

## RESEARCH

# Pattern of alcohol consumption in underage population in an Indian city

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## Abstract

**Background:** There is a concerning increase in the social acceptance of alcohol even for frequent self-induced intoxication and easier access is now responsible for driving adolescents toward substance use and a trend is being noted toward lower ages of onset of alcohol use.

**Material and methods:** Total sample consisted of 680 participants from six randomly selected schools in an urban set-up i.e. Guwahati, the capital of Assam, India. The study was of cross-sectional exploratory research design with the use of questionnaire.

**Results:** One hundred and fifty one (22.2%) subjects out of total 680 have ever had alcoholic beverages like beer, wine or liquor. Seven per cent of alcohol users had been absent from school, five per cent had done poorly in school, four per cent had family problems and three per cent had been arrested because they used alcohol; three per cent had driven under the influence of alcohol and 13% had been passengers in a vehicle in which the driver was under the influence of alcohol; two per cent had been drunk and 29% had been drunk at a party. 80.1% of alcohol users had not been ever asked about their age while obtaining alcohol. 21.2% had successfully faked their age to obtain alcohol. 13.2% had ever obtained alcohol by misrepresenting their age. Bar/restaurant (52.98%) was the primary source from where people under the age of 18 obtain alcohol, followed by friend/relatives (32.45%), liquor store (24.50%), parents' cabinet (5.30%) and other (1.32%).

**Conclusion:** Policy makers need to be aware of the issues related to not only adult drinking but also to underage drinking.

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## Introduction

In India, it is estimated that 75 million people are alcohol users.[1] Of these, there has been a noted prevalence of 19.78-21.4%[2] of alcohol use and five per cent of alcohol dependence in Indian population.[3] There is a concerning increase in the social acceptance of alcohol even for frequent self-induced intoxication and easier access is now responsible for driving adolescents toward substance use and a trend is being noted toward lower ages of onset of alcohol use.[4] Alcohol use is widely accepted.[4] There is, therefore, an urgent need for reduction in the demand of drugs of addiction, both legal and illegal, which may otherwise lead to numerous health, family and societal consequences.[4]

Decreasing disapproval of alcohol drinking is driving up consumption.[5] In India today drinking alcohol is still considered only a minor sin (as long as men do it) but attitudes are changing.[5] Social drinking is slowly catching on and societal tolerance towards drinking is going up.[5] Today 32 per-cent of our population consumes alcohol[6] and between four and 13 per-cent

have it daily.[5] There is no distinction between rural and urban population.[5] And consumption is going up, particularly amongst the young.[5]

Objectives:

- To study the pattern of alcohol use among adolescents.
- To study the sociodemographic background of adolescents who drink and those who do not.
- To identify the causes of alcohol use among adolescents.
- To study the perception of alcohol use by alcohol consumers and non-consumers.

## Methods

Total sample consisted of 680 participants from six randomly selected schools in an urban set-up i.e. Guwahati, the capital of Assam, India. The study was of cross-sectional exploratory research design with the use of questionnaire. The questionnaire consisted of 29 items: (1)

Have you ever had alcoholic beverages like beer, wine or liquor? (2) What is your age? (3) What is your sex? (4) How long you have been living in Guwahati? (5) About how old were you the first time you drank alcohol? (6) How often do you drink alcohol? (7) Do you ever have five or more drinks of alcohol at a time? (8) If yes, have you done this in the last month? (9) Have you ever been absent from school because you used alcohol, been drunk, done poorly in school because you used alcohol, had family problems because you used alcohol, been arrested because you used alcohol, driven under the influence of alcohol, been passenger in a vehicle in which the driver was under the influence of alcohol, been drunk at a party, had an injury because you used alcohol? (10) Do your parents permit you to drink alcohol at home? (11) Do you discuss alcohol use with your parents? (12) Do your parents know how much you drink? (13) Have your parents ever seen you drink? (14) Do you know of parents or adults who permit non-family members under the age of 18 years to consume alcohol in their homes? (15) How many times in the last two months has someone offered to give you, buy for you, or sell you alcohol? (16) Have you ever been asked about your age while obtaining alcohol? (17) Have you successfully faked your age to obtain alcohol? (18) Have you ever obtained alcohol by misrepresenting your age? (19) Most people my age who drink do so because they want to have a good time at a party, they are sad or depressed and want to feel better about themselves, they wish to rebel and defy their parents, teachers and other adult authorities, they wish to fit in or be accepted by their friends or peers, they are bored. (20) Do you think alcohol use by underage youth is serious problem, not at all a problem, minor problem? (21) Within the past year, do you think heavy use of alcohol among people your age has increased, decreased, stayed the same? (22) Who is responsible for contributing to alcohol use by youth under age 18 years – parents, public agencies, alcohol outlets, advertising, youth themselves, government, friend, girlfriend/boyfriend, others? (23) Do you think drinking and driving among youth is a serious problem, not at all a problem, minor problem? (24) Do you know someone with an alcohol problem? (25) If yes, what was their relationship to you – relative, non-relative, relative and non-relative? (26) What is the primary source from where people under the age of 18 years obtain alcohol – parents' cabinet, liquor store, bar/restaurant, friends/relatives, others? (27) Which of the following approaches would you support to decrease alcohol use by youth under the legal drinking age of 18 years – new and/or stiffer penalties, more law enforcement, more education in schools about alcohol, more education in the mass media, alcohol free teen night clubs, public presentation by people who have been seriously hurt or impaired by alcohol use, driver's license suspension, ban on alcohol advertising? (28) Do you think legal age of

