messages recalled by males than of those recalled by females, and as the drinking patterns of males and females tend to differ, analyses were conducted separately for females and males and for the consumption of beer and other drinks.

While no relationships were found between the recall of alcohol advertisements and the consumption of wine or spirits, a consistent relationship was found between recall of alcohol advertisements and beer drinking among males. Those who had recalled more advertisements at the age of 15 drank larger quantities of beer at the age of 18. The association was still apparent when living conditions, occupation and perceived peer approval of drinking were taken into account.

Econometric Studies

Macro-level effects of alcohol advertising on total consumption have been examined in econometric studies utilizing time series data. These studies typically involve the construction and testing of economic models. The aim is to isolate advertising effects, controlling for other factors influencing alcohol consumption such as prices and income. The volume of advertising has usually been measured by expenditure, and the volume of consumption by alcohol sales. The time series have typically covered a period of some 20 years. While earlier econometric analyses were based on a single equation approach, in which advertising and sales are examined separately for each beverage type, several
studies conducted after the mid-1980s have used demand system models that allow the examination of cross-beverage effects, and of the simultaneous effects of sales on advertising. Some studies have merely examined trends in alcohol advertising and consumption, or focused on the effects of restrictions placed on alcohol advertising.

Studies examining the relationships between alcohol advertising and consumption have recently been carried out in Australia (190), Finland (49), the United Kingdom (191,192) and the United States (193,194). A general conclusion that can be drawn is that, in these mature markets, the impact of advertising on alcohol sales is modest. It has been noted that, as the marginal returns on advertising expenditure are likely to be diminishing in such contexts, econometric studies are not likely to show clear relationships between advertising and consumption (195). Formulating more detailed conclusions, or making comparisons across different countries or periods, is also difficult. The sets of variables included, as well as their measurement, vary between studies. Differences in the underlying theoretical models are accompanied by differences in the assumptions and analytical procedures involved in the construction of economic models.

The complex process of economic modelling involves a number of methodological problems (15,19,20). An initial problem is the difficulty of obtaining sufficient and reliable data on alcohol advertising and sales, and on crucial control variables. As the available data have been restricted to print and broadcast advertising, all other forms of alcohol promotion have been excluded from the studies. Other problems include measurement of the advertising and sales and consumption variables. Views differ as to whether advertising should be measured in terms of expenditure or exposure, whether sales should be measured in terms of expenditure or pure alcohol quantity, and whether the sales of different beverage types should be aggregated to form a total picture of consumption. Different procedures have been used to control for the long-term effects of advertising, or for seasonal fluctuations in advertising and sales.

The available data are usually aggregated over the whole population, and may hide important differences across population subgroups in both advertising exposure and alcohol consumption patterns. Aggregate advertising volume data do not adequately reflect the common
practices of marketing that involve sending different messages through different channels to different groups of the population. Aggregate changes in alcohol consumption may hide changes in the consumption patterns of population subgroups, for instance, differences between young people and adults, or between light and heavy drinkers. It has been noted that, as the standard econometric approaches do not take into account the effect of habits on consumption, they are not well suited to examining the consumption of addictive substances (15).

As the estimated models have been based on continuous time series and limited variations in advertising and consumption data, they are not suited for predicting the effects of substantial cuts in advertising expenditure that might result, for instance, from drastic changes in alcohol advertising policies. Researchers have had the opportunity to assess how the introduction or withdrawal of an advertising ban affects alcohol sales in only a few cases. Studies conducted in two separate provinces of Canada in the 1970s found that the introduction of an advertising ban had only a small impact on alcohol sales (196, 197). Both bans were of limited duration, and were unable to control advertising coming through national or international media.

A recent Canadian study examined the effects of the abolition of a ban that had been in place in the province of Saskatchewan for more than 50 years (60). The ban had prohibited print and broadcast alcohol advertising, except for advertising originating outside the province. In 1983 advertising for spirits was allowed in the print media, and advertising for beer and wine in the broadcast media. A study using time series data for 1981-1987 and data from a comparison province indicated that the change in legislation was followed by a significant and permanent increase in the sales of beer, the most popular type of beverage. The sales of spirits decreased significantly, which was seen to suggest a substitution effect. The changes in wine sales and total sales were insignificant. The researchers concluded that a major function of advertising had been to slow a prevailing downward trend in alcohol consumption and, in this sense, the introduction of advertising had contributed positively to alcohol sales.

In some studies carried out in the United States in the early 1980s, pooled time series and cross-sectional data were used to examine relationships between advertising restrictions and alcohol sales.
The results indicated that some restrictions did have measurable effects on alcohol sales. Although alcohol advertising was prohibited in some states during the period covered by the studies, the variation in state controls of alcohol advertising was limited.

On the international level, the differences are more clear cut. In a cross-national study, time series data from 17 OECD countries for the period 1970–1983 were used to examine the effects of restrictions on broadcast alcohol advertising. Analyses were conducted separately for three groups of countries: those with a ban on beer, wine and spirits advertising, those with a ban on spirits advertising only and those with no ban on alcohol advertising in the broadcast media.

Three dependent variables were used in the analyses: alcohol consumption per head, liver cirrhosis mortality and motor vehicle fatality rate. The dependent variables were lowest in those countries prohibiting all broadcast advertising for alcohol, and highest in countries permitting advertising for all beverage types. Alcohol consumption increased in all countries, but the increase was lowest in those with the most restrictive advertising policies. Motor vehicle fatality rates also decreased most markedly in countries with the most restrictive advertising policies. No significant changes were observed in liver cirrhosis mortality. The conclusion drawn was that the advertising bans contributed significantly to a reduction in total alcohol consumption and motor vehicle fatality rates.

Cross-national studies involve specific problems related to the reliability and comparability of available data, as well as to cultural and political differences. Bans on alcohol advertising are more likely to exist where alcohol in general is more strictly controlled. The differences across the 17 OECD countries may thus reflect not only differences in advertising policies but also broader cultural and political differences.

CONTROLLING ALCOHOL ADVERTISING

In most Western countries, the advertising of alcoholic beverages is regulated in some way. The main regulatory instruments are legislation and voluntary codes established by the alcohol, advertising or
Alcohol advertising

Many national control systems are mixtures of laws governing some advertising channels, and voluntary controls guiding the use of others. Since the 1980s, alcohol advertising controls have been the subject of ongoing debate, with public health advocates arguing for stricter legislative controls and the alcohol, advertising and media industries urging self-regulation. As a result, the control systems have been in a state of flux: new controls have been introduced, and revisions have been made to fill gaps and to adapt the controls to technological, economic or political changes. The trend has been towards stricter rather than more lenient controls, with a few exceptions such as Finland and New Zealand.

In Italy, calls for stricter controls have been raised repeatedly since the late 1980s. The Italian control system was based on a self-regulatory code issued by the advertising industry in the 1960s. In the period 1966–1985, alcohol advertisements accounted for fewer than 4% of the cases treated by the jury appointed to consider infringements (201). In over half of these cases – twice as often as in cases relating to other products – the jury found no violation of the code.

Legislative restrictions were introduced in Italy in the early 1990s, when the content of alcohol advertisements was limited by a law modelled after the alcohol advertising guidelines of the television directive of the EC. As the provisions of the law are almost the same as those of the self-regulatory code, legislation is unlikely to have had a marked effect on advertising practices. Public discussion about alcohol advertising has continued: in 1992–1993, parliament members made half a dozen proposals to ban or restrict alcohol advertising by law (202). One participant in the debate has been a public interest group, founded in 1987 to advocate a ban on alcohol advertising. The group has drawn up its own proposal for an alcohol advertising law, and taken part in the public debate through articles, publications and open letters to key figures (203).

**Self-regulation**

Self-regulation by the alcohol, advertising or media industries focuses not on the volume of alcohol advertising but on its content, on targeting, or on the use of certain media channels. Self-regulatory systems include councils responsible for issuing guidelines for advertisers, arbitration procedures and sometimes pre-clearance procedures.
Compliance with the guidelines is voluntary. Instruments for enforcement often consist of verbal condemnations, usable only against members of the code-establishing trade associations. Self-imposed codes usually apply to domestic trade and media, but do not limit the marketing tactics used in export business.

The provisions of alcohol advertising codes vary across countries, often across media channels and sometimes across beverage types. Certain basic elements can be found in most codes, including the alcohol advertising guidelines of the EC television directive. A source of commonalities has been the code of ethics of the International Federation of Wines and Spirits, an international alcohol industry organization established in the 1950s.

**The United States**

In the United States, each branch of the alcohol industry has its own code of practice. The Wine Institute, whose members account for some 60% of wine sold in the country, introduced its code in the 1970s. The Distilled Spirits Council (DISCUS) issued a code of good practice in 1983, and the Brewers’ Association, a set of advertising guidelines in 1984. A study conducted in the late 1980s found that advertising professionals involved in beer advertising tended not to know the relevant guidelines (34). Complaints about spirits advertisements are treated by a review board, whose authority does not extend beyond communicating its views to the responsible advertisers. Advertisements for spirits were kept off national radio and television by the National Association of Broadcasters (NAB) code until 1982, when the code was struck down by a court decision because of violation of anti-trust laws. Even during its existence, the code did not prevent spirits commercials from being aired, for instance, on Spanish-language channels (32). Since the elimination of the NAB code, the DISCUS code has prevented spirits manufacturers from advertising on national radio and television. A notable deviation from the voluntary ban was an “equivalency campaign” run by a spirits manufacturer in the mid-1980s (204,205). The message of the campaign, entitled “It’s time America knew the facts about drinking”, was that the normal servings of beer, wine and spirits contain the same amount of alcohol. As the spirits market was declining, the campaign was suspected to be an effort to regain lost market share. Fearing that the
campaign might add fuel to pro-regulation sentiments, the three major television networks refused to carry the spots. They were, however, aired on several cable networks.

**The Netherlands**

In the Netherlands, self-regulation of alcohol advertising was introduced in the late 1970s (Putman Cramer, P., unpublished data, 1989). The system is based on a single code of conduct issued by STIVA, an organization representing producers and importers of beer, wine and spirits, as well as the retail, hotel and catering industries. In the mid-1980s, a government alcohol policy programme endorsed a legislative ban on alcohol advertising; parliament, however, opted for self-regulation. A revised and extended code was agreed on by the industry and the government in 1989 (206). An Advertising Code Commission and a Board of Appeal are responsible for arbitration, and may impose financial penalties for infringements. The publication or broadcasting of advertisements found to violate the code can be stopped, irrespective of any appeal. The revised code follows the same lines as other self-regulatory codes, but also contains some less commonly found provisions. As advertising may not aim at increasing alcohol consumption as such, generic advertising for alcoholic beverage types is prohibited. The code requires that 40% of television commercials, and all commercials shown in sports programming, on video or in cinemas, contain a slogan promoting moderation that is visible for at least three seconds. Advertising is prohibited in publications read mainly by minors, in television and radio programmes watched or listened to mainly by minors, in cinemas during children's matinees, and in establishments mainly intended for meetings by minors. Outdoor advertisements may not be placed in sight of educational establishments mainly attended by minors, or in sight of alcohol rehabilitation clinics. The code also advises caution in product sampling and sponsorship, and against linking advertising to motor racing events. According to a statement of intent, restraint will be observed in advertising alcoholic drinks through products not connected to the alcohol industry. In Spain, for instance, where television advertising for drinks containing more than 20% alcohol was banned by law in 1988, spirits producers have used both non-alcoholic products and sponsorship of sports and cultural events to circumvent the ban. Television commercials have been run for non-alcoholic beverages,
cocktail sticks and snack nuts carrying the same names and logos as brands of spirits (Torres Hernandez, M. et al., unpublished data, 1994).

The United Kingdom

In the United Kingdom the self-regulatory system is based on several codes of practice governing different media (19,20,160,207). Voluntary agreements to restrain certain types of alcohol advertising are often introduced as a protective measure to block attempts at legislative restrictions. Both the revision of the Dutch alcohol advertising code and the development of advertising codes by the different branches of the alcohol industry in the United States occurred under a threat of government regulation. In the United Kingdom, too, a code of advertising practice applying to non-broadcast media was drawn up in the mid-1970s by the Advertising Standards Authority (ASA) – an organization funded by advertising agencies, media organizations and major advertisers – to prove that no outside regulation was needed. Rules for broadcast advertising of alcoholic drinks, developed by the Independent Broadcasting Authority (IBA), have existed since the beginning of independent television in the 1950s. At that time, the major spirits producers decided to refrain from television advertising; the decision saved money and limited competition (208). In 1995, however, the ban was lifted and spirits advertising was introduced on British television. It was suggested in the press that the main reason for this change was a long-term decline in spirits sales.

Since the late 1980s, calls for more effective regulation have been raised repeatedly, and opposed by the alcohol, advertising and media industries through coordinated campaigning. In 1988 the ASA and IBA codes were revised in response to a request by the government. Voluntary codes tend to be loosely worded and leave scope for different interpretations. Many revisions made to the British codes sought to clarify what features of advertising content were considered inappropriate. Some of the new provisions seem, however, to have increased rather than decreased the possibility of different interpretations, such as the IBA code’s prohibition of the use of humour to get past other content requirements. Drinks containing less than 1.2% alcohol fall outside the revised IBA regulations, except where the low alcohol content is not apparent or where it appears that a significant purpose of the advertisement is to promote a brand of alcoholic drink.
During the 1980s, separate codes were developed for cable television and videotex (19). The codes differ more in their method of enforcement than in their content. Some codes have a quasi-legal status, as the relevant authorities have a legal duty to consider complaints. The ultimate sanction for breaching the cable code is revocation of the licence to broadcast. Videotex (19) services, on the other hand, have been considered an area where enforcement of statutory controls would be difficult, as there may be no permanent record of messages transmitted through the system. The cable code also applies to satellite transmissions relayed by cable operators. Through the cable code, the voluntary ban on television spirits advertising, while it existed, affected international alcohol advertising practices: for example, Super Channel, distributed through cable in the United Kingdom, limited spirits advertising because of the British rules (209).

