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An overview of tobacco consumption in Mizoram

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Abstract

Background/Objectives: This study explores the predominance, characteristics and problems of tobacco consumption in Mizoram based on secondary data and findings from national surveys.
Methods/Statistical analysis: A comprehensive and explorative study has been carried out regarding the nature, prevalence and pattern of tobacco consumption in Mizoram based on the available secondary sources of information. Recent findings from the national surveys on tobacco consumption in India like Global Adult Tobacco Survey (GATS),Global Youth Tobacco Survey (GYTS),Global School Personnel Survey (GSPS) etc. has been used to understand the prevalence and pattern of tobacco consumption in Mizoram.
Findings: Tobacco consumption kills 5.4 million people every year an average of one person every six seconds and accounts for one in 10 adult deaths worldwide. The six out of eight foremost reasons of deaths in the world is also related to the consumption of tobacco. Various international agencies and organizations are fighting hard against tobacco use and addiction through various interventions and social marketing efforts. The high level of tobacco use in India's northeast in general and particularly in Mizoramis a matter of major concern. The state of Mizoram is having a very high percentage of active tobacco users along with exceptionally high cases of deaths related to cancer. This study highlights major findings from the national surveys on tobacco use, discusses the prevalence, problem and nature of tobacco consumption with respect to Mizoram and points out the contributions of MSTCS in controlling tobacco consumption in the state.
Improvements/Applications: The consumption psychology, behaviour and attitude of tobacco users need to be studied in a systematic manner to device effective social marketing strategies for preventing and controlling tobacco consumption.
***Keywords*:** Tobacco, Tobacco Consumption, GATS, Social Marketing, MSTCS.

1. Introduction

The U.S. Food and Drug Administration has defined the term "tobacco product" in section 201(rr) of the Federal Food, Drug, and Cosmetic Act as "any product made or derived from tobacco that is intended for human consumption, including any component, part, or accessory of a tobacco product" [1]. This includes, among other products, cigarettes, cigarette tobacco, roll-your-own tobacco, and smokeless tobacco [1]. Federal law (section 5702(c) of Title 26 of the United States Code) defines tobacco products as "cigars, cigarettes, smokeless tobacco, pipe tobacco and roll-your-own tobacco". The category of smokeless tobacco means any snuff or chewing tobacco [2]. The leaves of the plants in the genus *Nicotiana* is processed to produce Tobacco [3] which contain the recreational drug nicotine which is a kind of stimulant and sedative [4]. It is thought that an interaction between nicotine and MAOI beta-carbolines found in tobacco account for its addictive properties [5]. Tobacco is obtained from the plant species *Nicotianatabacum* [3, 6].Tobacco consumption kills 7 million people every year [7] – an average of one person every six seconds – and accounts for one in 10 adult deaths worldwide [8]. It is also associated with six of the eight worldwide leading causes of deaths. According to WHO, approximately 1.3 billion smokers exists worldwide, out of which 84% smokers belongs from the developing world [9]. In recent times the tobacco industry's target and focus has shifted to the developing countries due to effective, ongoing tobacco control measures in several developed countries [10].

Country wise, the second largest consumer and third largest producer of tobacco in the world is India [11]. The Global Adult Tobacco Survey (GATS) Report 2016-2017 has estimated that in India 28.6% adults are active users of tobacco [12]. According to one estimation, there has been close to 100 million premature deaths of adults aged 35 years or more in India during last 100 years from 1910 to 2010 due to smoking [13].

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Tobacco use is a complex problem in India because of the diverse patterns in which tobacco is consumed and the consequential health problems that are caused by it [14]. The different forms in which tobacco is consumed in India includes Cigarette, Beed is, Hookah, Cigar, Pipe smoking, Kahini, Gutkha, Zarda, Paan Masala, etc [15]. Tobacco consumption prevalence in multiple forms in India presents an emerging, significant and growing threat to the health of the adolescents and several factors like peer pressure, tobacco use in family, easy access, low cost etc contributes towards the initiation, experimentation and addiction to tobacco among the youth [15]. According to India GSPS 2006, although 37.3% of the schools in the North-East follow tobacco-free policy but still the North-Eastern region has the highest tobacco consumption (42%) on school premises/property by school personnel. In the same survey, 30.2% and 34.3% of school personnel from Northeast reported cigarette smoking and consuming non-smoking tobacco respectively. Therefore in both the cases, tobacco users in this category are highest in India's North-East [16]. According to 2006, northeast India also has the highest early initiators to smoking, where 44.9% of cigarettes smoker's age of initiation to smoking is 10 [16]. According to GATS India Report 2016-2017, Mizoram has the second highest prevalence of tobacco users (58.7%) in the country [12]. There is extreme prevalence of both smoke (*Cigarette and Zial or local cigar*) and smokeless tobacco (namely, *Tuibur or liquid tobacco, Sahdah, Khaini, Zarda, Gutkha* etc.) in Mizoram. According to Government of Mizoram, cancer was ranked as the second most killer disease after malaria killing 600 people in the year 2006 alone [17].

