

# An Economic Analysis on Health Hazards of Nagaland Youths during Lock Down

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78-86

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## Abstract

Now, around 70 million Indians use chewing tobacco usually mixed with betel nut and other spices like Pan Parag, Pan Bahar, masticating it for hours and spitting out the excess saliva-laden mixture from time to time. Not only that, literally speaking, For more than 1000 years Indian people were eating these types of commodities often. The government of Nagaland has prohibited permanently any form of tobacco items in the market in Nagaland under Section 59 of Food Safety and Standards Act, 2016. When World Society was combat with Covid-19, in India, particularly Nagaland youths were learnt how to consume the alcohol items and different form of liquors, eating tobacco and similar activities at first time in their life. Finally, they addicted to these insidious activities during lock down period. Afterwards they spitted everywhere that carry virus which causes Covid-19 and other diseases in their own and working places. Ultimately by consecutive consumption of prohibited items affected youth's health severely. In particularly Nagaland youths eating like these type of pan masalas frequently which led to various health hazards. Sadly, it also encourages the risk of oral cancer. It may be one of the causes for reduce the life span too.

## Keywords

Pan Masala, Tobacco, Smoking, Betel nut, Oral Cancer, Nagaland.

## Introduction

Tobacco kills more than 8 million people each year half of its users. More than 7 million of those deaths are the result of direct tobacco use while around 1.2 million are the result of non-smokers being exposed to second-hand smoke. Over 80% of the world's 1.3 billion tobacco users live in low- and middle-income countries (**WHO**). Tobacco use is a major risk factor for many chronic diseases, including cancer, lung disease, cardiovascular disease and stroke.



It is one of the major causes of death and disease in India and accounts for nearly 1.35 million deaths every year. India is also the second largest consumer and producer of tobacco. A variety of tobacco products are available at very low prices in the country. Nearly 267 million adults (15 years and above) in India (29% of all adults) are users of tobacco, according to the Global Adult Tobacco Survey India, 2016-17. The most prevalent form of tobacco use in India is smokeless tobacco and commonly used products are khaini, gutkha, betel quid with tobacco and zarda. Smoking forms of tobacco used are bidi, cigarette and hookah. Globally, tobacco use is one of the biggest public health threats. It leads not only to loss of lives but also has heavy social and economic costs. The total economic costs attributed to tobacco use from all diseases in India in the year 2017-18 for persons aged 35 years and above amounted to INR 177341 crore (USD 27.5 billion **(WHO, 2021)**). According to the National Family Health Survey-2 21% of people over 15 years of age in India consume pan masala or tobacco in any form. Even women have become habituated to Pan Masala and it is considered a status symbol to carry its sachets and offer it to one's social contacts. Areca nut and betel quid even without tobacco are carcinogenic and addictive substances having systemic and far reaching effects on the human body **(Reddy & Gupta, 2004)**.

Alcohol per capita consumption increased in the WHO Western Pacific and South-East Asia regions include the highly populated countries of China and India. India accounts for the increased 2.4 litres were in 2005, 5.7 litres was in 2016, **(WHO, 2018)**. Most consumed beverages Geographical differences exist regarding the type of alcohol people consume –beer, wine, spirits or other alcoholic beverages e.g. fortified wines, rice wine or other fermented beverages made of sorghum, millet or maize. 15-19 Age category of youths were mostly drinking in total population. Globally, 44.8% of total recorded alcohol is consumed in the form of spirits, which is also the most consumed beverage type in the South-East Asia Region (87.9%). Other beverages are, for example, fortified wines, rice wine, palm wine or other fermented beverages made of banana, sorghum, millet or maize. Until 2025, total alcohol per capita consumption is expected to increase in half of the WHO regions. Hence, Average Per Capita is expected to increase globally. The highest increase is expected in the South-East Asia Region, with an increase of 2.2 litres alone in India which represents a large proportion of the total population in this region.

Youth are defined as those aged 15 to 29 in the national youth policy (2014). This age-group constitutes 27.5% of India's population. Likewise youth population use the tobacco products and drinking alcohol frequently. Tobacco products are widely used by all of society and are freely available in many parts of the country. It is carcinogenic, genotoxic, and has harmful effects on the oral cavity, liver, kidneys and reproductive organs **(Garg A et al., 2015)**. It is harmful to kidneys and testes leading to increased creatinine and sperm deformities respectively. The ovaries and kidneys were also affected showing inflammatory reaction and cysts **(Nair et al., 2004, Ray et al., 2014)**. There was acute increase in pulse rate, systolic and diastolic blood pressure on consumption of Pan Masala **(Sharma AK, et al., 2000)**.

