

## **India could avert many lakh smoking deaths through cigarette tax increase, reduce poverty and strengthen tobacco control implementation**

**Draft briefing note of Sept 8, 2019 for Dr. Harsh Vardhan, Minister of Health and Family Welfare.<sup>1</sup>**

### **Key Points**

1. Despite modest falling prevalence of smoking, the mortality risks for cigarette smoke in particular are rising rapidly, especially in consumed in quantities as in western countries.
2. A significant union excise tax increase would lead to a reduction of about 17.1 lakh smokers (11 lakh quitters and 6 lakh youths prevented from initiating smoking). As a result, about 7 lakh smoking-attributable deaths would be averted. The higher tax would generate an additional revenue of about 21.5 thousand crore rupees, raising valuable resources for the National Health Mission, Ayushman Bharat or other programs.
3. A higher excise tax would be pro-poor, as new examination shows in four states. In India overall, a 50% increase in cigarette price would result in about 6.4 million men quitting smoking; the number of quitters in the bottom income group would be about 3.8 times that in the top income.
4. A qualitative review suggests that a top priority is to strengthen the COPTA Act of 2003 and improve technical capacity for tobacco taxation and fiscal policy within MOHFW.

In 2016-17, India had about 38 million (or 380 lakh) cigarette smokers and over 1 million deaths annually due to tobacco. Despite the prevalence of cigarette smokers aged 15 and above falling modestly from 5.7% in 2009-10 to 4.0% in 2016-17 (10.3% to 7.3% for males, 0.8% to 0.6% for females), the smoker: non-smoker risk of death due to smoking has been increasing. This is both due to a transition away from the smaller bidi to the cigarette, which contains more smoked tobacco. The Million Death Study (led by the Registrar General of India and the Centre for Global Health Research India Foundation) examined the risk of all-cause death and cancer-specific death among male cigarette smokers, compared to non-smokers. The MDS showed that overall mortality risks for male smokers (as few females smoke in India) rose from 2.0 in 2004-2007 to 2.3 in 2011-2014, and the risk of cancer death rose from 2.4 to 2.9 (Figure 1).

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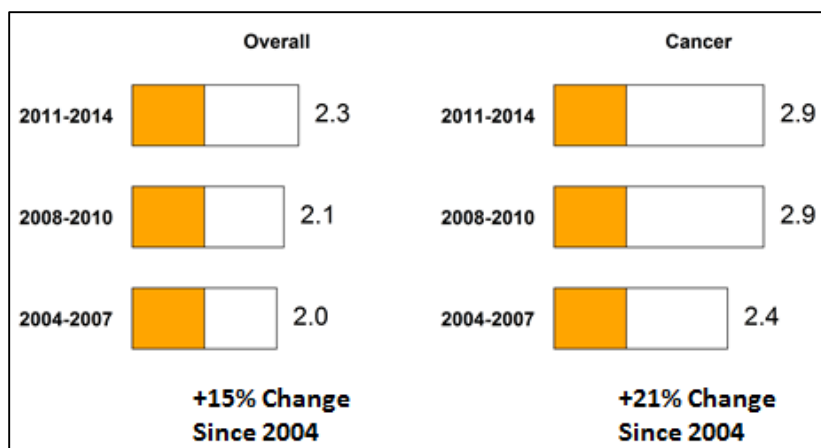


Figure 1. Risk of death due to all causes and death due to cancer from smoking cigarettes at age 30 to 69, 2004-2014. **Orange** shaded section=NOT caused by tobacco

The most notable increases were in cancer death among male cigarette smokers who smoke in western patterns, meaning 10 or more cigarettes per day (Figure 2).

