



Public Health Problems
Caused by Harmful Use of

ALCOHOL

Gaining LESS or Losing MORE ?



“ALCOHOL CONTROL” SERIES, No. 2

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- No.1. Burden and Socio-Economic Impact of Alcohol — The Bangalore Study
- No.3. Alcohol Control Policies in the South-East Asia Region — Selected Issues
- No.4. Alcohol Use and Abuse — What You Should Know
- No.5. Reducing Harm from Use of Alcohol — Community Responses

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**World Health
Organization**

Regional Office for South-East Asia
New Delhi

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CONTENTS

PREFACE.....	ii
1. INTRODUCTION.....	1
2. ALCOHOL: WHAT INFLUENCES ITS USE	2
3. PRODUCTION AND DISTRIBUTION.....	3
3.1 The Alcohol Industry.....	3
3.2 World Trade Organization, Globalization, Liberalization and Alcohol	4
3.3 Promotion and Sale of Alcohol.....	4
4. ALCOHOL CONSUMPTION.....	7
4.1 Spectrum of Alcohol Use.....	7
4.2 Prevalence of Alcohol Use.....	9
4.3 Abstinence	11
4.4 Drinking Patterns	12
5. ALCOHOL USE: WHAT ARE THE CONSEQUENCES ?.....	21
5.1 Immediate Effects	22
5.2 Long-term Effects.....	22
6. ALCOHOL-RELATED PROBLEMS.....	24
6.1 Impact on the Individual	25
6.2 Impact on the Family.....	37
6.3 Impact on Society	41
7. ECONOMIC IMPACT OF ALCOHOL ON SOCIETY: GAINING LESS OR LOSING MORE ?	44
7.1 Data from Western Countries	46
7.2 Regional Data	47
8. WHAT CAN BE DONE ?.....	53
8.1 The International Evidence for Intervention	54
8.2 The Regional Evidence for Intervention: What Worked and What Has Not Worked.....	62
9. WHO SEARO INITIATIVES.....	69
10. CONCLUSION.....	71
11. REFERENCES	74
12. ANNEXURE	83

PREFACE



Some countries comprising the South-East Asia Region of the World Health Organization, are steadily moving towards a higher level of alcohol use in the last decade. It is well established that an increase in alcohol consumption by a community or a nation leads to a higher proportion of persons with what can be considered problem use (abuse/harmful use) and addiction (dependence). Harm from alcohol use has a significantly adverse impact on the lives and most notably, on the health of affected persons and their families. Simultaneously, there is a substantial socio-economic impact on the communities. Thus, policy-makers in nations facing increasing alcohol consumption should pay urgent attention to alcohol control policies.

The effects of alcohol use depend on a number of internal and external influences. At the societal level, availability, accessibility, affordability and acceptability have a major influence on alcohol use. The visual and print media play a major role in terms of informing, highlighting and influencing people's values and thinking processes. The systems of law, judiciary and welfare determine what is acceptable and what is not acceptable in every society. Socio-cultural attributes of peer group influences, the status symbol attached to alcohol use and liberalized attitudes of society all have a major impact on the entry and spread of alcohol use in society.

The family plays a major role in terms of social, economic and cultural values. At the individual level, age, sex, social status, physiological attributes, nutritional levels, the activity being performed, psychological status and awareness determine how much a person drinks and what effect it has on him/her and others. Thus, the increasing use of alcohol is not just due to an individual's likes or dislikes but rather due to several extraneous factors operating in respective societies. Understanding and identifying critical factors is crucial to reduce the growing impact of alcohol use.

There is an urgent need to focus on prevention of harm from alcohol use and abuse in countries of the Region, both from the perspectives of health promotion as well as social development. The contextual evidence from the Region regarding what is successful in reducing harm from alcohol consumption is not very clear. Nevertheless, there is considerable international evidence which identifies components of successful programmes.

There are a wide range of alcohol control policy options. However, there is clearly no single policy measure to combat and reduce all alcohol-related problems. Rather, it is more effective to incorporate a range of measures in a comprehensive alcohol control strategy. It is the policy 'mix' or finding the right balance that is the key in reducing the overall public health burden caused by alcohol consumption.

The goal of a comprehensive, effective and sustainable alcohol control policy can only be attained by ensuring the active and committed involvement of all relevant stakeholders. Alcohol control

strategies need a high degree of public awareness and support in order to be implemented successfully. Without sufficient popular support, enforcement of any restriction is jeopardized, leading to possible resistance and circumvention.

Multiple agencies, for example, ministries of law, industry, revenue, agriculture, the customs department, law enforcement departments, medical associations and NGOs should all work together for a clear formulation and effective implementation of a rational, integrated and comprehensive alcohol control policy.

Countries and communities should search for policies that protect and promote health, prevent harm and address the numerous social problems associated with alcohol use. Ideally, scientific evidence should be the basis of both policy making and public debate. One of the issues to be examined is the extent to which successful public health measures are transferable between different cultures, and the different situations in developed and developing countries.

This document provides information on alcohol use and abuse in WHO's South-East Asia Region. It makes practical suggestions on what the individual, the community and governments can do to protect each and every one from the harmful effects of alcohol use. It should be found most useful by all those interested in a healthier and happier Region.



Samlee Plianbangchang, M.D., Dr.P.H.
Regional Director



INTRODUCTION

South-East Asian societies are in transition amidst changing states of growth and development due to macro and micro level influences. The shift from agrarian to modern societies has led to people changing emotionally, culturally and socially. This influences every sphere of their lives. The impact of globalization, industrialization, migration and media invasion into the lives of people is noticeable and palpable. People are embracing new lifestyles, cultures and practices, giving rise to new problems such as the increasing use and abuse of alcohol. Governments, representing their citizens, in the pursuit of socio-economic growth and development, are also reacting to these changing global and national influences.

Alcohol is a psychoactive substance which has an effect on people in multifarious ways. It acts primarily on the central nervous system, both immediately and over a period of time, and affects, both directly and indirectly, almost all body organs and systems. Alcoholic beverages contain ethyl alcohol (ethanol), produced as a result of the fermentation of starch which includes grains (beer), vegetables (vodka) and fruits (wine). Ethyl alcohol has no taste and is a colourless liquid. Each alcoholic beverage is different in taste and the way it looks, due to the presence of other substances which are added deliberately or accidentally. The manufacturing process also gives a distinct flavour and colour to the alcoholic beverage.

Alcohol is absorbed directly into the bloodstream through the walls of the stomach and the small intestine, and is then quickly distributed to all parts of the body. All alcohol that is consumed enters the bloodstream and then goes to the brain. It takes only a few minutes for alcohol to reach the brain and begin to act. The liver is the key organ digesting alcohol, and on an average it takes about one hour for the liver to completely digest a standard alcoholic drink (Benegal, 2001).

Traditional societies are gradually adopting modern lifestyles, giving rise to new problems.





ALCOHOL: WHAT INFLUENCES ITS USE

The effects of alcohol depend on a number of internal and external influences.

The increasing use of alcohol is not just due to an individual's likes or dislikes, but rather due to several extraneous factors operating in a particular society.

- ◆ At the societal level, availability, accessibility, affordability and acceptability have a major influence on alcohol usage.
- ◆ The visual and print media play a major role in informing, highlighting and directing people's values and thinking processes.
- ◆ The systems of law, judiciary and welfare determine what is acceptable and what is not acceptable in every society.
- ◆ Socio-cultural attributes of peer group influences, the status symbol attached to alcohol use and the liberalized attitudes of society, all have a major impact on the entry and expanding use of alcohol in society.
- ◆ The family plays a key role in terms of social, economic and cultural values. These influences can have both a positive or negative effect by developing appropriate family norms and values.
- ◆ At the individual level, age, sex, social status, physiological attributes, nutritional levels, activity being performed, psychological status and awareness determine how much each person drinks and what effect it has on them and others.

Thus, the increasing use of alcohol is not just due to an individual's likes or dislikes but rather due to several extraneous factors operating in respective societies. This understanding and identifying of critical factors is crucial to reduce the growing impact of alcohol use.



PRODUCTION AND DISTRIBUTION

3.1 The Alcohol Industry

The alcohol industry is huge in the Region. It is estimated that there are over 600 factories, 1582 distributors and thousands of retail outlets involved in alcohol production and retailing. Over 4 million people are involved with the industry (WHO, 2003).

The fast pace of globalization of the economies in the South-East Asia Region (SEAR) has resulted in the local alcohol industry acquiring a new status due to recent tie-ups with more established trans-national companies and brands. The merger and acquisitions in the liberalized market economy has brought in, not just the 'scale of economies in industrial management', but also initiated a new vigour to a nascent industry on a global scale.

With many parts of the world having reached stable and saturated consumption and with declining trends of alcohol consumption in the European Region and other traditional markets, market lobbies are increasingly targeting new potential markets, especially in Asia. Operating through different media channels and using a wide variety of promotional strategies amidst social and cultural forces of globalization, these changes are expected to result in a rise in the production, distribution and consumption of alcohol in the Region.

The market for spirits is observed to be increasing in the last few decades. Wine sales are also rapidly increasing. Noting variations across the countries in the Region, World Health Organization (WHO) observes that in Thailand there has been an 11 fold increase in beer production between 1970 and 1993, while in Sri Lanka the increase in beer and *arrack* production is approximately 50%. In India, the total annual estimated alcohol production has increased to more than double in a matter of two years: from 362 million litres in 1993–94 to 789 million litres in 1995–96 (WHO, 2004).

Concerned about the rapidly increasing consumption of alcohol and the corresponding harm to the community, civil society and concerned stakeholders have responded appropriately (Annexure – World Health Assembly resolution).

With many parts of the world having reached stable and saturated levels of consumption of alcohol, trans-national companies and their market lobbies are now increasingly targeting new potential markets, especially in Asia.

The ongoing World Trade Agreement dialogue has brought to the fore the might of the alcohol industry.

3.2 World Trade Organization, Globalization, Liberalization and Alcohol

The World Trade Organization was created in 1994 to encourage free trade amongst the 142 Member States. From the perspective of free trade, alcohol is seen primarily as a commercial 'good' to be traded freely internationally like any other commodity, or as a 'service' or an 'investment' with the right to establish anywhere. Public health experts have expressed great concern about the risks such agreements pose to alcohol control initiatives.

Various countries have used a wide variety of strategies to minimize the harm caused by the use of alcohol. These include regulating alcohol availability and access by maintaining state monopolies on the production, distribution and sale of alcohol, levying and maintaining high taxes on alcohol, initiating public education campaigns and imposing restrictions on advertising. Many of these measures will be eliminated with the new rules imposed by the World Trade Organization.

From the perspective of free trade, alcohol is seen primarily as a commercial 'good' to be traded freely internationally like any other commodity. Public health experts have expressed great concern about the risks such agreements pose to alcohol control initiatives.

World Trade Organization and alcohol

Amongst the key elements in international agreements of the World Trade Organization, important aspects relevant to alcohol control policy include:

- ◆ Equal treatment to foreign and domestic liquor
- ◆ Removal of state monopoly on the manufacture, distribution and retailing of alcohol
- ◆ Reduction or elimination of quotas on the quantity of liquor which can be imported

These requirements are likely to increase alcohol consumption in traditionally low-use countries.

Source: WHO, 2003

The protection of human health is a recognized legitimate objective under the treaties of the World Trade Organization. However, to invoke this exception, a government must demonstrate that the measure is necessary to protect the health of the population and that no other alternative but barriers to free trade are needed. Appeal panels of the World Trade Organization have interpreted this exception very restrictively. Only one regulatory measure (the French Government's ban on asbestos) has ever been upheld by the panel.

3.3 Promotion and Sale of Alcohol

The promotion and sale of alcohol depends on a number of prevalent practices and policy initiatives in each country. Some of these factors

include the taxation policy on alcoholic beverages, the wholesale and retail policies, the final market price, the constraints imposed (or not imposed) on sale in terms of duration of sale hours, age restrictions, permissible legal sanctions for alcohol consumption and most importantly restrictions on promotional practices like the use of print and electronic media for purposes of advertising.

Midnaik and Room (1992) have identified the existence of different perspectives regarding alcohol use in a community:

- (i) to governments – alcoholic beverages are a source of revenue
- (ii) to a market economist – alcoholic beverages are one more category of consumer products
- (iii) to a cultural anthropologist – it is a widely used medium of sociability with a diversity of symbolic meanings
- (iv) to a public health specialist – it is an agent of morbidity and mortality and
- (v) to a common man – it is a bottle or one more bottle.

These different perspectives drive the agenda and decide the context of promotion and sale of alcohol depending on the power play in society.

Alcohol use in the SEAR Member States suggests diverse challenges to policy-makers, professionals and civil societies. Growing evidence of harmful effects coupled with inadequate information on effective interventions creates a dilemma in public health. The divergent perspectives of stakeholders have only added to the existing confusion resulting in now-on-now-off public health policies.

There are a wide range of alcohol control policy options. It is evident from research that measures are available that can significantly reduce alcohol-related problems and the resulting harm. However, there is clearly no single policy measure that is able to combat and reduce all alcohol-related problems. Rather, it is more effective to incorporate a range of measures in a comprehensive alcohol control strategy. It is the policy 'mix' or finding the right balance that is the key in reducing the overall public health burden of alcohol consumption.

The goal of a comprehensive, effective and sustainable alcohol control policy can only be attained by ensuring the active and committed involvement of all relevant stakeholders. Alcohol control strategies need a high degree of public awareness and support in order to be implemented successfully. Without sufficient popular support, the

Growing evidence of harmful effects of alcohol coupled with inadequate information on effective interventions creates a dilemma in public health.



enforcement and maintenance of any restriction is jeopardized, and resistance and circumvention are likely to develop. Multiple agencies, for example, ministries of law, industry, revenue, agriculture, customs department, law enforcement departments, medical associations, NGOs, should lobby for a clear formulation and effective implementation of a rational, integrated and comprehensive alcohol control policy.

Issues related to alcohol control policies in the SEAR Member States have been reviewed and are published in a separate document (Alcohol Control Policies in the South-East Asia Region — Selected Issues: Alcohol Control Series No. 3).



ALCOHOL CONSUMPTION

In contrast to the declining trends in alcohol consumption in other Regions of WHO, the SEAR shows recent and continuing increase in consumption. Across South-East Asian countries one fourth to one third of the male population drink alcohol, while the proportion amongst the females is quite low (4–9%). Notwithstanding this, however, these countries are similar to other heavy drinking countries in terms of consumption per drinker: 13 to 14 litres of absolute alcohol per annum (WHO, 2004).

The SEAR can thus be characterized as a Region with comparatively low (as compared to other Regions of the world), but increasing levels of drinking with a detrimental pattern, dominated by the consumption of spirits as well as a high degree of unrecorded consumption. A key problem area is heavy episodic or “binge” drinking. Based on the adult per capita consumption and available sample surveys, there are clear indications that alcohol consumption is escalating in these countries, possibly with a more rapid rate of increase in the near future. With the influence of the globalizing economies and changing cultural norms, more and more young people are experimenting with alcohol at a very early age.

4.1 Spectrum of Alcohol Use

There is a spectrum of use among those who consume alcohol, which can range from one-time use, occasional use, regular use, hazardous use, harmful use (referred to as alcohol abuse by some experts in some countries) to dependence. The proportion of people in different groups of this spectrum varies considerably among different societies and there are differences even within each individual country.

The permissiveness of occasional use varies across societies and cultures. For example, in some communities serving alcohol to guests on joyous occasions and festivals is a common practice. What is beginning to emerge are the numerous problems associated with even occasional use of alcohol. These range from domestic and family violence to road, or other occupational accidents to physical or mental health damage. These and other such problems in the absence of dependent use are grouped as “alcohol-related problems”. The recognition and acceptance

In contrast to the declining trends in alcohol consumption in other Regions of WHO, the SEAR shows recent and continuing increase in consumption.

Among those who consume alcohol, the spectrum of use can range from one-time use, occasional use, regular use, hazardous use to harmful use.





Traditionally, any alcohol use pattern leading to social, occupational or medical impairment, is called harmful use of alcohol.

Spectrum of alcohol use

Harmful use

A pattern of alcohol use that is causing damage to health. The damage may be physical (as in cases of hepatitis from prolonged use of alcohol) or mental (e.g. episodes of depressive disorder secondary to heavy consumption of alcohol).

Source: Adapted from WHO (2003b)

Hazardous use

Hazardous use is a pattern of alcohol consumption carrying with it a risk of harmful consequences to the drinker. The damage may be to health — physical or mental, or they may include social consequences to the drinker or others. In assessing the extent of risk, the pattern of use, as well as other factors such as family history, should be taken into account.

Source: Adapted from Babor and Higgins-Biddle (2001)

Dependence syndrome

A cluster of behavioural, cognitive, and physiological phenomena that develop after repeated alcohol use and that typically include a strong desire, difficulties in controlling its use, persisting in its use despite harmful consequences, a higher priority given to alcohol use than to other activities and obligations, increased tolerance, and sometimes a physical withdrawal state.

Source: Adapted from Benegal V et al. (2001)

of the “alcohol-related problems” group as a “problem” is associated with the definition of a social drinker and general attitudes of the particular community or society towards alcohol use. This implies that certain communities may be more tolerant to excess alcohol consumption and ignore the ‘transient problems’ related to alcohol use, whereas other communities may be intolerant. For example, in certain communities, verbal abuse of the wife by her husband who is under the influence of alcohol is tolerated as a culturally accepted phenomenon.

“Harmful use” of alcohol refers to a pattern of use which leads to adverse social, occupational, medical and public health consequences. “Harmful use” is not necessarily a result of daily consumption of alcohol. Harm from alcohol use could also be due to drinking too much alcohol at one time. Other patterns of consumption, such as consumption of alcohol by pregnant women, would also qualify under the term “harmful use” in a broad sense.

Hazardous consumption of alcohol can be either “binge drinking” (consumption of five or more drinks in one sitting or on one occasion) or pathological drinking (unable to stop drinking once started). Heavy “binge drinking” can result in alcohol poisoning and subsequent death.

The conditions of dependence and harmful use of alcohol are grouped as “Alcohol Use Disorders”. The problems in the personal, family and social sphere of the alcohol-dependent person are well-documented.

In addition to the health risks due to the toxicity of alcohol, intoxication stops one from thinking clearly and acting sensibly. It puts the person and also others at risk of harm from other adverse effects: for example, injury due to falls, risky behaviour or assault. It is for this reason that alcohol is closely associated with road crashes, fights and violence, coercive sexual activity and unprotected sex, domestic violence, perpetuation of poverty etc.

