

Editorial

Tobacco control in India

Tobacco is the most important preventable cause of death and disease among adults. The World Health Organization estimates that worldwide 5 million deaths are caused prematurely by smoking every year. The number is expected to increase to 10 million by 2020, most of the increase taking place in developing countries. A total of 100 million lives were lost due to smoking in the 20th century and if the current trends continue, about a billion would occur due to smoking in the 21st century. In India, over 600,000 men in the age group 25-69 yr die due to smoking every year¹.

These are frightening statistics. For a long time, little could be done globally as unlike other public health problems, tobacco consumption is created and exacerbated by a rich and powerful global industry. A significant development has taken place recently, namely the Framework Convention on Tobacco Control (FCTC) - the first international treaty proposed by the World Health Organization that has created a true global movement. After four year negotiations, this comprehensive treaty was approved by the member countries of the World Health Assembly in 2004. The treaty came into force from February 27, 2005, and so far it has been signed by 168 countries and ratified by 124, making it an effective public health tool for global tobacco control (www.fctc.org).

India took a leading role in the development of the FCTC and partly as a result of that, promulgated a comprehensive national tobacco control act in 2003. Of course, there was a long tradition of tobacco control research, activism and legislative processes that helped a great deal. States like Delhi and Goa had created their own tobacco control laws and several courts like Kerala High Court and even Supreme Court had given momentous decisions in favour of tobacco control policies. Many States had moved ahead to ban the industrial smokeless tobacco product, gutka but that was not upheld by courts.

The Indian law clearly gives a signal that tobacco control as a public health priority is here to stay. The law is reasonably strong to comply with most of the provisions in FCTC, in fact it exceeds some of the minimum requirements but it does have few weaknesses that render it less than fully effective. For example, the ban on advertisement allows exception of two advertisements at the point of sale. So every point of sale in India seems to have been fitted with two or more advertisements that rarely comply with law with regard to specification of the size. The overall scenario creates an effect of business as usual - no one walking through a street in any city would think tobacco advertisements have been banned. Similarly, exception of allowing smoking areas in restaurants and hotels has generally been

interpreted to mean that smoking is allowed in restaurants and hotels.

The Indian tobacco control policies so far seem to be based on international research and recommendations. India however, has a much wider spectrum of tobacco and health problems and strategies need to be developed with the help of local research on tobacco control. Several examples can be given.

There is enough evidence and data to demonstrate that smoking causes a large spectrum of diseases. That however did not explain all tobacco attributable mortality in India. In the first exercise of its kind, there was a large unexplained gap between deaths from four main group of diseases attributable to tobacco (cancer, heart disease, stroke, lung disease) and total tobacco attributable deaths (354000 vs. 629000)^{2,3}. Recent research results from India have demonstrated that smoking increases the risk of death among TB patients^{4,5} and causes 200,000 extra TB deaths. This finding could not be derived from available research in industrialized countries because they had virtually eliminated TB before their smoking epidemic and smoking research began. India has a large TB problem and operates a national programme of TB control; it however, does not yet addresses smoking that seems to be a major cause of death among TB patients.

It has been well demonstrated that smoking by pregnant women causes several adverse reproductive outcomes. Indian women generally do not smoke (although situation may be changing now⁶) and therefore reproductive health services do not address tobacco problem at all. The prevalence of smokeless tobacco use among women in India however is quite high and recent results show that^{7,8} smokeless tobacco use during pregnancy causes lower birth weight (by

105g), smaller gestational period (by 6 days) and carries a high risk for still births (RR = 2.6, 95% CI 1.4 - 4.8). Thus in India, smokeless tobacco should be an important component of reproductive health care even though it may not be a practice for most other countries in the world.

The industrially manufactured smokeless tobacco product, gutka is a comparatively recent and specifically Indian problem. Areca nut, an indispensable component of gutka, causes oral submucous fibrosis⁹ - a debilitating disease with no known cure that is precursor to oral cancer¹⁰. Unlike smoking that take a long time to cause adverse health effects, with gutka use, oral submucous fibrosis develops within a very short period of time¹¹ and therefore popularization of gutka has resulted in an epidemic of oral submucous fibrosis among young persons¹². Consequently, even incidence rates of oral cancer among young persons are showing an increase¹³. Several States have tried to ban gutka but have succeeded only temporarily with courts generally ruling in favour of gutka manufacturers on legal technicalities. It may be pointed out that areca nut, an indispensable component of gutka, has been evaluated as carcinogenic with highest level of evidence (sufficient) by the International Agency for Research on Cancer¹⁴. Who has authority to ban gutka may be debated by legal pundits and authorities but there is no doubt that from public health point of view, this highly toxic industrial product¹⁵ needs strict control measures.