Sponsorship by alcohol companies falls outside the British self-regulatory system. As the alcohol industry plays a major role in the sponsorship of sports, attempts to restrict sponsorship have been opposed by British sports organizations. The voluntary codes do not limit the association of alcohol and sports; the ASA code only advises advertisers to avoid implying that sporting performance is related to alcohol consumption.

Functioning of self-regulation

There has been considerable controversy in the United Kingdom about the effectiveness of the self-regulatory system (19). The debate has been difficult to resolve as there is little alcohol-specific evidence relating to the functioning of the system. The IBA code is accompanied by a two-step pre-clearance system. In 1986, more than 20,000 scripts for radio or television commercials were examined; 22% were considered to require revision. Of the finished tapes submitted for clearance, only 4% required changes. In the same year the IBA received 3500 complaints, of which only 15 were upheld (160).

Similar observations have been made in Canada, where broadcast alcohol advertising is subject to the Canadian Radio-Television and Telecommunications Commission (CRTC) code. Advertisements are pre-examined as scripts that give only a vague idea of the finished audiovisual product. In peak periods the copy clearance committee may assess hundreds of scripts per day. As a result, a large proportion...
of alcohol commercials have been found to breach the code or to be on the borderline (Anderson, J., unpublished data, 1989).

The British ASA code governs outdoor alcohol advertising as well as advertising in the print media, in cinemas and on videotape. The ASA monitors print advertising by analysing samples of publications, and by conducting spot checks on certain products such as alcoholic drinks. In 1986, of 550 alcohol advertisements scrutinized only 1 caused concern. In 1986, the committee appointed to consider complaints received more than 7800, of which 32% were investigated; the most common reason for rejection was that no breach of the code was apparent. When non-compliance is observed (19 cases in 1986) the committee issues a notice asking publishers not to carry the advertisement (160). In the cinema business, where alcohol accounts for almost one third of advertising revenue, an advertising preview system has been established by the Cinema Advertisers' Association to ensure compliance with the ASA code (209).

In the Australian system of self-regulation, modelled on the British system, the main body responsible for issuing advertising guidelines, interpreting them and arbitrating complaints is the Advertising Standards Council (ASC), funded by advertisers and the advertising industry. During the past few years, observance of the code has been questioned and pressures for introducing stricter controls have increased (210). In a study looking into the functioning of the arbitration procedure, representatives of the general public rated 16 printed and televised advertisements using a questionnaire based directly on the ASC code (211). All advertisements were found to contravene the code in some way, and complaints about them were made to the Council. The average response time was long, suggesting that a non-compliant television commercial could be run 2–3 months and reach a wide audience before removal. Eventually only one complaint was upheld by the Council – and another one was mislaid.

Legislation

While self-imposed codes of advertising practice usually focus on the content of alcohol advertisements, legislative restrictions typically limit the use of certain advertising channels, most commonly television. Legislative restrictions exist at the local level (for instance, in the United States where outdoor advertising often falls under the authority
of local officials), at the regional level (for instance, in Spain where several autonomous regions have their own alcohol advertising laws) and most commonly at the national level. In countries such as Canada and the United States, alcohol advertising is governed by both federal regulations and the legislation of states or provinces.

The United States

In the United States, alcohol advertising controls are based on a combination of self-regulation, federal and state legislation, and judicial rulings. The responsibility for regulating alcohol advertising at the federal level is shared by the Federal Trade Commission (FTC) and the Department of the Treasury’s Bureau of Alcohol, Tobacco and Firearms (BATF). The BATF regulations forbid, for instance, false and misleading statements and depictions of athletes drinking alcohol. Despite hundreds of petitions from the public, FTC and BATF have been reluctant to place strict controls on alcohol advertising (34). Alcohol advertising is also governed by the laws of individual states. Significant legislative restrictions exist in five. Massachusetts has restricted spirits advertising since the mid-1970s, and in the other four states the legal restrictions date from the 1980s. Utah, for instance, prohibits all spirits advertising except for one sign per store. Many states and cities have administrative regulations on the placement and content of signs advertising alcoholic drinks (63).

Calls for more stringent restrictions increased throughout the 1980s. A federal ban on alcohol advertising was advocated repeatedly at congressional hearings, and supported by medical and public health organizations. In 1989, a range of measures to curb alcohol consumption and drink-driving was proposed to the Senate by the Surgeon General, based on the conclusions of an expert workshop (212). The measures included reducing the number of alcohol advertisements to a level equal to the number of health and safety messages, and restricting certain types of advertising appealing to minors.

The alcohol industry responded by introducing self-regulation, by running public education campaigns and by claiming that legislative restrictions would violate the freedom of speech guaranteed by the first amendment to the Constitution. For most of the country’s history, however, commercial speech has been considered to lie outside the first amendment. It was not until the mid-1970s that a Supreme
Court decision, relating to disclosure of prices in prescription drug advertisements, extended the protection of the first amendment to commercial speech to help consumers in making decisions. In another case dating from 1980, the Supreme Court recognized that commercial speech can be restricted, and developed a four-part evaluation test. Commercial speech is considered protected only if it concerns a lawful activity and is not false or misleading. Restrictions can be placed on protected commercial speech if a substantial government interest is involved, if the restrictions directly advance the government interest, and if they are not more extensive than is necessary to serve the interest.

The test has been used by courts at all levels in cases involving regulation of advertising. In the mid-1980s the test was applied to a Mississippi law that banned broadcast, print and outdoor advertising for spirits, except in broadcasts and publications originating outside the state. A federal court considered that the state interest in safeguarding public health by controlling alcohol advertising was substantial, that sufficient reasons existed to believe that advertising and consumption were linked, and that the restrictions were not broader than necessary. The court also based its ruling on the twenty-first amendment to the Constitution, dating from the repeal of Prohibition, giving individual states complete power to regulate alcohol. The rationale, confirmed in the mid-1980s in another court case, was that the greater power of states to regulate products or activities deemed harmful, such as alcohol, also included the lesser power to ban advertising (62,63).

Since the 1980s a variety of groups and organizations have advocated stricter controls on alcohol advertising. In the mid-1980s a coalition of some 25 public interest groups, working under the project name SMART (Stop Marketing Alcohol on Radio and Television), ran a national campaign to ban alcohol advertising from the broadcast media (34). Although the objective was not achieved – the effort met with counter-campaigning by the alcohol and media industries – the possibility of a federal restriction on broadcast alcohol advertising has remained. Project SMART later shifted its tactics towards counter-advertising. The aim of counter-advertising is to place issues such as alcohol advertising in a social and political context, by drawing attention to the industry’s and society’s role in creating an environment where alcohol-related problems are likely to occur, and by highlighting structural approaches to prevention (67). Citizens’ groups have also
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successfully brought pressure to bear on BATF to enforce existing federal regulations, for example, when advertising campaigns for malt liquor have been built on the drink's high alcohol concentration (73).

Another line of citizens' activity has aimed at changing the industry's advertising codes. A recent project aims to eliminate alcohol advertisements that portray women as objects and trivialize violence against women (213). The issue of sexism in alcohol advertisements has also been raised in Canada. In the early 1990s, spirits manufacturers claimed access to television, arguing that the CRTC code infringed their freedom of expression. The claim started a political process that might have led to a ban on alcohol advertising on television, but eventually resulted in not much more than a condemnation of sexist alcohol advertisements. The issue of sexism, raised initially by pressure groups, received more attention from the press than the issue of banning alcohol advertising (Giesbrecht, N. & Goodstadt, M., unpublished data. 1992).

The European Union

The European Union (EU) has tended to consider alcoholic beverages as one product among many, although the prevention of alcohol problems has been adopted as a policy objective at the level of recommendations. Social and health policies have for the most part remained within the competence of the member states. Recently, the protection of public health was recognized in Article 129 of the Maastricht Treaty as a constituent part of EU policy. The Article provides a legal basis for health promotion measures, and also requires public health issues to be considered in other policy areas. The Article also states that action shall be directed towards prevention of diseases, including drug dependence. The Article has been in effect for less than two years, and has not yet been translated into action (214).

Provisions concerning alcohol advertising are few. EC Directive 89/552 on cross-frontier television transmission gives broadcasters unrestricted rights to transmit to other countries, but places restrictions on television advertising. The Directive prohibits tobacco advertising, but only provides guidelines for alcohol advertising. Alcohol commercials may not be aimed at minors or depict minors consuming alcoholic drinks. Commercials may not link drinking to driving or to enhanced physical performance. They may not claim that alcohol has therapeutic qualities or that it is a stimulant, a
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sedative or a means of resolving personal conflicts. Commercials may not encourage immoderate consumption, present moderation or abstinence in a negative light, or create the impression that the consumption of alcohol contributes to social or sexual success. The alcoholic content of beverages may not be emphasized as a positive quality. These guidelines, far less extensive than the self-regulatory codes that exist in the Netherlands or the United Kingdom, for example, set only minimum standards to protect consumers from inappropriate advertising. The member states are free to impose stricter regulations on alcohol advertising in national television programming; the Directive only prevents the blocking of television programmes from other member states.

Member states may also impose bans on national alcohol advertising, provided they do not unduly hinder trade within the EU. According to the provisions of the Treaty of Rome, measures that may hamper the free movement of goods – such as restrictions on alcohol advertising – can be justified if they are essential for the protection of consumers or public health. The European Court of Justice has developed a four-part test – resembling to some extent that used in the United States – to evaluate the scope, content and effects of restrictive measures. Restrictions may be justified if the product in question is likely to bring about an eventual danger. The measures need to be suitable for removing the danger, non-economic in nature, and the least restrictive possible. Further, the Court’s rulings require that the restrictive measures should be part of a consistent social policy, that they should apply to domestic and imported products alike and that they should not block all methods of marketing. In 1980, the Court condemned a French law that prohibited the advertising of spirits except for certain beverages, including cognac, because it had the effect of discriminating against imported products. In 1990, the autonomous region of Catalonia in Spain banned the advertising of spirits containing more than 23% alcohol in locally produced publications, cinemas, sports facilities, public transport and various other places. In its ruling on the Catalonian ban, the Court confirmed that restrictions on alcohol advertising contributed to the protection of public health. The restrictions were found to be acceptable because they were aimed at protecting specific groups such as young people, they applied to a specified group of beverages, and they did not prohibit all advertising for these beverages (215).
France

Within the EU, France has long used legislation to regulate alcohol advertising (216). Advertisements for alcoholic drinks were banned from publications for children in 1949. In 1955, the advertising of certain types of spirits was restricted in all media. Based on the rationale that drinks habitually consumed as aperitifs would be more unhealthy than those consumed as digestifs, the law made an exception for the latter, including cognac. In 1980, the European Court of Justice found the law discriminatory (although the objective of protecting public health as such was found justified) and France was forced to liberalize its advertising policy. During the 1980s, alcohol advertising increased rapidly: expenditure almost tripled from 1981 to 1988 (217). Television advertising for alcohol continued to be prohibited until 1985, when advertising for beverages with under 9% alcohol was allowed by decree, to provide a source of revenue for newly established private television channels. This liberalization intensified public debate and increased pressure for a tighter advertising policy. In 1987, parliament passed a law – known as the Barzach Law – banning alcohol advertising from television and restricting sponsorship. The content of advertisements permitted in other media was limited in the same manner as in many self-regulatory codes. The permitted advertisements were required to carry a slogan promoting moderation. The new law was not successful in reducing the volume of alcohol advertising: advertising expenditure continued to increase, shifting from television to outdoor and print advertising (217).

In 1991 the Barzach Law was replaced by a more extensive and detailed law known as the Evin Law (218,219). With this governing the marketing of beverages with over 1.2% alcohol, the alcohol advertising policy of France became the most restrictive in the EU. The provisions came into effect gradually over a period of three years. The Law prohibits advertising that targets young people, all advertising on television and in cinemas, and all sponsorship of sports. Advertising is permitted in publications for adults, and on radio in specified time slots. Only product advertising is allowed: advertisements may present information about the alcoholic content of the beverage, its origin and composition, methods of production, modes of consumption and availability. Advertisements are required to carry a message to the effect that overuse of alcohol is dangerous to health. Restrictions have been placed on the promotion of alcohol through
direct mail, at points of sale or production, and during specific events such as wine fairs. The use of names and symbols referring to alcoholic drinks in the advertising of non-alcoholic products or services is prohibited. Sponsorship of cultural events is allowed but only the name of the producer – which may not resemble a brand name – may be discreetly shown on tickets and promotional publications.

Advertisements violating the Evin Law can be removed immediately and irrespective of any court appeal. The financial penalty can amount to 50% of expenditure on the unlawful publicity. If the offence is repeated, sales of the product can be suspended for five years.

