STATE OF
GLOBAL AIR /2020

Indonesia

Air pollution was the 6th leading risk factor for premature death in Indonesia in 2019, accounting for nearly 11% of all deaths (more than 186,000). Considered separately, ambient particulate matter ($PM_{2.5}$) ranked as the 6th leading risk factor, and household air pollution (HAP) ranked 9th. Ozone was not in the top 20 risk factors.

Key Statistics at a Glance

186,000 deaths due to air pollution in 2019.

8% of infant deaths attributable to air pollution.

19 µg/m³ population-weighted annual average $PM_{2.5}$ concentration.*

107,000 deaths attributable to exposure to outdoor $PM_{2.5}$.

34% of the population used solid fuels for cooking in 2019.

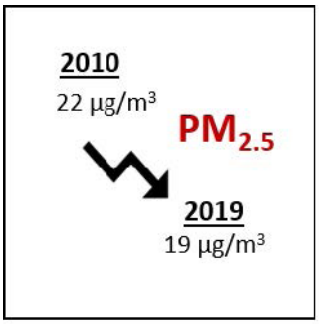
Nearly 77,000 deaths attributable to exposure to household air pollution.

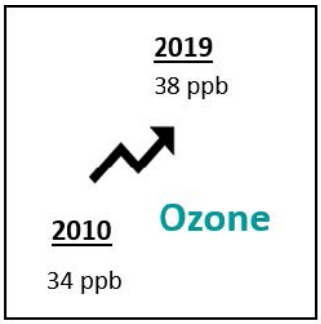
Key Exposure Facts

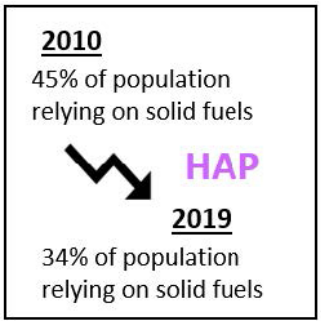
98% of Indonesia's population lives in areas where $PM_{2.5}$ levels are above the WHO guideline for healthy air (10 µg/m³). **

- Between 2010 and 2019, exposures to $PM_{2.5}$ and household air pollution declined, but exposures to ozone increased.
- There are less than 10 stations reporting $PM_{2.5}$ concentrations in Indonesia.
- Among the 23 countries in the Southeast Asia, East Asia, and Oceania region, Indonesia ranks 10th 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 Indonesia, the best estimate of the annual average exposure is 19 µg/m³, but it may range from 16 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 (15 µg/m³, 25 µg/m³, and 35 µg/m³) as incremental steps toward the progressive reduction of air pollution.

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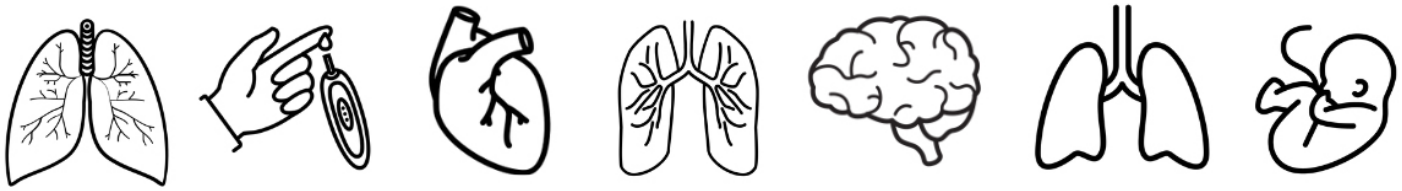
Air Pollution Accounts for a Substantial Percentage of Global Deaths from Specific Causes.

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 Indonesia in 2019



25 percent of COPD deaths

19 percent of diabetes deaths

21 percent of ischemic heart disease deaths

19 percent of lung cancer deaths

24 percent of stroke deaths

17 percent of lower-respiratory infection deaths

8 percent of neonatal deaths

Key Health Facts

- Air pollution is the 6th leading risk factor for premature death in Indonesia. Leading causes of death in Indonesia include ischemic heart disease, intracerebral hemorrhage, ischemic stroke, diabetes, and tuberculosis, while leading risk factors include high blood pressure, tobacco, poor diet, and high blood sugar.
- There are 99 deaths per 100,000 people attributable to air pollution in Indonesia compared with the global rate of 86, adjusted for differences in age.
- 6% of total air pollution-attributable deaths in Indonesia are in children under 5, and 11% are in people over 70.
- ***GOOD NEWS:*** Most of Indonesia's air pollution reduction efforts are focused on the capital, Jakarta, including car-free days (a system that organizes traffic by odd and even license plate numbers to reduce the number of cars on the road), standards for mobile and stationary sources, and improved urban green areas.

FOR MORE INFORMATION:

For the full report and additional data, please visit www.stateofglobalair.org.

ADDITIONAL RESOURCES:

To access real-time air quality index values for cities around the world, visit AQICN.

For open-access, real-time air quality data, visit OpenAQ.

For science-based solutions in Asia and the Pacific, visit CCAC.

For more on air quality in Jakarta, go here.

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For more details, please visit:
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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.