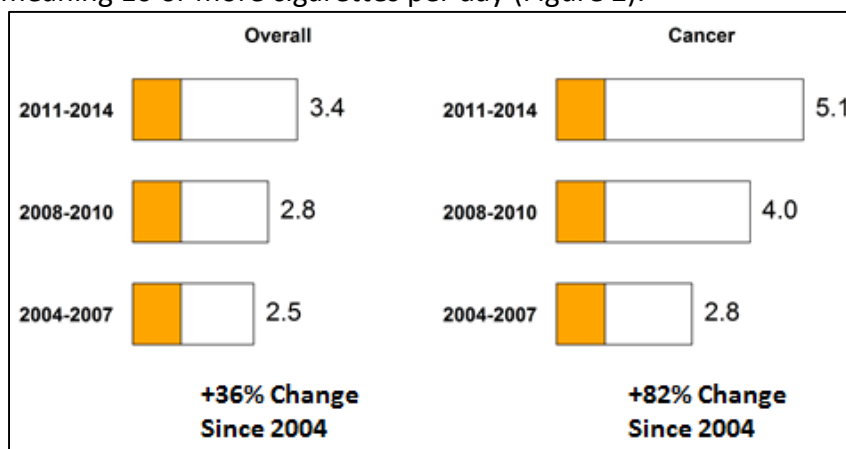


Figure 2. Risk of death due to all-causes and death due to cancer from heavy cigarette smoking (10+ cigarettes a day) at age 30 to 69, 2004-2014. **Orange** shaded section=NOT caused by tobacco

Previous substantial evidence has found that the most effective intervention to reduce tobacco will be a large increase in the federal excise tax on cigarettes (we turn to bidi taxation later) that enables minimal downward substitutions to shorter, cheaper cigarettes (Jha and Peto, 2014).

To support tobacco control policies, we estimated the impact of a cigarette price increase, through an increase in excise tax over three years annually from FY2019-20 to FY2021-22. This increase was as advised by MOHFW. The current 2018-19 tax structure for each tier of cigarettes and proposed tax structure for the next three years are presented in Table 1. A breakdown and impact of the current and proposed tax structure are presented in Appendix Table 1.

Table 1. Current tax structure and tax structure proposed for FY2019-20 to FY2021-22- main proposal.

Slab/tier	Current (2018-19)	Proposed Tax Structure		
		2019-20	2020-21	2021-22
<b>Cigarettes</b>	<b>[Cess + NCCD + Cess (ad valorem)] per 1000 sticks</b>			
Non-filter 65-70mm	3,813 + 5%	4,405 + 5%	4,405 + 5%	4,405 + 10%
Non-filter <65mm	2,166 + 5%	2,837 + 5%	3,813 + 5%	
Filter >75mm	4,405 + 36%	5,000 + 36%	6,000 + 36%	8,000 + 10%
Filter 70-75mm	3,813 + 5%	4,405 + 5%	5,000 + 5%	
Filter 65-70mm	2,837 + 5%	3,813 + 5%	4,405 + 5%	
Filter <65mm	2,166 + 5%	2,837 + 5%	3,813 + 5%	

With the proposed three annual tax hikes, the average price of filtered cigarettes (of all lengths) which constitutes about 92% of the total market shares would increase from Rs. 21.49 per cigarette to Rs.22.30 to Rs.23.06 to Rs.24.57 over the three years (or a 3.7%, 7.3%, and 14.3% increase from 2018-19 market price). The price increase would lead to a reduction of about 17.1 lakh smokers (11 lakh quitters and 6 lakh youths prevented from initiating smoking) (Table 2). As a result, about 7 lakh smoking-attributable deaths would be averted. The higher tax would generate an additional revenue of about 21.5 thousand crore rupees, some of which should be used to further strengthen the tax collection system (i.e. fight tax evasion) and to support schemes such as the National Health Mission, Swachh Bharat Abhiyan, and Ayushman Bharat.

We also estimated the impact of a “modest” and a “fast 10Rs” scenario of cigarette price. Under the modest scenario, we considered only the tax hike proposed for Year 1 and Year 2 (i.e. no hike in Year 3), and for the fast 10Rs scenario, we proposed a one-time tax hike of Rs.10,000 per 1000 sticks + 10% ad valorem tax for all lengths of filtered cigarettes. The price increase under the two scenarios corresponds to about 7.3% and 23.6% increase, respectively, from the current 2018-19 market price. We found that the price increase under the modest scenario would reduce the number of smokers by about 9 lakh (6 lakh quitters and 3 lakh youths prevented from initiating smoking) and avoid about 4 lakh smoking-attributable deaths (Table 2). Under the fast 10Rs scenario, the number of smokers would decrease by about 30 lakh (19 lakh quitters and 11 lakh youths prevented from initiation) and about 12 lakh smoking-attributable deaths would be averted.

Table 2. Impact of cigarette price increase under proposed tax structure, modest, and fast 10Rs scenarios on reduction in number of smokers, deaths averted, and additional tax revenue collected.