Although the Evin Law seems very detailed, it has provided scope for different interpretations. The French legislative system relies on decrees and amendments to specify what is meant by the principles established in the acts. The provisions concerning outdoor advertising have been one source of controversy (220). Outdoor advertising was initially meant to be allowed only in "production zones", a definition of which was expected to be given by a decree. As no such decree was issued, the regulations concerning outdoor advertising were tried in several court cases that resulted in a series of contradictory rulings. In 1994, parliament resolved the matter by passing an amendment that allowed outdoor advertising of alcohol in the whole country. Similar confusion has arisen about the appeals and images that may be used in advertisements, and about the practice of sponsorship (221).

No proper evaluation of the effects of the Evin Law has yet been conducted. The restrictions may have contributed to some reduction in alcohol advertising expenditure. In 1991, expenditure dropped by 13%; during the next year it increased by 4% but remained under the 1990 level (222).

No research has been conducted into the effects of the health messages that alcohol advertisements are required to carry in France. Experimental studies conducted in the United States suggest that, to attract and hold the reader's attention, a health message inserted in a printed advertisement would need to be highly conspicuous and, in a television commercial, it would need to be presented in a combined audiovisual format (223,224). It is unclear whether a health message inserted in an advertisement has the ability to undermine the commercial message, or
vice versa. The effectiveness of health warnings placed on alcoholic drink bottles and cans has been extensively researched in the United States, where a federal law has required all containers to carry warning labels since 1989. Although the public’s awareness of the existence of the warnings is high, there is little evidence of effects on knowledge about health, or on risk-related behaviour (225). Some findings suggest that, to discourage people from buying or drinking a product, the warning label would need to use words such as poison or cancer (226,227). Although the warning label policy has received wide support from the public, the findings of a recent study suggest that among at least one subgroup – those who drink and drive – increased use of such policy tools may generate a public opinion backlash (228).

The gradual tightening of alcohol advertising policy in France did not happen by itself. The Evin Law followed more than ten years of public debate, public campaigning and advocacy. While the advertising and media industries promoted self-regulation, legislative restrictions were advocated by public interest groups led by five medical doctors. The alcohol industry’s role in the debate was limited by the lack of a strong lobbying organization. In contrast, the public health advocates were well organized and able to take advantage of political shifts, and of boosts of media interest (66). Authoritative bodies, such as the National Academy of Medicine and the National Academy of Sciences, and thousands of individual members of the medical and scientific communities endorsed legislative restrictions. The process of building support for a restrictive advertising policy was reinforced by the publication of opinion polls showing that well over half of the population favoured legislative controls (229).

Finland

In Finland, too, alcohol advertising has long been restricted by legislation. The first restrictions on the content of alcohol advertisements were issued in conjunction with the repeal of prohibition in 1934. For about 60 years, most revisions that were made had the effect of tightening advertising controls. In 1977 parliament passed a bill banning nearly all sponsorship and advertising for beverages containing more than 2.8% alcohol. Advertising was allowed in restaurant trade magazines, but even in these publications the placement, size and content of advertisements was restricted: imagery was limited to a bottle and a drinking vessel, and the text to a description of the product’s alcoholic content,
ingredients, type, origin and uses. Before the ban, alcohol advertising in all print media had been subject to similar restrictions for a period of five years.

Advertising for beer containing less than 2.8% alcohol, not included within the definition of alcoholic beverage, fell outside the ban. As the only requirement concerning low-alcohol beer advertising was that advertisements carry the sign “L”, standing for the low-alcohol category, this provided the breweries with a convenient way of promoting ordinary-strength beers produced under the same brand names. Compared with the sales, advertising of low-alcohol beer has been disproportionate: in the late 1980s advertising expenditure equalled 20% of the value of sales (49). A survey conducted in the late 1980s indicated that more than 80% of adult respondents interpreted low-alcohol beer advertisements as promoting stronger beers (230). According to another survey from the same period, more than 50% of people aged 12–18 years recalled having recently seen an alcohol advertisement – most often a beer advertisement, and most often on television (48).

The relationship between expenditure on regular and low-alcohol beer advertising and alcohol sales was examined in a study using time series data for the years 1969–1987 (49). The results indicated a significant long-term positive relationship between beer advertising and the sales of medium-strength beer, the most readily available beer type sold in nearly all grocery stores and cafés. Since the late 1980s, the market share of medium-strength beer has continued to increase, currently accounting for about half of total consumption.

During the past few years, several committees have considered revisions of the Finnish alcohol advertising regulations. In 1989, a proposal was made to allow advertising for beverages containing under 14% alcohol in the adult press for a five-year trial period, provided the advertisements carried a health warning covering at least one third of the surface area. In 1993, another committee proposed the ban be extended to products containing more than 1.2% alcohol. The same position was taken in the proposal for a new alcohol act in 1994, when Finland was preparing to join the EU. The political process led, however, to a radical liberalization of advertising controls. Parliament passed a law that allowed advertising for beverages containing less than 22% alcohol in all media; the law came into effect on 1 January 1995.
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Some restrictions, modelled on the guidelines of the EC television directive, were placed on the content of advertisements. To enforce compliance, the authorities were given the right to issue instructions, to set a time limit for the correction of non-compliant advertisements and to use financial penalties if corrections were not made.

Although the liberalization of the alcohol advertising policy occurred in conjunction with the adaptation of the Finnish alcohol legislation to the requirements of the EU, it was due to domestic rather than foreign pressures. From the perspective of EU policies, a ban on alcohol advertising based on the rationale of protecting public health could have been justified, provided it did not discriminate against foreign alcohol producers. The main problem with the Finnish system was the practice of low-alcohol beer advertising that gave an advantage to the domestic breweries with low-alcohol brands on the market. Setting the limit at 1.2% alcohol, while continuing the advertising ban, would have removed that loophole.

Judicial or sociopolitical considerations seem, however, to have played but a small role in parliament’s decisions. Combined with other changes reducing the prices of alcoholic beverages and increasing their availability, the almost unconditional relaxation of alcohol advertising is likely to contribute to a reversal of the declining trend in alcohol consumption. Parliament’s decision to adopt the EC television directive’s minimum guidelines for alcohol advertising, and to apply them to all advertising channels, has resulted in regulations that are not easily enforceable. The relevant authorities have hastily tried to work out more detailed instructions for advertisers, but lack the resources for any systematic monitoring of compliance. The confusion about what is permitted is likely to continue until controversies are solved case by case in the courts.

Parliament also appears to have taken a more liberal stance than the general population. An opinion poll conducted in 1992 indicated that 52% of adults would have allowed advertising for beer and wine, but only 33% for spirits (231). The majority of those who supported alcohol advertising would have allowed it in the print media, but only half would have permitted it on television, and less than half would have allowed it on outdoor posters or on the radio. Another poll conducted in 1993 suggested that the trend was towards less rather than
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more support for alcohol advertising: opponents and supporters both accounted for 25% of respondents (232). In 1995, when the new advertising regulations had been in place for a couple of months, an opinion poll indicated that less than 30% of respondents welcomed alcohol commercials on television, 20% had a negative view of them, and 50% were indifferent (233).

In Finland there was no visible and authoritative backing for a restrictive alcohol advertising policy. In the public debate preceding the passing of the bill, the public health perspective was overshadowed by demands for greater freedom for the alcohol industry. Calls for liberalization were raised by the brewing industry, the national alcohol company, private manufacturers of wines and liqueurs, the hotel and restaurant trade, the advertising and media industries, and even consumer affairs authorities and a consumers’ union. The arguments used - familiar from the international debate - received wide coverage in the Finnish press. Alcohol advertising was claimed not to affect total consumption, but only to influence choice between competing brands. Further restrictions on low-alcohol beer advertising were claimed to entail a loss of jobs in the brewing and advertising industries, in the restaurant trade, in agriculture and in the transport business. Increased opportunities to advertise were claimed to be necessary to ensure the domestic alcohol industry’s ability to compete with foreign companies. It was argued that the existing regulations were ineffective anyway, because of international advertising coming through satellite television and foreign publications, and the practice of advertising regular beers through low-alcohol variants. The existing ban was claimed to discriminate against domestic producers lacking the resources to use international advertising channels. Restrictions on alcohol advertising were claimed to limit freedom of speech, to deprive consumers of information about products available on the market and to depreciate the ability of consumers to make rational decisions. The press coverage of the issue gave the impression that there was no serious opposition to liberalization.

The Policy Tools

There is probably no ideal system for controlling alcohol advertising; both legislative restrictions and self-regulation have their merits and drawbacks (20,37,38,208,234,235).
Self-regulatory codes are designed to eliminate some of the worst advertising practices, not to reduce the volume of advertising in a way that would reduce demand for the product. The codes represent what the industry is willing to do to protect its autonomy. As voluntary regulation tends to lack effective means of enforcement, the codes can easily be watered down or ignored (although it has also been suggested that voluntary regulation may be more likely than legislation to entail a moral commitment to compliance). Compared with legislation, which tends to meet opposition, self-regulatory systems may be quicker to introduce and easier to change. Self-regulation assigns the burden and costs of monitoring and arbitration to the industries and trades involved, and to individual citizens who may have the right to complain.

The volume of alcohol advertising can be restricted through legislation. Although it might be possible to achieve a reduction through taxation – by imposing a tax on alcohol advertising or by eliminating tax deductions – the most commonly used approach is to restrain the use of one or more advertising media. Legislation has also been used to limit the content of alcohol advertisements. To have any effect, advertising laws need to be accompanied by an enforcement system, including substantial penalties.

Selective restrictions on the use of advertising media may be ineffective if they do not take account of existing advertising practices. Removing alcohol commercials from certain time slots has been used as one alternative to a total ban on television advertising. In Australia, non-legislative time limits on television alcohol advertising were revised in the mid-1980s. The expressed purpose of the revisions was to channel alcohol advertising into adult viewing periods. A weekday ban on alcohol advertising that had covered the period before 7.30 p.m. was extended to 8.30 p.m.; this is unlikely to have had much effect, since only a few such advertisments appeared before 8.30 p.m. anyway. On the other hand, a revision allowing advertising on Saturdays and Sundays during live sports broadcasts is likely to have increased the number of alcohol commercials in sports programming (175).

Any form of regulation tends to be based on a compromise between conflicting views and interests. As restrictions on alcohol advertising intervene in a profitable market, they inevitably entail costs or
loss of revenue for some, and perhaps savings for others. One implication is that restricting some media or methods tends to shift marketing efforts to other options that are available – or can be invented. On the other hand, the industry may welcome restrictions if they contribute to adjusting the competition in the interests of the major actors in the business.

It has been argued that the adaptability and transferability of marketing practices, as well as the limited ability to control modern and international advertising channels, mitigate the effects of restrictions to the extent that they no longer make sense. The experiences from different countries discussed above, however, suggest that the extent to which a national advertising control system is effective and enforceable depends largely on the willingness of policy-makers to remove or provide loopholes. Since the important advertising channels in most countries tend to be national rather than international, a significant part of marketing can be subjected to national regulations. Both national efforts and international cooperation are needed to tackle cross-frontier advertising. It is the variation in alcohol advertising among countries’ policies that provides advertisers the opportunity to use international channels to avoid national restrictions.

Both self-regulation and legislation are clumsy tools for limiting the content of alcohol advertisements. Advertisements tend to be based on a language of implication and allusion rather than explicit statements. It is hard to determine, by examining individual elements of an advertisement, whether it creates the impression that drinking contributes, for example, to social or sexual success. It is the interplay of different elements that may or may not lead the recipient to make the inference. The possibility of different interpretations makes it difficult to enforce self-regulatory codes or similar provisions of alcohol advertising laws. Efforts to determine precisely which features of the content are inappropriate tend to increase concentration on details.

Enforcement and arbitration become easier if the content restrictions state what is allowed instead of what is forbidden. This has been done in the French Evin Law, stating that advertisements may present information about the alcoholic content of the beverage, its origin and composition, methods of production, modes of consumption and availability. The Law does not state whether this information may be
presented visually or only verbally. On this point, the Finnish rules that were applied to print advertising in the 1970s and later to trade magazines were more clear-cut: the imagery was limited to a bottle and a drinking vessel. An analysis of Finnish trade magazine advertisements indicated that even these rules could be stretched: other visual elements were frequently added, and the verbal statements sometimes went far beyond the product's qualities (236). The limited format, misleadingly called "tombstone advertising", thus appears to give leeway for creating distinctive brand images. A case in point is the launching of the Swedish Absolut vodka in the United States with advertisements consisting of a picture of the bottle and a minimal slogan (237).

Alcohol advertising legislation may also serve as a symbolic statement about the place of alcohol in society, and as a signal of the government's concern about alcohol-related harm (42,65,208). In the same manner, failure to place any restrictions or the liberalization of advertising controls may signal a lack of concern. Legislative restrictions may, however, do more harm than good if they are perceived in themselves as a solution to alcohol-related problems, and if they distract attention from more efficient policies affecting the physical and economic availability of alcohol.
Media Representations of Alcohol

The mass media undoubtedly play a central role in the contemporary world. Their systems and contents, and the communication, social and political processes are, however, far too complex and dynamic to be reduced into a single theoretical perspective or research approach.

The role of the mass media in maintaining or changing drinking habits, or in the development or prevention of alcohol-related problems, can hardly be grasped by examining a single medium, a single genre or a single media text – although occasionally even a single media item may have a direct and immediate effect on the public. An example is the presentation on a current affairs television show in the United States in the early 1990s. The programme, reaching an audience of almost 34 million, extolled the alleged beneficial effects of red wine in relation to coronary heart disease. In the following month, sales of red wine were reported to have increased by 44%. The programme’s presenter was later honoured with a special communication award by a major French wine-producing company (238).

