EVERY BREATH COUNTS

AIR POLLUTION AND LUNG HEALTH SCORECARD

MAIN FINDINGS

More than 1 in 3, or 2.8 million, deaths from COPD, pneumonia, and lung cancer were attributable to air pollution in 2021; 60% from outdoor exposures and 40% from household sources.

64% of all air pollution-related respiratory deaths were among adults over 70 years, 28% were among adults 15-49 years, and 7% were among children under 14 years.

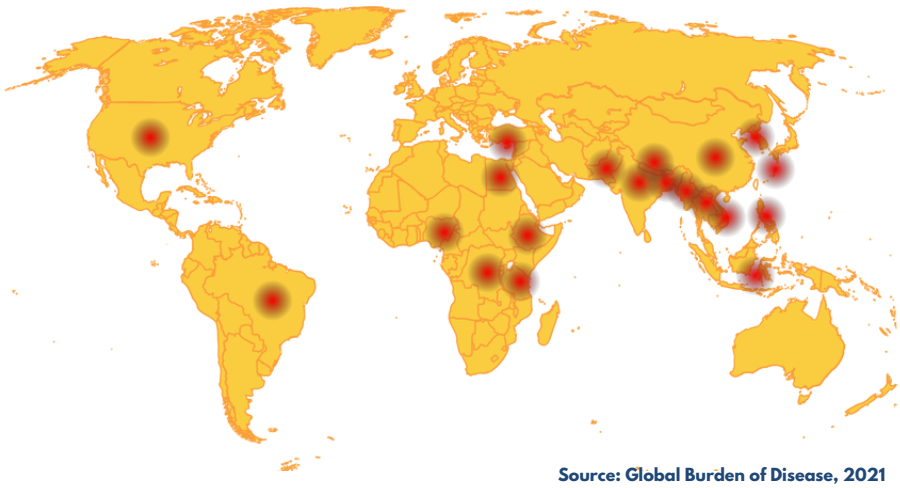
Air pollution-related respiratory deaths concentrate in different age groups - COPD among those aged over 70, asthma among those under 14 and over 70, and lung cancer among those over 15.

20 countries are home to 85% of all air pollution-related respiratory deaths, 12 in Asia, 4 in Africa, 2 in the Middle East, and 2 in the Americas (see Chart 1).

Across the 20 countries, 25% of air pollution-related deaths from COPD, 55% of pneumonia and 51% of lung cancer deaths occur among people aged under 70 years (see Table 1).

Visit:
https://stoppneumonia.org/issues/prevent/

Chart 1: 85% of air pollution-related respiratory deaths are in these 20 countries



Source: Global Burden of Disease, 2021

Air pollution is the major risk factor for death from both chronic and infectious respiratory conditions. In 2021, 2.8 million, or 35%, of all deaths from these conditions were attributable to air pollution, according to the Global Burden of Disease.

Air pollution outside the home contributes to 60% of air pollution-related respiratory deaths, while household sources are a factor in 40% of deaths. The annual average concentration of fine particulate matter is more than six times higher than WHO air quality guidelines limits and 2.1 billion people still relied on polluting fuels and technologies for cooking.

More than eight in every ten air pollution-related deaths from COPD, pneumonia, and lung cancer are in 20 countries. The vast majority are in Asia followed by Africa, the Middle East, and the Americas.

It is critical that governments in these countries introduce policies to reduce the major causes of air pollution-related deaths, prioritizing their most vulnerable populations.