4.2 Prevalence of Alcohol Use

4.2.1 India

The United Nations Office on Drugs and Crime and the Ministry of Social Justice and Empowerment, Government of India, have recently reported the extent, pattern and trends of drug abuse in India, including alcohol abuse (Ray, 2004). Triangulating the different methodologies the study has attempted to provide a realistic picture of the extent, pattern and trends of drug abuse in the country. By a country-wide two-stage stratified random sample, based on probability proportional to size, the National Household Survey reported the current one-month-period use for alcohol to be 21.4%. Of the total alcohol-users, 17%, were classified as dependent users based on ICD 10. Applying the prevalence estimates to the population figures of India for 2001, it was estimated that there are 62.5 million alcohol-users (62.5/1000 population) and 10.6 million dependent users in India (Ray, 2004).

Gururaj et al. (2004a), observe that “in accordance with the growing consumption of alcohol all over the country, the hospital admission rates due to adverse effects of alcohol consumption are also increasing.” Several studies indicate that nearly 20–30% of hospital admissions are due to alcohol-related problems (direct or indirect).

Several recent studies from the National Institute of Mental Health and Neurosciences, (NIMHANS), Bangalore, have estimated the

The National Household Survey in India reported the current one-month-period use for alcohol to be 21.4%. It estimated that, of the 62.5 million alcohol-users in India, 10.6 million are dependent users.



prevalence of alcohol use at the household level and at the individual level. Gururaj et al. (2006), observed in a population-based study in Bangalore that 36% of the households in rural areas and 34% in semi-rural or transitional towns had at least one alcohol-user in the 15 to 60 year age group (hereafter referred to as the Bangalore study). In another study on health behaviour surveillance, it was observed that the prevalence rate of habitual alcohol use among the 15 to 55 year olds was 90/1000 population. The group interaction revealed the magnitude of the problem to be much larger. The group of men opined that nearly 60% among the youth consume alcohol and it was felt that its use was starting at a younger age than before (Gururaj, 2004b).

Alcohol-related psychiatric problems have been documented in psychiatric morbidity surveys in general populations and also in specific populations. The prevalence of alcohol abuse has varied between 13/1000 to 14/1000 (Gururaj, 2004a). A WHO sponsored study on unrecorded consumption of alcohol of 15 000 households throughout the state of Karnataka, estimated the prevalence of alcohol use as 30% of all adult males in the state and about 1% of all adult females (Benegal, 2003). The head-of-household survey undertaken by Mohan D et al. (1992), in Delhi reported that 26% of residents in urban slums were substance abusers, the majority involving alcohol. Specific population surveys of alcohol use have been carried out amongst school students, industrial workers, medical personnel, etc. and rates ranging between 10–66% have been reported (Gururaj, 2005a). Anand et al. (2000), estimating the burden due to alcohol use considered it as 'numero uno' amongst all non-communicable disorders.

4.2.2 Sri Lanka

Perera B et al., found in their study of 1565 adults, that 23% of men and 0.9% of women were alcohol-users. Fernando N observes that surveys in Sri Lanka have found that 67% of the families had at least one member consuming alcohol and tobacco (WHO, 2002). Amongst the 15 to 19 year-old students in a southern district of Sri Lanka, the current prevalence of alcohol consumption was reported to be 21.2% among men and 3.3% among women (WHO, 2004). Apart from strokes, heart disease and cancer, lifestyle diseases such as drugs, alcohol, sexually transmitted diseases, and suicide are said to be amongst the top six causes of death, both among the rich and poor alike (Gunawardene, 1999). Dissanayake and Navaratne (1999) report that 24% of male deaths are related to alcohol.

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4.2.3 Thailand

Studying the prevalence of hazardous/harmful consumption of alcohol in a southern Thai community, Assanangkornchai S et al. (2003), in a cross-sectional survey observed that the age-adjusted prevalence of hazardous/harmful drinkers was 10% (27% in males and 1% in females). The "Bangkok metropolis survey" undertaken by Chulalongkorn University found that drug and substance-use disorders (11.2%), and alcohol use disorders (18.4%), were the commonest problems. Amongst migrant workers, the extent of alcohol use was found to be 24.5% (Howteerakul, 2005). In a KAP survey in Thailand, harmful use of alcohol was the second most common problem. The lifetime use of beer, hard liquor and wines were 35%, 26% and 23% respectively (WHO, 2003a). Amongst those seeking care for chronic disorders through a mobile unit (Swaddiwudhipong, 1999), 70% of men were current alcohol-users as compared to 39% of women.

4.2.4 Nepal

Jhingan (2003) reported the extent of alcohol dependence to be 25.8% as assessed by a CAGE questionnaire in the city of Dharan. Shrestha et al., have observed that the prevalence of alcohol use in Kathmandu metropolitan city was 31% among the general population aged more than 12 years (22% men and 9% women) while alcohol dependence was 5.5%. Nearly 18% of the alcohol-users were dependant users (WHO, 2002).

Other SEAR Member States: Such data on consumption are not available from other SEAR Member States.

4.3 Abstinence

Lifetime abstinence rates among men range from 44% in Thailand to almost 90% in Indonesia; among women the range is between 73% in Nepal and nearly 100% in Bangladesh (WHO, 2004). Despite the high reported rates of abstinence, it is vital to consider the detrimental effects of alcohol consumption by those who do not abstain and their impact on the abstainers. Commenting on the belief about India being a traditionally 'dry' or 'abstaining' culture, Benegal (2005), traces this construct to be of relatively recent origin, led by the process of *sanskritisation* of the emerging urban Indian middle class who were a collective part of the 19th century rapid industrialization, as also the result of the nationalist movement which championed the cause of prohibition as a reaction to the perceived colonial imposition of the alcohol problem in the country. The inter-country consultation of four countries (Indonesia, Sri Lanka,

According to the "Bangkok metropolis survey", by Chulalongkorn University, drug and substance use disorders, and alcohol use disorders, were the commonest problems.

Jhingan (2003) reported the extent of alcohol dependence in Nepal to be 25.8%.

Despite the high reported rates of abstinence, the detrimental effects of alcohol consumption by regular users and their impact on the abstainers is significant.





Thailand, Nepal) of the SEAR in 2002 (WHO, 2002) felt that in these communities consumption of locally brewed alcohol is a tradition and a way of life. In that context, abstinence may be reported only with respect to alcohol that is purchased.

4.4 Drinking Patterns

It is now being recognized that alcohol-related harm is unrelated to addiction but is related to intoxication or other physiological processes triggered by alcohol use (Rehm, 2003). The pattern(s) of drinking is thus more important rather than the addiction status of an alcohol-user. The group at risk is the new user, especially the youth, who, due to their relative inexperience in handling an alcoholic drink, get invariably drawn into adverse consequences of alcohol use (eg. road traffic injuries, fights, anti-social behaviour).

To highlight the role of alcohol in health and social problems in a country or community, a summary measure is the average drinking pattern. The estimated average drinking pattern is in the range of 1 to 4. Currently, in the Region the average drinking pattern ranges between 2.5* (Thailand) and 3* (India) (WHO, 2004).

Among the youth, alcohol use usually begins as 'experimentation' often initiated in peer groups. Unlike smoking though, drinking does not take place during the actual time spent at school. School friends usually form the first group in which alcohol consumption is initiated. It may also occur within the family, at social gatherings on special occasions such as birthdays or marriages, where alcohol is served.

There is now evidence that drinking alcohol is being initiated at progressively younger ages. There has been a significant lowering of the age at initiation of drinking in India. Data from Karnataka showed a drop from a mean of 28 years to 20 years between the birth cohorts of 1920–30 and 1980–90 (Benegal, 2005). Some young people move from experimentation to regular consumption and some to harmful consumption of alcohol. The first occasion of "getting drunk" is an event of similar importance to that of initiation into alcohol consumption. Parents' drinking habits and the attitude of the family to alcohol strongly affect children's pattern of alcohol consumption. The attitude of some

It is now being recognized that alcohol-related harm is unrelated to addiction but is related to pattern(s) of drinking.

Evidence reveals that alcohol-drinking is being initiated at comparatively younger ages. Data from Karnataka, India showed a drop from a mean of 28 years (1920–30 borns) to 20 years (those born between 1980–90).

* To highlight the role of alcohol in health and social problems in a country or community a summary measure is the average drinking pattern. The estimated average drinking pattern is in the range of 1 to 4 (4 being the most detrimental pattern, based on the number of heavy drinking occasions, drinking outside meals, high levels of fiesta drinking and drinking in public places and 1 being least detrimental pattern, least heavy drinking occasions, drinking with meals, low levels of fiesta drinking and least drinking in public places).

communities in which alcohol consumption, particularly among young males, is condoned and accepted as a sign of “growing up” encourages young people to drink alcohol because their uncivilized behaviour is excused. About two fifths of the youth respondents in the Thailand survey approved of consuming one or two drinks several times a week and about one fourth of the respondents opined that regular drinking entails no or slight risk (WHO, 2003a).

The pattern of drinking in rural areas is usually “binge drinking” centred around pay-day or special occasions, such as, marriages and festivals. Another special occasion in democratic India is during the elections.

Availability, advertising and legal restrictions on the supply of alcohol are known to influence drinking habits among young people. Marketing, particularly to the young, plays a critical role in the globalization of patterns of alcohol use. Even in countries where alcohol advertisements are banned, surrogate advertisements abound and compete with the fierce advertisement of the cola companies. An example of the success of alcohol industry promotions is the finding that a significant proportion (27%) of Sri Lankan men expressed favourable attitudes towards the alcohol industry (Perera, 2004). Given that aggressive marketing strategies are used by these industries to promote their products among young people, scientifically designed epidemiological studies of alcohol use are essential to formulate effective prevention strategies.

Drinking on Special Occasions (Sri Lanka)

In a Tamil village in Vavuniya district, drinking alcohol is an integral part of all special occasions to such an extent, that even non-drinkers are socially influenced into drinking. Some people, especially new settlers, run into debt by buying alcohol for such occasions. One special occasion that seems to include heavy alcohol consumption is the Sinhala and Tamil New Year. In Mihintale village we were told that during the months of February and March money circulation in the village is good. Therefore they celebrate New Year in a grand manner. Whatever they save during the year is spent on New Year. A large part of their savings is spent on alcohol. Some more is spent on gambling which takes place only during this part of the year. Alcohol seems to be an unquestionable part of the celebrations.

Source: Forut Report (2004)





Drinking on Special Occasions in India

Caught! Lorries carrying liquor for votes

EXPRESS NEWS SERVICE

Bangalore, Dec 24: Excise officials have confiscated two lorryloads of seconds liquor allegedly belonging to a powerful

ALCO-HAUL: Bangalore division excise officials have confiscated over 10,500 litres of liquor and over 1,500 litres of arrack being smuggled into the villages for the second phase of the panchayat polls held on Friday. The estimated value of the liquor is around Rs 50.4 lakh, officials said. Officials have seized 13 vehicles and arrested nine persons who are now in judicial custody.

Source: Indian Express newspaper, Bangalore edition dated 25 December 2005

4.4.1 Average Adult Per capita Consumption

The recorded Adult Per capita Consumption (APC) in the Region remained stable during the 60s and 70s. Beginning with 1980s, it has shown an increase. WHO estimated in 2004 that the average APC in 2001 was approximately 2 litres of pure alcohol, however, there is wide variation across different countries, ranging from less than 1 litre in Indonesia to 8.47 litre in Thailand. After adjusting for unrecorded consumption (illicit beverages as well as tax-evaded products) which account for 45–50% of total consumption, the average APC would be higher.

It is pertinent to note that APC may give a misleading representation, if one considers the pattern only of those who consume alcohol. With a large majority of abstainer population (women and children), the amount consumed by those who drink alcohol can reach very high levels.

4.4.2 Unrecorded consumption

Many countries of the Region have illustrated how the often quoted per capita consumption figures do not give the true picture of consumption. This is mainly because parallel with the western and more expensive beverages, which usually constitute the recorded consumption, in most countries there exist local and cheap beverages, either legal or illegal, that are not computed into national statistics. Alcohol brought into the country by citizens and tourists and which is smuggled also contributes substantially to the total quantity of alcohol available in a country. Thus, a substantial amount of alcohol consumed is unrecorded, i.e., not part of the official data. Unrecorded consumption includes a wide range of local beverages and home brews.

In many countries of the Region, the often quoted per capita consumption figures do not give a true picture because local and cheap beverages, either legal or illegal, are not computed into national statistics.

As a proportion of total consumption, unrecorded alcohol consumption is estimated to be nearly half in India and nearly three fourths in Sri Lanka. Therefore, at least for India and other countries in the Region like Myanmar and Sri Lanka, the actual APC would be much higher than what is reported.

Estimated volume of unrecorded consumption of alcohol per capita for 15+ population in the SEAR		
Country	Unrecorded consumption (in litres of pure alcohol)	Unrecorded consumption as % of total consumption
Thailand	2.0	19
India	1.7	50
Myanmar	0.4	52
Sri Lanka	0.5	73

Source: Adapted from WHO (2004)

4.4.3 Beverage types

The attitudes towards and practices regarding alcohol use have been undergoing significant changes in the countries of the SEAR, particularly in the last decade. The characteristics of adult alcohol consumption are similar in some ways across the Region. The type of beverage consumed

In the SEAR, rural households consume more of local brews.

Common local brews in the SEAR	
Country	Local brews
Bangladesh	<i>Bangla Mad, Cholai, Tari</i>
Bhutan	<i>Ara</i>
India	<i>Arrack, Desi Sharab, Tari, Tharra, Fenni, Toddy</i>
Indonesia	<i>Palm Wine</i>
Myanmar	<i>Tin Lei Phyu</i>
Nepal	<i>Raksi, Tadi, Chayang, Tomb</i>
Sri Lanka	<i>Toddy, Arrack, Kasippu</i>
Thailand	<i>Oou, Krachae, Namtanmao, Sartha, Waark</i>

Arrack is a distilled beverage, obtained from paddy or wheat. Jaggery, sugar or sugarcane is added to either of these two cereals and boiled with water. This is allowed to ferment, after which it is distilled. This beverage contains about 50–60% of alcohol.

Toddy is obtained from the flowers of the coconut or palm tree. A white liquid, with a sweetish taste, oozes out of these flowers. When consumed fresh, this juice has no intoxicating effect. This liquid is collected and allowed to ferment. At times, yeast is added to hasten the process. The fermented juice has an alcohol content of approximately 5–10%.

Source: WHO (2003)



most often is spirit. A noticeable trend is the appearance of wines and beer in the spectrum of alcohol use, especially during the late eighties and early nineties, in some countries (WHO, 2004). This corresponds to the immense socio-political and economic changes that these countries are undergoing. The last two years have seen a steady (20%) growth in wine sales in India. Commenting on the consumption of beer in India, Benegal V observes that even though it constitutes less than 5% of total alcohol consumption, 70% of beer sales are dominated by strong beers at strengths over 8% v/v (Benegal, 2005). In the SEAR, rural households consume more of local brews.

4.4.4 Illicit brews

As a result of the triple processes of centuries of colonization, decades of industrialization and the recent globalization along with liberal liquor control policies in individual countries, the illicit brewing industry has also seen its highs and lows. Most often the clandestine cottage industry preparations are made in unhygienic environments; the additives to the deadly mix enhance the hazard.

Hazardous Illicit Brewing (Rural Area Outside Bangalore, India)

A variety of *kalla bhatti* that the research team was able to procure, came in a 180 ml. bottle. The place of manufacture was a shed in the village itself. The raw materials used were jaggery, wood apple, waste fruit and *nau-sadar* (sal ammoniac). Other additives consisted of shells of batteries. Unconfirmed reports by consumers described other additives such as rubber slippers, lizards and other decomposing matter being added.

The process of manufacture is as follows: It starts with 20 litres of water in a large earthen pot. Into this, 10 kg jaggery, 5 kg wood apple and other fruits, as well as pieces of a certain thorn tree are added. Also added are 3 old battery shells and two pieces of *nau-sadar* ground into powder. The ingredients are thoroughly mixed and allowed to ferment for 5 to 6 days after which it is boiled for three hours. The mixture is then distilled by passing through a water cooled pipe, to allow the distillate to collect through a funnel into another pot. The process of distillation takes around 6 to 7 hours. The distilled liquid is then put in bottles, capped and kept for at least three days, after which it is sold. The liquor is light coffee brown in colour and of watery consistency. The manufacturers say that the liquor can be stored for up to three months. Two to three batches of 20 litres each are made in a day. The approximate cost of manufacture

(continued...)

Hazardous Illicit Brewing (continued...)

is INR 150 per 20 litres and the manufacturers say they make a profit of around INR 50 for every 20 litres. The consumer pays about INR 200 per quarter bottle (180 ml.). Consumers reported that the *kalla bhatti* was more potent and fiery than other licit country liquor and made them more inebriated and violent.

Informants recalled that while many years back, the manufacture was restricted to families belonging to a traditional caste of brewers, in recent times the business had been taken over by non-specific networks with considerable muscle power and alleged contacts with the powers that be.

Source: Benegal V et al. (2003)

Illicit alcohol consumption and mass tragedies

There have been many instances of poisoning and deaths following the consumption of adulterated liquor. People of the lower socio-economic status sometimes consume illicit or home-brewed alcohol because of its low cost, despite its known hazards. Mass casualties as an aftermath of consuming toxic brews are not infrequent. At least 90 Bangladeshis died in 1998, including 70 in Gaibandha, after consuming illegal home-brewed alcohol. In the following year, there was an incident of alcohol poisoning in the north-eastern town of Narsingdi, about 50 miles from the capital Dhaka, where 96 people reportedly died and more than 100 were hospitalized as a result of drinking illegal home-made liquor (WHO, 2004). Such tragedies devastate entire families who lose productive members of their family.

There have been many instances of poisoning and deaths following consumption of adulterated liquor.

Illicit Alcohol Consumption (Sri Lanka)

The most common form of alcohol used in all the villages studied is the illicit brew *kasippu*. The reasons given for its popularity among villagers are mainly that legal *arrack* costs more and that *kasippu* is more easily available.

Several informants said that if there is no liquor at a wedding, the participation will be poor, and that there are people who do not go to a wedding if alcohol is not being served. If there is no liquor, the value of the gift, which is normally money, will be reduced. If 200 people are invited they bring about 50 bottles of *arrack*. It costs around 14,000 rupees. If the family is poor, they would serve *kasippu* instead of *arrack*.

