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Research Article

### A Comprehensive Analysis of Alcohol and Tobacco Use in India: Prevalence and Predictors from NFHS-5

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#### **Abstract**

This study provides a comprehensive analysis of alcohol and tobacco use among Indian adults using data from the National Family Health Survey-5 (NFHS-5, 2019-2021). The findings highlight substantial gender, demographic, and socioeconomic disparities in substance use patterns. Alcohol consumption was predominantly higher among men (18.3%) compared to women (4.8%), with the highest prevalence observed in the 35–49 age group for both genders. Tobacco use was even more widespread, with 28% of men and 3% of women affected. Key determinants of higher substance use included rural residence, lower educational attainment, and occupations involving manual labour. Education showed an inverse relationship with substance use; individuals with no formal education exhibited the highest prevalence, while those with higher education had significantly lower odds of consumption. Occupational disparities revealed that agricultural workers and manual labourers were most affected. Regional variations showed alcohol consumption among women was highest in South India and the Northeast, while tobacco use peaked in the Northeast. Among men, alcohol use was highest in East India, whereas tobacco use was prevalent in the Central and Northeast regions. Cultural factors, including religious and caste affiliations, also influenced consumption patterns, with Christians and Scheduled Tribes reporting higher prevalence rates. Logistic regression analysis indicated that socioeconomic factors, such as age, rural residence, and income level, were strongly associated with substance use. These findings emphasize the need for targeted public health interventions addressing the underlying demographic, socioeconomic, and cultural drivers of alcohol and tobacco use. Tailored strategies are essential to reduce the health and social impacts of these substances, particularly among vulnerable populations.

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#### 1. INTRODUCTION

Alcohol and tobacco consumption are critical public health issues worldwide, contributing significantly to the global burden of disease. In India, with its vast population and cultural diversity, these substances are widely consumed, leading to a range of health problems, social issues, and economic costs. The consumption patterns of alcohol and tobacco vary greatly across

different regions, socio-economic groups, and age demographics. Despite ongoing efforts to curb their use, alcohol and tobacco remain prevalent, posing challenges to public health systems. This article offers an in-depth analysis of alcohol and tobacco consumption patterns in India, drawing from the latest data from the National Family Health Survey-5 (NFHS-5), and compares these trends globally.

## 1.1. Alcohol and Tobacco Consumption: A Global Perspective

Globally, alcohol and tobacco use have been identified as major risk factors for a wide range of non-communicable diseases (NCDs), including cancers, cardiovascular diseases, respiratory diseases, and mental health disorders. According to the World Health Organization (WHO), tobacco consumption alone is responsible for over 8 million deaths annually, with alcohol contributing to an estimated 3 million deaths each year. The harmful effects of these substances extend beyond health, affecting economic productivity, families, and communities. Efforts to control their use have varied across regions, with some countries implementing strict regulations, while others face challenges in enforcing laws due to cultural norms and economic factors. In high-income countries, there has been a noticeable decline in smoking rates over the past few decades due to aggressive anti-tobacco campaigns, smoking bans in public spaces, and higher taxes on tobacco products. However, alcohol consumption remains high in many Western countries, although binge drinking and alcohol-related harm have prompted governments to introduce measures like warning labels, restrictions on alcohol marketing, and public health campaigns. The National Family Health Survey (NFHS) is a large-scale survey conducted in India to collect data on health and nutrition indicators, including the prevalence of alcohol and tobacco consumption. The NFHS-5, conducted between 2019 and 2021, provides an extensive and representative dataset on alcohol and tobacco use patterns across India. It offers valuable insights into the socio-demographic factors influencing consumption behaviours and highlights the varying prevalence of these substances across states, urban and rural areas, and different socio-economic groups. The NFHS-5 survey examines factors such as age, gender, education, income, and urbanization, along with behavioural patterns and cultural influences. The findings of this survey offer a critical understanding of alcohol and tobacco use in India, serving as a foundation for public health interventions and policies.

