STATE OF GLOBAL AIR /2020

Uganda

Air pollution was the 2nd leading risk factor for premature death in Uganda in 2019, accounting for more than 11% of all deaths (more than 27,500). Considered separately, ambient particulate matter ($PM_{2.5}$) ranked as the 16th leading risk factor, and household air pollution (HAP) ranked 2nd. Ozone was not in the top 20 risk factors.
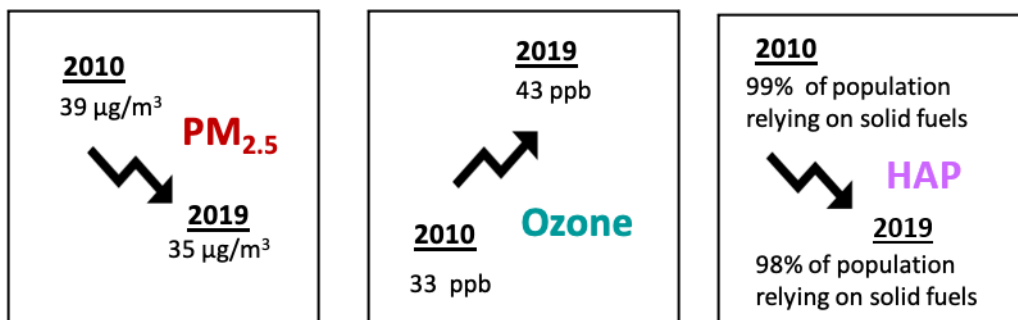
Key Statistics at a Glance

More than 27,500 deaths due to air pollution in 2019. **Nearly 21% of infant deaths attributable to air pollution.**	**35 µg/m³ population-weighted annual average $PM_{2.5}$ concentration.*** **More than 4,600 deaths attributable to exposure to outdoor $PM_{2.5}$.**	**98% of the population used solid fuels for cooking.** **More than 23.000 deaths attributable to exposure to HAP.**

Key Exposure Facts

97% of Uganda 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 $PM_{2.5}$ declined, but exposures to ozone increased, and exposures to HAP remained the same.

- There are 2 stations reporting $PM_{2.5}$ concentrations in Uganda.***
- Among the 47 countries in the Sub-Saharan Africa region, Uganda ranks 27th in $PM_{2.5}$ exposure.

How Have Pollutant Exposures Changed Between 2010 and 2019?

2010 39 µg/m³ → **2019** 35 µg/m³ **$PM_{2.5}$**

2019 43 ppb ↗ **2010** 33 ppb **Ozone**

2010 99% of population relying on solid fuels → **2019** 98% of population relying on solid fuels **HAP**

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* 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 Uganda, the best estimate of the annual average exposure is 35 µg/m3, but it may range from 24 µg/m3 to 51 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.
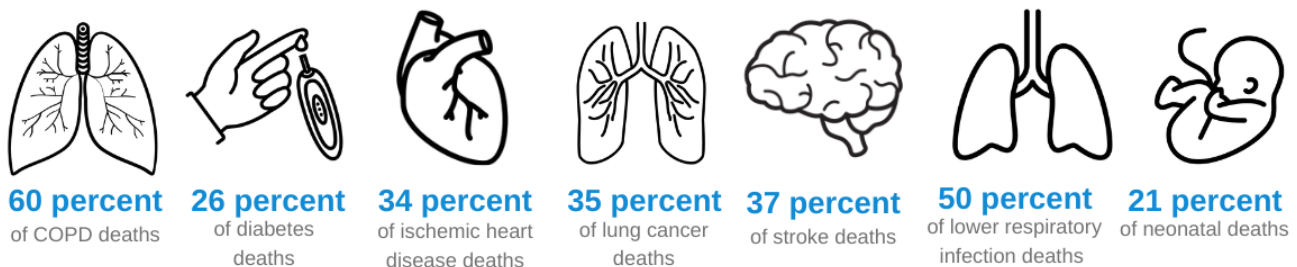
*** Based on data from OpenAQ.

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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 Uganda in 2019

60 percent
of COPD deaths

26 percent
of diabetes deaths

34 percent
of ischemic heart disease deaths

35 percent
of lung cancer deaths

37 percent
of stroke deaths

50 percent
of lower respiratory infection deaths

21 percent
of neonatal deaths

Key Health Facts

• Air pollution is the 2nd leading risk factor for premature death in Uganda. Leading causes of death in Uganda include malaria, lower respiratory infection, drug-susceptible tuberculosis, neonatal encephalopathy, and HIV/AIDS, while leading risk factors include malnutrition, unsafe sex, water, sanitation, and hygiene (WaSH), and alcohol use.

• There are 152 deaths per 100,000 people attributable to air pollution in Uganda compared with 86 deaths globally, adjusted for differences in age.

• 12% of total air-pollution-attributable deaths in Uganda are in children under 5, and 17% 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

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For more details, please visit
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.