GAHP
GLOBAL ALLIANCE ON HEALTH AND POLLUTION

PURE EARTH
BLACKSMITH INSTITUTE

Pollution and Non-communicable Disease

MAKE THE CONNECTION

Non-communicable diseases (NCDs) account for 72% of all deaths globally and this proportion is growing.[1]

Toxic pollution in the air, soil and water, killing 9 million people annually, is among the leading NCD risk factors globally and is responsible for an estimated 16% of all NCD mortality.[2]

The greatest increases in NCD mortality are seen in low-income and middle-income countries (LMICs), now experiencing epidemics of obesity, diabetes, cardiovascular disease, and cancer.[1] These epidemics reduce human capital and the enormous costs threaten to slow and even undercut trajectories of economic and social development.[2]

The Lancet Commission on Pollution and Health documented the enormous global burden of disease caused by pollution, presented new data on pollution's great economic costs; highlighted the links between pollution, poverty, and injustice; and demonstrated that pollution prevention will advance many of the Sustainable Development Goals and could slow climate change.

The Commission concluded that the worst forms of pollution and pollution-related disease can be curbed in all countries by applying the proven technical and legal strategies that have successfully and cost effectively controlled pollution in high-income and, more recently, some middle-income countries.[2]

Progress against pollution-related NCDs will require that leaders at the highest levels of international organizations to unequivocally and forcefully integrate pollution control and NCD agendas. And because the vast majority of pollution-related disease occurs in LMICs, new pollution control efforts must be developed and undertaken at the country level with financial support from wealthier countries and international development partners, and technical guidance from countries that have implemented successful interventions.

Pollution does not respect political boundaries, and the benefits of these interventions will therefore accrue globally.

The global health community has turned its focus to NCDs, but pollution is under-represented as a risk factor.

Pollution accounts for…

22% of all deaths from cardiovascular disease

26% of all ischemic heart disease deaths

25% of stroke deaths

53% of all deaths from chronic obstructive pulmonary disease

40% of deaths from lung cancer.[1]

Pollution-related NCD Mortality is Highest in LMICs

In **HIGH-INCOME COUNTRIES** such as Canada, France, Germany, the UK, and the USA, where many of the unhealthiest forms of pollution have been controlled, **behavioral and metabolic risk factors are the main causes of NCD mortality.**

But in **UPPER MIDDLE-INCOME COUNTRIES** such as Argentina, China, Mexico, and South Africa, **pollution and behavioral risk factors are approximately equal.**

In rapidly industrializing **LOW- AND MIDDLE-INCOME COUNTRIES** such as India, Kenya, Peru, and Senegal, **pollution is the predominant risk factor for deaths from NCDs.**

Photos by Larry C. Price

With growing recognition of pollution's enormous global impacts, the time has come to end neglect of pollution, acknowledge that pollution is a major NCD risk factor, mobilize the necessary funding, and make pollution prevention a core component of the intersectoral NCD agenda. Prevention of pollution-related NCDs is a battle that can be won.

Five Strategies for Advancing the Prevention and Control of Pollution-related NCDs

Encourage countries to prevent pollution-related NCDs by taxing polluters and reducing subsidies to polluting industries. Taxation strategies incentivize pollution control and have proven highly successful in preventing NCDs caused by tobacco and sugar-sweetened beverages. Moreover, revenues raised through taxes on polluting industries can be directed specifically to pollution control and thus minimize competition with other components of the NCD agenda.

Leverage the science and funding currently directed toward climate mitigation and adaptation. This will require modifying the priorities of climate change investments to effectively address the near-term benefits of pollution control.[1] Recognition of pollution's great and very immediate health and economic costs provides a powerful lever for achieving this change.

Empower civil society and the media to drive environmental improvements by generating actionable local data on levels of pollution within countries, cities, and communities and develop incentives for data generation and use.

Support LMIC governments in identifying critical pollution issues, prioritizing actions, and creating a solutions roadmap with efforts like GAHP's Health and Pollution Action Planning or other similar programs.

Assist governments to develop hard-hitting media campaigns modeled on antismoking campaigns to bring to light the harms caused by polluting industries and products.

References

1. GBD 2015 Mortality and Causes of Death Collaborators. Global, regional, and national life expectancy, all-cause mortality, and cause-specific mortality for 249 causes of death, 1980–2015: a systematic analysis for the Global Burden of Disease Study 2015. *Lancet*. 2016; 388: 1459–1544

2. Landrigan, PJ, Fuller, R, Acosta, NJR et al. The Lancet Commission on pollution and health. *Lancet*. 2018; 391: 462–512

3. UN. Political declaration of the high-level meeting of the General Assembly on the prevention and control of non-communicable diseases. http://www.un.org/en/ga/ncdmeeting2011/ Date: 2011