



# Ethiopia

Air pollution was the 2nd leading risk factor for premature death in Ethiopia in 2019, accounting for nearly 14% of all deaths (more than 77,000). Considered separately, ambient particulate matter (PM<sub>2.5</sub>) ranked as the 15th leading risk factor, and household air pollution (HAP) ranked 1st. Ozone was not in the top 20 risk factors.

## Key Statistics at a Glance

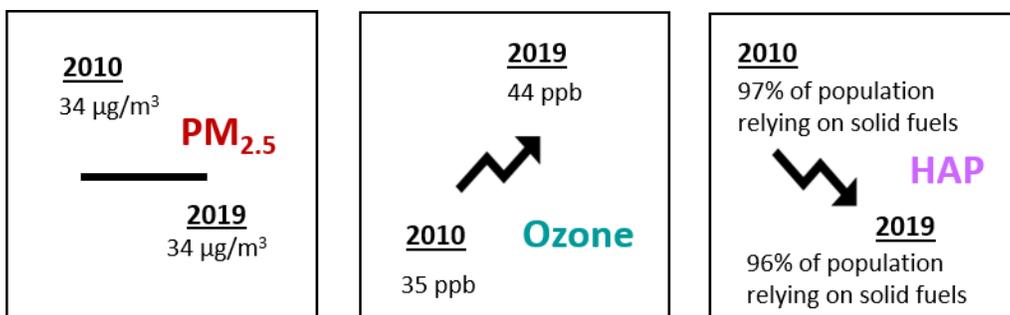
<p><b>More than 77,000 deaths</b> due to air pollution in 2019.</p> <p><b>23% of infant deaths</b> attributable to air pollution.</p>	 <p><b>34 µg/m<sup>3</sup></b> population-weighted annual average PM<sub>2.5</sub> concentration.*</p> <p><b>Nearly 9,000 deaths</b> attributable to exposure to outdoor PM<sub>2.5</sub>.</p>	 <p><b>96% of the population</b> use solid fuels for cooking.</p> <p><b>Nearly 68,000 deaths</b> attributable to exposure to household air pollution.</p>
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## Key Exposure Facts

**100% of Ethiopia'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> remained the same, while exposures to ozone increased and exposures to household air pollution declined.
- There are less than 5 stations reporting PM<sub>2.5</sub> concentrations in Ethiopia.
- Among the 47 countries in the sub-Saharan Africa region, Ethiopia ranks 28th 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 Ethiopia, the best estimate of the annual average exposure is 34 µg/m<sup>3</sup>, but it may range from 24 µg/m<sup>3</sup> to 48 µg/m<sup>3</sup>.

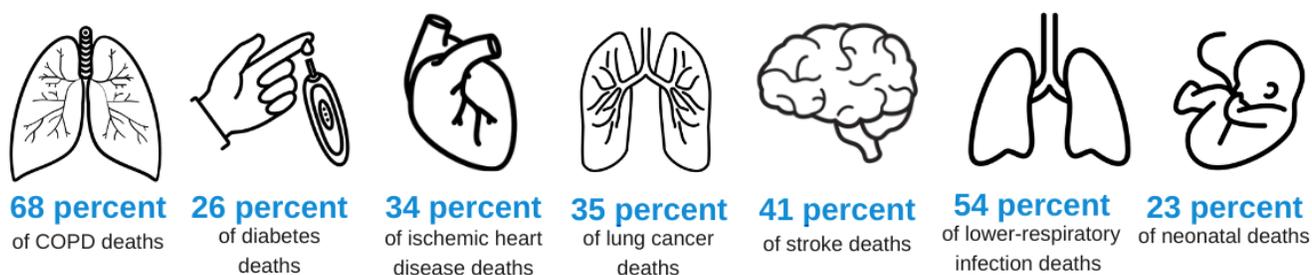
\*\* WHO provides an Air Quality Guideline of 10 µg/m<sup>3</sup> for PM<sub>2.5</sub> to minimize health risks to populations, as well as three interim targets (15 µg/m<sup>3</sup>, 25 µg/m<sup>3</sup>, and 35 µg/m<sup>3</sup>) as incremental steps toward the progressive reduction of air pollution.

# 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 Ethiopia in 2019



## Key Health Facts

- Air pollution is the 2nd leading risk factor for premature death in Ethiopia. Leading causes of death in Ethiopia include diarrheal diseases, lower-respiratory infections, neonatal encephalopathy, ischemic heart disease, and tuberculosis, while leading risk factors include malnutrition, unsafe water, sanitation and hygiene, high blood pressure, and dietary risks.
- There are 150 deaths per 100,000 people attributable to air pollution in Ethiopia compared with 86 deaths globally, adjusted for differences in age.
- 16% of total air-pollution-attributable deaths in Ethiopia are in children under 5, and 18% are in people over 70.

**GOOD NEWS:** To address the large percentage of the population relying on solid fuels for cooking and to reduce black carbon, the federal Ministry of Water and Energy, along with the Climate & Clean Air Coalition, has developed a national program to promote improved household biomass cookstoves in residential areas. [More.](#)

### 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](#).

For more in-depth information on air quality in Addis Ababa, go [here](#).



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