These kinds of incidents are exceptions rather than the rule. The mass media’s influence on the public’s perceptions, beliefs or behaviour is likely to occur through cumulative exposure over a long time, through interaction between different media messages, and through the interaction of media messages with other social and cultural influences.

Alcohol and drinking are present in newscasts and news reports, editorials and columns, feature stories and documentaries, fictional
programmes, entertainment shows, cartoons, popular music lyrics, and commercial and public education advertisements. Media representations of alcohol vary in content and tone. In varying degrees the representations reflect aspects of social reality and feed back into it, reinforcing some aspects, weakening others, sometimes stimulating change in some areas.

From the perspective of alcohol education, the portrayal of alcohol in the mass media can be conceived of as a competitor to educational efforts or as a vehicle for education on prevention. From the perspective of alcohol policy, the mass media content can be conceived of as a target for control measures (in the case of alcohol advertising), or as a forum where major public discussion about alcohol takes place. Each view leads to different approaches in research and intervention.

This chapter focuses on research in two areas: alcohol in fictional television programmes and alcohol in the news media, particularly the press. Two types of research are reviewed: analyses of the alcohol-related content, and research describing efforts to influence the alcohol content.

ENTERTAINMENT TELEVISION

Education and Entertainment

The success or failure of prevention education depends largely on the broader sociocultural context in which it is based. The never-ending portrayal of alcohol in the media serves as a backdrop against which public education messages are perceived and evaluated. The mainstream of these portrayals represents alcohol consumption as a natural pursuit without problems, de-emphasizing health risks and other negative consequences. When negative social, economic or health consequences are addressed, they tend to be depicted as occasional afflictions touching only a minority of unfortunate or weak individuals, not as inherent risks present to some degree in every consumer's life. The mainstream images may influence not only the public's views about alcohol use and alcohol problems, but also related views about prevention and policy.

These kinds of concern have been particularly expressed with regard to entertainment television. Because of its wide reach, its ability
to engage viewers, and the frequency with which alcohol is portrayed, entertainment television has been considered a particularly powerful agent in the formation of alcohol-related beliefs and behaviour. An additional cause of concern has been that, where television advertising of alcohol is allowed, the prevailing neutral or pro-drinking messages in programmes may reinforce the commercial messages, or be reinforced by them.

In research reviews (26,31–39) the potential impact of alcohol images conveyed through entertainment television has been discussed within the same theoretical frameworks that have been applied to alcohol education or alcohol advertising. Various theories have been put forward, such as health action and belief models, hierarchy models of communication and persuasion, the social learning theory and the more sociological theory of cultivation and mainstreaming. Most research has consisted of quantitative and qualitative content analyses mapping portrayals of alcohol, primarily in fictional programmes, and examining how these portrayals have changed over time. The findings have shown that the image created of alcohol and drinking in these programmes is biased in comparison with social reality. Alcohol is used far more often than non-alcoholic drinks, predominantly by attractive and well-to-do characters and usually without any serious consequences. The portrayals indicate a high prevalence and social acceptability of alcohol use. At a minimum level of impact, this "normative noise" (13) would provide the public with evidence and arguments to justify its current practices and to resist the pressures of prevention education.

Research on the actual effects among the public is almost non-existent. One recent study examined relationships between the frequency of drinking scenes in British, Canadian and American fictional programmes broadcast on Canadian television, and the occurrence of liver cirrhosis and alcohol-related traffic accidents in these countries (30). Not surprisingly, no significant relationships were found. Even if it made sense to formulate the research question in such a simplistic manner – without considering any other potentially relevant factors and influences as is common, for instance, in advertising research – it is unlikely that the American and British programmes broadcast on Canadian television are representative of television in those countries.
A more sophisticated study conducted in the United Kingdom used survey data from close to 350 young people aged 12–17 years, to examine the effects of television viewing on certain alcohol-related beliefs (239). The amount of television viewing made no significant difference to the relative prominence that respondents accorded to alcohol use or alcohol-related problems. The only clear and consistent pattern suggesting cultivation effects was found in answers relating to the prominence of different alcoholic drinks in the United States. In American fiction programmes, wine and spirits are the most frequently used beverages. In British programmes, too, wine and spirits are frequently used but the position of beer is more prominent than in American programmes. Approximately 32% of respondents – light, medium and heavy television viewers alike – thought that wine and spirits were the most commonly used alcoholic beverages in Britain, while 41% thought that wine and spirits were the predominant beverages in the United States. The proportion of answers stating that wine and spirits were the favourite beverages in the United States increased from 38% for infrequent television viewers, to 40% for medium viewers and to 47% for frequent viewers. It seems, therefore, that fictional television programmes may have played a role in shaping viewers' beliefs about certain aspects of alcohol use outside their everyday experience.

The respondents were also asked whether they remembered having watched anything about alcoholism or drinking problems on television within the previous six months. While over 80% recalled programmes addressing drug use, only about 30% could recall anything about alcohol problems. Of the recalled alcohol-related programmes, half were newscasts or documentaries and half were soap operas or dramas. This finding, along with the findings from a few recent studies (239–241) that have examined viewers' reception of the alcohol content of fictional programmes, provide some support for increasing the potentially constructive aspects of the portrayal of alcohol in television fiction.

The role of recipients as active interpreters of media messages needs to be emphasized here, perhaps even more than in the field of alcohol advertising research. In comparison with alcohol advertisements, which tend to be relatively closed texts, television portrayals of alcohol and drinking are likely to leave much more room for different
perceptions and interpretations. The few pieces of reception research that have been conducted to date indicate that the extent to which viewers pay attention to alcohol in fictional programmes varies, and that interpretations of any particular portrayal of alcohol may differ greatly, depending on the viewer’s point of view and personal experience. The findings also suggest that fictional programmes may in some cases help viewers understand alcohol-related issues. Whether the potential of television fiction to enlighten is realized or not seems to depend both on the materials provided and on the viewer’s inclination and ability to make use of those materials.

Along with reception research, studies are emerging that describe and evaluate initiatives seeking to influence the treatment of alcohol in television fiction. These intervention initiatives represent an approach to prevention and health promotion that seeks to utilize popular entertainment as a vehicle for public education. The initiatives have aimed at inserting problem prevention and health promotion messages into regular entertainment productions, and at reducing the occurrence of messages incompatible with health promotion or prevention goals. The basic idea is that the same characteristics – the wide reach and the unique ability to engage viewers – that may render entertainment television a threat to public health may also put it in a powerful position to promote public health.

Purposeful mixing of entertainment and education has been used in development and health programmes since the 1970s in various countries in Latin America, Africa and Asia (242,243). The entertainment education strategy has been recommended as one potentially useful approach to be used in western industrialized countries, too (57). As yet, only a few evaluated examples are available, two of which are presented below. The examples share many features with the intervention efforts of the so-called “Hollywood lobbyists” (244,245). Since the 1970s, several social issue groups have offered consultation services to television producers and writers, and encouraged television personnel to incorporate material on their issues into entertainment programmes. The issues have included disability, teenage pregnancy, drug use and, more recently, AIDS. The groups’ degree of success has varied. The main obstacle has been the television industry’s resistance to pressure from advocacy groups. Some groups, such as Mothers Against Drunk Drivers (MADD) (86) – a citizens’
movement started by relatives of the victims of drink-driving accidents – have not been able to penetrate the television community. The more successful groups have approached industry in a cooperative rather than confrontational manner, provided resource materials, made suggestions for scripts and story lines, and asked for minor adjustments rather than major changes in programme content. The more successful groups’ issues have been compatible with the needs of commercial television production.

Cooperative intervention, however, seems unable to overcome the constraints of the formats and production systems of commercial entertainment. In commercial television production, the issues are inevitably reduced to individual problems solved by individual action, with the social and structural roots and remedies played down or ignored. Intervention efforts may succeed in inserting topics and messages that may draw viewers’ attention to specific issues, give those issues legitimacy as discussion topics, and perhaps provide resources for understanding and dealing with related problems in the immediate social environment. Within the constraints of commercial television production the issues are, however, not likely to turn into genuinely social issues in a way that would contribute to building support for public policy approaches.

The entertainment television industry appears to have been relatively willing to cooperate with groups involved with alcohol and drug problems. It has been argued that the incorporation of social messages on issues such as drug use or drink–driving has served to put the industry in a favourable light, and has provided an effective buffer to public criticism. Modifications in the portrayal of alcohol in entertainment programmes – whether self-generated or resulting from intervention – may also have served to protect the television industry from outside regulation.

**Alcohol in Television Fiction**

The portrayal of alcohol and drinking in television entertainment programmes has been researched extensively in the United States (23–25,27,28,36,246). The portrayal of alcohol on British television has been examined in a few studies (247,248), and two studies have compared programmes produced in Britain and in other English-speaking countries (30,249). Research into television portrayals of
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alcohol in non-English-speaking countries (250) remains as rare as it was in the mid-1980s (1).

The interest of researchers in the United States in the alcohol content of fictional television programmes dates back to the mid-1970s. Data have been collected in several ongoing monitoring studies, that provide an opportunity to examine changes over time. Through an analysis of recordings of older programmes, the period covered has been extended back to the 1950s.

From the 1950s to the early 1980s, portrayals of drinking and other depictions of alcohol in dramas and situation comedies increased steadily, and alcohol became the drink most frequently seen on the screen. In the programmes dating back to the 1950s, alcohol accounted for 48% of beverages used on the screen; in 1982, it was used in 62% of cases (23). The same trend was observed in a study covering the period 1969–1985: the proportion of prime-time drama programmes showing characters drinking, or containing other references to alcohol, increased from 10% in 1969 to over 70% in the mid-1980s (246). A study covering the period 1976-1986 found that the increase in the prime-time portrayal of alcohol in fiction reached a peak around the mid-1980s, when alcohol appeared on the screen approximately ten times per hour (27). During the latter half of the decade, alcohol content in prime-time fiction declined, to increase again in the early 1990s. In 1991, alcohol appeared on the screen six times per hour; 81% of prime-time fictional programmes contained some visual or verbal reference to alcohol, and 55% showed at least one character drinking (36).

The trend in the occurrence of smoking on television has been totally different. From the 1950s to the early 1980s the depiction of smoking in fictional programmes dropped dramatically. The decline seemed to reflect major events in the social and regulatory context of television broadcasting. In situation comedies, smoking started to decline in the period following the publication of the Surgeon General’s report on smoking and health in 1964. In drama programmes, a marked reduction in smoking coincided with the federal ban on broadcast tobacco advertising in 1971 (23). By the mid-1980s, smoking appeared to be increasing again in prime-time fiction programmes (25). The same trend was observed in a recent study focusing
on daytime soap operas: the occurrence of smoking had almost tripled from 1986 to 1991. Compared with alcohol depictions, the occurrence of smoking was, however, negligible: in 1991 alcohol was shown in 208 scenes out of 1064, and smoking in only 11 scenes (28).

Studies examining the portrayal of alcohol on British television cover the period 1984–1988. In the United Kingdom, too, the prevalence of alcohol portrayals appears to have fluctuated, at least in non-fictional programmes. In 1984, 64% of prime-time programmes—both fact and fiction—contained some references to alcohol, and 31% contained drinking scenes (247). In 1988, references to alcohol occurred in 72%, and drinking scenes in 42% of the most popular factual and fictional programmes (248). In 1984, 88% of prime-time fictional programmes, and in 1988, 89% of the most popular fictional programmes featured alcohol.

In British fictional programmes, drinking appears to be more prominent than in those originating in some other English-speaking countries. A comparison of the most popular soap operas broadcast in the United Kingdom in 1987 indicated that the number of drinking scenes per hour was higher in British than in American or Australian programmes (249). A comparison of British, American and Canadian fictional programmes broadcast in Canada indicated that the rate of drinking was considerably higher in the British than in the American or Canadian programmes (30).

In American fictional programmes, references to the harmful consequences of alcohol use have increased over the years, but drinking is still portrayed predominantly as a neutral or positive and relatively harmless activity (25). While in 1969 only 5% of prime-time programmes mentioned any negative consequences of alcohol use, in 1985 the proportion was 25% (246). In 1991, negative consequences were depicted in 18% of drinking episodes in prime-time programmes; positive consequences were depicted in 13%, and 12% contained some sort of warning about drinking in hazardous situations, such as during pregnancy or in conjunction with driving (36).

In American prime-time fictional programmes, one out of six characters is a drinker. Regularly appearing characters are more likely to drink than occasional characters. Drinkers tend to be wealthy,
white, male, middle-aged professionals (27). While references to the harmful consequences of alcohol use have increased over the years, the portrayal of alcoholism has continued to be a rare phenomenon. In the period 1969–1985, 1–2% of major characters in prime-time drama programmes were depicted as alcoholics. The treatment of problem areas of alcohol use, such as teenage drinking (251), drink–driving (24) and alcoholism (252–254), has been examined more closely in a series of qualitative analyses. The qualitative studies bring forth variations and shifts in content and meaning that cannot easily be grasped with the crude methods of quantitative analysis.

Content analysts often face difficulties when trying to determine why fictional characters drink, or why alcohol is present at all in fictional programmes. In American daytime soap operas broadcast in 1986 and 1991, only a few portrayals of alcohol were directly related to the story line (28). A comparison of popular soap operas broadcast in Britain in 1987 showed that alcohol was significant to the narrative in 14% of British, 12% of American and 5% of Australian programmes (249). One interpretation of this phenomenon has been that most appearances of alcohol are gratuitous.

