



## Prevalence of Tobacco Related Cancers in India

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### Abstract

Tobacco related cancers account for major share of all cancers. In India, tobacco consumption is responsible for half of all the cancers in men and a quarter of all cancers in women. India also has one of the highest rates of oral cancer in the world, partly attributed to high prevalence of tobacco chewing. This article deals with the data based from the cancer registries from various part of the country.

### Introduction

The four leading non-communicable diseases, cardiovascular disease, cancer, chronic respiratory disease and diabetes, represent a leading threat to human health and development. According to the World Health Organization (WHO), these four diseases are the world's biggest killers, causing 60% of all deaths globally and 80% in low- and middle-income countries. Up to 80% of heart disease, stroke, type 2 diabetes and over a third of cancers could be prevented by eliminating shared risk factors, mainly tobacco use, unhealthy diet, physical inactivity and the harmful use of alcohol. In fact, in 2011, tobacco control was identified as the "most urgent and immediate priority" to reduce non-communicable diseases [1]. Tobacco use is the single greatest preventable cause of death in the world today which kills 5.4 million people a year. If left unchecked, that number will increase to more than 8 million a year by 2030. Contains the highly addictive psychoactive ingredient, nicotine smokeless tobacco products are not a safe [2].

India, officially the Republic of India, is a country in South Asia. It is the seventh-largest country by area, the second-most populous country (with over 1.2 billion people), and the most populous democracy in the world. The Indian subcontinent was identified with its commercial and cultural wealth for much of its long history. In India, tobacco consumption is responsible for half of all the cancers in men and a quarter of all cancers in women, India also has one of the highest rates of oral cancer in the world, partly attributed to high prevalence of tobacco chewing. The World Health Organization predicts that tobacco deaths in India may exceed 1.5 million annually by 2020. In India, as in most low income countries, death in middle age is increasing in relative importance due to an increase in smoking related deaths [3].

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### Materials and Methods

A record based retrospective study was planned with the data from cancer registry of India to compare the four Metropolitan cities. The cancer registry of Indian council for medical research was used as data base. The variables were incidence, leading site, tobacco related cancer sand mortality rate from 1990-2014.

### Results

Table 1 shows the incidence of cancer from 1990-2014 in India [4-11]. Table 2 shows the mortality rate of cancer from 1990-2014 [4-11]. Table 3 shows the tobacco related cancer in India from 2000-2014 [4-11].

### Discussion

The present study gives the overall view of incidence rate, mortality rate, tobacco related cancer in four metropolitan cities of India. According to the International Agency for Research on Cancer Monograph (IARC, 1987), sites of cancer that have been associated with the use of tobacco (TRC) include lip, tongue, mouth, pharynx (including oropharynx and hypo pharynx), esophagus, larynx, lung and urinary bladder. Recently, the IARC (IARC, 2004) states, that there was now sufficient evidence to establish a causal association between cigarette smoking and cancer of the nasal cavities and nasal sinuses, esophagus (adenocarcinoma), stomach, liver, kidney (renal cell carcinoma), uterine cervix and myeloid leukemia apart from the sites in the earlier monograph. Among incidence

**Table 1:** The incidence of cancer in India from 1990-2014 [4-11].

	BANGALORE		CHENNAI		DELHI		MUMBAI	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
1990-1996	10,240	11,740	11,366	12,355	26,218	25,861	28,953	27,091
1997-1998	3,081	3,554	3,652	4,026	9,023	8,805	8,617	8,504
1999-2000	3,495	4,083	3,960	4,182	9,177	9,057	8,880	8,701
2000-2004	6,112	7,247	6,214	6,689	16,112	15,044	13,727	13,792
2004-2005	4,619	5,627	4,501	4,912	12,151	11,256	9,731	10,053
2006-2008	5,645	6,979	7,392	2,039	13,720	1,617	15,745	8,152
2009-2011	6,026	7,389	2,619	2,796	15,189	13,838	11,091	11,773
2012-2014	3,824	4,547	5,447	6,212	10,148	9,598	65,698	6,759

**Table 2:** The mortality rate of cancer from 1990-2014 [4-11].

	BANGALORE		CHENNAI		DELHI		MUMBAI	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
1990-1996	3,130	2,769	6,686	5,785	7,105	5,240	14,516	12,313
1997-1998	1,030	857	2,020	1,679	1,997	1,507	4,335	3,813
1999-2000	1,207	1,057	1,775	1,424	1,395	993	4,264	3,592
2000-2004	2,230	1,912	2,610	2,103	2,029	1,404	7,009	6,114
2004-2005	1,903	1,762	2,131	1,608	1,367	989	5,183	4,611
2006-2008	2,109	1,948	7,866	1,701	12,613	1,192	17,485	7,419
2009-2011	2,161	1,923	767	632	2,001	1,455	5,198	4,784
2012-2014	1,578	1,572	1,398	1,164	1,027	769	4,591	3,915

**Table 3:** The tobacco related cancer in India from 2000-2014 [4-11].

	BANGALORE		CHENNAI		DELHI		MUMBAI	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
2000-2004	2,119	1,172	2,559	1,033	5,951	1,516	5,570	2,072
2004-2005	1,544	857	1,876	746	4,754	1,204	3,937	1,474
2006-2008	1,957	998	3,057	1,197	5,409	1,384	6,179	2,368
2009-2011	2,111	1,120	1,011	395	6,019	1,602	4,285	1,632
2012-2014	1,301	649	2,217	859	4,185	1,141	2,598	1,027

of cancer, tobacco related cancer accounts for about one fourth of the total cancer population. Thus tobacco use in any form (smoking and smokeless) can leads to cancer.

## Conclusion

Oral health is an important part of everyone's well-being. Despite the facts, that the harmful effects of tobacco chewing and smoking are widely known, many young people start smoking during adolescence, largely because they believe that smoking will boost their social acceptability and image. Recent shift in global tobacco consumption to developing countries indicate that an estimated 930 million of the world's 1.1 billion in India alone. A better quality of life is a right of each individual rather than a luxury. In a diverse country like India reaching the goal "TOBACCO FREE INDIA" will definitely help to achieve the "HEALTH-FOR-ALL" status.

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