#### 1.2. Prevalence of Alcohol and Tobacco use in India

According to the NFHS-5, alcohol and tobacco consumption remains widespread in India, with significant regional, cultural, and socio-economic variations. While tobacco use is more prevalent than alcohol consumption, the latter has shown an upward trend, particularly among men. The NFHS-5 reports that 18.3% of men aged 15-49 years and 4.8% of women in the same age group consumed alcohol in the past 30 days. Alcohol consumption is particularly common in certain states, such as Goa, Arunachal Pradesh, and Sikkim, where cultural norms may play a significant role in shaping drinking behaviours. In contrast, states like Gujarat, where alcohol is prohibited for religious and legal reasons, show much lower alcohol consumption rates.

The data also highlights that alcohol consumption is most prevalent among individuals aged 25-44 years, with men more likely to consume alcohol than women. However, there has been a slight increase in alcohol consumption among women,

especially in urban areas. This change may be attributed to shifts in social norms, increased social freedoms, and changing gender roles in cities.

#### 1.3. Tobacco Consumption in India

Tobacco use, including both smoking and smokeless forms, is more widespread than alcohol consumption, with higher prevalence rates in rural areas. The NFHS-5 reports that 28% of men and 3% of women use tobacco in some form. Smokeless tobacco, such as gutka, pan masala, and chewing tobacco, is especially common in rural areas, while cigarette smoking is more prevalent in urban regions. States like Bihar, Uttar Pradesh, and West Bengal report higher levels of smokeless tobacco use, while regions like Kerala and Goa have higher rates of cigarette smoking. Tobacco consumption peaks among individuals aged 35-54 years, with a pronounced gender disparity, as men are far more likely to use tobacco than women. Understanding the sociodemographic factors that influence alcohol and tobacco use is crucial for designing targeted public health interventions. The NFHS-5 highlights several predictors of alcohol and tobacco consumption, including age, gender, education, income, and geographic location. Alcohol consumption in India peaks among individuals aged 25-44 years. This age group is most likely to be influenced by social norms and peer pressure, with alcohol consumption often seen as a social activity, especially in urban areas. While alcohol use among young people is concerning, it is the older age groups that experience the long-term health consequences, including liver disease and cardiovascular problems.

#### 1.4. Gender and Consumption Patterns

Gender differences in alcohol and tobacco consumption are significant in India. Men are far more likely to consume alcohol and tobacco than women. According to NFHS-5, alcohol use among men is approximately 18%, while only 3% of women consume alcohol. Similarly, tobacco use is much higher among men (28%) than women (3%). Cultural norms in India often view alcohol and tobacco use as socially acceptable for men, whereas women are expected to abstain from these substances. However, in urban areas, particularly among young professionals, there has been a slight increase in alcohol consumption among women, which could be attributed to shifting gender norms and greater social freedoms.

Education and socio-economic status are crucial factors in determining the likelihood of alcohol and tobacco use. The NFHS-5 reveals that individuals with lower levels of education and income are more likely to engage in substance use. This may be due to limited access to health education and healthcare services, as well as the stress associated with low-income living conditions. Additionally, cheap tobacco products and alcohol in rural areas make these substances more accessible to disadvantaged populations. Cultural norms and regional practices play a significant role in shaping alcohol and tobacco consumption patterns in India. In some states, alcohol consumption is deeply embedded in cultural and social rituals,

which may contribute to higher consumption rates. Conversely, in states like Gujarat, where alcohol consumption is prohibited, alcohol use is considerably lower. Regional variations in tobacco use can also be attributed to local preferences, availability, and social acceptance of different tobacco products.

#### 1.5. Public Health Implications

The high prevalence of alcohol and tobacco use in India has serious public health implications. Both substances are major risk factors for a range of non-communicable diseases (NCDs), including cancers, heart diseases, respiratory disorders, and liver cirrhosis. They also contribute to mental health problems, accidents, violence, and family breakdowns. In addition to the direct health impacts, alcohol and tobacco consumption place a significant burden on the healthcare system and the economy. According to the World Health Organization (WHO), tobaccorelated diseases account for approximately 1 million deaths annually in India. The rise in alcohol-related liver disease, cardiovascular disorders, and accidents further adds to the burden on the healthcare system.

In response to the rising prevalence of alcohol and tobacco use, the Indian government has implemented various public health policies aimed at reducing consumption and promoting healthier lifestyles. The National Tobacco Control Program (NTCP) and the National Alcohol Policy are two key initiatives that aim to reduce the harm caused by these substances. These programs include public awareness campaigns, regulations on the sale and marketing of tobacco and alcohol, and support services for those trying to quit.

