ABSTRACT
India’s tobacco problem is more complex, with a large consequential burden of tobacco-related disease and death than probably that of any other country in the world, as India is the second largest producer of tobacco in the world after China. The country seeks an urgent attention towards nuisance of tobacco. Although the government has taken the initiative to loosen the stronghold of tobacco but still there is a need for firmer steps for intercession of tobacco in the country in pursuit of exterminate it from the roots. Much scholarly work has been done in this aspect and this review article is an attempt towards formulation of a strategy initiated a war against its consumption.

KEYWORDS: Tobacco, Interventions, Government, Cigarette.

INTRODUCTION
Tobacco, the ‘weapon of mass destruction’ is the world’s biggest preventable killer. Our universe is in a state of tobacco epidemic, with larger population of tobacco users emerging day by day. It kills nearly 6 million people and causes billion dollars of economic damage worldwide each year.[1] Most of these deaths occur in low and middle income countries and this disparity is expected to widen further over the next several decades.

Tobacco is derived from the species of the plant of genus Nicotiana of the potato family.[2] Its leaves are smoked, chewed, or sniffed for a variety of effects. It is an addictive substance because it contains the chemical nicotine and it also contains cancer-causing chemicals. If the current trend continues, by 2030 tobacco will kill more than 8 million people worldwide each year, with 80% of these premature deaths among people living in low and middle income countries.[1] With time tobacco use is becoming more intricate, as did the activities of the deities who fashioned it and who were formed by it.

India’s tobacco problem is more complex than probably that of any other country in the world, with a large consequential burden of tobacco-related disease and death[3] as India is the second largest producer of tobacco in the world after China.[4] Tobacco was introduced in India by Portuguese barely 400 years ago during the Mughal era. Mainly due to a potpourri of different cultures in the country, tobacco rapidly became a part of socio-cultural milieu in various communities, especially in the eastern, north eastern and southern parts of the country.[5]

Now the question arises, why is tobacco control an important public health issue? Tobacco, in any form or type, kills people. Its use is a risk factor that is completely preventable and it is one of the leading causes of deaths in the world.[5]

The increasing number of mortality and overall financial burden associated with tobacco consumption has initiated a war against its consumption. The present review is an attempt towards formulation of a strategy accountable at individual and community level to curb the tobacco usage which is being considered as tragic accident of history.

EXTENT OF THE TOBACCO GLITCH IN INDIA
India’s problem is complex as tobacco is produced, manufactured, consumed and exported to various
countries. Further, tobacco use in India is characterized by the wide availability of low priced smoking and smokeless tobacco products. Along with smoking and chewing, other tobacco products such as mishri, gul, bajjar, gudakhu, etc., are widely used as applications to the teeth and gums. It is also used in nasal and inhaled forms. [6]

In order to arrive at an accurate level of prevalence of tobacco use by age groups, gender and place of residence, a number of surveys have been conducted in the country. However, except for the recently conducted The Global Adult Tobacco Survey (GATS) [7] in 2009-10, tobacco use per se was not the focus in all these surveys. Some important nationwide surveys are:

The 52nd National Sample Survey, conducted by the National Sample Survey Organization [8] (1995-96) was the first nationally representative household survey to collect data on tobacco consumption. The study provided an insight into the socioeconomic, cultural and demographic correlates of tobacco consumption in 10 years or older population. Another survey conducted was the National Family Health Survey (NFHS- 2) [9] in year 1998- 1999 which covered 92,486 households from 26 states in India, followed by the National Family Health Survey III [10] which was conducted in 2005-06 collected data on tobacco use from 124,385 female’s aged 15– 49 and 74,369 males aged 15–54 from all 29 states in India. The prevalence rate of tobacco use in India was found to be very high with 50-60% of males and 10-15% of females using tobacco in some form. The most recent survey is the Global Adult Tobacco Survey (GATS), which is the global standard for systematically monitoring adult tobacco use (smoking and smokeless) and tracking, key tobacco control indicators. GATS was initiated under GTSS (Global tobacco surveillance system) which was developed by collaborative effort of World Health Organization (WHO), Centers for Disease Control and Prevention (CDC) and Canadian Public Health Association (CPHA) in 1999. This is currently providing assistance to all 192 WHO Member States in collecting data on youth and adult tobacco use. [11]

According to the GATS survey one-third (35%) of adults in India use tobacco in some form or the other. The prevalence of overall tobacco use among males is 48 percent and that among females is 20 percent. Among them 21 percent adults use only smokeless tobacco, 9 percent only smoke and 5 percent as well as use smokeless tobacco. Based on these, the estimated number of tobacco users in India is 274.9 million. There is significant variation in prevalence of both smoking and smokeless tobacco use in different regions and states. The prevalence of tobacco use among all the states and Union Territories ranges from the highest of 67 percent in Mizoram to the lowest of 9 percent in Goa. Prevalence of tobacco use is higher among rural population as compared to urban and prevalence is found to decrease with increase in education level. [7]

### STEPS BY INDIAN GOVERNMENT AGAINST TOBACCO

Year 2003 onwards, India has played a proactive role on the tobacco control front, it emerged as leading front in negotiating for the formation of Framework Convention on Tobacco Control (FCTC), [12] which is a first International treaty and comes under the auspices of the World Health Organization (WHO), aimed at restricting tobacco-related deaths and disease. In order to establish and enhance international co-operations, several demand reduction measures and some supply reduction measures have been incorporated which are shown in table 1.