drinking in Assam should be raised from 18 years? (29) If yes, what should be the minimum age?

Period of data collection was February to April 2009. Educational background of responders was students studying in Class IX, X, XI and XII. Ethical clearance was taken from the institutional ethics committee of Gauhati Medical College Hospital, Guwahati. Statistics used were frequency distribution, percentages, one way analysis of variance (ANOVA),  $\chi^2$  and Fisher's exact tests.

## Results

One hundred and fifty one (22.2%) subjects out of total 680 have ever had alcoholic beverages like beer, wine or liquor. Majority of the participants were in the age group of 16-18 years (48.35% of alcohol users and 50.85% of alcohol nonusers) followed by 14-16 years age group (29.80% of alcohol users and 31.84% of alcohol nonusers). Among alcohol users, 70.2% were boys. The percentage of boys and girls in alcohol nonusers was almost same (50.66% and 49.34%, respectively). Duration of living in the city had shown an inverse relation with alcohol use, i.e. alcohol users had a shorter stay ( $p = 0.042$ ) (table 1).

**Table 1. How long you have been living in the city? (ANOVA)**

Category	Mean	SD	n	SE	df	F	p
Alcohol user	3.10	1.285	151	0.096	678	4.155	0.042
Alcohol nonuser	3.32	1.149	529	0.051			

49.6% were of 11-15 years of age when they drank alcohol for the first time and 33.3% were 16-19 years old. 11.9% of alcohol users drank at least once a week and 17.9% at least once a month. 31.8% of alcohol users have ever had five or more drinks at a time. And 70.8% of them had done this in the last month. Seven per cent of alcohol users had been absent from school, five per cent had done poorly in school, four per cent had family problems and three per cent had been arrested because they used alcohol; three per cent had driven under the influence of alcohol and 13% had been passengers in a vehicle in which the driver was under the influence of alcohol; two per cent had been drunk and 29% had been drunk at a party (figure 1).

Parents permitted to drink alcohol at home "any time I want to" in 3.3% of alcohol users. Permission to drink at home "on special occasions only and under parental supervision" and "under parental supervision and any time I want to" constituted 1.3% and 0.7%, respectively. 7.3% were permitted by parents to drink alcohol at home "on special occasions only" and 8.6% "under parental

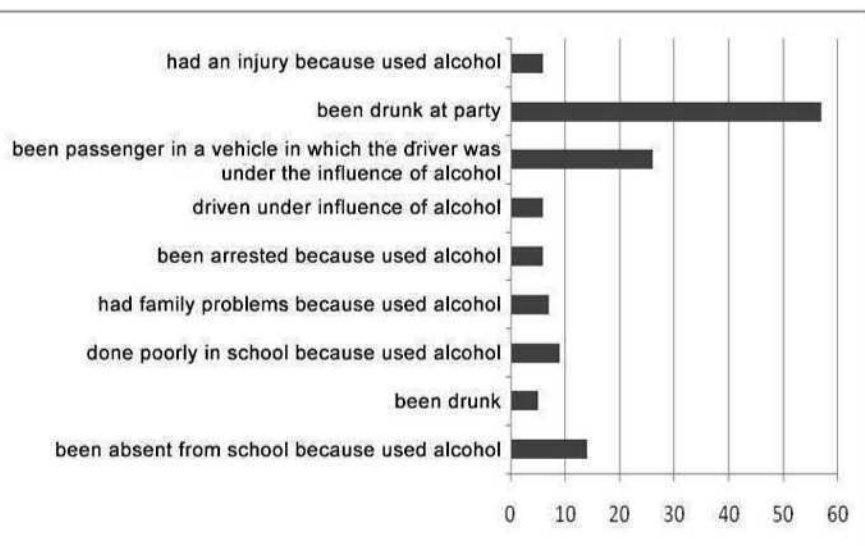


Figure 1 Consequences of alcohol.

