





# China

Air pollution was the 4th leading risk factor for premature death in China in 2019, accounting for nearly 12% of all deaths (more than 1.85 million). Considered separately, ambient particulate matter (PM<sub>2.5</sub>) ranked as the 3rd leading risk factor, and household air pollution (HAP) ranked 13th. Ozone was not in the top 20 risk factors.

## Key Statistics at a Glance

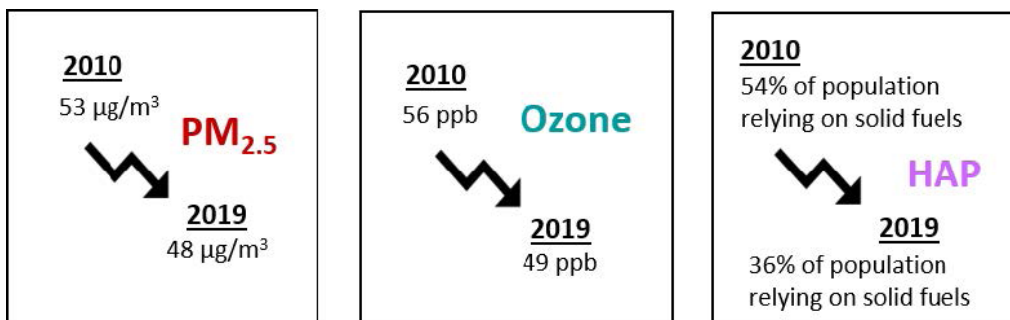
<p><b>1.85 million deaths</b> due to air pollution in 2019.</p> <p><b>Nearly 13 %</b> of infant deaths attributable to air pollution.</p>	 <p><b>48 µg/m<sup>3</sup></b> population-weighted annual average PM<sub>2.5</sub> concentration.*</p> <p><b>1.42 million deaths</b> attributable to exposure to outdoor PM<sub>2.5</sub>.*</p>	 <p><b>36% of the population</b> used solid fuels for cooking in 2019.</p> <p><b>More than 360,000 deaths</b> attributable to exposure to household air pollution.</p>
---	--	---

## Key Exposure Facts

**99% of China's population** lives in areas where PM<sub>2.5</sub> levels are above the WHO guideline for healthy air (10 µg/m<sup>3</sup>). \*\*

- Between 2010 and 2019, exposures to PM<sub>2.5</sub>, household air pollution, and ozone all declined.
- There are more than 1,300 stations reporting PM<sub>2.5</sub> concentrations in China.
- Among the 23 countries in the Southeast Asia, East Asia, and Oceania region, China ranks 1st in PM<sub>2.5</sub> exposure.

## How Have Pollutant Exposures Changed Between 2010 and 2019?



\* Please note that PM<sub>2.5</sub> concentrations reported here are estimated using a combination of satellite data, ground air quality monitoring data, and chemical transport models. These estimates can be more uncertain in regions where ground monitoring data are limited or not available. In China, the best estimate of the annual average exposure is 48 µg/m<sup>3</sup>, but it may range from 46 µg/m<sup>3</sup> to 45 µg/m<sup>3</sup>.

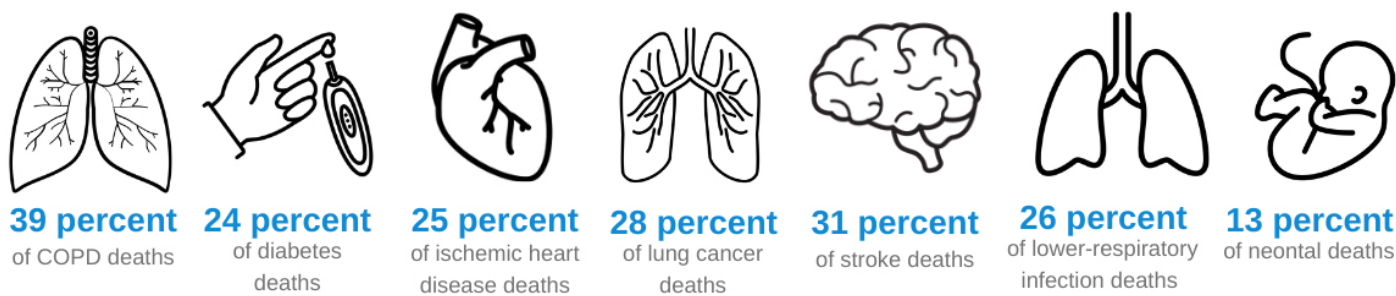
\*\* WHO provides an Air Quality Guideline of 10 µg/m<sup>3</sup> for PM<sub>2.5</sub> to minimize health risks to populations, as well as three interim targets (15 µg/m<sup>3</sup>, 25 µg/m<sup>3</sup>, and 35 µg/m<sup>3</sup>) as incremental steps toward the progressive reduction of air pollution.

# STATE OF GLOBAL AIR /2020

## ***Air Pollution Accounts for a Substantial Percentage of Global Deaths from Specific Causes.***

Air pollution exposures, including exposure to outdoor PM<sub>2.5</sub> and HAP, have been linked to increased hospitalizations, disability, and early death from respiratory diseases, heart disease, stroke, lung cancer, and diabetes, as well as communicable diseases like pneumonia. Exposure to ozone is linked to chronic obstructive pulmonary disease (COPD), and in children, especially those under the age of 5, increases susceptibility to lower-respiratory tract infections. Exposure to PM<sub>2.5</sub> also puts mothers at risk of delivering babies too early and smaller than normal, and such babies are more susceptible to dying from a range of diseases.

## ***Percentage of Deaths (by Cause) Attributed to Air Pollution in China in 2019***



## ***Key Health Facts***

- Air pollution is the 4th leading risk factor for premature death in China. Leading causes of death in China include ischemic heart disease, intracerebral hemorrhage, COPD, ischemic stroke, and lung cancer, while leading risk factors include tobacco, high blood pressure, dietary risks, and high blood sugar.
- There are 130 deaths per 100,000 people attributable to air pollution in China compared with 86 deaths globally, adjusted for differences in age.
- 8% of total air pollution-attributable deaths are in children under 5, and 18% are in people over 70.
- **GOOD NEWS:** China implemented the first comprehensive five-year plan to improve air quality between 2013 and 2017, and subsequent plans have continued to address air pollution. Key interventions include a shift from coal to gas in residential and industrial sectors and a reduction in industrial emissions.

### FOR MORE INFORMATION:

For the full report and additional data, please visit [www.stateofglobalair.org](http://www.stateofglobalair.org).

### ADDITIONAL RESOURCES:

To access real-time air quality index values for cities around the world, visit [AQICN](http://AQICN).

For open-access, real-time air quality data, visit [OpenAQ](http://OpenAQ).

For science-based solutions in Asia and the Pacific, visit [CCAC](http://CCAC).



For more details, please visit:  
[www.stateofglobalair.org](http://www.stateofglobalair.org)

Contact us:  
[contactsoiga@healtheffects.org](mailto:contactsoiga@healtheffects.org)



IHME



The State of Global Air website is a collaboration between the Health Effects Institute and the Institute for Health Metrics and Evaluation, with expert input from the University of British Columbia.