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News / India / Air pollution behind 7% of deaths in 10 cities: Lancet study

Air pollution behind 7% of deaths in 10 cities: Lancet study

Across 10 cities — Ahmedabad, Bengaluru, Chennai, Delhi, Hyderabad, Kolkata, Mumbai, Pune, Shimla and Varanasi — more than 33,000 deaths could be attributed to air pollution every year on an average, the study said.

Written by [Anuradha Mascarenhas](#) [Follow](#)

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The study, carried out by researchers from India and abroad, found that PM2.5 concentrations in these 10 cities, exceeded the safe limits defined by the World Health Organisation (15 micrograms per cubic metre) on 99.8 per cent of the days.

About 11.5 per cent of deaths in Delhi every year, roughly 12,000 deaths, can be attributed to air pollution, the highest for any city in the country, a first-of-its-kind multi-city study in India, published in the Lancet, has revealed.

Across 10 cities — [Ahmedabad](#), Bengaluru, Chennai, Delhi, [Hyderabad](#), [Kolkata](#), [Mumbai](#), [Pune](#), [Shimla](#) and Varanasi — more than 33,000 deaths could be attributed to air pollution every year on an average, the study said. Shimla has the lowest mortality burden among these cities, with only 59 deaths every year, about 3.7 per cent of its total, that could be attributed to pollution. Together, about 7.2 per cent of all deaths in these cities, amounting to about 33,000 deaths every year, could be said to be caused by air pollution every year, the study said.

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The researchers obtained daily death data from the civil registries in these ten cities between 2008 and 2019. For every city, only three to seven years of daily death data

during this period was made available. Together, more than 3.6 million deaths in these cities were examined. Given the sparse nature of air pollution data across many cities, researchers leveraged a previously-developed machine-learning based exposure model that combined data from the regulatory monitors, satellites, meteorology and other sources to generate PM2.5 exposure data with a high level of detail in terms of time and location.

The study found 1.42 per cent rise in mortality for every increase of 10 micrograms/cu metre in the PM2.5 levels when all the ten cities were taken together. There was large variation among the cities, with Delhi showing a rise of 0.31 per cent in mortality while Bengaluru having an increase of 3.06 per cent. This suggested that people living in less polluted cities carried a higher risk of mortality due to increase in pollution than those living in polluted cities.

“In our results, we see that cities such as Bengaluru and Shimla which have relatively lower levels of air pollution showed stronger effects. This is likely due to the sharp increase in risk at lower levels of exposure which plateaus at higher levels which are unlikely to be experienced in these cities,” Dr Siddharth Mandal of the Centre for Chronic Disease Control, one of the co-authors of the study, said.



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Dr Bhargav Krishna, Fellow at the Sustainable Futures Collaborative and a lead author on the study told [The Indian Express](#), that the study broke new ground in the understanding of air pollution and health in India. “It is the first multi-city study to assess the relationship between short-term air pollution exposure and

death in India, with the cities included spanning a wide range of air pollution concentrations and situated in different agro-climatological zones,” he said.

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EXPRESS *Shorts*



DGCA seeks report from Air India related to chartered Barbados flight

Business Updated: July 3, 2024 19:50 IST

The DGCA has asked for a report from Air India about using a plane to transport the Indian cricket team from Barbados, causing trouble for other passengers. The team is due to land in Delhi on Thursday morning with a special flight. Air India says most passengers were informed, b...

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