A PUBLIC HEALTH APPROACH TO ADDRESSING ALCOHOL-RELATED CRIME IN SOUTH AFRICA

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ABSTRACT

South Africa is reported to have one of the highest levels of alcohol consumption per drinker in the world. This article provides a brief review of the role played by alcohol in crime in general, and focuses specifically on the burden of alcohol in South Africa in terms of crime, violence and injury. Strategies likely to be effective in reducing the level of alcohol-related harm are discussed, with particular emphasis being given to initiatives aimed at restricting the physical availability and accessibility of alcohol, restricting alcohol advertising and marketing, placing restrictions on certain alcohol products/containers, introducing counter-measures to more effectively address drinking and driving, and ensuring effective treatment for drink-driving offenders and persons incarcerated for certain crimes. The paper concludes with some comments on the need for the effective translation of strategy into action.

KEY WORDS: alcohol, crime, injury, violence, prevention, South Africa

INTRODUCTION

According to the World Health Organization (2002), in 2000 the global burden of alcohol in terms of death and disability was between 1.6% (for high-mortality developing countries) and 9.2% (for developed regions) of total disability adjusted life years lost, accounting for 4.5 billion years lost. While South Africa is a high mortality developing country, a preliminary estimate of the total burden of alcohol to South Africa is 6-7%, ranking third after unsafe sex and interpersonal violence (Bradshaw et al., personal communication). The data on global burden of death and disability has been interpreted to imply that as countries develop the burden of alcohol abuse will increase.

Countries differ dramatically in terms of adult per capita absolute alcohol consumption, with countries/regions such as Argentina, Ireland, Western Europe, much of Eastern Europe and the Russian
Federation having alcohol levels in excess of 13 litres per adult per year in 2000 (Rehm et al., 2003). It has been estimated that the per capita consumption of alcohol in South Africa is between 10.3 and 12.4 litres, with the higher level reflecting the amount including homebrewed alcohol (Rehm et al., 2004). However, in interpreting per capita consumption it is important to remember that countries also differ in terms of the proportion of the population who drink and who abstain from alcohol. According to the World Health Organization (2002), 45% of men and 70% of women in Afro Region E (which includes countries like Ethiopia and South Africa) abstain from drinking alcohol. Therefore, while consumption per adult is only 7.1 litres of pure alcohol per year in this region, consumption per drinker is 16.7 litres per year (Rehm et al., 2003). It has been estimated that per capita consumption amongst drinkers in South Africa is likely to be even higher than the regional average (Parry, 2005). This gives South Africa one of the highest levels of alcohol consumption per drinker anywhere in the world, putting it at a similar level as countries such as the UK and the Ukraine (Rehm et al., 2004).

Countries also differ in terms of hazardous patterns of drinking. The WHO study ranked countries on a four point scale in terms of whether the pattern of drinking was hazardous or not. Although Western Europe has among the highest levels of per capita alcohol consumption in the world, it has one of the least hazardous patterns of drinking. Hazardous patterns of drinking are indicated by the level of the population drinking first thing in the morning, drinking to intoxication, drinking apart from meals, etc. South Africa falls into that group of countries exhibiting the most hazardous pattern of drinking (Rehm et al., 2003; Parry, 2005). This is not unexpected given the findings of research on both adults and young people in the country. For example, according to the 1998 South African Demographic and Health Survey, between a quarter and a third of drinkers drink at risky levels over weekends, and drinking to intoxication is common (Parry et al., 2005). With regard to young people, 29% of males and 18% of females between grades 8 and 11 were found in the 2002 National Youth Risk Behaviour Survey to report past month binge drinking (Reddy et al., 2003).

In the past decade South Africa has also consistently had one of the highest rates of recorded homicide in the world, and other categories of both violent and property crime have been recorded at similarly high levels (Schönteich & Louw, 2001). In the first nine months of 2001, for example, rates of murder were estimated to be 33.3 cases per 100 000 population, rape 83.5 cases per 100 000, and housebreaking (residential) 493.9 cases per 100 000 (South African Police Service, 2002). Of the approximately 2.5 million cases of crime reported in South Africa between the period April 2004 to March 2005, violent crimes comprised 36% of cases (South African Police Service, 2005). While the incidence of crimes like murder, attempted murder, assault with intent to inflict grievous bodily harm, and carjacking appear to be decreasing over time, the incidence of violent crime remains unacceptably high.

