

Lancet Commission on Pollution and Health Update: Approach

The article is “A PROGRESS UPDATE”. It was prepared as an author’s review of progress in this area since the publication of the original Lancet Commission report in Oct. 2017. The preparation of the Update was linked to the publication of the latest Global Burden of Disease data for 2019 produced by the Institute for Health Metrics and Evaluation. Data from IHME database was used, as before, to evaluate the burden of disease for the set of risk factors that are pollution based. The overall impacts of pollution on health remain very high at approximately 9 million premature deaths in 2019. Evaluations of impact between pollution risk factors that are associated with poverty (called “traditional pollution”) and those associated with industrialization and urbanization (called “modern pollution”) were also made from the IHME GBD dataset. Some regional trends were identified, particularly a rise in the impacts of “modern pollution” in Africa and in South and Southeast Asia.

Specific analysis was carried out on Country Strategy Framework documents (used by Development Agencies to discuss and agree priorities for support to national governments) in order to see if changes could be identified in how pollution was being discussed and addressed. Reports from the World Bank, ADB, UNDP, and others were reviewed using artificial intelligence methodologies. A text analysis was performed across these reports for the years 1995-2020, covering a period when new efforts could be expected to begin emerging. The results showed that mentions of climate change increased but attention to pollution (and biodiversity) did not change significantly.

A similar textual analysis of approximately 1.8 million English language media items showed that public interest in pollution issues was growing. The largest annual increases were seen in the years 2017 to 2019, following publication of the report of *The Lancet* Commission on Pollution and Health in 2017, suggesting that the wide publicity gained by the Commission helped to influence the global awareness of the problems.

This update also used the extensive experience of the authors, with expertise in challenges across the globe, to identify issues of increasing concern, which include impacts of metals and chemicals, the intersection of air pollution and climate change and the growing transboundary impacts of pollution through food and other products, as well as by air and ocean transport. The authors identified many examples where progress was being made in tackling pollution in major urban areas (details in Supplemental Material) but noted that increasing pollution loads were negating much of this progress.

While changes in health outcomes were expected to take time, the Update noted that there had been remarkably little effort seen in most countries, over the four years after the publication of the Lancet Commission, to act on the very striking and widely

reported recommendations. The authors considered the responses to each of the broad recommendations of the Commission, noting that while there has been progress at UNEP and WHO in moving pollution higher on the agenda, there has been limited real change in key areas.