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CALL TO ACTION

Governments should:

1. Set a national target to reduce by 50% air pollution-related deaths from COPD, pneumonia, and lung cancer by 2030.

2. Introduce new measures to achieve the target including by:

- Reducing average PM2.5 exposure by 50% until achievement of the WHO targets of not more than 5µg/m3 per year and 15 µg/m3 for more than three days per year
- Increasing the proportion of households with access to clean cooking fuels and technologies to above 70%
- Prioritizing action in the sub-national populations who face the greatest risks of air pollution-related respiratory death

3. Publish progress to the 50% target annually

- Establishing a Clean Air Taskforce including health, environment, energy, agriculture, industry, and urban development ministries at all government levels with responsibility for reporting progress

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AIR POLLUTION AND HEALTH GOALS, TARGETS, AND INDICATORS

Sustainable Development Goals 2030

3.2.1 Reduce child (0-4 yrs) deaths to at least 25 per 1,000 births

3.4.1 Reduce by one third the probability of dying between age 30 and 70 from any of cardiovascular disease, cancer, diabetes, or chronic respiratory disease

3.9.1 Substantially reduce the number of deaths and illnesses attributed to household and ambient air pollution

7.1.2 Increase % population with access to clean fuels and technologies for cooking to 100%

11.6.2 Reduce annual mean levels of fine particulate matter (PM2.5 and PM10) in cities (population weighted)

DEFINITIONS

COPD
A lung condition characterized by persistent respiratory symptoms and airflow limitation due to abnormalities of the airways and/or alveoli, usually caused by significant exposure to noxious particles or gases.

PNEUMONIA
A lower respiratory infection with several major bacterial and viral causes including Streptococcus pneumoniae, Haemophilus influenzae type b, respiratory syncytial virus (RSV), and influenza.

LUNG CANCER
Malignant tumors originating in the trachea, bronchi, or lungs.Lung cancer, also referred to as tracheal, bronchus, and lung cancer.

AIR POLLUTION
The presence of harmful substances in the air including gases, particles, and biological molecules that are the result of human activity or natural processes, measured in concentration of an air pollutant in micrograms (one-millionth of a gram) per cubic meter of air (µg/m3). Common air pollutants include:

- Particulate Matter (PM2.5 and PM10) – tiny particles in the air that can be inhaled.
- Nitrogen Dioxide (NO2) – gas produced by burning fossil fuels.
- Sulfur Dioxide (SO2) – gas produced by the burning of coal and oil.
- Carbon Monoxide (CO) – colorless, odorless gas produced by incomplete combustion of carbon-containing fuels.
- Volatile Organic Compounds (VOCs) – A group of organic chemicals that easily evaporate into the air, often from vehicles, solvents, and industrial processes.
- Ozone (O3) – reactive gas that forms when pollutants like volatile organic compounds (VOCs) and nitrogen oxides interact in the presence of sunlight.

HOUSEHOLD AIR POLLUTION
Air pollution generated in homes by cooking or heating with fuels from wood, coal, charcoal, dung, and agricultural residues.

OUTDOOR (AMBIENT) AIR POLLUTION
Air pollution generated outside homes from all of the sources above.

