

A light blue world map is visible in the background of the slide. The map shows the continents and oceans in a simplified, light blue color scheme.

Thank you for joining the State of Global Air 2024 webinar.

We will begin shortly.

Please submit your questions via the Q&A function. You can also upvote questions from others.

The webinar will be recorded.

STATE OF
GLOBAL AIR /2024

www.stateofglobalair.org



State of Global Air 2024

June 27, 2024

STATE OF
GLOBAL AIR /2024

About the Health Effects Institute

Independent Research Institute Providing Trusted Science

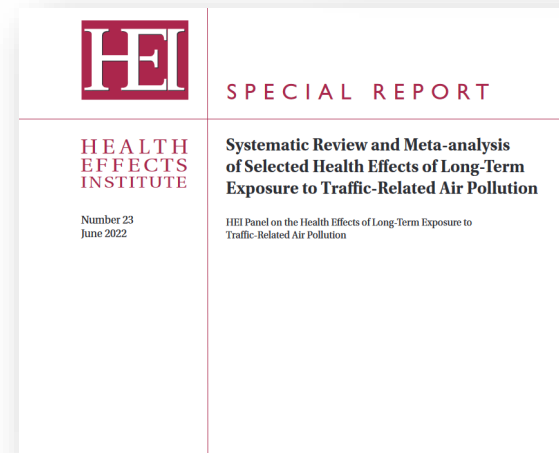
- Over 350 studies on a wide variety of air pollutants and sources

Scientific Review

- The Health Effects of Exposure to Traffic
- Health Effects of Air Pollution in Asia

Global Health

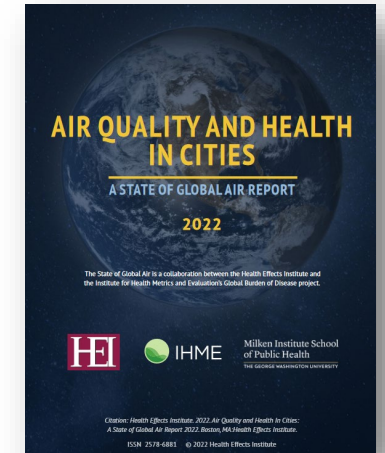
- State of Global Air initiative
- Work in South Asia, East Africa, Southeast Europe
- Targeted research studies



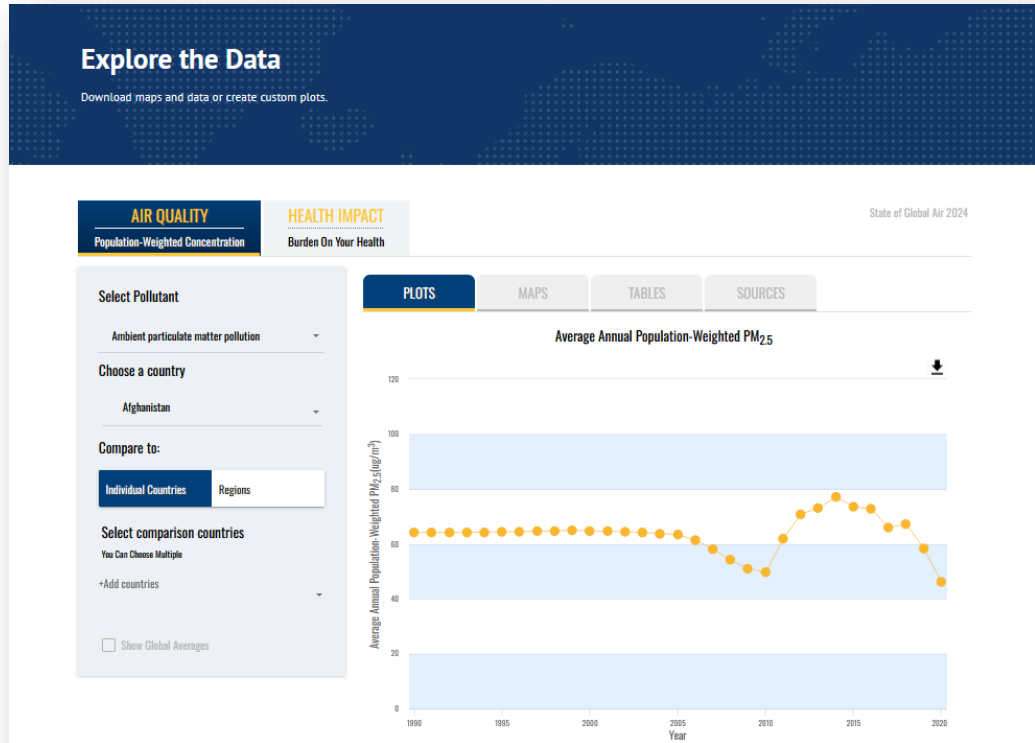
About the State of Global Air

Track and communicate long-term trends in air quality levels and health impacts for cities and countries around the world.

