Iran

Air pollution was the 7th leading risk factor for premature death in Iran in 2019, accounting for nearly 11% of all deaths (more than 43,000). Considered separately, ambient particulate matter (PM$_{2.5}$) ranked as the 5th leading risk factor. Ozone and household air pollution were not in the top 20 risk factors.

Key Statistics at a Glance

<table>
<thead>
<tr>
<th>More than 43,000 deaths due to air pollution in 2019.</th>
<th>38 µg/m$^3$ population-weighted annual average PM$_{2.5}$ concentration.*</th>
<th>58 ppb average seasonal population-weighted ozone.</th>
</tr>
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<tbody>
<tr>
<td>10% of infant deaths attributable to air pollution.</td>
<td>Nearly 42,000 deaths attributable to exposure to outdoor PM$_{2.5}$.</td>
<td>Nearly 1,800 deaths attributable to exposure to ozone.</td>
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Key Exposure Facts

100% of Iran’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, exposure to PM$_{2.5}$ declined, but exposure to ozone increased and exposure to household air pollution stayed the same.
- Among the 19 countries in the North Africa and Middle East region, Iran ranks 11th in PM$_{2.5}$ exposure.

How Have Pollutant Exposures Changed Between 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 Iran, the best estimate of the annual average exposure is 38 µg/m$^3$, but it may range from 34 µg/m$^3$ to 43 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 (35 µg/m$^3$, 25 µg/m$^3$, and 15 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 Iran in 2019

Key Health Facts

- Air pollution is the 7th leading risk factor for premature death in Iran. Leading causes of death in Iran include ischemic heart disease, stroke, hypertensive heart disease, diabetes, and Alzheimer disease, while leading risk factors include high blood pressure, high blood sugar, dietary risks, high BMI, and high LDL cholesterol.
- There are 66 deaths per 100,000 people attributable to air pollution in Iran compared with 86 deaths globally, adjusted for differences in age.
- 7% of total air-pollution-attributable deaths in Iran are in children under 5, and 11% 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, visit [OpenAQ](https://openaq.org).