United States

Air pollution was the 12th leading risk factor for premature death in the United States in 2019, accounting for 2% of all deaths (more than 60,000). Considered separately, ambient particulate matter (PM$_{2.5}$) ranked as the 16th leading risk factor, while household air pollution (HAP) and ozone were not in the top 20 risk factors.

**Key Statistics at a Glance**

<table>
<thead>
<tr>
<th>60,000 deaths due to air pollution in 2019.</th>
<th>8 µg/m$^3$ population-weighted annual average PM$_{2.5}$ concentration.*</th>
<th>43 ppb average seasonal population-weighted ozone.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nearly 4% of infant deaths attributable to air pollution.</td>
<td>Nearly 48,000 deaths attributable to exposure to outdoor PM$_{2.5}$.</td>
<td>Nearly 13,000 deaths attributable to exposure to ozone.</td>
</tr>
</tbody>
</table>

**Key Exposure Facts**

5% of the U.S. population lives in areas where PM$_{2.5}$ levels are above the WHO guideline for healthy air (10 µg/m$^3$).*

- Between 2010 and 2019, exposures to PM$_{2.5}$, household air pollution, and ozone all declined.
- There are more than 1,600 stations reporting PM$_{2.5}$ concentrations in the U.S.
- Among the 34 countries in the High-Income region, the U.S. ranks 25th in PM$_{2.5}$ exposure.

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

- PM$_{2.5}$: 9 µg/m$^3$ in 2010 to 8 µg/m$^3$ in 2019
- Ozone: 46 ppb in 2010 to 43 ppb in 2019
- HAP: Less than 1% of population relying on solid fuels in 2010 and 2019

---

* Please note that PM$_{2.5}$ 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 United States, the best estimate of the annual average exposure is 7.7 µg/m$^3$, but it may range from 7.6 µg/m$^3$ to 7.8 µg/m$^3$.

** WHO provides an Air Quality Guideline of 10 µg/m$^3$ for PM$_{2.5}$ to minimize health risks to populations, as well as three interim targets (15 µg/m$^3$, 25 µg/m$^3$, and 35 µg/m$^3$) as incremental steps toward the progressive reduction of air pollution.
Air Pollution Accounts for a Substantial Percentage of Global Deaths from Specific Causes.

Air pollution exposures, including exposure to outdoor PM$_{2.5}$ 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$_{2.5}$ 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 United States in 2019

Key Health Facts

- Air pollution is the 12th leading risk factor for premature death in the United States. Leading causes of death in the United States include ischemic heart disease, lung cancer, COPD, Alzheimer's disease, and ischemic stroke, while leading risk factors include tobacco, high blood pressure, poor diet, and high BMI.
- There are 11 deaths per 100,000 people attributable to air pollution in the United States compared with 86 deaths globally, adjusted for differences in age.
- 2% of total air pollution-attributable deaths in the United States 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:

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

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

For information on air pollution and lung health, visit [American Lung Association](http://www.lung.org).

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.