A collaboration between the Health Effects Institute (HEI) and Institute for Health Metrics and Evaluation (IHME)



Data and resources on our website



Exposure

- PM_{2.5}, Ozone, Household Air Pollution, Nitrogen dioxide

Health impacts

- Mortality (deaths)
- Disability adjusted life years (DALYs) – healthy life years lost
- Age-standardized death and DALY rates
- Cause-specific % contributions

Data for 1990 to 2021

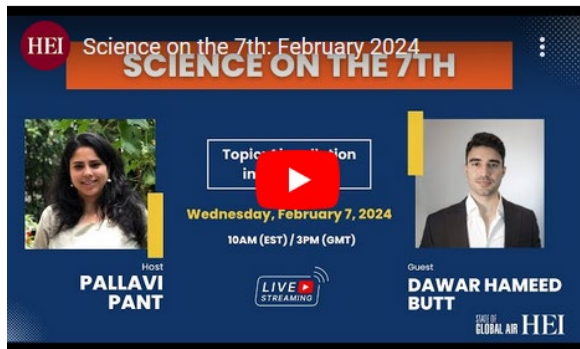
Interactive figures

Downloadable data & figures

Resources in English, Français, Kiswahili, Español, हिन्दी

Data and resources on our website

Livestream Series



Resources in multiple languages



Videos



Agenda

State of Global Air 2024

Dr. Pallavi Pant

Dr. Michael Brauer

Perspectives

Mr. Abheet Solomon

Q&A and Discussion



The team



Pallavi Pant, Ada Wright, Victor Nthusi, Abinaya Sekar, Amy Andreini, Hope Green, Kristin Eckles, Alexis Vaskas, Tom Champoux, Aaron Cohen, Bob O’Keefe, and Elena Craft



Michael Brauer, Katrin Burkart, Elizabeth Marsh, Nadim Hashmeh, Sarah Wozniak, and Charlie Ashbaugh



Abheet Solomon, Desiree Montecillo-Narvaez, Maria Brown, Swathi Manchikanti, Lyn Greer, and Tess Ingram

Other Contributors:






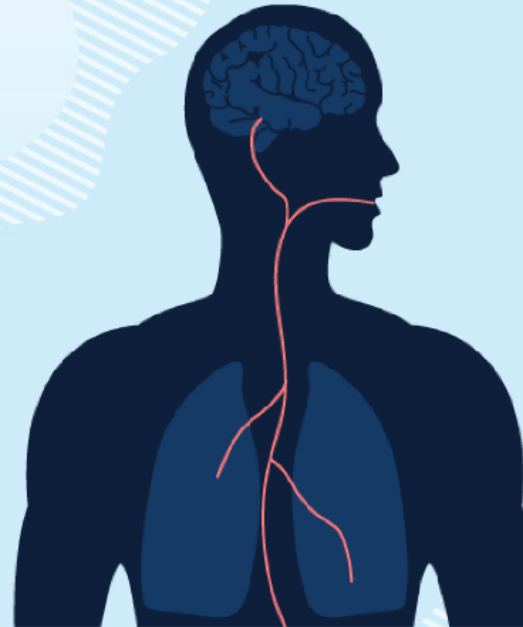
Funding:








Short- and long-term health effects of air pollution

Air pollution can affect your health within a few hours or days of exposure and...

-  Cause ear, nose, and throat irritation
 -  Aggravate symptoms of Allergies
Asthma
Bronchitis
Chronic obstructive pulmonary disease (COPD)
 -  Trigger fast or irregular heartbeats
- Many of these issues may resolve when pollution levels decline but some can be chronic or even lead to death.



