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NEW REPORT SHOWS NEARLY NINE OF TEN GLOBAL AIR POLLUTION DEATHS ARE FROM NONCOMMUNICABLE DISEASES

Half of all chronic respiratory disease deaths are attributable to air pollution.

BOSTON, MASSACHUSETTS, OCTOBER 23, 2025 – Air pollution continues to exacerbate global health, including noncommunicable diseases and dementia, according to the sixth edition of the State of Global Air (SoGA) report released today. Air pollution remains the leading environmental risk factor for death around the world, contributing to 7.9 million deaths in 2023, with the largest health impacts seen in low- and middle-income countries where people have higher exposures and more limited access to healthcare and other services.

The report finds that of those, 6.8 million deaths (86%) were from noncommunicable diseases (NCDs). Beyond this, NCDs also account for 161 million healthy years of life lost, resulting in high healthcare use, increased hospital admissions and the need for emergency medical care, loss of productivity and income, and mental health and other burdens for affected individuals, their caregivers, and families. The State of Global Air report was released by the Health Effects Institute (HEI), an independent US-based nonprofit research organization, in collaboration with the Institute for Health Metrics and Evaluation and the NCD Alliance.

Noncommunicable diseases are diseases that typically last many years, slowly get worse over time, and are not transmissible from one person to another. These include heart disease, diabetes, cancer, stroke, and chronic obstructive pulmonary disease (COPD). Between 2000 and 2023, global NCD deaths due to air pollution increased from 5.99 million to 6.8 million, nearly a million more deaths, or 110 additional deaths every single day, an increase of 13%. Half of all chronic respiratory deaths are attributable to air pollution, as are one in four deaths from heart disease.

Air Pollution and Dementia

This year, for the first time, the SoGA report includes information about the effects of air pollution on people living with dementia. In 2023, dementia related to air pollution resulted in more than 625,000 deaths around the world and nearly 12 million healthy years of life lost.

Since people with dementia require help with their daily care, a higher occurrence of this disease has rippling effects on economic productivity for families and caregivers, with an estimated global economic impact of over one trillion dollars a year. Women often bear the largest burden, being both more likely to provide care for people with dementia and more likely to develop dementia themselves.

Dr. Pallavi Pant, HEI's Head of Global Initiatives who oversaw the report release, said, "The data presented in the State of Global Air report highlight the significant impacts of poor air quality on the health and well-being of billions of people around the world, especially those living in Asia and Africa. Growing momentum on air quality management across those hard-hit locations, including expansion of air quality monitoring, adoption of air quality regulations, and sector-specific interventions are yielding improvements for those most impacted. We hope this report can further bolster the demand for, and action towards, better air quality where it's needed most."

In 2018, the United Nations High-Level Meeting on Noncommunicable Diseases added air pollution, together with tobacco use, unhealthy diets, physical inactivity, and harmful use of alcohol, as the five most important risk factors for the most prominent NCDs. A year later, the World Health Assembly included air pollution as a risk factor in its NCD framework. While every country in the world would benefit from air pollution reductions, the greatest health burdens continue to be seen in low- and middle-income countries (LMIC), with particularly strong impacts on children, older populations, and people with pre-existing health conditions. Most of these LMIC governments will not be able to reach the United Nations' Sustainable Development Goals 2030 to reduce NCD mortality without taking actions to reduce air pollution.

"Win-win solutions for air pollution and NCDs exist, with added benefits for climate, physical activity, nutrition, and many other global development priorities," said Alison Cox, Policy and Advocacy Director at the NCD Alliance. "These policies are effective and deliver a strong return on investment - for the sake of our people and the planet we need to implement them faster."

Fine particle pollution (ambient $PM_{2.5}$) is the largest driver of air pollution's burden of disease worldwide. In 2023, 4.9 million deaths and 124 million healthy years of life lost were attributed to long-term exposures to ambient $PM_{2.5}$ pollution. Primarily, $PM_{2.5}$ comes from the burning of fossil fuels in vehicles, power plants, factories, and homes, as well as agricultural and industrial activities, waste burning, wildfires, and many other human and natural activities.

Regions with the highest exposures to ambient $PM_{2.5}$ pollution were South Asia; North Africa and the Middle East; and East, West, Central, and Southern Africa. In fact, the 20 countries with the highest exposure to ambient $PM_{2.5}$ in 2023 are located in these three regions.