2. Results and Discussions

1. Findings from national surveys on tobacco consumption in India

The Global Tobacco Surveillance System (GTSS) aims "to enhance country capacity to design, implement, and evaluate tobacco control interventions, and monitor key articles of the World Health Organization's (WHO) Framework Convention on Tobacco Control (FCTC) and components of the WHO MPOWER technical package".In [18] The Global Tobacco Surveillance System (GTSS) was jointly developed by the World Health Organization(WHO), the U.S. Centre for Disease Control and Prevention (CDC), and the Canadian Public Health Association (CPHA) to assist the member states of WHO in establishing continuous tobacco-control surveillance and monitoring. GTSS includes the collection of data through the following four surveys [18]:

1. (GYTS). It focuses on school student aged 13-15 and collects information from schools.
2. Global School Personnel Survey (GSPS): It focuses on teachers and administrators from the same schools that participate in the GYTS.
3. Global Health Professions Student Survey (GHPSS): It focuses on 3rd year students pursuing degrees in dentistry, medicine, nursing and pharmacy.
4. (GATS): It is a nationally representative household survey that monitors tobacco use among adults aged 15 and above.

India GYTS 2006 was conducted region-wise, namely in North, South, East, West, central and North-east covering 99.7% of India's total population. There were 12,086 students and 2,926 school personnel from 180 schools who participated in the six regional surveys [16]. In compared the data from India GYTS 2003 and GYTS 2006 to analyse the changes in different variables of tobacco control measures for monitoring and evaluation as per the provisions of Tobacco Control Act, 2003 and relevant Articles in the World Health Organization, Framework Convention on Tobacco Control (WHO FCTC). The salient observations in his report were as follows:

1. At the national level, exposure to second-hand smoke has significantly reduced from 49% to 40% in public places.
2. Nationally, the initiation of smoking before the age of 10 has significantly reduced from 49% to 37 %.
3. In five out of six regions of India, the tobacco use among boys and girls is statistically similar.
4. Over three years, the overall consumption of tobacco has not shown any significant decrease.
5. Educating the schools about the hazards of consuming tobacco has not shown any improvement.
6. The exposure to cigarette advertisement on billboards has not declined.
7. Over three years, the sale of tobacco and tobacco products to the minors does not show any decline.
8. Nationally, over three years, the distribution of free sampling of cigarettes has not changed.
9. The prevalence of current tobacco use has increased in the central region.
10. Tobacco consumption remained high in the North-East and Eastern Regions.

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The India GSPS 2006 was also carried out in the same schools that were selected for the GYTS. There were a total of 2926 school personnel out of 3629 from 180 schools participated in the 6 regional surveys covering North, South, East, West, central and the North East [16]. The major findings are as follows:

1. Nearly all the school personnel strongly agreed that schools must have a rule that specifically prohibits the use of tobacco among students (94.9%) and school personnel (95.2%).
2. The majority of school personnel strongly agreed that they should be given specific training to help students avoid or quit using tobacco.
3. Over one-third of school personnel used tobacco.
4. The school tobacco control education in India is underscored by over two-thirds tobacco-free school policy and teaching materials and over three-fifths training among school personnel.

