ALCOHOL USE LITERATURE REVIEW

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INTRODUCTION

Alcohol is a complex health and social issue. There is little doubt that considerable harm is done through its abuse - even the alcohol industry accepts this - but in moderation drinking alcohol is an acceptable convention utilized by over 2 billion people word-wide. While it is possible, even probable, that if alcohol was "discovered" now it would be banned, prohibition is not on the agenda in South Africa or in most other parts of the world (Muslim dominated countries being the exception). The critical issue then is how does one effectively prevent and control its abuse and minimize the associated harms?

This review provides background to questions such as why people consume alcohol, who consumes it, how much and when. It then looks at health impacts (both through direct biological effects and non-natural mortality and morbidity) as well as social and psychological impacts. Special areas of concern in South Africa, such as Fetal Alcohol Syndrome and impacts on sexual behaviour are briefly addressed. The review then turns to outlining some of the benefits that accrue to the country from a vibrant liquor industry but also some of the social and economic costs.

The review points to international best practices with regard to alcohol prevention and asks how relevant such recommendations are for South Africa? Are there also other important issues for prevention in South Africa? The controversial issue of advertising and counter advertising is then addressed.

Brief examples of community based programmes in South Africa are given as well as a summary of the current response of government to alcohol abuse. Finally some barriers to prevention and control of alcohol abuse in South Africa that need to be addressed are outlined.

1) WHY IS ALCOHOL CONSUMED?

Alcohol consumption has been part of human history since antiquity. There are not only numerous biblical examples and ancient myths which refer to alcohol but local oral history and archeological findings suggests that consumption has been part of African culture, rituals, tradition and custom since "time immemorial". But the fact of enduring alcohol consumption and the passing down of this habit through generations does not adequately explain *why* alcohol is consumed. Moreover patterns of alcohol use have changed significantly over time and evidence suggests that the quantity used now is far greater than in earlier times (See pg. 4). The WHO estimates that around 2 billion people worldwide consume alcohol (WHO 2004) and there is clearly no single reason why they do or why different people drink to different extents. It is apparent though that drinking is influenced by factors such as genetics, social environment, culture, age, gender, accessibility, exposure and personality.

1.1) Common reasons why alcohol is consumed

- *Alcohol as a social lubricant*

Alcohol assists people to relax, converse more easily and mix socially. It disinhibits defenses and facilitates "good company".

- *Use of alcohol in ritual*

Alcohol has a "mystique" not shared by non-alcoholic beverages and its use in traditional rituals (locally and internationally) appears to add to the aura of special occasions.

- *Social sharing*

Sharing an alcoholic drink with other people promotes a bonding and a connectedness amongst consumers often not gained through sharing non-alcoholic beverages.

- *Drinking alcohol is accepted - and even expected - behaviour*

There is very little public criticism of people who drink alcohol – even to states of drunkenness. On the contrary, in a number of cultures and situations it is *expected* that one drinks – even to states of drunkenness. Obvious examples would be to see in the new year or "the coming of age" of a young person. Drinking in many situations is simply the "status quo", i.e. that's the way things are[1].

- *Taste and quality*

Though an acquired taste, consumers of alcohol enjoy the taste of alcohol. Some people develop sophisticated palates for alcohol and sincerely appreciate good quality. Even traditionally made alcohol products vary in quality and demand is mediated by this. What one drinks and how one drinks it is very often an indication of culture and class.

- *Alcohol as a reducer of stress*

Alcohol is often used to reduce the tension of an event – impending or actual. Research suggests that drinking *can* reduce stress in certain people and under certain circumstances. Differences include a family history of alcoholism, personality traits, self-consciousness, cognitive functioning and gender (Sayette, 1999).

- *Drinking as a means of dulling "the pain of poverty" or other hardships of life.*

For many people life is simply intolerable. They live in abysmal poverty or in life circumstances which produce unbearable emotional pain. Alcohol dulls that pain for as long as they are drinking. (The fact that this leads into a cycle of ongoing poverty or pain does not influence this pattern).

- *Consumption as "macho" behaviour*

(Mainly) men consume large amounts of alcohol as an indication of their strength and manliness. Behaviours such as drinking more than anyone else or more quickly than anyone else are often regarded as admirable masculine qualities. With changing gender roles some women also "prove" themselves with binge drinking patterns.

- *Consumption in youth*

As children are usually prohibited from drinking alcohol, youth (again mainly males) often see drinking alcohol as a state of adult behaviour to be aspired to.

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[1] Though there is the beginning of a "culture" of not drinking and driving in South Africa, this is still at a rudimentary stage. In any event most adults in South Africa are not drivers and are hence not affected by this. The sanction against drinking and driving appears to not extend to drinking and walking (which is the cause of a significant number of road deaths) nor usually to drinking in situations where other social ills such as violence might arise

- *Enjoyment of a state of intoxication*

Many people simply enjoy the feeling of intoxication (from fairly mild to "motherless").

- *Maintaining a state of inebriation*

The state of inebriation is not maintained unless additional alcohol is consumed. This may lead to more consumption and to states of drunkenness not necessarily intended when starting to drink.

- *Lack of information*

Many people are ignorant of the facts regarding the impacts and effects of alcohol and drink without knowing the dangers. "Counter advertising" and education around alcohol in schools are limited (though see section 8.1 regarding the minimal evidence of the effectiveness of this).

1.2)Pressure to consume alcohol

- *Responding to peer pressure.*

Many people, especially youth, may be, or feel, pressurized to drink alcohol as this is regarded as the social norm or the norm of a particular age or social/cultural grouping. The pressure to conform, especially amongst youth, is a well-documented psychological phenomenon. People may be (or fear they may be) excluded from or ostracized by the group if they do not partake in alcohol.

- *Pressure from advertising/following role-models*

While the alcohol industry claims that alcohol advertising is aimed solely at brand switching and that it is not aimed at promoting additional consumption - especially drinking amongst youth - evidence suggests that advertising does indeed increase consumption (Snyder 2006). The association of role models depicted in adverts such as sportspeople, attractive people, strong people, "outdoor" people, people who enjoy life, people with "superior" tastes etc, etc encourage drinking behaviour in the belief that emulating this behaviour makes one more like these "models".

1.3)Alcohol as part of social control

Since the arrival of European settlers in South Africa, alcohol was used as a form of social and economic control. At different periods it was used in barter for cattle, in exchange for labour (including the "dop" system), the education of slaves and played a pivotal role in "managing" labour in certain sectors of the economy such as mining and agriculture (Parry and Bennetts 1998).

The history of alcohol in South Africa is an integral part of the history of apartheid and segregation. During apartheid who was allowed to buy liquor, when, what types and where were all determined by race and used to control the movements, social habits and freedoms of black people. In townships, municipal beer halls were established by local authorities to help finance township development and control the behaviour of black people.

In response, many people turned to illegal liquor related activities - both brewing traditional African beer and setting up illegal outlets (shebeens) where liquor was sold. Importantly the growth of illegal shebeens in the second part of the 20th century served not only as a way to increase access to alcohol, as a means for social mixing and as employment for the owners and employees but also as a form of resistance to apartheid policies. Moreover during the 1976 uprisings in Soweto and other

townships, beerhalls were specifically targeted as they had come to symbolize white domination and control.

This history of distribution, consumption and resistance is critical for understanding current alcohol related behaviour

1.4)Alcohol dependence

The reasons why most people drink can probably be found in a combination of the above factors, however for some people, drinking is allied with a disease - alcohol dependence. This disease is characterized by *craving*, a strong need or compulsion to drink; *impaired control*, the inability to limit one's drinking on any given occasion; *physical dependence*, withdrawal symptoms such as nausea, sweating and anxiety when alcohol use is stopped after a period of heavy drinking; *tolerance*, the need for increasing amounts of alcohol in order to feel its effects. It is a chronic and often progressive disease. People need to drink despite negative consequences such as serious job or health problems. It is influenced by both genetic and environmental factors.

2) WHO CONSUMES ALCOHOL IN SOUTH AFRICA, HOW MUCH AND WHEN?

Though alcohol has been consumed for thousands of years, the quantity and patterns of alcohol consumption have changed significantly over the past 500 years. The most important of these changes has been the replacement (or in some instances complementing) of traditional and locally produced beverages with industrial beverages – in particular Western-style commercially produced beer (Riley and Marshall, 1999). As a result of this, regular heavy drinking has become a sustainable pattern. Previously alcohol products did not last long – especially in warm climates – and each batch was consumed within a relatively short period of time. The amount of alcohol available was typically limited by the amount of agricultural surplus (Room et al. 2002). Other factors which have substantially affected patters of drinking in developing countries include urbanization, changes in gender and age roles, and high intensity mass marketing and promotion of alcoholic beverages by mass multi-national corporations. (Parry 2000).

In traditional African society the use of alcoholic beverages appears to have been well regulated. Drinking did not occur on a daily basis and people did not drink alone or just for the sake of drinking. Rather, drinking served a communal and ceremonial purpose (Western Cape Department of Economic Affairs and Tourism, 2003). However this changed with the social and economic developments mentioned. Life for black people tended to be extremely hard and many people turned to drink to alleviate their stress and sorrow.

Rates of drinking in countries with the highest consumption are decreasing while the opposite is true of countries with lower consumption (corresponding generally to more developed vs. less developed countries). It also appears that there is a link between economic prosperity and rising alcohol consumption (e.g. Ireland and the Nordic Countries).

Recorded consumption
Data on country level alcohol consumption is usually measured in terms of "recorded" alcohol derived from formal production and sales - the UN Food and Agriculture Organisation collects annual figures directly from governments around the world – and measured in terms of per capita alcohol consumption (15+) in litres of pure alcohol.

