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A CAUSAL RESEARCH ON ALCOHOLISM AND ITS SOCIETAL COSTS

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Abstract
Alcohol has now become a common word in the Indian society. With the impact of globalization, urbanization, industrialization, media influence and changing life styles, alcohol has entered into the lives of Indians in a big and unrestricted manner. From times when alcohol sale was restricted to a few bars and pubs, today, alcohol is available in plenty and in several local outlets, and is within the easy reach of today's young generation. As always, when any product is not adequately controlled and regulated, its ill effects begin to take an upper hand resulting in a huge negative impact on people's health. The response to this epidemic and to the host of deleterious consequences has been rather slow and without direction.

The societal costs are increasing directly as well as indirectly; *an attempt to measure the impact of alcohol consumption on Indian society has been undertaken only in recent years. Systematic data required for such costing has not been available in India. The direct and indirect impact of alcohol on the economic situation of society as a whole, has been difficult to gauge with the available data. The costs linked to alcohol use can be broadly categorized as direct and indirect, tangible and intangible. Direct costs are the medical costs linked to treatment (outpatient or inpatient), hospitalisation, long-term medication, transport costs, rehabilitation costs and in the event of death, funeral costs. Indirect costs include property damage, litigation costs, loss of insurance, and others. Intangible costs are those due to absence from work, decreased productivity, absenteeism, sickness leave, loss of school for children and many others. The value of lost life (in death), poor quality of life, lost time with family, pain and suffering are difficult to quantify. Governments incur huge expenditure for managing harmful effects of alcohol use. Substantial budgets of health ministry, law and order departments, crime divisions, traffic and law divisions, rehabilitation programs and welfare services are used to meet the increasing consequences of alcohol use. The collective costs of all these is unclear and difficult to estimate.*

From a small study in the state of Karnataka, it was observed that the social costs of alcoholism far exceeded the revenues generated from alcohol. Based on a small sample of alcohol dependents, it was estimated that the losses were to the tune of `18.39 billion when compared to a revenue of `8.46 billion. One study estimated that Indian society might have lost an estimated `244 billion due to the different consequences of alcohol use, while the revenue generated by the government was approximately `216 billion for the year 2004, raising the question "are we losing more than what we are gaining?".

If all costs are comprehensively examined and calculated for all events linked to alcohol use in the Indian society, the total economic impact would be much higher than the available conservative estimates. Research in the past few years has conclusively demonstrated that nearly one in 3 male adults consumes alcohol, and 5% of Indian women are already regular users. Interestingly, the age of initiation of drinking is progressively coming down. Majority of young Indians after experimenting with alcohol for pleasure seeking and peer influence, end up as habitual users. A significant amount of the public health burden comes from intoxicated behavior, resulting in accidents, violence and other Behavioral consequences.

With Indian patterns of drinking being different from the west and more than 500 million adults using a variety of licit and illicit liquor, the negative impact for the country is huge. Over years, our attempts to address the growing problem have been limited, fragmented and piecemeal.

While revenue departments have worked relentlessly on filling coffers, health professionals are preoccupied in providing care for the ever-increasing number of alcohol users; police are battling to curb the menace of alcohol on roads, at home and in work places, NGOs are busy in increasing awareness; social welfare officials are waging a losing battle to rehabilitate alcohol addicts and courts are regularly hearing cases of alcohol impact and awarding compensations and verdicts. Ironically, health professionals and media colleagues have only fuelled this debate with confusing messages regarding alcohol use.

What is apparent amidst the controversies of how much of alcohol use is right or wrong, is the absence of a unified vision, a public health approach and the common goal of a healthy society. It is true that alcohol use is a problem in every country. One look around the globe, especially the High Income Countries (HIC), reveals that the impact of alcohol use is on the

down slide: seen as decreased production, reduced consumption and increased efforts to minimizing harm from alcohol use. Integrated and coordinated policies, sustainable action plans, public health perspective vis-à-vis revenue perspective of alcohol, a better informed society, and strict governmental control of alcohol have paved the way for emergence of societies with less harmful effects of alcohol. The Indian experience of prohibition, education, timings of sale, sales to minors, drink drive laws and others have all remained on paper, with no tangible effects seen on the ground. It is time the Indian society wakes up to this epidemic, before many more lives are destroyed and families wiped out.