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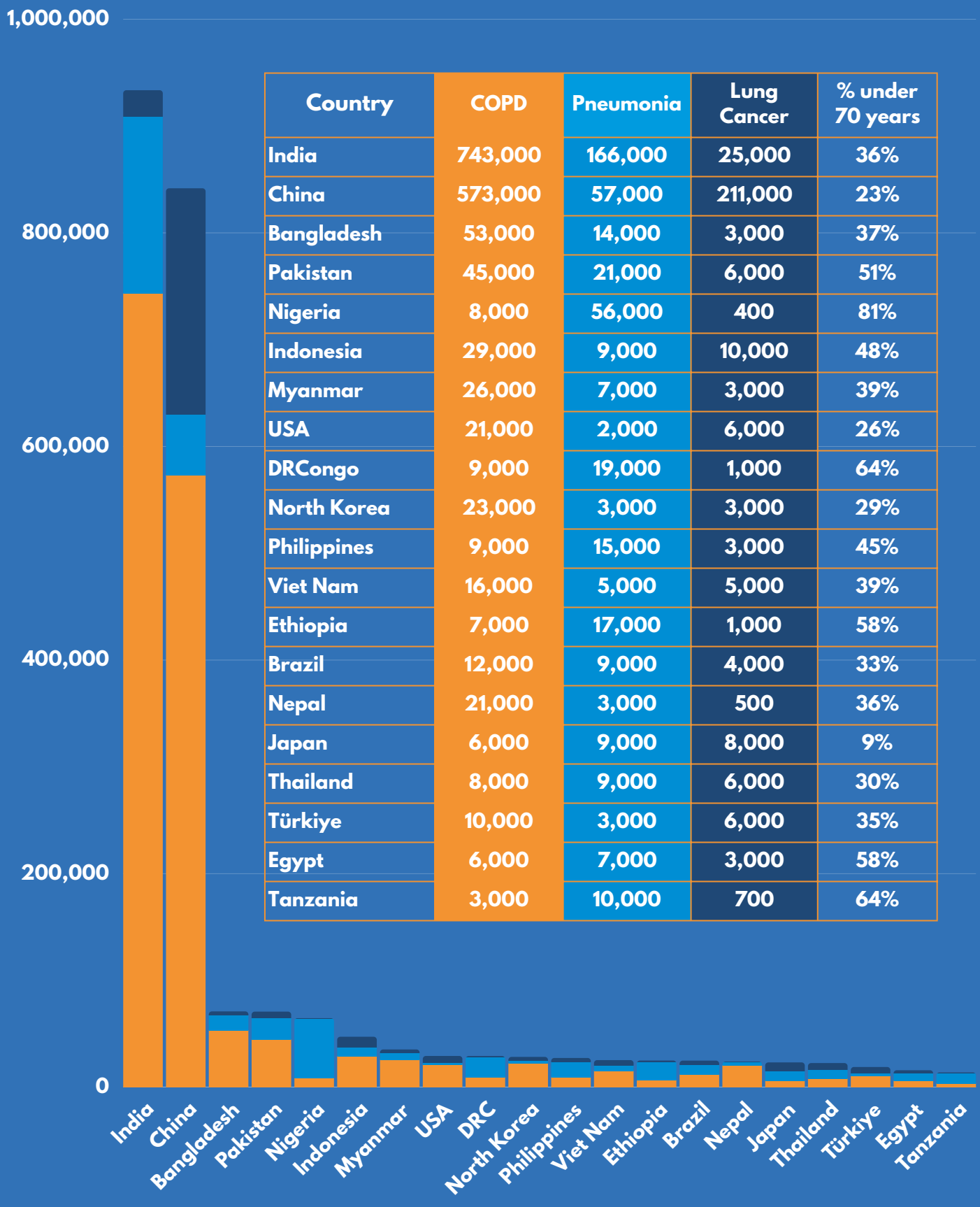
Table 1: Air pollution-related deaths by cause and age 20 highest burden countries

Country	COPD	Pneumonia	Lung Cancer	% under 70 years
India	743,000	166,000	25,000	36%
China	573,000	57,000	211,000	23%
Bangladesh	53,000	14,000	3,000	37%
Pakistan	45,000	21,000	6,000	51%
Nigeria	8,000	56,000	400	81%
Indonesia	29,000	9,000	10,000	48%
Myanmar	26,000	7,000	3,000	39%
USA	21,000	2,000	6,000	26%
DRCongo	9,000	19,000	1,000	64%
North Korea	23,000	3,000	3,000	29%
Philippines	9,000	15,000	3,000	45%
Viet Nam	16,000	5,000	5,000	39%
Ethiopia	7,000	17,000	1,000	58%
Brazil	12,000	9,000	4,000	33%
Nepal	21,000	3,000	500	36%
Japan	6,000	9,000	8,000	9%
Thailand	8,000	9,000	6,000	30%
Türkiye	10,000	3,000	6,000	35%
Egypt	6,000	7,000	3,000	58%
Tanzania	3,000	10,000	700	64%



Source: Global Burden of Disease, 2021