

Largest study of causes of cancer in India begins

October 26 2011



(Medical Xpress) -- A large study to investigate causes of common cancers in India is being carried out through a collaboration between Oxford University and 12 leading cancer centres in India.

This study, on a scale not seen in [India](#) before, will be large enough to investigate whether certain factors common in some Indian lifestyles are important in influencing the risk of cancer.

For example, it should provide evidence on whether vegetarianism or common [spices](#) in the Indian diet have a [beneficial effect](#) in lowering the risk of cancer – and whether chewing tobacco, burning wood as a fuel indoors, and increasingly Western lifestyles in Indian cities are having a detrimental effect.

The researchers in the INDOX Cancer Research Network hope that, by identifying factors linked to cancer risk, this can help guide public health strategies to reduce the burden of disease.

Dr Raghiv Ali, director of the INDOX Cancer Research Network, says: ‘This is the biggest study to date of risk factors associated with cancer in India.

‘Cancer is increasing in India. Although it is increasing from a low level – because of India’s size – if it reaches levels seen in the West, many millions of people will be affected,’ Dr Ali adds. ‘If we can understand the causes of cancer in India better, we can hope to take steps to change some of these factors and prevent an epidemic of cancer.’

Cancer, often thought of as a disease of the rich West, is now the second leading cause of death in many low and middle-income countries, including India. By 2020, it is estimated that 70% of all cancer cases will be in these lower income countries – and approximately one fifth of these will be in India alone.

Cancer incidence in India is expected to increase by more than two thirds over the next two decades to approximately 1.7 million new cases per year. Mortality rates for cancer are much higher in India than in the West because the cost of treatment, social stigmas and lack of awareness of the signs of cancer prevent many people from coming forward for treatment.

Yet the vast majority of studies into cancer risks have been in Western populations, with very few in India. So it is not known whether the same factors have an effect in India.

The INDOX Cancer Research Network, a partnership between the University of Oxford and 12 of India's top comprehensive cancer centres, will conduct a large study, involving as many as 30,000 people in total at 12 centres across India.

The study will investigate lifestyle, diet and genetic factors associated with the most common cancers in India – breast, bowel, lymphoma, lung, stomach, gallbladder, oesophageal cervical, and head and neck cancers.

Previously the biggest studies of this type in India have been limited to a few hundred people.

Two of these studies – in breast and bowel cancer – have already begun and are expected to be complete in two years time. The researchers will recruit a total of 10,000 people newly diagnosed with these two cancers, and a further 10,000 people as healthy controls.

Breast cancer cases are on the rise in India. It is now the second most common cancer in women after cervical cancer, and in urban areas it has overtaken cervical cancer to be the most frequently diagnosed cancer in women.

Bowel cancer is much less common in India than in Western countries, but the reasons for this are unclear. This has remained the case despite the rapid economic and social change in India which has been accompanied by rises in conditions like heart disease, diabetes and other cancers.

Study participants will fill in questionnaires about lifestyle, diet, exercise, smoking and alcohol; have their height and weight measured.

By comparing factors common across those with cancer with the group of healthy controls, the researchers in this ‘case-control study’ aim to find associations between diet and lifestyle and risk of different types of cancer in India.

In particular, life-long vegetarianism is much more common in India than in other parts of the world, so this is a unique opportunity to see if never eating meat has any protective effect against these cancers.

‘The unique value of the INDOX [collaboration](#) is its ability to undertake large-scale studies and thus provide high quality and reliable scientific evidence,’ explains Dr Toral Gathani, INDOX Head of Epidemiology at the University of Oxford.

‘As the incidence of cancer within the Indian population rises, there is a need to gain a better understanding of the [risk](#) factors for particular cancers in this population. The information gained from these case-control studies will be used to raise awareness about the causes of cancer as well as to inform future [cancer](#) prevention programmes in India.’

Provided by Oxford University

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