The purpose of this paper is to briefly review the role of alcohol in violence and crime, and more specifically, to review data on the particular burden of alcohol to South Africa. The second half of this paper focuses on those strategies likely to be most effective in reducing the level of alcohol-related harm in terms of crime, violence and injury. The paper concludes with comments on the need for more effective translation of strategy into action.
ALCOHOL’S ROLE IN VIOLENCE AND CRIME

While alcohol’s close association with violent events (interpersonal violence and self-imposed injuries) has been well documented from prison studies, studies of sexual violence, etc., an association does not necessarily imply causality. A stronger link between alcohol use, crime and violence has, however, been established by three groups of researchers using meta-analysis to collate the findings from several cross-sectional studies. Using this technique, English et al. (1995) concluded that 47% of homicide or purposeful injury could be attributed directly to alcohol use. Their findings mirror those of Schultz & Rice (1991) who found that 46% of homicide or purposeful injury could be attributed to alcohol use. However, Single et al. (1998) reported a lower attribution at 27%.

McClelland & Teplin (2001) directly observed 2365 police-citizen encounters in the USA. Observers used the Alcohol Symptom Checklist to determine the level of alcohol intoxication or impairment of principal actors involved in the encounters. Encounters were indicated as “alcohol-involved” if one or more of the principals were intoxicated (blood alcohol concentrations (BACs) greater than or equal to 0.05g/100ml) or if any of the principals were not present and intoxication could be attributed to alcohol use. However, Single et al. (1998) reported a lower attribution at 27%.

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Alcohol is viewed as playing a role in violence and crime in a number of ways, and Graham et al. (1998) have specifically put forward various mechanisms for how this might occur: (i) societal and cultural attitudes, explanations and norms, (ii) “person factors”, for example, personalities predisposed to aggression, (iii) the pharmacological effects of alcohol itself, (iv) the effect of specific drinking contexts, and (v) the interaction of these factors. Societal and cultural attitudes, explanations and norms refer to the way in which drinking, drunkenness and the effect of alcohol on behaviour are framed within different societies. The pharmacological effects of alcohol itself include the suppression of various neurotransmitters that would normally inhibit aggression by causing anxiety or fear. The drinking context refers to the mediating effect of situational variables associated with the various settings in which drinking takes place and which might inhibit or encourage the occurrence of a criminal act or injury. The argument has, however, been made that even if the perpetrators of crime or violence are under the influence of alcohol at the time of the offence, that blame cannot be laid solely on alcohol as there are other covariates (e.g. “social, psychological and other interactional causal processes”) that need to also be taken into account (Pernanen, 1993, p. 897).
DATA ON THE ALCOHOL-CRIME/INJURY NEXUS IN SOUTH AFRICA

There is a wealth of research coming out of South Africa indicating a very strong association between alcohol, crime and injury. In 1997 the Institute for Security Studies reported on the results of research into alcohol and violence conducted in the Northern Cape. Alcohol was linked with violence, particularly child abuse and rape, and the role of shebeens (unregistered drinking establishments) in the commission of violence was outlined in some detail (Shaw & Louw, 1997). The link between alcohol and shebeens and violence (especially murder) was also identified in a study undertaken by the South African Police Service in the Western Cape in 1996. Among other things, it was reported that in 64% of cases in which the motive was known, and in 24% of cases in which the circumstances surrounding the murder were known, the crime had been committed after an argument and/or during a fight in which alcohol was involved (South African Police Service, 1997). A broader study undertaken in six Johannesburg neighbourhoods by the University of South Africa in 1998 reported that violence in these communities could be attributed to various factors including unemployment, poor housing, environmental conditions and excessive alcohol consumption (Butchart et al., 2000).

In a docket analysis finalized by the South African Police Service in 2001, it was noted that 9.1% (37/408) of child sexual offence cases in the Western Cape province involved an offender under the influence of alcohol. This compared to 3.8% nationally (127/3326) (Crime Information Analysis Centre, personal communication). In 2003 the Institute for Security Studies undertook a national victim survey of persons who were victims of serious assault and reported even higher levels of alcohol intoxication. In 40% of cases victims believed that the assailant was under the influence of alcohol or other drugs at the time of the assault, and a third of victims conceded to having been under the influence themselves at the time of the assault (Omar, 2004).