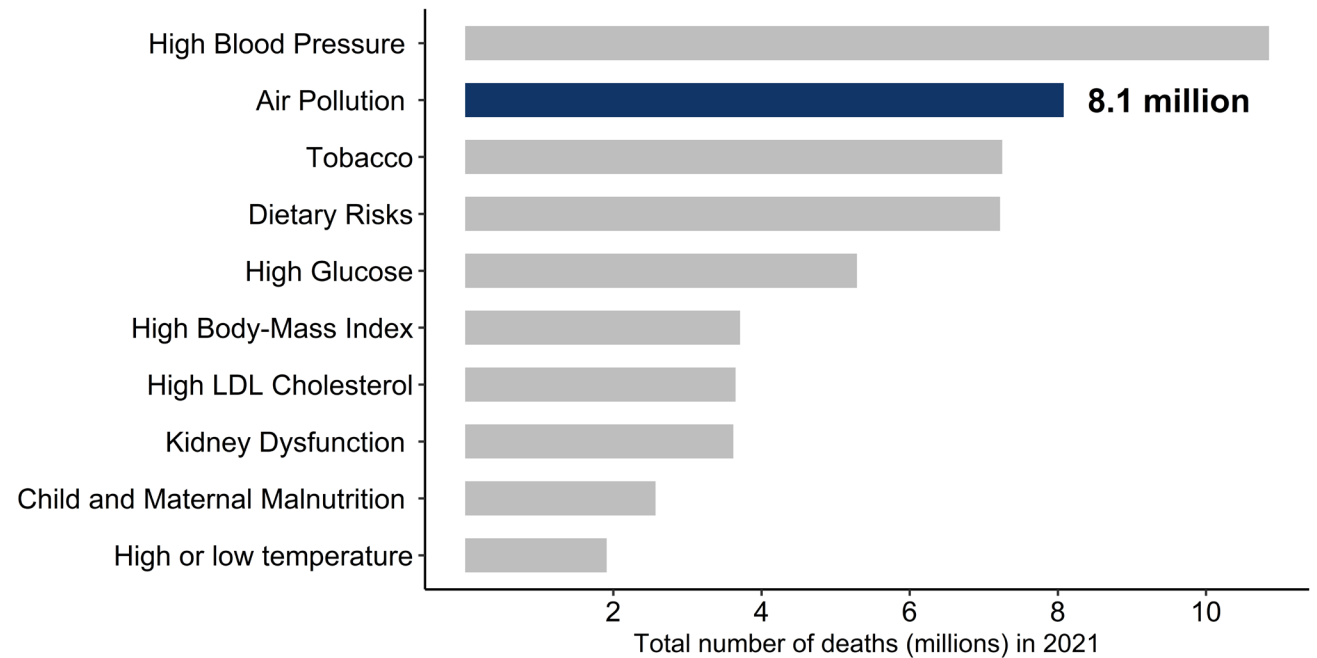
Breathing polluted air for a long period of time (months or years) can cause many severe health problems including...

-  Heart diseases – arrhythmia, high blood pressure, heart attack, ischemic heart disease
-  Lung diseases – Lung cancer, infections, COPD, and asthma
-  Premature birth or low birth weight
Increased risk of other health problems [\[video\]](#)
-  Stroke
-  Reduced life expectancy

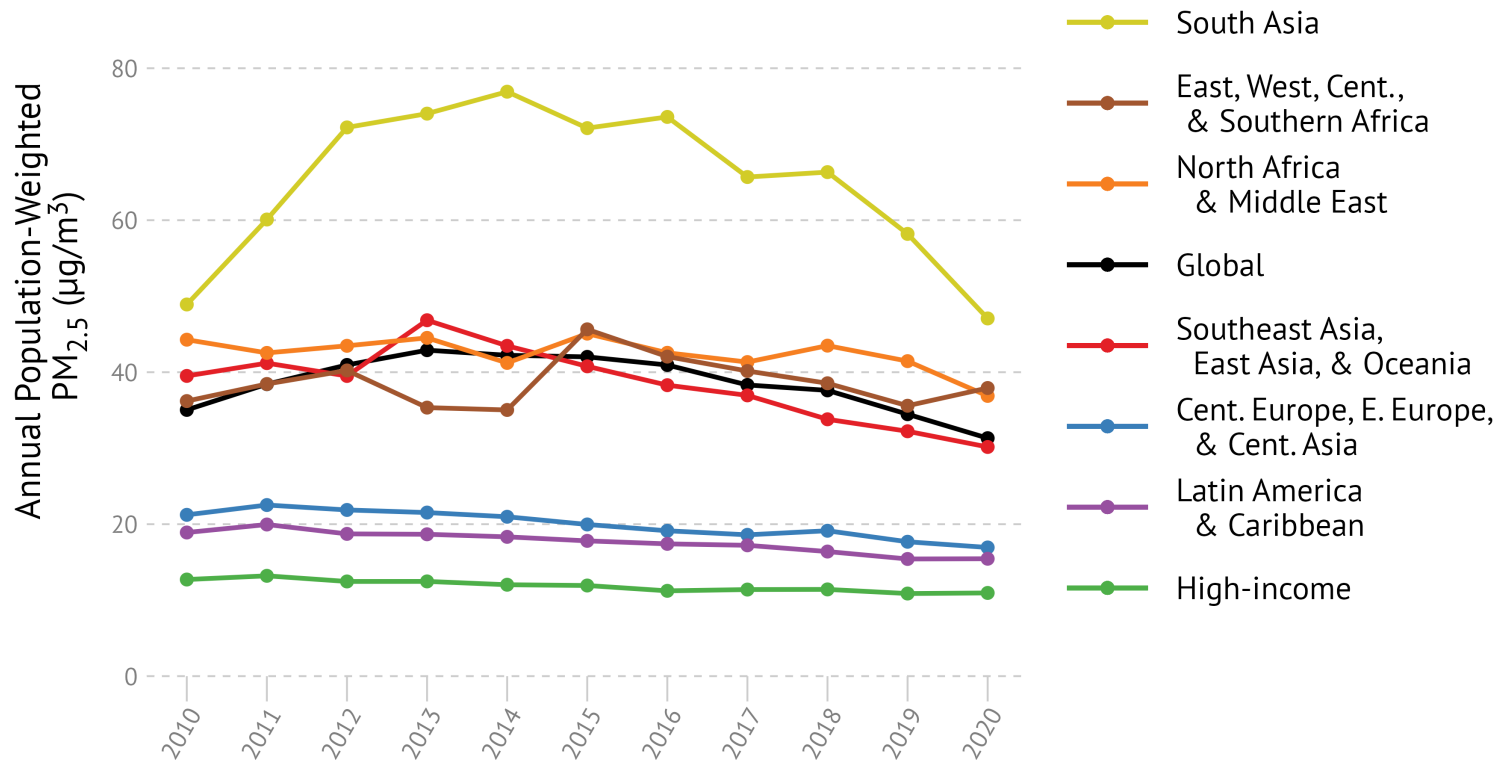
Air pollution was the 2nd leading risk factor for deaths in 2021, behind high blood pressure.

