

THE LANCET: Press Release

****PLEASE NOTE UNUSUAL EMBARGO: 0530AM UK time (1100H AM New Delhi time, 0030AM Toronto time) Weds 28 March**

****Note there is a press conference in Mumbai, India on this paper, see below****

Major study shows that tobacco-related cancers and cervical cancer are important causes of death among working-age people in India

New research analyses cancer death rates across India, and shows that oral, stomach, and lung cancers are important causes of death in Indian men, while cervical, stomach, and breast cancers cause the most cancer deaths among Indian women. The **Article**, published **Online First** by *The Lancet*, is by Professor Prabhat Jha, Centre for Global Health Research, St. Michael's Hospital and University of Toronto, ON, Canada, and colleagues across India and worldwide.

About three-quarters of Indians live in rural areas. Yet mortality for specific cancers has previously been estimated mostly with data from India's 24 urban population-based cancer registries, with only two registries representing rural areas. In this new study the authors assessed cancer mortality in the Million Death Study (MDS), which is led by the Office of the Registrar General of India, and is one of the few large, nationally representative studies (including rural areas) of the causes of death in any low-income or middle-income country. The authors focus on the geographical and social variation in specific cancers, and the degree to which these cancers might be avoidable by controlling their risk factors or causative agents.

The authors found that 7137 of 122 429 study deaths were due to cancer, corresponding to 556 400 cancer deaths across the whole of India in 2010. Some 71% (395 000) of these deaths occurred in people aged 30-69 years (200 100 men and 195 300 women). Cancer deaths accounted for 6% of deaths across all ages, but among the 30-69 years age group this rose to 8% of the 2.5 million total male deaths and 12% of the 1.6 million total female deaths. At 30-69 years, the three most common fatal cancers in men were: oral (including lip and pharynx, 45 800 [23%]), stomach (25 200 [13%]), and lung (including trachea and larynx, 22 900 [11%]). For women, the leading causes of cancer death were cervical (33 400 [17%]), stomach (27 500 [14%]), and breast (19 900 [10%]) cancers in women.

Tobacco-related cancers represented 42.0% (84 000) of male and 18.3% (35 700) of female cancer deaths at ages 30-69 years and there were twice as many deaths from oral cancers as lung cancers, in part due to common use of chewing tobacco in men and women. The authors say: "The number of oral cancers was more than twice the number of lung cancers in individuals aged 30-69 years, indicating that the range of fatal cancers caused by tobacco in India differs substantially from that in high-income countries."

Age-standardised cancer mortality rates per 100 000 were similar in rural areas (men 96, women 97) and urban areas (men 102, and women 91, but varied greatly between the states. Mortality rates were two times higher in the least educated than in the most educated adults: men, illiterate 107 vs most educated 46; and women, illiterate 107 vs most educated 43. Cervical cancer was around 40% less common in Muslim than in Hindu women, probably due to high circumcision rates among Muslim men having a protective effect against human papillomavirus (HPV) infection, a causative agent in cervical cancer.

In terms of geographical variation, the authors noted that a 30-year old man in northeastern India had the highest chance (11.2%) of dying from cancer before 70 years of age. By contrast, the risk was less than 3% for men in the adjacent states of Bihar, Jharkhand, and Odissa in eastern India. For women, the highest risk (6.0%) of dying from cancer before 70 years of age was in the northeastern states.

Rates of cancer deaths in India are about 40% lower in adult men and 30% lower in women than in men and women in the USA or UK (table 1). However, cancer death rates are expected to rise, particularly with increases in age-specific rates of tobacco smoking. The authors conclude: "Prevention of tobacco-related and cervical cancers and earlier detection of treatable cancers would reduce cancer deaths in India, particularly in the rural areas that are underserved by cancer services. The substantial variation in cancer rates in India suggests other risk factors or causative agents that remain to be discovered."

Professor Prabhat Jha and other authors will be in India for a press conference on March 28 (details below). For Indian media inquiries, please contact Prabha Sati, T) +91 971 196 4550 E) satip@smh.ca. For rest of world media inquiries, please contact Leslie Church T) +1 416 452-9202 E) leslie.church@utoronto.ca

ADDITIONAL INFORMATION: press releases in Hindi, a video news release in English, Hindi and regional languages, FAQs, and PowerPoint slides will be available at www.cghr.org/cancer once the embargo lifts.

PRESS CONFERENCE

WHEN: Wednesday, March 28, 2012 from 11.00-13.30 hrs Mumbai Time.

WHERE: Tata Memorial Hospital
Rustom Choksi Auditorium
Golden Jubilee Block
Parel-Mumbai

PANEL: Dr. Rajendra Badwe, Director, Tata Memorial Hospital Mumbai, India

Prof. Prabhat Jha, Director, Centre for Global Health Research, University of Toronto, Toronto, Canada

Prof. Rajesh Dikshit, Head of Epidemiology, Tata Memorial Hospital, Mumbai, India

For invitation, contact Ms Prabha Sati (see above)

For full **Article** and **Comment** see: <http://press.thelancet.com/indiacancer.pdf>

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