<table>
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<tr>
<th>Table 1- Provisions of FCTC and COTPA</th>
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<td>FCTC</td>
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<td>Comprehensive ban on advertising</td>
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[Source- Jhanjee S. Tobacco control in India- Where are we now? Delhi Psychiatry journal. 2011; 14(1): 26-32.]

The Government of India enacted ‘Cigarette and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act, 2003 (COTPA) [13] to prohibit the consumption of cigarettes and other tobacco products, which are injurious to health. Various provisions of this Act have been enforced since 1st May 2004. Government has taken initiative towards controlling tobacco consumption with various strategies.

These measures involve interventions at multiple levels.

### POLICY INTERVENTIONS AT COMMUNITY LEVEL

It is estimated that, as in other developing countries, the most susceptible time for initiation of tobacco use in India is during adolescence and early adulthood, i.e. in the age group of 15-24 years. The majority of users start using tobacco before the age of 18 years, while some
even start as young as 10 years. It is estimated that 5,500 adolescents start using tobacco every day in India, joining the 4 million people under the age of 15 years who already use tobacco regularly. This early age of initiation points to an urgent need to plan effective interventions for this vulnerable age group. The Government of India has been actively working towards enforcing legislations to prevent young people from having any access to tobacco. The Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act, 2003 enforced from 1 May 2004 has provisions to protect the youth in India. The Act prohibits the sale of tobacco products to minors as well as within 100 yards of any educational institution.

The youth start using tobacco even before they can understand its consequences, and the fact that tobacco is addictive prevents them from quitting when they become aware of its harmful effects later in life. One of the goals of any tobacco control policy should be to ensure that tobacco products are neither available by direct sale nor accessible through other sources to youth which can be achieved through:

**Ban on sale to minors**

Article 16 of the FTC (FCTC) mentioned about banning sale to minors. The existing literature provides mixed evidence on the effects of banning sale to minors in reducing tobacco use among youth. Wassermann et al. studied the impact of state laws that restricted the sale or distribution of cigarettes to minors. They found that although these laws reduced the teenager’s probability of taking to smoking, it did not affect the average consumption by young smokers. They attributed the later to the weak enforcement of these laws and vendors poor compliance with the law. A study by Jones et al. showed that enforcement of youth access laws led to a decrease in minors purchasing in stores but there was a significant increase in giving someone else money (social source) to buy cigarettes for them.

There have been different viewpoints opposing the ban on sale to minors. It has been commented that youth access programmes which prevent the sale of cigarettes to teenagers are ineffective and a drain on limited resources. It has also been expressed that such bans are counterproductive because they reinforce the tobacco industry’s ‘smoking is a way to look adult’ message.

**Non-availability of tobacco products around educational institutions**

To restrict free availability of tobacco products to minors, one easy strategy is to ensure that tobacco products are not sold near educational institutions.

**Increasing prices through taxation**

One of the mechanisms to raise tobacco prices is taxation. A fundamental principle related to taxation is that taxes which generate substantial revenues while minimizing welfare losses associated with the higher prices resulting from the taxes are preferable to those that result in higher welfare losses. In the short run the demand for tobacco products is relatively inelastic. Thus, an increase in tobacco taxes, although leading to reduction in use, will lead to significant increases in revenue. It has been seen that young people, people belonging to a low socioeconomic group and less educated people are more price responsive. It has been estimated that tax increase which would increase the real price of cigarettes by 10% worldwide will lead to 42 million smokers of the 1995 cohort quitting and would prevent 10 million premature tobacco-related deaths among them. In a study in the USA, it was seen that increasing the price of cigarettes increases the number of young adults who quit smoking. The average price elasticity of cessation was 0.35, i.e. a 10% increase in price will lead to 3.5% reduction in demand.

**Restricting access through regulating packaging sizes**

Ensuring that cigarettes and beedis be sold only in bigger packs of twenties or more will restrict purchase by the youth who have limited resources to buy these products. Similarly, chewable tobacco (such as gutka, khaini, etc.) is currently available in sachets, which make these products available at a very low cost. It is important that the packaging sizes of all tobacco products be regulated in India. Increasing the sizes of tobacco product packages would ensure that the cost is high enough to make it less affordable for the youth, who are tempted to experiment with these tobacco products due to their small packaging size which makes the product easily accessible to them for purchase and concealment.