Source: Forut Report (2004)



Media reported illicit alcohol tragedies in India, 2003–05		
Place, Year	Deaths or cases	Remarks
Villupuram, Tamil Nadu, 2005	5 deaths	–
Nelamangala, Bangalore, 2005	21 deaths	Fake government emblems on the sachets
Hoskote, Bangalore, 2005	10 deaths	–
Rewari, Uttar Pradesh, 2005	8 deaths	–
Bikaner, Rajasthan, 2005	5 deaths	Nearly 36 suspected to have died
Kolayat, 2005	21 deaths	–
Menambedu, Tamil Nadu, 2005	13 deaths	Intoxicants worth INR 170 000 and 15 175 litres illicit liquor seized
Lucknow, Uttar Pradesh, 2005	7 deaths, 15 ill	–
Cuddalore, near Chennai, Tamil Nadu, 2004	46 deaths	120 treated, 29 lost their vision; 33 deaths in neighbouring villages in the previous month
Diwosas, Bareilly district, 2004	14 deaths	–
Thrissur, Kerala, 2004	3 deaths	–
Unnao, Uttar Pradesh, 2004	9 deaths	–
Mumbai, 2004	99 deaths, 100 hospitalized	1110 litres illicit liquor seized
Tangra, West Bengal, 2004	35 deaths	–
Koopana, Kerala, 2004	7 deaths, 30 ill	–
Hisar, Haryana, 2003	6 deaths, 12 ill	–
Dharwad, Karnataka, 2003	6 deaths	–
Tiruvallur, Tamil Nadu, 2003	13 deaths, 92 males ill	–

Source: Compiled from media reports in daily newspapers

4.4.5 Hazardous consumption

Hazardous consumption of alcohol is a common pattern of consumption in the Region. This consumption pattern is particularly harmful.

A recent survey in Sri Lanka as part of the WHO Gender Alcohol and Culture: an International Study (WHO, 2003), shows that 10.2% of current male drinkers are frequent heavy drinkers and 20% are infrequent heavy drinkers, with the highest proportion of frequent heavy drinking being in the 30 to 44 year-age group (WHO, 2004). Frequent heavy drinking was reported by 21.8% of male respondents in this age group in a similar survey in India, much higher than in the younger (12.5%) and older (14.1%) age groups (Benegal, 2005).

The Bangalore study reports that 41% of the alcohol-users in the study population in the four study areas engaged in “binge drinking”, with one third of them reporting the frequency of this type of drinking to be less than monthly (Gururaj, 2006). Nearly one fourth of the study population report to be pathological alcohol-users, i.e. they have not been able to stop drinking once started in the last 12 months. It was observed that of those who indulged in “binge drinking” on a monthly basis, nearly 50% across the four areas are also pathological drinkers.

4.4.6 Changing faces and emerging trends

Historically, the use and abuse of alcohol has been a universal phenomenon. The massive economic changes and urbanization process in the last decade of the previous century has thrown up new challenges. Alcohol consumption patterns have changed, with the emergence of harmful drinking. More young men and women, usually from the upper social strata, consider drinking alcohol a status symbol. The numerous and varied problems related to alcohol use are often an underestimated burden.

It is difficult to arrive at one single composite indicator of alcohol consumption pattern and its effect in every society. The real and complete socio-economic burden and costs due to alcohol consumption in the community have to be examined from diverse aspects using data from multiple sources, both in a quantitative and qualitative manner. This makes it even more challenging. Despite many shortcomings, various approaches have been tried in order to document the quantum of alcohol-related problems in a community and also the costs on society due to these problems (For a fuller understanding of the issues concerned please refer to the document by Single E et al. 1996).

With the growing awareness of alcohol-related problems in the SEAR and the limited understanding of socio-economic impact of alcohol use in

Recent changes in alcohol consumption patterns

- ◆ Emergence of wine and beer drinking
- ◆ Increase in drinking among women
- ◆ Early experimentation and decreasing age of initiation
- ◆ Shift in consumption from urban to rural areas and transitional towns
- ◆ More “binge” drinking
- ◆ Greater acceptability of drinking as an accepted social norm
- ◆ Alcohol use along with high-risk sexual behaviour



Changing Faces of Alcohol Consumption



“Grab a drink to be ‘in’ has become the mantra with Bangalore’s youth! Taking a closer look at them, one is reminded of a free society, which decides its ‘flavour of the month’ and sets the trend. It is another matter that these youngsters are advocating a rise in alcoholism, or are at least giving legitimacy to easy consumption of alcohol.”

Source: Vijaya Times, Sept 11, 2005

With the growing awareness of alcohol-related problems in the SEAR and the limited understanding of the socio-economic impact of alcohol use in these societies, formulating future strategies has been complex and difficult.

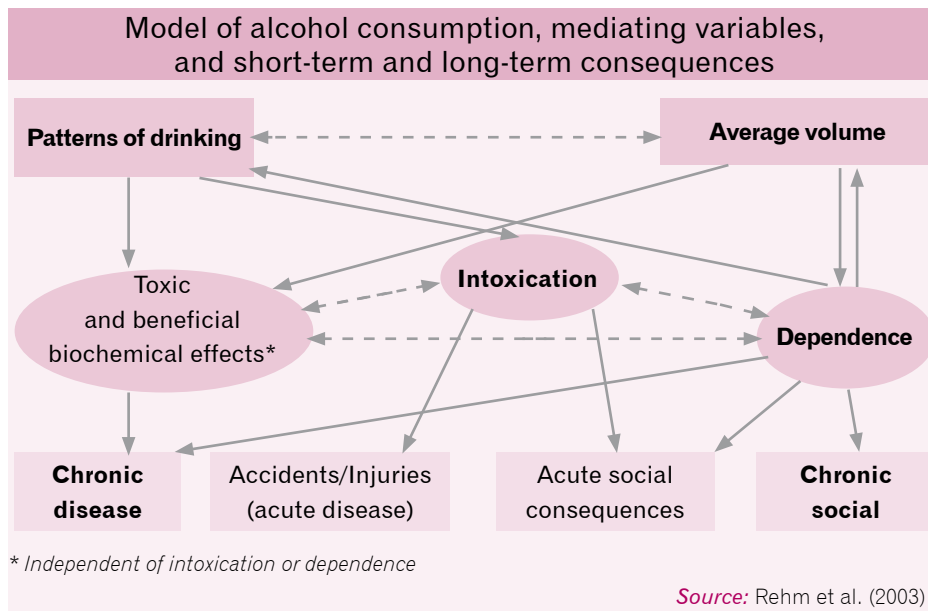
these emerging societies, formulating future strategies has been complex and difficult. To estimate the socio-economic burden of alcohol-related problems, WHO Regional Office for South-East Asia (SEARO) sponsored a feasibility study to examine this problem in communities. The study was conducted in Bangalore, India, among 28 507 individuals drawn from 7912 household from 4 communities (rural, town, slum and urban). It has been the first major attempt of its kind to document the effects of alcohol in transitional communities both among users and non-users of alcohol. The study examined the problem in different dimensions of health, family impact, social, educational, occupational, psychological, legal and emotional impact on individuals and their households. Both quantitative and qualitative approaches were used. An attempt was made to cost the impact in individual areas. Though the findings are broad-based and cross-sectional in nature, it provides an indication of the costs of alcohol consumption and its consequent economic impact on not just the individual, but also society in general. The findings are reported in a separate document (Burden and Socio-economic Impact of Alcohol Use — The Bangalore Study: Alcohol Control Series No. 1).



ALCOHOL USE: WHAT ARE THE CONSEQUENCES ?

WHO estimates that there are about 2 billion people worldwide who consume alcoholic beverages, of whom 76.3 million have diagnosable alcohol use disorders. These studies have estimated that globally, alcohol causes 3.2% of deaths (1.8 million deaths) and 4% of Disability-Adjusted Life Years DALYs (58.3 million DALYs). This proportion is much higher in males (5.6% deaths and 6.5% of DALYs) than females (0.6% deaths and 1.3% DALYs) (WHO, 2002a).

WHO estimates that there are about 2 billion people worldwide who consume alcoholic beverages, of whom 76.3 million have diagnosable alcohol use disorders.



The effects of alcohol use by an individual are widespread and noticeable in all spheres (physical, psychological, social, and economical) of an individual's life. Since every person is part of a family, it impacts other family members as well. Further, the collective and long-term effects are felt by all sectors of the society we live in, the greatest by the health sector. Several non-health sectors like law, judiciary, police, welfare, transport etc., also experience the impact of alcohol use in a significant way.

The effects of alcohol use are widespread and noticeable, affecting all spheres (physical, psychological, social, and economical) of an individual's life.

Alcohol consumption has health and social consequences via intoxication (drunkenness), alcohol dependence and other biochemical effects of alcohol. In addition to chronic diseases that may affect drinkers after many years of heavy use, alcohol contributes to traumatic outcomes that kill or disable at a relatively young age, resulting in the loss of many years of life due to death or disability. There is increasing evidence that





Overall there is a causal relationship between alcohol consumption and more than 60 types of disease and injury.

besides the volume of alcohol, the pattern of drinking is relevant for the health outcomes.

Overall there is a causal relationship between alcohol consumption and more than 60 types of disease and injury. Alcohol is estimated to cause about 20–30% of oesophageal cancer, liver cancer, cirrhosis of the liver, homicide, epileptic seizures, and motor vehicle crashes worldwide. Unintentional injuries alone account for about one third of the deaths due to alcohol (WHO, 2004).

5.1 Immediate Effects

The immediate effect of consuming an alcoholic beverage varies from individual to individual and includes a flushed appearance, a false sense of relaxation, loss of inhibitions (and thereby more confidence), lack of co-ordination and slower reflexes, blurred vision and slurred speech. Some may even experience headache, nausea and vomiting, mood changes (e.g. aggression, elation, and depression) and sleepiness. At significantly high doses it can result in coma and death.

The effects of increasing Blood Alcohol Concentration on the central nervous system

20 to 30 mg/dl:	Slow motor responses and decreased thinking ability
30 to 80 mg/dl:	Increase in motor and cognitive problems
80 to 200 mg/dl:	Definite impairment of motor co-ordination and judgement; fluctuations in mood and increased risk-taking behaviour
200 to 300 mg/dl:	Marked slurring of speech, inability to carry out simple tasks
300 mg/dl:	Loss of consciousness, convulsions and possible death

Source: WHO (2003)

The immediate effect of consuming an alcoholic drink varies from individual to individual. At significantly high doses, it can result in coma and death.

5.2 Long-term Effects

Alcohol use for a long period of time causes permanent damage to health. It also results in physical, emotional or social problems. For example, malnutrition, frequent infections, skin problems, liver, heart and brain damage, sexual impotence, reduction in fertility, memory problems, family and relationship problems, poor work performance, legal and financial difficulties are all associated with long-term effects of alcohol

use. Many adverse consequences linked to alcohol consumption are recognized.

Adverse consequences of alcohol use

- ◆ Heartburn, nausea and gastritis
- ◆ Malabsorption syndromes
- ◆ Worsens complications of diabetes
- ◆ Anaemia
- ◆ Risky unsafe sex leading to Sexually Transmitted Diseases most importantly HIV
- ◆ Reduces sexual capacity
- ◆ Increases risk of seizures
- ◆ Addiction and alcohol dependence
- ◆ Depression, anxiety, suicide and other psychiatric symptoms
- ◆ Problems in the workplace
- ◆ Abuse of other substances including tobacco
- ◆ Problems with family members
- ◆ Fatty liver, alcoholic hepatitis and cirrhosis
- ◆ Alcoholic pancreatitis
- ◆ Cardio-vascular effects include: poor BP control, increased cerebral haemorrhage and strokes, cardiac enlargement and failure, and arrhythmias
- ◆ Reduced immunity and increased susceptibility to infections
- ◆ Damages to the musculo-skeletal system
- ◆ Impaired sleep and memory
- ◆ Polyneuropathy
- ◆ Delirium tremens, Wernicke's encephalopathy and Korsakoff's syndrome and hallucinations

Source: Benegal V et al. (2001)





ALCOHOL-RELATED PROBLEMS

As a public health risk factor, alcohol use results in numerous problems to the individual, the family and society.

As a public health risk factor, alcohol use results in numerous problems to the individual, the family and society. In the unique context of the SEAR, with recent increase in alcohol consumption, the problems from alcohol use multiply. The rapidly changing socio-economic status accompanied by liberalized values of society has affected not just the numbers but also the pattern of drinking, making it common and more acceptable. In addition, those who do not consume alcohol are also at risk. There is limited empirical data on problems associated with alcohol consumption and the need for more reliable data across the Region cannot be overemphasized.

The problems related to alcohol consumption can be broadly looked at from three dimensions:

- ◆ problem and impact on the individual who consumes alcohol
- ◆ impact on family members (comprising of spouse, children and women in the community), and
- ◆ the societal consequences of this consumption.

This distinction (though it is important to identify the effects at different levels) is difficult to demarcate as one overlaps with the other and the combined effects are felt by society at large. For example, even though an individual is hospitalized due to a road crash, his family suffers equally on many aspects including social (taking care, absence from routine

The impact of harmful use of alcohol

Findings from a study of alcohol-dependent persons in Bangalore, India

- ◆ Individuals spent more on alcohol than they earned
- ◆ Most people took loans to support their habit
- ◆ An average of 12.2 working days per year were lost
- ◆ 18.1% lost their jobs in one year
- ◆ 59.4% families were supported by income from other family members
- ◆ 9.7% sent children under 15 to work to supplement family income.

Source: Benegal, Velayudan, Jain (2000)

social interactions, change in social status, etc.), economic (loss of pay, increased expenses – direct and indirect, costs of cancelled/postponed events, etc.) and psychological aspects (low self confidence, increased distress levels, etc.).

6.1 Impact on the Individual

6.1.1 Health status of alcohol-users

Alcohol-users experience a higher incidence of negative life events, more injuries and increased psychosocial problems. The adverse events linked to alcohol consumption can vary from being a mild hangover or acid dyspepsia to chronic debilitating cirrhosis of the liver and several types of cancers. The latter category requires long-term care for diagnosis, management, palliative care, and rehabilitation. Similarly, an individual who goes into a persistent vegetative state resulting from brain damage due to a road traffic injury consequent to a “binge” of alcohol-drinking also requires life-long rehabilitative services.

The health status of alcohol-users is reported to be “less than satisfactory” as compared to non-users. They seek health care services more often, both emergency services and routine services (Gururaj, 2004d). Alcohol-related problems made up 17.6% of the case load of psychiatric emergencies in a general hospital in India (Adityanjee, 1989). Alcohol-related problems account for over a fifth of hospital admissions (Sri 1997; Benegal, 2001) but are under-recognized by primary care physicians. Alcohol abuse has been implicated in over 20% of traumatic brain injuries (Gururaj, 2002a) and 60% of all injuries reporting to emergency rooms (Benegal, 2002). It has a disproportionately high association with deliberate self-harm (Gururaj and Isaac, 2001), high-risk sexual behaviour, HIV infection (Chandra, 2003), tuberculosis (Rajeshwari, 2002), oesophageal cancer (Chitr, 2004), liver disease and duodenal ulcer (Sarin, 1988; Jain, 1999).

In their community-based Bangalore study, Gururaj et al., report that the frequency of reporting bad or unsatisfactory perception of their own health status by alcohol-users was 2.5 times more as compared to non-users (17.5% of alcohol-users reported to have a just “satisfactory” or “bad” health status when compared to 7.2% of non-users). In addition, the odds ratio of alcohol-users reporting health problems was 2.8 indicating that they were experiencing negative health nearly 3 times more as compared to non-users. Significant proportions (8.7%) of alcohol-users reported that they were “not at all happy”.

Alcohol-users experience a higher incidence of negative life events, more injuries and increased psychosocial problems.



Alcohol consumption has been identified as a major risk factor for the occurrence of traumatic brain injuries. Alcohol not only influences occurrence, but also poses problems in diagnosis and management of injured persons.

A clear association between alcohol use and injury, specially road traffic injury (RTIs), within six hours of alcohol consumption has been proven beyond doubt.

Among a group of 50 women (age range 26 to 75 years) with alcohol-related problems who were seen over a 16-month period, from January 1998 to June 1999 in a general hospital setting in Dharan, Nepal, 35 cases (70%) were admitted to a medical ward of the hospital with alcohol-related physical problems (alcoholic liver disease in 33 cases and alcoholic cardiomyopathy in two cases). Fifteen cases (30%) presented with alcohol-related psychological problems — depression in 12 cases, withdrawal symptoms in two cases and alcoholic hallucinosis in one case (WHO, 2004). According to the Ministry of Health, Sri Lanka, the number of cases of those hospitalized due to alcoholic psychosis, alcohol dependence and alcohol withdrawal had increased by 4436 cases in one year (1998 to 1999) (WHO, 2004).

In a study looking at consecutive emergency room admissions aged 14 years and older, admitted from 18:00 to 02:00 hours in three regional hospitals in Thailand, it was found that among the 404 males and 127 females admitted for trauma, 43% and 13% respectively had positive Alcohol Use Disorder Identification Test (AUDIT) scores, compared with 35% of male non-trauma and 6% of female non-trauma patients, indicating the role of habitual use of alcohol in trauma patients. The study also revealed that 39% of all males presenting to the emergency room for treatment between 18:00 and 02:00 hours had consumed alcohol. The rate was significantly lower (8%) among females (WHO, 2004).

6.1.2 Alcohol and traumatic brain Injury

Alcohol consumption has been identified as a major risk factor for the occurrence of traumatic brain injuries. Alcohol not only influences occurrence, but also poses problems in diagnosis and management of injured persons. It has also been demonstrated that alcoholics have a higher severity of injury and poor outcomes following injury with a higher proportion of deaths and disabilities (Gururaj, 2004a). In the Bangalore study, nearly 24% of subjects admitted to regular alcohol intake in their lives. Nearly 884 (18.4%) were found to be under the influence of alcohol at the time of injury as revealed by self-reports and medical certification by the attending physicians. Among them, nearly two thirds sustained a road traffic injury, one fourth sustained falls and about 12% were injured in a violent act (Gururaj, 2006).

6.1.3 Road Traffic Injury (RTI)

Sindelar (2004) in a recent review of available literature from high-income countries observed that nearly 5–50% of patients registering to the emergency department for trauma had consumed alcohol. A clear association between alcohol use and injury, specially Road Traffic Injury

(RTIs), within six hours of alcohol consumption has been proven beyond doubt (Cheriptel, 1993 and 2003).

Precise information on the involvement of alcohol in RTIs and deaths is not available from all the SEAR Member States. Odero, in a recent review of epidemiological studies of RTIs in developing countries, noted that nearly one third to one fifth of RTIs occur during night-time and majority of these were attributed to alcohol consumption, in combination with poor visibility, greater traffic density and limited health care facilities (Odero, 1997). Studies in the SEAR indicate that nearly 30–40% of RTIs occur during night-time and a significant number of these are attributed to alcohol consumption (Gururaj, 2004 a and b).

