**Headline:** Deaths from cardiovascular disease rising in India, study finds

**Sub-heading:** Previously unstudied nationally, cardiac mortality is on the rise in India, especially in rural areas and young adults

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TORONTO, July 13, 2018 – Death due to cardiovascular disease is on the rise in India, causing more than one quarter of all deaths in the country in 2015 and affecting rural populations and young adults the most, suggests a study published today in *The Lancet Global Health*.

This work is the first nationally representative study to measure cardiovascular mortality in India. Led by <u>Dr. Prabhat Jha</u>, director of the <u>Centre for Global Health Research</u> of St. Michael's Hospital in Toronto, Canada, it found that rates of dying from ischaemic heart disease – cardiac issues caused by a narrowing of the heart's arteries – in populations aged 30 to 69 increased rapidly in rural areas of India and surpassed those in urban areas between the year 2000 and 2015.

In contrast, the probability of dying from stroke decreased overall, but increased in India's northeastern states, where a third of premature stroke deaths occurred and only one sixth of the population lives. In these states, deaths due to stroke were about three times higher than the national average.

"The finding that cardiac disease rose nationally in India and that stroke rose in some states was surprising," said Dr. Jha, who is also a professor in the <u>Dalla Lana School of Public Health</u> at the <u>University of Toronto</u>. "This study also unearthed an important fact for prevention of death due to cardiovascular disease. Most deaths were among people with previously known cardiac disease, and at least half were not taking any regular medications."

Dr. Jha and his team also showed that younger adults, especially those born after 1970, have the highest rate of death due to heart problems caused by narrowing of the heart's arteries.

Cardiovascular disease, comprising mostly of ischaemic heart failure and stroke, is the leading cause of death worldwide. Until now, most of the evidence of cardiovascular mortality in India has come from small, local studies or from imprecise modeling exercises.

"This work equips us with more detailed information that we couldn't have predicted based on earlier studies," said Dr. Jha.

This research is part of the Million Death Study, one of the largest studies of premature deaths in the world. In India, most deaths occur at home and without medical attention. Hundreds of specially trained census staff in India knocked on doors to interview household members about deaths. Two physicians independently examined these "verbal autopsies" to establish the most likely cause of death.

"Making progress in fighting the leading cause of death in India is necessary for making progress at the global level," Dr. Jha said. "We demonstrated the unexpected patterns of heart attack and stroke deaths. Both conditions need research and action if the world is going to

achieve the United Nations Sustainable Development Goal of reducing cardiovascular mortality by 2030."

This study was funded by the Fogarty International Center of the U.S. National Institutes of Health, Dalla Lana School of Public Health, University of Toronto, Indian Council of Medical Research and the Disease Control Priorities (funded by the Bill & Melinda Gates Foundation).

## About St. Michael's Hospital

St. Michael's Hospital provides compassionate care to all who enter its doors. The hospital also provides outstanding medical education to future health care professionals in more than 29 academic disciplines. Critical care and trauma, heart disease, neurosurgery, diabetes, cancer care, care of the homeless and global health are among the Hospital's recognized areas of expertise. Through the Keenan Research Centre and the Li Ka Shing International Healthcare Education Centre, which make up the Li Ka Shing Knowledge Institute, research and education at St. Michael's Hospital are recognized and make an impact around the world. Founded in 1892, the hospital is fully affiliated with the University of Toronto.

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