Beth Israel Deaconess Medical Center

A teaching hospital of Harvard Medical School

HARVARD T.H. CHAN SCHOOL OF PUBLIC HEALTH | C-CHANGE CENTER FOR CLIMATE, HEALTH, AND THE GLOBAL ENVIRONMENT

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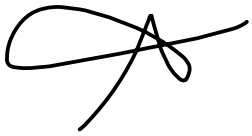
I offer the following comments to EPA on its "Interim Framework for Advancing Consideration of Cumulative Impacts," stressing a need for cumulative impact assessments in (1) policy and decision-making (e.g., NAAQS), (2) risk communication (e.g., AQI), (3) research (e.g., funding opportunities), and (4) environmental justice.

1. **Cumulative health impact assessments are needed to inform criteria pollutant standards**: It is well-established that air pollution causes death and morbidity and there is no "safe" threshold under which human health is protected. People are often exposed to multiple "chemical and nonchemical stressors" simultaneously. Yet, the current approach involves setting standards for individual pollutants without considering the health effects from multiple exposures. This may miss adverse health impacts arising from simultaneous exposures to multiple pollutants, even when individual pollutant concentrations comply with the existing standards.
2. **Cumulative health impact assessments are needed to inform risk communication**: One of the primary tools to convey air quality risks to the public is the AQI, which is based on short-term primary NAAQS. Cumulative impact assessments can help improve the science supporting the health risks of air pollution exposures and the translation of these risks through the AQI.
3. **Cumulative health impact assessments requires research**: There is a need for greater investment in policy-applicable research across different study types from epidemiology to chamber studies (e.g., funding opportunities to generate scientific research focused on cumulative impacts), development and improvement of exposure assessment tools (e.g., siting regulatory monitors particularly near communities proximal to major sources of pollution), and formulation of strategies to integrate the research data into interventions, policies, and programs.
4. **Environmental justice focus in cumulative health impact assessments**: The framework rightly emphasizes addressing disproportionate impacts on overburdened communities. Cumulative impact assessments should incorporate meaningful community involvement, local knowledge, and experiences from environmental justice communities. These assessments should aim to collect and analyze data at finer geographic scales, consider the intersectionality of environmental stressors with social determinants of health, and inform equity-focused decision-making. There's also a need for capacity building within environmental justice communities to participate in and benefit from these assessments, coupled with transparent reporting and clear accountability measures for addressing identified impacts.

Sincerely,



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