## Review of Literature

Needless to say, this translates into significant alcohol-related morbidity. Alcohol-related problems account for over a fifth of hospital admissions **(Sri et al., 1997, Benegal et al., 2001)** but are under recognized by primary care physicians. Alcohol misuse has been implicated in over 20% of traumatic brain injuries **(Gururaj, 2002)**, and 60% of

all injuries reporting to emergency rooms (**Benegal et al., 2002**). It has a disproportionately high association with deliberate self-harm (**Gururaj & Isaac, 2001**), high-risk sexual behavior, HIV infection (**Chandra et al., 2003**), tuberculosis (**Rajeshwari et al., 2002**), esophageal cancer (Chitra et al., 2004), liver disease and duodenal ulcer (**Sarin et al., 1991; Jain et al., 1999**). Alcohol misuse wreaks a high social cost (**Bhatt, 1998; Rao et al., 2001**). A study from southern India documented that monetizable direct and indirect costs attributable to alcohol, counting only persons with alcohol dependence, were more than 3 times the profits from alcohol taxation (**Benegal et al., 2000**). Yet, there is inadequate recognition that alcohol misuse is a major public health problem in India. Previous studies, from all over India, have similarly observed that one out of two people who drink alcohol do so at hazardous levels. **Benegal (2003)** documented that around 50% of women users and around 70% of male users had hazardous use. Worldwide tobacco consumption, alcohol and associated habits are considered major causes of morbidity and mortality (**Amit Das & Gayatree Roy, 2016**). **Pallavi Sinha (2017)** discovered the role of prior history of TB infection is alcohol and smoking in increasing the risk of developing TB and MDR-TB.

**Saxena S, Sharma R, Maulik PK (2003)**. families had at least one adult consuming alcoholic drinks at least 3 times per week in the last month and some families had no adult consuming more than one drink in the last month. Family members spent 14 times more on alcohol per month and had financial debt significantly higher. They reported significantly more cases of major illnesses but perceived significantly less severe health, social and economic effects of drinking. Perception about effects of alcohol on the family and health also differed. **Achoibam (2021)** highlights the need for primary prevention of tobacco intake/use as an important part of health education to schoolchildren to assist the students to understand the consequences of tobacco and thereby prevent the consumption of tobacco in Dimapur district of Nagaland. **Suu highlighted (2021)** pointed out the tobacco scenario among school and colleges in Dimapur District with participants between the age group of 15-24 years, 10% of the students smoked tobacco products, while 10.8% consumed Paan and 26% chew tobacco. The adolescent period was the most vulnerable period as more than 85% of the tobacco users had first tried tobacco during this period.

## Methodology

### Aim

The aim of this initial study was to assess the impact of Using Tobacco products, Smoking habits and heavy drinking of youths and health hazards in Dimapur District of Nagaland, India.

### The Study Area

Nagaland is the second-highest consumer of tobacco in the Northeast with a prevalence rate at 57% smokers. Cigarette accounts for 26.3% as the most common form of tobacco, followed by other gutkha products. As per the Nagaland School Oral Health Survey 2014 report, 28.3% of school-going children are smokeless tobacco users, while 14.8% are into smoking habits and 41.2% children are engaged by parents to buy tobacco. Actual disease burden due to tobacco in Nagaland is still uncertain as no detailed survey has been carried out. However, the independent

survey conducted by the Government of India gave enough evidence that there is a serious disease burden in the state (**Eastern Mirror, 2019**).

In Nagaland, tobacco users between the age group of 15-24 year is 28.6% “which is an alarming rate and a great concern.” Tobacco consumption pattern among youths in Nagaland is similar to adult consumptions and is much higher than consumption by India youths (12.4%). In Nagaland state school students were taking tobacco products and smoking and finally they addicted to alcohol much more liquors they consume in institution and around campus. The educational institutions to enforce tobacco free policy as students being in their formative period can be taught to inculcate healthy habits (**Tetseo, 2021**).

### Scope of the Study

Tobacco is a major risk factor for a number of diseases affecting all age groups. Most of the tobacco from Northern India and Afghanistan comes from the species *Nicotiana rustica*. Non-communicable diseases (NCDs) like ischemic heart diseases, cancers, diabetes, chronic respiratory diseases are the leading causes of death globally and associated with tobacco use. This huge burden of NCDs can be attributed to increasing use of tobacco. Around five million of those deaths are the result of direct tobacco use while more than 600,000 are the result of non-smokers being exposed to second-hand smoke. One person dies every six seconds due to tobacco. Up to half of current users will eventually die of a tobacco-related disease.<sup>3</sup> The situation is equally bad in India with estimated number of tobacco users being 274.9 million where 163.7 million users of only smokeless tobacco, 68.9 million only smokers and 42.3 million users of both smoking and smokeless tobacco as per Global Adult Tobacco Survey India (GATS). It means around 35% of adults (47.9% males and 20.3% females) in India use tobacco in some form or the other. Use of smokeless tobacco is more prevalent in India (21%).