Despite these efforts, the effectiveness of these policies remains limited, and there are several challenges to their success. Social norms, the widespread availability of cheap alcohol and tobacco, and inadequate enforcement of existing regulations contribute to the persistence of these behaviours. More comprehensive strategies, including stronger policy enforcement, better regulation of tobacco and alcohol marketing, and more extensive public education campaigns, are needed to reduce consumption rates. Alcohol and tobacco consumption in India remains a significant public health challenge, with considerable implications for individual and societal well-being. The NFHS-5 survey provides valuable insights into the prevalence, predictors, and socio-demographic factors influencing alcohol and tobacco use in India. While efforts to curb the consumption of these substances have been made, there is still much work to be done. A more nuanced understanding of the factors influencing consumption patterns will be essential for designing effective public health interventions and policies aimed at reducing the harmful effects of alcohol and tobacco use in India and globally. By addressing socio-economic disparities, strengthening regulations, and promoting public education, India can take significant steps toward reducing the burden of alcohol and tobacco consumption and improving public health outcomes.

#### 2. METHODOLOGY

The study utilized data from the National Family Health Survey 2019-21 (NFHS-5), which provides extensive information on population, health, and nutrition across India. The survey covered 28 states, 8 union territories, and 707 districts as of March 31, 2017. A total of 747,176 eligible women (15-49 years) and 111,179 eligible men (15-54 years) were identified. Interviews were successfully conducted with 724,115 women (97% response rate) and 101,839 men (92% response rate), reflecting rigorous data collection.

#### 2.1. Sampling Design

The NFHS-5 employed a stratified two-stage sampling design, with the 2011 census as the sampling frame. Villages (rural areas) and Census Enumeration Blocks (urban areas) served as Primary Sampling Units (PSUs). In rural areas, villages were selected using probability proportional to size (PPS). These were stratified into six substrata based on SC/ST population percentages and women's literacy levels. A fixed number of 22 households per cluster was systematically selected, ensuring representativeness.

#### 2.2. Sample Size

The sample included 30,456 PSUs, with data collected from 30,198 PSUs. A total of 664,972 households were sampled, with 636,699 households successfully interviewed, achieving a 98% response rate.

#### 2.3. Data Analysis

Data analysis was conducted using STATA Version 17.0. Frequencies and percentages determined alcohol and tobacco consumption prevalence. Bivariate and multivariable binary logistic regression models identified the determinants, with results presented as crude and adjusted odds ratios (CORs and AORs) at 95% confidence intervals.

#### 2.4. Explanatory Variables

Predictors included age, residence (urban/rural), education level, occupation, religion, caste/tribe, wealth index, and region.

#### 2.5. Outcome Variables

The primary outcomes were the prevalence of alcohol and tobacco use among Indian adults, analysed separately for women and men.

#### 3. ANALYSIS AND INTERPRETATION

**Table 1:** Alcohol Prevalence Among Women and Men in India (NFHS-5, 2019-2021)

	Women	Men
Age	Women drink alcohol	Men drink alcohol
15-19	0.2	5.8
20-34	0.6	22.7
35-49	1.2	29.9
50-54		27.2
***	Place of residence	20.5
Urban	0.4	22.5
Rural	0.9	23
Schooling		21.5
No schooling	1.8	31.7
<5 years complete	1	32.7
5-7 years complete	0.6	28.4
8-9 years complete	0.4	21.9
10-11 years complete	0.3	19.5
12 or more years complete	0.4	17.5
	Occupation	
Not in work force	0.5	6.6
Agriculture	2.2	25.2
Manual-skilled and unskilled	1.7	31.2
Others	1.3	23.2
	Religion	
Hindu	0.8	25.4
Muslim	0.1	6.3
Christian	2.1	36.1
Otehrs	1.7	30.8
	Caste/tribe	
Schedule caste	0.5	31.5
Schedule tribe	3.9	34.1
Other backward class	0.4	20.9
Others	0.3	16.9
Don't know	0.6	14.4
	Wealth Index	
Lowest	1.9	28
Second	0.7	24.3
Middle	0.5	22.5
Fourth	0.3	21.7
Highest	0.4	18.8
<u> </u>	Region	
North	0.4	27
Central	0.6	27
East	0.2	33.4
Northeast	1	19.3
West	0.3	17.5
South	1.9	24.6
Total	0.8	22.9