A report prepared by Ministry of Health and Family Welfare, Government of India examines the tobacco use among students in grades 8–10, which correspond to ages 13–15 years, and school personnel in India using data from three rounds of the Global Youth Tobacco Survey (GYTS) – 2003, 2006 and 2009 and two rounds of the Global School Personnel Survey (GSPS) – 2006 and 2009 [19]. Some of the findings from this report are as follows:

1. According to GYTS 2009, 14.6% of students currently used tobacco in any form, 8.1% smoked, and 9.0% used smokeless tobacco which shows that there has been no change in the prevalence of tobacco use among students between 2003 and 2009.
2. Gender wise, 11% of all male students surveyed in GYTS 2009 were found to be users of smoking or smokeless tobacco, while 6% of all female students were found to be users of smokeless tobacco and 3.7% are smokers.
3. According to GYTS 2009, the exposure to smoking for students at their home and other public places were 21.9% and 36.6% respectively. This shows a decreasing trend when compared to GYTS 2003.
4. According to GYTS 2009, Out of all the respondents in the surveys, 8.1% says that they were offered free sample cigarettes during promotional campaigns by representatives from cigarette companies. Moreover, 56.2% students stated that they did not experience any age related objection while buying cigarettes from stores.
5. According to GYTS 2009, approximately two out of three students were educated on tobacco related health consequences in their schools and around two-third of them have shown positive intentions for quitting smoking. However, more than two-third of the students who tried have failed to quit smoking.
6. According to GSPS 2009, over 90% of school personnel believed that schools should have policies prohibiting tobacco use in school by students and personnel. Also, two-third of the teachers has pointed out about the unavailability of teaching materials regarding tobacco use and its problems in their schools.

The report also advocated for improving the current “tobacco-free schools” policy and strict enforcement of the laws regarding prohibition of sale of tobacco products around educational institutions and to minors. Further the report also asks the Ministry of Health and Family Welfare and Ministry of Human Resource Development to collaborate to make teaching materials available for teachers and establish teacher training programmes regarding the harms of tobacco use [19]. The Global Adult Tobacco Survey (GATS) India 2009-2010 was conducted by the International Institute for Population Sciences, Mumbai on behalf of the Ministry of Health and Family Welfare, Government of India with technical support from the US Centers for Disease Control and Prevention (CDC), the World Health Organization, the Johns Hopkins Bloomberg School of Public Health and the RTI International [20]. GATS are a nationally representative household survey on tobacco use among population age 15 and above. The key findings of this survey were as follows [20]:

1. Within the categories of current adult users of tobacco, 34.6% are users of tobacco in any form, 25.9% are smokeless tobacco users, 14% are smokers, 5.7% are cigarette smokers and 9.2% are bidi smokers.
2. Among daily tobacco users, 60.2% consumed tobacco within half an hour of waking up.
3. 17.8 is the average age of initiation of tobacco use and 25.8% of females start tobacco use before the age of 15.
4. Among minors (age 15-17), 9.6% consumed tobacco in some form and most of them were able to purchase tobacco products.
5. Five in ten current smokers (46.6%) and users of smokeless tobacco (45.2%) planned to quit or at least thought of quitting tobacco.

