

# Economic Burden of Tobacco Related Diseases in Kerala

## Highlights

According to the Global Adult Tobacco Survey India (2009-10), in Kerala 21.4% of adults (15 years and above) used tobacco. About 13% of adults were smokers and 10.7% used smokeless tobacco. Furthermore, 42% 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 direct<sup>1</sup> and indirect<sup>2</sup> 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 (Kerala)

- The total economic costs attributable to tobacco use in Kerala amounted to Rs 1514 crores in the year 2011 for persons aged 35-69, of which 52% was direct medical costs and 48% was indirect morbidity costs.
- The economic cost for four specific diseases (CVD, cancer, tuberculosis and respiratory disease) amounted to Rs 545 crores.
- Cardiovascular diseases (CVDs) shared the highest economic burden (Rs 226 crores) on account of tobacco use, followed by respiratory diseases (Rs 198 crores), tuberculosis (Rs 67 crores) and cancers (Rs 55 crores).
- Among the four diseases, CVD contributed the highest at 51% of the total direct medical cost and respiratory diseases contributed the highest at 48% of the total indirect cost.
- The economic cost for all diseases due to tobacco use is higher in males, except for cancer where the cost in females (due to smokeless tobacco) was higher at Rs 13.5 crores (compared to Rs 2.4 crores 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.

<sup>1</sup>Direct 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.

<sup>2</sup>Indirect 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 Kerala (in Rs crores)**

	Kerala		India	
	4 diseases	All diseases	4 diseases	All diseases
<b>Male</b>	518.9	1330.2	8438.1	24707.9
<b>Female</b>	26.4	183.5	1705.1	6768.0
<b>Total</b>	545.4	1513.7	10143.3	31475.9

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

	Smoking		Smokeless tobacco	
	Male	Female	Male	Female
<b>CVD</b>	123.5	–	18.7	8.7
<b>Cancer</b>	17.6	–	1.1	8.4
<b>Tuberculosis</b>	33.3	–	3.3	1.0
<b>Respiratory disease</b>	78.0	–	NA	NA
<b>All diseases</b>	609.6	–	37.3	138.3

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

	Smoking		Smokeless tobacco	
	Male	Female	Male	Female
<b>CVD</b>	62.7	–	9.5	2.4
<b>Cancer</b>	21.1	–	1.3	5.2
<b>Tuberculosis</b>	25.9	–	2.4	0.6
<b>Respiratory disease</b>	120.3	–	NA	NA
<b>All diseases</b>	643.9	–	39.3	45.2

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

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!***