Key Words; Alcohol, Alcoholism, Social Epidemic, Liquor, habitual users, prevalence, consumption, IMFL Indian Made Foreign Liquor, Drinking patterns, Social Costs, hazardous, suicide, epidemics, psychological consequences, morbidity, death, production, distribution, taxation, excise,

Objectives of the study

- To analyze the direct impact of alcohol influence on the Individual life.
- To gain knowledge of DIRECT AND INDIRECT SOCIAL COSTS in terms of money with recent information on drinking patterns, trends, practices and socio demographic correlates of alcohol use
- To evaluate the available evidence with regard to the wide variety of health consequences of alcohol use.
- To sensitize the social and economic impact of alcohol use on individuals, families and overall society
- To reiterate the responses including interventions by various sectors and examine their possible impact on alcohol use in India, and develop a road map for future activities to reduce harm from alcohol.

Problem Statement

Alcohol has been in use for centuries in the Indian region. Although traditional use of alcohol in certain populations has been well known, it is now widely used. While the overall effects of alcohol are well documented in western literature, this has been poor in India. Its increasing availability and use in the last decade has also brought in myriad problems affecting both the individual and society. A question emerging across the country is - how do we control this problem? It is only in recent years that harm from alcohol is beginning to be methodically documented in India. Efforts to tackle the problem have been piecemeal and fragmented, resulting in lack of direction and focus. The word alcohol has different meanings to people in different settings. For the government, it is the principal source of revenue; for economists, it is just another product; to a public health specialist, it is a major cause of death and injuries; to the common man, it is a pleasurable commodity and for the media, everything about alcohol is yet another story. A comprehensive examination of all issues related to alcohol is crucial to formulate a rational alcohol control policy and implement appropriate interventions in India.

Review of Literature from Government of India and Other Authentic Medical Research Sources

1. The need of the hour is to have a public health approach with sustainable policies and comprehensive programs which are based on evidence and research and on an inter-sectoral platform. The Indian Government and the Ministry of Health are in the process of formulating a rational alcohol control policy. To facilitate this process and foster a scientific decision making process, NIMHANS has brought together all available evidence from India and lessons from around the globe, highlighted issues of concern and provided an overview of the past efforts in this area. We need to now address alcohol problems through a variety of measures including strict control measures as well as reduction of demand and early intervention. I hope this effort of NIMHANS team will help, support and facilitate the national effort towards making our present and future generations safe and healthy.

2. While bringing together a wide body of evidence from a range of sources, they have quite rightly emphasized the paucity of good data and evidence-based, policy-oriented research, making an emphatic demand for more policy research as well as its translation into policy. The division of the document into sections such as introduction, objectives and methodologies of the review, production type and sales of alcoholic beverages, prevalence and pattern of alcohol consumption, biological influences and health consequences, social implications, responses to the problem, key policy issues, and conclusion and recommendations, makes this document a very comprehensive one. It particularly emphasizes the multidisciplinary nature of the problem and the multisectoral nature of the response required to meet this challenge.

3. The document very effectively underlines the 'public health framework' within which this policy should evolve so that it supports the 'Health for All' commitment of the government and its efforts towards the Millennium Development Goals (MDGs). The challenge will be to ensure that the market and trade policies and other vested interests do not distort the

efforts towards a rational policy. As the authors have rightly emphasized, only 'scientific evidence' and a 'public health focus' can be a bulwark against such policy distortions.