**Awareness and advocacy**

It has been well established that awareness and advocacy related to tobacco avoidance and control prevents or reduces tobacco use among youth. In India, it has been seen that students in whom school-based interventions were carried out were less likely to receive offers, experiment with or intend to use tobacco.

Among regular smokers, it was found that those who were engaged in anti-tobacco advocacy were more likely to reduce their own use. The decrease was sustained even after six months. The goal of the advocacy programme is to increase the student’s awareness of the factors in the school and community environment that promote cigarette use which was tested in California during 2000 to 2002 and provided substantial results.

**Comprehensive ban on advertisements and counter-advertising**

A comprehensive ban includes a ban on advertisements of tobacco products in all direct and indirect forms, i.e. print and mass media, point-of-sale advertisements, ban on surrogate advertising or brand stretching, and should also include effective counter-advertising.

Tobacco advertising and promotion increases the likelihood that adolescents will start to use the product.
The impact of tobacco advertising on the youth is a well researched area globally.

Non-smoking adolescents who were more aware of tobacco advertising or receptive to it were more likely to have experimented with cigarettes or become smokers at follow-up. Receptivity to tobacco advertising and promotion is an important factor in progressing from experimentation to established smoking among adolescents. Advertising lures gullible youth and children through glamorous and deceptive promotional stunts. Advertisements project tobacco use in congenial surroundings or associate the brand name with idolized role models, legitimize the habit in young minds and project the use of tobacco as being socially acceptable. [23]

Establishing anti-tobacco norms
Social group interactions, through family, peer and cultural contexts can play an important role in reinforcing, denying, or neutralizing the potential effects of anti-smoking advertising. It has been seen that peer pressure is an important influence for tobacco use among adolescents. Introduction to positive, healthy role models, added to established anti-tobacco norms, can tremendously curb the desire of the youth to experiment with tobacco products. [23]

Restriction of smoking in schools, the home and public places
Smoke-free workplaces reduce the prevalence of smoking as well as its consumption. The combined effect of people quitting smoking and reducing consumption reduces total cigarette consumption by 29%. Regulations restricting smoking in public places appear to have a considerable impact on teenage smoking behavior. In contrast to adults, regulations affect the teenager’s decision to become a smoker rather than the number of cigarettes smoked. [24] Smoking restrictions in the home and bans in public places allow a limited opportunity for smokers to smoke. The mere existence of a school ban has no effect, but enforced school bans are associated with up to 11% reduction in the uptake of smoking. Schools with smoking policies have lower rates of smoking among students. Teachers who smoke make smoking seem safe and acceptable. The school policy must address both teacher’s and student’s smoking. Colleges with a no-smoking policy for both staff and students have been shown to have the lowest prevalence and their student smoke fewer cigarettes. [25] An Indian study also revealed that in schools which have enforced a no-smoking policy, teachers smoked less compared to schools having no such anti-smoking policy. [26]

POLICY INTERVENTIONS AT INDIVIDUAL LEVEL
Tobacco cessation is essential to reduce the mortality and morbidity related to tobacco use. It has been projected that by 2050, if the focus is only on prevention of initiation and not cessation, the result will be an additional 160 million deaths among smokers. The majority of tobacco-related deaths that can be prevented over the next 40 years will be among current smokers who can be persuaded to quit. [27] Tobacco cessation will provide the most immediate benefits of tobacco control and maximize the advantage for a habitué who quits the habit. It is also established that a majority of smokers (as many as 70%) desire to quit, but only 30% actually try each year, and only 3-5% actually succeed in quitting. [28] It also includes four A’s model which is a straightforward and quick means of identifying smokers who want to quit, and how best to help them be successful (Silagy and Stead, 2004). [29] The modified four A’s approach is an appropriate model for dentists to incorporate into their daily clinical practice.

“Four A’s” strategy is [30]
1. ASK patients about their tobacco habits
2. ADVISE them on the importance of giving up
3. ASSIST them in achieving this goal
4. ARRANGE follow-up

CONCLUSION
The road ahead is a long one but it’s one that has to be traversed with purpose. The war on tobacco consumption must be fought both on the demand and the supply side reducing the power of advertising to spur demand and reducing accessibility to tobacco products by increasing taxes and banning the sale of tobacco products in public places and areas accessed by minors. India being the world’s second most populous country, seeks an urgent attention towards menace of tobacco. Although the government has taken the initiative to loosen the stronghold of tobacco but still there is need for more firm steps for intercession of tobacco in the country in pursuit of eradicating it from the roots.

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