Mexico

Air pollution was the 9th leading risk factor for premature death in Mexico in 2019, accounting for less than 10% of all deaths (nearly 50,000). Considered separately, ambient particulate matter (PM$_{2.5}$) ranked as the 8th leading risk factor, and household air pollution (HAP) ranked 18th. Ozone was not in the top 20 risk factors.

**Key Statistics at a Glance**

<table>
<thead>
<tr>
<th>More than 48,000 deaths due to air pollution in 2019.</th>
<th>20 µg/m³ population-weighted annual average PM$_{2.5}$ concentration.*</th>
<th>13% of the population used solid fuels for cooking.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 10% of infant deaths attributable to air pollution.</td>
<td>Nearly 37,000 deaths attributable to exposure to outdoor PM$_{2.5}$.</td>
<td>Nearly 9,900 deaths attributable to exposure to household air pollution.</td>
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</tbody>
</table>

**Key Exposure Facts**

100% of Mexico’s population lives in areas where PM$_{2.5}$ levels are above the WHO guideline for healthy air (10 µg/m³). **

- Between 2010 and 2019, exposures to PM$_{2.5}$, household air pollution, and ozone all declined.
- There are more than 40 stations reporting PM$_{2.5}$ concentrations in Mexico.***

- Among the 29 countries in the Latin America and Caribbean region, Mexico ranks 16th in PM$_{2.5}$ exposure.

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

<table>
<thead>
<tr>
<th>2010</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM$_{2.5}$</td>
<td>22 µg/m³</td>
</tr>
<tr>
<td>Ozone</td>
<td>47 ppb</td>
</tr>
</tbody>
</table>

* 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 Mexico, the best estimate of the annual average exposure is 20 µg/m³, but it may range from 17 µg/m³ to 24 µg/m³.

** WHO provides an Air Quality Guideline of 10 µg/m³ for PM$_{2.5}$ to minimize health risks to populations, as well as three interim targets (35 µg/m³, 25 µg/m³, and 15 µg/m³) as incremental steps toward the progressive reduction of air pollution.

*** Based on data from OpenAQ.
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 Mexico in 2019**

- 23 percent of COPD deaths
- 18 percent of diabetes deaths
- 15 percent of ischemic heart disease deaths
- 16 percent of lung cancer deaths
- 15 percent of stroke deaths
- 13 percent of lower respiratory infection deaths
- 7 percent of neonatal deaths

**Key Health Facts**

- Air pollution is the 9th leading risk factor for premature death in Mexico. Leading causes of death in Mexico include ischemic heart disease, diabetes, COPD, Alzheimer’s disease, and lower respiratory tract infections, while leading risk factors include high blood sugar, high blood pressure, high BMI, kidney dysfunction, and dietary risks.
- There are 44 deaths per 100,000 people attributable to air pollution in Mexico compared with 86 deaths globally, adjusted for differences in age.
- 5% of total air-pollution-attributable deaths in Mexico are in children under 5, and 8% are in people over 70.

**PROGRESS** According to the State of Global Air 2020, between 2010 and 2019, Mexico saw a 27% decrease in outdoor PM$_{2.5}$ concentrations. Mexico City has been implementing comprehensive air quality programs since the early 1990s; in 2017, an air quality forecasting and warning system was introduced. The National Air Quality Strategy (Estrategia Nacional de Calidad del Aire, or ENCA) lays out an ambitious plan for control of air pollution by 2030. Now in the fourth phase, the ProAir program (Management Programme to Improve Air Quality, est. 1986) has resulted in initiatives focused on sectors such as transportation, waste, energy, and scientific research. More.

**FOR MORE INFORMATION:**

For the full report and additional data, please visit [www.stateofglobalair.org](http://www.stateofglobalair.org). For open-access, real-time air quality data, visit [OpenAQ](http://openaq.org).

**ADDITIONAL RESOURCES:**

For more details, please visit [www.stateofglobalair.org](http://www.stateofglobalair.org) and contact us [contactsoga@healtheffects.org](mailto:contactsoga@healtheffects.org).