Data from the Non-Natural Mortality Surveillance System (NNMSS) in 2002 indicated that 46% of non-natural deaths in South Africa involved persons with blood alcohol concentrations (BACs) greater than or equal to 0.05g/100 ml (Matzopoulos et al., 2003). NNMSS data for 2003 indicated that for all causes of death, 49% had positive BACs and the mean BAC overall was 0.18g/100ml (Harris et al., 2004). Levels of BAC positivity were high for both homicides (51% positive, with a mean BAC of 0.17g/100ml) and suicides (35% positive, with a mean BAC of 0.15g/100ml).

Turning to non-fatal injuries, in 2001 39% of trauma patients in Cape Town, Durban and Port Elizabeth had breath alcohol concentrations (BrACs) greater than or equal to 0.05g/100 ml (Plüddemann et al., 2004). Levels of alcohol positivity were particularly high for persons injured as a result of violence (73% for Port Elizabeth, 61% for Cape Town and 43% for Durban). In the early 1990’s the Medical Research Council (MRC) conducted studies of persons receiving services for traumatic injuries at a wide variety of facilities in the Cape Metropole, and it was reported that 70% of domestic violence cases were alcohol-related (Peden, 1995). Research has also been conducted by the Department of Transport into the issue of drinking and driving, and the national daily average of persons driving under the influence of alcohol has been found to have increased...
from 1.8% in 2002 to 2.1% in 2003 (Arrive Alive, 2005). Drinking and driving is an alcohol-defined offence and alcohol therefore has a direct role in the commission of this particular crime.

A national study of prisoners and parolees conducted by the Human Sciences Research Council in 1996 furthermore found that just under half had taken alcohol or other drugs just prior to the crime for which they were incarcerated (Rocha-Silva & Stahmer, 1996). Drinking was especially linked to rape and housebreaking offences. Subsequent research conducted by the Medical Research Council and the Institute for Security Studies has also shed some light on the relationship between alcohol use and crime in South Africa. A study was carried out in Cape Town, Durban and Johannesburg in three phases between 1999 and 2000 (Parry et al., 2004). The main focus of the study was the link between drug use and crime, but arrestees in the three cities were also asked whether they were under the influence of alcohol at the time that the alleged crime took place. Overall, for 15% of the alleged crimes, arrestees indicated that they were under the influence of alcohol at the time that the alleged offence took place. Regarding violent offences, arrestees indicated that they were under the influence of alcohol for 25% of weapons-related offences, 22% of rapes, 17% of murders, 14% of assault cases and 10% of robberies. Levels of alcohol-related crime were particularly high for family violence offences at 49%. Arrestees also indicated that they were often under the influence of alcohol in cases involving property offences, for example, 22% of cases involving housebreaking and 12% of cases involving the theft of a motor vehicle. When asked why they consumed alcohol or other drugs in relation to crimes, many arrestees indicated they consumed these substances in order to give them courage to commit the crimes (Parry et al., 2004).

### INTERVENTIONS TO REDUCE ALCOHOL-RELATED CRIME AND INJURY

There is no single strategy available that can magically reduce the burden of alcohol–related crime. According to the World Health Organization, both individual and population-based approaches targeting high-risk groups and situations, and aimed at reducing per capita consumption of alcohol in general, are needed (Parry & Bennetts, 1998). The reason for this is that alcohol-related crimes (including the crime of drinking and driving) are not only caused by individuals who are high-risk drinkers and regularly drink to excess, but are also caused by individuals who occasionally drink at risky levels and do things that they would not normally do when not intoxicated. While the probability of their committing an alcohol-related crime is lower, the numbers involved make the latter a significant group to which public health interventions should be aimed. Babor et al. (2003) in their book “Alcohol: No ordinary commodity”, and Mosher and Jernigan (2001) in “Making the link: A public health approach to preventing alcohol-related crime and violence”, have put forward a number of interventions that could be useful in addressing alcohol-related crime. In the following section these interventions shall be critiqued, with particular regard to whether they are likely to be effective in South Africa.