Another point of view is that hardly any alcohol appearances are gratuitous and that they add meaning and nuance to the television text (255). Drinking or the handling of drinks is a stock dramatic device used to give movement to a scene, or to provide a pause or a bridge to the next scene. While drinking or handling coffee might do as well to fill a visual void in a scene, alcohol has the advantage of being loaded with a variety of connotations. Alcohol is by far the most frequently used beverage in American (23), British (248) and Chilean (250) television alike. Alcohol on television is never merely alcohol; it is beer, wine or spirits, consumed from a particular container and in a particular manner. The drinks serve to indicate a character’s class, lifestyle, personality or emotional state, and to denote a particular situation, activity or setting. One of the most obvious examples is the use of champagne to denote celebration or to glamourize a setting. The use of champagne in television shows is so frequent that it is often coded separately in content analyses (25,28). The association of particular beverages with particular lifestyles or social classes is also a common feature. As one study of American prime-time programmes noted, “while those of high social standing sip their wine
from crystal glasses at elegant dinner parties, lower-social-class members are shown drinking from bottles hidden in brown paper bags or swilling mugs of beer and engaging in bar-room brawls” (25).

The language of alcohol is not peculiar to television: the codes and conventions used in television programmes are familiar from cinema and literature, and also derived from social reality and fed back into it. The codes may be partly culture-specific, partly shared by creators and viewers of television programmes in different cultures, and may be spread across cultures through the international distribution of television programmes. The nature and meaning of alcohol use—the associations between beverages, people, situations and lifestyles—may be one area where cultivation effects may occur, particularly if there is a cultural gap between the world depicted on the screen and the actual world of the viewer.

In American prime-time fiction programmes broadcast between 1982 and 1985, wine was the favourite beverage (25) whereas in daytime soap operas broadcast in 1986 and 1991, spirits were most frequently used (28). Beer occupied a marginal position, used in less than 10% of cases. In British fictional broadcasts in 1984, wine and spirits were the most frequently used beverages but beer had a more prominent position than in American programming, being shown in 19% of cases (247). In British television fiction, the type of alcohol used has been found to vary considerably, depending on the country of origin of the programmes. In the most popular soap operas broadcast in 1987, beer and spirits were equally prominent in British programmes, wine and spirits in American programmes and spirits in Australian programmes, which also featured beer more frequently than American programmes (249). In both American and British fiction, beer tends to be a male drink and/or associated with the working class. While in American fiction beer tends to feature in western or rural settings (255), in British fiction, particularly in soap operas, it features as an essential element of the public house, the central public venue in both rural and urban settings.

Another difference appears to be that, while alcoholic drinks in American fictional programmes tend to be unidentifiable (28) most British programmes contain references to genuine brands (248). Such brands, mostly of beer and spirits, tend to be particularly prominent in
British soap operas (249). The visibility of genuine brands may be an example of product placement for indirect advertising, or merely part of the mode of social realism characteristic to British soap operas. In the United States, where pressures to regulate the television advertising of alcohol appear to have been stronger, the relative absence of genuine brands may reflect deliberate avoidance of controversy.

**Viewers’ Perceptions**

The effect of television images on the beliefs of viewers depends not only on what is shown on the screen but on what the viewers see and how they interpret what they see.

Determining the tone in which alcohol or drinking is depicted in a particular scene or programme is one of the least clear areas of content analysis research. Coding a drinking scene’s tone, or a fictional character’s motives for drinking, involves mental processing and interpretation. The result will depend on the observer’s televisual and cultural competence and perspective. In an analysis of drug depictions in American prime-time fictional programmes, certain coding discrepancies were found to be related to the coder’s personal use of drugs (25). Coders who smoked cigarettes usually saw smoking by television characters as pleasurable, whereas nonsmoking coders often labelled the same act as addictive behaviour.

Viewers’ actual perceptions and interpretations of alcohol portrayal in fictional programmes have been explored in a few European studies. In a study conducted in Sweden, a half-hour sequence, taken from an American television film and including several alcohol scenes typical in television drama, was presented to 112 members of the public aged 20-60 years (240). Nearly half of the viewers were recruited by a letter sent to randomly selected inhabitants of Stockholm, and the rest from schools for adult education in the Stockholm area. The viewing sessions took place in the schools or on the national television company’s premises. After viewing the programme, the participants filled in two questionnaires. On the first one they described in their own terms the content of certain scenes. The second questionnaire focused explicitly on alcohol, the participants being asked to write down all appearances of alcohol that they recalled, and to answer a set of questions on their views about alcohol and drinking habits.
While the answers given to the second questionnaire indicated that most viewers had noticed several alcohol appearances, one in five failed to mention any spontaneously when describing the scenes on the first questionnaire. The number of alcohol scenes mentioned in the second questionnaire was primarily related to the recipients' ability to remember details, and only secondary to their alcohol attitudes or drinking habits. The longer alcohol scenes, and those in which alcohol was placed in the foreground, were more likely to have been noticed. Scenes depicting the main characters drinking seemed to have been the most noticeable. This may help explain why the findings of one American study of daytime soap operas diverge markedly from those of other studies. In contrast to the usual finding that alcohol is portrayed predominantly in a neutral light, this study found that over half the alcohol portrayals were negative (256). Instead of actual programmes, this study used accounts of regular soap opera viewers as research material. It seems possible that prominent depictions of problem drinking were more noticeable and easier to remember than neutral background appearances of alcohol.

A British study, based on 14 group discussions with 109 young people aged 12–16 years, examined viewers' interpretations of the portrayal of drinking-related problems in Eastenders, a popular soap opera favoured particularly by teenage viewers (239). Among soap operas broadcast on British television, Eastenders has ranked highest in terms of alcohol appearances (249). Although alcoholism was one of the story lines at the time of the group discussions, no group mentioned alcoholism as the first issue when asked about what kinds of issues the programme deals with. When alcohol problems were mentioned it was with reference to one character's problem drinking. Despite differences in age and social background the groups differed little in their interpretations of the character's drinking, which was attributed to feelings of depression and insecurity, or to inability to cope with pressures. Only when asked to explain why only one character had turned to drink, while others with equally difficult pressures had not, did the groups refer to social or environmental factors. Social explanations referred to the influence of other people, environmental explanations to the availability of alcohol: living and working in a public house provides the character with easy access to alcohol. One group invoked the requirements of
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the soap opera format: although several characters had problems, the programme could not accommodate more than one alcoholic.

Although *Eastenders* did provide some material for different ways of understanding drinking problems, the individualistic perspective clearly predominated, possibly reinforcing a view of alcoholics as a small minority who drink in a deviant manner because of character weakness, while normal drinkers can drink frequently without ill effects. The programme’s portrayal of problem drinking was, however, not fully accepted. Several groups argued that problem drinking had not been properly explained – the programme portrayed the manifestation of problem drinking, but not the process. While *Eastenders* was considered a source of useful and relevant information for understanding other issues, such as teenage pregnancy, AIDS or homosexuality, where drinking problems were concerned the programme had not served as a resource for the viewers.

A Finnish study compared the reception of six fictional television programmes – four Finnish and two foreign – and their alcohol content among 229 adults attending trade union courses (241). After viewing a videotaped programme in a group session, each recipient wrote a short commentary on it. Some 30 commentaries per programme were gathered in this manner, and additional material was gathered in group discussions. Three episodes of serials contained social drinking scenes or background references to alcohol. In three Finnish programmes alcohol was a major feature: in a television play about drinking problems in the family, in a situation comedy that included drunkenness and in a serial episode depicting a party.

There was almost no mention of alcohol in the commentaries on the three programmes containing background references and social drinking scenes. When asked in the group discussions whether alcohol had been portrayed in the programmes the participants were, however, able to produce collectively nearly complete lists of the alcohol scenes. The participants’ views of the way alcohol tends to be portrayed in television fiction were well in line with the findings from content analyses. Drinking was considered to be ubiquitous, particularly in American fictional programmes. Fictional programmes were said never to portray intoxication, drinking problems or a refusal of a
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drink. Other observations included the association of drinking and driving, and the variation of beverage types across social settings.

While the typical alcohol portrayals seem not to have been worth mentioning in the written commentaries, the programmes with alcohol as a central feature were frequently commented on both in the texts and in group discussions. Many of the comments and discussions focused on what had been shown in the programmes, but in some cases the programmes functioned as a springboard for reflections quite removed from the television text.

The situation comedy incited comments and discussion on topics ranging from the prevalence of booze and drunkards as standard laughing-stocks in Finnish popular culture, to the restrictiveness of Finnish alcohol policy. The party depiction stimulated reflection and discussion on its degree of realism, on alcohol’s role as a social lubricant, on relationships between the sexes and on the way adults provide a model of drinking behaviour for children. The television play about drinking problems in the family reminded some viewers of similar personal experiences – not necessarily involving drinking. Some of them had experienced anxiety or pain while viewing the programme. The play was in general considered to be a useful depiction of problems that are common in contemporary life.

In the written commentaries, drinking was conceived of as the family’s major problem, as one problem among many, as the cause of other problems, or as a result of other problems. The group discussions focused more on the prevalence of drinking problems, and on how families could or should deal with such problems.

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Alcohol Issues on the Media’s Agenda
Research on the treatment of alcohol issues in newspapers and magazines has tended to emphasize questions of alcohol policy rather than questions of individual behaviour or problem prevention. With regard to alcohol policy – or other areas of public policy – the mass media have been seen to play an important role through their agenda-setting function. The media are seen to act as gatekeepers who, through their
selection of topics, focus both the public’s and decision-makers’ attention to certain issues. The agenda-setting function is accompanied by a framing function: by highlighting some aspects and playing down others the media affect the way issues come to be defined in public and political discussion. From a slightly different perspective, the mass media can be conceived of as a forum where public and political discussions take place. In this forum, different groups and actors seek attention for the issues they consider important, and present different views and definitions of those issues. From a third perspective, the mass media are an arena where social problems are constructed. Social problems are seen not to exist as such unless some actors succeed in focusing public attention on an issue and in defining it as a problem requiring action. These different but overlapping ways of looking at the mass media are all present in studies describing the efforts of different interest groups to influence the way the media deal with alcohol-related issues.

By reporting on certain topics and issues, the media not only convey information but also confer legitimacy on those issues as objects of public attention. The media have been considered to be less successful in telling people what to think than in telling them what to think about. The media may set the discussion agenda for the public, as well as the policy agenda for decision-makers. The idea of agenda-setting implies its opposite: issues or aspects completely ignored by the media are unlikely to feature prominently in public or political discussion elsewhere. While this tends to be difficult to study, the process of agenda-setting has received support from empirical research (70,71).

A general conclusion is that the media agenda does influence the public agenda. The agenda-setting process seems complex, however; differences exist between issues, across contexts, over time, across media and among members of the public. The relationship between the public and the media agenda may not be unidirectional; media gatekeepers tend to have an idea of what interests the public, reflected in their judgments of the news value of different issues. Neither the media nor the public agenda is homogeneous. The media’s influence on individuals’ agenda and views may depend on the degree to which individuals rely on particular media for information, on the degree of credibility accorded to the media and on the availability
of alternative channels of information such as interpersonal communication or personal experiences.

Decision-makers tend to consider the media agenda as an indicator of the public agenda. The public agenda, set by or reflected by the media, may thus influence the political agenda. In some cases the media may have more direct influence on the political agenda: the media may speed up decision-making processes by positive issue coverage, or slow them down by negative coverage.

Research on the construction of social problems is a more recent and broader approach, focusing on the processes by which particular issues come to be viewed as important social problems (257). Social problems may rise and fall on the media, public and political agendas, irrespective of changes in the objective prevalence of the phenomena thought to constitute them. Constructionist research draws attention to the concrete historical contexts in which such fluctuations occur, and to the groups that seek to or succeed in putting some issues in the spotlight of public attention and in defining them as social problems.

An example of the constructionist approach is a recent collection of studies that examine the treatment of certain issues, including alcohol and drugs, as problems in newspapers published in Denmark, Estonia, Finland, Poland, Sweden and St Petersburg (258). The articles point out that the role occupied by the mass media differs greatly in different contexts and at different points in time. In some contexts the media may have a powerful influence on decision-makers; in others their main role may be faithfully to support government policies. One conclusion drawn from the studies is that the mass media appear not to have a monopoly in setting the political agenda; social movements, political parties and governments compete with the mass media and with each other, and the specific nature of the problem in question is crucial for the possibilities of different actors to influence the political agenda.

The placement of alcohol issues on the media agenda may depend on the degree of political weight they are accorded. For instance the anti-alcohol campaign in the Soviet Union in the mid-1980s received wide media coverage for a couple of years because of its association with the perestroika policy, a more thorough attempt to
change society (259). Recently in Sweden, alcohol policy issues occupied a prominent place on the media agenda and were the subject of active debate because of their link with negotiations on Sweden’s membership of the EU (260).

In some cases research on the construction of social problems may overlap research on social movements. Such is the case in a study examining the role of MADD in the construction of drink-driving as a major social problem in the United States during the 1980s (86). MADD is one example of active and purposeful use of the mass media to advance alcohol-related policy measures. The last section of this chapter describes the use of the media advocacy strategy by various interest groups in the United States. Media advocates have sought to insert certain alcohol-related topics on the media agenda and to shape the discussion around these topics. The ultimate aim of media advocacy is to influence decision-makers. The experiences gathered from media advocacy initiatives can perhaps be described as providing advice on how to construct social problems.