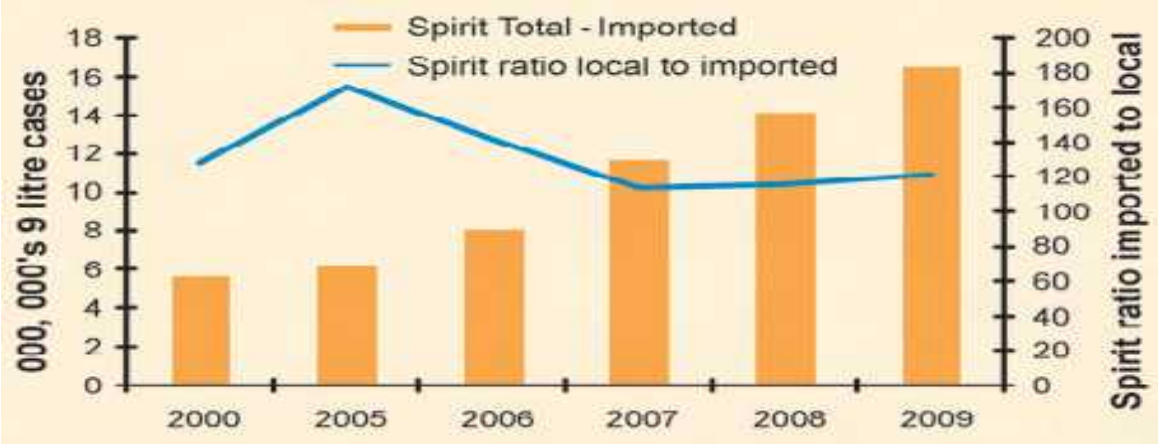
4. Almost sixty years ago, the Bhore committee had showed great prophetic oversight by suggesting that "little economic merit can be claimed for a system of taxation which raises any considerable part of the public revenue from the sale of alcohol, unless, as a part of the plan of government, this tax money is used to reduce the extent of facilities for the sale of alcoholic beverages; to promote the observance of restrictive laws; to meet the cost of prevention, care and treatment of alcoholism among the considerable number of persons whose health will be injured and whose earning capacity will be reduced by the use of alcohol". The Bhore committee suggested a plan of action that included: instructions in schools on the effects of alcohol and narcotics; strict control of existing liquor shops; treatment facilities for acute and chronic alcoholism; health promotion; legal sanction for detention of those who need segregation and treatment; active role for NGO'

The societal Cost Scenario

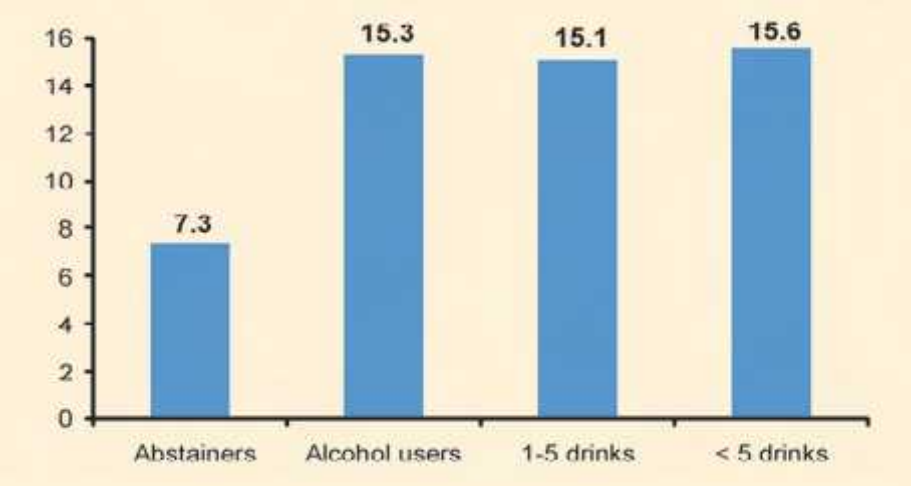
India is one of the largest producers of alcohol in the world and contributes to 65% of production and nearly 7% of imports within the region. The precise estimate of unrecorded alcohol production is not clearly known, and is 'estimated' to be nearly 50% of recorded consumption. It is estimated that the amount of alcohol produced in India during 2006 - 07 was approximately 2300 million liters. The bulk of alcohol produced in India is mainly from sugarcane molasses. Roughly 52% of alcohol produced in India is for potable purposes. Among the potable forms of alcohol, Indian made foreign liquor (IMFL) and country liquor account for nearly 60 to 70% of the total amount consumed. The traditional home brewed beverages account for a large extent of unrecorded consumption. Alcohol production, distribution and sales are primarily a state subject in India. The sale, production and distribution follow a complex duty structure varying from state to state. The taxation on imported alcohol also varies from state to state and also between different types of alcohol.