supervision". 41.7% alcohol users discussed alcohol use with their parents. Parents knew how much their children drink in 24.5%. Parents saw their children drink in 29.1%. Among alcohol users, 40.4% knew of parents or adults who permitted non-family members under the age of 18 years to consume alcohol in their homes. In the last two months, someone offered alcohol users to give, buy for or sell alcohol once (15.9%), two to three times (25.2%) and four or more times (9.9%). 80.1% of alcohol users had not been ever asked about their age while obtaining alcohol. 21.2% had successfully faked their age to obtain alcohol. 13.2% had ever obtained alcohol by misrepresenting their age. Majority of alcohol users believed that most people their age who drink do so because they want to have a good time and according to majority of alcohol nonusers they wish to fit in or be accepted by their friends or peers (figures 2a and 2b).

Maximum (78.8% of alcohol users and 74.3% of alcohol nonusers) know someone with an alcohol problem. Their relationship was 'relative' (13.4% of

alcohol users and 15.5% of alcohol nonusers), 'nonrelative' (75.6% of alcohol users and 82.7% of alcohol nonusers) and 'relative and nonrelative' (10.9% of alcohol users and 1.8% of alcohol nonusers) ( $p < 0.0001$ ) (table 5).

While 51.7% among alcohol users thought alcohol use by underage youth was a "serious problem", 94.0% of alcohol nonusers thought so ( $p < 0.0001$ ) (table 2).

Eighty six per cent of alcohol users and 92.6% of alcohol nonusers think that within the past year, heavy use of alcohol among people their age has increased ( $p = 0.0349$ ) (table 3).

Majority believe that 'youth themselves' are responsible for contributing to alcohol use by youth under age 18 years (60.26% of alcohol users and 51.99% of alcohol nonusers), followed by 'alcohol outlets' (42.38% of alcohol users and 32.59% of alcohol nonusers) and 'advertising' (26.49% of alcohol users and 16.22% of alcohol nonusers), respectively. Most (88.1% of alcohol users and 95.5% of alcohol nonusers) think that drinking and driving among youth is a serious problem ( $p = 0.0005$ ) (table 4).

Bar/restaurant (52.98%) was the primary source from where people under the age of 18 obtain alcohol, followed by friend/relatives (32.45%), liquor store (24.50%), parents' cabinet (5.30%) and other (1.32%). Among alcohol users, the most supported approach to decrease alcohol use by youth under the legal drinking age of 18 years was 'alcohol free teen night clubs' (38.41%) while the same among alcohol nonusers was 'more law enforcement' (27.50%) ( $p = 0.0346$ ) (table 6).

60.9% of alcohol users and 79.8% of alcohol nonusers think that legal age of drinking in the state should be raised from 18 years ( $p < 0.0001$ ) (table 7).