The WHO Global Status report on Alcohol 2004 reported on alcohol consumption in 189 countries (WHO 2004). Consumption ranges from Muslim countries such as Iran and Saudi Arabia were no alcohol is consumed (in terms of official production and sales) to Luxembourg and Uganda who consume 17.54 and 19.47 litres of pure alcohol per adult capita respectively. **South Africa is the 47th highest consumer with 7.81 litres per capita.**

These figures do not, however, include "unrecorded" consumption or the consumption of those who do not drink i.e. excluding adults who abstain from alcohol.

Unrecorded consumption
Unrecorded consumption includes traditionally brewed beverages (mainly brewed in villages and homes), cross border trade, smuggling, tourist consumption and beverages with alcohol below the legal definition of alcohol. Few countries have been able to estimate the level of unrecorded alcohol consumed, though some research has been done and estimates suggested. Countries in Africa with high levels of estimated unrecorded alcohol use include Kenya (5.0 litres), Swaziland (4.1 litres. Uganda (10.7 litres) and Zimbabwe (9.0 litres). **South Africa was estimated to consume an additional 2.2 litres per adult capita.** Total alcohol consumption is thus estimated to be around 10 litres per adult capita. Other estimates have suggested 12.4 per year

Locally made beverages are usually cheaper than mass or factory based products, often brewed in rural areas and is consumed mostly by the poorer segments of society. They are also often used as part of ceremonial occasions.

2.1)Who drinks in South Africa?

The adult per capita measurement of alcohol consumption assumes an average across the population, but clearly not everyone consumes equal amounts. In 1998, as part of the first South African Demographic and Health Survey (SADHS), an alcohol survey was conducted to assess the extent of alcohol use, risky drinking, and alcohol problems among South Africans in order to obtain estimates of consumption and risky drinking and to inform intervention efforts (Parry et al, 2005). The SADHS was a national household survey providing cross-sectional data on a representative sample of the non-institutionalised population. Current and life time drinking from this survey were as follows:-

Percentage of males and females (aged 15 years or older) reporting lifetime and current use of alcohol.

Background characteristics	Ever drunk alcohol		Drink now (Current drinking)	
	Males	Females	Males	Females
Age				
15-24	35.5	15.9	23.5	8.5
25-34	65.7	24.5	51.8	15.6
35-44	71.8	29.4	61.1	21.0
45-54	72.8	31.6	60.1	23.5
55-64	67.2	29.8	54.2	20.4
65+	65.3	33.4	45.8	20.3
Geographic setting				
Urban	59.9	29.2	46.7	19.2
Non-urban	55.0	20.1	41.4	13.2
Province				
Western Cape	61.4	40.1	43.6	24.2
Eastern Cape	60.2	22.3	47.5	16.2
Northern Cape	63.4	34.3	48.5	23.1
Free State	66.4	31.6	56.2	24.5
KwaZulu Natal	54.4	17.9	39.8	11.5
North West	57.5	23.7	46.6	17.0
Gauteng	59.1	32.4	49.7	20.6
Mpumalanga	62.1	21.0	45.9	14.2
Northern	45.1	15.7	28.3	8.6
Education[#]				
No education	70.3	33.5	54.6	22.9
Gr. 1 – Gr. 5	63.2	24.2	50.7	16.3
Gr. 6 – Gr. 7	55.2	20.5	42.0	13.2
Gr. 8 – Gr. 11	51.2	20.7	39.6	12.7
Grade 12	59.6	28.8	46.7	18.5
Higher	70.4	45.7	57.8	33.4
Population group				
African	53.4	18.8	41.5	12.3
Afr. Urban	54.1	19.9	43.6	12.8
Afr. Non-urban	52.4	17.6	38.8	11.8
Coloured	63.6	40.4	44.8	23.2
White	84.9	69.8	71.4	50.5
Asian	64.6	14.7	37.4	9.0
Total	58.1	25.7	44.7	16.9

Just under half the men (45%) and one-fifth of the women (17%) 15 years and older reported that they currently consume alcohol. Rates of current drinking differed substantially by population group and gender, with the highest levels reported by white males (71%), followed by white females (51%), and Coloured males (45%). The lowest rates were reported by African and Asian females (12% and 9% respectively). For both men and women higher rates of current drinking were recorded in urban areas. For males the highest current drinking levels were reported in the Free State and Gauteng (50% or more) and the lowest levels were reported in the Northern Province (28%). For females, the lowest levels were also recorded in the Northern Province (9%), with the highest levels being in the Free State, Western Cape and Northern Cape (23%-25%). For both men and women the highest levels of current alcohol use were recorded among persons in the 35-44 and 45-54 year age

groups, and the lowest levels in the 15-24 year group. These figures are likely to be underestimates given the nature of broad household surveys, where respondents may be dishonest about behaviors which may be stigmatized or disapproved of in certain communities and where inadequate attention may be given to setting respondents at ease in asking sensitive questions (Gfroerer et al., 1997). Female drinking, in particular, is often disapproved of in many African communities and as a result is likely to be under-reported (Mphi, 1994; Siegfried et al., 2001).

From this survey it is evident that those who do drink, drink heavily – closer to 20.1 litres of pure alcohol per year. This is amongst the highest in the world (Rehm et al 2003).

2.2) Risky and problem drinking

Table 2. Percentage of males and females (aged 15 years or older) current drinkers engaging in risky drinking

			Current drinkers			
	CAGE ≥ 2 (Alcohol problems)		Risky drinking - weekdays*		Risky drinking - weekends*	
	Males	Females	Males	Females	Males	Females
Age						
15-24	17.6	5.9	3.1	1.2	29.3	30.1
25-34	35.2	9.8	8.4	9.1	37.2	33.4
35-44	38.3	12.1	7.5	7.4	39.0	32.4
45-54	31.2	13.4	8.1	14.0	31.7	35.3
55-64	27.6	9.6	7.6	12.5	27.2	31.8
65+	22.6	12.2	6.6	7.0	21.0	30.2
Geographic setting						
Urban	27.6	10.3	6.4	7.1	30.0	29.5
Non-urban	28.2	9.3	8.3	12.9	38.0	39.3
Province						
Western Cape	27.9	11.8	6.1	5.4	33.4	30.2
Eastern Cape	33.9	10.9	6.5	9.8	31.4	33.6
Northern Cape	38.8	18.7	6.2	7.7	38.1	48.7
Free State	34.5	11.9	5.6	5.6	27.3	30.0
KwaZulu Natal	22.9	6.9	8.5	14.2	31.7	37.8
North West	25.0	11.6	9.1	14.9	42.9	43.0
Gauteng	23.8	10.4	6.1	4.7	24.0	22.1
Mpumalanga	38.4	11.7	5.8	8.6	49.4	46.4
Northern	24.0	6.1	11.1	18.1	41.1	45.2
Education#						
No education	33.5	17.1	6.9	14.6	36.0	38.6
Gr. 1 – Gr. 5	35.8	13.1	12.1	11.3	40.3	44.6
Gr. 6 – Gr. 7	32.2	11.3	10.5	9.5	42.9	44.9
Gr. 8 – Gr. 11	25.9	7.6	4.7	7.6	30.4	32.5
Grade 12	22.4	6.5	6.9	5.9	24.4	18.3
Higher	17.9	4.9	2.0	1.9	24.0	12.6
Population group						
African	29.6	9.7	7.7	13.3	35.7	42.1
Afr. Urban	30.6	10.8	6.6	11.3	32.5	40.7
Afr. Non-urban	28.2	8.3	9.2	15.3	40.2	43.5
Coloured	33.8	18.7	9.3	4.3	39.2	34.2
White	10.0	6.1	3.4	2.7	18.7	14.0
Asian	20.4	1.8	1.5	0.0	6.1	0.0
Total	27.8	9.9	7.0	8.8	32.8	32.4

Risky drinking was defined as drinking five or more standard drinks per day for men and three or more drinks per day for women. Many people that do drink tend to binge – especially over weekends. Rates of risky drinking amongst current drinkers were very similar for male and female drinkers (remembering that far more males are drinkers) and were approximately 4-5 times greater at weekends than on weekdays, with one-third of current drinkers drinking at risky levels over weekends (Males 33%; Females 32%). For both males and females, risky drinking at weekends appeared to be highest among persons in the middle categories for age (35-44 years for males and 45-54 years for females), among persons residing in non-urban areas, with a low level of education (grade 1 to grade 7), and amongst Coloureds and Africans. Weekend risky drinking by males appeared to be highest in Mpumalanga, whereas for females the highest levels appeared to be in the Northern Cape.

The screen for symptoms of alcohol problems (CAGE) found that overall almost a third of males reported symptoms of alcohol problems. This translated to almost two thirds of those who reported currently drinking alcohol. The proportion for females overall was significantly lower. However, when considering the current female drinkers, the proportion who scored two or more on the CAGE screen was virtually equal to that of the males.

The apparent relationship between socio-economic status and an increased risk for alcohol-related problems, with wealthier persons having lower levels of alcohol problems, is confirmed by international studies (Khan et al., 2002). For example, a study conducted in Nepal (Jhingan et al., 2003) also found that lower levels of education were linked to higher scores on the CAGE Questionnaire and that symptoms of alcohol problems seemed to peak in the older age groups (45-54 years for both genders in the Nepal study, versus 35-44 years for males and 45-54 years for females in this study).

The rates of 'current drinkers' found in this survey were lower than those reported for other developing countries, including Mexico (males 77%, females 44%), Chile (males 77%, females 44%), Thailand (males 71%, females 46%), and Namibia (males 61%, females 47%) (Room et al., 2002). Although risky drinking was fairly uncommon during weekdays, it increased significantly over weekends, coinciding with findings from other developing countries, such as Zimbabwe (Room et al., 2002). Interestingly, male and female drinkers were equally likely to engage in risky drinking over weekends, which does not appear to be the case in other developing countries (Room et al., 2002). In most other developing countries males are more likely to engage in risky drinking than females. The similarly high levels of risky drinking between males and females found in this study also differs from that found in most developed countries where levels of risky drinking are much higher among males (Babor et al., 2003).