In the total spectrum of alcohol consumption in the country, only about 50% is documented and the rest is undocumented. Variations in taxation policies have led to a grey market where spurious and smuggled liquor is easily available to the population.

During 2008-09 the excise revenue was nearly 400 billion rupees. Nearly 90% of this was contributed by the alcohol beverage industry. This is one of the important sources of revenue for the governments. The higher taxation on alcohol by successive governments has only been able to generate more revenues for the government and has neither affected the drinking patterns nor reduced adverse health impact. The policies promoted till date have been primarily with a view to increase taxes and garner more revenues and not from a public health point of view. In fact, the public health importance of alcohol control has been totally neglected in formulating policies and programs.



Source; Compiled by Researcher/ from -Source: IWSR, 2010
Source: http://indianwine.com/cs/blogs/indian_wine/archive/2010/06.aspx accessed on 24th June, 2010.
Source; Compiled from NIMHANS



Source; NIMHANS India

Indirect Cost and Commercial Scenario;

Consumption patterns; The collective review reveals that nearly 30-35% of adult men and approximately 5% of adult women consume alcohol (Male to Female ratio being 6:1), Alcohol use is relatively high in northeastern and southern states of India and Goa as compared to other parts of country. It has been identified that India has nearly 70 million alcohol users which include 12 million users who are dependent on alcohol, but does not include millions of Social drinkers. Commonly IMFL and beer are the preferred drinks in younger age groups, while country - made liquor and rum are common in rural India. Home-made or local brews continue to be popular in select communities especially in north eastern parts of India, Goa, etc.

The use of alcohol is increasing disproportionately in semiurban /transitional areas. Interestingly, these are areas with growing income levels and are thus, entering the spiraling loop of alcohol use and its harm. Alcohol use is directly associated with education, social class and occupation. Alcohol use among the poor communities contribute to increasing expenditure on alcohol on one hand and increasing resources spent for managing alcohol related problems on the other. The average age of starting alcohol use has reduced from 28 years during the 1980s to 17 years in 2007. Once begun, the average duration generally lasts for more than 10 years. What starts as experimentation and pleasure-seeking, often becomes an addictive process. The amount of drinking increases with age and duration. Social drinkers generally graduate to become hazardous and pathological drinkers over time. More than 50% of regular alcohol users also fall into the category of hazardous drinking. The location of drinking has been changing over time. In urban areas, the commonest place of drinking is pubs / bars and retail outlets (nearly 60 to 70%), while, in rural areas, local outlets (arrack shop and wine stores) are the commonest places.

Direct Social Cost

Health consequences; It is known that alcohol contributes to more than 60 different health conditions. Despite the use of alcohol and its increasing consumption over centuries, the health consequences of alcohol have not been comprehensively documented in India due to absence of reporting, surveillance system and research. Both hospital-based studies and population-based studies reflect increasing use of alcohol in the country in recent decades. The available evidence is from individual studies and in isolated areas based on the specific interests of the researchers. Based on the available data, it can be estimated that alcohol contributes to a substantial proportion of mortality, the precise estimates of which are not clearly known. Approximately 20% of premature mortality in adult men can be attributed to alcohol use.

