Hungary

Air pollution was the 8th leading risk factor for premature death in Hungary in 2019, accounting for nearly 7% of all deaths (more than 8,500). Considered separately, ambient particulate matter (PM$_{2.5}$) ranked as the 10th leading risk factor. Household air pollution (HAP) and ozone were not in the top 20 risk factors.

**Key Statistics at a Glance**

| More than 8,500 deaths due to air pollution in 2019. | 17 µg/m$^3$ population-weighted annual average PM$_{2.5}$ concentration.* | 19% of the population used solid fuels for cooking. |
| Nearly 6% of infant deaths attributable to air pollution. | Nearly 6,900 deaths attributable to exposure to outdoor PM$_{2.5}$. | More than 1,400 deaths attributable to exposure to HAP. |

**Key Exposure Facts**

100% of Hungary'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$_{2.5}$, ozone, and HAP declined.
- There are 25 stations reporting PM$_{2.5}$ concentrations in Hungary.***

- Among the 29 countries in the Central Europe, Eastern Europe, and Central Asia region, Hungary ranks 21st in PM$_{2.5}$ exposure.

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

<table>
<thead>
<tr>
<th>2010</th>
<th>2019</th>
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<tbody>
<tr>
<td>PM$_{2.5}$ 20 µg/m$^3$</td>
<td>PM$_{2.5}$ 17 µg/m$^3$</td>
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<table>
<thead>
<tr>
<th>2010</th>
<th>2019</th>
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<tr>
<td>Ozone 47 ppb</td>
<td>Ozone 44 ppb</td>
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<table>
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<tr>
<th>2010</th>
<th>2019</th>
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<tr>
<td>HAP 46% of population relying on solid fuels</td>
<td>HAP 38% of population relying on solid fuels</td>
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</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 Hungary, the best estimate of the annual average exposure is 17 µg/m$^3$, but it may range from 15 µg/m$^3$ to 18 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.

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

- 19 percent of COPD deaths
- 16 percent of diabetes deaths
- 11 percent of ischemic heart disease deaths
- 14 percent of lung cancer deaths
- 12 percent of stroke deaths
- 10 percent of lower respiratory infection deaths
- 6 percent of neonatal deaths

Key Health Facts

- Air pollution is the 8th leading risk factor for premature death in Hungary. Leading causes of death in Hungary include ischemic heart disease, ischemic stroke, lung cancer, hypertensive heart disease, and colorectal cancer, while leading risk factors include tobacco, high blood pressure, dietary risks, high BMI, and high blood sugar.
- There are 44 deaths per 100,000 people attributable to air pollution in Hungary compared with 86 deaths globally, adjusted for differences in age.
- 3% of total air-pollution-attributable deaths in Hungary are in children under 5, and 7% are in people over 70.

FOR MORE INFORMATION:
For the full report and additional data, please visit www.stateofglobalair.org.

ADDITIONAL RESOURCES:
For open-access, real-time air quality data, visit OpenAQ

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.

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