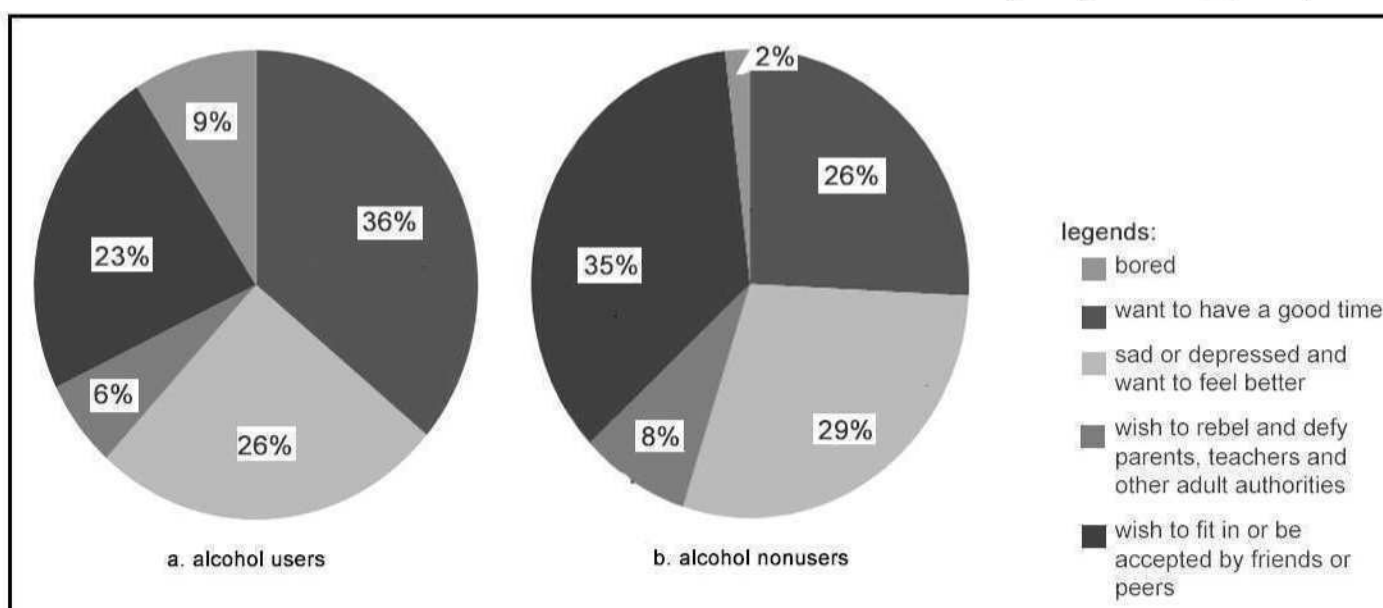


Figure 2 Perception of alcohol: (most people their age who drink do so because...)

**Table 2. Do you think alcohol use by underage youth is a problem?**

Responses	Alcohol user, n (%)	Alcohol nonuser, n (%)	$\chi^2$	df	p
Serious problem	78 (51.7)	497 (94.0)	160.94	2	< 0.0001
Not at all a problem	18 (11.9)	8 (1.5)			
Minor problem	55 (36.4)	24 (4.5)			

**Table 3. Within the past year, do you think heavy use of alcohol among people your age has...**

Responses	Alcohol user, n (%)	Alcohol nonuser, n (%)	$\chi^2$	df	p
Increased	129 (86.0)	487 (92.6)	6.709	2	0.0349
Decreased	7 (4.7)	16 (3.0)			
Stayed the same	14 (9.3)	23 (4.4)			

**Table 4. Do you think drinking and driving among youth is a...**

Responses	Alcohol user, n (%)	Alcohol nonuser, n (%)	$\chi^2$	df	p
Serious problem	133 (88.1)	505 (95.5)	15.021	2	0.0005
Not at all a problem	9 (6.0)	18 (3.4)			
Minor problem	9 (6.0)	6 (1.1)			

**Table 5. Relationship to someone with an alcohol problem**

Responses	Alcohol user, n (%)	Alcohol nonuser, n (%)	$\chi^2$	df	p
Relative	16 (13.4)	61 (15.5)	20.373	2	< 0.0001
Nonrelative	90 (75.6)	325 (82.7)			
Relative and nonrelative	13 (10.9)	7 (1.8)			

Among those who think that legal age of drinking in the state should be raised from 18 years, 21 years should be the minimum age according to the majority of alcohol users (55.4%) and 25 years according to the majority of alcohol nonusers (77.3%) ( $p < 0.0001$ ) (table 8).

## Discussion

The 2003 National Household Survey of Alcohol and Drug Abuse[7] of 40,697 males aged between 12 to 60 years old in 18 states found that the rate of life time use was 26% (Assam 57%). Of the total sampled population, 21.4% were reported to be current users of alcohol (used in last 30 days) and dependence 4.6%. Our study among youth found a rate of 22.2%. Girls showed about 30% higher figure than expected which needs further study.

Parents generally do not approve consumption at home which is a deterrent factor. An Australian research has revealed that parents who allow their children to consume liquor are actually

encouraging underage drinking.[8] The study involving more than 2,000 students was collaboration between Deakin University, the Murdoch Children's Research Institute, Melbourne University and the University of New South Wales (NSW).[8] Almost one-third of students starting high school confessed drinking alcohol, while nearly 50 per cent had drunk alcohol before eight years of age.[8] However, the study also showed that banning children from consuming alcohol at home considerably decreased the risk in making teenage drinkers.[8] If the parents drank regularly or smoked,

their children were more likely to drink.[8] However, firm rules to prohibit alcohol still worked in homes in which parents were regular drinkers or smokers.[8]

There is a strong difference of opinion being a problem among youths. While users say it is not a serious issue, non-drinkers consider underage drinking a major problem. Among youth who drink, denial of the problem is likely to be a major factor. However both drinkers and non-drinkers make their own generation responsible for the problem of alcohol consumption, though easy availability is another factor held responsible like number of outlets, no questions being asked regarding age. No questions are being asked about age in about 85% of the youths. There is hardly any effort on the part of sellers to implement the provisions of the law. Report from the