Recent studies have shown that alcohol users experience more negative health events, more injuries and increasing psychosocial problems during their life course. Alcohol users have a higher incidence of mortality, hospitalization and disabilities due to injuries. Nearly one-third of night time road traffic injuries and deaths can be attributed to alcohol use. Alcohol users also experience greater severity of injuries, longer lengths of hospitalization and higher extent of disabilities. Suicides have been linked to alcohol consumption (through indirect and direct effects) and contribute to nearly one-fourth of total events. About one-fourth of violence and other forms of abuse against women and children has been linked to chronic alcohol use. Limited studies conducted on Stroke in India have established the role of alcohol in its causation. Among

hospitalized stroke subjects, long-term alcohol use has been recorded in 25% of cases. The linkages of alcohol use to specific types of cancer in the Indian region have been well-established. Combined with various forms of tobacco consumption, alcohol use has been linked to cancer of the respiratory system, gastrointestinal system and other systems.

A significant relationship has been established between alcohol use, risky sexual behavior and increased risk of HIVAIDS and other sexually transmitted diseases in the Indian region; alcohol use is more often associated with lack of protection and having multiple sex partners. Hospital-based studies suggest that nearly half of the deaths due to liver cirrhosis are linked to chronic alcohol use. Alcohol use has an intimate relationship with nutrition related disorders at both ends of the spectrum (both under nutrition and obesity). Apart from the linkage of alcohol to certain neuropsychiatric conditions such as delirium tremens and alcoholic hallucinosis, it is also a co-morbid condition with several other psychiatric illnesses including schizophrenia. Alcohol dependents constitute a major burden in the majority of health care settings at secondary and tertiary levels (and definitely at primary care levels). The health effects of alcohol on women are gradually beginning to emerge with growing alcohol consumption among women.

Alcohol is a toxic substance that can affect each and every organ in the body. The major health problems associated with excessive alcohol intake are listed below.

Stomach the entry point

- Slows down functioning and interferes with digestion
- Irritates the lining of the food pipe and stomach
- Causes gastritis and ulcer
- Increases incidence of cancer

Liver metabolizes food to facilitate absorption

- ·Can lead to fatty liver (sluggishness due to accumulation of fat
- cells)and alcoholic hepatitis (jaundice- like symptoms)
- ·Permanent damage – cirrhosis

Brain the control centre

- Slows down the functioning
- Causes loss of inhibitions and affects judgment and coordination
- Leads to depression, poor memory and concentration
- Triggers psychiatric problems
- Damages brain cells permanently

Heart the life line

- Interferes with normal heart rhythm
- damage blood vessels
- weaken heart muscles
- cause enlargement
- **Other effects**
- Neuritis tingling sensation, tremors in hands and feet
- Pancreatitis painful inflammation of the pancreas
- Degeneration of muscles due to protein loss
- Malnutrition leading to many problems ranging from tiredness onto poor memory
- Sexual problems

Social and psychological consequences; The psychosocial consequences of alcohol use have been inadequately documented in the Indian region. The social consequences of alcohol use at individual, family and societal level are largely anecdotal; media reported events with limited scientific evidence. The social consequences at the individual level significantly impacts personal life, work-related areas and family relationships.

Social Effects (Cost to society) and with drawl effects

- Absenteeism from work, Unemployment, Marital Tensions , Child Abuse , Financial difficulties
- Problems in abiding by the law including violence and traffic offences

Withdrawal Effects

- Tremor, Nausea Irritability, Agitation, Tachycardia, Hypertension, Convulsions, Hallucinations.

Barriers to effective alcohol control policies

Apart from the influences of rapid globalization, industrialization, urbanization and media influences at the macro and micro levels, several other barriers that have contributed to the failure of policy and program initiatives are: Absence of a rational and scientific alcohol control policy based on a public health approach.

- Conflicts between the Centre and the State on issues regarding production, distribution, taxation and sales.
- Greater emphasis on the revenue generation and marketing / promotion of alcohol use and non-recognition of health and economic impact of alcohol related problems.
- Absence of an inter-sectoral approach to guide and implement policies and programs.
- Non-recognition of the effects of alcohol on major public health problems, including non-communicable diseases and injuries.
- Greater importance given to tertiary prevention as compared to primary andsecondary prevention efforts.
- Inadequate training of health professionals in recognition of early alcohol relatedhealth problems and timely and effective interventions for cessation of use.
- Stigma associated with chronic alcohol use.
- Selective attention by professionals and the media to marginal and doubtful healthbenefits particularly for cardiovascular diseases.
- Non-availability of good-quality population based data through well-designed studiesat national and local level.
- Emergence and acceptance of social drinking across the country.