Within the public health model of intervention, intervention strategies fall into three broad categories, those focusing on the agent, those focusing on the host
and those focusing on the environment. With regard to alcohol intervention, the agent is alcohol itself. Strategies aimed at the agent focus on interventions around reducing the alcohol content of different beverages. The host is the consumer of alcohol, and there are a range of interventions that deal with persons who abuse or are at risk of abusing alcohol. Environmental strategies are broader than those focusing on the agent and the host and they deal with the context within which alcohol is marketed, distributed and consumed in society. Interventions at the environmental level are likely to have greater potential for reducing alcohol-related crime and violence than interventions at other levels (Mosher & Jernigan, 2001). The emphasis of the following section shall therefore primarily be on environmental strategies.

**Environmental Strategies targeting “place”**

A number of environmental strategies deal with the place in which alcohol is consumed or sold (Table 1). These tend to focus on reducing or regulating the physical availability of alcohol. One strategy that has been proposed in many countries and that has been found to be effective involves restricting the hours of sale of alcohol and the days of the week during which alcohol may be sold (Babor et al., 2003). However, in a country like South Africa where there are many unregulated outlets, efforts in this regard are unlikely to be successful unless they are accompanied by innovative efforts to draw the many unregulated outlets into the regulated market. It will also be important in a country like South Africa to strengthen community inputs into the process of allocating liquor licenses, dealing with complaints and determining the hours and days of sale (Parry, 2005). In general, effective mechanisms for handling community complaints also need to be provided. It is essential that communities have access to information about violations and complaints and the manner in which they are addressed be increased. One recommendation is that an annual report focusing on these matters be presented to the provincial government (Parry, 2005).

<table>
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<th>Place: Restricting Physical Availability and Facilitating More Responsible Retail Practices</th>
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<td>• Restrict hours and days of sale and bring unregulated outlets into regulated market</td>
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<td>• Restrict outlet density and outlet location</td>
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<td>• Require responsible beverage service programmes and codes of conduct</td>
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<td>• Establish accords between licensees, police, local authorities and community organisations in trouble spots</td>
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<td>• Encourage server liability in cases where alcohol has been served to intoxicated persons who go on to harm themselves or others</td>
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<td>• Conduct routine enforcement programmes to ensure compliance with laws prohibiting sales to minors/intoxicated persons, and to control public nuisance activities</td>
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<td>• Conduct Last Drink Surveys in order to identify “problem premises” for intervention</td>
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<td>• Increase community access to information regarding violations and complaints</td>
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ALCOHOL-RELATED CRIME IN SOUTH AFRICA

- Prohibit/restrict alcohol availability in public settings (e.g. beaches, parks, sporting events)
- Discourage free or heavily discounted drinks
- To reduce underage drinking establish a mechanism of referral for dealing with young persons who use false or altered identification to enter licensed premises, improve training of and require certification for crowd controllers at bars/clubs, and establish alternative alcohol-free entertainment to young people
- Encourage community organisations to implement alcohol-safe environmental policies

Price: Restricting Accessibility
- Increase alcohol excise taxes and adjust annually to reflect inflation

Promotion: Restricting Advertising and Marketing
- Advertising not permitted when 15% of viewing audience is between 10 and 18 (legal drinking age)
- Eliminate advertising with a substantial appeal to underage consumers
- Match level of alcohol advertising with equivalent exposure to health and safety messages
- Institute rotating health warning labels that are conspicuous and easy to read
- Prohibit outdoor advertising and billboards where children are likely to be present or in high crime areas

Product Restrictions
- Restrict size of alcohol containers to that of one standard drink (e.g. 340ml of beer) or multiples thereof
- Impose special labelling and bottling requirements so that alcoholic products are easily distinguishable from non-alcoholic products
- Move towards packaging alcohol in safer materials and dispensing alcohol in safer materials (e.g. plastic) – especially in high-risk locations

Drink-Drive Counter-Measures
- Increase the use of random breath testing
- Introduce a graduated licensing system for novice drivers

Treatment
- Introduce mandatory treatment for repeat drink-drive offenders
- Introduce alcohol/drug treatment for persons incarcerated for certain crimes