12% of all global deaths in 2021 – nearly 1 in 8 deaths – were linked to exposure to air pollution

2.6 million deaths in South Asia;
1.2 million deaths in Africa



Good news: Levels of PM_{2.5} are reducing or stabilizing in many countries

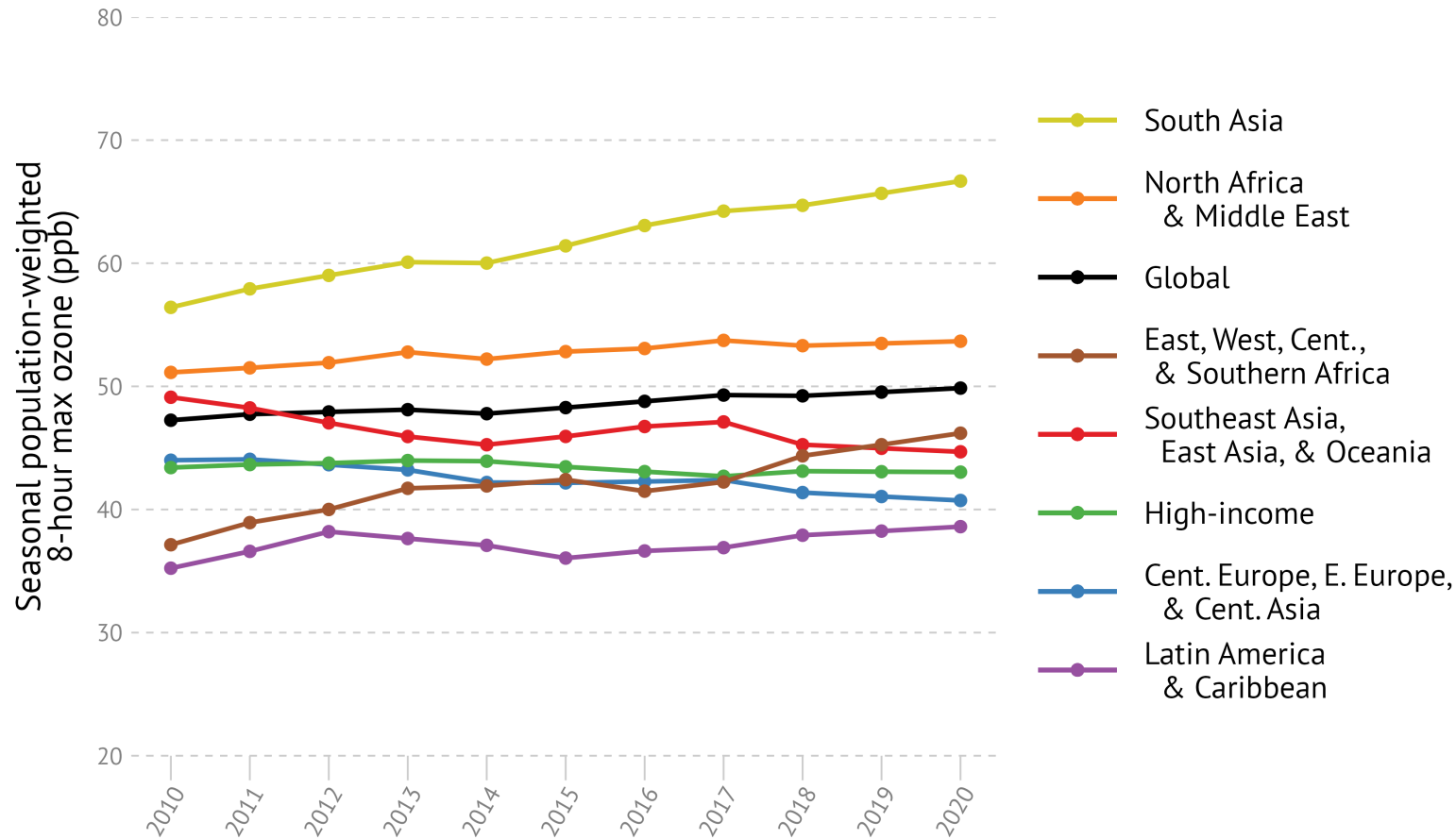


34% of the world's population live in areas with PM_{2.5} levels higher than the least stringent WHO Interim Target (35 µg/m³)

Countries in Asia, Africa, and the Middle East continue to experience the highest levels of ambient PM_{2.5}.

