



World Health
Organization

COUNTRY OFFICE FOR India

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TECHNICAL BRIEF

ASSESSMENT OF

BURDEN AND SOCIOECONOMIC COST

ATTRIBUTABLE

TO ALCOHOL USE IN INDIA

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Summary

This technical note presents findings of a secondary review that compared costs due to and revenue from alcohol use in India.

Overall, the results of the study indicate that at the national level, the costs from alcohol use in India significantly outweigh the benefits. For every US\$ 1 that is gained from excise revenue and personal income and employment, US\$ 2.35 is lost to expenditure on health-care, productivity losses, crime and law enforcement, and road traffic accidents. This study also highlighted the need for more studies since there is very little evidence available on the economic burden due to alcohol.

An effective policy response will benefit from a comprehensive assessment of costs and benefits of the alcohol industry at national and sub-national levels. A critical first step in this context is to develop country-specific data on:

- (i) pattern and prevalence of alcohol use in India;
- (ii) alcohol-attributable fractions for key diseases and conditions; and
- (iii) India-specific costs of treatment data for alcohol-related diseases and conditions and the opportunity costs.

Such studies will form a more robust basis for developing cost-effective policy options for control and management of the harmful effects of alcohol consumption

Background

International research has established that alcohol consumption is a risk factor for more than 200 disease and injury conditions, and that 5.1% of the global disease burden has been attributed to harmful alcohol consumption. WHO estimates that harmful use¹ of alcohol results in approximately 3.3 million deaths each year, or 5.9% of all deaths.

Beyond its health consequences, the harmful use of alcohol inflicts significant socioeconomic impacts on individuals, households and society at large. These impacts range from lost productivity in the workplace, to unemployment, criminal activities and socially deviant behaviour, property loss and damage, as well as emotional distress and psychosocial impact on family and community members.

In 2005–06, 32% of adult men and 2.2% of adult women throughout India consumed alcohol². Consumption of alcohol has been rising rapidly in the country in the past few decades. Annual per capita consumption of recorded liquor increased from 1.6 L in 2003–05 to 2.2 L in 2010³ and 4.3 L in 2014, as reported in the WHO Global Status Report on Alcohol and Health 2014. In 2011, it was estimated that total consumption of recorded liquor would cross 19 billion L by 2015, up by 64% from the level of 6.7 billion L in 2011⁴. In addition, harmful consumption patterns such as lower age of initiation to drinking⁶ are becoming more widespread. Considering these changes in the alcohol consumption pattern in India, the health, social and economic impacts of alcohol use are likely to escalate sharply.

While the occurrence of adverse health and socioeconomic outcomes of harmful alcohol use are generally well-acknowledged, credible estimates of the quantum of these outcomes and the costs involved in mitigating their impact in India are needed to help policy-makers make informed decisions related to policies and interventions to reduce alcohol use. To this end, this technical brief seeks to serve as an input to policy-making dialogue surrounding alcohol consumption in India.

¹While there is little agreement between countries on what is considered to be safe alcohol consumption, WHO identifies the following yardsticks:

Alcohol consumption	Low risk	High risk
Men	<35 units per week	>53 units per week
Women	<17.5 units per week	>36 units per week

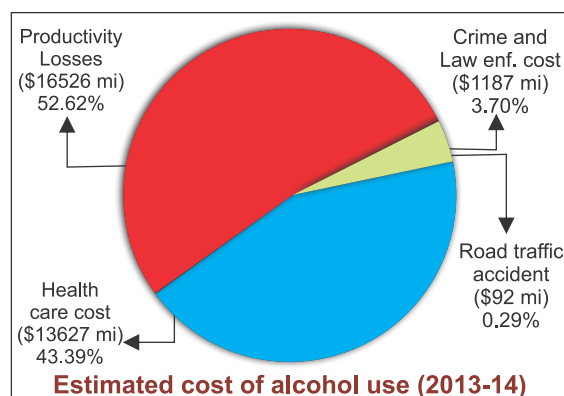
²National Family Health Survey (NFHS)-3, India 2005–06. Mumbai: International Institute for Population Sciences;2007

³Global Status report on Alcohol and Health 2014 – India Country Profile. Geneva: World Health Organization; 2014.

⁴Gururaj G, et al. Alcohol related harm: Implications for public health and policy in India: Publication No. 73. Bangalore: National Institute of Mental Health & Neuro Sciences (NIMHANS); 2011.

Cost of harmful alcohol use

The annual costs of alcohol use in terms of health care, productivity losses, crime and law enforcement and road traffic accidents in India in 2013–14 amounted to approximately US\$ 31.4 billion, or roughly 2.26% of the national gross domestic product (GDP). The cost of health care and productivity losses from alcohol consumption collectively accounts for the largest share (95.9%) of costs of alcohol use in India.