The benefit of increasing community input in the management of conflicts arising as a result of social disruption associated with liquor outlets has been demonstrated in the regional city of Geelong, Australia. The “Local Industry Accord”, designed to promote a range of harm minimisation strategies aimed at reducing alcohol-related violence and crime, involved the collaborative participation between police, local licensed premise operators, Liquor Licensing Commission representatives and other relevant agencies and individuals. To achieve the objectives of the accord the following practices were strongly discouraged: free and heavily discounted drinks, unsatisfactory standards of crowd controllers not interested in checking bona fide of patrons leading to underage persons entering licensed premises, and all-age events with the availability of large volumes of alcohol. Over time a number
of additional strategies were implemented to combat alcohol-related problems. These included requiring all crowd controllers to be licensed and when working to display identification to this effect; improving the training of bar staff, security personnel and new licensees; offering all licensed premise operators a mechanism of referral for dealing with young persons who pass false or altered identification to gain entry into licensed premises; establishing alternative alcohol-free entertainment (e.g. discos) in a supervised venue for young people; allocating eight hotels or nightclubs to one police sergeant who would assist licensees with problems they might have and to work with them in dealing with incidents occurring in or around their premise; and having the local authority enact a by-law prohibiting persons from having open containers of alcohol in public places. Breaches of the latter attract a $100 spot fine and are actively enforced by local council officers and police. Since the adoption of the accord in 1991, crime and violence associated with intoxicated parties is reported to have decreased significantly (Turning Point, 1998).

Another strategy rated highly by Babor et al. (2003) involves instituting restrictions on outlet density. The argument is that decreasing the density of liquor outlets reduces the availability of alcohol, which in turn will lead to a reduction of alcohol-related problems, including crime. This particular strategy would be difficult to implement in a country like South Africa, where 80-90% of outlets are unlicensed and many are situated in residential areas. It would first be necessary to encourage existing unlicensed outlets to become licensed and to move into business nodes/corridors. Thereafter development incentives to upgrade facilities could be given to those outlets serving alcohol in a responsible manner. The intention is that this would lead to less responsible retail outlets going out of business. Outlets near schools should also be restricted or opposed. Here too it will take some time to see the effect of any changes in this area, but movement on this issue is required in order to effect change in the longer term (Parry, 2005).

It has also been recommended that responsible beverage service programmes, such as safer bar programmes, be implemented (Mosher & Jernigan, 2001). This would involve working with the distributors of alcohol to develop operational policies and to implement training programmes that will improve responsible beverage sales. These operational policies might include discontinuing sales of alcohol in large containers, placing limits on the number of drinks per customer per hour, not serving alcohol to intoxicated patrons, implementing a minimum age for persons selling alcohol, having strategies around preventing and managing incidents which have the potential for becoming violent and also increasing the provision of food in drinking outlets. One example of where the retail sector moved forward on this on their own accord can be found in the township of Meadowlands near Johannesburg. Here shebeen owners joined together to form the Tavern Owners Against Crime (TOAC) group (Mkhuma, 2001). A code of conduct for tavern owners was drawn up, restricting, among other things, the sale of alcohol to minors and intoxicated persons. Through this initiative, the number of assaults reported in the area is reported to have decreased significantly. Three neighbouring township areas have since adopted the strategy (Mkhuma, 2001). The liquor industry is keen to encourage such programmes but it is preferable that
such programmes should be mandated by law rather than left up to the retail sector to implement in a voluntary manner (Parry, 2005).

Another strategy that has been recommended involves increasing the likelihood of owner/server (civil) liabilities for damages being awarded in cases where alcohol has been served to persons who were clearly intoxicated, and who then went on to harm themselves or others. In South Africa this option might work in the formal sector, but it is unlikely to be effective in many situations involving unregistered outlets which often have very little to lose and in a country with an already overburdened justice system (Parry, 2005).

The role of law enforcement in ensuring that environmental strategies have an effect has been stressed (Mosher & Jernigan, 2001). It is recommended that routine, effective law enforcement programmes ensure compliance with laws prohibiting the sale of alcohol to minors and intoxicated persons, and control public nuisance activities. In South Africa, such programmes would need to be integrated with reforms in the area of liquor licensing, and would require greater commitment on behalf of the police service to intervene in this area. Greater commitment would also be required from provincial departments of economic affairs (responsible for liquor licensing issues) to provide the resources needed to facilitate the activities of an independent inspectorate that would work alongside the police service in closing unlicensed premises and in ensuring that licensed operators operate in line with municipal regulations (and community accords).