Harmful drinking patterns amongst South Africans was also reported in the 2002 World Health Report (WHO, 2002) where South Africa fell into the group of countries exhibiting the most harmful pattern of drinking[2].

2.4)What do people drink?

By far the largest quantity of alcohol consumed is beer, followed by African traditional Beer, wine, brandy, other spirits, alcoholic fruit beverages, whisky, fortified wine and sparkling wine.

	Beer	Trad beer	Wine	Brandy	Other spirits	Alco Fruit bev	Whisky	Fortified wine	Spark wine	Tot
2004	43.3%	24.7%	12.3%	6.5%	4.4%	3.4%	2.7%	2.4%	0.3	100%

2.5)Alcohol consumption in Youth

There have been few studies that have documented prevalence rates of substance abuse amongst young people in South Africa. In 1990 Rocha-Silva et al (1996) found that 34% of black youth aged 10-21 had used alcohol in the previous 12 months. In 1993 Flisher et al found that 27% of school going youth had engaged in binge drinking in schools in the Cape Town. A later study by Flisher et al (2003) found:-

	Grade 8						**Grade 11**					
	Black Boys	Girls	**Coloured** Boys	Girls	**White** Boys	Girls	**Black** Boys	Girls	**Coloured** Boys	Girls	**White** Boys	Girls
Life Time	34.7	16.2	39.7	32.5	49.8	52.8	55.4	18.3	69.0	55.6	72.9	75.7
Past year	16.1	6.7	22.6.	18.5	33.9	39.8	35.6	9.6	54.3	41.3	62.3	64.1
Past month	17.7	7.7	21.9	20.5	22.5	25.0	37.6	8.4	47.7	33.2	54.7	56.8

An important finding of this study was that black female adolescents consumed significantly less alcohol than either their male counterparts of females of other races. Another important finding was that the numbers of days absent from school correlated with alcohol use. Whether this is a causal relationship or related to another variable such as "unconventionality" (ie the same people tend to more rebellious type behaviours due to personality of other factors) cannot be gleaned from this study. A community survey in Cape Town in 2002 found that more than 10% of 11- to 17- year olds had been drunk more than 10 times. The median age of first use of alcohol was 14 years. Adolescents who reported having been drunk were more likely to live in communities where youth have easy access to alcohol and where they are exposed to public drunkenness. Older adolescents and adolescents whose friends drink were more likely to have been drunk at least once. Risks of having been drunk were being white and being exposed to public drunkenness on a daily or at least weekly basis.

[2] Harmful drinking was indicated by the level of the population drinking first thing in the morning, drinking to intoxication, drinking apart from meals etc.

Attendance at religious services was found to be a significant protective factor against drunkenness.

In the 2002 National Youth Risk Behaviour Survey half of learners (49.1%) between grades 8 and 11 had drunk at least one drink of alcohol in their lifetime. In the 30 days preceding the survey 31.3% used alcohol on one or more days while 23% reported binge drinking (five or more drinks within the space of a few hours) on one or more days (29% of males and 18% of females). Significantly higher percentages of white and coloured learners had ever drunk alcohol. Rates of using alcohol (including binge drinking) increased with age and grade.

Comparisons of data across different studies suggests that over time there has been an increase in the proportion of people drinking amongst South Africans with particular increases among young, black African males and females.

3)HEALTH IMPACTS OF ALCOHOL

In 2000 alcohol was responsible for 4% of the global burden of disease – more or less equal to the damage caused to society by tobacco use (4.1%). Alcohol was estimated to have caused 1.8 million deaths, or 3.2% of all deaths globally. Contribution to the global burden of disease was considerably higher in developed (9.2%) than developing countries, in part due to the greater consumption of alcohol in these countries and in part due to the high burden from other diseases in developing countries (such as AIDS, Malaria, childhood illnesses etc). Alcohol consumption contributes to disease, injury, disability and premature death more than any other risk factor in developing countries with low mortality, where alcohol is responsible for 6.2% of disability adjusted life years lost. In high mortality regions including Afro Region E the GBD was calculated to be 1.6%. For South Africa the estimated burden due to alcohol (death and disability) has been calculated to be 7.0%, 10.5% for males and 3.1% for females (Schneider et al., personal communication).

Moreover there are many other negative consequences of alcohol that are not taken into account in analysing global burden of disease, such as the effects on families, communities and society as a whole.

3.1)Direct biological Impacts

Both acute intoxication and chronic/long term excessive drinking may have adverse effects on the brain, central nervous and muscular system, liver, heart (though there are also some positive effects for certain groups of people), blood cells, gastrointestinal system, respiratory system, reproductive system as well as the immune system. Its use contributes to more than 60 diseases and conditions. The following conditions are some of the most important. The prevalence rates of most of these diseases in South Africa is generally not known and unless specifically stated rates refer to international figures.

Alcoholic liver disease
Alcohol is absorbed quickly into the blood system, passes through organs where is oxidises slowly and can cause damage. The most common organ affected is the liver.

Mortality studies have consistently demonstrated that heavy drinkers die from liver disease at a much higher rate than the general population. Types of alcoholic liver disease include alcoholic fatty liver (prevalent in about 20% of heavy drinkers); alcoholic hepatitis; and alcohol cirrhosis (about 10-15% of people with alcohol dependence develop cirrhosis). Alcohol also increases the risk of developing liver cancer.

Alcohol hepatitis is characterised by inflammation (necrosis) of the liver, jaundice and abdominal pain. Scar tissue may replace healthy tissue leading to a process of "fibrosis". The condition is reversible with abstinence.

Alcohol cirrhosis is the most advanced form of liver disease. The liver is characterised by extensive fibrosis that stiffens blood vessels and distorts the internal structure of the liver. This damage results in severe functional impairment and may result in secondary malfunction of other organs including the brain and kidneys. The amount of alcohol consumed and the duration of that consumption are closely associated with cirrhosis. Importantly, as consumption increases the risk of cirrhosis is greater for women than for men. Moreover consumption of alcohol without food results in higher risk than with food. Cirrhosis can stabilise with abstinence.

While alcoholic fatty liver, alcohol hepatitis and cirrhosis have been considered to be sequentially related, i.e. progressing in this order, this is not always the case. Some cirrhosis develops without hepatitis and hepatitis may have a sudden onset and a rapid course resulting in death even before cirrhosis can develop.

Effects on the heart

Alcohol can be beneficial or harmful to the cardiovascular system depending on the amounts consumed and the characteristics of the consumer.

Low to moderate consumption has been shown to have coronary benefits for people who are 40 years and older. However according to the WHO " in some industrialised countries where the condition is common and injuries and violence are rare, alcohol consumption may prevent about as many deaths as it causes in some segments of the population. The patterns of drinking in many countries, however, often with heavy episodic consumption, are likely to increase rather than decrease the occurrence of coronary heart disease" (WHO, 2005).

Importantly, questions have also been raised regarding the transferability of the finding of the benefits to developing countries. As coronary heart disease is associated with diet, lifestyle and age and given that the diet of many traditional developing countries is relatively low in fat and high in fibre (a factor that is often given as one of the reasons for the comparatively low incidence of heart disease in developing countries) the findings of the protective effects may not be applicable.

Moreover even if moderate drinking is protective, heavy alcohol consumption could damage the cardiovascular system causing heart muscle disorders, irregular heart rhythms, high blood pressure and strokes.

Effects on blood cells
Alcohol has numerous adverse effects on blood cells and their functions. For example heavy drinking can cause generalised suppression of blood cell production and the production of abnormal blood cell precursors that cannot manufacture cells.

There is evidence that blood pressure increases with increased drinking. A study in India found alcohol consumption to be a significant risk factor for hypertension. A meta-analysis found that 11% of cases of hypertension in males and 6% in females could be directly causally attributed to alcohol.

Gastrointestinal and respiratory systems
Alcohol can interfere with the structure and function of the gastrointestinal tract. For example alcohol can impair the muscles separating the oesophagus from the stomach increasing the risk of cancer. Alcohol interferes with the muscle movement of the small and large intestines and the absorption of nutrients into the body. Epidemiological research in developing countries has found a causal link between heavy alcohol consumption and pancreatitis. 84% of cases of chronic pancreatitis were attributable to alcohol.

A meta analysis of more than 200 studies found that alcohol strongly increased the risks of various types of cancers (oral cavity, pharynx, oesophagus and larynx) and found statistically significant increases in risk for cancers such as stomach, colon, rectum, liver, breast and ovaries.

Reproductive system
In men alcohol can result in loss of libido, reduced potency, shrinking in size of testes and penis, reduced or absent sperm formation and so infertility. In women alcohol has been found to result in menstrual irregularities, shrinking of breast and external genitalia and sexual difficulties. It also affects female reproductive capacity.

Immune system
From animal and in-viro studies it is evident that alcohol impairs various aspects of the immune system and, particularly, increases the susceptibility to HIV infection. It may also interfere with adherence to anti-retroviral treatment. Some evidence also suggests that alcohol may lead to accelerated progression of the disease.

Effects on the brain and central nervous system.

Alcohol directly affects brain function in a number of ways. On a behavioural level neurological disorders resulting from alcohol can result in changes in emotions, personality, impaired perception, learning and memory. The detrimental effects of alcohol on the brain may be similar to Alzheimer's Disease.

From autopsies it has been established that the brains of people with severe alcohol dependency are smaller, lighter and exhibit greater atrophy than non-alcoholics.

Neuropsychological studies with people with chronic alcohol dependence have reported cognitive deficits including problems with problem solving, organising, planning and abstraction (frontal lobe functions); short and long term memory loss;

verbal fluency, learning, and visio-spacial perceptions. Impaired co-ordination and balance have also been found.

Co-morbidity
Psychiatric co-morbidity is common in individuals with a history of alcohol abuse and dependence. Schizophrenia, bi-polar disorder, depression, attention deficit disorder, anxiety disorder and eating disorders have all been associated with abuse of alcohol though it is not always clear which condition preceded which.

