NCD Alliance

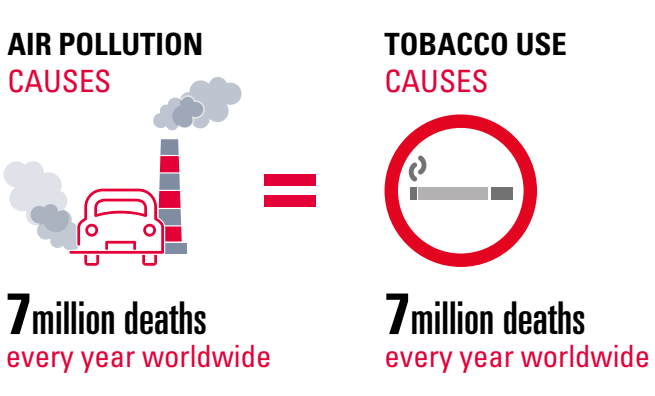
# A BREATH OF FRESH AIR

## Acting on the UN mandate to tackle air pollution

## Air pollution: a major cause of disease, silent killer of millions

**Air pollution is the world's largest single environmental health risk, and a leading risk factor for NCDs.** According to the WHO, air pollution causes 7 million deaths every year worldwide.[1] Of these deaths, about 80% are from noncommunicable diseases (NCDs), making the number of NCD deaths due to air pollution comparable to mortality due to tobacco use.[2] Air pollution negatively affects quality of life for all, and in particular for billions of people around the world living with NCDs.

Every year poor air quality claims 4.2 million lives from exposure to ambient (outdoor) pollution primarily from industry, agriculture, energy and transport, and 3.8 million from household (indoor) pollution largely generated by burning household fuel for cooking, heating and lighting purposes.[3,4,*] Air pollution is the fourth highest risk factor for premature deaths – one in 10 deaths worldwide is attributable to air pollution exposure.[5] In 2016, over 90% of the world's population lived in places where the air is unsafe to breathe, according to the World Health Organization's air quality guidelines.[6]




**Ambient air pollution alone is responsible for:**

- → **24%** of all deaths from **stroke**
- → **25%** of all deaths and disease from **ischaemic heart disease**
- → **29%** of all deaths and disease from **lung cancer**
- → **43%** of all deaths and disease from **chronic obstructive pulmonary disease** (COPD).[3]

There is also increasing evidence for links with other NCDs. The suffering and costs imposed on people, families, communities, businesses and economies are entirely preventable by cleaning up our air.

For these reasons, the UN has recently recognised air pollution as one of the major risk factors contributing to the massive and growing burden of NCDs worldwide, alongside tobacco, alcohol, unhealthy diet and physical inactivity. The Political Declaration of the third UN High Level Meeting on NCDs was signed by Heads of State and Government during the UN General Assembly in September 2018.

The recognition of air pollution as a major risk factor should be the starting signal for a new, more urgent policy approach to clean up our air to protect and improve health for all worldwide. There is an undeniable imperative for the NCD community to support policies and measures to reduce indoor and outdoor air pollution as a matter of grave urgency.

In the context of the global movement to achieve universal health coverage (UHC), action to prevent diseases - including by reducing air pollution - is all the more important to reduce the burden of disease and bring UHC within reach.

**There is some overlap in the mortality from ambient and household air pollution, and for this reason WHO states the overall total from air pollution mortality as 7 million.*

[1] WHO Burden of disease from the joint effects of household and ambient Air pollution for 2016. 2018. (online).

[2] WHO Noncommunicable diseases country profiles, 2018. 2018 (online).

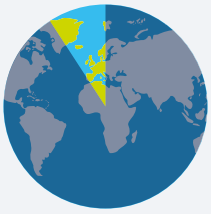
[3] WHO Webpage: Ambient air pollution: Health impacts (online).

[4] WHO Factsheet: Household air pollution and health (online).

[5] World Bank and Institute for Health Metrics and Evaluation. The Cost of Air Pollution: Strengthening the Economic Case for Action. 2016. (online) [6] WHO Factsheet: Ambient (outdoor) air quality and health (online)

*All weblinks accessed 27th October 2018*

# AIR POLLUTION



**91%**
of world's population lives in areas where air is unsafe to breathe

**4.2 million**
lives from
**EXPOSURE TO AMBIENT** (OUTDOOR) **AIR POLLUTION**

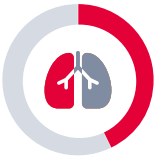
**3.8 million**
lives from
**HOUSEHOLD** (INDOOR) **AIR POLLUTION**