Number of deaths linked to PM_{2.5} increased from 2.9 million in 2000 to 4.7 million in 2021

However, levels of ozone are increasing in some regions



93% of the world's population live in areas with ozone levels higher than the WHO Air Quality Guideline

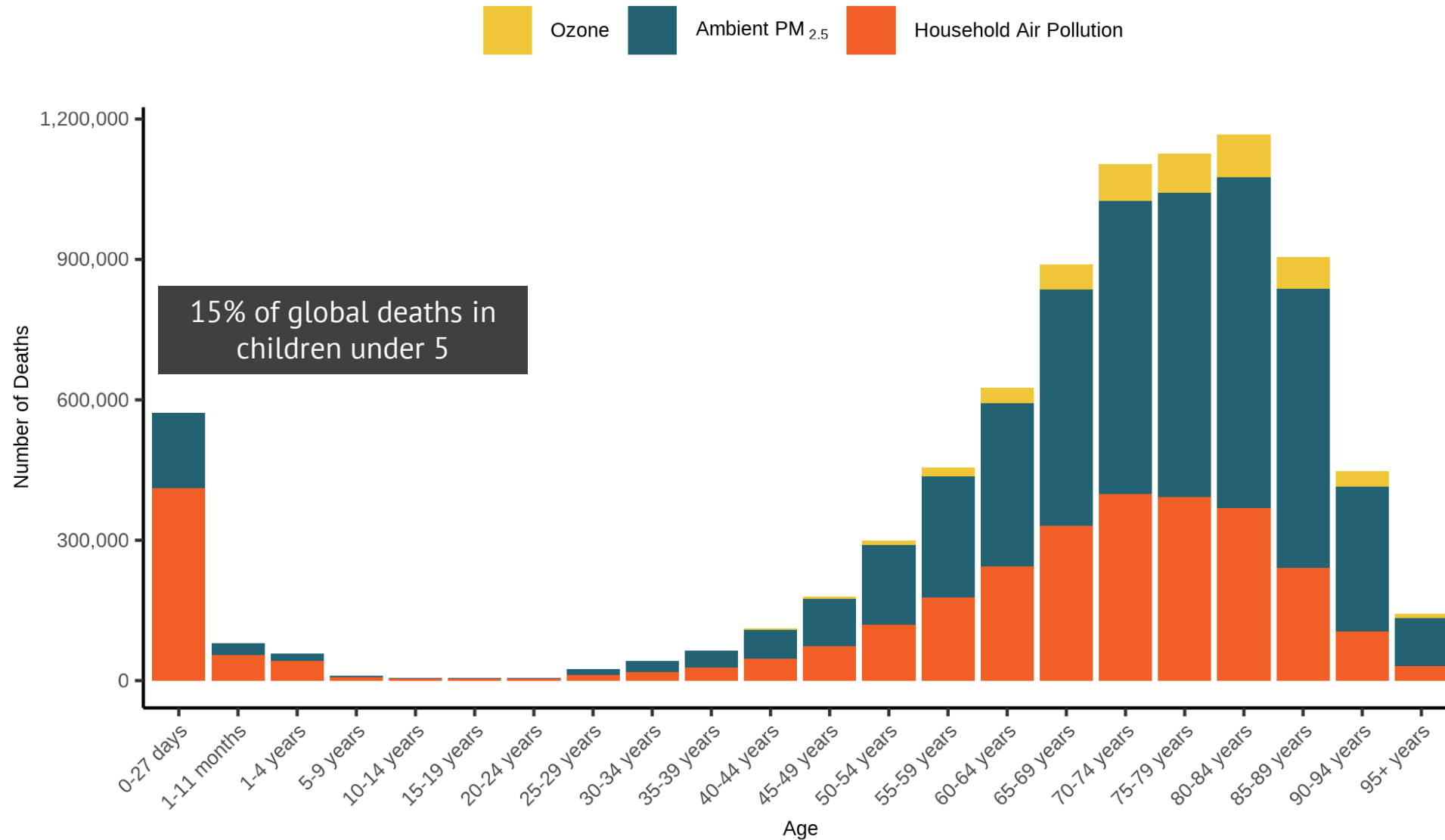
Countries including India, Nigeria, Pakistan, and Brazil have experienced increases of more than 10% in ozone exposures in the last decade.