Depression
According to the WHO Global Status report on Alcohol (WHO 2004) there is now evidence to assume that alcohol has a causal role in depression. Not only do alcohol dependence and major depression co-occur disproportionately but also higher volumes of alcohol consumption are associated with more symptoms of depression. While it has often been postulated that people suffering from depression "self medicate" with alcohol (and in some cases this is no doubt true), the question of which precedes the other is not yet fully resolved and/or whether there may be a third variable (such as neurobiological mechanisms or genetic predisposition) which causes both to occur. Nonetheless evidence of a causal link from alcohol to depression is growing. Reversibility (remission during abstinence) is a key indicator for causal effect of alcohol dependence on depressive disorder and there is good evidence that abstinence substantially removes depressive disorders within a short time frame.

Alcohol dependence
The ICD-10 defines alcohol dependence syndrome as being a cluster of physiological, behavioural and cognitive phenomena in which the use of alcohol takes on a much higher priority for a given individual than other behaviours that once had greater value. A central descriptive characteristic is the desire (often strong, sometimes overpowering) or sense of compulsion to take alcohol.

In the WHO Global Status Report on Alcohol 2004, of 35 countries reporting levels of alcohol dependence amongst the adult population, South Africa had the highest reported figure i.e. 27.8% of males and 9.9% of females. This should, however be interpreted with great caution as for example instruments and timeframes used were not standardised.

Alcohol dependence is consistently the substance of abuse in people receiving help for substance related problems in South Africa. In the first half of 2005, between 47% (Cape Town) and 74% (Durban) of patients receiving treatment had alcohol as a primary or secondary drug of abuse (Sacendu 2005). Though the proportion of people reporting alcohol as the primary drug of abuse is decreasing as pressure on treatment slots increases from other drugs, this still remains the major cause of people receiving treatment. The proportion of patients older than 20 seeking treatment for alcohol problems is substantially higher than for younger patients.

3.2)Non-Natural Mortality And Morbidity

Unintentional and intentional injuries are responsible for up to 10% of the global burden of disease. Internationally alcohol use accounts for 13% of DALYs lost due to

unintentional injuries and 15% due to intentional injuries. The amount of alcohol consumed is a major determinant of both risk and severity of injury.

Alcohol plays a major role in traffic and other accidents as well homicides, interpersonal injury and suicide. High rates of alcohol have been found in both the "perpetrator" and the "victim"[3].

The largest number of non-natural deaths is South Africa is due to violence (48%) followed by transport fatalities (30%). Both violence and transport deaths are closely linked with alcohol.

Alcohol related mortality

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 homicides (51% positive, with a mean BAC of 0.17g/100ml), suicides (35% positive, with a mean BAC of 0.15g/100ml) and transport related deaths (53.3%).

The majority of transport related deaths in South Africa are of pedestrians 38.8%, followed by unspecified (21%), driver of a motor vehicle (17.7%) and passenger (12.2%) of deaths. While in all categories of transport related death, high alcohol blood levels was prevalent, this was highest amongst pedestrians (61%).

This means that by far the largest number of transport related deaths in South Africa are of intoxicated pedestrians. Despite this, campaigns almost always focus on drinking and driving and not on drinking and walking!

Alcohol related trauma

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 data gathered from a wide variety of facilities in the Cape Metropol, Peden reported that 70% of domestic violence cases were alcohol-related (Peden, 1995). From research conducted by the Department of Transport 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).

[3] The differences between perpetrator and victim are not always clear. For example victims may include people involved in fights who happened to be the one injured/killed or the drunk driver of a motor vehicle injured or killed in an accident.

4)SOCIAL AND PSYCHOLOGICAL IMPACTS

Social and psychological impacts of alcohol are even more difficult to measure than the physical health impacts. One can, however for example, look at substantive impacts on crime, patterns of interpersonal violence and family and work problems.

4.1)Alcohol and crime

A national study of prisoners and parolees in 1996 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 in Cape Town, Durban and Johannesburg in three phases between 1999 and 2000 (Parry et al., 2004) found that overall 15% of arrestees indicated that they were under the influence of alcohol at the time 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).

4.2)Interpersonal violence.

Numerous studies have found an association between alcohol consumption and aggressive behaviour though clearly not everyone who consumes alcohol gets aggressive. People with anti-social personality disorder appear to be particularly susceptible to alcohol related aggression. People who have previously been violent under the influence of alcohol are the most likely to become aggressive when drinking again.

Internationally alcohol has been associated with numerous acts of interpersonal violence which include physical and sexual abuse, emotional and psychological abuse and neglect. The WHO (draft paper 2005) has identified the following 5 major areas of interpersonal violence (with examples of each).

Box 1: Alcohol and interpersonal violence	
Youth violence Violence committed by young people	• **Among 18-24 year old males, those who binge drink* are more than twice as likely to have committed a violent crime in the previous year than regular but non-binge drinkers (England and Wales)**
Child abuse Violence and neglect towards children by parents and carers	• **Parental alcohol or drug use was reported in 34% of child welfare investigations (Canada)**
Intimate partner violence Violence occurring within an intimate relationship	• **71% of female victims of intimate partner violence stated partner alcohol use as the main cause of their assault, and 22% reported using alcohol following the event as a mechanism for coping (Iceland)**
Elder abuse Mistreatment or neglect of older people by family, carers or others where there is an expectation of trust	• **44% of male and 14% of female abusers of elderly parents (age 60+) were dependent on alcohol or drugs, along with 7% of victims (USA)**
Sexual violence **Including sexual assault, unwanted sexual attention and sexual coercion**	• **A fifth of offenders arrested for rape reported that they were under the influence of alcohol at the time of the crime (South Africa)**

Alcohol consumption by perpetrators of violence

- In the USA, among victims that were able to report whether their attacker had been drinking alcohol, around 35% believed the offender had been drinking.
- In England and Wales, 50% of victims of interpersonal violence reported the perpetrator to be under the influence of alcohol at the time of assault.
- In Russia, more than two thirds of individuals arrested for homicide had consumed alcohol before committing the crime.
- In South Africa, 44% of victims of interpersonal violence believed their attacker to be under the influence of alcohol or drugs at the time of the incident.
- In Tianjin, China, a study of inmates found that 50% of assault offenders had been drinking alcohol prior to the incident.

4.3)Family and work problems

Drinking can impair functioning as a parent, as a spouse and as a contributor to household functioning (Mulaudzi et al 2003).

Most drinking *requires time* (often spent with drinking colleagues) and this competes with time needed to carry on family life (e.g. time spent with children, doing household chores etc).

Drinking *costs money.* Drinking money often takes precedence over other household needs, often leaving the family unable to afford even basic goods and services.

Drinking leads to a spiral of poverty in which the drinking behaviour inhibits income capacity (through absenteeism, lack of motivation, poor quality of work, loosing employment) while any income earned is then spent on drink – at times drowning sorrows regarding not having work or only having a poorly paid job. A study in Delhi, India, compared families where the husband drank at least three times a week compared to those where the husband drank only once a month. In the first group 24% of household income was spent on alcohol compared with 2% in the other families. The family with the drinker had significantly more debts (60% vs. 42%) and these debts were twice as large (Saxena in Mulaudzi, 2003).

While continuing patterns of drinking threaten family subsistence, events that take place when a family member is intoxicated can also have lasting consequences – mainly through *injuries and family violence*.

The psychological toll on the family is often great. For example in interviews with family members of heavy drinkers in Mexico 73% reported feelings of anxiety, fear and depression, 62% reported physical or verbal aggression and 31% reported family disintegration. For many mothers, the inability of the fathers to bring in adequate incomes due to their drinking habits, and therefore being unable to feed and clothe their children led to depression in the mothers (Rosovosky in Mulaudzi, 2003).

Violence against women and children often has severe psychological consequences for the victim (WHO 2001).

Alcohol can impair work performance through decreased efficiency and can lead to poor workplace safety. For example intoxication can result in errors of judgement, accident proneness and putting other lives at risk. Alcohol misuse also results in greater absenteeism from work and increases the risk of dismissal from work. In Costa Rica it was found that 30% of absenteeism and workplace accidents were caused by alcohol dependence. In India 15-20% of absenteeism and 40% of accidents were due to alcohol.

Among grade 8 and 11 learners in Cape Town a significant association was found between past month use of alcohol and the number of days absent from school and repeating a grade. The odds of repeating a grade were 60% higher for learners who consumed alcohol. (Whether this relationship was causal, which way, or occurred through another factor was not established).

5)SPECIAL AREAS OF CONCERN IN SOUTH AFRICA

Two areas regarding alcohol in South Africa need special mention. These are Fetal Alcohol Syndrome (FAS) and HIV/AIDS.

5.1) Fetal Alcohol Syndrome (FAS).

Drinking alcohol during pregnancy may lead to damage to the foetus. This could be in the form of Fetal Alcohol Effects or full-blown Fetal Alcohol Syndrome. FAS is characterised primarily by damage to the brain and central nervous system which results in hyperactivity, attention problems, learning disabilities (e.g. problems of memory, abstract reasoning), lack of judgement and fits. Other organs such as the heart, kidneys and growth may also be affected. As there is no cure for FAS, as most FAS children are unable to cope with normal schooling and as many FAS children are part of "alcoholic families" who are unable to give them the special care and attention they need, many FAS children drop out of school early, are not easily employable and are susceptible to gangs, crime and peer-pressure.

South Africa has the highest reported rate of FAS in the world. (It must be noted though that most poorer countries have never conducted epidemiological research into FAS and thus rates in these countries are not known). In poorer areas of the Western Cape prevalence of FAS among Grade 1 learners was found to be 46 per 1000 in 1997 and increased to 75 per 1000 in 1999. In the Northern Cape rates of 103 and 75 per thousand were found in different areas. Prevalence in three poor areas in Gauteng found rates of 12, 22 and 37 per 1000. While the Gauteng rates were lower than areas of the Cape they are still far higher than even the most at risk communities in developed countries - such as the urban poor or native settlement areas in the USA. In studies in the USA and France rates of 0,5 and 3,0 per 1000 were found.