Besides media advocacy, more traditional approaches have also been used to influence the way alcohol issues are dealt with in the media. In some countries, such as Canada (261), Norway (262) and Sweden (263) alcohol agencies have regularly held press conferences; in others, such as the United States, similar conferences have been arranged as pilot projects (264). The aim has been to help journalists perceive the importance of their role in informing the public about alcohol use and problems, and the associated prevention and policy issues, and to provide them with information and suggestions. Closer and more active cooperation with journalists has been recommended as a way of enhancing the visibility of prevention campaigns and programmes (57), and of the activities of alcohol agencies more generally (265). For successful cooperation, alcohol professionals seem to need specific communication skills and, above all, an understanding of the journalist’s point of view and of the way that mass media institutions function. A journalist’s first priority is in general not to educate, but to convey news and entertainment that attracts readers or viewers. Alcohol issues are more likely to be considered newsworthy if they involve controversy or provide a new angle. When competing viewpoints or information exist, journalists may be more likely to focus on stories
that make headlines than on those that would best serve to promote health (266).

Within the field of research on alcohol issues in the news media, the public's perceptions and interpretations of alcohol-related content have received little attention. A rare example of research examining what actual readers make of alcohol-related materials is a study in process in Finland (267). The study examines the reception of five articles addressing alcohol policy issues – three newspaper editorials, a debate article and an article taken from a scientific journal. The recipients represent three different groups of opinion leaders: politicians, journalists and trade union activists. The study analyses both textual structures and the way the recipients interpret and relate to the views, definitions, arguments and actors presented in the texts.

Although agenda-setting and framing functions have been associated mainly with the news media, entertainment content and even advertising may also contribute to the hierarchy of issues on the public agenda and to the way the issues come to be defined. Somewhere on the borderline between news and entertainment lies a type of television programme in which experts, lay people and studio audiences discuss issues presented as having a topical or social importance. A study conducted in Britain in the late 1980s analysed four discussion programmes focusing on drink-driving (268). The programmes' particular form of debate consisted of anecdotes, examples and emotional expressions rather than integrated arguments or generalizations. No coherent causal explanations of drink-driving were presented; instead, the discussions provided lists of separate factors considered to increase or decrease the incidence of drink-driving. Rather than providing material for a structured argument, the programmes encouraged viewers to select individual points of agreement or disagreement. The effects of drink-driving were mentioned in the programmes less often than the causes. In contrast to the discussion on causes, however, discussion on effects tended to be moving and personal, giving prominence to emotional appeals of people who had suffered as a result of drink-driving. One conclusion drawn was that, while this type of treatment may not increase understanding of the problem, it may incite action by highlighting the gravity of the effects.
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Alcohol in the Press

In the United States, portrayal of alcohol in the press (22,174) has received less attention from researchers than that of television. In Finland (269–275) and Sweden (260,276) the treatment of alcohol in newspapers and magazines has been examined in several studies.

A study examining articles published in five major national American newspapers in the period 1985–1991 found approximately 1680 articles focusing on alcohol – on average just under 50 articles per newspaper per year (Lemmens, P. & Vaeth, P., unpublished data, 1993). Half of the articles focused on alcoholism, treatment or social disruption resulting from excessive use. Almost 40% addressed risks more widely distributed across the population, such as drink-driving, accidents, drinking during pregnancy or other health risks. Less than 20% focused on societal problems and alcohol policy issues. Treatment and drink-driving were the most frequently covered single issues.

A closer examination of a sample of 264 articles indicated that news reports accounted for just over half of the coverage, followed by feature articles (22%) and columns (16%). Over half of the articles conveyed a neutral or ambivalent stance towards alcohol. A negative stance was expressed in 45%, and a positive stance in only a few articles. When explanations for alcohol problems were given, the person with alcohol-related problems tended to be seen as a victim of circumstances, or the problems seen as outcomes of a natural process. An explicitly medical view of drinking problems – alcoholism as a disease – was evident in only a few articles.

Two Swedish studies have examined newspaper treatment of alcohol issues at points in time when alcohol has been the subject of intense debate and unusually high on the media agenda. In one case the debate was generated by a press conference arranged by the Swedish Board of Health to announce a policy proposal aimed at reducing total consumption of alcohol by 25% in accordance with the WHO goal (276). Another study examined the coverage of alcohol issues in 11 national and regional newspapers during a three-month period in 1993 (260). During the examination period, alcohol issues received more attention than usual because of the coming into force of an agreement between Sweden and the EU affecting inter alia the
alcohol control system. Of 183 alcohol-related articles, 52% were news reports, 15% focused on alcohol-related problems and 33% related to different measures or policies for solving the problems. In the problem-oriented articles, alcohol was most often related to crime, and least often to economic or social problems. Two themes related to European integration predominated in the policy-oriented articles: discussion on alcohol monopoly systems and on the availability of alcohol.

The discussion focused on political or structural causes of and solutions to alcohol problems, and was characterized by a split in opinion. The Swedish alcohol policy was criticized for being either too strict or too liberal and, accordingly, either a revision in a more liberal direction or a strengthening of the policy was seen as a solution. Institutional and individual causes or cures received less attention. Problems were seen to stem from the increased availability of alcohol, which could be remedied by more efficient control measures, or from people's attitudes, which could be corrected by disseminating information.

Besides the debate around alcohol policy, another prevalent type of alcohol coverage consisted of news reports on the quality of wines or other alcoholic beverages and of public houses visited by journalists. Although this type of coverage lacks explicit discussion of alcohol as a problem, it may contribute to the way alcohol is understood by its presentation as just one commodity among others.

The most extensive Finnish study using press articles – primarily editorials – as research material examined changes in the way the alcohol problem and the related policy approaches were defined in the public arena from the 1950s through the early 1990s (271). During this period, several definitions of the alcohol problem existed simultaneously in public discussion, with one or another gaining more support from the press and other actors in the alcohol policy sphere. In the 1950s, the press had a double role, giving support both to the views of the traditional temperance movement, and to liberal policies designed to guide Finnish alcohol consumers towards moderation. By the mid-1960s this division of views had disappeared; the press supported almost unanimously proposals to liberalize alcohol sales, with public opinion lagging a couple of years behind. During the 1970s,
the views of the major alcohol policy actors shifted towards defining the alcohol problem as a total consumption problem, requiring regulation of pricing and availability. The press accepted the pricing argument, but endorsed alcohol education rather than controls placed on availability. During the 1980s the prevailing climate of opinion continued to grow more liberal, with the press taking the lead. During the late 1980s and early 1990s public discussion supporting liberalization of alcohol policies grew more aggressive. The alcohol problem was defined as a problem of paternalistic control: it was the restrictive alcohol policy that had prevented Finns from learning how to drink in a civilized manner. A related definition attributed drinking problems to a small minority of people, who would not be affected by control measures. The only alcohol policy tools that received support in the mainstream of public discussion were information dissemination and public education.

In other Finnish studies, in which alcohol-related newspaper or magazine articles have been used as material, the research questions and approaches have varied from examinations of the public image of the temperance movement (269,270) or of the treatment system (273) to the presentation of research results on the health effects of drinking (274). One study examined representations of alcohol, men and women in articles, pictures, jokes and fictional stories in magazines published in 1955 and 1985. In magazines dating from 1955, alcohol was almost exclusively a male matter. Heavy drinking was referred to as a male pursuit, often controlled by women. Social drinking took place in all-male or mixed groups but never in all-female groups. The same pattern was found in magazines dating from 1985, but these also contained references to instrumental and heavy drinking in all-female groups, suggesting a change in the cultural images of drinking (272). Another study focused on the way that the gender structure of society was reflected in newspaper and magazine articles on women’s use of alcohol published in 1987/1988. The articles were found to contain both direct and indirect attempts at controlling women’s drinking. While direct control was mostly motivated by women’s child-bearing responsibilities, indirect control was based on cultural definitions of womanhood and aimed at setting the boundaries of legitimate alcohol use (275).

In American magazines, alcohol issues have received scanty coverage. Two studies have found an inverse relationship between the
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coverage of alcohol issues and the amount of alcohol advertising in magazines, suggesting that publishers avoid issues that may irritate advertisers. With regard to tobacco the phenomenon has been called the conspiracy of silence about health risks (22,174). In the mid-1970s, a study examining 30 large-circulation magazines found that those with the lowest percentage of alcohol advertising tended to present a generally negative view of alcohol (277). A more recent study examined alcohol advertising and alcohol-related editorial content in a monthly publication aimed at young, well educated women (174). In the period 1972–1986, not one of 188 articles dealing explicitly with health issues mentioned alcohol or drinking in the title. A closer examination of eight issues published in 1983–1986 found a total of 70 references to alcohol in the editorial content. Half of the references addressed health risks or problem drinking, while in the other half the stance on alcohol was neutral or positive. The textual references to alcohol were outnumbered by alcohol advertisements. Alcohol was the second largest advertisement category, surpassed only by a mixed category comprising food and clothes. Combined with substantial alcohol product advertising, the positive or neutral messages about alcohol in the editorial content appeared to neutralize mentions of health risks.

WORKING WITH THE MEDIA

The next section describes the strategies of different interest groups for influencing the way alcohol is portrayed in entertainment television, or for entering the mass media forum for public discussion about alcohol issues. All examples are from the United States. In two of the cases – the Harvard University Alcohol Project and MADD – the focus is on drink–driving. Over the 1980s and the early 1990s, alcohol-related fatalities appear to have declined in the United States (278). Both MADD and the Harvard Alcohol Project may have contributed to the trend, but rather in conjunction with each other and with other factors than in isolation. The whole movement against drink–driving, of which MADD is the most prominent example, may have played a role in influencing public policy and social perceptions relating to drink–driving. In a similar manner, the Harvard Alcohol Project is but one example of an interest group’s efforts to sensitize the entertainment television community to alcohol issues.
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In the 1980s, when the drink-driving issue was moving up the American media agenda, the alcohol industry intensified its public education campaigning. Both the motives for and the messages of the industry’s prevention efforts have been questioned (205,279) but alcohol companies have not hesitated to take credit for positive changes. In 1991, one of the country’s biggest brewing companies placed full-page advertisements in national newspapers, claiming that reductions in drink-driving were due to the company’s product and moderation advertising (67). This illustrates another method of entering the mass media forum for public discussion, available to those with the resources to buy media time and space (50).

Cooperative Consultation

The most long-term and comprehensive effort to modify the portrayal of alcohol in television entertainment programming was started in the mid-1970s by Warren Breed and James DeFoe. Called cooperative consultation, the project aimed to help creative personnel get a greater understanding of what they present, and to make informed decisions about more realistic treatment of alcohol issues in the media without damaging the entertainment value. On a smaller scale, cooperative consultation has been applied to the treatment of alcohol in comic books, in college newspapers, in the business column of a daily newspaper and to the treatment of drugs in entertainment television (280–282, De Foe, J., unpublished data, 1988).

The technique of cooperative consultation is based on the assumption that, particularly in entertainment content, most depictions of alcohol are incidental and unplanned, and that industries will be willing to correct problem aspects when these are brought to their attention convincingly and in a non-threatening manner. The technique has been described as a four-stage cycle. The first step consists of research. The project offers television personnel content analysis findings about the way alcohol and drinking are portrayed in entertainment shows. When the project consultant started to contact television personnel, he brought with him research findings on television shows broadcast in the 1976/1977 season. Television people were for the most part unaware of the recurrent patterns of alcohol content and, although the reactions were diverse, many expressed regret over the way alcohol was portrayed. Monitoring and analysis of the alcohol content in entertainment programming, and
the presentation of findings to television personnel, has continued for more than a decade.

The particular technique of cooperative consultation grew out of research analysing which methods of intervention seemed to have worked or failed with the television industry. In 1976, interviews were conducted with network and production executives, writers, story editors and directors. Two main approaches used by interest groups to influence programming content were identified. The "big stick" approach involved threats of boycotts and bad publicity if certain demands – often deemed unreasonable by the media – were not met. The media were mostly able to counter such threats with effective publicity for their point of view. The "hat in hand" approach involved people advocating worthy causes, who offered no threats but begged the media to take special notice of them. These people were in general treated positively but few changes were made, the media feeling that there were too many good causes to be dealt with. As neither approach seemed very successful, a new one had to be developed. Research indicated that such an approach would need to be non-threatening and collegial, with no hint of censorship or loss of prestige within the industry. In exchange for access and attention, it would need to offer the industry benefits, such as current and accurate information on alcohol issues, that would help it operate more efficiently. Prominent writers, directors and producers were invited to form an advisory board to help develop a method for working with the television industry.

The second stage of cooperative consultation involves general education for the television community. With funding from the United States Public Health Service and voluntary agencies, the consultants set up an office in Los Angeles, organized workshops, and started to cultivate personal relationships with creative personnel. Research findings, accompanied by suggestions for improvement, were presented to television producers, writers, editors and directors. Research findings, suggestions and background material about alcohol use in the United States were distributed through newsletters and articles. The consultants tried to gain the support of various professional groups and organizations; one aim was to establish the consultants as a source of accurate information. The Directors' Guild published in its newsletter an article recommending the consultants' services, and the Writers' Guild listed their telephone number for questions relating to alcohol.
The consultants' message was that drinking was frequently portrayed on television, and that the wrong lessons were being taught to viewers. The suggestions for improvement aimed at two kinds of modification: at reducing aspects harmful to public health, and at increasing the occurrence of realistic portrayals and positive modelling. The focus was on some of the most troublesome patterns, such as excessive drinking without consequences or with only pleasant ones, glamourizing the portrayal of drinking as a sophisticated or adult pursuit, depicting drinking as a sign of manliness, association of drinking with driving, not showing characters refusing drinks, gratuitous use of alcohol where another beverage might easily be substituted, and inadequate portrayals of drinking problems, such as miraculous recoveries from alcoholism.

