STATE OF GLOBAL AIR /2020



North Macedonia

Air pollution was the 6th leading risk factor for premature death in North Macedonia in 2019, accounting for nearly 16% of all deaths (nearly 3,500). Considered separately, ambient particulate matter (PM_{2.5)} ranked as the 6th leading risk factor, and household air pollution (HAP) ranked 14th. Ozone was not in the top 20 risk factors

Key Statistics at a Glance

More than 3,000 deaths due to air pollution in 2019.

10% of infant deaths attributable to air pollution.



30 μg/m³ populationweighted annual average PM_{2.5} concentration.*

More than 2,500 deaths attributable to exposure to outdoor PM_{2.5}.



27% of the population used solid fuels for cooking.

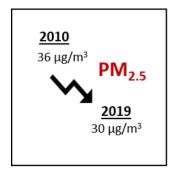
More than 500 deaths attributable to exposure to household air pollution.

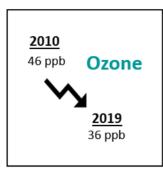
Key Exposure Facts

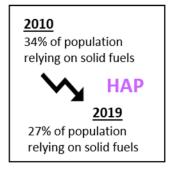
100% of North Macedonia's population lives in areas where PM $_{2.5}$ levels are above the WHO guideline for healthy air (10 μ g/m 3).**

- Between 2010 and 2019, exposures to PM_{2.5}, household air pollution, and ozone all declined.
- There are less than 20 stations reporting PM_{2.5} concentrations in North Macedonia.***
- Among the 29 countries in the Central Europe, Eastern Europe, and Central Asia region, North Macedonia ranks 5th 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 North Macedonia, the best estimate of the annual average exposure is 30 μ g/m³, but it may range from 27 μ g/m³ to 33 μ g/m³.

^{**} WHO provides an Air Quality Guideline of 10 μ g/m³ for PM_{2.5} to minimize health risks to populations, as well as three interim targets (35 μ g/m³, and 15 μ g/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 North Macedonia in 2019



26 percent of COPD deaths



22 percent of diabetes deaths



20 percent of ischemic heart disease deaths



22 percent of lung cancer deaths



22 percent of stroke deaths



18 percent infection deaths



10 percent of lower respiratory of neonatal deaths

Key Health Facts

- Air pollution is the 6th leading risk factor for premature death in North Macedonia. Leading causes of death in North Macedonia include ischemic heart disease, ischemic stroke, lung cancer, intracerebral hemorrhage, and diabetes, while leading risk factors include high blood pressure, tobacco, high blood sugar, dietary risks, and high BMI.
- There are 118 deaths per 100,000 people attributable to air pollution in North Macedonia compared with 86 deaths globally, adjusted for differences in age.
- 7% of total air-pollution-attributable deaths in North Macedonia are in children under 5, and 14% 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





For more details, please visit www.stateofglobalair.org Contact us contactsoga@healtheffects.org







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.