**Table 6. Which of the following approaches would you support to decrease alcohol use by youth under the legal drinking age of 18 years?**

Responses	Alcohol user, n (%)	Alcohol nonuser, n (%)	$\chi^2$	df	p
New and/or stiffer penalties	27 (17.88)	80 (12.72)	15.115	7	0.0346
More law enforcement	38 (25.17)	173 (27.50)			
More education in schools about alcohol	47 (31.13)	137 (21.78)			
More education in the Mass Media	54 (35.76)	140 (22.26)			
Alcohol free teen night clubs	58 (38.41)	123 (19.55)			
Public presentation by people*	34 (22.52)	130 (20.67)			
Driver's license suspension	39 (25.83)	93 (14.79)			
Ban on Alcohol advertising	43 (28.48)	102 (16.22)			

\*who have been seriously hurt or impaired by alcohol use

**Table 7. Do you think legal age of drinking in the state should be raised from 18 years?**

Responses	Alcohol user, n (%)	Alcohol nonuser, n (%)	Fisher's exact test
Yes	92 (60.9)	422 (79.8)	p < 0.0001
No	59 (39.1)	107 (20.2)	

**Table 8. What should be the minimum age?**

Responses	Alcohol user, n (%)	Alcohol nonuser, n (%)	Fisher's exact test
21 years	51 (55.4)	96 (22.7)	p < 0.0001
25 years	41 (44.6)	326 (77.3)	

National Capital of Delhi reveals that nearly 33.9 percent of those below 16 years of age easily procure alcohol from government authorised liquor shops, bars and pubs.[9] Raising the permissible age of alcohol consumption has been advocated by both the groups though non-drinkers suggest a higher minimum age of 25 years.

In India the legal drinking age varies from state to state and ranges from 18 to 25 years but that has no meaning anyway as no one enforces it.[5] Nearly 80 per-cent pub-goers in the Indian capital are below the prescribed age of 25 years.[9] Nearly 80 per-cent occupancy of pubs and bars across the city is by youths below the age of 25 and 67 per-cent of them are below 21 years of age, according to the survey by NGO Campaign Against Drunken Driving (CADD).[9] The research was conducted from December 2008 to January 2009, amongst 1,000 youth who go to pubs and bars.[9]

Delhi's Excise Law bans the sale of liquor to or by anyone below 21 years.[9] If an underage person is caught consuming alcohol or if the vendor is caught, it could mean a fine of Rs. 10,000.[9] According to the survey, in Delhi annually about 2,000 youths under age 21 die from motor vehicle crashes, other unintentional injuries, homicides and suicides that involve underage drinking.[9] Underage drinking is a prelude to drunk driving and thus it is important to curb it in the initial stages.[9] Nearly 85 per-cent of the youth surveyed were in the age group of 14-21 even though the legal drinking age in Delhi is 25 years.[9] Another startling fact revealed was that the drinking age in Delhi has gone down from 28 to 19 years since 1990.[9] CADD estimates that in another five to seven years this figure may come down to 15 years.[9] But the survey found that nearly 44.4 per-cent of Class 12 students had consumed alcohol in the survey period.[9]

Teens in high schools often succumb to peer pressure to take alcohol and end up as heavy drinkers in college.[10] But, a new study has found a way out -

parental monitoring.[10] Researchers in the United States have claimed that parental vigil as well as certain parental practices can curb high school drinking and, as a result, may have a protective effect on students' alcohol consumption at college.[10] In their study, the researchers interviewed over 1,200 students.[10] They assessed parental monitoring and student alcohol consumption (in drinks per day) in high school using surveys in the summer before the students attended a large public university.[10] Students were followed up with a personal interview in their first college

year to assess their alcohol consumption over the past year.[10] The researchers found that higher levels of parental supervision were associated with lower levels of high-school drinking, independent of sex, race and religion, the Science Daily has reported.[10]

Urban youth in India is taking to alcohol in a big way and that is one of the reasons why Health Minister has decided to formulate and launch the country's first national policy against alcohol.[5] A National Institute of Mental Health and Neurosciences (NIMHANS) study has revealed that the average age of alcohol consumption in India has fallen by nearly nine years over the past decade, from 28 to 19, and this is predicted to fall to 15 in another five to seven years.[5]

## Conclusions

Underage drinking presents an enormous public health issue.[11] Alcohol is the drug of choice among children and young adults.[11] Policy makers need to be aware of the issues related to not only adult drinking but also to underage drinking

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