datacard Infographics by V. Srinivasan, L. Balamurugan

Cancer in India

Nearly seven lakh Indians died of cancer in 2012, according to an estimate based on data collected for the period 2008-2011. BY ANUPAMA KATAKAM

The report on the incidence of cancer during 2008-2011 in India, prepared by the National Cancer Registry Programme (NCRP), reveals some significant facts about the types of cancers found in the country and the areas that show a high prevalence of the disease. On the basis of this report, the World Health Organisation has estimated that there were 682,830 cancer deaths— 356,730 males and 326,100 females—in India in 2012, that is 64.49 deaths per 100,000 adults.

The data were collected via a network of 25 Population Based Cancer Registries (PBCRs) spread across the

The report says that among males, the lung, the mouth, the oesophagus and the stomach are the leading sites of cancer across all the registries. Lung cancer is the

leading type in Bangalore, Chennai, Delhi, Kolkata, Tripura, Kollam and Thiruvananthapuram. All PBCRs in Gujarat, Maharashtra and Bhopal reported mouth cancer as the leading type.

North-eastern States

For the first time, data from the north-eastern States appears in the report. They reveal that the north-eastern States have reported high incidence rates of cancers of the upper aerodigestive tracts, which include anatomical sites such as the oral cavity, the pharynx, the hypopharynx, the larynx, the oesophagus and even the stomach.

In Assam and Meghalaya, cancer of the oesophagus is the most common, and stomach cancer is the leading type in Sikkim and Mizoram. Among females, cancer of the breast and the cervix are the leading types in 18 of the 25 PBCRs. The lung was the leading site in Manipur and Mizoram. Cancer of the oesophagus led the list of cancers in Megalaya. Cancer of the thyroid followed cancer of the breast in Kollam and Thiruvananthapuram in Kerala.

Incidence

The cancer incidence rate is generally expressed as age adjusted or age standardised rate (AAR, according to the world standard population) per 100,000 persons. The international comparisons of the incidence rates of these sites of cancer reveal that the PBCRs at Meghalaya (East Khasi Hills district) and Mizoram (Aizawl district) and

CAUSE OF MORTALITY The 682.830 cancer deaths in India in 2012 Lip, oral cavity comprising 356,730 men and 326,100 women. 36,436 Among men the causes of deaths were Larynx 10.2% cancer of the: lung 48,697 (13.7%), 15,805 stomach 40,721 (11.4%), lip, oral 65 4.4% cavity 36,436 (10.2%), colorectum 27,814 (7.8%), other pharynx **Breast** 27,002 (7.6%), oesophagus Stomach 70,218 25,170 (7.1%), liver 16,755 40,721 (4.7%), larynx (15,805 21.5% 11.4% (4.4%), other 102,262 (28.7%), and leukaemia Lung 16,068 (4.5%). Among 48,697 stomach women the causes of 13.7% 18,320 deaths were cancer of 5.6% the: breast 70.218 (21.5%), cervix uteri 67,477 (20.7%), colorectum 20,789 (6.4%), ovary 19,549 (6%), stomach 18,320 (5.6%), lip, oral Cervical cavity 15,631 (4.8%), lung 67,477 15,062 (4.6%), oesopha-当 20.7% gus 13,513 (4.1%), other 74,897 (23%) and leukaemia 10,644 (3.3%).

Estimated cancer deaths in India (x 1,000) in 2010

Female

Mala

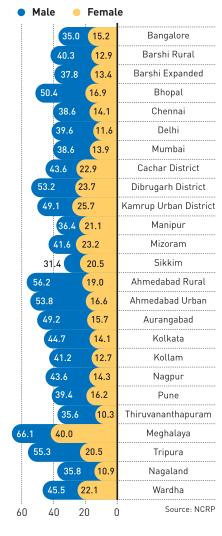
Male		(,, =	Female		
All	Tobacco related#	Places	All	Tobacco related#	Cervical
5.6	2.8	North-eastern States*	3.2	0.4	0.4
8.5	5.2	Assam	5.3	1.7	0.2
11.3	3.9	Kerala	7.5	1.4	0.9
2.7	0.8	Jammu & Kashmir	2.0	0.3	0.04
15.3	8.9	Gujarat	9.6	2.3	2.0
1.6	0.7	Himachal Pradesh	1.7	0.4	0.3
3.6	2.0	Delhi	2.6	0.3	0.3
13.2	5.3	Karnataka	13.2	4.0	1.8
4.9	2.2	Haryana	3.0	0.8	0.4
1.1	0.5	Other States**	0.9	0.2	0.2
18.2	5.7	West Bengal	18.0	2.7	2.7
1.6	1.0	Uttarakhand	1.5	0.4	-
9.6	4.4	Rajasthan	8.1	1.5	1.0
10.2	4.4	Madhya Pradesh	9.8	2.3	1.2
27.5	11.0	Uttar Pradesh	31.2	4.1	4.0
14.6	4.7	Andhra Pradesh	17.6	3.3	3.0
18.0	9.5	Maharashtra	18.1	4.2	3.8
4.1	1.9	Punjab	5.5	1.3	0.8
11.5	3.8	Tamil Nadu	15.7	1.9	5.4
4.5	1.5	Odisha	5.0	0.7	0.9
8.3	2.3	Bihar	10.4	1.0	2.0
1.8	1.0	Chhattisgarh	3.0	0.4	0.9
2.7	0.7	Jharkhand	2.9	0.2	1.1
200.1	84.0	Total	195.4	35.7	33.4
138.3	57.1	Rural	143.8	25.7	25.4
61.8	26.9	Urban	51.6	10.0	8.0
74.6	31.4	Poorest States***	77.0	12.2	11.4
125.5	52.6	Richest States****	118.4	23.4	22.0

Estimated deaths from all and tobacco related cancers for men aged 30-69 years and for all, tobacco related and cervical cancers for women aged 30-69 years in the States and regions of India

- # Oral, lung, oesophagus, and other respiratory cancers
- * Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Tripura, and Sikkim
- ** Andaman and Nicobar Islands, Chandigarh, Dadra and Nagar Haveli, Daman and Diu, Goa, Lakshadweep, and Puducherry
- *** Poorest States are the empowered action group of States (Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Odisha, Rajasthan, Uttarakhand, and Uttar Pradesh) plus Assam
- **** Remaining States or Union Territories Source: Lancet

8.2 million people worldwide died from cancer in 2012.

Proportion of tobacco-related cancers relative to all types of cancers (in per cent)



Kamrup in Assam have the highest AARs of cancers of these sites, particularly oesophagus, hypopharynx and larynx.

Childhood cancer

In another first, the NCRP collated information on cancers in childhood. The report says cancers in childhood constitute one of the most important groups of tumours. In boys, the proportion was the lowest in the East Khasi Hills (0.8 per cent) and the highest in Delhi (5.8 per cent) In girls, it varied from 0.5 per cent in East Khasi Hills to 3.4 per cent in Ahmedabad Rural. Incidence rates for childhood cancers are generally expressed as per million children and not as per hundred thousand, unlike in the case of adults, says the report.

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Source: Globocan