More than 36% of people around the world live in areas where $PM_{2.5}$ levels do not meet even the least stringent interim target, set at 35 micrograms per cubic meter by the World Health Organization. Millions of people around the world experience severe air pollution episodes that cross borders, societies, and economies, bringing the threat of air pollution into stark focus.

Household air pollution (HAP), which comes from the burning of solid fuels inside homes for cooking, heating, and other domestic tasks, was attributed to 2.8 million deaths, and an additional 470,000 deaths worldwide were attributed to ozone exposure. These health burdens vary widely around the globe, reflecting differences in exposures, underlying prevalence of disease, and other differences in population susceptibilities.

“Ongoing efforts to meet global development goals are not achievable without directly addressing air pollution,” said Dr. Maria Neira, former director WHO Public Health and Environment and Commissioner, Our Common Air. “Countries and cities must focus their efforts toward reducing air pollution emissions, including household air pollution, which has particularly severe impacts on young children and older people across Asia and Africa.”

Progress Is Being Made

The SoGA report provides success stories as well. Countries around the world have begun adopting new air quality standards, strengthened existing ones, moved away from polluting technologies, or established monitoring networks and programs to target reductions of key pollutants.

In particular, countries that typically see higher than average health impacts in regions like Asia and Africa are focusing on ways to reduce the public health impacts from various pollutants. Improvements are being made, and while progress is being made, more can be done to prevent air pollution from threatening millions of lives around the world.

As global populations age and air pollution’s impacts on NCDs continue to grow, air quality strategies and interventions can be effective in reducing the toll at the population level. Where action is taken to improve air quality, health benefits and healthcare savings will follow, and public health will be improved.

Read the SoGA report here.

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Notes to editors:

This State of Global Air report presents the latest comprehensive estimates of exposures to fine particulate matter ($PM_{2.5}$), nitrogen dioxide (NO_2), and ozone (O_3) and their impacts on human health around the world between 1990 and 2023. The report's main data source is the Global Burden of Diseases, Injuries, and Risk Factors Study (GBD study) of the Institute for Health Metrics and Evaluation, a collaboration of more than 10,000 researchers that produces global estimates of the impact of 88 environmental, behavioral, and dietary risk factors on health across 204 countries and territories from 1990 to 2023.

With each update, the GBD Study incorporates the latest scientific evidence and methods to refine estimates of the burden of disease — or impacts on population health — from air pollution and other risk factors. All GBD estimates are subject to a rigorous peer review process, and the data have been published in The Lancet.

HEI's State of Global Air 2024 report found that 8.1 million deaths were attributable to air pollution globally in 2021. This new SoGA 2025 report finds that there were 7.9 million deaths in 2023. Note that this is not due to increased air quality actions or improved environmental behaviors but rather improvements in the accuracy of scientific methods and modeling. The updated number of deaths for 2021 now stands at 7.6 million deaths in 2021.

About State of Global Air

The State of Global Air is a research and outreach initiative to provide reliable, meaningful information about air quality around the world. A collaboration of the Health Effects Institute and the Institute for Health Metrics and Evaluation's Global Burden of Disease project, the program gives citizens, journalists, policymakers, and scientists access to high-quality, objective information about air pollution and its health impacts. All data and reports are free and available to the public. Learn more at www.stateofglobalair.org. Follow SoGA on X, BlueSky, Facebook, and YouTube.

About Health Effects Institute

For more than 45 years, the Health Effects Institute (HEI) has delivered independent science on how pollution affects public health. HEI unites government, industry, and scientists to inform and evaluate health-protective policies, technologies, and interventions. Backed by a unique public-private funding model that safeguards independence, HEI provides the science needed to shape solutions worldwide. Learn more at www.healtheffects.org and follow HEI on LinkedIn, X, BlueSky, and YouTube.

About IHME

An independent population health research organization based at the University of Washington

School of Medicine, the Institute for Health Metrics and Evaluation (IHME) works with collaborators around the world to develop timely, relevant, and scientifically valid evidence that illuminates the state of health everywhere.
Learn more at www.healthdata.org

About NCD Alliance

The NCD Alliance (NCDA) is a registered NGO based in Geneva, Switzerland, dedicated to supporting a world free from preventable suffering, disability and death caused by NCDs. Founded in 2009, NCDA brings together a unique network of over 500 members in more than 100 countries into a respected, united and credible global civil society movement. The movement is unified by the cross-cutting nature of common risk factors including unhealthy diets, alcohol, tobacco, air pollution and physical inactivity, and the system solutions for diverse NCDs.