13% of all COPD deaths linked to ozone exposure in 2021

Air pollution's burden of disease is not borne equally across the world or across age groups.

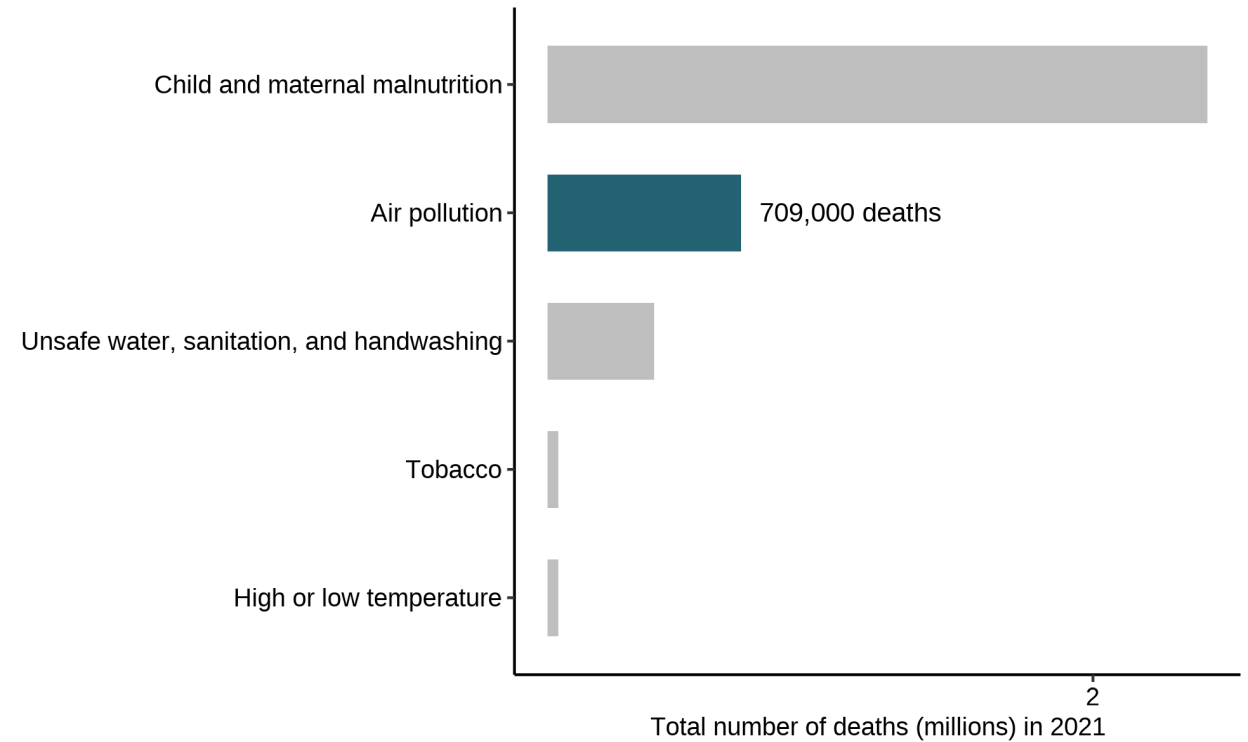


Impacts of air pollution are the highest for the youngest & oldest



Air pollution was the 2nd leading risk factor for deaths in children under 5 years in 2021, behind malnutrition.

709,000 deaths in children under 5 years in 2021; more than 70% of these deaths were linked to household air pollution due to cooking with polluting fuels.