The data in Table 3.1 illustrates alcohol prevalence among women and men in India, based on NFHS-5 (2019-2021). The findings reveal significant gender disparities, with 0.8% of women and 22.9% of men consuming alcohol overall. Alcohol use increases with age, peaking at 1.2% for women and 29.9% for men in the 35-49 age group. Rural residents, both men and women, exhibit slightly higher prevalence rates compared to their urban counterparts. Education emerges as a significant determinant of alcohol consumption, with individuals having less formal education reporting higher usage rates. Among women without formal schooling, prevalence reaches 1.8%,

while men with fewer than five years of education record a consumption rate of 32.7%. Occupation also influences drinking patterns, with agricultural workers and manual labourers exhibiting the highest prevalence, notably women at 2.2%. Religion plays a role in alcohol consumption patterns, with Christian men (36.1%) and women (2.1%) showing the highest rates. Among castes, Scheduled Tribes report the highest prevalence, with 3.9% of women and 34.1% of men consuming alcohol. Regionally, South India and the Northeast lead in female alcohol use, while East India records the highest prevalence among men.

Table 2: Prevalence of Tobacco Use Among Indian Women and Men (NFHS-5, 2019-2021)

Age	Any kind of Tobacco	No. of Women	Any kind of Tobacco	No. of Men
15-19	0.8	122544	14.6	16,385
20-34	3	336968	39	41,688
35-49	6.9	264603	51.8	35,071
50-54			54	8,695
	Place of 1	residence		
Urban	2.5	235279	33.3	35,837
Rural	4.8	488836	44.9	66,002
	Scho	oling		
No schooling	9	163492	63.2	12,303
<5 years complete	9.3	37549	65	6,755
5-7 years complete	5	96806	54.6	13,362
8-9 years complete	2.9	129094	44.9	19,668
10-11 years complete	1.1	109777	30.8	17,923
12 or more years complete	0.6	187396	24.2	31,827
	Occuj	oation		
Not in work force	3.1	75121	13.4	18,374
Agriculture	9	15188	52.5	28,017
Manual-skilled and unskilled	7.5	6767	51	26,260
Others	4.6	10938	37.6	29,188
	Reli	gion		
Hindu	4	589164	40.9	80,725
Muslim	4	97595	42.6	15,720
Christian	7.1	16995	37.9	2,726
Otehrs	3.1	20361	30.7	2,668
	Caste	/tribe		
Schedule caste	4.4	158483	45.6	20,548
Schedule tribe	11	67263	53.4	9,112
Other backward class	2.8	310783	37	42,589
Others	2.7	147918	36.4	21,347
Don't know	5.5	39669	45.6	8,243
		Index		
Lowest	8.8	133973	61	16,995
Second	5.5	144813	50.8	20,051
Middle	3.6	148616	40.3	21,692
Fourth	2	150680	33.1	22,695
Highest	0.9	146032	23.2	20,405
	Reg	gion		
North	2.5	84444	28	16,509
Central	3.6	114540	51.8	16,071
East	5.4	6851	48.5	532
Northeast	5.9	152463	40	18,727
West	2.7	245598	47.5	22,544
South	6	120219	36.9	27,456
Total	4	724115	40.8	1,01,839

The table 3.2. presents data from the NFHS-5 (2019-2021), showcasing the prevalence of tobacco use among Indian women and men, categorized by age, residence, education, occupation, religion, caste, wealth index, and region. Tobacco use among men significantly surpasses that of women across all age groups, peaking at 51.8% in men aged 35–49 compared to 6.9% in women. Rural residents exhibit higher tobacco use (4.8% for women and 44.9% for men) than their urban counterparts. Educational attainment inversely correlates with tobacco use, with women and men having no schooling showing the highest

prevalence (9% and 63.2%, respectively). Occupation plays a key role, with agricultural workers and manual labourers reporting the highest usage rates. Among religious groups, Christian women (7.1%) and Hindu men (40.9%) display notable prevalence. Scheduled Tribes record the highest rates by caste (11% for women, 53.4% for men). Wealthier individuals and urban residents exhibit lower tobacco usage. Regionally, the Northeast and South report the highest prevalence among both genders.