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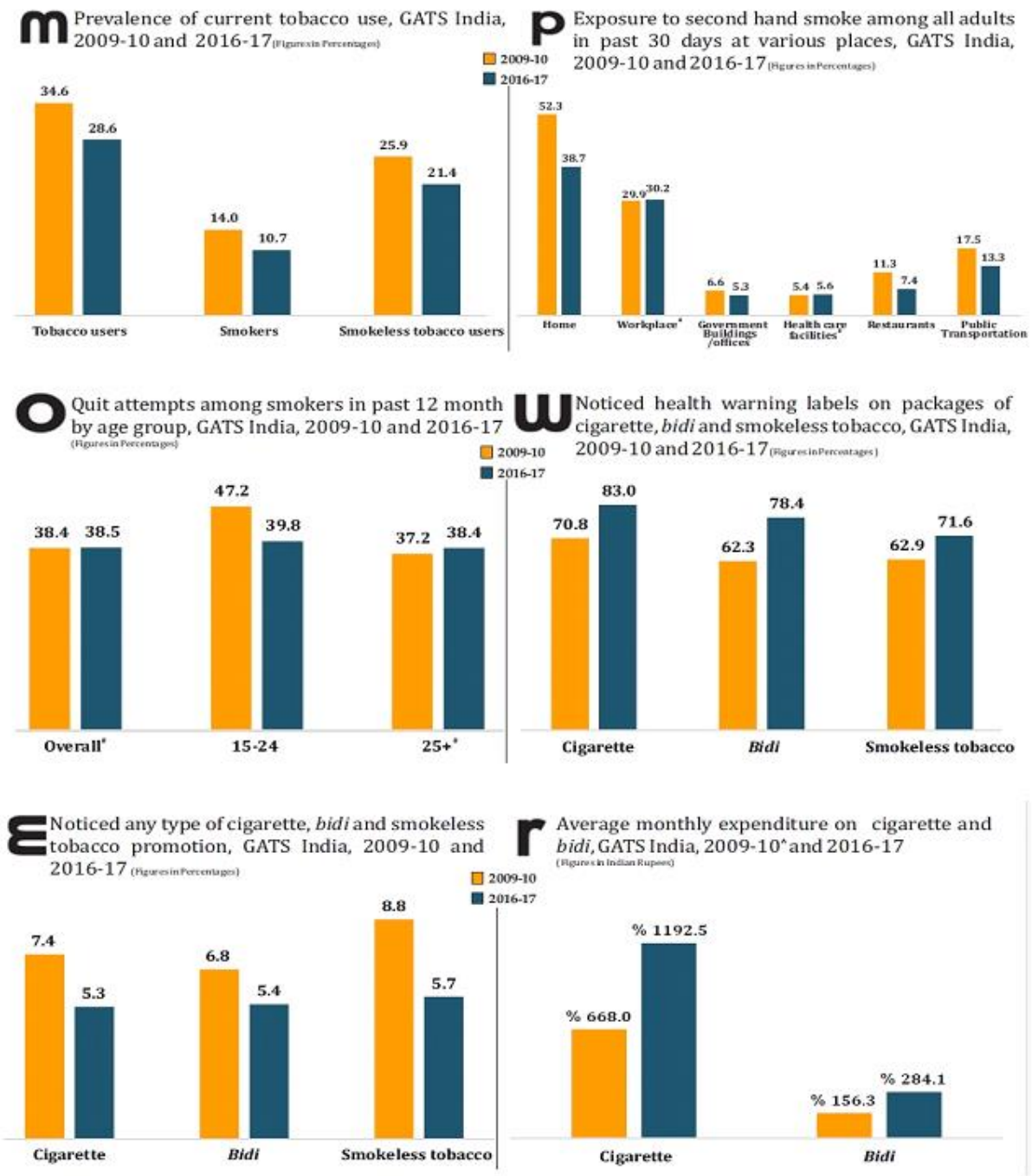
6. 46.3% of smokers and 26.7% of users of smokeless tobacco who visited a healthcare provider were advised to quit by health care provider.
7. About five in ten adults (52.3%) were exposed to second-hand smoke at home and 29.0% at public places (mainly in public transport and restaurants).
8. About two out of three adults (64.5%) have noticed tobacco products related advertisements or promotions.
9. Three out of five (61.1%) current tobacco users have noticed the health warnings displayed on packets containing tobacco products and one-third (31.5%) of existing tobacco users have been motivated to quit tobacco due to such health warnings.

Figure 1. Comparison of GATS 1 & GATS 2



Source: Global Adult Tobacco Survey Fact Sheet India 2016-17 [21]

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2. Global Adult Tobacco Survey 2016-2017 (GATS 2), India

The second round of GATS was conducted between August 2016 to February 2017 by Tata Institute of Social Sciences, Mumbai, for the Ministry of Health & Family Welfare, Government of India [21]. A multi-stage sample design was used for both rounds of GATS. From each of the sampled household, one household member 15 years of age or older was randomly selected for individual interview. In the first round 69,296 individual interviews were completed with an overall response rate of 91.8%. In the second round, a total of 74,037 individual interviews were completed with an overall response rate of 92.9% [21]. Highlights from the findings of the survey may be categorized under the following [21] as shown in Figure 1:

1. Tobacco Use: Currently there are 266.8 million adult tobacco users which are 28.6% of all adult tobacco consumers. There are 42.4% men and 14.2% women among all adult tobacco consumers. Currently 10.7% (99.5 million) of all adults smoke tobacco out of which 19.0% are men and 2.0% are women. 21.4% (199.4 million) of all adults currently use smokeless tobacco out of which 29.6% are men and 12.8% are women.
2. Cessation: There are 55.4% of current smokers and 49.6% of current smokeless tobacco users who are planning or thinking of quitting. There are 48.8% of current smokers and 31.7% of current smokeless tobacco users who were advised by health care provider to quit smoking or use of smokeless tobacco.
3. Secondhand Smoke: There are 38.7% and 30.2% of adults who were exposed to second hand smoke at home and at their work place respectively. There are 7.4% of adults who were exposed to second hand smoke at restaurants.
4. Media: There are 19.2% and 18.3% of adults who noticed smoking tobacco and smokeless tobacco advertisement. There are 68.0% and 59.3% of adults who noticed anti-smoking and anti-smokeless tobacco information on television or radio respectively.
5. Knowledge, Attitudes & Perceptions: There are 92.4% and 95.6% of adults who believed that smoking or use of smokeless tobacco causes serious illness.