Mothers who drink alcohol in a binge fashion while pregnant and exceed 5 drinks per week per occasion (ie More than 90mls of absolute alcohol) are especially at risk for FAS. Thus one heavy bout of drinking may be enough to cause FAS. (FARR, 2005)

5.2)Risky sexual behaviour

The misuse of alcohol is increasingly being recognized as a key determinant of sexual risk behaviour, and consequently, an indirect contributor to HIV transmission in sub-Saharan countries (e.g. Fritz et al., 2002). According to Morejele et al (2004) numerous cross-sectional investigations conducted among adults in this region have shown consistently that alcohol use is associated with HIV infection (Campbell, Williams, & Gilgen, 2002; Clift et al., 2003; Fritz et al., 2002; Hargreaves et al., 2002; Mbulaiteye et al., 2000; Mnyika et al., 1996), as well as with sexual risk behaviours, such as having multiple sexual partners (Mnyika, Klepp, Kvale, & Ole-Kingori, 1997; Trigg, Peterson, & Meekers, 1997).

Three different but related explanations are proposed to account for the relationship between alcohol use and sexual risk behaviour. Firstly that alcohol consumption may represent other behavioural, lifestyle, contextual and/or personality factors which are associated with engagement in high-risk sexual behaviour (e.g. Hargreaves et al., 2002; Plant, 1990). Secondly, ethanol acts on the central nervous system, reduces

inhibitions, and consequently, increases people's likelihood of engaging in risky sexual and other behaviours (Plant, 1990). Thirdly people's alcohol expectancies (i.e. their expectations about how alcohol will influence their behaviour), can also influence their actual behaviour (Brown, Christiansen, & Goldman, 1987).

In both qualitative and quantitative studies conducted by Morojele et al (2004) in a black township in South Africa amongst adults 22-45 it was found that there were strong relationships between various measures of alcohol use and risky sexual behaviour. In the quantitative study two main types of effects were that alcohol consumption may have on sexual behaviour were identified; drinking seems to increase the appeal of sexual episodes and reduce people's control with respect to sexual encounters. The variables which were found to be associated with the reported increased sexual appeal due to drinking were being younger, not being married, being employed, drinking more, being a problem drinker, having more sexual partners and engaging in regretted sex. This profile seems to suggest that inexperienced, younger, heavier drinking adults are at greatest risk of having alcohol-related risky sexual encounters.

Those who reported being less able to have control over their condom use after drinking were less likely to have used condoms in their lifetime. It seems that those who are usually not inclined to use condoms may become even less inclined to use them after drinking; on the other hand, other individuals who are most strongly committed to condom use become even more vigilant when drinking.

Men appear to be at greater risk of engagement in alcohol use-related sexual risk behaviour than women. Men seem to be more likely to drink at all and drink larger quantities than women. They are also more likely to report that they engage in sex under the influence of alcohol, that drinking increases their desire to have sex with a casual partner and that drinking worsens their ability to resist unwanted sexual advances.

6)BENEFITS ARISING FROM THE LIQUOR INDUSTRY

Despite the above there are important benefits, which accrue from the alcohol industry. The industry, through alcohol producing companies, acting independently and through the Industry Association for Responsible Alcohol Use (ARA), aim to promote the responsible use rather than the abuse of alcohol. It is argued that the majority of people who consume alcohol in South Africa do so without damaging consequences and that this trend should be encouraged. They also argue that the industry does far more good for the country than harm. Some of the contributions which the industry make (aside from the "enjoyment" that people get) are:-

Employment creation: South African Breweries (including ABI) employs 8 232 people (2005 web page). Salaries and wages amounted to around R2.2 billion. It is estimated that more then 1 million people are employed in the beer and soft drink value chain.

The wine industry estimates that 197 579 jobs were directly and indirectly supported by the industry in 2003. 108 679 of these were directly employed. They estimate

further that if the tourism industry is taken into account, a grand total of 256 908 employees were directly and indirectly supported in the Western cape alone.

Contribution to the fiscus: The industry contributed around R10.3 billion in terms of taxes. From beer production around R8billion was paid 2004. (This was more than all the mining companies put together). Taxes on spirits were levelled at around R50 per litre and wines between R1.40 and R3.80 per litre. VAT at 14% was also charged on top of this.

Community partnerships and sponsorships: The South African breweries spend around R120million in community partnerships and sponsorships per annum. This includes a number of partnerships to combat and treat alcohol abuse. For example contribution were made to "Arrive Alive"; the "there is so much to live for" campaign; living responsibly on campuses; prevention on underage drinking campaigns; a rock challenge, and research into alcohol abuse (including research into FAS). SAB also sponsors the work of the South African National Council on Alcohol and Drug Dependence (SANCA) and a Life Skills Education Programme. Other industry players also support a number of initiatives to assist against the abuse of alcohol and treatment and rehabilitation centres.

Black Economic Empowerment: The liquor industry has been active in BEE programmes which help to redistribute wealth in South Africa. This has ranged from large corporate based deals to empowering emerging farmers who supply the industry. For example The SAB supports 178 emerging barley producers through its empowerment programme. The wine industry also supports a range of small and medium empowerment business initiatives.

Spending on advertising: The advertising industry is highly dependent on revenue from liquor companies and numerous jobs depend on this. In 2004/5 the industry spent close to R560 million on advertising (2005 Alcoholic Beverage Review). The majority was spent on TV advertising, followed by print and radio ads.

7)ECONOMIC AND SOCIAL COSTS

Social costs are the negative economic impact of alcohol consumption on the material welfare of society (WHO, 2004). Direct costs refer to the value of goods and services actually delivered to address harmful effects of alcohol consumption while indirect costs represent the value of personal productive services that are not performed because of the adverse consequences of drinking.

A conservative estimate of the economic costs of alcohol abuse based on research studies conducted in other countries is 1% of gross domestic product (GDP). For South Africa this would work out at about R8.7 billion per year, an amount almost twice that received in excise duties on alcoholic beverages in 2000/1.

8)PREVENTION, TREATMENT AND CONTROL MEASURES

In this section we look at various public health initiatives to decrease alcohol consumption and abuse. We examine international best practice and its relevance to South Africa as well as specific initiatives which may assist in addressing the problem. We also look at treatment as a public health intervention.

8.1)Review of policy-relevant strategies to address the burden of alcohol use

(This section is taken verbatim from Parry CDH, *A Review of policy-relevant strategies and interventions to address the burden of alcohol on individuals and society in South Africa.* S Afr Psychiatry Rev 2005;8, 20-24)

Unfortunately there is no single strategy or "magic bullet" by which to reduce or eliminate the burden of alcohol misuse to individuals and society. According to WHO what is required are a mix of individual- and population-based approaches that target high risk groups and reduce per capita consumption in general.[2] Babor et al.,[1] in a project sponsored by WHO, reviewed 32 commonly used strategies available to policy-makers for addressing the burden imposed by alcohol on individuals and society. These strategies were divided into seven categories: regulating physical availability (8 strategies), taxation and pricing (1), altering the drinking context (6), education and persuasion (4), regulating alcohol promotion (2), drinking and driving countermeasures (7), and treatment and early intervention (4). Of these 10 were rated highly by the authors based on various dimensions: evidence of effectiveness, strength of research support, cross-cultural testing, cost to implement and target audience.

Strategies indicated by Babor et al. as having proven effectiveness

Specific strategy	Effectiveness	Breadth of research support	Cross cultural testing	Cost to implement	Target group
Regulating physical availability					
Changes in minimum legal purchase age	+++	+++	++	Low	B
Government monopoly on retail sales	+++	+++	++	Low	A
Restrictions on hours/days of sale	++	++	++	Low	A
Outlet density restrictions	++	+++	++	Low	A
Alcohol taxation					
Increase excise taxes on alcohol	+++	+++	+++	Low	A
Drinking/driving counter-measures					
Sobriety checkpoints	++	+++	+++	Moderate	A
Lowered BAC limits	+++	+++	++	Low	A
Administrative license suspension	++	++	++	Moderate	C
Graduated licensing for novice drivers	++	++	++	Low	B
Brief interventions					
Brief interventions for hazardous drinkers	++	+++	+++	Moderate	B

A-general population, B-high risk drinkers or groups considered to be vulnerable to the effect of alcohol, C-persons already manifesting harmful drinking and alcohol dependence; ++-moderate, +++-high

In the paragraphs that follow these 10 strategies are described in more detail and a subjective analysis given regarding whether their implementation is likely to be feasible in South Africa. Four of the "effective" strategies involve regulating the physical availability of alcohol.

i. Changing the minimum legal purchase age

Babor et al. (2003) point out that raising the minimum legal age for purchasing alcohol can have substantial effects on youth drinking, particularly in reducing levels of drinking-driving, single vehicle night-time crashes and fatal crashes involving young drinking drivers. However, they acknowledge that it does not eliminate underage drinking. This strategy is regarded as being effective with minimal enforcement, but enforcement substantially increases its effectiveness. In South Africa it would be difficult politically in the short- to medium-term to raise the drinking age to 21, but this strategy might be worth considering in the longer-term.

ii. Instituting a government monopoly on retail sales

According to the WHO *Global Status Report on Alcohol Policy (WHO 2004)* state monopolies for off-consumption retail sales for one or more alcoholic beverages exist in 15% of countries. The evidence is quite strong that off-premise monopoly systems limit alcohol consumption and alcohol-related problems. Typically the density of outlets in a government-operated system is low and the opening hours limited. Elimination of a profit motive also facilitates the enforcement of rules against selling to minors or persons already intoxicated. According to Babor et al., however, such monopolies are effective only if operated with public health and public order goals. With regard to South Africa, given the movement of the state sector out of the retail liquor trade in the 1970s and 1980s and the government's push for the development of small and medium micro enterprises, there would be very little support for reintroducing a government monopoly in this area.