Evidence from India

Studies from India in recent years have shown the increasing link of alcohol with RTIs, specially night-time crashes.

- ◆ In a study on “Drinking and Driving” undertaken to establish baseline information on the magnitude of alcohol consumption by drivers of all kinds of motorized vehicles in Bangalore, India, Gururaj and Benegal (2002), reported from a 12-centre hospital-based study of 296 persons injured in road crashes that 28% of patients were under the influence of alcohol. Among them, 29% had consumed whisky, 22% rum, 14% beer, 8% brandy and in 20% of persons the type of alcohol consumed was not known. Further, among those consuming hard liquor, 40% had consumed three large drinks while 20% had more than six drinks. In those consuming *arrack*, more than 62% had consumed three packets. The commonest place for drinking was in bars (64%).

In the same study, roadside surveys showed that the commonest drink was beer (52%), while whisky and rum was reported among 29% and 11% respectively. Among beer-drinkers more than 75% had had more than a bottle while 68% had had more than three pegs of hard liquor. The place of drinking was commonly bars (67%), while party-goers were represented to the extent of 16%. Drinking at home was becoming common as reported by 12% of the respondents (Gururaj, 2002).

As a part of the same study, police checks on drivers were also conducted. It was observed that nearly 80% suspicious drivers checked by the police and 35% of randomly checked drivers were under the influence of alcohol. A majority of those detected by the police reported the consumption of spirits with high alcohol



content, 3 to 4 hours prior to being checked, at parties or with friends. The amount of alcohol consumed based on breath analyzer tests revealed that 40%, 27% and 10% were in moderate, severe and very severe levels of intoxication as specified by WHO Y90 codes. In Bangalore city alone, the number of cases charged by the police in the period 2001 to 2005 increased from 9900 to 33 000 (State Crime Records Bureau, Bangalore, India).

In addition to the above findings, 98% of individuals in roadside surveys reported themselves to be confident to drive after drinking, indicating a lack of awareness of the dangerous consequences; 97% of surveyed population revealed that the existing laws prohibited drinking and driving; 99% were aware of the fact that drinking and driving is dangerous, but 99% of them were not aware of health or legal consequences. All of them reported that they would not sustain a crash even after drinking.

- ◆ Other studies undertaken in India have revealed the growing association of alcohol and RTIs. A series of studies undertaken at the WHO Collaborating Centre for Injury Prevention and Safety Promotion, NIMHANS, Bangalore, during the last 10 years, have revealed that night-time crashes contribute to nearly 30–40% of total RTIs. Among them, alcohol consumption (based on reports by a certified physician) has been documented in 15–30% of injuries (Gururaj, 2004b). The risk of mortality increased by 2.2 times among those under the influence of alcohol (Gururaj, 2004a).
- ◆ Mohan and Bawa, in an analysis of police records, found that 32% of pedestrian fatalities, 40% of motorized two-wheeler occupant deaths and 30% of bicyclist deaths occurred between 6 PM to 6 AM and alcohol intoxication was a major factor in a majority of these crashes (Mohan, 1985). A study in the casualty department of a New Delhi hospital revealed that 7% of RTI patients were under the influence of alcohol (Adityanjee, 1989). Mishra (1984) noticed that 29% of two-wheeler victims were under the influence of alcohol. Similarly, Sahdev et al. (1994), in an autopsy study of RTIs noticed that alcohol intoxication was a major factor but was not documented clearly in medical records. Batra and Bedi (2003) have reported that 40% of truck and matador drivers, 60% of car drivers and 65% of two wheeler drivers were under the influence of alcohol during night-time.
- ◆ In all studies from India, two-wheeler drivers (20–40%), pedestrians (5–10%), bicyclists (5–10%) and motor vehicle drivers

(15–20%) were involved in greater numbers and were under the influence of alcohol.

Evidence from Sri Lanka

In Sri Lanka, the number of people involved with RTIs determined to be under the influence of alcohol had increased from 1494 in 1984 to 5667 in 1999. Information from police records indicate that more than 10% of drivers were under the influence of alcohol. Based on the growing problem, the Ministry of Transport and Highways has identified drunken driving as a priority issue (Somatunga, personal communication).

Evidence from Nepal

Jha et al. (1997), in a hospital-based study of 870 RTI admissions in Nepal found that the highest number of RTIs occurred on weekends and nearly 17% drivers were drunk while driving. These included 28% of motorized two-wheeler drivers, 5% of truck drivers and a majority of bicyclists.

Driving Under the Influence of Alcohol and Danger on the Road (India)

A study conducted by NIMHANS, Bangalore, India, revealed that it is the young male (25–39 years), educated, habitual of heavy drinking in bars or at parties, either alone or with friends, knowledgeable about the hazards of drinking but ignorant of dangers or legal consequences, who is posing the greatest danger on the road.

Source: Ref: Gururaj and Benegal (2002)

6.1.4 Suicides and alcohol

Alcohol has been incriminated as a major risk factor in the occurrence of suicides. Alcohol acts in a number of ways leading to suicide — more indirectly than directly. In a study looking at the epidemiology and risk factors for suicide in Bangalore city, alcohol-related problems featured as one of the top three causes amongst both men and women, contributing to a reported 8% of all causes of those completing suicides; while it ranked amongst the top five amongst those attempting suicides (Gururaj, 2001a and b). In a recent case–control study of completed suicides in Bangalore, alcohol consumption was a major risk factor with chances of suicides increasing by nearly 25 times, among users. Spousal alcohol abuse accounted for an increase in suicides



by nearly six times among women (Gururaj, 2004c). In another study in Bangalore, the analysis of police records among 2652 completed suicides revealed that 15% of men and 1.5% of women were regular and chronic alcohol-users with 56% being under the influence of alcohol at the time of the act (Gururaj, 2001a). A prospective study of attempted suicides revealed that 27% men and 1.5% women were regular alcohol-users with 8 out of 10 being under the influence of alcohol at the time of attempting suicide. An in-depth psychological autopsy showed these figures to increase to 45%, thus indicating the close association with alcohol (Gururaj, 2004b).

The association of alcohol can be seen at different levels and in different mechanisms. Some prominent patterns include:

- (i) an alcoholic person is affected by numerous illnesses related to different organs of the body
- (ii) alcohol use deprives the person and his family of financial resources in a significant way and over a period of time, the spouse and children get into economic hardships, thus leading to difficulties in day-to-day living. The problem becomes compounded in situations of already existing poverty and economic losses
- (iii) alcoholics are known to suffer from the co-existing morbidity of depression. The combined effect of alcohol and depression is a major risk factor for suicides
- (iv) availability of alcohol at the time of the last phase of a frustrated journey in life, often makes the person less inhibited about committing suicide by hanging, poison, burns or by self-inflicted injuries
- (v) mixing alcohol with organo-phosphorous compounds, or drugs also makes it easier for the person to commit suicide
- (vi) alcoholic parents and spouses exhibit intolerable aggressive and violent behaviour on spouses and children, which in turn drives them to commit suicide.

In Chennai, India, it was found that the prevalence of alcohol use disorders among people who committed suicide was 34%. According to a recent survey, 84% of suicides in Gokarella, Sri Lanka, have been committed after consuming alcohol (WHO, 2004). The Bangalore study (Gururaj, 2006) observes that the odds ratio of an alcohol-user, suffering from injury or attempting suicide, was nearly five times that of a non-user.

Alcohol has been incriminated as a major risk factor in the occurrence of suicides.

6.1.5 Alcohol, high-risk sexual behaviours and HIV/AIDS

There is substantial evidence that alcohol use and HIV are closely linked. The uninhibited behaviour as an immediate effect of alcohol use resulting in risky sexual behaviour is contributing to the spread of the HIV virus. Going beyond the bio-medical analyses to understand this phenomenon, Fordham finds in his study on Thai men that alcohol-drinking and sex with prostitutes are closely linked, and both are crucial to the construction of the male identity.

Alcohol and High- Risk Sexual Behaviours

“...Sexual encounters with a commercial sex worker generally followed a period of preparatory drinking. It is common practice for labourers to celebrate their monthly receipt of wages by going out in large groups to feast and visit brothels. Solitary drinking is highly unusual given the connection of alcohol use and the manipulation of social relations. The marital and extramarital spheres are conceptualized, within this culture, as distinct arenas of sexual experience. Drinking and drunkenness serve as framing devices for men to make the transition from the structured, non-erotized domestic sphere to the transgressive world of commercial sex and the affirmation of stereotypical masculinity it confers. Because of the link between alcohol consumption and commercial sex, as well as the high likelihood that drunk persons either will refuse to use condoms or will use them incorrectly, the social drinking context must be considered as a major risk factor for Acquired Immune Deficiency Syndrome”.

Source: Fordham G (1995)

6.1.6 Alcohol use and presumed health benefits

Evidence suggests that regular light drinkers over 45 years of age without any heavy drinking episodes could have a lower risk for coronary heart disease (CHD) at the individual level. However, daily light drinkers are rare in developing countries. The available evidence and research papers documenting these findings clearly state that daily alcohol use is not, and cannot be recommended as a public health strategy for CHD protection. For most countries, the net effect of alcohol on CHD is negative (Room, 2005) particularly in areas of lower mortality from CHD, such as developing countries (Murray, 1996).

In the SEAR, some communities believe that the daily consumption of small quantities of alcohol is beneficial for some common ailments. Such beliefs mistakenly tend to perpetuate or encourage alcohol use as a health-promoting strategy.

Evidence from Europe clearly states that daily alcohol use is not, and cannot be recommended as a public health strategy for protection against heart attacks.



Mistaken Belief of Benefit from Alcohol (India)

Jayamma fell into the habit of drinking alcohol in childhood. She always had a cold and cough. Her father drank alcohol regularly. When he found that Jayamma was sick all the time he started giving her alcohol in small quantities. He believed that a little alcohol is good for health. This became a habit for her. She would drink it every day. As she grew older and came to a marriageable age her mother asked her to give up the habit and said it will be difficult to find a partner. So she stopped drinking alcohol. Later she got married and was happy. But her husband would drink alcohol every day. During her first pregnancy she once again fell sick and developed a cold and cough. Her husband gave her a little alcohol to drink. Since then she has again got into the habit of drinking alcohol daily.

Source: The Bangalore Study (2006)

Mistaken Belief of Benefit From Alcohol (Sri Lanka)

One very common comment was that people regarded alcohol as a kind of medicine. The school teacher in the village in Vavuniya district commented that people drink *kasippu* for any ailment or illness. They say that in case of a headache, if one drinks some *kasippu* and sleeps, he will be OK. Several informants mentioned that people drink to get rid of their body aches after the day's work. Relief from mental problems was commonly mentioned as a reason for alcohol use.

Source: Forut Report (2004)

Excess alcohol consumption can permanently cripple a worker.

6.1.7 Impact on work

Harmful use of alcohol affects employees at the workplace. Many people with alcohol and drug-related problems are in full time employment. The workplace itself, at times, can contribute to or exacerbate drug and alcohol-related problems. Excess alcohol consumption results in a high degree of absenteeism, poor punctuality, poor work efficiency, loss of dexterity in skilled jobs or accidents while working with heavy machines, which can permanently cripple a worker. It also increases medical and compensation claims, disturbed employer-employee relations and compromises the well-being of the workforce. People with a habit of harmful use of alcohol are known to engage in quarrels or fights and often have strained relationships with peers and superiors, further affecting their performance at work.

The International Labour Organization estimates that, globally, 3–5% of the average work force is alcohol-dependent, and up to 25% drink heavily enough to be at risk of dependence (ILO, 1995). A study looking at the prevalence of hazardous drinking in the male industrial worker population in India found that hazardous drinking was significantly associated with severe health problems, such as head injuries and hospitalizations. Not infrequently, these problems culminate in the loss of a job which further complicates the family's financial situation. In the Bangalore study, nearly one third of the alcohol-users reported that they had missed going to work routinely and nearly three fourths of them said this was due to alcohol-related reasons. In addition, nearly one fourth of the users were usually not on time for work due to alcohol use. One in ten alcohol-users in the Bangalore study, found that his/her ability to work has decreased mainly due to alcohol consumption.

Alcoholism among the work force directly affects the output and income generated by the industrial sector adversely. The annual loss due to alcohol-related problems in workplaces in India is estimated to be between INR 70 to 80 million (WHO, 2004). Despite the enormous costs, both to the individual and the family, workplace initiatives have not gained much popularity either as an incentive (health promotion efforts, life-skills, empowering individuals to say no to alcohol, etc.) or as a disincentive (disciplinary action). The Bangalore study observes that disciplinary action taken on the grounds related to alcohol use was a mere 1% of the total alcohol-user population.

6.1.8 Women – alcohol use and impact

Traditionally, women, like men, have also consumed alcohol. Studies from India (Benegal, 2003; Saxena, 1999; Isaac, 1998; Benegal, 2005), Thailand (Assanangkornchai, 2003) and China (Wei, 1999) have reported a significantly lower prevalence of alcohol use of around 5% among women which is the same across different societies. Contrary to popular belief, alcohol use is not confined to tribal women, women of low and high socio-economic status, and commercial sex workers (Ray, 1994; Benegal, 2005).

The little information that exists about patterns of alcohol use in India, indicates that women users can have an equally explosive pattern of alcohol consumption as men. A study in the southern Indian state of Karnataka (Benegal, 2003) reported that there was no major difference between the amounts of alcohol drunk by men and women on typical drinking occasions. In the national survey in Thailand, though there was a substantial difference in the numbers who consumed alcohol (54%

The International Labour Organization estimates that, globally, 3–5% of the average work force is alcohol-dependent, and up to 25% drink heavily enough to be at risk of dependence.

Women consumers can have an equally explosive pattern of alcohol use as men.





men and 10% women), the proportion of those who consumed alcohol on a daily basis was exactly the same (9.3% men and 9.3% women) (WHO 2000b). Kumar (1997) reported that “of the 500 youth going to pubs in Bangalore city during the weekends, about 100 were girls (13 to 19 years).”

Alcohol Use and Young Urban Woman (India)

Check this scene out. You are at a party and having a blast. You, of course, are a woman. You've gone to the party with a friend. It's an evening you have looked forward to, when you know you will be able to let your hair down and relax. No stress, no spillover of your responsibilities. Just some good fun — interesting food, some dancing and great company ... and then the first drink ... then comes the next drink. You are a little hesitant, but what the heck, you had the first and nothing happened. You are a big girl; you can handle it. And so goes the next one. And the third. When a Screwdriver or a gin or a Peach Schnapps replaces the Bloody Mary, you don't notice the difference and frankly don't care. You are simply having a blast. Next morning, you have a hangover the size of hell. You suck lime, you peer blearily at the world, tsk-tsk sympathies away, but inside there's a happy smile. You've proved a point to yourself and your friends. Whoever thought you were a *behenji* with no sophistication had finally seen the real you. And wow, were they impressed!

“Young urban women have taken to alcohol as a way of knocking down social barriers and gaining acceptance amongst peers. Coming equipped with a strong academic, professional or family background is no longer enough. Alcohol has become the unisex leveller, an equalizer that promises instant entry amongst favoured circles. This is true of girls and women who have come from smaller towns to make a name and fortune in bigger cities.”

Source: Ray (2002)

Notions of bad moral values and negative image of a person who consumes alcohol seems to be a key reason for under-reporting and also low-consumption but not exactly abstinence from alcohol. In recent years, there is an increasing trend of alcohol consumption among young women, especially in urban areas. Among the high income group, the number of young girls and women who have taken to drinking alcohol is high. Economic independence, changing roles in society (entry of women into traditional male dominated areas), economic and social emancipation, greater acceptability of social drinking, easy availability

of alcohol, peer pressure, glamour and disappearing stereotypes about femininity are some of the factors which seem to have contributed to the increasing trend of alcohol use among women — a trend closely watched by the alcohol industry but of growing concern to health researchers and health policy-makers.

Urban Women and Alcohol Use (India)

Swati is the daughter of a senior officer and has lived in a number of cities during her growing up years. Four years back when Swati finally landed a dream job at a top advertising agency in Mumbai, she was jubilant. A fat pay packet, rented digs, an instantly enriched lifestyle, weekend parties, pubs, discos, and hep colleagues. The booze was only incidental. “One day it was fun, a hard but very satisfying job, great partying friends, a super boyfriend and a good life. Initially, when my colleagues spoke of their high-flying contacts or related their personal success stories, I felt totally inadequate. Though my boyfriend was very supportive, I could sense his impatience at times. The only times I could really relax were at these parties. I no longer felt out of place and could really mix around with the crowd.”

Sounds like a “rags to riches “ story in a liberal woman's magazine? Well, today Swati is on a slow and painful road to recovery after a long and tiring battle with alcoholism. Back in her parent's home in Gurgaon, near Delhi, Swati still shudders at the memories.

Source: Ray (2002)

Two divergent patterns of drinking are noticed among women — the traditional pattern and an emerging pattern. The traditional pattern is seen among less educated women from rural settings and poorer sections of urban society where drinking is marked by “bingeing” and drinking to intoxication, use of cheaper, high alcohol containing beverages (spirits, illicit liquor and country liquor) generally at home, usually alone. Though they drink less frequently, their pattern is nearer the male pattern of drinking. Drinking to enhance positive experiences appears to be less of a motivation. The emerging pattern is seen amongst urban women — younger, educated, earning more, spending more, drinking less on typical drinking occasions, less frequently, shorter durations of drinking, more likely to be unmarried, without children and drinking in more socialized circumstances - at restaurants, parties, with spouses, family members, workmates and friends. In this group, there is more frequent use of lower alcoholic content beverages such as wine and beer. These new entrants have lesser physical, emotional and inter-



Given the poor socio-economic status of many communities, especially in rural areas, disproportionate amounts of family income is spent on alcohol, leaving very little money for food, education, housing, health and other needs.

personal problems as a result of their drinking. Women in this group are motivated equally by expectation of tension relief and the enhancement of positive experiences (Benegal, 2005).

Women experience different alcohol-related problems than those of men. Physical problems are experienced earlier in female drinkers than males (Hommer, 2001; Holman, 1996; Benegal, 2005). In the Gender, Alcohol and Culture: an International Study (GENACIS) from India, it was seen that women users suffered equivalent physical health consequences as males at lower quantities and frequencies, and these occurred after a shorter duration of drinking than in men (Benegal, 2005). Studies across the globe have shown that women are more susceptible to liver damage from alcohol use due to biological differences (WHO, 2000a). Consumption of large amounts of alcohol amongst pregnant women is associated with adverse consequences commonly termed as Fetal Alcohol Syndrome in the baby (WHO, 2000a). Alcohol consumption, as in males, constitutes for females yet another node in a matrix of risk. Women alcohol-users are also likely to have other high-risk lifestyles. Tobacco use (smoking and smokeless) is significantly more common among women alcohol-users than abstainers, with more than a third of all drinking women using tobacco. Prescription drug abuse was also three times higher among women alcohol-users than women abstainers (Benegal, 2005).