3. Tobacco consumption in Northeast India

India's northeast comprises of eight small states that includes Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura. This entire northeastern region covers almost 8% of India's total land mass and is distinct in terms geography, culture and socio-economic factors. The Northeastern states together as a region is having highest prevalence of tobacco use in India [22]. The Northeast region has been covered extensively in the Global Adult Tobacco Survey during 2009-2010 and 2016-2017. The surveys highlighted that in some northeastern states, like Manipur, Assam, and Tripura, the overall prevalence of tobacco use among the population has increased since the last GATS was carried out first time [23].

The high percentage of young tobacco users in Northeast is a matter of grave concern. According to the Consultant for GATS 2 and a Faculty Member at the Tata Institute of Social Science. "The exact reason so as to why minors in this region are using tobacco more than their counterparts in other parts of the country are yet to be ascertained. Maybe it is due to the cultural and traditional acceptance of tobacco. Minors here are seeing their adults resorting to the use of tobacco and are influenced by it" [23]. Some of the highlights on Northeast India from the Global Adult Tobacco Surveys of 2009-2010 and 2016-2017 have been presented below:

1. Tripura leads in terms of tobacco consumption in the country with 64.5 % of its population using various types of tobacco products, which has increased from its earlier record of 55.9%. This is an increase of 8.6 percentage points over the state's prevalence in 2009-10 [22].
2. The prevalence of current tobacco use among all age groups, Manipur, Tripura and Assam recorded 55.1%, 64.5% and 48.2% respectively. The prevalence went up in Manipur by 1% point and went up in Assam by 8.9% points, from 39.3% to 48.2% [22].
3. With 48.5%, Tripura has the highest prevalence of smokeless tobacco users and with 34.4%, Mizoram has the highest number of smokers [22].
4. Sikkim achieved rapid progress by registering a decline from 41.6 % to 17.9 % which is lower than the national average [24].
5. While Sikkim, Mizoram and Meghalaya achieved remarkable progress in mitigation of tobacco use, Arunachal Pradesh and Manipur achieved no major progress [24].

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6. There are more tobacco consumers in all forms in the 15 to 17 years age group in the northeast compared to anywhere in the country. The national tobacco prevalence in this age group is 4.4%. Mizoram tops the table where 27% of the population in this age bracket is a tobacco-user contrasting Sikkim which recorded zero users. The minor consolation in this regard for Mizoram is that it had recorded a higher rate (35.4%) in the GATS 1 survey of 2009-10. Sikkim on the other hand had 11.6% users in the last survey [23].
7. Only Arunachal Pradesh showed an increase in tobacco users among people aged 15 to 17 years from 14.3% recorded in GATS 1 to 25.1% as recorded in the latest survey. Lagging behind Mizoram and Arunachal Pradesh are the sates like Meghalaya with 12.6% users, Tripura with 11.6% users, and Nagaland with 11.3% users, and Assam with 9.1% users and Manipur with 9% users [23].

4. Tobacco consumption in Mizoram

According to GATS India Report of 2016-2017, among all the states in India, Mizoram has the second highest prevalence of tobacco use at 58.7 per cent, which is more than double of the national average at 28.6% [25, 26]. According to the earlier GATS India Report of 2009-2010, Mizoram Ranked first with 67% tobacco users in the country. Different ways of tobacco consumption can be observed in Mizoram, both in smoke (*Cigarette and Zial or local cigar*) and smokeless (*Tuibur or liquid tobacco, Sahdah, Khaini, Zarda, Gutkha* etc.) forms. However, the GATS 2 India Report 2016-2017 shows a significant decline in tobacco use prevalence from 67.2% (GATS-1) to 58.7% (GATS-2) [24, 25, 27]. According to GATS 2 India Report 2016-2017, 25.1% of the tobacco users in Mizoram use only smoke tobacco, 24.3% uses only smokeless tobacco and 9.2% consumes smoke and smokeless tobacco together. In terms of gender, there are 54% males and 14.3% females among adult smokers and 52.4% males and 21.3% females among consumers of smokeless tobacco [24].