It would also be useful to set up an information system whereby the police could collect and collate information regarding the “place of last drink” in the case of motor vehicle and pedestrian injuries, as well as violence/public disturbance where alcohol is deemed to have been involved (Parry, 2005). Such projects enable efforts to be focused on areas in which interventions are likely to be most effective. In Australia and New Zealand, the Last Drink Survey (LDS) has remained a widely used initiative by liquor licensing coordinating committees since its introduction in 1991 (Alcohol and Public Health Research Unit, 2002). Data collected by police are forwarded to these local committees, which meet regularly to discuss licensing issues. Licensed premises identified as “problem premises” are targeted for host responsibility training (Hill, personal communication, August 25, 2000). It is reported that the LDS has seen a decline in police call-outs to problem premises, as well as a reduction in data identifying problem premises (Alcohol Advisory Council of New Zealand, 2005).

Other strategies that have been used include prohibiting or restricting alcohol availability in public settings such as parks, beaches, recreation centres and at certain community events (Mosher & Jernigan, 2001). There has been anecdotal evidence of the benefits of a ban on alcohol use on beaches in Cape Town that has been enforced for a number of years, resulting in a reduction of negative incidents involving alcohol over the Christmas season. Community organizations, including faith-based organizations, social clubs and sports organizations also need to be encouraged to implement alcohol safe environmental policies. For example, at organisational functions, lower strength and non-alcoholic beverages should be available and promoted, the excessive or rapid consumption of alcohol should be discouraged (e.g. no drinking competitions), food should be offered...
where alcohol is served, alcohol consumption by parents/coaches/instructors should be discouraged and alcohol should not be used for prizes/awards. In general, it has been recognised that the community’s acceptance and active backing of community-level interventions is a prerequisite for the effective implementation of any public health policy (Mosher & Works, 1994). Social movements targeting alcohol consumption specifically have often resulted in substantial reductions in alcohol-related problems (Room et al., 2002). Such movements tend to be particularly effective in the short term as enthusiasm sustaining them wanes. However they often result in the adoption of beneficial, new customs or institutions which are of longer duration (Room et al., 2002). For example, in the early 1990’s a women’s movement in the Indian state of Andra Pradesh resulted in a statewide ban on Arrack, a clear liquor distilled from molasses. The state had previously had the highest consumption rate of Arrack in India, and the women felt that they bore the brunt of the men’s drinking. The ban on Arrack was followed by a statewide ban on alcohol, and the movement spread to six neighbouring states. While the prohibition was partially repealed after two years, the prohibition on Arrack remains. Liquor is currently only available at limited outlets that have tightly restricted hours of sale (Room et al., 2002).

Environmental strategies targeting “price”

Another environmental strategy likely to be effective in reducing alcohol consumption and alcohol-related problems in general involves increasing the retail sale price of alcohol through increasing alcohol excise taxes (Babor et al., 2003; Mosher & Jernigan, 2001) (Table 1). It has been recommended that the level of alcohol excise taxes be reviewed annually in order to ensure that the taxes are regularly adjusted to reflect inflation (Parry, 2005). There is some evidence that alcohol tax increases reduce crime (Chaloupka & Saffer, 1992; Cook & Moore, 1992; 1993), industrial injuries (Ohsfeldt et al., 1990) and motor vehicle fatalities (Chaloupka et al., 1993). The National Treasury in South Africa has set as its target the increase of the total tax on beer, wine and spirits to 33%, 23% and 43% of the retail sales price respectively (Parry et al., 2003). This is certainly a step in the right direction, however it is still less than the international averages of 37%, 33% and 54% for these products respectively. South Africa has also dropped behind in terms of taxing sorghum beer, a product that accounts for about a quarter of the absolute alcohol consumed in South Africa. The effectiveness of any strategy aimed at increasing price through increasing excise taxes depends on government oversight and the control of alcohol production and distribution. High taxes can increase smuggling and illicit production, and these negative consequences need to be taken into account (Parry, 2005). The effect of tax increases in reducing alcohol-related crime/injury is less direct and more difficult to measure but nonetheless deserves careful consideration as part of a broader base of intervention strategies.