The consultants had tried in vain to get the endorsement of the Caucus for Producers, Writers and Directors, a prestigious umbrella organization in the television industry. Only after a tragic drink-driving accident, in which three Hollywood stars were involved, did the Caucus issue in 1983 a white paper presenting guidelines for the portrayal of alcohol, based on the recommendations of the consultants. The white paper, disseminated to some 12,500 professionals in the television industry, was followed by another in 1986, updating and re-emphasizing the principles of alcohol portrayal.

Owing to a favourable response from the industry, and increased public attention to alcohol-related problems – fuelled by MADD among others – the nature of cooperative consultation changed. As there was no longer a great need for justifying the effort and for general education, the project moved on to the stage of specific education. The emphasis shifted to answering requests for specific information or for help in developing scripts, and to questioning troublesome features recurring in particular shows. Television people were provided with suggestions for rewriting sequences, or alternative plot lines that would both provide accurate information about alcohol and move the script along.

Cooperative consultation has acknowledged the imperatives of commercial television production. The consultants have striven to frame their suggestions for improvement as alternatives that would improve rather than damage the scripts; accurate and appropriate
depictions of alcohol might, for instance, deepen the characterization, sharpen the conflict or even add new jokes. As the suggestions also had to be adjusted to the practical concerns of time and money, consultation became a matter of compromise. Different approaches were needed for different professional groups. Writers were interested in new ideas and background information. Story editors required immediate consultation to solve problems or move the script along. Directors wanted to avoid using alcohol to give motion to a scene, and appreciated services that could save time and money.

The fourth part of the cooperative consultation process consists of feedback from television personnel. The consultants asked and received evaluations of their activities, and suggestions for responding better to the industry’s needs. As a result, the consultation process became streamlined: the industry people wanted a minimum of meetings, suggestions in telegraphic form and often a response within 24 hours.

In some cases, the consultants were successful in modifying scripts; in others, their suggestions had little visible effect, although even the rejected suggestions may have contributed to the education of television personnel. The consultation process and its achievements have been described, for instance, in a case report focusing on a popular daytime soap opera (281). Content analysis findings had indicated that the programme treated some alcohol issues with care but also contained material for consultation. Certain findings, reported at a scientific conference, attracted media attention, and a newspaper journalist contacted the programme’s producers to write a story about it. When the story appeared, the cooperative consultants sent copies of their findings to producers, writers and directors associated with the programme. This led to discussions in which the consultants congratulated the creative personnel for the programme’s treatment of alcohol material, but also pointed out problem areas. One writer was selected by the programme staff to liaise with the consultants. Analyses of the programme’s portrayal of alcohol before (in 1984) and after (in 1985 and 1988) the intervention indicated some changes in the desired direction. While alcohol was the most frequently used beverage in 1984, by 1988 its use had fallen to the same level as both coffee/tea and water. There were also indications of qualitative changes: characters sometimes refused alcoholic drinks, and there was less
glamourization of drinking and more knowledgeable treatment of
drink–driving, including a depiction of a MADD meeting. In the area
of drinking problems, the intervention had been less successful: one
character, depicted as alcoholic, had been quickly and easily cured.

Regular observation of prime-time drama programmes and
situation comedies for a period of over ten years has indicated that,
while some improvement has occurred, entertainment programmes
have continued to present material not consonant with public health
education. In the mid-1980s, depictions of drink–driving showed less
stereotyping than in the mid-1970s, and some programmes contained
small reality reminders epitomizing appropriate behaviour, such as a
sober character not letting an intoxicated character drive a car (24).
However, scenes of drinking and driving were also shown, and the
consequences of drink–driving were often diluted by jokes. In the
sensitive area of drinking by young people, the television industry
appears to have been careful. An analysis of prime-time programming
covering 1976–1986 indicated that underage drinking was rarely
shown (251). A notable exception in more recent programmes was a
standard format story of the troubled youth who becomes a problem
drinker, but in the end learns that alcohol produces additional prob-
lems, rather than solving any. On this point, the suggestions for im-
provement focused on modelling appropriate adult behaviour in
handling young people’s drinking problems. Suggestions have also
been made to reduce inconsistencies and inappropriate modelling in
the treatment of alcoholics and the friends and families around them
(252–254).

While the cooperative consultants have admitted that the use of
their technique may involve problems, they assume that the problems
are counterbalanced by the opportunities (281). According to them,
cooperative consultation may, under favourable conditions, also have
the potential to influence media portrayals in areas other than alcohol.
The topic chosen for intervention should, however, be non-
controversial, and the intervention non-partisan in nature. When co-
operating with the television industry, the consultants stressed that
they were not anti-alcohol advocates, but educators addressing prob-
lems related to alcohol use. The consultants did not ask for drinking
to be removed from entertainment television, but only suggested mi-
nor adjustments that could be accommodated without damaging the
entertainment value of the shows. Instead of seeking credit for any changes in scripts, they remained in the background. For a successful intervention, both knowledge of the topic and understanding of the target media industry and institutions are needed. In the case of the television industry, the consultants' ability to penetrate the creative community and to frame the effort as a resource to the creative personnel seems to have been partly due to James De Foe's background as a television writer. The most important organizational aspect in cooperative intervention is probably continuity, which necessitates adequate financial backing. It takes time to establish the presence of a consulting team, and to have a visible and lasting effect the team should remain on the scene and be available for a long period.

While cooperative consultation is likely to have contributed to some changes in entertainment television's portrayal of alcohol, it remains unclear whether the changes have been substantive enough to be reflected in the social perceptions of alcohol. In the early 1980s, the television industry launched various initiatives of its own to ensure that programmes put forth appropriate social messages. One example is the Entertainment Industries Council (EIC), established to run prevention campaigns, produce appropriate television programmes and materials, and cooperate with government and voluntary agencies in health promotion. EIC has issued its own guidelines for the portrayal of alcohol in entertainment television. It has been argued that, by creating its own internal mechanisms for controlling the treatment of alcohol, the television industry has ensured that environmental and structural issues that might conflict with the imperatives of the business are avoided (244).

**The Harvard Alcohol Project**

In contrast to the broad range of issues addressed in the cooperative consultation project, the Harvard University Alcohol Project focuses on a single issue. The Project was launched in 1988 by the University's Center for Health Communication. The Project is a collaborative effort to organize the television community to use entertainment programmes to alert viewers to the dangers of drinking, and to promote the idea of choosing a designated driver – someone who abstains from drinking in order to drive drinking friends safely home. The Project's goal is to promote a shift in social norms related to driving after drinking (283,284).
As a first step, the Center persuaded the three commercial networks to produce public service announcements promoting the designated driver concept, and to air them in prime time. Until then the three networks had never sponsored simultaneous campaigns.

The Project’s main strategy has consisted of persuading writers and producers to incorporate elements consonant with drink-driving prevention into entertainment shows. The Center has kept track of references to drink-driving or teenage drinking in prime time programmes since the Project’s beginning. Over the Project’s first three years, messages related to the prevention of drink-driving – sometimes only single phrase reminders – appeared in more than 100 episodes of popular situation comedies or dramatic series. Several shows, reaching millions of viewers, dedicated entire episodes to themes around drink-driving.

The Harvard Alcohol Project is to some extent modelled on previous efforts to use entertainment television as a vehicle for alcohol education, but it also departs from them in important ways. The Project is led by a prestigious institution of higher education. The association with the University was strengthened, for instance, by the distribution of trinkets carrying the Harvard insignia, and of certificates signed by a Harvard dean. The Project has refrained from forming alliances with other interest groups working on the alcohol issue in Hollywood, and has concentrated on cultivating relationships with professional guilds. The Project has been widely publicized through coverage in the national press, in television industry trade publications and in television news and talk shows. One reason for the media’s interest has been the unusual connection between two different worlds – the academic world and the world of popular entertainment.

The idea of inserting messages against drink-driving into entertainment programmes originated from a high-level executive in the television industry. While it is generally not easy for advocacy groups to gain access to key decision-makers, the involvement of high-level television industry people guaranteed the Harvard Alcohol Project easy access from the top down. The focus has been on a single problem, and the demands placed on producers and writers have been minimal. The message could be easily inserted into the dialogue, or displayed on a poster in the background. The public was already
aware of the drink–driving problem, partly due to the movement against drink–driving in the 1980s. The television industry was also already sensitized, partly due to earlier intervention efforts focusing on alcohol.

It has been suggested that the model of the Harvard Alcohol Project – the marriage of a simple idea and the power of television – was also a marriage of convenience between different but compatible goals. During the 1980s, the television industry had received its share of criticism over the advertising of alcohol in the mass media. Collaboration with the Harvard Alcohol Project to prevent drink–driving was an effective public relations tactic to improve the networks' public image. In addition, the drink–driving issue could be used by the companies' publicity departments to promote particular shows and increase audience ratings.

In particular, the concept of the designated driver was enthusiastically embraced by the television industry. The concept has gained widespread acceptance in the United States, but also incited criticism (284,285). According to an opinion poll conducted in 1989, the use of designated drivers received more endorsement from the public than any other drink–driving prevention strategy. The concept has been adopted by advocacy groups (such as MADD), by the restaurant trade (some bars and restaurants have provided complimentary non-alcoholic drinks for designated drivers) and by alcohol companies that have incorporated the designated driver concept into their responsible drinking campaigns. Several explanations have been given for the ease with which the designated driver concept gained acceptance. The use of a designated driver seems a quick solution to the drink–driving problem, involving little personal and no social cost. The approach also fits well into the way the media, advertising and alcohol industries prefer to see alcohol problems defined – as limited and specific problems, defined in terms of individual responsibility.

Although encouraging at least the driver to abstain might in some cases represent progress, it has been argued that designating a driver may enable the passengers to drink excessively. It has also been pointed out that the designated driver approach is unlikely to work for problem drinkers, and cannot provide safe transportation for the solitary drinker. The concept has been seen as reinforcing the status quo
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regarding alcohol consumption by giving the impression that – except for circumstances involving driving – drinking is acceptable and not particularly harmful. This view has been fuelled by the close resemblance between some designated driver advertisements produced by the alcohol industry and normal advertisements for alcohol products. The mass media’s focus on the designated driver concept has been seen to distract attention from more effective measures to curb drink-driving – there is no research evidence on the effectiveness of the designated driver approach in reducing traffic accidents involving alcohol. A conclusion that has been drawn is that, while it is hardly justified to promote the designated driver approach as a major solution to the drink-driving problem, the practice can be recommended as one option for individual behaviour if this is done in the context of a broader prevention strategy that also addresses relevant environmental factors.

The Harvard Alcohol Project has not explicitly claimed credit for scripts focusing on alcohol issues, or for brief messages against drink-driving in television shows – in many cases it would be actually hard to say where the original idea came from. The Project is, however, likely to have at least contributed to an increase in such messages. A survey conducted in 1989 found that 78% of adult respondents had seen a television message promoting the designated driver concept. Self-reported use of designated drivers increased from 62% in 1988 to 72% in 1989. Whether this increase reflects changes in actual behaviour, or changes in social perceptions of drink-driving, it is likely to be part of a more long-term trend influenced by a number of factors besides the Project (284).

Experiences from the Harvard Alcohol Project, from cooperative consultation and from other similar initiatives show that some modifications can be made to the standard pattern of alcohol portrayal in entertainment television. In the broader context of television programming or the mass media in general, the improvements that can be achieved through cooperation with the television industry are more likely to represent minor shifts than an overall reform. Cooperative initiatives are not likely to alter the tendency of entertainment television to reduce alcohol problems to personal issues, but they may influence the degree of realism in the treatment, and perhaps the degree to which television portrayals serve as a resource
for viewers' understanding of personal issues. Constructive messages in television entertainment alone, however, are not likely to have a decisive impact on alcohol consumption or alcohol-related problems.

**Mothers Against Drunk Drivers**

Over the 1980s, coverage of issues related to drink-driving increased sharply in the American media: drink-driving seemed to have turned into a major social problem. In national newspapers the number of articles on the subject grew from a handful per year in the late 1970s to more than 150 per year in 1984 (Lemmens, P. & Vaeth, P., unpublished data, 1993). This heightened coverage did not arise from dramatic increases in the occurrence of drink-driving. The primary reason was the activities of organized action groups that, since the late 1970s, had striven to focus journalists' and the public's attention on the problem.

Probably the most well known example of a citizens' movement against drink-driving is MADD (86). It was started in California in 1980 by a mother whose daughter had been killed by an intoxicated hit-and-run driver. During the judicial process the mother grew outraged at what she perceived as leniency in the system, and began lobbying to get tougher drink-driving laws passed by the California legislature. By holding dramatic press conferences and giving angry testimony before legislative committees, she succeeded in capturing media attention and in overcoming the initial indifference of policymakers. Within a short time MADD was incorporated as a non-profit organization, and legislative aides and volunteers were enlisted. With grants from national voluntary agencies, MADD was able to produce brochures and organize local chapters. With continuing publicity activities the organization gained growing media coverage, which in turn brought in members and donations.