In [28], in her doctoral research studied the relationship between gender and levels of tobacco dependence with various psychological variables namely, personality, stress, coping, anxiety and depression. She determined the predictability of various psychological variables from tobacco dependence levels and studied tobacco dependency levels and gender effects on the psychological variables. Her findings revealed that females exhibited greater scores than males on psychological variables namely Personality (extraversion and neuroticism), Perceived Stress Measures, Anxiety and Depression as compared to males. The scores were highest among female high dependent smokers followed by high dependent smokeless tobacco users, low dependent smokers and low dependent smokeless tobacco users and lowest among non-users [28]. She also concluded that there are significant interactions between gender and level of tobacco dependency on psychological variables. As part of the Global Adult Tobacco Survey, Mizoram has been covered extensively in their two surveys. The first round of GATS was conducted between June 2009 and January 2010. The second round of GATS was conducted between August, 2016 and February, 2017 by Tata Institute of Social Sciences, Mumbai for the Ministry of Health & Family Welfare, Government of India [29]. The major findings from the Global Adult Tobacco Survey (GATS 2) India 2016-2017 Report in connection with its 2009-2010 report have been summarized below:

1. Mizoram has the second highest prevalence of tobacco use among all the States in India at 58.7 %, which is more than double of the national average at 28.6 % [26,26].
2. In general the tobacco consumption in Mizoram has come down from 67.2 % to 58.7 % registering 8.5 per cent decrease. Also from GATS 1 to GATS 2, the prevalence of smoking and smokeless tobacco usage has decreased by 5.3% and 7.2% respectively [29].
3. The maximum percentage of smokers is still from Mizoram. Out of the 34.4% adult smokers in Mizoram, 54.1% are men and 14.3% are women [29].
4. Mizoram is still having the highest tobacco users among all states in India in the age group of 15 to 17. 27% of its population in the age group of 15-17 is a tobacco-user, which is way above the national average of 4.4%. It has however come down since GATS 1 survey of 2009-2010, when 35.4% of Mizoram's 15 to 17age group were tobacco users [23].
5. 25.1% of the tobacco consumers in Mizoram used smoke tobacco, while 24.3% used smokeless tobacco and 9.2 % used both [24].
6. 64.9% of men, 52.4% of women and 58.7% of all adults in Mizoram either smoke tobacco and/ or use smokeless tobacco. 54.1% of men, 14.3% of women and 34.4% of all adults currently smoke tobacco. 21.3% of men, 46.0% of women and 33.5% of all adults currently use smokeless tobacco [29].

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7. Consumption of smoke tobacco decreased by 5.3 %, while smokeless tobacco decreased by 7.2 % [24].
8. The percentage of tobacco consumption among youths in the age group of 15-17 years registered declining trend as it was decreased from 35.4 % (GATS 1) to 27.0 % (GATS 2) [29].
9. Age of initiation of tobacco use was 17.4 years (GATS 1) which has increased to 17.8 years (GATS 2) [29].
10. The percentage of people exposed to second hand smoke at home, work place and public places has reduced from 96.5% to 84.1%, 64.6% to 44.4% and 27.3% to 18.2%, respectively [29].
11. 51.8% of smokers and 37.5% of smokeless tobacco users were advised by a health care provider to quit smoking/use of smokeless tobacco [29].
12. 17.2% of cigarette smokers and 26.0% of smokeless tobacco users thought of quitting smoking/smokeless tobacco because of warning label [29].
13. The most commonly used tobacco products in Mizoram are cigarette and tobacco for oral applications. 29.1% of the adults smoke cigarette and 21.6% use tobacco for oral application [29].