Impact of Alcohol on Family and Households (India)

M is a 40-year-old man living in a slum with his wife and four children. His wife works at an *agarbathi* (incense) factory. Two of his children are sent to school as they get to eat the mid-day meal there. M started drinking alcohol at the age of 20. He was an auto-driver then. He felt tired after riding the auto all day. But after having a drink his tiredness would vanish and he would sleep better. He felt good after a drink. Now he drinks about four packets of *arrack* every day. Sometimes this goes up to six packets. He generally drinks at a shop before coming home. He changed his work from auto-driver to a *coolie* as he was drinking a lot of alcohol and found it difficult to drive an auto. His employers were unhappy with his driving, so he kept changing his place of work. He would go to work only when he needed money for buying liquor. Once he had enough money he would go and have a drink. He earned INR 3000 as an auto driver but now he earns only INR 1500 as a coolie.

Source: The Bangalore Study (2006)

6.2 Impact on the Family

Despite waves of modernization, nearly 60–70% of the SEAR societies are agrarian in nature and a majority of the population is either middle class or poor as per economic assessments. Given the poor socio-economic status of many communities, especially in rural areas, disproportionate amounts of family income is spent on alcohol leaving very little money for food, education, housing, health and other needs. The household of the alcohol-dependant person often finds itself in total impoverishment with the individual sometimes spending most of the money earned to purchase alcohol.

The relationship between people with the habit of harmful use of alcohol and their families is complex. Family members report experiencing guilt, shame, anger, fear, grief and isolation in the family. They are often subjected to moderate to severe forms of harassment, conflict and tense atmosphere when they confront the drinking behaviour of their alcohol-abusing family member. Spouses in families where there is

Impact of Alcohol on School Going Children (India)

The class teacher noticed that, PS, a 12-year old student of 7th class in a government school, kept to herself, was irritable with classmates, inattentive in class and unable to pick up lessons adequately. On examining her previous school record, she was found to be an above average, happy girl admired by the teachers but whose performance had been deteriorating for the last two years. On being asked about the reason for her falling marks, PS said that she is not able to concentrate on her studies. During the next parent-teacher meeting, it occurred to the teacher that it was only the mother, who always came for the meetings. On enquiry, the mother with tearful eyes, told the teacher about her husband's alcohol-drinking which had become very problematic for the family in the last 2 to 3 years as he was not contributing financially to the family expenses and quarrelled with all of them frequently. The teacher called both the parents and referred them to the parent counselling centre of the school where the father was motivated to seek treatment at a centre having facilities for treatment of alcohol dependence. He was treated and has shown considerable improvement in his drinking habit and behaviour towards his family members. PS's marks have improved substantially and the teacher has noticed her smiling much more and playing with her friends. Her improvement was so dramatic that the teacher decided to make her the monitor of the class.

Source: The Bangalore Study (2006)





"Pay-day" drinking involves a pattern of heavy drinking on the day that persons receive their wages. Significant amounts of the salary is spent on purchasing alcohol, leading to scarcity of money for clothes, food, education, health and other essential family needs.

chronic, excessive use of alcohol are frequently separated. Children of such persons report a higher incidence of emotional and school-related problems. Another complication seen in the families of alcohol abusers is that of co-dependence (a condition wherein the life of a partner or spouse is affected but the spouse develops an unhealthy pattern of coping with life and often unconsciously maintains the abuser's condition despite being troubled about the condition at a conscious level). Other complications in the family include long absences from home, damage and destruction of household objects in rage, lack of communication between the alcohol-user and the remaining family members, hostility and criticism that marginalize the alcohol-using person, and also lead to domestic accidents.

In a large study covering about 2400 households in 16 of Nepal's 75 districts, the adult respondents perceived the impact of family members' use of alcohol and drugs on children as violence and physical abuse (33.4%), neglect and mental abuse (28.5%), deprivation from education (20.2%) and push factor for children to use intoxicants (11.1%). 35.9% of children interviewed felt that parental drinking had an impact on the family. The impact included domestic violence (40%) and loss of wealth leading to indebtedness (27.8%). Loss of social prestige and bad relationship with neighbours was also common (WHO, 2004). Excessive use of alcohol is also linked to the economic exploitation in some communities in Nepal. Most of the traditional alcohol-user groups have lost their land due to the excessive use of alcohol and the land has been mortgaged to the upper caste people, who traditionally do not consume alcohol.

One of the consequences affecting persons and families of alcohol-users is "Pay-day" drinking. This involves a pattern of heavy drinking on the day that persons receive their wages. Significant amounts of the ready cash

Impact of Alcohol on Family and Households (Sri Lanka)

In a village in Vavuniya, dry rations from the government are an important part of survival for many families. When our field assistant observed the handing out of the rations, he saw that in a short period of around one hour at least five individuals who collected their dry ration sold their goods at low prices to the grocery shop owners. When queried as to what they will do with the money, bystanders replied: "Wait a little, will you! You will see those people coming back after consuming *kasippu*".

Source: Forut Report (2004)

available on the day is spent on purchasing alcohol, leading to scarcity of money for clothes, food, education of children, health and other essential items for the family. Borrowing money at high interest rates and these “binge drinking” episodes lead to domestic violence, road traffic crashes, absenteeism and other problems that drive families into a vicious poverty spiral. Gururaj et al., have observed that 4.4% of households reported alcohol spending as a first head of account in family expense (Gururaj, 2004d). Bonu et al., used the National Sample Survey data from India and empirically found an association between the use of alcohol and tobacco and impoverishment through borrowing and distress-selling of assets due to hospitalization (Bonu, 2005).

In a study from India, household expenditure on alcohol varied from 3–45% of income (WHO, 2004). Benegal et al. (2005), report from the state of Karnataka that the average monthly expenditure on alcohol [INR 1938] of patients with alcohol dependence is more than the average monthly earning [INR 1660]. Rahman, analyzing the data from different National Sample Survey rounds in India observes that households that consume alcohol, spend on an average 5.1% of the total earnings on alcohol and related items, and 0.5% of the population spend more than 30% (Rahman, 2003). A survey conducted in six Sri Lankan districts found that 30–50% of the income of low-income families was spent on alcohol and tobacco. Another survey conducted in 1997 in Sri Lanka found that the total expenditure on tobacco and alcohol exceeded the amount of government assistance given to the community under the government’s poverty alleviation programme (WHO, 2004).

6.2.1 Domestic violence and alcohol

One of the frequently occurring, but not adequately recognized, effects of harmful use of alcohol is domestic violence. This is known to occur

Alcohol and Violence in the Family (India)

M always fights with his wife after a drink. There are times when he has asked her for money for a drink, but she has refused. On such occasions he has quarrelled with her. He has even beaten her. A couple of times she was injured. Once she had a head injury but was not taken to a doctor. Now, his wife has got tired of asking him to give up his habit of drinking; she does not talk to him regarding this problem. However, her husband’s habit bothers her very much.

Source: The Bangalore Study (2006)

One of the frequently occurring, but not adequately recognized effects of alcohol abuse is domestic violence.



Domestic Violence and Alcohol (Sri Lanka)

The most dramatic evidence of domestic violence in our data is from a village in Vavuniya district. One particular incident happened while our field assistant was visiting the village. Nallamma was 28 years old and the mother of five children. One night her husband came home drunk and attacked her severely in front of the children. When one of the children attempted to shout, this child was banged against the wall. When the other children looked scared, he told all the children to stand against the wall, then put his hands around Nallamma's neck and tried to strangle her. She fainted and the husband assumed she was dead. He then took the body and threw it into the jungle behind the house. After he left, the children started shouting. People came running and found that Nallamma was still alive and took her to the hospital. Our field assistant was rather surprised that no one, neither the neighbours nor Nallamma herself, complained to the police. The field assistant heard that she made others promise that they would not report this to the police. The reason she gave was that she was worried about what would happen to the children if something happened to her and her husband was sent to jail. At the end of his stay the field assistant heard that Nallamma had died in hospital.

Source: Forut Report (2004)

across all strata of society, but is more common in the lower socio-economic strata with a significant impact on women and children who are the victims. The contribution of alcohol use to the overall phenomenon of domestic violence is large. Domestic violence linked to alcohol consumption constitutes the single most important problem for women. With a large proportion of families being in the lower socio-economic status in the countries of the Region, the role of alcohol in domestic violence deserves specific focus in programmes for women's empowerment.

In a study of 180 women seeking prenatal care in rural South India, it was found that 20% of the women reported domestic violence and 94.5% of these women identified their husbands as the aggressors. The husband's alcohol consumption was a significant risk factor in incidents of domestic violence (WHO, 2004). The role of alcohol in domestic violence is also cited in another study from India which found that 33% of spouse-abusing husbands were consuming alcohol. Of these, 15% were occasional, 45% frequent and about 40% were daily users of

alcohol. More than half of the spousal abuse took place during the period of intoxication (WHO, 2004).

In the Bangalore study (Gururaj, 2006) spouse abuse linked to alcohol was rampant — the chance of emotional spousal abuse was 2.5 times, physical abuse was nearly four times and that of abuse resulting in injury very high (OR = 30.4) among alcohol-users. It needs no emphasis that most of the time mild to moderate injuries do not get reported, more so their association with alcohol in a situation which suggests domestic violence.

Of the 184 patients involved in cases of physical assault who were admitted to Colombo North General Hospital, during a two-month period between May and June 1994, it was found that 25.5% of the victims were under the influence of alcohol at the time of the assault (De Silva, 1996). Nearly 77.2% of incidents of assault were associated with alcohol consumption, either by the assailant or by the victim. The study noted that most instances of assault, including wife battering, were alcohol-related. In a descriptive cross-sectional study looking at domestic violence in the Medical Officer of Health (MOH) area of Kantale in the Trincomalee district of eastern Sri Lanka, it was found that there was a strong association between domestic violence and alcohol consumption by the batterer (WHO, 2004).

6.3 Impact on Society

6.3.1 Alcohol and underprivileged communities

Marginalized communities (geographically isolated, minorities, tribes, economically or socially deprived communities) are often victims of the harmful effects of alcohol. In these areas, alcohol is sometimes introduced by unscrupulous businessmen for quick profits, exploiting the ignorance of the community regarding harm from alcohol use. It is projected as an 'escape' from the deprivation to which they are exposed. Sometimes employers pay wages in alcohol rather than cash (WHO, 2004). Some marginalized communities, especially tribal communities brew alcohol at home. This leads to diversion of food grains to alcohol production further aggravating hunger and poverty. In addition, accidents in an intoxicated state can lead to severe injury or death. Unfortunately, due to low levels of literacy and awareness, marginalized communities are very severely affected by harm from alcohol consumption.

Bang and Bang (1991) reported their experience from the tribal district of Gadchiroli, Maharashtra, India, that in most of the meetings, women regarded alcohol as a 'scourge' which had ruined their lives. In the 104 tribal villages they observed a large number of men consumed alcohol and many were dependent alcohol-users.

Marginalized communities are often victims of the harmful effects of alcohol.



'Scourge' of Alcohol (India)

...We were wondering how the alcohol problem should be tackled. One day, a young man who was drunk quarrelled with his wife and threw his one-year-old daughter into a well, where she drowned. This incident precipitated widespread discussion.

Subsequently we organized a series of gatherings of rural women and young people to discuss common health problems. One topic that was always mentioned was the curse of alcohol. Women described how their lives were ruined by alcohol addiction among husbands, fathers, sons and sons-in-law. Men got drunk, did not go to work, failed to support their families, beat their wives mercilessly, quarrelled, injured and even killed each other, and vomited blood after heavy drinking bouts. Some wives wept as they remembered their husbands who died of alcohol poisoning, twenty years previously; others said they wished their alcoholic husbands would die. It became clear that practically all the women in the community had experienced and suffered from alcohol use among men. At least half the population — the women — evidently regarded alcohol as a scourge.

Source: Bang and Bang (1991)

6.3.2 Alcohol, crime and law

Another area where frequent complications are seen due to harmful use of alcohol are social and legal areas. Frequent brawls following intoxication, encounters with the police and other law enforcement agencies after thefts etc. to obtain money to maintain the habit of regular alcohol consumption are common. Crimes committed following inebriation, including rape, sexual and/or physical assault, exploitation of women in commercial sex work makes societies with a high prevalence of harmful use of alcohol, crime-laden and unsafe for living. It has been noted that the younger generation, especially students, are most vulnerable to this problem. The National Crime Records Bureau of India reports crimes related to alcohol use under four acts: Narcotic and Psychotropic Substances Act, Gambling Act, Prohibition Act and Excise Act. However, the public nuisance created as a result of alcohol use is under petty crimes, and thus goes largely unrecognized or is overlooked.

The Bangalore study found that 1% of the total alcohol-user population admitted that people lodged a police complaint as a consequence of their inebriated behaviour but less than 1% paid a penalty. Booking cases under the Motor Vehicles Act, for driving when intoxicated, is also subject

Social and legal aspects are areas where frequent complications are seen due to alcohol abuse.

to varied implementation. For example, the number of cases charged by the police in Bangalore city with a population of nearly 65 lakhs over a five year period (2001 to 2005) increased from 9900 to 30 000 (State Crime Records Bureau, Bangalore, India). The percentage of alcohol-related court cases in a police station in Kohima, Nagaland, increased from 78% in 1995 to 88.8% in 1997 (WHO, 2004). In the case of Sri Lanka, 90% of the crimes investigated by the Sri Lankan police are directly or indirectly linked to the consumption or sale of liquor. Alcohol could be considered the number one problem drug if one seriously considers the magnitude and extent of the problem it has created in Nepal. For example, in just one of the 75 districts, during one month in 1989, 46 men and 4 women were arrested for being rowdy under the influence of alcohol. Such arrests are mentioned almost every day in the national daily newspapers (WHO, 2004).





ECONOMIC IMPACT OF ALCOHOL ON SOCIETY: GAINING LESS OR LOSING MORE ?

Alcohol imposes a high economic cost on society.

Alcohol imposes a high economic cost on society. However, the effort of costing depends on the extent of monetizing the economic impact of alcohol use and should include both direct and indirect costs, and tangible and intangible costs. The direct costs include: medical costs (acute and long-term) and lost earnings due to death and disability. The indirect costs include loss of work, loss of school time, loss of savings, loans taken, cost to the employer/society, low self esteem, social costs of postponed events and lost productivity, vehicle and property damage and legal costs. The calculation of monetary impact of these items depends on the availability of nationally representative data from different sources like hospitals, the transport department, the police department, legal services, repair costs, insurance costs, etc. It is difficult to put a precise monetary value on intangible costs of alcohol use, like death, pain, suffering and bereavement. Similarly the monetary value of reduction in pain and suffering is difficult to estimate. Reviewing the Canadian data, Bernard et al. (1997), lists different cost categories that have been assessed to arrive at the cost of Alcohol-Tobacco-Drug abuse in Canada. The adapted list for alcohol use provides a framework for including different areas of monetary implications. It should be noted that such detailed information is not easily available in India and other South-East Asian countries.

Different cost categories related to alcohol use
Direct costs
1. Hospitalization
2. Physician visits
3. Crime related costs (to include public criminal justice system cost, corrections, private expenditure for legal defence, value of property destroyed in crimes due to alcohol abuse)
4. Motor vehicle crashes (to include legal and court proceedings, insurance administration, accident investigation, vehicle damage and traffic delay)
5. Nursing home stay

(continued...)

Different cost categories related to alcohol use (...continued)	
6.	Property and forest fires (only include damage and cleaning of damaged goods; consequent injuries and deaths are excluded in this category)
7.	Speciality institutions (to include treatment centres other than hospitals and alcohol correctional facilities)
8.	Professional services other than physicians (eg: psychologists, social workers, nurses, physical and occupational therapists, pharmacists, technicians, etc.)
9.	Prescription drugs for treatment
10.	Medical and health services research
11.	Programme administration (including alcohol-related programmes and social welfare programmes)
12.	Administrative costs of private insurance to treat alcohol disorders
13.	Direct costs related to AIDS due to drug abuse not included elsewhere
14.	Costs of alcohol
15.	Prevention programmes (screening, education programmes and mass media campaigns to inform public about the hazards of alcohol abuse)
16.	Ambulance costs (including total costs of transportation)
17.	Training costs for physicians and nurses
18.	Fetal alcohol syndrome including extra neonatal care
19.	Customs and immigration
20.	Home care
21.	Household help (care of house)
22.	Counselling, retraining and re-education
23.	Special equipment for rehabilitation (e.g. wheel chair)
24.	Employee assistance programmes
25.	Avoidance behaviour costs
26.	Group life insurance
Indirect costs	
1.	Morbidity costs: income loss due to alcohol abuse
2.	Alcohol-related productivity loss
3.	Mortality costs: present value of life-time earnings
4.	Foregone consumption
Intangible costs	
1.	Homelessness
2.	Pain and suffering of victims and rest of the community
3.	Value of lost life to the deceased (estimated by willingness to pay to avoid death)
4.	Loss of consumption by prematurely deceased
5.	Alcohol abuse-related pain and suffering
6.	Family disruptions
7.	Community disruptions
<i>Source:</i> Bernard et al. (1997)	



There have been substantial efforts made in developed countries to estimate the costs of alcohol use and through this the burden on society.

7.1 Data from Western Countries

There have been substantial efforts made in developed countries communities to estimate the costs of alcohol use and through this the burden on society. The yearly projected economic cost of harmful use of alcohol in the United States for the year 1998 has been estimated to be US\$ 185 billion, including US\$ 26 billion for health care expenditure. It has been estimated that two thirds of the costs of harmful use of alcohol is related to lost productivity, either due to alcohol-related illness or premature death. The study by the National Institute of Alcohol Abuse and Alcoholism (NIAAA), USA, also observed that 45% of the costs of harmful use of alcohol is borne by those who abuse alcohol and members of their households, 39% by federal, state and local government, 10% by private insurance and 6% by victims of abusers and concluded that “much of the economic burden was on the population that does not abuse alcohol and drugs” (NIAAA, 1998). In Canada, the economic cost of alcohol use represents 2.7% of the gross domestic product (Canada APN). In the United Kingdom nearly one third was workplace and economy-related costs, while health care cost was about 7–8% (UK, 2003). The social cost of alcohol consumption amounts to between 1–3% of the gross domestic product in countries in the European Union and has been estimated to be between US\$ 65–195 million (at constant

Cost estimates of alcohol on the community – select countries

Country	Year	Total cost estimate
Australia	1998–1999	A\$ 7 560.3 million
Canada	1992	\$ 7.5 billion
Finland	1990	\$ 3.4–5.7 billion
Ireland	N.A.	€ 2.4 billion
Italy	2003	€ 26–66 billion
Japan	1987	\$ 5.7 billion
Netherlands	N.A.	€ 2.6 billion
New Zealand	1990	\$ 16.1 billion
Scotland	2001–2002	\$ 1.1 billion
South Africa	N.A.	\$ 1.7 billion
Switzerland	1998	CHF 6 480 million
United Kingdom	N.A.	£ 15.4 billion
United States	1998	\$ 184.6 billion

Note: Please refer to the individual country profiles to obtain the original source used.