A review of studies on the social cost of alcohol use across 12 countries also reported that the economic burden of alcohol was about 0.45–5.44% of GDP.⁶

Excessive alcohol consumption is associated with multiple adverse health consequences, which result in increased health-care costs and a massive demand on the already strained health-care system in India. It also causes premature deaths and lost worker productivity.

Across India, consumption of alcohol is responsible for nearly 1.4 million cases of 19 diseases for which, alcohol has been identified as a prominent risk factor and 11 million disability-adjusted life years (DALYs), which is 8.8% of the total DALYs per year. A smaller share of this cost is the expenditure by the government to treat alcohol-dependent persons at specialized de-addiction and rehabilitation clinics and facilities.

It is estimated that alcohol consumption results in nearly 2.4 million cases of crimes registered with the police, 1.6 million cases brought to trial and over 131 000 incarcerations (33% the total number of crimes registered, cases brought to trial and incarcerations in a year), all of which place an economic burden on the police, judiciary and prison system in India. The interrelated costs of crime, law enforcement and road traffic accidents together account for 4.1% of total costs. These figures, however, do not capture the emotional distress on family members, and opportunity cost of expenditure incurred on alcohol.

Analysis of data from the Sixty-eighth round of the National Sample Survey on Household Consumption and Expenditure (2010–11), revealed that expenditure on alcohol by at least one member of the household is very likely to reduce expenditure on education and health care, in particular non-institutional health care, i.e. care not received as an inpatient at a hospital or health-care facility. Spending on education and health care is particularly reduced among alcohol-consuming households in some states. In Karnataka, there was 52% less expenditure on education, 30% less on health care in general, and 47% less on institutional health care in particular, as compared to households that do not consume alcohol. There is need to further corroborate this evidence.

Revenue generation from the alcohol industry

India is the world's fourth largest producer of alcohol. Approximately 2553 million litres of licit (recorded) alcoholic beverages were produced in the country in 2013. The key economic benefit from the alcohol industry is the excise revenue collected on alcohol by state governments. In most states, except where the sale of liquor is prohibited, excise revenue from alcohol takes the second, third, or fourth place in terms of contribution to the state exchequer.

⁶International Institute for Population Sciences (IIPS) and Macro International. 2008. National Family Health Survey (NFHS-3), India, 2005-06: Haryana. Mumbai: IIPS.

⁶Thavorncharoensap M, et al. The economic impact of alcohol consumption: a systematic review. Substance Abuse Treatment, Prevention, and Policy. 2009;4:20. doi:10.1186/1747-597X-4-20.

In 2014–15, excise revenue from alcohol amounted to nearly US\$ 13.5 billion, or 10.3% of the total state tax revenues across India. However, in India, as in many developing countries, home and cottage production of indigenous or indigenized alcoholic beverages such as toddy, desi sharab, arrack, etc. exists alongside industrial production of European-style and indigenous alcoholic beverages. Excise revenue is collected only among registered (licensed) producers of alcohol, who typically produce beer, wine, hard spirits and country liquor. Excise is not collected on home-brewed alcohol or local alcoholic beverages produced by the unorganized sector.

According to the Ministry of Labour and Employment's Annual Survey of Industries 2012–13, 85 463 individuals across India are directly employed in the production of alcohol, i.e. employment at wineries, beer breweries and distilleries, and this employment generates approximately US\$ 242 million in personal income. However, this may be a conservative estimate; other studies, taking into account alcohol retail, wholesale and distribution segments, have pegged total alcohol-related employment at 1.5 million people across India.

Limitations of the assessment

This assessment is based on extensive desk review and in-depth discussions with stakeholders. A key limitation of the assessment is the lack of India-specific data, in particular, percentage alcohol-attributable fraction (AAF). Thus, in many cases, calculations are “best estimates” based on the data available in the global context, and are subject to the same assumptions and qualifications as the studies they are based on.

Implications for future research

This assessment highlights the magnitude of the problems associated with alcohol consumption. In order to design an effective policy response encompassing all stakeholders, there is a need for a comprehensive assessment of costs and benefits at both the all-India level and in key states. A critical first step in this context is to develop India-specific data, in particular:

- Alcohol-attributable fractions for key diseases and conditions—ischemic heart disease, oral cancer, nasopharynx and other pharynx cancers, haemorrhagic stroke and liver cirrhosis;
- Pattern and prevalence of alcohol use in India, especially focusing on adolescent drinking and volume of alcohol consumed;
- India-specific cost of treatment data for the alcohol-related diseases and conditions;
- Intangible household costs including emotional distress.
- Opportunity cost to household due to spending on alcohol.

The above would form a more robust basis for developing cost-effective policy options for control and management of the harmful effects of alcohol consumption.

This assessment was conducted through desk review, key stakeholder interviews at the central level and three states. MSG Strategic Consulting Private Limited undertook the study under guidance and close coordination with WHO Country office for India.