	Proposed tax hikes over 3 years	Modest: Hike in Year 1 and Year 2 only	Fast 10Rs/stick Rs. 10,000 per 1,000 cigarettes + 10% ad valorem
Reduction in number of smokers (adult quitters and youths prevented from initiation, in lakhs)	17.1	9.1	29.9
Number of deaths averted (in lakhs)	6.9	3.7	12.1
Additional tax revenue collected (in thousand crore rupees)	21.5	12.1	35.7

*Impact of a 50% increase in cigarette price among poorer and richer Indians in the states of Karnataka, Assam, Uttar Pradesh, and Maharashtra*

We further examined the impact of a 50% increase in cigarette price on the number of deaths averted and treatment cost averted due to four major tobacco-attributable diseases (chronic obstructive respiratory disease (COPD), stroke, heart disease and cancer), number of men avoiding catastrophic health expenditures and extreme poverty due to cigarette smoking, and additional tax revenues collected in India overall and in the states of Karnataka, Assam, Uttar Pradesh, and Maharashtra. In India overall, a 50% increase in cigarette price would result in about 6.4 million men quitting smoking; the number of quitters in the bottom income group would be about 3.8 times that in the top income group (1,757,436 vs 458,817, Appendix Table 2).

An estimated total of 2.8 million deaths due to COPD, stroke, heart disease, and cancer would be averted among current smokers due to quitting. The number of averted deaths in the bottom income group would be 3.8 times that in the top income group (770,477 vs 201,149). The cost averted for treating the four major tobacco-attributable diseases would amount to about Rs.6,097 crore. The treatment cost averted in the bottom income group would be 2.6 times higher than in the top income group (Rs.1,425 crore vs 547 crore). As a result of the treatment cost averted, about 1.8 million men would avoid catastrophic health expenditures and about 1.6 million men would avoid falling into extreme poverty as defined by the World Bank as income of under \$1.90 per day in purchasing power parity. The increase in excise tax needed to achieve a 50% increase in cigarette price would generate about Rs.18,113 crore. In contrast to the distribution of health benefits, the extra revenue generated from men in the top income group would be about 3.9 times that from the bottom income group (Rs.1,559 crore vs 6,118 crore). The distribution of health and financial benefits with a 50 cigarette price increase, by income groups, is similar in Karnataka, Assam, Uttar Pradesh, and Maharashtra (Appendix Table 2).

*Factors influencing tobacco control policies*

We have conducted a detailed qualitative review of key decision makers in Karnataka to examine current gaps in tobacco control. This applied many focus group interviews and reviews of legislation, and was led by Prof. Shreelata Rao Seshadri at Premji University in Bengaluru.

Key findings from this review are as follows:

- (i) Post-GST, states have little control over tobacco taxation, with decisions being driven by the GST Council at the federal level. With tobacco taxes pegged at 28%, the highest slab within the current tax regime, the GST Council is passing the responsibility on to the Ministry of Finance to levy additional cess that they deem necessary.
- (ii) COTPA has the potential to control tobacco consumption, but implementation of COTPA varies significantly across states.
- (iii) Capacity to gather the necessary data and evidence, analyse the data, and build the case for tobacco control is limited at both the central and state levels.
- (iv) The tobacco lobby, on the other hand, has the capacity and resources to use data and resources effectively to influence tobacco policy.

To move action on tobacco taxation to the next level, it is critical to:

- (i) **Target taxation directly by increasing GST.** The GST Council can and should consider further enhancing GST on tobacco products by either a) introducing a separate higher slab only for tobacco products - as high as 70%; OR b) working with the Finance Ministry to add a sumptuary excise duty on tobacco products over and above the 28% GST.
- (ii) **Revise COTPA (2003) and implement it stringently.** This will mean close monitoring in collaboration with the police and a substantial hike in fines for smoking in public spaces as well as sale of loose cigarettes. Adopting, at the national level, the Code of Conduct limiting interactions between public officials with the tobacco industry is also essential.
- (iii) **Provide the government technical support for tobacco control.** Setting up a Technical Support Unit (as done in Karnataka) would give policy makers access to the latest evidence, reports, and data, as well as think through fresh strategies and initiatives.
- (iv) **Create a multi-sectoral response, but with health at its core.** A multi-sectoral committee that includes the personnel from the Ministry of Health and Finance, police, judiciary, and civil society, is critical. Importantly, this effort has to be driven by the Health Department/Ministry, so as to maintain focus on the public health priority to tackle tobacco control.