Table 3: Prevalence and Determinants of Alcohol Consumption Among Indian Adults (NFHS-5, 2019-2021)

	Women Alcohol consumption	Men Alcohol consumption	
Age	OR [95% CI]	OR [95% CI]	
15-19®			
20-34	2.72 [2.19-3.39]***	3.93 [3.66-4.23]***	
35-49	4.57 [3.66-5.70]***	4.93 [4.58-5.31]***	
50-54		4.37 [4.01-4.76]***	
	Place of residence		
Urban®			
Rural	0.91 [0.79-1.06]	0.89 [0.85-0.93]***	
	Schooling		
No schooling®			
<5 years complete	0.58 [0.49-0.70]***	0.98 [0.92-1.13]	
5-7 years complete	0.57 [0.49-0.66]***	0.93 [0.88-0.98]*	
8-9 years complete	0.56 [0.49-0.65]***	0.77 [0.73-0.81]***	
10-11 years complete	0.45 [0.37-0.54]***	0.72 [0.68-0.79]***	
12 or more years complete	0.56 [0.47-0.66]***	0.56 [0.53-0.61]***	
, ,	Occupation		
Not in work force®			
Agriculture	1.37 [1.23-1.52]***	1.74 [1.63-1.85]***	
Manual-skilled and unskilled	1.73 [1.47-2.04]***	2.74 [2.56-2.92]***	
Others	1.69 [1.46-1.95]***	2.25 [2.11-2.40]***	
others	Religion	2.23 [2.11 2.10]	
Hindu®	- Trangium		
Muslim	0.04 [0.02-0.09]***	0.14 [0.13-0.15]***	
Christian	0.45 [0.38-0.52]***	1.09 [1.03-1.16]**	
Others	2.21 [1.92-2.55]***	1.83 [1.72-1.94]***	
Others	Caste/tribe	1.03 [1.72 1.74]	
Schedule caste®	Caste, tribe		
Schedule tribe	6.24 [5.30-7.34]***	1.52 [1.45-1.60]***	
Other backward class	1.44 [1.19-1.70]***	0.81 [0.78-0.84]***	
Others	1.04 [0.82-1.32]	0.74 [0.70-0.78]***	
Don't know	1.04 [0.82-1.32]	0.80 [0.73-0.87]***	
Doll t know	Wealth Index	0.80 [0.73-0.87]	
Lowest®	weath mucx		
Second	0.55 [0.49-0.62]***	0.78 [0.74-0.82]***	
Middle	0.44 [0.38-0.50]***	0.78 [0.74-0.82]***	
Fourth	0.27 [0.22-0.32]***	0.61 [0.58-0.64]***	
Highest	0.27 [0.22-0.32]****	0.60 [0.57-0.65]***	
riigiiest	Region	0.00 [0.37-0.03]	
North®	Keg10II	<u> </u>	
	0.42 (0.22 0.56)***	1.06.00.00.1.121*	
Central	0.43 [0.33-0.56]***	1.06 [0.99-1.13]*	
East	0.35 [0.24-0.52]***	1.19 [1.09-1.30]***	
Northeast	0.40 [0.35-0.46]***	0.63 [0.60-0.66]***	
West	0.24 [0.20-0.28]***	0.55 [0.52-0.58]***	
South	0.33 [1.17-1.50]***	1.09 [1.04-1.14]***	