### Objectives of the Study

The specific objectives of the study are:

- To investigate whether life style and food habits of Nagamese youths is changed or not during covid-19 lockdown.
- To assess the perceptions of Naga people regarding tobacco products and alcohol consumption in their life.
- To investigate health hazards of youths after the consumption of prohibited products (tobacco products) and use of alcohol.

### Material and Methods

The study was conducted using a Descriptive Survey Method. Primary data were collected from Nagaland people particularly youths from Dimapur District. (N=100). The sample for the study consisted of No availability of suitable Data, only random sampling carried out. For all, 120 were surveyed and only 100 youths took for study who were additive for tobacco products often. Measures of central tendency, and correlation tests were applied for statistical analysis.

### Limitation of the Study

- ✓ Study should be taken into account only youth who consuming tobacco, alcohol in Nagaland.
- ✓ Study should be covered only during Covid-19 Pandemic.
- ✓ For study only simple sampling method should be followed.

## Results and Discussions

### Socio-Economic Background of Workers

From the study out of 125, only 100 respondents were selected, only young people were selected age from 18 to 34. The majority of the respondents were male (57.3 per cent) compare with female workers (42.7 per cent). More than half of them belonged to rural areas (61 %). All youths were Christians and belonged to Schedule Tribes similarly; absolutely they are non-vegetarian in general. More than half of them is unmarried (62 %). Like that half of them were living in nuclear family (55 %) rest of the youths belonged to Joint Family. During lock down of covid-19 in the state, one third of the youths lost their jobs or forced to let it. Only 16 % of them got regular job because they were doing own business that mostly not restricted by government because those were sold vegetables, food items to common people. Half of youths went work occasionally because they were agricultural workers (50%) and fewer worked in industrial workers but not regularly before end of lock down. One third of them were working in government jobs.

Due to lock down of factories, companies and working places shut downed without prior notification. At this situation employment was also questionable one. But few youths (8 %) were earned below 10000 Rupees per month only 76 % were earned above 15000 per month because they having government jobs and working in public organizations. For expenses they used their own salary and spent amount of money from out of pocket (62 %) and remaining of them borrowed from their parents and friends. Based on their health status, youths based on their health condition, most of them had good health condition of health (51 %), one fourth of them had excellent health condition before survey undertaken.

### Tobacco Consumption and Smoking Habits

Forms of tobacco intake comprises of Cigarette - Most common and most harmful, Bidi – most commonly used form in India, Cigar -Hookah (Hubble bubble), Sheesha, Tobacco chewing, Kreteks (clove cigarettes), Snuff – Moist & Dry, E-cigarette – recent intruder in the list. When non-smokers are exposed to smoke containing nicotine and toxic chemicals emitted by smokers it is called passive smoking or exposure to second hand smoke. Out of 100 youths, 39 % were consuming Hookah and quarter of them was taking Pan parag and rest of them consuming Pipe Tobacco, betel leves, Gutkha and cigars respectively. Mostly youth were learnt from friends how to consume the tobacco products while (64 %). Media plays a vital role to send the messages to all sections of the society particularly youths (15 %). fewer learnt from their relatives and parents too. In that group, all youths were addicted, 34 % of them they taken tobacco products thrice and 31 % were taken twice in a day. While consuming the tobacco products, one fifth of the youths had highly satisfied. Because they reported that mouth freshening, delicious, and easy to digest, good

for health and used by the ancestors of the society are the reasons. Majority of them were smoking by cigars/ cigarettes and taking pipe tobacco for smoking and occasionally them smoking beedi and E-cigarettes. Naga Youths learnt the smoking from their relatives, friends and parents too they were smoking in the home and fewer learnt smoking from actors in the movies and advertisements while watching. During the lockdown, Youths had more free time, so they were smoking (42 %) thrice and 28 % were Smoking more than three times in a day. Peer group gathering is suddenly they push to smoke and inhibitions and shyness, social norm or for ritualistic reasons, tension or stress relief. After the smoking, large number of youths they felt satisfied, at beginning smoking does not give pleasure to its users, after they should be followed intentionally, they having more satisfaction.

### **Alcohol / Liquor Use**

During lockdown, most of the Naga youths were drunken brandy (42 %) and vodka (27%), like that rest of them drunk different type of Rum and Gin. Suitable environment is needed for alcohol use. Everyone said while drinking alcohol they feel free of tension and stress. Curiosity, Accessibility, Preference, Peer Group Pressure, Enjoyment or job security, increase power are other reasons and finally social norm or for ritualistic reason plays a vital role for drinking among the youths because it displays their status. Half of them drunk form of alcohol one day in a week (43 %) because of lack of availability of liquors and shops were shut down during the lock down.

