

APRIL 14, 2020

6:17 AM

UPDATED 2 YEARS AGO

Has India's 'airpocalypse' put the poor more at risk from coronavirus?

By [Annie Banerji](#), [Thin Lei Win](#)

NEW DELHI/ROME (Thomson Reuters Foundation) - From street sweepers and farmers to rural housewives, poor Indians who breathe some of the world's dirtiest air are at greater risk of dying from the new coronavirus than wealthier groups, health experts have warned.

India is home to about half of the world's 50 most polluted cities, according to Swiss firm IQAir, with emissions fuelled by industry, vehicle exhaust fumes and coal-fired power plants.

New Delhi was named in February as the capital with the dirtiest air.

Dust from building sites and smoke from burning rubbish and crop fields also contribute to what is locally dubbed the "airpocalypse".

Environmentalists say this air pollution hits poor and socially marginalised communities most as they often

live and work in or close to industrial and commercial areas.

In addition, they tend to burn wood, dung, kerosene or coal indoors to cook and heat their homes.

Long exposure to health-harming emissions can weaken immune systems, making it harder to fight off the coronavirus, which in severe cases causes shortness of breath and lung failure, said Arvind Kumar, a leading chest surgeon in New Delhi.

“The poor will be far more vulnerable because ... poverty is linked to air pollution - and air pollution is linked to higher mortality to (the novel coronavirus),” said Kumar, founder of the Lung Care Foundation.

Those suffering from malnutrition also have weak immune systems and are more prone to infections, giving them low chances of fighting COVID-19, he told the Thomson Reuters Foundation.

BEYOND INDIA

Overall, nine in 10 people on the planet breathe poor-quality air, which kills an estimated 7 million people each year, according to the World Health Organization (WHO).

More than 90% of air pollution-related deaths occur in low- and middle-income countries, mainly in Asia and Africa, it found in a 2018 report.

India's toxic air claimed 1.24 million lives in 2017, according to a study published by The Lancet Planetary Health.

Kumar cited recent studies that draw links between air pollution, COVID-19 - the respiratory disease caused by the new coronavirus - and mortality rates, including in Italy, one of the world's hardest-hit countries with more than 20,000 deaths.

In a study published this month in the journal Environmental Pollution, Danish and Italian scientists said the two Italian regions with the highest death tolls - Lombardy and Emilia-Romagna - are also among the most polluted in Europe.

While other factors likely contributed to the deaths, the bodies of the victims "may have already been weakened by the accumulated exposure to air pollution", the researchers said.

Similarly, another new study from the Harvard T.H. Chan School of Public Health looked at data from about

3,000 counties in the United States, covering 98% of the country's population.

It found that residents of counties with high levels of fine particulate pollution over decades were 15% more likely to die from COVID-19 than inhabitants of regions with just 1 microgram per cubic metre less of such PM2.5 pollution.

Still, it remains unclear if the virus is carried on the polluting particles or if dirty air damages the layer of cells that cover the lungs “which makes it easier for the virus to enter”, said Mark Nieuwenhuijsen, an environmental epidemiology professor at the Barcelona Institute for Global Health.

NO TESTS, NO DATA

Indians have been breathing easier since a national lockdown came into force on March 25 to combat the coronavirus outbreak, which has infected more than 10,000 and killed about 350 people.

With cars off the road and factories closed, skyscrapers usually shrouded in smog have been visible under blue skies and residents say they can spot more stars than usual.

Kumar of the Lung Care Foundation said India should take a cue and start moving faster to ditch dirty fossil fuels and adopt renewable energy.

“Instead of planning on doing something in the next 20 or 30 years, we must use this sad episode to fast-forward to a clean energy economy in a rapid way,” he added.

Health experts said that while air quality may have improved for now, conditions linked to long-term exposure to pollution like asthma and bronchitis were harder to tackle.

Respiratory problems can also be made worse by “co-morbidities” - or existing medical conditions - like hypertension and diabetes, said Ramanan Laxminarayan, director of the Washington D.C.-based Center for Disease Dynamics, Economics and Policy.

“The poor are more likely to have these co-morbidities and are exposed to higher levels of air pollution because they are more likely to be involved in physical labour that requires exertion that is hazardous when air quality is low,” he said.

Tuberculosis is an example of a respiratory infection where Indians have been at risk of worse outcomes due

to exposure to poor air quality, he added in emailed comments.

India is home to the world's largest number of TB patients, according to the WHO.

Kumar said a lack of tests and information so far made it “impossible” to know whether the poor are facing more severe forms of COVID-19.

Those with symptoms are being admitted to local government facilities, where resources are usually limited and tests for lung function unlikely to happen, he said.

He urged the government to create a central database to catalogue COVID-19 patients according to the cause of death, underlying problems, history of exposure to air pollution and socio-economic background, to support better research.

Reporting by Annie Banerji @anniebanerji in New Delhi and Thin Lei Win in Rome, additional reporting by Sophie Davies in Barcelona; editing by Megan Rowling. Please credit the Thomson Reuters Foundation, the charitable arm of Thomson Reuters, that covers the lives of people around the world who struggle to live freely or fairly. Visit [news.trust.org](https://www.news.trust.org)
Our Standards: [The Thomson Reuters Trust Principles.](#)