

Is female smoking rising or declining in India?

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Dear Editor,

We believe that the article entitled “smoking trends among women in India: Analysis of nationally representative surveys (1993–2009)” published in year 2014 in your esteemed journal, is an honest effort of bringing an overview of the serious problem, which is often overlooked.^[1] The authors have pointed out that in India the trend of smoking is increasing among women. This may act as a hint of upcoming public health problem as these can be attributed to rising cases of infertility and higher cancer incidences among women. The current study has found its impact on global media also. A news article in BMJ December 2014 issue^[2] has also highlighted the findings of the article.

The findings of the article was similar to a study titled “Smoking prevalence and cigarette consumption in 187 countries, 1980–2012.” published in JAMA,^[3] which showed a marginal increase in prevalence of smoking among Indian females from 2.7% (2.3–3.1) in year 1996 to 3.3% (2.8–3.9) in year 2012. Interestingly, the article mentioned that in between 1996 and 2006, there was a rapid decline in smoking trend globally combining both sexes and a slower decline trend from 2009 to 2012.

The recent publication of findings of pan India District Level Household Survey-IV (DLHS) (2012–2013),^[4] has thrown more light on the current debate of trends in female smoking. Findings of DLHS-IV (2013) actually supplement the findings of the study by Goel *et al.*^[1] (1993–2009). As per DLHS-IV, fewer states especially north eastern states (Sikkim, Arunachal Pradesh, Tripura, Nagaland, Manipur), northern states (Haryana, Punjab, Chandigarh) and Andhra Pradesh have shown a decline in female smoking whereas south-western states (Pondicherry, Tamil Nadu, Karnataka,

Table 1: Comparative analysis of female smoking prevalence across two nationally representative surveys (DLHS-IV and GATS)

Female smoking prevalence	States/UT in India	GATS India, 2009-2010	DLHS-IV (2012-13)
Decreasing trend	Sikkim	15.9	5.2
	Nagaland	12.4	1.4
	Manipur	11.4	11.2
	Arunachal Pradesh	11.2	7.9
	Tripura	10.3	4.3
	Andhra Pradesh	5.7	2.7
	Haryana	4.5	2
	Punjab	0.4	0.3
	Chandigarh	0.4	0.3
Increasing trend	Kerala	0	0.6
	Maharashtra	0	0.4
	Pondicherry	0	0.3
	Tamil Nadu	0.1	0.4
	Karnataka	0.3	0.7
	Goa	0.9	1.9
	West Bengal	1.9	2.8
	Meghalaya	3.6	5
	Mizoram	19	21.5

GATS=Global Adult Tobacco Survey, DLHS-IV=District Level Household Survey-IV

Kerala, Maharashtra, Goa) and fewer eastern states (West Bengal, Meghalaya, Mizoram) have an increasing trend, when compared with Global Adult Tobacco Survey (GATS) India, 2009–2010 data^[5] [Table 1]. Both the surveys (DLHS-IV and GATS) can be compared as both had large sample size with proportionate allocation to various states of India, and had employed multistage stratified sampling methodology and uniform sampling techniques. However, interestingly, the increase of female smoking across different states was minimal whereas the decrease of female smoking was substantial. These recent changes in prevalence of female smoking may

be explained by varying levels of implementation of Indian tobacco control act (Cigarettes and Other Tobacco Products Act), differential stake holder involvement and involvement of tobacco control agencies and political commitment across different states.

Thus, there is a need of in-depth study of the above mentioned factors across two categories of states (declining and increasing trend) to enumerate the key areas of good practices so that it can be replicated in states across the country.

Pritam Roy, Sonu Goel

Department of Community Medicine, School of Public Health, Post Graduate Institute of Medical Education and Research, Chandigarh, India

Correspondence to: Dr. Pritam Roy,
E-mail: drpritamroy@gmail.com

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