5. Controlling tobacco use and consumption in Mizoram

The various government agencies and NGOs are concerned about the associated risk to the population due to high prevalence of tobacco consumption in Mizoram. Therefore they have been engaged for a long time in several initiatives like policy formulation, statewide anti-tobacco campaigns, community involvement and sensitizing program etc. The MSTCS (Mizoram State Tobacco Control Society), grantee of Bloomberg Initiative to Reduce Tobacco Use was constituted under the Health and Family Welfare Department, Government of Mizoram on 9th April 2009 and was entrusted to implement the project "Advocacy and mobilization for smoke free Mizoram and effective tobacco control implementation in the State". The project aims were to create 100% smoke free places in Mizoram, raising public awareness of the harmful effects of tobacco, mobilizing community support for eliminating exposure to secondhand smoke, preventing youth initiation of tobacco use, and implementing and enforcing the 2003 legislation within 2 years [30].The Society also looks after the National Tobacco Control Programme (NTCP) under the Ministry of Health and Family Welfare, Government of India and Tobacco Cessation Clinic funded by World Health Organization [31]. After the inauguration of Tobacco Cessation Clinic at State Referral Hospital, Falkawn on 26th September 2017, there are now ten active Tobacco Cessation Clinics with nine in Health and Family Welfare District Hospitals and one at the Cancer Hospital in Mizoram [27].

The current quit rate is 24.82% for the total 2771 clients who visited Tobacco Cessation Clinics from April 2017 till March 2018 [27]. Since July 2011, the society has implemented another two years project on "Advancing tobacco control in Mizoram through capacity Building, strengthening National Tobacco Control Programme and Effective enforcement of tobacco control laws", which was funded by Bloomberg initiative to reduce tobacco use.The project's objective was to reduce tobacco prevalence in Mizoram, strengthen and expand the NTCPs institutional framework for tobacco control in all eight districts and capacity building in organizations and workforce to conduct effective implementation of tobacco control strategies. The Implementation and enforcement focus was based on the Control of Tobacco Products Act (COTPA) which addresses prohibition on smoking in public places, advertisement of tobacco products, sales to minors and restrictions on trade, commerce, production, supply and distribution of tobacco products [30].The society has so for successfully undertaken activities like training and sensitization workshops, anti-tobacco awareness campaigns and programmes, anti-tobacco club and spot-the-smoker activities, meetings, talk shows etc. The pro-tobacco mindset and societal acceptance of tobacco, low awareness, tobacco users among health professionals and enforcement officials, and low priority given to tobacco control by most departments are highlighted as the major challenges and problems in enforcing. "The Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act, 2003" (or COTPA in short) in Mizoram by the Society in its initiative towards the "Smoke Free Mizoram" [31]. In recent times the Mizoram State Tobacco Control Society has increased activities to strengthen the national Tobacco Control Programme in Mizoram. The society has taken number activities from April 2017 to March 2018 as presented as shown in Table 1. The Government of Mizoram has taken many steps in recent past to accelerate the National Tobacco Control Program in Mizoram. The General Administration Department, Government of Mizoram issued a Notification on 21st April, 2017 regarding prohibition of smoking in public places in Government Offices and instructed all departments to strictly fine offenders and display 'No smoking Signage' and 'Complaint Board' and to establish 'Tobacco Control Team' in all their respective offices [27].

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Table 1. Summary of activities undertaken by MSTCS from April 2017 to March 2018

Sl No.	Activity	No of Activity	No of participants
1	Training and Sensitization Workshop	56	3296
2	Anti Tobacco Awareness Campaigns and programmes	128	11619
3	Anti Tobacco Programmes at Educational Institutions	153	12227
4	Others (Important Meetings, Talk show etc.)	128	673
Total		465	27815

Source: Health & Family Welfare Department, Government of Mizoram [27]

Since Mizoram shares international boundaries with Myanmar and Bangladesh, it has become an easy target market for cheap contraband cigarettes [32]. The Joint Controller of Legal Metrology also issued an order on 27th July, 2017 instructing all Legal Metrology Inspectors to conduct frequent and vigorous inspection and enforcement on contraband cigarettes in all the districts of Mizoram. Accordingly, a total of 471 times Anti-Tobacco Squad drive on the Cigarettes and Other Tobacco Products Act, 2003 was conducted in various districts which recorded 494 offenders. Joint Enforcement was also conducted with other departments such as Legal Metrology, Food and Drug Administration, Traffic Police, CID (Crime) [27]. The Police Headquarters, Government of Mizoram issued a letter on the 7th August, 2017 to instruct the DIG, Northern and Southern Range to incorporate violations of COTPA as one of the agenda items in monthly crime review at the level of District or Range or State [27].