A major tobacco control strategy is an appropriate price policy to keep the price of tobacco products high with regular increases above the level of inflation. This is because price and consumption, especially initiation by young, show a strong inverse correlation everywhere in the world. Implementation of this policy results in a win-win situation for public

health as well as exchequer. After increase in taxes although there is a reduction in tobacco consumption, it is not enough to offset the gains of increased taxes due to highly addictive nature of tobacco use. The tobacco situation in India is unique because of a vast spectrum of tobacco products for smoking as well as smokeless use. Taxation as a tool for price policy is at a very low level and even the low level of taxes are not effectively collected for all tobacco products except perhaps for cigarettes, rendering tobacco products quite inexpensive and affordable even by school children through their pocket money. Even for cigarettes, prices have not increased much in real terms. Taxes as proportion of retail price of a pack of cigarette are much lower in India than in most of the industrialized countries.

On the whole, there are a few successes but much remains to be done to reduce adverse public health consequences of tobacco in India. Such steps should take into account the relevant research results from India for advancing tobacco control. There is a need for strengthening Indian research efforts in the area of tobacco control and public health.

Prakash C. Gupta

Healis-Sekhsaria Institute of Public Health
601//B, Great Eastern Chambers
Plot No.28, Sector-11
CBD Belapur
Navi Mumbai 400614 India

References

1. Reddy KS, Gupta PC. Report on tobacco control in India. New Delhi : Ministry of Health and Family Welfare, Government of India; 2004.
2. Notani PN, Jayant K, Sanghvi LD. Assessment of morbidity and mortality due to tobacco usage in India. In : Sanghvi LD, Notani P, editors. *Tobacco and health, The Indian scene*. Bombay: UICC - Tata Memorial Centre; 1989 p. 63-78.
3. Gupta PC. An assessment of excess mortality caused by tobacco usage in India. In: Sanghvi LD, Notani P, editors. *Tobacco and health, The Indian scene*. Bombay: UICC - Tata Memorial Centre; 1989 p. 57-62.
4. Gupta PC, Pednekar MS, Parkin DM, Sankaranarayanan R. A cohort study of 99,570 individuals in Mumbai, India for tobacco-associated mortality. *Int J Epidemiol* 2005; 34 : 1395-402.
5. Gajalakshmi V, Peto R, Kanaka TS, Jha P. Smoking and mortality from tuberculosis and other diseases in India: retrospective study of 43000 adult male deaths and 35000 controls. *Lancet* 2003; 362 : 507-15.
6. Sinha DN, Gupta PC, Pednekar MS, Jones JT, Warren CW. Tobacco use among school personnel in Bihar, India. *Tob Control* 2002; 11 : 82-3.
7. Gupta PC, Sreevidya S. Smokeless tobacco use, birth weight, and gestational age: population based prospective cohort study of 1217 women in Mumbai (Bombay), India. *B M J* 2004; 328 : 1538-40.
8. Gupta PC, Subramoney S. Smokeless tobacco use during pregnancy and risk of stillbirth: A cohort study in Mumbai, India. *Epidemiology* 2006; 17 : 47-51.
9. Tilakaratne WM, Klinikowski MF, Saku T, Peters TJ, Warnakulasuriya S. Oral submucous fibrosis: Review on aetiology and pathogenesis. *Oral Oncol* 2005 Nov 24; [Epub ahead of Print].
10. Murti PR, Bhonsle RB, Pindborg JJ, Daftary DK, Gupta PC, Mehta FS. Malignant transformation rate in oral submucous fibrosis over a 17-year period. *Commun Dent Oral Epidemiol* 1985; 13 : 340-1.
11. Babu S, Sesikeran B, Bhat RV. Oral fibrosis among teenagers chewing tobacco, areca nut, and pan masala. *Lancet* 1996; 348 : 692.

12. Gupta PC, Sinor PN, Bhonsle RB, Pawar VS, Mehta HC. Oral submucous fibrosis in India: A new epidemic? *Natl Med J India* 1998; *11* : 113-6.
13. Gupta PC. Mouth cancer in India - A new epidemic? *J Indian Med Assoc* 1999; *97* : 370-3.
14. International Agency for Research on Cancer: *IARC Monographs on the evaluation of the carcinogenic risk of chemicals to humans. Vol. 85. Betel-quinid and areca-nut chewing; and some areca-nut-derived nitrosamines.* Lyon. International Agency for Research on Cancer; 2004.
15. Stepanov I, Hecht SS, Sreevidya R, Gupta PC. Tobacco-specific nitrosamines in smokeless tobacco products marketed in India. *Int J Cancer* 2005; *116* : 16-9.