The table 3.3. highlights the prevalence and determinants of alcohol consumption among Indian adults based on NFHS-5 (2019–2021). Alcohol consumption increases significantly with age for both genders, peaking in the 35–49 age group (OR = 4.57 for women and 4.93 for men). Men generally exhibit higher odds of alcohol consumption across all age brackets. Rural men are slightly more likely to consume alcohol than their urban counterparts (OR =  $0.89^{***}$ ), but the urban-rural difference is not statistically significant for women. Education inversely correlates with alcohol consumption; individuals with more years of schooling are less likely to consume alcohol. For instance, women with 10–11 years of education have significantly lower odds (OR =  $0.45^{***}$ ), and the trend is similar

for men ( $OR = 0.72^{***}$ ). Occupational engagement, particularly in manual and agricultural jobs, increases the likelihood of alcohol consumption. Religion, caste, and wealth also play significant roles. Muslim women ( $OR = 0.04^{***}$ ) and men ( $OR = 0.14^{***}$ ) have lower consumption rates, while Scheduled Tribes show the highest odds. Wealthier individuals exhibit a sharp decline in alcohol consumption compared to those in the lowest wealth quintile. Regionally, consumption patterns vary. Western women and men have the lowest odds of alcohol consumption ( $OR = 0.24^{***}$  and  $0.55^{***}$ , respectively), while Northeastern men exhibit relatively higher odds. The findings underscore socioeconomic, cultural, and regional influences in shaping alcohol consumption behaviour.

Table 4: Prevalence and Determinants of Tobacco Use Among Indian Women and Men (NFHS-5, 2019-2021)

	Women, Any kind of tobacco	Men Use any kind of tobacco	
Age	OR [95% CI]	OR [95% CI]	
15-19®			
20-34	3.66 [3.22-4.15] ***	3.45 [3.27-3.64]***	
35-49	5.64 [4.95-6.42]***	4.81 [4.37-5.08]***	
50-54		5.18 [4.83-5.52]***	
	Place of residence		
Urban®			
Rural	0.68 [0.63-0.73]***	0.93 [0.90-0.96]***	
	Schooling		
No schooling®			
<5 years complete	1.14 [1.04-1.24]***	1.16 [1.09-1.25]**	
5-7 years complete	0.88 [0.82-0.95]***	0.95 [0.90-1.00]	
8-9 years complete	0.70 [0.64-0.75]***	0.85 [0.81-0.89]***	
10-11 years complete	0.40 [0.36-0.45]***	0.61 [0.58-0.64]***	
12 or more years complete	0.34 [0.30-0.37]***	0.42 [0.40-0.45]***	
<u>,                                      </u>	Occupation		
Not in work force®	•		
Agriculture	1.23 [1.16-1.40]***	2.20 [2.09-2.32]***	
Manual-skilled and unskilled	1.70 [1.55-1.86]***	2.76 [2.62-2.92]***	
Others	1.53 [1.40-1.66]***	2.22 [2.11-2.35]***	
-	Religion		
Hindu®	S		
Muslim	1.12 [1.02-1.23]**	0.98 [0.94-1.03]	
Christian	2.43 [2.23-2.65]***	1.29 [1.21-1.37]***	
Others	1.20 [1.07-1.35]***	0.71 [0.66-0.76]***	
	Caste/tribe	[]	
Schedule caste®			
Schedule tribe	1.17 [1.58-1.86]***	1.32 [1.25-1.38]***	
Other backward class	0.90 [0.83-0.98]**	0.90 [0.87-0.94]***	
Others	0.87 [0.78-0.97]**	0.98 [0.93-1.02]	
Don't know	1.37 [1.20-1.56]***	0.95 [0.88-1.02]	
	Wealth Index	**** [***** -***-]	
Lowest®			
Second	0.67 [0.63-0.72]***	0.80 [0.74-0.83]***	
Middle	0.49 [0.45-0.53]***	0.60 [0.57-0.63]***	
Fourth	0.29 [0.27-0.33]***	0.46 [0.42-0.49]***	
Highest	0.18 [0.16-0.21]***	0.32 [0.29-0.34]***	
Ting new	Region	0102 [012) 010 1]	
North®	1108-01		
Central	0.69 [0.60-0.79]***	0.98 [0.92-1.04]	
East	4.11 [3.66-4.61]***	2.06 [1.88-2.25]***	
Northeast	1.36 [1.25-1.49]***	1.20 [1.14-1.25]***	
West	0.60 [0.54-0.66]***	1.61 [1.54-1.69]***	
South	1.53 [1.40-1.66]***	1.09 [1.04-1.14]***	