Source: WHO (2004)

1990 prices and exchange rates). While about 20% of the total cost and the direct cost represent the amount actually spent on medical, social and judicial services, about 10% of the total cost is spent on material damage and about 70% of the total cost represents lost earnings of individuals who die prematurely or are unable to perform their productive tasks in the way they would have, had they not been consuming alcohol (Godfrey, 2004). In essence, the estimated costs of alcohol-related problems varies between 1–3% of the gross domestic product of a country (WHO, 2000a).

7.2 Regional Data

Evidence is gradually accumulating about the economic costs of alcohol use in the SEAR from indirect methods. For example, studies have been done with respect to costing of alcohol-attributable components in road traffic injury, suicides, work-related aspects, and various types of cancers where alcohol has been implicated as a causative agent. The different variables are being gradually delineated and costed. In India, work-related alcohol problems have been estimated to cost between INR 70 and 80 million (WHO, 2004). The costs of managing alcohol-related cancer deaths have not been estimated in totality. However, the cost resulting from tobacco-related cancer deaths has been estimated to be about INR 308 billion (Reddy, 2004); using this cost matrix and best estimate of alcohol-related cancer deaths of 6% (WHO, 2000a), for the Indian population of alcohol-users (Ray, 2004), the costs from alcohol-related cancers can be estimated to be about INR 12.4 billion. Bonu et al., analyzing nationally representative data finds an association between use of tobacco and alcohol, and impoverishment through borrowing and distress-selling of assets due to costs of hospitalization (Bonu, 2005). The costs of managing road traffic injuries have been estimated to be INR 550 billion. From this, the costs linked to alcohol can be estimated to be INR 80 billion (Mohan, 2004). The unit cost of death and serious injury in road traffic crashes in a population-based study has been estimated to be — urban death: INR 28 863; rural death: INR 6764; urban serious injury: INR 30 275; rural serious injury: INR 17 240 (Aeron, 2004). The cost of managing a patient with brain injury in a tertiary care health institution has been estimated to be about INR 1506 per hour (Gururaj, 2000). It also needs to be noted that the burden would not be uniform across rural and urban areas or amongst poor and affluent nations.

In Thailand, the total hospitalization costs (both direct and indirect) for alcohol-related problems were about US\$ 800 million. Similar information for other SEAR Member States is not available.

"Much of the economic burden of alcohol use falls on the population that does not abuse alcohol and drugs".



To obtain comprehensive community-based estimates of the socio-economic cost of alcohol use, four different population groups were examined in the Bangalore study. Enquiries were made regarding expenditure in eight dimensions: health care costs, costs due to injuries — both intentional and unintentional, occupational, financial, psychological, social, legal aspects and help seeking. The average or minimum and maximum expenses for a specified event which occurred during the last 12 months was enquired into. For purposes of calculation, the reported amount and frequency is utilized without making any changes or modifications. It should also be noted that the reported costs are generally under-reported for events of abuse, legal issues or expenses due to injuries. The reported costs do not include the different subsidies already in vogue in the systems (for example, patients pay nothing or only a fraction of the total cost in a public health-care institution). To make the estimates more realistic, only the costs for the alcohol attributed event were considered for analysis.

The average expense computed from the reported expenditure was used to arrive at the average expense for the entire cohort of users and non-users. Despite the list of probable events, it was possible to document an incurred expenditure only in certain events. Respondents often expressed their inability to recall the detailed break-up of their expenses for all events. It also needs to be noted that only costs borne by the alcohol-users or their family are given here. Under the section on health care, only the expenditure related to health problems in general and injury-related expenses have been included. Similarly, the expenses related to loss of employment-related revenue, psychological abuse or paying penalty includes only the money that has been spent when the event occurred either by the user or their family members. For example, 3% of the users reported that they abuse their parents and 83% said they do so under the influence of alcohol and the consequence of the abuse needed to be managed by a health-care provider. However, only a small number actually took the abused parent for treatment. Further, payment of penalties or fines related to an alcohol offence is a very small amount [INR 100] and has been reported by a very small proportion of respondents. This is quite contrary to the prevalent situation. A similar situation can be noted as regards attempts at suicide.

It should be noted that, these expenses are only a fraction of the total costs of alcohol consumption in the community. The costs of premature death, the loss of income due to sickness of the wage earner, costs of caring for chronic alcoholics or the dependent users either at the family level or within institutions (health care or others), the loss of resources

Reported expense on events linked to alcohol use amongst alcohol-users in the Bangalore Study^a

Sl No	Particulars	Frequency ^b	Total amount (pa, in INR)	Average amount per person (pa, in INR)
A. Health-related				
1	Physical problem	327	394 770	1 207
2	Unintentional injury	194	147 608	761
3	Intentional injury ¹	64	19 355	302
4	Psychological aspects	4	735	184
B. Work-related²				
5	Loss of pay due to absence from work	395	102 485	260
6	Borrowed money at workplace	411	65 205	159
C. Social aspects				
7	Debts	1 195	1 820 060	1 508
8	Pawned goods / articles	383	3 710 150	9 664
9	Lost money	34	26 720	79
10	Gambling	56	205 150	3 663
11	Damage to property	31	14 700	474
D. Amount spent on drinking				
12	Only to purchase alcohol	3 256 ³	12 487 210	3 835
13	Costs per event of drinking ⁴	3 256 ³	15 100 572	4 637
E. Total out of pocket expense incurred by the alcohol-users in the study sample				
	Total cost of consequence of alcohol use (A + B + C)	1 665	6 506 938	3 908
	Total cost of the drinking event (D)	32 563	15 100 572	4 638
	Total of A + B + C + D⁵	3 256³	21 607 510	6 626⁵

Note:

a = Mean values have been considered for calculation purposes and occasional extreme costs spent by one or very few individuals have been excluded.

b = Frequency is the number of respondents who have reported the consequence and also attributed the occurrence of the event to the use of alcohol in either self or others.

1 = Includes attempted suicide, spousal injury, parental abuse, workplace injury, sibling abuse, friend abuse, child abuse, experienced violence (because of small numbers these have been clubbed together).

2 = Cost categories of not being able to be on time, decreased ability to work, expenses for being under the influence of alcohol while at work did not have any representation.

3 = The individuals with extreme costs have been excluded from computation.

4 = Includes the money spent on refreshments, travel, etc.

5 = The total expense has been computed by adding the individual costs and finding the mean for the entire study user population of 3256.



to the family, the cost of decreased production due to absenteeism are some of the other costs that contribute significantly to the problem of alcohol consumption. In addition, as the health sector spends enormous amounts on diagnosis, management/rehabilitation of alcohol-users, the costs would be huge, though as yet unmeasured.

There are limitations to such a cross-sectional approach to a costing exercise of the economic impact of alcohol use. It should be considered as a crude and preliminary estimate that needs to be improved. It is anticipated that future research would build on these experiences to arrive at more realistic and systematic figures.

It is evident from the table, that, the expenditures incurred by alcohol-users annually is a huge loss due to pawning goods and articles [INR 9664]. The amount lost while gambling is equally large [INR 3663]. In addition to this, debts, work-related problems and health problems resulted in the alcohol-user spending or losing INR 1508, INR 1450 and INR 1207 respectively. Interestingly, though the numbers are small, the amount spent per annum as a result of damage to property is INR 474. The amount of INR 260 which is the annual loss resulting from loss of pay due to absenteeism from work is quite low and is a pointer to the prevalent lenient disciplinary systems at workplaces which accommodate alcohol abuse. Nearly half of the alcohol-users (51%) report to have had one or more adverse consequence attributable to alcohol use and have spent on an average INR 3900 per annum on these consequences. Additionally, the expenditure due to alcohol and related drinking expenses (refreshments, transportation, etc.) over a period of one year is about INR 4600. The total amount spent by an alcohol-user on both these accounts (amount spent on buying alcohol and related activities during the event of drinking and also managing its consequences) is about INR 6600. This is more than one third of the amount which demarcates the official poverty line [INR 18 000 pa]. It is estimated that in India that INR 290 billion is spent on drinking alcohol by alcohol-users.

The following table provides the estimated costs of alcohol use from the results of the Bangalore study extrapolated to the whole of India. While acknowledging the limitations of such extrapolations, it is still evident that nearly INR 244 billion is spent every year to manage the consequences attributable to alcohol use. The total excise revenue of the central and state governments in India for the year 2003–04 was about INR 216 billion contributing to about 13% of the total tax revenue (Damodar, 2004). This is an increase of nearly 39 billion over the period of three years (INR 177 billion in the year 2001, Benegal 2003).

Excise revenue versus cost of consequences attributable to alcohol use	
Cost category	Total INR
Total cost of management of consequences of alcohol use for all alcohol-users ^{a, b}	244 billion
Total excise revenue of all central and state governments for 2003–2004	216 billion
<p>Note: a = The total numbers of alcohol-users in India is estimated to be 62.5 million as per the national estimates (Ray, 2004) b = The total expense has been computed by adding the individual costs and is the mean for the entire study user population of 3256</p>	
<i>Source:</i> The Bangalore Study (2006)	

It is estimated that the Indian Government spends nearly INR 244 billion every year to manage the consequences of alcohol use, which is more than its total excise earning – INR 216 billion. Clearly Indian society is losing more than it is gaining.

In addition to the revenue earned by the government, it is anecdotally reported that the media industry earns approximately INR 9 billion every year through advertisements (currently surrogate advertisements since direct advertisement is banned) (Deccan Herald, January 19, 2004). The media should introspect on the impact of their advertisements on the public health scenario and the health, social and economic effects of alcohol.

The above estimates are a fair assessment, albeit a conservative one, and a pointer towards the cost of management of consequences of alcohol use in the country. A noteworthy aspect of these estimates is that they are higher than the total revenue generated from alcohol manufacture and sale.

What needs to be noted is that this does not include the intangible costs of the psychological suffering that the family and society undergoes as a result of alcohol use and several other issues discussed earlier. 80–90% of the users who run away from home or stay away from home or feel guilty report it to be due to their use of alcohol. Alcohol has been implicated in 60 health problems and various other social, economic, legal, psychological and emotional problems affecting day-to-day life of not just individuals and families but also the whole society. The adverse event could vary from being a mild hangover or acid dyspepsia to chronic debilitating cirrhosis of the liver and several cancers. The latter category requires long-term care for diagnosis, management, palliative care, rehabilitation and in several other areas. Similarly, an individual who goes into a persistent vegetative state resulting from brain damage due to a road traffic injury consequent to a “binge” of alcohol-drinking also requires life-long rehabilitative services. The occupation-related costs also vary depending on the skill of the individual: an acute event (major or even minor one) leading to absence from work in a high technology employment environment can result in losses which exceed several





thousands of rupees. A long-term alcoholic husband can deprive the family of the much needed resources, both immediately and over a period of time. Suicides consequent to alcohol use by the husband, or even attempt at suicide, by the mother or father, as a result of alcohol consumption by a family member, can result in emotional trauma to the children of the family. An alcoholic father does not merely set a bad example for the children, but also deprives them of emotional and social security, leading to academic failure, substance abuse, and generally poor social adaptation.

Thus, if all costs are comprehensively examined and calculated for all events, the economic impact would be much higher than the conservative estimates noted above. In the final analysis, Indian society might be losing more than it is reportedly gaining.



WHAT CAN BE DONE ?

Alcohol use in the SEAR Member States suggests diverse challenges to policy-makers, professionals and civil society. The growing evidence of the harmful effect of alcohol use combined with inadequate information on effective interventions creates a dilemma in public health. The divergent perspectives of stakeholders have only added to the existing confusion, resulting in now-on-now-off public health policies.

As documented in the earlier sections, much of the effect of the abuse of alcohol is absorbed by the health sector, either directly or indirectly. Even the broader societal and socio-economic consequences (and their further consequences) have to be borne by the health sector. It is not just the dependent or the heavy drinker who overwhelms the health services, but the 'occasional' drinker too. Moreover, just the direct cost of health care itself does not adequately include and encompass the overall costs of harm from alcohol consumption.

Changing individual behaviour requires both providing accurate information and reducing misinformation alongwith system and policy changes thus helping to build a conducive environment and appropriate intervention.

Multiple agencies, for example, the ministries of law, industry, revenue, agriculture, customs department, law enforcement agencies, medical associations, NGOs, should lobby for clear formulation and effective implementation of a rational, integrated and comprehensive alcohol control policy. For this, coordination between various government departments and other civil society stakeholders is essential. A rational, scientific and humanistic understanding of the issues involved will support such an initiative.

Monitoring indicators need to be developed which can serve as a benchmark to evaluate the success of policy and programme implementation. Some chronic medical conditions (e.g. cirrhosis of the liver) which are linked to alcohol use, and alcohol-related RTIs, can be used as markers for regulatory control of alcohol, thus permitting monitoring policy changes. To implement this, systems of surveillance for these and related conditions need to be put in place.

Much of the effect of alcohol abuse is absorbed by the health sector, either directly or indirectly.

Multiple agencies should lobby for clear formulation and effective implementation of a rational, integrated and comprehensive alcohol control policy.





Results indicate that no single intervention is effective, while combined and coordinated strategies are beneficial against harmful use of alcohol.

Taxation on alcoholic beverages should hike retail prices which will lead to lower intake and further, to less of traffic injuries.

8.1 The International Evidence for Intervention

WHO recently conducted a review of 1265 studies using a three phase strategy (Hawks, 2002). The issues reviewed included the evidence for efficacy of preventive interventions against harmful use of alcohol in the areas of regulation of physical and economic availability of alcohol, use of mass media, community-based initiatives and the use of school-based education programmes. Results indicate that no single intervention is effective, while combined and coordinated strategies are beneficial. It also needs to be acknowledged that much of the evidence comes from high income countries and minimal or no evidence exists in low and middle income countries.

8.1.1 Taxation and other price control measures

Generally, consumers respond to a price increase in alcoholic beverages. Data from developed countries suggests that the impact is more among price-sensitive consumers such as the youth rather than occasional drinkers. Heavy drinkers also respond to price change. Studies from some countries suggest that an increase in taxation on alcoholic beverages reduced the rates of alcohol-related traffic injuries (Chaloupka, 1993) and mortality, as well as incidents of alcohol-related violence in the community (Markowitz, 2000). Taxation on alcoholic beverages should raise its retail price to the level that can alter consumption decision, with an effective mechanism to prevent the consumer's shifting towards cheaper illegal alcohol. With increasing income, the impact of a one time rise in price maybe neutralized. Thus the taxation system should be adjusted so that the prices of alcohol beverages rise at, or beyond, the rate of inflation.

With rapid expansion of trade liberalization, taxation for alcohol products has been more rationalized (usually reduced) by treating them like any other commodity. Alcohol is a source of substantial revenue for governments. There are examples (e.g. from some states in India) that restrictions on the sale of alcohol have been removed because of loss of revenue. However, there is also evidence from a research project sponsored by WHO, conducted in Bangalore, India, (Gururaj, 2006) that in the long-term the financial losses to the state are far greater than the immediate revenue. One option is to allocate part of the taxes generated from the sales of alcohol to support health promotion measures, including community education, sports and recreational activities. Thailand has adopted, under its health promotion act, the use of "sin tax" on tobacco and alcohol, and the proceeds thereof are used for health promotion activities, including reducing alcohol consumption and related problems.

8.1.2 Regulating the availability of alcohol

Various legislative measures have been/could be used for reducing alcohol consumption, and thereby the harm from its use, by limiting the physical availability of alcohol. There is evidence that limiting the easy availability of alcohol influences the rates of alcohol-related injuries and other problems (Klingemann, 1993).

- ◆ **Minimum legal purchasing or drinking age:** Setting a minimum legal age limit for purchase or drinking alcohol is a measure targeted at the youth by restricting their access to alcohol. Evidence suggests that consumption of alcohol is usually influenced by the age at which alcohol is legally available (on or off licence) and a higher age for purchasing/drinking is effective in reducing alcohol-related problems and the consumption of alcohol by minors (Grube, 2001). The minimum age limit in the SEAR countries varies from 18 to 21 years, except in India, where it is 25 years. Globally, the age limit varies from 15 to 21 years.
- ◆ **Restrictions on sales:** There are a number of policy options to limit the sales of alcohol to consumers, such as, a) restricting the number, density and locations of sales outlets; b) limiting hours and days of sale; and c) imposing some other restrictions on sale. Studies have shown that measures such as the closing of sales outlets or restriction of sale at certain time of the day/specific days like religious days or pay-days, restrictions on the sale of high alcohol content beverages or rationing the amount of alcohol sold to an individual, could reduce social and health-related problems linked to alcohol use in the short- and long-term (Klingemann, 1993; Chikritzhs, 2002; Babor, 2003). Restrictions on serving and selling alcohol (such as not serving already intoxicated customers) has shown to be effective only if enforced with server/seller liability. Prohibition of public drinking at specific settings such as educational institutions, public places (offices and factories), recreational settings (parks and beaches, cinema halls, sports stadiums) and fast-food restaurants could ensure a safe public environment and minimize or avoid injuries and loss of public property and productivity.
- ◆ **Total prohibition or ban on alcohol:** Worldwide experiences shows that total prohibition on the production, sales, and consumption of alcohol usually does not succeed, unless firmly rooted in the local culture or strong religious convictions of the majority of the population (Ritson, 1994). Although there is some evidence that total prohibition of alcohol does reduce consumption and alcohol-

Alcohol consumption is influenced by the age of legal availability.

Restricting the number, density and location of sales outlets, as well as the hours and days of sales can effectively limit the sale of alcohol.





related problems, it could also promote organized crime and corruption through cross-border smuggling and brewing of illicit liquor (Levine, 2004).

8.1.3 Measures against drink-driving

Research indicates that the risk and severity of road traffic injuries increases with drink-driving (Cheriptel, 2003). This suggests that driving under the influence of alcohol, even when the Blood Alcohol Concentration (BAC) is within the legal limit, has a higher risk, particularly for new and young drivers.