The Director General of Police (DGP), Mizoram released "No Smoking" stickers on 18th July, 2017 which were previously approved by the State Transport Authority to be displayed by all public transport vehicles. The Transport Department, Government of Mizoram also issued notification on 18th August, 2017 to instruct all public transport vehicles to comply with The Prohibitions of Smoking in Public Places Rules, 2008 to strictly prohibit smoking and display "No Smoking" sticker etc. As per this Notification, offenders are made punishable with fine which may extend to Rs. 500/- as per Section 179 (1) of the Motor Vehicle Act, 1988 [27]. The Mizoram State Tobacco Control Society and Aizawl City Traffic Police also jointly conducted "COTPA Enforcement Week Kick-Off programme cum release of Christmas Card for Drivers" on the 18th December, 2017 where distribution of Christmas-card and enforcement of COTPA was effectively conducted among public transport vehicles throughout the week [27].

MSTCS also observes the "World No Tobacco Day" every year with various themes related to bring awareness against tobacco related issues. The 2017 World Tobacco Control Programme was observed on the theme 'Tobacco-A threat to development' [33]. The Mizoram State Tobacco Control Society and Indian Society on Tobacco and Health Mizoram jointly organized the 4th Mizoram State Anti-Tobacco Day based on the theme 'Tobacco Free Sports' on 11th September 2017. Many Representatives from all affiliated sports association under Mizoram State Sports Council attended the programme where outstanding performers for excellent compliance to various sections of COTPA, 2003 were felicitated [27]. In a similar collaboration with Indian Society on Tobacco and Health Mizoram a 'No Tobacco rally' was organized on 19th September 2017. The event was sponsored through Corporate Social Responsibility for Microfinance and Livelihood and saw enthusiastic participation by representatives and office bearers from various sports association in Mizoram [27]. On 21st June, 2017 a pilot project called "HIMNA-MADAT" (Mizoram against Drugs, Alcohol and Tobacco) was launched by the Chief Minister of Mizoram. The project has been designed for intervention amongst Upper Primary Schools in Aizawl district and will be monitored by the Deputy Commissioner of Aizawl district with other important departments and organization playing active role in its implementation [27].

On December 2017, the Ruantlang village in Champhai district was declared as a 'Tobacco Free Village' by the Additional Deputy Commissioner of Champhai. This declaration was made after regular and careful Anti-Tobacco Squad Drives checking compliances to all sections of COTPA by Champhai District Anti-Tobacco Squad [27]. The Thingsul Tlangnuam was the first village in Aizawl to be declared 'smoke-free' in 2013 [25, 32]. On 1st May 2018 the Chief Minister of Mizoram simultaneously launched 'World No Tobacco Month' and 'Tobacco Free Sports' campaign across the State in a function jointly organized by Mizoram State Olympic Association, Indian Society on Tobacco & Health, Mizoram Chapter in association with Mizoram State Tobacco Control Society [26].

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3. Conclusion

Addiction to tobacco has adversely affected the physical and social wellbeing of the Mizo society. However unlike GATS 2009-2010, GATS 2016-2017 does shows some promise for Mizoram in controlling tobacco consumption. GATS 2016-2017 has shown a decline in tobacco use prevalence from 67.2% to 58.7% in Mizoram and also exposure to second hand smoke at home and work place has decreased from 96.5% to 84.1% and 64.6% to 44.4%, respectively. Despite getting away from being tagged as the state having maximum tobacco users in India revealed during GATS, 2010 surveys, Mizoram is still have miles to go as it still remains as the state with second highest percentage of active tobacco users in the country. In spite of the efforts and proactive role played by organizations such as Mizoram State Tobacco Control Society (MSTCS) and NGOs such as the Indian Society on Tobacco and Health (Mizoram Chapter), the fight against the menace of tobacco consumption in Mizoram remains to be difficult and there has not been any drastic improvement of the overall situation. Therefore, to make effective strategies for tobacco control program in Mizoram, it is quite essential to have a careful investigation of the underlying causes and motives behind such addictive behaviors associated with tobacco consumption. Moreover, it should be kept in mind that due to the uniqueness of lifestyle, psychology, socio-economic and cultural factors in Mizoram, the general social marketing and intervention strategies may not necessarily be as effective as they are elsewhere. Therefore, especially for Mizoram, a comprehensive social marketing strategy needs to be formulated with due consideration to all the relevant local factors.

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