One third of them were drinking twice in a week they addicted to alcohol, because, they could not survive without alcohol products. Moreover, they highly satisfied lot when drinking they feel that fly on the air. Some extent they utility will be neutral and just satisfied. Meanwhile rare cases, they feel highly dis-satisfied while taking vomiting due to low quality brand of alcohol and much more liquor consumed.

### **Health hazards of tobacco and smoking consumption**

By consumption of alcohol and tobacco products severely affected the youth's health without mercy. In this paper reported that large amount of youths they were aware about these types of dangerous activities finally they addicted to these insidious activities during lock down period. They reported that Lung Cancer and Mouth Cancer is resultant for continuing theses kind of consumption. Moreover, respectively 35 % and 21 % were known about that but really those were ignored about side effects in rest of their life. Additionally, they well known of theses daring diseases namely Chronic bronchitis (12 %), Emphysema (10 %), Stroke (9 %) , Heart attack/ Heart diseases, Leukemia and Cataracts. Afterwards they spitted everywhere that carry virus which causes Covid-19 and other diseases in their own and working places. Ultimately by consecutive consumption of prohibited items affected youth's health severely. In particularly Nagaland youths eating like these type of pan masalas frequently which led to various health hazards. Sadly, it also encourages the risk of oral cancer. It may be one of the causes for reduce the life span too. By the continuous consumption of tobacco and liquor, youths those were affected by number of sicknesses in the name of different diseases with symptoms. More than half of them were affected by illness of health for two days (45 %) during lock down. Sometimes duration of illness expanded, for that day wise illness was reported. They had illness for three days (19 %). Afterwards, they went to hospitals for treatment, for that illness, 69 % of them hospitalized one day and admitted in hospitals.

The study reported that mostly they went to private hospital or nursing home (77 %), because government hospitals didn't allow the patients in general ward, only 19 % were got treatment in government hospital. 36 % of them were spent less than 500 rupees amount of money for hospitalized or treatment in hospital, only 10 respondents spent amount from 501 to 750 rupees. This report witnessed with that nowadays, private hospitals charging more money for giving treatment to laymen that robbing without mercy. For treatment they utilized their own salary, sometime they borrowed the money from parents, relatives, friends and money lenders in their places. By this study illustrated that after hospitalization, most of them they had average health condition (37 %), followed by more than quarter of the youth had poor health condition (29 %). Adversely rest of them, few youths had excellent health condition after the treatment.

### Correlations Results

Problem: Investigate the relationship between tobacco Uses, Smoking, Alcohol consumption and health status.

H1: There is significant relationship between Tobacco Uses, Smoking, Alcohol consumption and health status.

**Table 1.1 Correlations**

	TC	SH	AC	OHS
TC	1			
SH	.572**	1		
AC	.507**	.594**	1	
OHS	.728**	.692**	.711**	1

Correlation is significant at the 0.01 level (2-tailed).

### Reporting Pearson correlation

Pearson product correlation of tobacco consumption and health status was found to be moderately positive and statistically ( $r = .728$ ,  $p < .001$ ). Hence, H1 was supported. This shows that Correlations between use of tobacco products and smoking habits and overall health status was significant, youths frequently tobacco chewing and habit of pan, betel nut, etc, Moreover, Youth were having significant correlations ( $r = .692$ ,  $p < .001$ ) among their smoking habits and health status. One more correlation analyses tell us youths drunk more during lockdown basically they addicted the alcohol consumption along with tobacco chewing. On health standpoint youths had poor health condition; correlation between alcohol consumption and their health status was significant ( $r = .711$ ,  $p < .001$ ). By this Data sources, majorities of youths were affected their health status severely heavy drunk the multiple beverages during covid-19 lock down.

### Conclusion

NAGA youths essential more awareness on health hazards made by insidious activities and need screening programs for control the consumption of tobacco and alcohol. As human beings, when takes much more tobacco products,



smoking and alcohol use will lead to injurious the human body slightly after that it will be encouraged many consequences. Due to that, most of the cases youths had tremors and followed by comprised anxiety and insomnia and lacrimation also affected the youth's health. Other these various symptoms found by them namely, breathlessness, loss of appetite, restlessness, intense craving, giddiness, vomiting and finally they feel the body pains.

### Suggestions

- Government should be taken immediate action require to restrict the consumption and to make the people aware about its tobacco and alcohol harmful effects.
- Government should be abolishing the sales of these harmful products over the country because It is harmful to kidneys and testes leading to increased cretonne and sperm deformities, sometimes cancers.
- Government must control and abolish this kind of insidious activism among the Youths of selected Areas through possible devices.
- Government should be prohibited sales in front the education institutions and before vulnerable groups of the society.

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The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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