Environmental strategies targeting promotion

A further set of environmental strategies focuses on the promotion of alcohol, and deals specifically with restrictions on alcohol marketing and the implementation of counter-advertising strategies such as warning labels...
Among other things it has been recommended that alcohol advertising should only be allowed when no more than 15% of the viewing audience is between the ages of 10 and the legal drinking age (Jernigan, Ostroff & Ross, 2005). This could hold for sporting events, print media and radio advertising. It has also been recommended that all advertising with a substantial appeal to under-aged consumers should be eliminated (e.g. use of cartoon characters) and that there should be restrictions on product placements in movies rated “all ages”, as well as TV shows with less than a 75% adult audience (Mosher & Jernigan, 2001). These restrictions might be useful in reducing the sale of alcohol to underage youth. As selling alcohol to underage youth is a crime, this could therefore be seen as a crime prevention strategy. Given the level of exposure received by pro-drinking messages from the liquor industry, it is suggested that this level be matched with equivalent exposure for active pro-health and safety messages (e.g. around drinking and driving and using other machinery). With regard to warning labels (passive counter-advertising), opinion is mixed as to their effectiveness. If warning labels are instituted, they need to be easily read and conspicuous and should include pictures. They should also be rotated so that consumers do not become immune to the particular message (Parry, 2005). A further recommendation is the prohibition of outdoor advertising and billboards in areas where children are likely to be present. If the intention is also to reduce crime in communities in which high levels of crime are suspected to be alcohol-related, then there might be a case for restricting such forms of advertising in these areas. To date, however, there is little hard evidence regarding the impact of bans on outdoor advertising on health and social problems. A national study undertaken in South Africa in 2001 found that 45% of respondents believed that the government should ban billboard advertising of alcohol products (Parry, 2002).

**Environmental strategies targeting the product**

With regard to product restrictions, a number of recommendations have been made which should be considered as part of a broader crime prevention strategy aimed at dealing with the link between alcohol and crime (Mosher & Jernigan, 2001). It has been proposed that there should be restrictions on the size of beer, wine and spirits containers with, for example, only 340 ml containers of beer being permitted (1 standard drink), and that there should be no place for selling sachets of spirits or 5 litre plastic containers of cheap wine (papsakke) (Parry, 2005). Selling beer in units of one or two standard drinks, if accompanied by education campaigns, might assist drinkers in keeping track of what they have drunk and this could in turn help them to determine whether they are under the drunk driving limit. Restricting the sale of alcohol to smaller containers may also reduce alcohol consumption and this in turn may reduce alcohol-related problems of various kinds. Many people in South Africa, for example, drink beer in quart bottles (750 ml) and tend to think of one of these bottles as one standard drink, whereas in fact they comprise of 2.2 standard drinks. Restrictions could also be placed on the alcohol content of beer products, with beer containers not being allowed to comprise more than 5.5% absolute alcohol. All containers of alcohol should include the number of standard drinks on the container label in addition to the caloric content and other...
ingredients (Parry, 2005). There is also a need to impose special labelling and bottling requirements so that alcoholic products are easily distinguished from non-alcoholic products (Mosher & Jernigan, 2001). A move towards packaging alcohol in safer materials (e.g. alternatives to glass bottles for beer) has also been recommended. Restricting or reducing the sale of alcohol in bottles (particularly beer) is likely to play a role in reducing the number of incidents where persons are injured with a beer bottle. One proposal is that licensed premises should be requested to dispense alcohol only in plastic glasses and bottles (Cusens & Shepherd, 2005). While this might not be appropriate for all venues it might be useful in venues with a high risk for violence and other injuries. Consideration also needs to be given to the prohibition or restriction of the sale of products with a clear appeal to youth (Mosher & Jernigan, 2001).

**Drink-Driving counter-measures and alcohol treatment**

A number of other strategies, which are likely to be useful in reducing alcohol-related crime, have also been recommended (Table 1). With regard to drinking and driving it has been suggested that countries increase the random breath testing (RBT) of drivers – a practice which has proven to be particularly effective (Babor et al., 2003). As compared to sobriety checkpoints where only motorists who are judged by police to have been drinking are asked to take a breath test, in RBT the alcohol levels of motorists are checked at random (Parry, 2005). It has also been recommended that countries implement programmes of graduated licensing for novice drivers. In particular, novice drivers could be restricted from having any alcohol in their systems for three years after first receiving a driver’s license. This could easily be implemented and would probably have widespread political support, given the strong link between alcohol use and injury amongst young drivers (Parry, 2005).