**Ambient air pollution**
alone is responsible for:

**24%**
of all deaths from **STROKE**

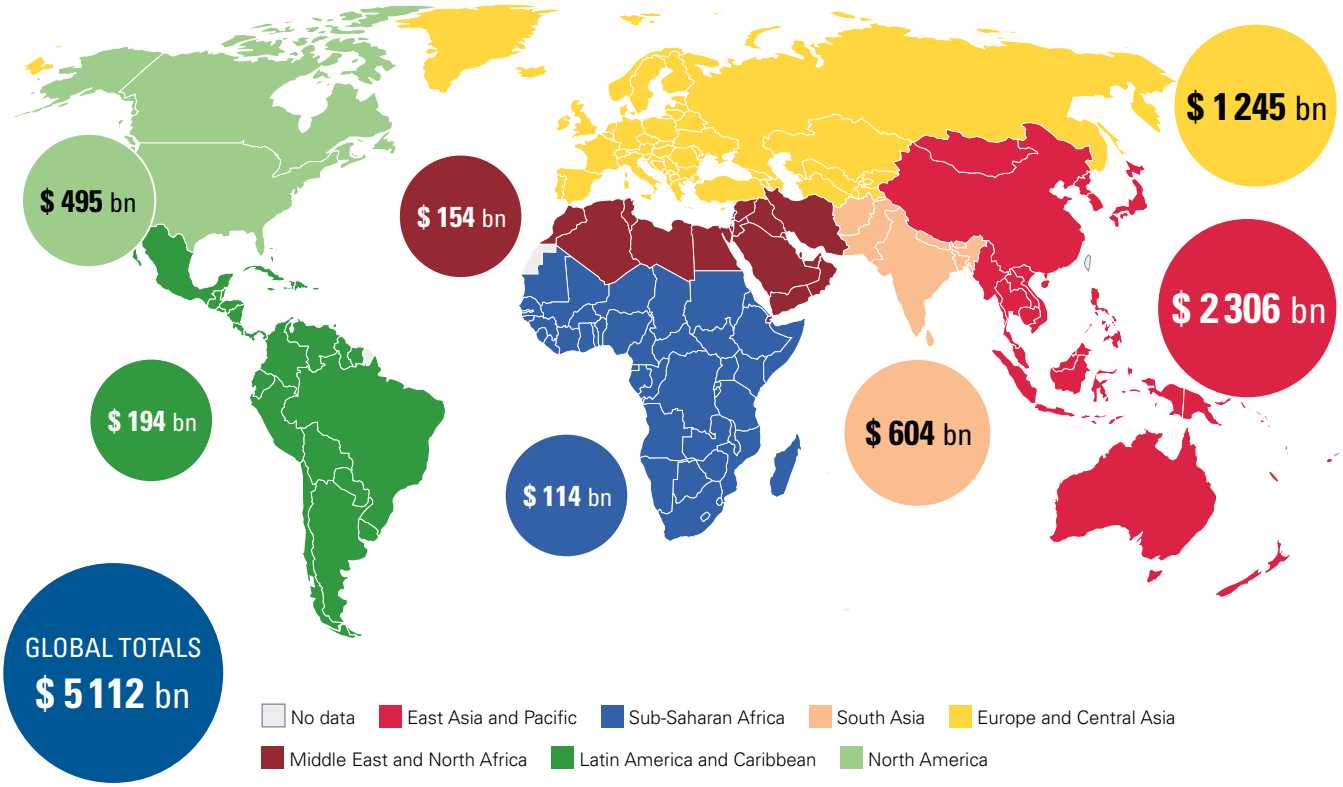
**25%**
of all deaths and disease from **ISCHAEMIC HEART DISEASE**

**29%**
of all deaths and disease from **LUNG CANCER**



**43%**
of all deaths and disease from **CHRONIC OBSTRUCTIVE PULMONARY DISEASE** (COPD)[3]

## THE COST OF AIR POLLUTION, 2013[5]




Cost is in 2011 USD. These losses represent the cost stemming from premature mortality caused by exposure to ambient fine particulate matter (PM2.5), household air pollution from cooking with solid fuels, and ambient ozone.

Source: This is an adaptation of an original work by The World Bank. Views and opinions expressed in the adaptation are the sole responsibility of the author or authors of the adaptation and are not endorsed by The World Bank.

## Air pollution widens the health gap

Illness and premature deaths caused by air pollution carry a quantifiable economic cost to society: an estimated six percent of global income.[7] Every country is affected by air pollution and its economic consequences, but the burden is most heavily borne by low- and middle-income countries where populations are most exposed and health systems least equipped to address the needs of people living with NCDs. 95 percent of adults and children affected by pollution-related illnesses live in low and middle-income countries.[8] While air pollution levels from particulate matter have decreased in the past decades in most high-income countries of Europe and the Americas, they remain high in countries across all income groups among other WHO regions.[2]

Within each country, the health burden and cost of air pollution falls disproportionately heavily on the poorest in society, especially in urban areas, who are more exposed due to proximity to sources of pollution in industry, fossil fuels in energy and transport, and waste.

