

Economic Burden of Tobacco Related Diseases in Maharashtra

Highlights

According to the Global Adult Tobacco Survey India (2009-10), in Maharashtra 31% of adults (15 years and above) used tobacco. About 7% of adults were smokers and 28% used smokeless tobacco. Furthermore, 37% of adults were exposed to secondhand smoke at home.

The study on *Economic Burden of Tobacco Related Diseases in India*, was conducted to estimate the economic burden of disease attributable to tobacco use. The study estimates the direct¹ and indirect² costs from all diseases due to tobacco use as well as the cost of each of the following four diseases: cardiovascular diseases, cancers, respiratory diseases and tuberculosis in 13 states in India.

Major state level estimates (Maharashtra)

- The total economic costs attributable to tobacco use in Maharashtra amounted to Rs 2290 crores in the year 2011 for persons aged 35-69, of which 62% was direct medical costs and 38% was indirect morbidity costs.
- The economic cost for four specific diseases (CVD, cancer, tuberculosis and respiratory disease) amounted to Rs 769 crores.
- Cardiovascular diseases (CVD) shared the highest economic burden (Rs 449 crores) on account of tobacco use, followed by respiratory disease at (Rs 154 crores), Tuberculosis at (Rs 98 crores) and cancers (Rs 68 crores).
- Among the four diseases, CVD contributed the highest at 63% of the total direct medical cost and 51% of the total indirect cost
- The economic cost for all diseases due to tobacco use was higher in males except for cancers and tuberculosis where the collective cost in females due to smokeless tobacco was higher at Rs 70.4 crore (compared to Rs 35.6 crore for males).

At national level

The estimated economic cost of diseases attributable to tobacco use at Rs 1,04,500 crores was 1.16% of the GDP. This was 12% more than the combined state and central government expenditures on health in 2011-12. The total central excise revenue from all tobacco products in the year 2011-12 amounted to only 17% of the estimated economic costs of tobacco.

Of the total economic burden, direct cost was 16%; indirect costs were 84%, of which premature mortality cost contributed significantly by nearly 70%. For state level estimates, only direct medical and indirect morbidity costs were estimated. If the cost of premature mortality was to be included in the estimates the actual expenditure would increase manifold.

¹Direct medical costs included the direct health care expenditures for inpatient hospitalization or outpatient visits, including surgeon's fees, medicines, diagnostic tests, bed charges, attendant charges, medical appliances, ambulatory services for treating tobacco related diseases and other such expenditures that are directly related to the inpatient hospitalization or outpatient visit.

²Indirect costs are of two types: (1) indirect morbidity costs comprising of expenditures incurred for transportation other than ambulance and lodging charges for caregivers, and additionally the loss of household income to the whole household due to inpatient hospitalization or outpatient visits as a proxy for the value of lost productivity; and (2) indirect mortality costs which is the cost of premature mortality.

Table 1. Health Costs of Disease among tobacco users in Maharashtra (in Rs crores)

	Maharashtra		India	
	4 diseases	All diseases	4 diseases	All diseases
Male	639.1	1677.9	8438.1	24707.9
Female	130.3	611.9	1705.1	6768.0
Total	769.4	2289.9	10143.3	31475.9

Table 2. Direct cost of smoking and smokeless tobacco in Maharashtra (in Rs crores)

	Smoking		Smokeless tobacco	
	Male	Female	Male	Female
CVD	120.2	0.2	133.2	43.8
Cancer	11.6	0.1	5.4	23.7
Tuberculosis	11.6	0.7	8.1	34.4
Respiratory disease	77.4	0.0	NA	NA
All diseases	664.0	1.4	296.8	471.1

Table 3. Indirect cost of smoking and smokeless tobacco in Maharashtra (in Rs crores)

	Smoking		Smokeless tobacco	
	Male	Female	Male	Female
CVD	64.9	0.1	71.9	14.8
Cancer	13.9	0.0	6.5	6.9
Tuberculosis	22.5	0.1	15.6	5.4
Respiratory disease	76.3	0.0	NA	NA
All diseases	495.5	0.4	221.6	138.9

The report calls for prioritisation of tobacco control for larger population level benefits in Maharashtra.

Increased resource and budget allocations for NCD prevention and control, including full implementation of the WHO Framework Convention on Tobacco Control (WHO FCTC) and the tobacco control laws is imperative.

We need to act now to save lives!