



# United Kingdom

Air pollution was the 11th leading risk factor for premature death in the UK in 2019, accounting for around 2% of all deaths (more than 15,000). Considered separately, ambient particulate matter (PM<sub>2.5</sub>) ranked as the 11th leading risk factor, while household air pollution (HAP) and ozone were not in the top 20 risk factors.

## Key Statistics at a Glance

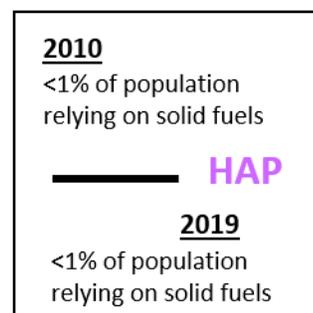
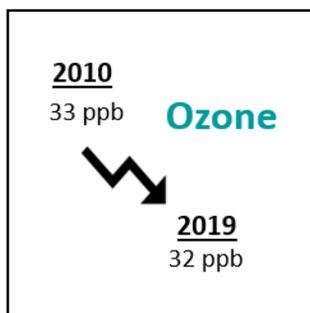
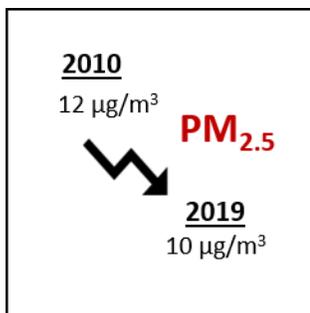
<p><b>More than 15,000 deaths</b> due to air pollution in 2019.</p> <p><b>Less than 5% of infant deaths</b> attributable to air pollution.</p>	 <p><b>10 µg/m<sup>3</sup> population-weighted annual average PM<sub>2.5</sub> concentration.*</b></p> <p><b>14,400 deaths</b> attributable to exposure to outdoor PM<sub>2.5</sub>.</p>	 <p><b>32 ppb average seasonal population-weighted ozone.</b></p> <p><b>600 deaths</b> attributable to exposure to household air pollution.</p>
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## Key Exposure Facts

**54% of the UK'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> and ozone saw a modest decline, but exposures to household air pollution remained roughly the same.
- There are nearly 150 stations reporting PM<sub>2.5</sub> concentrations in the UK.
- Among the 33 countries in the High Income the UK ranks 26th 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 the UK, the best estimate of the annual average exposure is 10 µg/m<sup>3</sup>, but it may range from 10 µg/m<sup>3</sup> to 11 µg/m<sup>3</sup>.

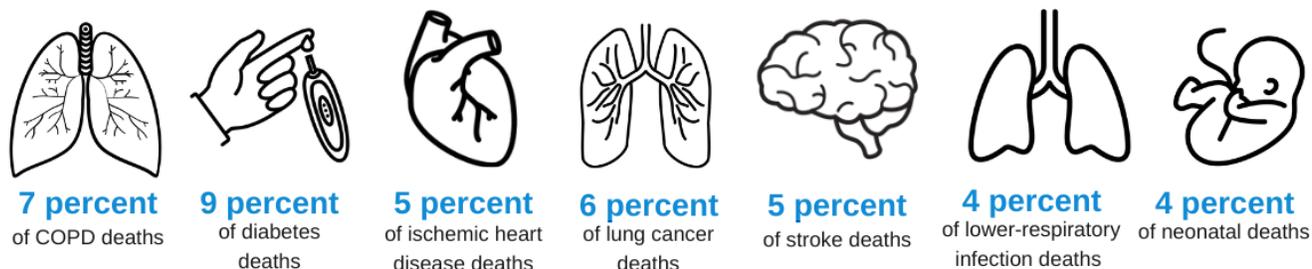
\*\* WHO provides an Air Quality Guideline of 10 µg/m<sup>3</sup> for PM<sub>2.5</sub> to minimize health risks to populations, as well as three interim targets (15 µg/m<sup>3</sup>, 25 µg/m<sup>3</sup>, and 35 µg/m<sup>3</sup>) as incremental steps toward the progressive reduction of air pollution.

# 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 the UK in 2019**



## **Key Health Facts**

- Air pollution is the 11th leading risk factor for premature death in the UK. Leading causes of death in the UK include Ischemic heart disease, COPD, lung cancer, lower-respiratory infections, and stroke, while leading risk factors include tobacco, high blood pressure, dietary risks, high blood sugar, and high BMI.
- There are 11 deaths per 100,000 people attributable to air pollution in the UK compared with 86 deaths globally, adjusted for differences in age.
- 3% of total air-pollution-attributable deaths in the UK are in children under 5, and 2% are in people over 70.

### **FOR MORE INFORMATION:**

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

### **ADDITIONAL RESOURCES:**

For open-access, real-time air quality data, go [here](#) and [here](#).

In 2019, the government released the [Clean Air Strategy](#) with a focus on comprehensive action at national and local levels.



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

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



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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.