#### **Proposed next steps**

1. Work with MOHFW for more detailed preparation of technical briefs and explanation of these to decision makers (including Parliamentary committees) by October 2019.
2. Brief Minister of Finance and Revenue and Finance Secretaries by Dec 2019.
3. Attend technical workshop for the Global Tobacco Economics Consortium (GTEC) the week of January 13<sup>th</sup> in Bogota, Colombia
4. Strengthen the COPTA act and have CGHRI work with MOHFW to expand the training opportunities for district-based tobacco control officers by Dec 2019.
5. Sign MOU with MOHFW on technical assistance cell within MOHFW on tobacco taxation by Nov 2019.

## Appendix

Appendix Table 1. Tax impact calculation under current and proposed tax structure for FY2019-20 to FY2021-22.

Cigarette category	Market share in 2014 (%)	Base price before tax in 2019*	GST per stick (at 28%) (Rs.)	GST compensation cess per stick (Rs.)	Ad valorem per stick (Rs.)	NCCD per stick (Rs.)	Total tax per stick (Rs.)	Final price per stick (Rs.)	Tax as percent of final price (%)
<b>Current (2018-19)</b>									
Non-filter 65-70mm	7	10.00	2.80	3.67	0.64	0.15	7.25	17.25	42
Non-filter <65mm	0	5.00	1.40	2.08	0.32	0.09	3.89	8.89	44
Filter >75mm	35	15.00	4.20	4.17	6.91	0.24	30.52	30.52	51
Filter 70-75mm	2	15.00	4.20	3.67	0.96	0.15	23.97	23.97	37
Filter 65-70mm	51	10.00	2.80	2.75	0.64	0.09	16.28	16.28	39
Filter <65mm	4	5.00	1.40	2.08	0.32	0.09	3.89	8.89	44
<b>Average filter only</b>	<b>92</b>	<b>11.77</b>	<b>3.29</b>	<b>3.27</b>	<b>3.01</b>	<b>0.15</b>	<b>9.72</b>	<b>21.49</b>	<b>45</b>
<b>FY2019-20</b>									
Non-filter 65-70mm	7	10.00	2.80	4.26	0.64	0.15	7.85	17.85	44
Non-filter <65mm	0	5.00	1.40	2.75	0.32	0.09	4.56	9.56	48
Filter >75mm	35	15.00	4.20	4.77	6.91	0.24	16.11	31.11	52
Filter 70-75mm	2	15.00	4.20	4.26	0.96	0.15	9.57	24.57	39
Filter 65-70mm	51	10.00	2.80	3.72	0.64	0.09	7.25	17.25	42
Filter <65mm	4	5.00	1.40	2.75	0.32	0.09	4.56	9.56	48
<b>Average filter only</b>	<b>92</b>	<b>11.77</b>	<b>3.29</b>	<b>4.08</b>	<b>3.01</b>	<b>0.15</b>	<b>10.53</b>	<b>22.30</b>	<b>47</b>
<b>FY2020-21</b>									
Non-filter 65-70mm	7	10.00	2.80	4.26	0.64	0.15	7.85	17.85	44
Non-filter <65mm	0	5.00	1.40	3.72	0.32	0.09	5.53	10.53	53
Filter >75mm	35	15.00	4.20	5.77	6.91	0.24	17.11	32.11	53
Filter 70-75mm	2	15.00	4.20	4.86	0.96	0.15	10.16	25.16	40
Filter 65-70mm	51	10.00	2.80	4.32	0.64	0.09	7.85	17.85	44
Filter <65mm	4	5.00	1.40	3.72	0.32	0.09	5.53	10.53	53
<b>Average filter only</b>	<b>92</b>	<b>11.77</b>	<b>3.29</b>	<b>4.85</b>	<b>3.01</b>	<b>0.15</b>	<b>11.30</b>	<b>23.06</b>	<b>49</b>
<b>FY2021-22</b>									
Non-filter 65-70mm	7	10.00	2.80	4.26	1.28	0.15	8.49	18.49	46
Non-filter <65mm	0	5.00	1.40	4.32	0.64	0.09	6.45	11.45	56
Filter >75mm	35	15.00	4.20	7.77	1.92	0.24	14.12	29.12	48
Filter 70-75mm	2	15.00	4.20	7.86	1.92	0.15	14.12	29.12	48
Filter 65-70mm	51	10.00	2.80	7.91	1.28	0.09	12.08	22.08	55
Filter <65mm	4	5.00	1.40	7.91	0.64	0.09	10.04	15.04	67
<b>Average filter only</b>	<b>92</b>	<b>11.77</b>	<b>3.29</b>	<b>7.85</b>	<b>1.51</b>	<b>0.15</b>	<b>12.80</b>	<b>24.57</b>	<b>52</b>