One year after it had been started, MADD had generated an income of close to US $500 000. In a national survey in 1984, 85% of respondents recognized the name of the organization. By 1985, MADD had 360 local chapters all over the country, and the number of members and donors was over 600 000. The organization had a US $10 million budget administered by professional staff. Articles reporting MADD activities appeared almost weekly in major newspapers and magazines,
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and MADD representatives appeared on local and national television talk shows.

Several factors appear to have contributed to MADD's success in putting the drink-driving issue in the media spotlight (86,278). One reason is the organization's unquestionable credibility. MADD was established by people who had lost family members or had been injured in drink-driving accidents, and it represented itself as a victims' rights organization. While the local chapters focused on counselling victims and advocating for them, the national organization increasingly turned towards media-oriented activities. MADD seems to have met in an almost ideal manner the media's need for dramatic and emotional material. MADD offered personal experiences of victimization, and outraged spokespersons presenting compelling statistics of injuries, deaths and costs, and of hordes of drink-drivers on the road of which only a few were arrested. Another reason that seems to have made it easy for the media and the public to join in MADD's campaign was that the problem was defined in a way that was easy to grasp, and the solution that was offered seemed simple. MADD did not focus on drink-driving as a phenomenon but on the drivers themselves, on villains and killers who deserved to receive stiffer penalties.

The social, political and economic context seems also to have played a role. MADD's focus and strategy seems to have fitted well into the political ideologies and strategies of the Reagan era. At a time when the growing budget deficit was a major problem, the campaign against drink-driving provided the law enforcement system with an argument against reductions in resources, or for claiming additional personnel and equipment.

The alcohol industry was faced with a downward trend in consumption, a threat of increased taxation to provide revenue for the government and a long-standing threat of restrictions on advertising. MADD's view that it is not alcohol that causes injury and death, but irresponsible users, seemed compatible with the way the alcohol industry preferred alcohol problems to be defined. Alcohol companies and industry organizations offered funding for MADD activities and, unlike many other organizations against drink-driving, MADD accepted. MADD also received support from the
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media industry, and representatives of both the alcohol and broadcasting industries were appointed to the organization's board (205, 278).

MADD's cooperation with the alcohol industry can be seen as a way to turn powerful corporate opposition to financial and ideological advantage (86). From another angle it can be seen as the alcohol industry's way to split a movement that had the potential for turning into a powerful public health coalition. Endorsing industry self-regulation, MADD refused in the mid-1980s to join project SMART's petition for a ban on broadcast alcohol advertising. Another organization against drink-driving, Remove Intoxicated Drivers (RID), which had also advocated tax and advertising reforms since the late 1970s, decided to join SMART. RID had received considerable media coverage in the early 1980s, but after the decision to join SMART both the national and the local media lost interest in the organization (205).

Besides cases where MADD chapters have been instrumental in achieving changes in local drink-driving policies (73), MADD as a whole has been acknowledged as the prime mover behind the passage of more than 200 state and local statutes against drink-driving during the 1980s. A number of measures that were on MADD's agenda were enacted in several states, such as mandatory jail sentences, higher minimum fines, alcohol problem assessments, reduction of the permissible blood alcohol level, roadside checks, and a nationwide minimum legal drinking age of 21 years. Some consequences of the changed policies have, however, incited criticism: it has been argued that defending drink-drivers has become a booming and lucrative legal specialty, and that in some jurisdictions fee-paying defendants have replaced other problem drinkers in both public and private treatment programmes (86).

The issue of the minimum drinking age was for a long time MADD's only departure from its narrow focus on drink-driving. In the late 1980s, after ceasing cooperation with the alcohol industry, MADD started to endorse other health policy measures such as warning labels on alcohol containers (205). In the early 1990s, MADD's founder was reported to have taken up work as a paid lobbyist on behalf of the American Beverage Institute, an industry trade group against the lowering of permissible blood alcohol levels (286).
While MADD succeeded in making drink-driving into a hot issue that reached peak media coverage in 1984, media interest started to fade after the new drink-driving laws were passed. The coverage of the issue has, however, remained at a higher level than before the MADD boost. In 1985–1991, drink-driving was, along with treatment, the most frequently covered alcohol issue in five major national newspapers (Lemmens, P. & Vaeth, P., unpublished data, 1993).

A major criticism that has been raised of MADD’s approach to drink-driving is that the organization’s narrow focus on individual responsibility and retribution has limited the discussion of alternative policies (86,278). The narrow focus has steered attention away from social structures and practices that create drink-drivers by inducing people to drink and leaving them no transport other than their cars. A broader view of the drink-driving problem was reflected in the set of policy measures proposed to the United States Senate in 1989 by the Surgeon General. Besides measures that directly targeted drink-driving, structural policy measures such as increased taxation and curbing the availability and advertising of alcohol were also recommended.

**Media Advocacy**

MADD shares many features with more recent initiatives, referred to as media advocacy, in which groups across the United States have used the mass media to advance public policy approaches to alcohol-related problems (72,73). A crucial difference is that, while MADD’s focus has been on drink-driving as a problem of individual behaviour, the purpose of media advocacy is – at least in principle – to move the focus of public discussion to the forces that structure the social, cultural and economic environment in which people make decisions about alcohol use.

Media advocacy is part of a strategy to exert pressure on decision-makers. As the mass media provide the forum in which major policy discussions take place, the first step of media advocacy is to gain access to media outlets. Media advocates seek to influence the selection of topics by the mass media, and shape the debate about particular topics. The goal is not media coverage as such but changing public policy, with policy-makers as the primary intended
audience. Secondary audiences consist of groups that may contribute to increasing pressure on policy-makers or that influence public opinion, such as the media themselves.

While the key to successful policy advocacy is strategic and innovative use of the mass media, it has been stressed that the power for change comes from widespread community support. Media initiatives need to be linked with community-level advocacy aimed at coalition building and increasing participation of the public. Media advocacy seeks to involve the public in the policy-generating process and to enhance the visibility, legitimacy and power of community groups. The greater the support for and participation in an initiative, the more likely the initiative is to capture the attention of the media.

Another essential aspect of media advocacy is that, while the focus may be on specific issues and specific steps are advocated, the issues are – or should be – addressed in the context of broad, long-term policy development and change. A long-term goal could be, for instance, to redefine alcohol advertising as a public health issue that needs legislative regulation.

The practice of media advocacy consists of three steps: setting the agenda, shaping the debate, and advancing the policy. The primary task of media advocacy is to understand how the media work, and to use this understanding to gain access to the public forum. A range of strategies can be used to stimulate media coverage for key issues: cultivating mutually beneficial professional relationships with media gatekeepers, contacting editorial boards of media organizations, organizing letter-writing campaigns, capitalizing on opportunities to link health and social issues to naturally occurring events or breaking news, or creating events that will be considered newsworthy. It has been said that the most important skill of a media advocate is to recognize a good story and know how to market it, or to recognize a non-story and transform it into a story (287). An often cited example is a small-scale study conducted by the Center for Science in the Public Interest, an advocacy group focusing on nutrition and alcohol issues. Fourth-grade students in a school in Washington, DC were asked to name American presidents and brands of beer. The children were able to name more beer brands than presidents, and were more likely to spell the beer brand names
correctly than the names of presidents. The study addressed several issues about which the public is concerned — education, youth and alcohol — and received a great deal of news coverage drawing attention to the issue of alcohol advertising (73).

Probably the most complex and difficult step in media advocacy is framing the stories and public discussion in a way that increases public support for effective public policies. Casting a story in a way that meets journalistic and media practices may conflict with the goal of framing it as a public health issue. While it may be easy to sell the media dramatic personalized narratives involving authentic victims of injustice, such stories may not move the issue beyond highlighting the individual aspects of a problem. The art of media advocacy lies in balancing media needs with advocate needs to bring forth the social, economic and political aspects of alcohol problems, and the institutional actors — corporations, government officials, politicians — who influence the conditions of individual behaviour.

To shape the public discussion, media advocates need to anticipate the arguments of opponents, respond to them, and put forward arguments to which opponents must respond. Media advocacy has been described as swimming constantly against the current of popular belief. If the target for change is, for instance, the marketing practices of alcohol companies, the public may perceive proposals for restrictive policies as attempts to place limits on individual choice. The alcohol, advertising and media industries, for their part, are skilled at using to their advantage values such as individual freedom, and framing any criticism of marketing practices as an attempt at censorship.

Accurate and up-to-date information on key issues and activity around them is a prerequisite for successful media advocacy. A case in point is recent campaigning by community and public health activists against the marketing of malt liquors with high alcohol content to black youth (73). Young black people, who have maintained relatively low drinking rates owing to cultural and religious factors, have in the last few years been increasingly targeted by the alcohol industry (288). A key instrument in the campaigning has been the ALCNet (Alcohol Control Network), an on-line computer network accessible at modest cost to anyone with a personal computer and a modem. The
ALCNet was developed by the Marin Institute, a public health institute specializing in alcohol control policies, to help media advocates keep up with the press on alcohol issues. The Institute provides ALCNet with daily updated press clipping files covering five national newspapers and alcohol industry publications. The press summary databases enable advocates to monitor the field, and quickly to find relevant information to be used as a resource when working with journalists. ALCNet also hosts strategy exchange conferences in which advocates may pool their ideas and organize their strategies.

In 1991, the Wall Street journal carried an article reporting on a brewing company’s plans to launch a marketing campaign, targeting black communities with a malt liquor called Powermaster. After a summary of the article appeared in ALCNet, advocates began faxing it to each other across the country. A strategy exchange conference was started to allow advocates to compare notes on media coverage and to share updates on local action. Initial grassroots activity in major cities targeted alcohol merchants, encouraging them not to stock the product. As media interest in the issue of racial and ethnic targeting was already high (due, among other things, to previous controversy over the marketing of tobacco to black communities) the Powermaster issue received wide coverage in the print and broadcast media. When the issue featured as the main topic of a network news show, one advocate wrote down the interview questions and posted them on ALCNet’s strategy exchange. The strategy discussion enabled advocates to shift the focus of public discussion from the morality of targeting vulnerable populations to enforcement of relevant federal regulations. As a result, the Bureau of Alcohol, Tobacco and Firearms withdrew the label approval for Powermaster. The label was found to violate a regulation prohibiting the indication of alcohol content on malt beverage labels. The prohibition, dating from the 1930s, was initially intended to prevent competition for alcohol content between beer brands (289).

The use of rap music, sex and violence to market St Ides, another malt liquor brand, to black youth generated another flood of community opposition. The Marin Institute was contacted by CNN news staff, who had initially become interested because of the opposite views of two well known rap artists concerning the use of rap music to market alcohol. The Institute was able to reframe the story in a way
that brought attention to the scarcity of regulations on the targeting of youth in alcohol advertising. The CNN news story, followed by a front-page article in the Wall Street Journal, helped to recruit more community groups and to bring the issue to the attention of policy-makers. The movement resulted in the removal of some of the most offensive advertisements for St Ides, but was not able to stop the targeting of black youth or to curb the sales of the product.

To some extent media advocacy appears to have been a successful strategy for gaining access to the media forum of public discussion. A study examining the information sources used in more than 260 alcohol-related articles published in major newspapers in the United States during 1985–1991 found that advocacy organization sources had been used in 19% of the cases, slightly more often than alcohol industry sources (Lemmens, P. & Vaeth, P., unpublished data, 1993). In half of the articles government sources were used, and the source was the journalist’s own research in one out of three. The articles inspired by advocacy addressed most frequently drink-driving, alcohol-related accidents, drinking during pregnancy and other health issues. While most industry-based articles took a neutral stance towards alcohol, the stance was negative in half of the advocacy-based articles.

The media advocacy approach thus appears to have some potential for bringing forward alcohol issues and promoting public policy, at least if the media initiatives are planned as part of a long-term process of change. The approach is, however, complex and requires time, resources and specific skills. The key issues become complex and controversial, partly because of the need to redefine them as properties of the social, political and economic environment, partly because the control policy measures being advocated are a threat to powerful vested interests. The skills involved in media advocacy are broad and complex: advocates need to be experts on the key issues and to understand journalistic practices and media culture. Collecting relevant data and cultivating working relationships with media gatekeepers require resources and time (73).

The greatest challenge is to shift the focus of public discussion to the structural roots of alcohol-related problems. The media advocacy strategy has emerged quite recently from grassroots activities in a
particular historical context. The strategy’s principles have not yet been fully established, and the insights based on experiences from the United States may not all be directly transferable to areas with different regulatory, media or alcohol industry structures and practices.
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Alcohol education is one of the most widely used tools in the primary prevention of alcohol-related problems. One reason for its limited success, however, is that it competes with a barrage of messages that promote the use of alcohol. The primary source of pro-alcohol messages is social reality itself: the widespread and visible availability of alcoholic drinks, and the presence and acceptability of alcohol in a variety of everyday situations and contexts.

While alcohol advertising is not a negligible influence on society, it would be wrong to assume that restricting it would suffice to reduce the level of alcohol consumption or of alcohol-related problems. It would also be unwise to assume that intensive public education on alcohol could achieve substantial social change in the absence of a supportive public policy.

The prevention of alcohol-related problems requires an integrated approach encompassing several strategies which, rather than attempting to alleviate problems of individual behaviour, addresses them as properties of the social and physical environment.

Current research suggests that the most effective policy consists in controlling the physical and economic availability of alcohol. Public education and restrictions on alcohol advertising receive far less support, and are best seen as additional components that can be used to support the more robust measures within the context of a comprehensive alcohol control policy.