Effective counter-measures include: 1) setting the legal BAC at an appropriate level, and if possible, lowering the legal BAC level; 2) having an active surveillance system for drink-driving; 3) swift punishment(s) including licence suspension; and 4) measures for high-risk groups, such as setting a specific lower level of legal limit of BAC among new and young drivers and commercial drivers (“zero tolerance”). It has been shown in research studies that regular and comprehensive Random Breath Testing (RBT) is more effective than setting fixed sobriety checkpoints.

8.1.4 Regulating alcohol production and distribution

Legislative control of the production, marketing and sale of alcohol could take two positions from (a) total control of production and/or sales (state monopoly) on one side to (b) absolutely no control (total liberalization) on the other extreme. Studies of the effects of privatizing alcohol retail sale monopolies have shown that there was some increase in the levels of alcohol consumption and alcohol-related problems, due in part to the increase in number of outlets and hours of sales, that increased with privatization measures, based on profit motives (Her, 1999). From a public health perspective, it is the retail level which is important for controlling individual consumption while monopolization of production or wholesale distribution may facilitate revenue collection and effective control of the market.

Trade and Commerce sectors regard alcohol as a “commercial good” to be traded freely across countries like any other “commodity”. Investment in the production and sale of alcohol is seen as a “service” or an “investment” within the arrangement of multilateral trade agreements. People involved in such negotiations could consider that alcohol is not like “an ordinary commodity” to be looked upon from sales, marketing and taxation purposes, but also to be seen as a commodity that could lead to adverse social and health consequences that go beyond economic gains and free trade agreements.

Drinking and driving, even with low blood alcohol levels, is highly risky for new and young drivers.

Studies show that privatization of alcohol retail sale monopolies led to an increase in alcohol-related problems and higher consumption.

8.1.5 Advertising restrictions

Alcohol advertising has the potential of promoting changes in attitudes and social values, including publicizing the desirability of social drinking to its viewers, which all encourage a higher consumption of alcohol and weakens the social climate towards effective alcohol control policies. In countries where advertising in the media is not totally banned, there is frequent portrayal of alcohol in the media, particularly in magazines, newspapers and television, especially of internationally branded beverages. The mainstream of these portrayals suggests alcohol use as a harmless pursuit, showing solidarity, friendship and masculinity, while neglecting any negative consequences.

It is known that advertising can influence consumer choices, have a positive short-term impact on knowledge and awareness about alcohol, but it has proved difficult to measure the exact effects of advertising on the demand for alcoholic beverages, in part because the effects are likely to be cumulative and long-term. Recent literature suggests that advertising and other marketing activities increase the overall demand, and influence teenagers and young adults towards higher consumption and harmful drinking (Saffer, 2006). Self-regulation by the mass media has been attempted by developing codes of advertising for and by the industry. However, the effectiveness of voluntary codes is likely to be limited in developing countries because of lack of enforcement.

Even in places where alcohol advertising is banned, messages on alcohol use could be conveyed to existing or potential consumers in a variety of ways. One method frequently used is surrogate advertising – brand sharing of products including name and logos, advertising at the point of sales, and sponsorship of events particularly in teenager-friendly events such as sports, music and cultural events. Thus an effective monitoring system is needed.

8.1.6 Promoting community action

In recent years, community-level efforts to control harmful use of alcohol in some countries were successful through enhanced partnerships and networks, involving public agencies and NGOs. Community action is not in itself a strategy, but rather a process of implementation of one or more policy interventions at the community level. Recognition of harm from alcohol use within a community is an important step in organizing community-based efforts.

Various measures of community action include: a) organizing awareness programmes to deal with the harm from alcohol use within the community,

Advertising and marketing activities boost the overall demand, and propel youngsters towards greater alcohol consumption.



b) monitoring alcohol-related social and economic situations, c) creating an atmosphere for social control of harm from alcohol use by formulating community sponsored rules and regulations, and d) supporting measures including community-based treatment and rehabilitation programmes.

There have been reports on community-based alcohol control actions, initiated by various women's groups using different strategies. One effective strategy has been restricting the availability of alcohol in specific communities or townships by direct intervention (Joshi, 2004).

A large proportion of the formal and non-formal sectors' labour forces are affected by the harmful use of alcohol. The impact on the work force includes absenteeism, work accidents, unemployment and poor productivity. Although it is not mandatory for an employer to provide counselling and treatment for alcohol-related problems, more and more employers are beginning to view the harmful use of alcohol as a social problem, and its control, as a corporate responsibility.

8.1.7 Education and persuasion

- ◆ *Mass media campaigns:* Mass media has been used both by the alcohol industry to promote its products and by governments to control the harm from alcohol use. While mass media is a popular means for attempting to control the harm from alcohol use, evidence suggests that complementary and reciprocal community actions pursued in conjunction are more effective than media campaigns alone (Jernigan, 1996). In addition, mass media campaigns are expensive and could be countered by aggressive, well-funded alcohol industry advertisements. Ingredients of an effective mass media campaign are: selecting a well defined target group; undertaking formative research; conducting a pre-test on the campaign materials; using messages which build on existing knowledge and satisfy existing needs and motives; addressing the knowledge and beliefs which impede the adoption of messages; adopting a guaranteed media plan for exposure and having long-term commitment for the campaign.
- ◆ *Educating school children:* Traditionally, schools promote sporting activities and religious values, but more recently, schools have started educating students on skills which they need to deal with stressful life events, e.g. stress management and handling peer-pressure. This strategy is termed as "Life-skills education". Part of these skills is to stay away from habits such as smoking and drinking alcohol. Such programmes include getting students to talk openly about the subject of alcohol use, their own attitudes,

and the environmental pressures on them to drink alcohol, as well as giving them information on the harmful effects of alcohol. These programmes can go a long way in preventing the initiation of alcohol use, particularly its harmful use.

8.1.8 Modifying the drinking context

- ◆ *Provision of alternative recreational facilities:* In many instances, the avenue for entertainment or recreation for adolescents and blue-collar workers are taverns/public bars/restaurants, where alcohol is liberally served together with food and other entertainment, such as music, TV, karaoke, dancing or billiards. Thus, initiatives in many countries especially by city development authorities, to provide and encourage alternate recreational places, and also organize leisure activities which involve less or no drinking of alcohol could be helpful in reducing alcohol-related problems. Job-creation and skill development programmes could also be useful for adolescents, particularly those from the low socio-economic strata where jobs are scarce and alcohol consumption rampant.
- ◆ *Public nuisance and the responsibility while intoxicated:* A person charged for an offence can, and generally pleads not guilty with the excuse of being under the influence of alcohol. The lawful position of self-inflicted intoxication has been controversial. It seems that in principle, legislation in most countries makes judgment for intoxicated persons as if they were sober.

8.1.9 Early intervention and treatment services

- ◆ *Role of the family:* Harmful consumption of alcohol by even one member of the family can adversely affect the whole family. In the strong social network prevalent in Member States, the role of the family becomes crucial. Family members have a significant role in the prevention of alcohol-related problems, especially the role of parents in encouraging abstinence, promoting alcohol-free activities, conveying appropriate messages with regard to consumption and problems and monitoring any negative situation.

The first step is recognizing when alcohol consumption is reaching harmful levels and facilitating interventions aimed at reducing alcohol use. For persons with alcohol use disorders, the next step is to obtain appropriate professional help. Family support to the person is needed, not only to seek treatment, but to persist with the treatment, which is sometimes unpleasant.

Leisure activities involving minimal or zero alcohol consumption should be encouraged.

Harmful alcohol consumption by even a single member adversely affects an entire family.



Rehabilitation, which includes a return to normal family responsibility and a position of respect within the family, is essential. Careful observation to prevent a relapse into abuse of alcohol is very important. Often, friends play a major role in perpetuating practices relating to alcohol use. The family also has a crucial role to play in keeping its members away from the influence of such friends or relatives who could draw the person back into harmful use again. Parents should set a good example to their children on alcohol use.

Expanding the role of the health sector from recipient to proactive agents: The traditional role of the health sector is to provide treatment and rehabilitation services for alcohol abusers and treating medical complications for physical and mental disorders (e.g. liver and other gastro-intestinal diseases, mental disorders, etc.). In addition, an important role of the health sector, which includes primary care physicians, nurses, other professionals and community health workers, could be in screening and early identification of people who abuse alcohol, followed by brief interventions, particularly at the primary health care level. This is particularly important considering that there is a WHO-developed technology using the AUDIT (Alcohol Use Disorder Identification Test) to screen for harmful alcohol consumption.

Evidence suggests that the type of service for treatment of alcohol use disorders makes little difference in long-term outcomes (Timko, 2000), and more sophisticated and high-cost services are not demonstrably more effective (Holder, 1991; Finney, 1996). Overall, brief intervention, particularly at the primary health care level, is the most cost-effective strategy among screening and treatment measures (Babor, 2003).

8.1.10 Establishing sustainable managerial mechanisms

- ◆ *Cooperation between stakeholders:* There are varied opinions on the control of alcohol. Many public agencies and sectoral ministries, e.g. interior or home affairs, civil and criminal courts, industries, budget and revenue, agriculture, customs and other law enforcement agencies, medical associations, alcohol manufacturers, as well as consumers, civil society, and other NGOs are lobbying for their own point of view. This often creates confusion and conflict of interest as well as duplication, rather than a synergistic effort for working together with a clear formulation and effective implementation

The Health sector could screen and identify people who abuse alcohol, and follow up with brief interventions.

Intervention at the primary health care level is the most cost-effective screening and treatment measure.

of national alcohol control policy. Coordination and cooperation between various public agencies, civil society and private enterprises is essential.

- ◆ *Establishment of a national alcohol control authority or similar agency:* Alcohol and health issues related to it should be accorded high national priority. In doing so, there is a need to have an authoritative body, commission or committee, responsible for developing and updating a national public health oriented alcohol control policy and programmes. This body could represent the highest level of government administration (such as Council of Ministers, Parliamentary Committee or the Parliament). There should be adequate funding and secretariat support from the government. Financial support for such an establishment could be through earmarked taxes or a special allocation.
- ◆ *Monitoring and evaluation:* There is a need for countries to work together in collaboration with WHO and interested alliances to develop a comprehensive set of indicators for the purpose of monitoring and evaluation of various alcohol control policy options and strategies for reducing public health problems caused by alcohol. WHO has already developed an international guide for Member States and other stakeholders for monitoring alcohol consumption and related harm (WHO, 2002).

The potential for the adaptation and use of such indicators depends upon the availability of information and the existence of national programmes. The data from other sectors and sources such as industry, customs, trade and commerce, revenue, police, transport, and national surveys, can be used in mutually consistent and supportive ways to create a valuable national information source. There is a need to have a national information clearing house for alcohol-related information.

- ◆ *Promoting national and regional networks/centres:* National and regional networks of public health, economic and social institutions, public policy faculties and experts should address issues related to non-communicable diseases and their risk factors including alcohol. This would generate evidence-based information which would strengthen the planning, implementation, monitoring and evaluation processes, and in the adoption of policies and strategies for reducing public health problems from the harmful use of alcohol.

Public agencies should cooperate and coordinate with civil society and private enterprises to develop a sustainable alcohol control policy, as alcohol and health issues related to it should be accorded high national priority.



8.1.11 Cost-effectiveness of interventions

The most efficient public health response to the burden of alcohol use depends on the prevalence of hazardous alcohol use which is related to overall per capita consumption. Population-wide measures, such as taxation, are probably the most cost-effective response in populations with moderate or high levels of drinking (such as in developed countries). Whereas more targeted strategies such as brief physician advice, roadside random breath testing and advertising bans are likely to be most cost-effective in populations with lower rates of hazardous alcohol use such as South-East Asia (Chisholm, 2004).

The prevalence of hazardous use, related to overall per capita consumption affects the public response to the burden of alcohol consumption.

What works in the prevention of harm from alcohol use?

The components of a comprehensive alcohol control policy includes:

- ◆ Drink-driving counter-measures
- ◆ Regulation and enforcement with regard to sale to minors, placement of outlets and timings of sale
- ◆ Price increases
- ◆ Government monopolies of all or part of the retail or wholesale market
- ◆ Education and public information campaigns as supplements to other strategies
- ◆ Brief outpatient interventions aimed at changing attitudes and drinking behaviour are as effective in most circumstances as are longer and more intensive treatments
- ◆ Large scale advocacy efforts by communities themselves

Source: World Bank (2005)

8.2 The Regional Evidence for Intervention: What Worked and What Has Not Worked

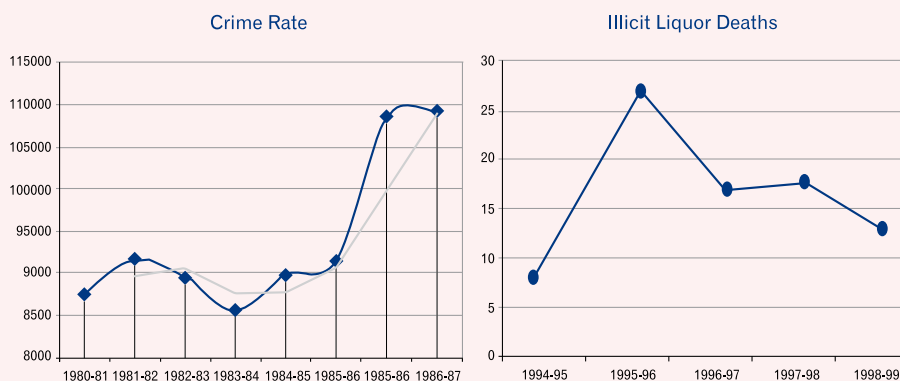
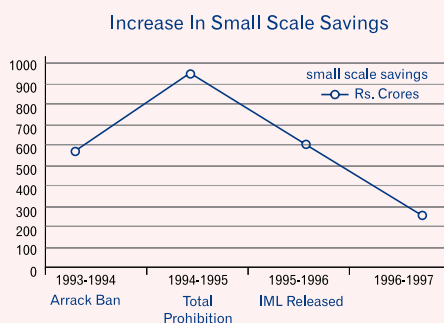
8.2.1 Prohibition

Advocating prohibition in some communities is often an election strategy but is difficult to sustain in the face of inevitable fiscal deficits due to loss of excise taxes and the costs of policing. Also, it creates powerful underground alcohol economies, often in connivance with official machinery, and the consequent spread of crime and corruption is usually worse than the original problem. The financial and political powers of the liquor traders naturally work to

counter prohibition. Prohibition of alcohol has been incorporated in the Constitution of India as one of the Directive Principles of State Policy. However, the Centre as well as the State governments have not followed a consistent policy towards prohibition. There is no clear evidence from India that prohibition actually reduces the consumption of alcohol in the general population. But there may be some benefits such as decrease in road crashes and violence, increase in savings, etc. Concurrently, there may be an increase in organized crime, corruption and illicit brewing. In Nepal, the dry zones have given rise to black marketing, bootlegging and other organized crimes.

Some effects of prohibition in Andhra Pradesh, India

- ◆ Decrease in crimes, road crashes and violence
- ◆ Increase in small scale savings
- ◆ Increase in illicit brewing
- ◆ Incidences of hooch tragedies
- ◆ Increased corruption among enforcement officials



Source: Benegal V (2005a)

8.2.2 Taxation and other price control measures

The ongoing process of liberalization, privatization and globalization in the restructuring of economies has seen the liquor industry becoming stronger. Rationalization of taxes is an important reason for this. Despite this, taxes constitute a substantial amount of the





Alcohol taxation is highly effective in internalizing the cost of alcohol consumption, compelling users to pay for social costs.

There were a lot of missed opportunities at the primary and secondary health care levels due to physicians not offering treatment for alcohol-related problems.

total cost of alcohol. The average Indian tax rates vary between 40–60% (Benegal, 2005) and contribute to more than 10% of state tax revenues (Mahal, 2000; Damodar, 2004). In an empirical study, Mahal reports that considering the price elasticity for participation in frequent alcohol consumption among youth, it would need roughly an 80–90% increase in prices to achieve an effect similar to prohibition. To implement the increase in the price of alcohol, an effective method is the raising of excise taxes at the production stage on installed capacity. This especially needs to be seen in the context of a high level of tax evasion estimated to be almost 2.5 times the sales (Benegal, 2005).

Richupan S (2005), reviewing the alcohol taxation policy in Thailand and establishment of the Thai Health Promotion Fund observes that alcohol taxation policy should be considered an effective policy instrument to internalize the cost of alcohol consumption, which makes those consuming alcohol pay for the social costs. Amornvivat S (2005), providing a government perspective of alcohol taxation, recommends for Thailand, a substantial increase in tax rates, equalization of taxes on alcohol contained in different alcoholic beverages, inflationary adjustment to the taxes and observes that non-tax measures complement tax measures by playing a dominant role in deterring alcohol use and abuse.

A matter of concern in the SEAR Member States is that an increase in tax on licit alcohol could result in people switching to cheaper illicit alcohol. Thus if the purpose of tax increase is to limit the consumption of alcohol by people, this strategy may not be very successful in the Region unless there is an effective mechanism to prevent the consumer's shifting towards cheaper illicit alcohol.

8.2.3 Medical management of alcohol dependence and related problems

The WHO-NIMHANS project (Benegal, 2001) to develop a district model for prevention of harm from alcohol use, has shown that there were a lot of missed opportunities at the primary and secondary health care levels due to physicians not offering treatment. Surveys in a general hospital revealed that only 2.3% of patients were asked by the treating doctors about alcohol and drug use, and none offered any interventions (although 33.3% had current alcohol use and 16.6% problem use when assessed independently on the AUDIT). In a survey among GPs, only 1.5% of patients were asked about alcohol use and only 10.3% about tobacco use, and very few were advised to abstain or cut down. The detection rates were substantially raised

after a brief capacity-building session to the doctors which included brief sessions for both detection and management of alcohol-related problems. Interventions that were successfully instituted included those for problem drinkers, hazardous drinkers and also dependent drinkers. Short-term successes have been demonstrated in designated de-addiction centres with respect to those who have a hazardous and dependant drinking pattern. However, appropriate long-term rehabilitation is needed to sustain the impact of de-addiction treatment (Benegal, 2001).