iii. Instituting restrictions on hours/days of sale

Babor et al. (2003) cite evidence from a variety of countries to indicate that having reduced hours and days of sale of alcohol can reduce alcohol consumption and problem levels, with the effects concentrated during the time of closure. With regard to South Africa, efforts in this area are unlikely to be fruitful if not accompanied by innovative efforts to draw in the many unregulated outlets into the regulated market. Also important will be strengthening community input in the process of allocating liquor licenses and dealing with complaints, ensuring improved enforcement and handling of complaints, and providing increased access to information and accountability by those agencies tasked with monitoring and enforcing regulations on hours and days of sale.

iv. Instituting restrictions on outlet density

Restricting the number of outlets in an area may affect levels of drinking and alcohol-related problems due to an increase in the opportunity costs associated with obtaining alcohol. Babor et al. (2003) acknowledge that policy changes in this area require a longer time course for implementation when drinking establishments have become concentrated due to vested economic interests. This is likely to be the case in South Africa, where more than 80% of retail outlets for alcohol operate outside the regulated market (often from within residential areas) and there is estimated to be one outlet for every 190 adults. In this country it will first be necessary to encourage existing

unlicensed outlets to become licensed and to move to business nodes or corridors within residential areas and to place greater restriction on those outlets not operating in business nodes or along business corridors or operating near educational institutions before tackling the issue of outlet density. Perhaps subsidies or other incentives could be offered to existing liquor outlets that are willing to move out of areas where there are already too many outlets.

The fifth "effective" strategy involves decreasing the accessibility of alcohol through increasing its price via raising excise taxes.

v. Increasing excise taxes on alcohol

The primary reasons for increasing excise taxes on alcohol are to correct for the external costs associated with alcohol consumption and to raise revenues for programmes aimed at reducing the social burden of alcohol misuse. Research suggests that price also influences the behaviour of heavy drinkers and that young drinkers are especially responsive to price. Increases in alcohol taxes have been shown to be associated with reductions in motor vehicle fatalities, crime, cirrhosis mortality, industrial injuries and dropping out of school. The effectiveness of policy changes in this area depends on government oversight and control of alcohol production and distribution. High taxes can also lead to smuggling and illicit production. The National Treasury has set as its target increasing the total tax on beer, wine and spirits to 33%, 23% and 43% of the retail sales price. This is a step in the right direction, but is still less than international averages and taxes should be increased by three to five percentage points. Furthermore, South Africa has fallen behind in terms of taxing sorghum beer.

The next four "effective" strategies outlined by Babor et al. involve various drink-driving countermeasures.

vi. Sobriety checkpoints

At sobriety check points only motorists who are judged by police to have been drinking are asked to take a breath test. Such checkpoints are part of a strategy to increase the frequency and visibility of enforcement of drink-driving laws and the certainty of apprehension and punishment. While there is a considerable breadth of research support for such measures across various cross-cultural settings, the effectiveness of such checkpoints is moderate. An alternative to sobriety checkpoints is random breath testing (RBT) where the alcohol levels of motorists are checked at random, even if they are not suspected of driving under the influence of alcohol. The effectiveness of RBT based on research studies was judged as being greater than for sobriety checkpoints, but the breath of research and the degree of cross-cultural testing has been less. RBT was also judged as being more costly to implement. According to Babor et al., (2003) the effects of police campaigns are typically of short duration unless sustained. With regard to South Africa, consideration should be given to increasing the level of RBT, and strategies would need to be sought for processing cases quickly and not clogging up the court system.

vii. Lowering BAC limits

Here the emphasis is on passing legislation to lower allowable BAC levels for drivers. While policy changes in this area have been shown to be highly effective, are supported by cross-cultural research, and to be of low cost to implement, Babor et

al.(2003) acknowledge that there are diminishing returns when lowering already low BAC limits. With a BAC limit for ordinary drivers of 0.05g/100ml in South Africa, efforts in the short-term would probably be better spent on enforcing existing limits. This might, however, be a strategy worth revisiting in the longer term.

viii. Administrative license suspension

Administrative license suspension refers to the immediate revoking of a driver's license for a period of time (e.g. six months) without a court hearing following a drink-driving offence. This action is permitted in 80% of US states and has been shown to reduce alcohol-involved crashes by 5%. A key motivation behind this strategy is to dramatically decrease the time between the drink-driving event and the proximity of punishment. With the over-crowded court system in South Africa, this is certainly something worth considering, although strategies would also need to be instituted to deal harshly with suspended drivers who drive without a license.

ix. Graduated licensing for novice drivers

Another counter-measure that has been applied to reduce rates of driving-related problems is to place certain restrictions on young/inexperienced drivers. Among the restrictions that are relevant to drink-driving are having lower BAC limits for such drivers (i.e. 0.01 or 0.02g/100ml) and placing curfews on their driving at night. Graduated licensing schemes, which can incorporate all of these strategies within one system, have been shown to show safety benefits. Implementing such a strategy would be very feasible in a country like South Africa, and given the strong link between alcohol use and injury among young drivers, is likely to receive widespread support.

The final strategy indicated by Babor et al. as having proven effectiveness is that of brief interventions for hazardous drinkers.

x. Brief interventions for hazardous drinkers

Brief interventions are characterized by their low intensity and short duration and usually comprise one to three sessions of counselling and education. The goal is to provide early intervention. Randomised control trials to assess the efficacy of such interventions have generally been positive, but one problem with implementing such approaches is that primary care practitioners lack the training and time to conduct screening and brief interventions. In South Africa one pilot study involving various categories of health workers in Cape Town has highlighted the need for further demonstration projects in this area.

Various other strategies were reviewed by Babor et al. (2003) that currently are not yet as strongly supported by research but which probably have some effect. These include (1) regulating physical availability by allowing server liability whereby alcohol servers and owners of liquor outlets can be held civilly liable for damages in cases where they have served persons who were clearly intoxicated and who went on to hurt themselves or others; (2) regulating alcohol promotions by instituting advertising bans (e.g. banning alcohol advertising via billboards, or restricting it on radio/TV till after 9 pm, or not permitting sports sponsorships where more than 25% of the audience are expected to be under the legal drinking age); (3) facilitating community action approaches, such as community mobilization against the granting/renewing of particular liquor licenses; (4) altering the drinking context by

training alcohol servers and managers not to serve intoxicated patrons and to prevent/manage aggression, and backing this up by enforcing on-premise regulations and legal requirements; and (5) supporting other forms of treatment and early intervention (e.g. 12-step approaches, motivational enhancement therapy and cognitive behavioural therapy), attendance at mutual help/self-help meetings and mandatory extended treatment of repeat drinking-drivers. With regard to these strategies, mandating server liability is probably only likely to work in the formal market and should perhaps only be pursued in the medium- to long-term. Considerations should, however, be given to promoting the other strategies listen in this paragraph.

Alcohol polices identified as having not been shown empirically to be effective include, (1) regulating physical availability via voluntary codes of bar practice, (2) education and persuasion strategies such as alcohol education in schools and public information campaigns, (3) alcohol-free activities, and (4) regulating alcohol promotion via advertising content regulations and warning labels. With regard to school-based education and persuasion programmes there are things that can be done to enhance their effectiveness, including starting them in primary school; involving parents and the community; including peer education; having intensive long-term programmes; incorporating life skills, resistance training and normative concepts; and ensuring developmental, cultural and local relevance. The effectiveness of warning labels is likely to be enhanced if they are rotated, easy to read and conspicuous. In addition, for a country with relatively low rates of adult literacy it might be useful to include provocative pictures. In general, however, far greater emphasis should be placed on more active forms of counter-advertising using all forms of media.

Strategies missing from the review that would need to be considered in South Africa include work-place interventions, broad-based community development initiatives, and specific interventions aimed at drunk pedestrians. In addition consideration should be given to implementing various *product* restrictions such as restricting the size of beer, wine and spirits containers (e.g. only 340ml containers of beer, and no sachets of spirits or 5 litre papsakke), requiring the inclusion of the number of standard drinks on container labels together with calories and other ingredients. Products with a clear youth appeal should be restricted and special labelling and bottling requirements should be required so that alcohol products are distinguishable from non-alcoholic products.

8.2)Treatment and personal intervention

Strategies to change the "environment" in which drinking takes place are possibly more effective than trying to change personal behaviour directly. However people with drinking problems (alcohol dependence as well as regular binge drinking) contribute by far the largest proportion of the alcohol related burden of disease. As alcohol dependence is a chronic disease, not treating the problem significantly increases the prevalence - and consequent problems increase. For example probably the best predictor of whether a mother will give birth to a child with FAS is if she already has a child with FAS. However if the mother stops drinking she can have a healthy baby. In other words lack of treatment (or more specifically lack of a change in behaviour) probably gives rise to at least a doubling or trebling of the number of FAS children. Or if a person with a drinking problem who assaults his intimate partner is not treated for the problem, he is likely to continue to engage in such violent

behaviour. Hence from both an individual and a public health perspective redressing personal alcohol problems is critical.

Access to treatment in South Africa is limited by both the availability of treatment sites and facilities and by stigma associated with being an "alcoholic" or having an alcohol problem.

Treatment for alcohol problems is available to different extents in different provinces and regions in state health facilities, in private non-profit organisations, through NGOs and in private for profit institutions. Services are available for outpatients as well as inpatients.