Impacts of air pollution on neonatal health



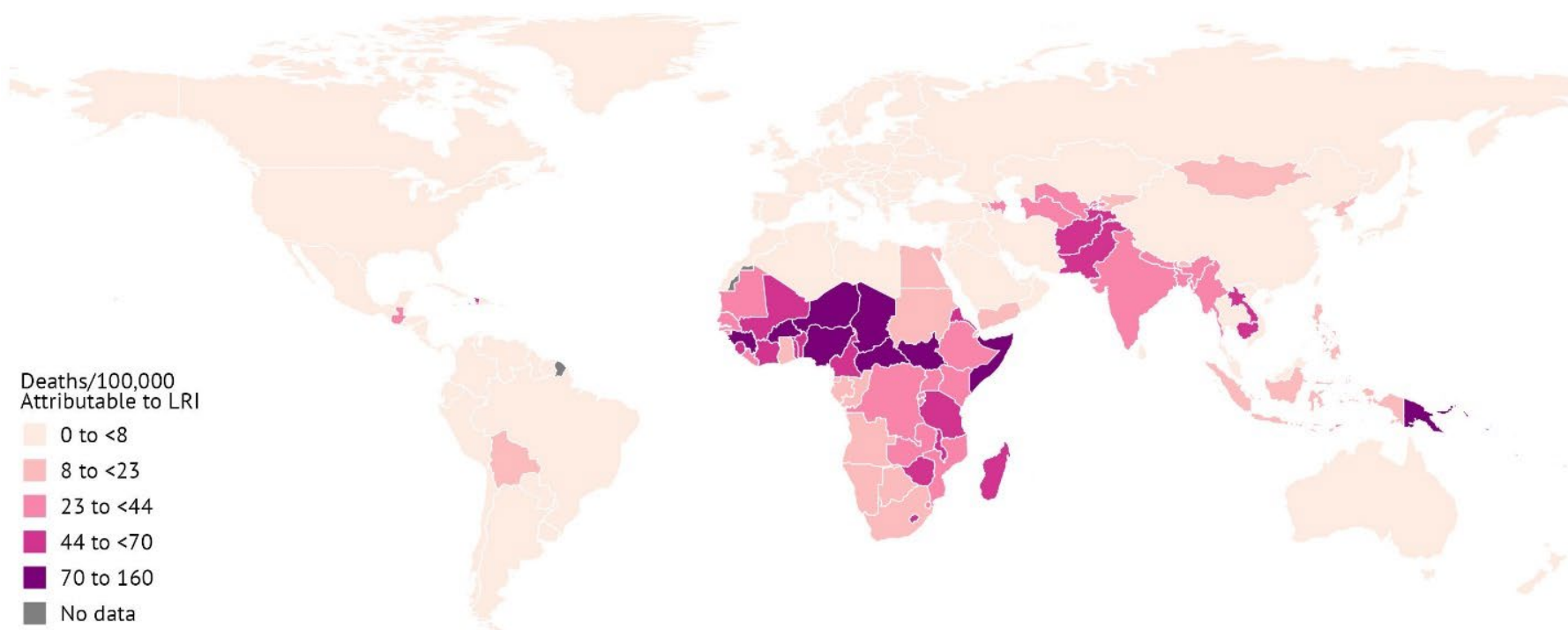
Image credits: Pierre Holtz for UNICEF

26% of deaths in infants in the first month of life linked to air pollution, nearly 572,000 deaths

34% of preterm births linked to exposure to air pollution, resulting in more than 20 million years of healthy life lost

There are signs of progress: since 2000, death rates linked to air household air pollution in newborns have reduced by **46%**.

40% of the lower respiratory infection deaths in children under 5 are linked to air pollution



1 in 3

LRI deaths linked to air pollution in children under 5 in some countries

53% reduction

in the LRI death rate linked to air pollution in children under 5 years since 2000

Deaths linked to household air pollution have declined considerably in the last two decades



61% reduction

in the age standardized death rates linked to exposure to household air pollution