8.2.4 Community empowerment programmes

The social imposition of the regulation of sales and production, especially of the illicit variety of alcohol has been sketchy and not uniform across the Region. A notable aspect in the societal response has been the involvement of women's groups in banning the sale and

Banning sale and consumption of alcohol in localized areas: Role of women

Women's Initiative Against Alcohol

There have been several reports of community-based strategies initiated by women's groups for controlling the availability of alcohol in specific communities or townships through direct action. These initiatives have often been prompted by the impact of alcohol abuse on women and their families, and have been reported with enthusiasm by the media. Two examples, one originating in Dubagunta village, Andhra Pradesh, India, and another originating in Monody village, Kerala, India, in which women were successful in fighting the illicit liquor trade, have frequently been reported worldwide.

Source: As quoted in WHO (2004)

Pune, Maharashtra, India, "Women Raid Liquor Dens" (Times News Network)

Pune: It was women's power which went on a rampage, smashing illicit liquor dens here on Sunday. The "bangle-army" took the law in to their hands as the policemen were turning a blind eye. Activists of the Pune district prohibition committee picketed four illicit liquor dens in the Patil Estate slums at Wakdewadi, confiscated around 60 litres of liquor and poured it on the road.

Source: As quoted in WHO (2004)



The Thai Health Promotion Foundation, or ThaiHealth, established by the Health Promotion Foundation Act in 2001, in Thailand, is an example to emulate. Its objectives include the reduction of sickness and death, and general improvements in the quality of life.

consumption of alcohol in localized areas. The impact of these and similar movements have not been adequately evaluated either in terms of the broader parameters related to alcohol consumption or the long-term sustainability. What is noteworthy in these attempts is the intense immediate pressure generated against the prevalent alcohol control policies and consumption.

The Thai Health Promotion Foundation, or ThaiHealth, was established by the Health Promotion Foundation Act in 2001 outside the regular government bureaucracy. Its objectives include the reduction of sickness and death, and general improvements in the quality of life of Thai people. The philosophy of ThaiHealth is that all Thais can attain better lives in a self-reliant way through increased cooperation. The 2001 Health Promotion Foundation Act provides ThaiHealth with considerable autonomy. The Act provides ThaiHealth with annual revenue of about US\$35 million, derived from 2% of the excise taxes on tobacco and alcohol. This revenue is not subject to normal budgetary processes; instead, ThaiHealth reports directly to the cabinet and parliament each year. ThaiHealth is the only organization in Thailand to obtain revenues and report to parliament in this way.

ThaiHealth

ThaiHealth aims to support, rather than replace, groups and organizations that are already working on public health issues and act as a catalyst. Its neutral position allows it to promote collaboration between many different partners. The different strategies adopted include:

1. **Social Mobilization** (build up social movement, involving collaborations between different groups)
2. **System Development** (improve the structure of the Thai health system, including policies, laws and management practices)
3. **Healthy Community Development** (encourage good health promotion practices in communities, cities, schools and workplaces throughout the country)
4. **Social Capital** (build up the social infrastructure required for effective health promotion including leadership; information systems and networks; knowledge management systems and resource management systems)

Source: <http://www.thaihealth.or.th/en>, accessed on 10 Jan 2006

Community Empowerment Programme (India)

Features of a successful method:

The outstanding lesson to be learned from this experience concerns the way the issue was identified, studied and communicated to the people, and the consequent emergence of mass action. The counselling of individuals or hospital-based measures aimed at breaking the addiction would have touched only the fringes of the problem. Customary medical or epidemiological research would have produced recommendations that might have never seen the light of day. This approach, on the other hand, turned the issue into a people's movement. The distinguishing features of the successful anti-alcohol programme were:

- ◆ There was no pre-planned project or protocol.
- ◆ The problem was not identified by researchers alone. The collective approach ensured that the problem chosen for research was a major public concern, not purely a medical curiosity.
- ◆ The process of problem identification was not merely intellectual in character. There was a strong emotional element, because pain, suffering and the sharing of hardship were involved. This resulted in a powerful drive for action.
- ◆ The research was done by a large number of social activists, leaders, teachers and health workers. Throughout it was an open participatory process. Everybody understood not only what was being done but also why and how, so the results were readily accepted.
- ◆ At every stage, decisions were made, not by individual researchers alone, but by a large number of key members of the community. This ensured that corrective action had social roots rather than a purely medical basis.
- ◆ The generation of awareness about alcoholism was different from the usual process of health education, which culminates in exhortations to consult one's doctor. The actions suggested were designed to empower the people: organization, prevention of entry of liquor into villages, education of people and so on.
- ◆ The research workers and health professionals acted as animators, trainers and facilitators. They tackled the problem with the people, not for them.
- ◆ When the campaign gathered momentum, demands for changes in official policies quickly followed.

Source: Bang and Bang (1991)





While there have been only a few community-based efforts, the activism in the Gadchiroli district, Maharashtra, India, stands testimony to the possibilities of success. Bang and Bang report that alcohol consumption has been drastically reduced in the 200 villages. Instead of being spent on alcohol, the money was available for food and clothing. There was also a reduction in the frequency of brawls and beatings.



WHO SEARO INITIATIVES

The regional initiatives are based on prevention of harm from alcohol use to the individual, the family and the community. Projects to address these issues in Member States being developed by WHO SEARO include the following:

Advocacy

Development of an information document entitled “Public Health Problems Caused by Harmful Use of Alcohol: Gaining Less or Losing More?”

This document reviews the currently available information on the supply, demand and use of alcohol in the population. Some suggestions are also provided on what can be done to prevent harm from alcohol use in the community. It supplements the WHO Global Report on Alcohol by adding region-specific information.

Alcohol Control Policies in the South-East Asia Region: Selected Issues

This document is intended to inform policy-makers about the status of existing alcohol control policies in the Region and to provide a baseline for monitoring progress in prevention of harm from alcohol use. It could also serve as an advocacy tool for identifying existing gaps and raising awareness about the need for additional alcohol control policies.

Evidence-based community interventions

Many community-based programmes on prevention of harm from alcohol use are implemented based on the ‘opinion’ of technical people or policy-makers. Sometimes this is not readily acceptable to the community, or the programme has not been scientifically evaluated for having a beneficial impact on resolving the problem. Thus evidence-based programmes should be developed and implemented for prevention of harm from alcohol use.

Burden and Socio-Economic Impact of Alcohol: The Bangalore Study

In this comprehensive study of 28 507 individuals from four population groups of (rural, town, slum and urban areas), the effect and impact of alcohol consumption was examined in a cross-sectional manner with the combined use of quantitative and qualitative research methods. The study shows the phenomenal burden and impact among individuals and families of alcohol-users in the areas studied. Despite limitations, it attempts to extrapolate the findings to the whole of India. The conclusions can be very informative for policy-makers. If all costs are comprehensively examined

The regional initiatives are based on prevention of harm from alcohol use to the individual, the family and the community.





and calculated for all events, the economic impact would be much higher than the conservative estimates noted in the study. In the final analysis, Indian society might be losing more than it is reportedly gaining.

Development of community-based strategies using self-learning material for community volunteers on prevention of harm from alcohol use entitled: “Reducing Harm from Use of Alcohol: Community Responses.”

This material has been developed and tested by an expert from Sri Lanka. It contains simple instructions which can be used by a motivated community activist to initiate programmes within a community for prevention of harm from alcohol use.

Empowering adolescents

Development of a strategy for prevention of harm from alcohol use among adolescents, both in rural and urban areas using the life-skills approach

Harm from alcohol use is a serious problem among the youth in many Member States. An expert from India has developed strategies to be used in a school setting to empower adolescents not to initiate use of alcohol and certainly not to abuse it. Different strategies have been tested, one of them being life-skills as implemented by peer trainers and another as implemented by school teachers.

Programme on adolescent mental health promotion

A life-skills-based programme on adolescent mental health promotion has been developed, consisting of eight modules on different aspects of relevance to adolescents. It also includes one module on prevention of harm from alcohol use. All these modules have been successfully tested in India, Indonesia and Thailand, and are currently being implemented in Bhutan and several states of India.

Advocacy material for adolescents

A document entitled “Alcohol use and abuse: What you should know” has been prepared which provides adolescents with brief and clear information on harm from alcohol use and abuse. This document has been extensively tested in India. The information is based on extensive feed back received from adolescents. They are currently being implemented in Bhutan and India.

Interactive CD-based material for adolescents on prevention of harm from alcohol use

Interactive CD-based material for adolescents on prevention of harm from alcohol is being prepared. A software development company in India will convert some of the materials developed by WHO into an interactive programme on prevention of harm from alcohol use.



CONCLUSION

The history of mankind is full of stories related to alcohol consumption. This is equally true in countries of the SEAR, where its use has been glorified in poems and literature and more recently in the print and visual media.

Countries in the SEAR which had low levels of consumption of alcohol until recently, are moving towards a higher level of alcohol consumption in the twenty-first century. The impact of western civilization and global cultural patterns seem to have accelerated this phenomenon. It is well established that an increase in alcohol consumption by a community or a nation leads to a higher proportion of persons with what can be considered harmful use, hazardous use and addiction (dependence).

Alcohol consumption is no more just an individual choice of drinking or not drinking. It can be described as the sum total effect on the individual, the family and society. Harmful use of alcohol has a significantly adverse impact on the lives of affected persons and their families, most notably in health aspects. At the same time, the socio-economic impact and the burden on the communities and nations with increasing alcohol use is also substantial enough to warrant the attention of policy-makers. As such, there is a need to focus on prevention of harm from alcohol consumption in the countries of the Region, both from the perspectives of health promotion as well as social and economic development.

Recognition of the consequences of alcohol consumption on physical and mental well-being as well as socio-occupational life is a necessary step for initiating appropriate action to reduce the harm from alcohol consumption. The facts and figures available from the countries of the Region, although not complete, provide adequate basis for such an effort.

The international experience on:

- (a) early identification, not only in health settings, but also in the social sector
- (b) sensitizing and mobilizing the community for prevention of harm from alcohol use
- (c) development and implementation of service delivery systems, including low cost interventions requires to be appropriately utilized for the benefit of the communities in the Region.

Although some research has been initiated, more active and vigorous research on the epidemiological trends, consequences of alcohol use,

Alcohol consumption is no more just an individual choice of drinking or not drinking. It can be described as the sum total effect on the individual, the family and society.

There is a need to focus on prevention of harm from alcohol consumption for the purpose of health promotion as well as social and economic development.





A scientific public health approach, considering all aspects of alcohol consumption, including harm and prevention, may be effective.

Alcohol control policies focus more on economic rather than health aspects.

the socio-cultural mechanisms related to alcohol use and effective treatment and prevention strategies need to be carried out so as to generate information which can be useful for the countries of the Region. At the same time, there is a need to understand and modify some myths related to alcohol consumption.

The increasing homogenization of the world's population and the reality of a global village in the beginning of the twenty-first century, makes it necessary for all individuals and agencies involved in health and human welfare, to recognize alcohol as one of the important factors impacting on health and development. The global history of measures for alcohol control and the scientific evidence are compelling enough to accept the need for pragmatic solutions as compared to extreme positions like total prohibition. A public health approach using a scientific basis that takes into account the trends of alcohol consumption, factors contributing to use and strategies on preventing or reducing the harm from alcohol consumption, the range of issues for those affected with harmful use and the strategies for less harmful use for various groups in the population, is likely to be an effective solution.

Opening more alcohol detoxification centres addresses the end of the spectrum and shows a notoriously poor long-term success rate. Criminalizing the user through insufficient legal interventions is largely ineffective. The emphasis should be on prevention of harm from alcohol consumption wherein there is sufficient collective deterrence to alcohol consumption. The paramount social responsibility is enabling a health promotion programme which is aimed especially at the emerging risk groups (the youth and women). Sustained campaigns need to be adopted, which can transgress traditional boundaries and be able to respond to newer and emerging challenges in transitional towns and rural communities.

In the final assessment, it is not just the individual who suffers, but the family and society too. It is not merely a question of who gains or who loses. The moot point is how we leverage the gains and devise mechanisms to reduce the losses. The debate on alcohol control policies, for a long time, has revolved around economic issues rather than health issues. Consequently, revenue generation and income is seen to be more important than the health and socio-economic impact. There is a need for consensus building for a shared vision on promoting the health of individuals and families and protecting them from the ill-effects of alcohol consumption. Multiple agencies need to come together to list strict 'dos' and 'don'ts'. Each sector has got to identify its specific role and list out its responsibilities. The health sector needs to take on the mantle of being the leader in this public health endeavour.

In summary, the contextual evidence from the Region for what is successful in reducing the harm from alcohol consumption is a mixed bag. Notwithstanding this, there is plenty of international evidence which suggests components of successful programmes. However, there are many challenges. The transition from traditional to modern societies provides a unique opportunity to leverage the positive factors within the Region (family values, religion and culture, greater proportions of abstinence, low proportion of female drinking). What is needed is an understanding of the public health principles and a sustainable policy with an action plan which is implementable and sustainable in the long run.

Taking the Bangalore study (Gururaj, 2006) as an example, it is estimated that while gains in terms of revenue from alcohol sales in India are INR 216 billion every year, losses from the adverse effects of alcohol are estimated to be INR 244 billion, apart from immeasurable losses due to multiple and rollover effects of alcohol consumption. Needless to say, the available estimates are merely the tip of the iceberg. The seeming gain from the existing alcohol control policies i.e. the revenue from excise taxes, ends up being spent to counter the effects of alcohol use in the medium- and long-term. Similarly short-term gains of economic development such as establishing new breweries end up with social mal-development; which coupled with inefficient enforcement of rules and regulations, leads to a situation best described by the proverbial statement "leaky faucet flooding the floor". Hence the urgent need is to stop mopping the floor; adopt a comprehensive approach instead of a piece-meal strategy, and evolve long-term commitments by implementing a public health agenda to close the tap. The conclusion is "Are we gaining less or losing more?" It is for everyone to decide.

An understanding of the public health principles and a sustainable policy with a viable action plan is required.

The conclusion is "Are we gaining less or losing more?" It is for everyone to decide.





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ANNEXURE

FIFTY-EIGHTH WORLD HEALTH ASSEMBLY

WHA58.26

Agenda item 13.14

25 May 2005

Public health problems caused by harmful use of alcohol

The Fifty-eighth World Health Assembly,

Reaffirming resolutions WHA32.40 on development of the WHO programme on alcohol-related problems, WHA36.12 on alcohol consumption and alcohol-related problems: development of national policies and programmes, WHA 42.20 on prevention and control of drug and alcohol abuse, WHA55.10 on mental health: responding to the call for action, WHA57.10 on road safety and health, WHA57.16 on health promotion and healthy lifestyles and WHA57.17 on the Global Strategy on Diet, Physical Activity and Health;

Recalling The World Health Report 2002,¹ which indicated that 4% of the burden of disease and 3.2% of all deaths globally are attributed to alcohol, and that alcohol is the foremost risk to health in low-mortality developing countries and the third in developed countries;

Recognizing that the patterns, context and overall level of alcohol consumption influence the health of the population as a whole, and that harmful drinking is among the foremost underlying causes of disease, injury, violence – especially domestic violence against women and children – disability, social problems and premature deaths, is associated with mental ill-health, has a serious impact on human welfare affecting individuals, families, communities and society as a whole, and contributes to social and health inequalities;

Emphasizing the risk of harm due to alcohol consumption, particularly, in the context of driving a vehicle, at the workplace and during pregnancy;

Alarmed by the extent of public health problems associated with harmful consumption of alcohol and the trends in hazardous drinking, particularly among young people, in many Member States;

¹ The world health report 2002. Reducing risks, promoting healthy life. Geneva, World Health Organization, 2002.

Recognizing that intoxication with alcohol is associated with high-risk behaviours, including the use of other psychoactive substances and unsafe sex;

Concerned about the economic loss to society resulting from harmful alcohol consumption, including costs to the health services, social welfare and criminal justice systems, lost productivity and reduced economic development; The world health report 2002. Reducing risks, promoting healthy life. Geneva, World Health Organization, 2002.

Recognizing the threats posed to public health by the factors that have given rise to increasing availability and accessibility of alcoholic beverages in some Member States;

Noting the growing body of evidence of the effectiveness of strategies and measures aimed at reducing alcohol-related harm;

Mindful that individuals should be empowered to make positive, life-changing decisions for themselves on matters such as consumption of alcohol;

Taking due consideration of the religious and cultural sensitivities of a considerable number of Member States with regard to consumption of alcohol, and emphasizing that use of the word “harmful” in this resolution refers only to public-health effects of alcohol consumption, without prejudice to religious beliefs and cultural norms in any way,

1. REQUESTS Member States:

- (1) to develop, implement and evaluate effective strategies and programmes for reducing the negative health and social consequences of harmful use of alcohol;
- (2) to encourage mobilization and active and appropriate engagement of all concerned social and economic groups, including scientific, professional, nongovernmental and voluntary bodies, the private sector, civil society and industry associations, in reducing harmful use of alcohol;
- (3) to support the work requested of the Director-General below, including, if necessary, through voluntary contributions by interested Member States;

2. REQUESTS the Director-General:

- (1) to strengthen the Secretariat’s capacity to provide support to Member States in monitoring alcohol-related harm and to reinforce the scientific and empirical evidence of effectiveness of policies;

- (2) to consider intensifying international cooperation in reducing public health problems caused by the harmful use of alcohol and to mobilize the necessary support at global and regional levels;
- (3) to consider also conducting further scientific studies pertaining to different aspects of possible impact of alcohol consumption on public health;
- (4) to report to the Sixtieth World Health Assembly on evidence-based strategies and interventions to reduce alcohol-related harm, including a comprehensive assessment of public health problems caused by harmful use of alcohol;
- (5) to draw up recommendations for effective policies and interventions to reduce alcohol-related harm and to develop technical tools that will support Member States in implementing and evaluating recommended strategies and programmes;
- (6) to strengthen global and regional information systems through further collection and analysis of data on alcohol consumption and its health and social consequences, providing technical support to Member States and promoting research where such data are not available;
- (7) to promote and support global and regional activities aimed at identifying and managing alcohol use disorders in health-care settings and enhancing the capacity of health-care professionals to address problems of their patients associated with harmful patterns of alcohol consumption;
- (8) to collaborate with Member States, intergovernmental organizations, health professionals, nongovernmental organizations and other relevant stakeholders to promote the implementation of effective policies and programmes to reduce harmful alcohol consumption;
- (9) to organize open consultations with representatives of industry and agriculture and trade sectors of alcoholic beverages in order to limit the health impact of harmful alcohol consumption;
- (10) to report through the Executive Board to the Sixtieth World Health Assembly on progress made in implementation of this resolution.

Ninth plenary meeting, 25 May 2005

A58/VR/9





“Alcohol consumption has a devastating impact on the health, social and economic status of communities”

“Sustained commitment by all stakeholders is crucial to prevent public health problems from harmful use of alcohol”

GET **HIGH** ON LIFE **WITHOUT**
ALCOHOL



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