The table 3.4. illustrates the prevalence and determinants of tobacco use among Indian women and men based on the National Family Health Survey-5 (2019-2021). The odds ratio (OR) highlights significant variations in tobacco use across demographic, socioeconomic, and regional factors. Tobacco use increases with age for both genders, with the highest prevalence among those aged 35–49. Men exhibit consistently higher odds than women across all age groups. Rural residence is associated with higher odds of tobacco use for women (OR 0.68) and men (OR 0.93) compared to urban residents. Educational attainment inversely correlates with tobacco use; individuals with 12 or more years of education report the lowest odds. Occupation significantly influences tobacco use, with manual workers having the highest odds. Christians display elevated odds of use, while Scheduled Tribes also report higher prevalence. Wealth

index demonstrates a strong protective effect, with the highest wealth quintile reporting the lowest odds. Regionally, the East and Northeast report significantly higher odds compared to other areas.

#### **Major Findings**

The study highlights gendered differences in alcohol and tobacco use in India. Men exhibit significantly higher consumption rates than women across all demographics. Alcohol prevalence among men is highest at ages 35-49 (29.9%), while for women, it peaks among Scheduled Tribes (3.9%). Tobacco use follows a similar pattern, with men aged 50-54 showing the highest prevalence (54%) and women aged 35-49 at 6.9%. Urban areas report lower consumption rates compared to rural regions. Education inversely correlates with use, with the least educated individuals

having the highest prevalence. Occupation also influences consumption, with manual labourers showing elevated use. Scheduled Tribes report the highest prevalence for both alcohol and tobacco. Socioeconomic status significantly impacts usage, as lower wealth index groups have greater prevalence. Regional variations exist, with alcohol use highest in the East and tobacco use in the Northeast. Religious affiliation also affects consumption, with Hindus and Scheduled Tribes demonstrating higher rates.

#### 4. DISCUSSION

The findings underscore the significant influence of socioeconomic, demographic, and cultural factors on substance use in India. Men dominate alcohol and tobacco consumption patterns, reflecting gender norms and social acceptance. Scheduled Tribes, often facing marginalization, exhibit the highest prevalence, signalling a need for targeted interventions. Lower education and income levels are critical predictors, indicating the role of socioeconomic vulnerabilities. Urban-rural disparities suggest differential access to resources and social norms, with rural areas reporting higher use. Regional differences highlight the cultural nuances influencing consumption, such as dietary customs and traditional practices. Religion also shapes behaviour, as certain faiths discourage substance use. Education emerges as a protective factor, reinforcing the importance of awareness campaigns. Tailored public health policies addressing these determinants can help mitigate the burden of alcohol and tobacco use. Communitybased interventions, culturally sensitive strategies, and a focus on marginalized groups are essential for effective prevention and control.

#### 5. CONCLUSION

The prevalence of alcohol and tobacco use in India, based on NFHS-5 (2019-2021), reveals significant gender and demographic differences. Men exhibit higher rates of alcohol and tobacco consumption compared to women, with rural areas showing higher usage than urban areas for both substances. The prevalence increases with age, education, and occupation, particularly in agriculture and manual-skilled jobs. Religious and caste factors also influence consumption patterns, with certain groups such as Christians and Scheduled Tribes showing higher consumption rates. Furthermore, socioeconomic factors like wealth and regional disparities highlight notable differences, with poorer and rural populations exhibiting higher levels of substance use. These findings underscore the need for targeted interventions to reduce alcohol and tobacco use, particularly focusing on high-risk groups and regions.

#### **Future Directions**

To address the growing concerns of alcohol and tobacco use in India, it is crucial for both the government and researchers to focus on comprehensive interventions targeting high-risk groups. The data reveals significant gender, age, and socioeconomic disparities in the prevalence of these substances, with a higher consumption among men, rural residents, and those with lower

educational attainment. For future policies, the government should prioritize public health campaigns that promote education and prevention, particularly in rural areas and among individuals with limited schooling. Researchers can contribute by conducting more localized studies to understand the unique factors driving substance use in different regions, especially among marginalized groups such as Scheduled Tribes. Interventions should also consider employment sectors, such as agriculture and manual labour, where substance use is prevalent. Moreover, targeted health services, including counselling and rehabilitation programs, must be made more accessible to these high-risk populations. This multi-pronged approach can help reduce alcohol and tobacco consumption across India.

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