47%

of the world's population still relies on solid fuels for cooking

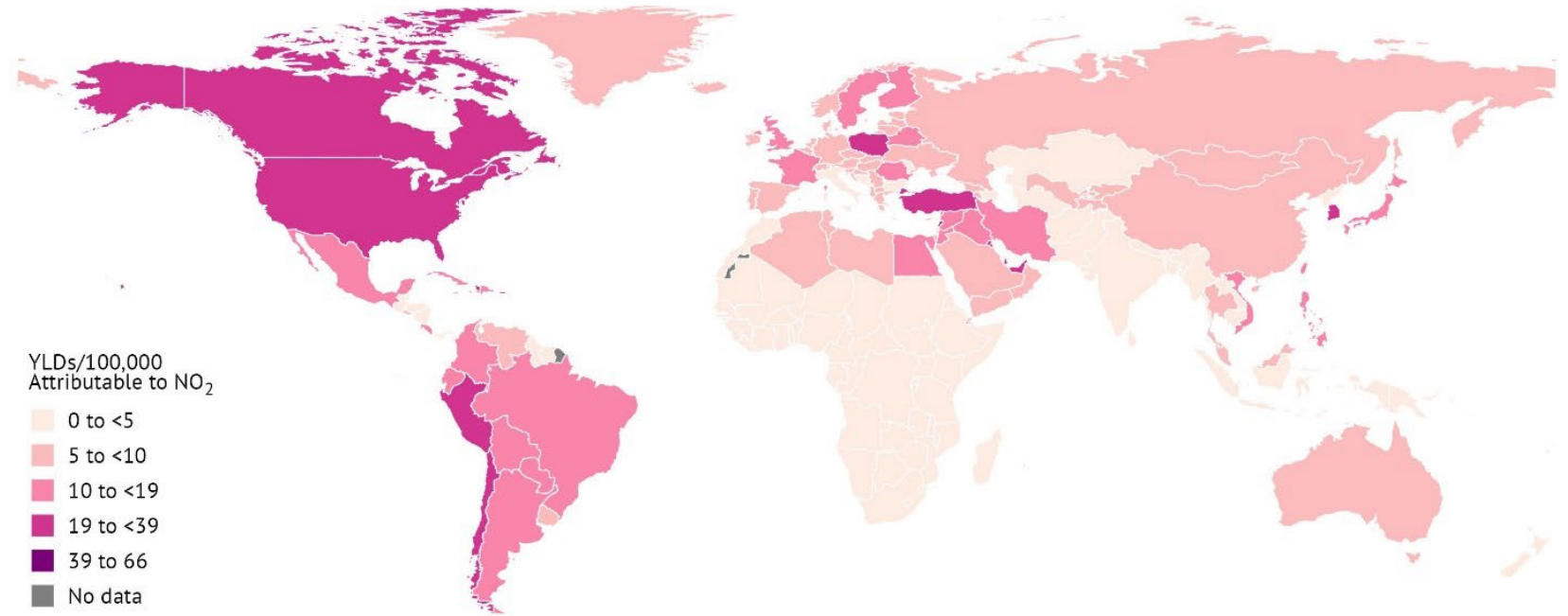
7 AFFORDABLE AND CLEAN ENERGY



Air pollution and asthma in children

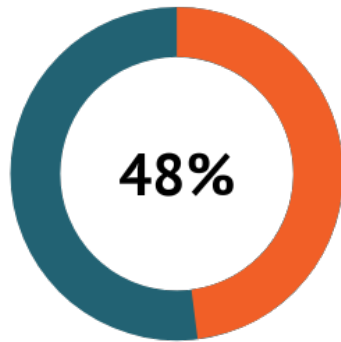
Highest health impacts on children between 5–14 years of age, especially in high-income countries, Latin America and Caribbean and North Africa and Middle East

In South Asia and East, West, Central, and Southern Africa, there has been an increase in asthma DALYs linked to air pollution.

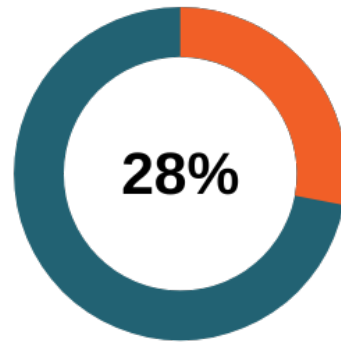


90% of the air pollution disease burden is due to noncommunicable diseases

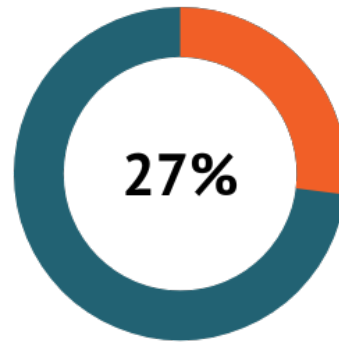
Chronic Obstructive
Pulmonary Disease



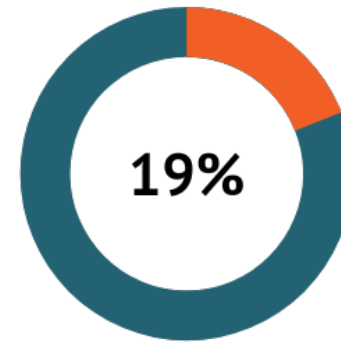
Ischemic Heart
Disease



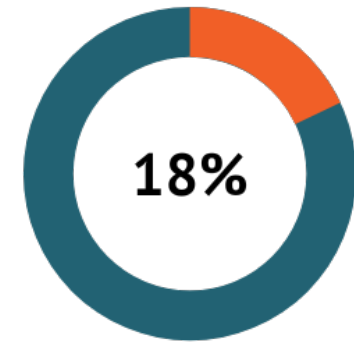
Stroke



Lung Cancer



Type II
Diabetes



Numbers, numbers: What must we keep in mind?

The results from GBD, and those reported in State of Global Air are **estimates**, not country-reported data

Best available global estimates, allow a starting point for understanding scale of the health impacts of air pollution, can spur national/local data collection, action

Household air pollution: does not include the use of fuels for heating or other activities, thus likely to be an **underestimate**

Not all health outcomes that are associated with air pollution are included, only those with robust associations

Thank you!

Twitter/X

@HEISoGA | @HEIresearch

Email

ppant@healtheffects.org;
contactsoga@healtheffects.org

Website

www.stateofglobalair.org | www.healtheffects.org

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Q&A

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