## A mandate for action by Heads of State and Government

There are a number of key policies, agreements and mandates in existence to address air pollution. At global level, these include the WHO Road map for an enhanced global response to the adverse health effects of air pollution adopted at the 69th World Health Assembly in 2016,[9] as well as the UN Framework Convention on Climate Change and in particular the Paris Agreement.[10]

At regional level, WHO SEARO Member States included a specific target to reduce indoor air pollution in the regional NCD Action Plan for 2013-2020, going beyond the 9 targets reflected in the WHO Global NCD Action Plan for the same period.[11]

Most recently air pollution and other environmental risk factors were recognised in the 2018 UN Political Declaration on NCDs,[12] marking a transition from a '4x4' approach to NCDs (encompassing four leading risk factors and four major diseases) to a more comprehensive '5x5' response, as shown below. However, a great deal remains to be done at national level to translate these commitments into cleaner air.

# 5X5

### DISEASES

**Cardiovascular Disease** | **Chronic Respiratory Diseases** | **Cancer** | **Diabetes** | **Mental and Neurological Conditions**

### RISK FACTORS

**Unhealthy Diet** | **Tobacco Use** | **Harmful Use of Alcohol** | **Physical Inactivity** | **Air Pollution**

[7] UNEP Blog Post: Creating a Global Pollution Observatory: Battling big pollution with big data By Erik Solheim. 2018 (online).

[8] World Bank Brief: Reducing Pollution. 2018 (online).

[9] A69/A/CONF/9. 69th World Health Assembly. Health and the environment: draft road map for an enhanced global response to the adverse health effects of air pollution (online).

[10] Decision 1/CP.21. UN Framework Convention on Climate Change. 2015 (online).

[11] SEA-NCD-89. WHO SEARO. Action plan for the prevention and control of noncommunicable diseases in South-East Asia, 2013–2020. 2013. (online).

[12] A/RES/73/2. UN General Assembly 73rd Session. Political declaration of the third high-level meeting of the General Assembly on the prevention and control of non-communicable diseases. 2018 (online).

# Priority Actions to Address Air Pollution and NCDs

As well as adopting national targets to reduce indoor and outdoor air pollution, governments should include measures to improve air quality in their NCD action plans. To help governments as well as local, regional and city administrations, there is an urgent need to identify priority measures to improve air quality, including tried-and-tested policies. The WHO has already developed such a prioritised approach for the other four major risk factors (tobacco, alcohol, unhealthy diet and lack of physical activity) and should identify the necessary measures to ensure safe, clean air for all. This should include assessments of cost-benefits, including the positive impacts of cleaner air across all of the SDGs including for health systems and public budgets, economic development and productivity, equity, urban mobility, and climate.

**Recommendations should provide guidance to all levels of government, from national to local, to meet the WHO guideline levels for safe, healthy air quality,[13] and must address the major sources of air pollution in different contexts and resource settings:**

**1**


Rapidly phase out health-harmful subsidies for fossil fuels and polluting industries and introduce penalties for polluters and/or taxes on pollution.

**2**

Redirect investment to health-promoting, accessible alternatives including clean transport, renewable energy and/or to provide universal health coverage.

**3**

Improve housing conditions and ensure access to clean energy sources for indoor cooking, heating and lighting.

**4**


Adopt and strictly enforce emissions standards for all pollutants in all relevant sectors, including industry, energy, transport, waste and agriculture.

**5**

Include air quality measures in urban, rural and transport planning at city, regional and national level, including measures to encourage modal shift and active mobility, noting the additional benefits to health, wellbeing and reduction of health inequalities.

Tried-and-tested approaches to tackling major risk factors - most notably tobacco - and the experience of the NCD community can be instructive in tackling air pollution, particularly with regard to advocacy around fiscal policies and in identifying and combating interference from health-harmful industries protecting vested interests. Disruptive, systemic change to protect and improve our health is possible and with political will can be achieved in a short period of time. Any commitments and investment will pay for itself many times over in terms of prevented NCDs and reduced health costs and economic burden and will bring with it a suite of co-benefits for sustainable development.

[13] WHO Air quality guidelines for particulate matter, ozone, nitrogen dioxide and sulfur dioxide Global update 2005 Summary of risk assessment. 2006 (online).

NCD Alliance

Written by the NCD Alliance: Nina Renshaw (Policy and Advocacy Director), Romain Dissard, PhD (Research Adviser), and Jess Beagley (Policy Research Manager). October 2018.