Findings and Conclusion

In conclusion, the burden and impact of alcohol related problems is beginning to be recognized in Indian society. Previous attempts towards control of the problem have been unsatisfactory due to unscientific interventions, primarily focusing on revenue generation. As always, if a problem is not addressed in the early stages, it will only grow to become a huge problem in the days to come. In this context and in the emerging scenario of increasing harm from alcohol, it is crucial to evolve policies and programs which would improve health of the people. This requires a greater political commitment, professional involvement, cooperation of the media and an empowered society. Policy makers and stakeholders from different sectors and departments need to come together, examine the evidence, arrive at consensus, formulate policies and implement programs. In this entire process, health, safety and security of people and society should occupy the center stage; it is time to move forward with a public health agenda and a coherent and rational approach. In the end, improving health of our society is the collective responsibility of one and all.

Suggestions for controlling this epidemic

Considering the multi-dimensional nature and magnitude of alcohol burden and impact on Indian society, it is important to jointly address the growing problem through a collaborative mechanism between governments (both central and state), professionals from health and related sectors, civil society, alcohol industry and the media. In order to guide all sectors and partners within and outside each sector and implement agreed programs, it is essential to have a rational, scientific, evidence based, sustainable policy focusing on both supply and demand reduction. India should develop a rational and scientific alcohol control policy for the coming years specifying clearly what needs to be done and by whom. Human resources development and capacity strengthening across the sectors of health, police, law, welfare, excise, transport and other sectors should be undertaken for program development and implementation along with evaluation.

The taxation policies need to take into account alcoholic content of the beverages and consumption patterns of individuals. A rational taxation policy has to be evolved without compromising the public health aspects of alcohol control. Uniform excise policies which discourage smuggling, adulteration and undocumented consumption need to be promoted across the states. Appropriate media related policies with regard to promotion and advertisement should be developed in a systematic way. The legal age for drinking should be specified in a uniform manner across all the states of India. This should not be less than 21 years. Permission to establish alcohol selling outlets near educational and health care institutions, in residential areas, on national and state highways and near religious institutions should not be granted.

Bars and alcohol selling outlets should not be kept open beyond 12 midnight; last round of servings should be one hour before closure. Prevention of drinking and driving should be given high priority. Necessary capacity strengthening of police and legal functionaries along with support for implementing “DO NOT DRINK and DRIVE” programs should be provided.

Screening for alcohol should be introduced in all emergency room departments of government hospitals, medical colleges and apex institutions. Every fatal road crash must be investigated for alcohol presence in all those involved in the crash. Early detection of alcohol related problems should be given high importance at peripheral levels and necessary capacity strengthening of health care professionals and NGOs should be undertaken. Universal, high-risk and selective interventions with a clear focus should be developed and implemented in both populations - based and select settings. Early interventions for vulnerable populations like children, women and disadvantaged communities should be encouraged. Health promotion efforts (not health education alone) should be given importance in control of alcohol problems, thus indicating the need for a systems approach.

Life skills training in all educational institutions, especially among 8-12 grades should be introduced in a systematic manner. It should include alcohol and other risk factors for emerging non communicable diseases and injuries. Prior to intervention programs at the local level, targeted and focused education programs with clear information on reducing consumption of alcohol along with dangers of increasing use should be undertaken. Community empowerment programs to understand identify and recognize alcohol-related problems through local, civil society agencies should be encouraged and supported. Research and surveillance should be strengthened across medical colleges and apex institutions apart from developing a research agenda, and, A national resource center to guide activities for prevention and control of alcohol related problems should be set up in India.

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