Myers and Parry (2005) state that although there has been a growing demand for substance abuse treatment services, several socio-political factors have hampered access to treatment in South Africa. Racial inequities from the Apartheid era remain, and according to these writers, the number of beds available in state hospitals for substance abuse disorder has been reduced since 1994. The South African Community Epidemiological network on Substance Abuse (SACENDU) has consistently found that black clients have been significantly underrepresented in specialised treatment centres. Myers and Parry say that rather than reflecting lower levels of substance abuse, this probably reflects the limited accessibility of treatment services to black South Africans. Barriers to treatment include cultural and linguistic difficulties, stigma associated with seeking treatment, affordability of the treatment itself and difficulties in paying for transport to facilities, which are mainly in urban areas.

Myers & Parry (2004 – Curationis) also highlight lack of access to treatment for women in SA – and provide some reasons for this.

Denial of an alcohol problem is very common amongst people with alcohol problems. This is in part related to the social stigma of having an alcohol problem, the perceived weakness of not being able to simply stop or cut down on drinking and fear of how they will cope without alcohol. It is one of the first steps in a number of alcohol rehabilitation programmes (such as Alcoholics Anonymous) to acknowledge that one has an alcohol dependence problem.

Having accessible, affordable and culturally appropriate treatment facilities available and shifting community attitudes towards understanding and accepting people with alcohol problems rather than judging and blaming them are important public health shifts needed to deal with alcohol problems.

After treatment, gains tend to be better maintained if the person becomes actively involved in a recovery support group (such as Alcoholics Anonymous) and develops family and peer relationships that are supportive to recovery.

9)ADVERTISING AND COUNTER ADVERTISING

Advertising

Despite the claim from the alcohol industry that alcohol advertising is aimed only at brand promotion and brand change rather than encouraging greater alcohol consumption, many policymakers and members of the public are concerned about the potential effects of alcohol advertising on alcohol consumption and problems – especially among children and adolescents.

Until recently a causal relationship between alcohol advertising and alcohol consumption, especially amongst youth had not been conclusively established. However, in a large scale longitudinal study in the USA Snyder found that the amount of advertising expenditures in the media environment of 15-26 years olds and the amount of advertising recalled related to greater youth drinking. Youth younger than the legal drinking age showed the same pattern of advertising effects as the older group. Youth who saw more alcohol advertising on average drank more with each additional advertisement seen increasing the number of drinks consumed by 1%. The study also found that youth drank 3% more per month for each additional dollar spent per capita in their market.

According to a WHO survey some kind of regulation of alcohol advertising exists in at least 37 countries. Many of the regulations are designed to protect young people from seeing alcohol advertisements. Nine countries (Brazil, Colombia, Costa Rica, Ecuador, Mexico, South Korea, the USA, Venezuela, and Zimbabwe) require warning labels on alcohol advertisements. More common strategies for regulating the advertising of alcohol products are the use of voluntary codes and the outright banning of advertising for certain or all alcoholic beverages in some or all media outlets. The WHO report indicates that at least 29 countries have implemented bans on alcohol advertising in at least one medium, and most bans cover beer, wine and spirits on at least television or radio. There are a further 10 or more countries that have imposed partial restrictions on alcohol advertising including banning advertising during daytime and early evening hours when young people are likely to be more exposed. Various countries, including Croatia, Iceland, India, most states in Malaysia, Portugal, and Turkey, have banned billboard advertising. Alcohol advertising is reportedly banned in several countries, including Egypt, Poland, and the Russian Federation.

Other countries, including South Africa, have content restrictions on alcohol advertising, for example, prohibiting advertising that is seen as promoting drunkenness. Mauritius and Norway, ban sponsorship of sporting events by alcohol companies. The Netherlands' alcohol advertising code, recently negotiated between the Health Ministry and the drinks industry, covers all media and public events, and bans alcohol advertising or sponsorship where more than a quarter of the viewers, readers, listeners, or visitors are under 18 years. Alcohol advertisements on the music channels MTV and TMF and on a pop radio station will be scrapped.

Counter-advertising

As a balance to the marketing of alcohol, many countries and organizations have introduced mechanisms to address and counteract the persuasiveness of alcohol advertising - (though counter-advertising may be used to give factual information and

messages around alcohol abuse or appropriate behaviour which do not necessarily have to "counter" positive messages as such). "Counter" advertising generally takes two forms. 1)broadcast (e.g. television and radio), outdoor (e.g. billboards) and print media and 2)product warning labels. In evaluating the effectiveness of counter advertising or Public Service Announcements (PSA) is was found that the PSAs tend not be marketed in as attractive a way as adverts selling alcohol and hence may have less appeal. Counter advertising by the alcohol industry, e.g. don't drink and drive adverts sponsored by alcohol companies, were viewed with some skepticism by an American audience. In fact it has been argued that by creating an impression of responsibility drinking in risky situations is justified and alcohol sales are promoted more generally (Atkin et al 1994)

Audience factors such as gender, age, whether the recipient of the message is a heavy or light drinker etc all influence the impacts of counter adverts.

Saffer (1996) has used econometric studies on the effect of cigarette counter-advertising to reduce cigarette consumption to argue that counter-advertising is likely to reduce alcohol consumption. The primary purpose of counter advertisements is to challenge the dominant view that public health problems reflect a personal health habit rather than a social or community problem.

New Zealand and Costa Rica are two countries that have supported the placement of counter advertisements in the media. In New Zealand health and safety messages were flighted before or after alcohol advertisements.

The research on the impacts of warning labels is mixed. The impacts are likely to be influenced by design factors (e.g. size of the label, whether messages are changed regularly) the specific content and whether it evokes a visceral avoidance response and audience factors (heavy or light drinkers etc).

Public attitudes to advertising/counter advertising

In a study of attitudes towards advertising/counteradvertising in South Africa Parry (2002) found that about one in three respondents (33.4%) felt that there should be no restrictions on radio/TV advertising of alcohol products, but a similar percentage (36.7%) indicated support for a complete ban on radio/TV advertisements of alcohol. A further 29.9% felt that advertising should only be allowed after 9 pm. Three-quarters (74.2%) of respondents agreed with the position that alcohol manufacturers should be required to place warning labels on alcohol containers. About half (53.3%) of respondents felt that there should be no ban on sports sponsorships by alcohol companies, but over a quarter (27.1%) supported such a ban, and almost one in five (19.6%) felt that sponsorships should be banned only for events attended or watched by an audience comprising persons under 18 years of age. Almost half (45.1%) of respondents supported that statement that the government should ban billboard advertising of alcohol products. (In the USA 67% of adults supported banning of liquor adverts on TV).

10)COMMUNITY BASED ACTIVITIES

A number of community based and other non-governmental organisation are involved in programmes for the prevention of substance abuse in South Africa. For example:-

- *SANCA.* The South African National Council on Alcohol and Drug Dependence runs programmes such as TADA (Teenages Against Drug Abuse); Peer Counsellors (Youth to Youth); Poppets (Puppet education for pre-school and early school children); Life Skills Education in Schools; Pupil Support programmes.
- *Dopstop.* While "dopstop" was started initially to stop the system of payment of wages in alcohol (dop system) they have since extended their activities to include alcohol awareness programmes with farm workers; they conduct community rehabilitation programmes; run a programme to stop the cycle of alcohol abuse during pregnancy and hence reduce the number of children born with Fetal Alcohol Spectrum Disorders; train community health workers on farms and assisting police to better deal with alcohol related crime. While "Dopstop" initially saw the farmers as the problem, they are now working together with the farmers who have become "part of the solution".
- *FARR.* The Foundation for Alcohol Related Research is primarily a research organisation but is also involved at a community level to reduce alcohol related problems. For example they have set up a "Safe House" in a high FAS prevalence area of the Northern Cape. This allows people to get away from the environment where they find it impossible not to drink. They are offered encouragement, help, education, advice and treatment. The house is also available for other community activities such as adult literacy and life skills programmes.
- *Arrive alive.* This is a community and government based initiative to reduce drinking and driving.
- *Soul City.* Soul city has previously run a 14 part drama series on TV, 60 part radio series and three 36 page booklets focussing on substance misuse.
- *Religious based organisations.* A number of religious based organisations teach and support their own congregants to abstain from alcohol
- *The Sensible Drinking Project* is a community level initiative aiming to reduce the high rates of trauma as a result of alcohol problems in communities. As part of a multifaceted prevention programme a pilot training of health workers in brief interventions was conducted and evaluated. It was found that the short course was very relevant and well presented, and that the participants experienced a shift in their attitudes towards screening and counseling people with alcohol problems.

Involvement of people at a community level in combating alcohol abuse can be highly effective. For example in Geelong, Australia, an initiative to reduce alcohol related crime involved a collaboration of the police, local licensed premise operators, the Liquor Licencing Commission and representatives of community based organisations and concerned individuals. Some of the achievements of this initiative included the licensing of all crowd controllers to check underage persons entering licenced premises; improving the training or bar staff, security personnel and new licencees; offering all operators a mechanism of referral for dealing with young persons who pass false or altered identification to gain entry into licenced premises; establishing alcohol-free entertainment (e.g. discos); allocating hotels and nightclubs to specific

police officers to assist with any alcohol related problems; having the local authority enact a by-law prohibiting persons from having open containers of alcohol in public places. Since the adoption of the "Local Industry Accord" crime and violence associated with intoxicated parties decreased significantly.

People within the industry themselves can also be effective in regulating alcohol misuse. For example in Meadowlands, Soweto, 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).

11)GOVERNMENT RESPONSE AND CO-ORDINATION

11.1)Liquor legislation

The main legislative framework for alcohol in South Africa is the Liquor Act (Act 59 of 2003). A number of provincial Acts are currently being finalised. The objectives of the Act are to:-

a)Reduce the socio-economic and other costs of alcohol abuse by:-

- setting essential national norms and standards in the liquor industry
- regulating the manufacture and wholesale distribution of liquor
- setting essential national norms and standards for the regulation of the retail sale and micro-manufacture of liquor and
- providing for public participation in the consideration of applications for registration and

b)to promote the development of a responsible and sustainable liquor industry in a manner that facilitates:-

- the entry of new participants into the industry
- diversity of ownership in the industry and
- an ethos of social responsibility in the industry.