Countries also need to implement mandatory treatment for repeat drink driving offenders. It has been found that successful programmes are well structured and go beyond just providing information, run for at least ten weeks and have court enforced rules of attendance. These programmes should include the suspension of the driver’s licence, to be lifted upon completion of the programme (Babor et al., 2003). There is also evidence to suggest that providing drug/alcohol treatment to persons who have been incarcerated for crime can reduce levels of crime (Gossop et al., 2000). There is particular evidence for the effectiveness of substance abuse treatment for acquisitive crimes (e.g. robbery). There is little information pertaining specifically to the effectiveness of alcohol treatment on recidivism, however, research from the United States indicates that the diversion of drink driving offenders into intervention programmes has been associated with an 8-9% reduction in drink-driving recidivism (Hall, 1997). The modesty of this benefit is reported to reflect the minimal nature of the interventions, which tend to be brief (running over hours or days) and aimed at breaking the link between drinking and driving as opposed to treating offenders’ alcohol problems. The limited research suggests that more intensive alcohol treatment programs are likely to produce larger reductions in recidivism (Wells-Parker et al., 1995).

There are various alcohol strategies and policies that have generally been found to be ineffective (Babor et al.,
2003). These include strategies aimed at regulating the physical availability of alcohol, and which focus on voluntary codes of bar practice. Also included here are broad strategies dealing with education and persuasion, such as alcohol education in schools, colleges and public information campaigns. This is not to suggest that there is no place for alcohol education (for example in schools), but no strong evidence showing the efficacy of such programmes has been found. The efficacy of designated driver programmes and ride service programmes has also not been demonstrated in research (Babor et al., 2003).

CONCLUDING COMMENTS

Building an effective response to alcohol problems involves far more than the design of good intervention programmes. South Africa’s current response towards dealing with alcohol, and specifically its association with crime, is highly fragmented. This fragmentation exists between different governmental departments, as well as between different levels of government (local, provincial and national). This issue clearly needs to be addressed in order for a coherent response to the burden of alcohol to be implemented (Parry, 2005).

The importance of effective implementation cannot be stressed enough. Having public health professionals build strong alliances with law enforcement personnel is critical, as is community mobilisation. Both are needed if an implementation agenda is to succeed. While there is value in individual intervention strategies (e.g. alcohol treatment), the key to addressing the link between alcohol and crime is likely to be found in environmental strategies. In particular, at a national level, there needs to be greater emphasis on strategies such as increasing alcohol taxes, placing restrictions on alcohol marketing and the use of certain alcohol products (e.g. glass bottles and “papsakke”). Provincially, the emphasis needs to be on ensuring a healthier retail sector (dealing with issues around the location of alcohol outlets and the hours of sale), while at a local level greater emphasis on law enforcement and active community involvement is needed.

The policy climate for addressing alcohol related issues has begun to shift in 2006. Among other things the Minister of Health has indicated that she is ready to implement the already drafted regulations on alcohol warning on alcohol containers and this year taxes on all alcoholic beverages (excluding traditional African beer) increased by at least 4.8% in real terms. The Department of Health has also initiated a campaign to stop the brewing of dangerous homebrewed concoctions. The second drug master plan, which also includes alcohol, is due for release in 2006 and it contains a much greater focus on policy implementation. However, the actual capacity to implement interventions at local and provincial level is much more variable. At a provincial level, 2006 has also seen the Department of Community Safety and Health in the Western Cape Province working together to develop a strategy for reduction of abuse of alcohol. This year has also seen the launch of South Africans Against Drunk Driving (SADD), a grassroots organisation aimed at creating awareness of the drinking and driving problem in South Africa, and pressurizing the government to be more proactive in this area. This latter move is especially encouraging as community mobilisation is likely to be key to the success of any efforts to reduce alcohol-related crime and injury in South Africa (Parry & Bennetts, 1998).
REFERENCES