\*Source: <https://cleartax.in/s/impact-of-gst-rate-on-the-tobacco-industry>

Appendix Table 2. Cumulative impact of a 50% cigarette price increase on health and financing outcomes.

Variables by income groups	India	Karnataka	Assam	Uttar Pradesh	Maharashtra
<b>Number of male smokers aged ≥15 years before 50% price increase (in thousands)</b>					
First (bottom 20%)	7,348	364	120	1,492	270
Second	10,227	362	193	2,728	114
Third	9,469	373	273	1,041	250
Fourth	9,129	220	286	816	255
Fifth (top 20%)	9,985	385	3145	423	466
Total	1,237	1,704	1,187	6,500	1,355
First:fifth ratio	0.7	0.9	0.4	3.5	0.6
<b>Total deaths averted due to COPD, stroke, heart disease, and cancer (in thousands)</b>					
First (bottom 20%)	407	30	14	131	22

Second	279	24	18	191	8
Third	168	195	18	54	12
Fourth	115	7	13	28	8
Fifth (top 20%)	37	6	7	7	7
Total	1,006	86	69	412	57
First:fifth ratio	10.9	5.0	2.0	18.8	3.1
<b>Treatment cost averted (in INR, crores (\$Int, millions))</b>					
First (bottom 20%)	1,425 (815)	94 (53.2)	41 (23.1)	325 (183.0)	64 (36.2)
Second	1,818 (1,040)	115 (64.9)	49 (27.6)	664 (374.0)	26 (14.5)
Third	1,351 (773)	56 (31.8)	56 (31.6)	166 (93.4)	37 (20.9)
Fourth	956 (547)	44 (24.5)	32 (17.9)	71 (40.0)	26 (14.9)
Fifth (top 20%)	547 (313)	20 (11.2)	15 (8.4)	21 (11.9)	15 (8.6)
Total	6,097 (3,488)	329 (185.6)	193 (108.6)	1,246 (702.3)	169 (95.1)
First:fifth ratio	2.6	4.8	2.8	15.4	4.2
<b>Number of men avoiding catastrophic health expenditures (in thousands)</b>					
First (bottom 20%)	428	21.2	9.2	73.0	14.5
Second	546	25.9	11.0	149.6	5.8
Third	406	10.6	12.6	37.3	7.9
Fourth	287	7.7	7.1	16.0	4.7
Fifth (top 20%)	164	3.3	3.3	4.7	2.7
Total	1,832	68.7	43.4	280.6	35.5
First:fifth ratio	2.6	6.4	2.8	15.4	5.4
<b>Number of men avoiding extreme poverty (in thousands)</b>					
First (bottom 20%)	378.2	1.3	7.2	60.0	1.3
Second	428.2	0.0	8.6	117.0	0.0
Third	545.8	0.0	9.7	29.1	0.0
Fourth	546.0	0.0	0.6	12.5	0.0
Fifth (top 20%)	349.4	0.0	0.0	1.1	0.0
Total	2,247.5	1.3	2.6	219.7	1.3
First:fifth ratio	1.1	-	200.4	52.4	-
<b>Additional tax revenues (in INR, crores (\$Int, millions))</b>					
First (bottom 20%)	1,559 (892)	214 (120)	34 (19)	91 (51)	93 (53)
Second	2,849 (1,630)	105 (59)	54 (30)	200 (113)	29 (16)
Third	3,286 (1,880)	288 (163)	73 (41)	197 (111)	147 (83)
Fourth	4,300 (2,460)	270 (152)	171 (97)	333 (188)	174 (98)
Fifth (top 20%)	6,118 (3,500)	313 (176)	189 (107)	381 (215)	251 (141)
Total	18,113 (10,362)	1,190 (671)	521 (294)	1,201 (677)	694 (391)
Fifth:first ratio	3.9	1.5	5.5	4.2	2.7