Some of the more important health related clauses in the Act include restrictions on advertising which targets minors, sale of liquor to minors and the banning of liquor as part of payment for work (dop system). Provincial Liquor acts are in various stages of completion and provide detail on various licencing requirements and procedures and mechanisms for controlling sale and consumption of liquor (aimed at both spreading legal outlets and restricting alcohol abuse). For example the Western Cape draft Liquor Bill (2005) addresses issues such as the sale of liquor in residential areas (eg that the licencee is responsible to ensure the restriction of noise, there is no loitering, parking is available etc); involvement of community members in the location, hours of trade and other matters regarding outlets; designation of liquor officials in each police station; culpability for sale of liquor to a drunk person and so on.

11.2)Central Drug Authority.

Government has recognised that preventing and controlling the negative impacts of alcohol use requires intersectoral collaboration. Government departments centrally

involved include Health; Social Development; Safety and Security, Education; Trade and Industry; Finance; Labour; Correctional Services and the South African Revenue Services. It also requires the inputs of researchers, NGOs, youth organisations and business.

In order to co-ordinate initiatives government created the Central Drug Authority. One of the tasks of this body has been to develop a "Drug Master Plan". This plan aims to summarise national policies, define priorities and apportion responsibilities for drug control efforts. While the role of alcohol is somewhat ambiguous in this document as the term "drug" excludes alcohol in the draft document, alcohol is included as part of "substance abuse" – a term regularly used in the draft plan and many of the objectives of the plan include alcohol.

To achieve its aims, the National Drug Master Plan has identified eight main areas of focus, namely: ● Crime ● Youth ● Other vulnerable groups (such as children-in and out of street, workers, women, people with disabilities, elderly, unemployed persons and persons affected by HIV/AIDS) ● Community health and welfare ● Research and information dissemination ● International involvement. ● Communication (crosscutting area) ● Capacity building

The full draft DMP, which is a rework of the 199-2004 plan, is included as Appendix 1, however it is important to outline relevant strategies/objectives in four of the relevant areas covered i.e. youth, other vulnerable groups, community health and welfare. The draft plan states:-

Youth

Specific treatment services need to be targeted at young people, as their needs are likely to be different from those of adults. For example, young people hold a dependent position in family and society; they are more influenced by peers and popular culture; they often need education or vocational training; and are more likely to be using other drugs. The CDA will ensure that annually, information on substance abuse reaches parents of learners and that they should take responsibility in monitoring substance use and alleviating drug use among their children. Children are not born drug abusers and it remains the task of parents to teach their children values during the early formative years before peer pressure and other influences intervene. The CDA acknowledges that major gaps still exist with regard to a comprehensive approach to the prevention of substance abuse among youth, especially in the rural areas. Intervention programmes on the prevention and treatment of substance abuse should be made accessible to all the youth of South Africa.

The following are the objectives for the youth priority area:

● motivate youth to refrain from abusing substances
● improve responses regarding links between substance abuse and crime through the use of restorative justice principles
● enforce the law on the sale of alcohol, tobacco and other drugs to youth
● ensure that schools offer effective programmes on drug education; giving pupils the facts, warning them of the risks, and helping them to develop an attitudes to resist abusing substances
● promote a healthy life style through awareness programmes

● develop effective national and local public education strategies focusing particularly on young people
● ensure that young people have access to life skills and other programmes that promotes a healthy life style.

Other vulnerable groups

Besides youth, there are a number of other groups that have been known to be particularly vulnerable to the use of substances and/or their effects: e.g. people affected by substance abuse and HIV and AIDS, unemployed, children, street children, orphans, workers, women, musicians, people with disabilities older persons etc.

The following are the objectives for the priority area other vulnerable groups:

● ensure that all government departments are responsible for preventing and combating substance abuse and offering effective programmes on Information, Education and Communication (IEC) to facilitate vulnerable groups to make informed decisions.
● Increase awareness among community members, on issues related to substance use and abuse among the vulnerable groups
● ensure that vulnerable groups who abuse or become dependent, have increased access to a range of: advice, counselling, treatment, rehabilitation and after-care services.
● empower all vulnerable people, so that they may know their rights under the RSA Constitution and can access support and/or avoid future victimisation.

Community health and welfare

Substance abuse has a negative impact on many areas of individual and community life including health, security and the economy. Special areas of concern here are the high rate of substance abusers that are still at the childbearing age. Issues such as teenage pregnancy, the Foetal Alcohol Syndrome, MDR, STIs including HIV/AIDS merit attention. (Substance abuse)…affects important areas such as school performance, health, family life, productivity, and safety and security. Primary Prevention and treatment programmes should consider efforts in harm reduction too.

The following are the objectives of the community health and welfare priority area:

● protect communities from health risks and other harms associated with substance use, including the spread of communicable diseases, related injuries and premature death
● ensure that individual substance users have access to information, treatment and counselling, rehabilitation and aftercare services
● ensure that individuals, and significant others have accredited treatment and support services
● acknowledge the link between HIV/AIDS and substance use and devise health and welfare programme
● ensure that persons suffering from mental illness and substance abuse morbidity (dual diagnosis) receive appropriate and accredited treatment

Communication
For successful implementation of the National Drug Master Plan, it is required that the public must be well informed on substance abuse issues and practitioners must have access to information on the burden of substance abuse and an intervention strategy that is effective. Extensive research is required to fill the gaps which still exist in areas such as: knowledge in important areas such as the prevalence of drug use by different groups in different parts of the country; the economic costs of substance abuse to the country; the relationship between substance abuse and important national issues (e.g. HIV/Aids, TB, crime, youth development and poverty); effective community-based intervention approaches and the impact of current policies.

The following are the objectives of the communication priority area:
The overriding and overarching objective of the National Drug Master Plan is to ensure that all educational material and other information disseminated, is contextually correct in a form and language appropriate to the culture, language, level of education and socio-economic background of its intended recipients. Material should be produced in all the official languages and signs appropriate for those who are illiterate (pictures), or have disabilities for example, visual impairment (Braille).
● ensure that all educational material and other information disseminated to the public is contextually correct
● ensure that information reaches the public in all languages and an appropriate mode of communication, for groups such as illiterate and/or blind persons
● ensure that facilities for information dissemination are accessible to everyone

11.3)Recent prevention campaigns/initiatives
Government has recently combined with the UNODCCP in a media campaign termed "Ke Moja" – "No thanks, I'm fine". A recent evaluation found that while there were a number of positive responses to the content, it's effectiveness was somewhat limited to urban areas.

The Department of Health flighted TV adverts against drinking and driving over the 2005/06 festive season.

In the 2006 budget Trevor Manual announced increased taxes on alcohol products (excluding sorghum beer) ranging from 9%-20% (4.8% - 15.8% in real terms). This above inflation increase is important for reducing consumption levels (though the tax proportion still lags behind many countries internationally).

12)BARRIERS TO PREVENTION AND CONTROL OF ALCOHOL PROBLEMS

Differences between the industry and health and social service lobbyists and researches. Though the liquor industry (and the Industry Association for Responsible Alcohol Use) argue vociferously that they are as anxious about alcohol abuse as lobby groups and researchers concerned with the health and social consequences of alcohol, there are a number of differences of opinion between these groups. For example there are differences with regard to alcohol advertising, the extent of taxes that should be paid, warning labels, hours that outlets should be allowed to open, the positive effects

of moderate drinking, where and how many outlets should be allowed and so forth. Critically, while all groups are concerned with the abuse of alcohol, industry is equally concerned with sales and profit. The industry also argues that it makes a very large contribution to the society in terms of jobs, social responsibility programmes, supporting the advertising industry, BEE etc. More sales and greater profits are, in their view, good for the economy.

Competing priorities within government. Government finds itself in a position of having to balance its own priorities. On the hand there are large and obvious health and social impacts from alcohol abuse. On the other hand economic growth and development - which supports poverty alleviation - and Black Economic Empowerment are central policy priorities and the alcohol industry, including the growth of the industry, plays a large part in this. Moreover due to the history of alcohol sales it is necessary for government to bring the system of illegal shebeens into a licensed regulatory process. This doesn't fit particularly well with reducing accessibility through 'dedensification" of outlets, not having outlets near schools etc. Decisions around alcohol get made in this context of competing health, social and economic objectives.

Resistance from drinkers themselves. Consumers of alcohol are also public citizens and voters. Controls on the price, availability and distribution of alcohol often meet with strong public resistance (for example raises in "sin" tax of alcohol, or closing shebeens which do not meet the requirements of the liquor act). While it appears that accessibility (price and geographic) is probably not currently a major voting issue it could easily become so if stringent actions were taken which directly affected the public.

Problems with enforcement: having laws and regulations around alcohol means very little unless they are enforced. Currently many laws are not adequately imposed. For example sales to minors and sales from unlicensed outlets are common. This is a major barrier to control of alcohol abuse.

Delays resulting from bureaucratic processes: Government processes often work very slowly. This not only results in things not getting done on time but key people loose interest and initiatives do then not have their optimal impact. For example though the Prevention and Treatment of the Drug Dependency Act, (Act 14 of 1999, Section 2), makes provision for a Central Drug Authority which would draw up a Drug Master Plan, no plan has yet been approved. The draft five-year plan for 2005-2009 has already lost a year in which very little has been done. Though the CDA has been in existence for more than ten years one of its main tasks is monitoring the Drug Master Plan - but in the absence of an approved plan, their task becomes somewhat superfluous. Moreover the term of the current CDA ended in November 2005 but new members have not been appointed.

CONCLUSION

Preventing alcohol related harm is a critical health priority. It requires a combination of legal and regulatory interventions, enforcement, community based programmes and actions, better health and social services which focus on alcohol, personal behaviour change and shifts in community attitudes.

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