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Comments from

David G. Hill, MD

Member of the National Board of Directors of the
American Lung Association

On the External Review Draft of the
Integrated Science Assessment (ISA) for Ozone and Related
Photochemical Oxidants EPA/600/R-19/093

Docket ID No. EPA-HQ-ORD-2018-0274

December 4, 2019

Thank you for this opportunity to provide comments on the draft Integrated Science Assessment for the American Lung Association. My name is David Hill and I am a practicing pulmonary and critical care physician in Waterbury, Connecticut. I serve as a member of the faculty of several medical schools. I speak today in my role as a member of the Board of Directors for the American Lung Association where I also serve on the Scientific and Medical Editorial Review Panel. The Lung Association has submitted more extensive comments in writing. Today I will simply highlight some of our key concerns and recommendations.

First, we continue to express our objections to the changes to the process that EPA has adopted in this review. EPA's changes restrict the full discussion and review of the information, undermining the core purpose of this process: to set standards that "protect health with an adequate margin of safety." The Lung Association has long

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supported and, indeed, taken legal action to ensure the completion of the reviews in a timely manner. However, the current process undermines the ability of CASAC and EPA to arrive at appropriate and adequate decisions on these standards. The revised process means that the decisions the Administrator makes on these standards could not be based on a thorough review of the evidence.

As the Clean Air Act envisioned, the expanding research into the health impact of ozone has identified many systems at risk and health effects previously underappreciated. The Lung Association agrees with many of the conclusions of health effects from ozone but urges EPA to review and reconsider some determinations.

The draft ISA reinforces and expands respiratory health effects from short-term exposures identified in previous reviews. Large multi-city studies provided additional evidence of risks to people with COPD, including a Canadian study examining Ontario cities with significantly lower ozone than many in the U.S. Many more studies provided growing evidence that short-term ozone exposure increases the risk of ED visits for respiratory infections, including pneumonia, providing expanded evidence not available for the 2015 ISA.

EPA builds a powerful case of the long-term impacts on respiratory health with new onset of asthma. Evidence for effect shows up clearly in the Southern California Children's Health Studies that documented that effect in three cohorts of children who benefited with fewer children developing asthma as the ozone levels dropped over time. In Quebec, a large study tracked an increase of new asthma cases among 19 percent of the children even where long-term ozone levels were at low concentrations. These long-term studies provide important evidence that a long-term ozone standard should be considered.

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We urge EPA to reconsider its decision about the finding of mortality from ozone exposure. In the draft ISA, EPA steps back from its position in the 2015 ISA, shifting its finding that short-term exposure to ozone was “likely causal” of total mortality to “suggestive of causality.”

Multiple new studies, including a massive study of Medicare participants, found premature deaths associated with levels of ozone down to and below 60 ppb, while controlling for PM_{2.5}. EPA seems to have shifted its determination based on questions raised in new research on the cardiovascular impacts of ozone on mortality. Those questions need resolution. However, EPA should not base its causality determination solely on the uncertainties in the new evidence about cardiovascular impacts when stronger, consistent evidence exists that ozone causes respiratory mortality. We recommend EPA return its determination to “likely causal” for total mortality based on the consistency and strength of the evidence of increased risk of premature death from ozone exposure based on respiratory morbidity.

Millions of Americans deserve to have the standards set at levels that protect their health with an adequate margin of safety, as the Clean Air Act requires. This draft ISA shows growing evidence that the current standard of 70 ppb does not.

Just to cite one example: The draft ISA recognizes outdoor workers as being at risk from ozone. The Department of Labor estimates that nearly one in two workers—more than 71 million people—spends time in the outdoors as part of the job. As I know from my practice, outdoor workers include some of the 25+ million people in the US who have asthma. But outdoor workers also include healthy young adults—just the same group that, in the chamber studies, experienced harm from breathing ozone at levels of 60 ppb, well below the current standard. They deserve adequate protection from this pollutant.

Thank you for the opportunity to comment.

