

**Statement of the American Lung Association on
EPA's Second Draft Risk and Exposure Assessment
for the Review of the
National Ambient Air Quality Standards for Ozone**

**Presented by Deborah Shprentz
Consultant to the American Lung Association
March 26, 2013**

Good morning, and thank you for the opportunity to present comments of the American Lung Association on the second draft Risk and Exposure Assessment (REA) for the review of the National Ambient Air Quality Standards (NAAQS) for ozone.

The draft Risk and Exposure Assessment clearly demonstrates the burden that current concentrations of ozone pose to public health, the inadequacy of the current standard of 75 ppb (8-hour average) to provide the legally required protection, and the reductions in exposure and risk associated with an alternative standard of 60 ppb.

There is no evidence that the lungs respond differently to ozone from different sources. The Lung Association supports the assessment of risks from both natural and anthropogenic sources of ozone, as was done in the second draft REA

There are several ways in which the REA should be improved.

Infants and Small Children Should be Included

First, children aged zero to five are one of the most susceptible populations, but they are not included in the quantitative risk and exposure assessment.

We know that the lungs are not fully developed at birth, and that ozone exposure can affect the post-natal development of the lungs. Infants are exposed to outdoor air and they are active outdoors from the time they are mobile. They experience higher exposures than adults because of their increased breathing rate. The REA should include infants and young children in the analysis.

Expand Consideration of Health Endpoints

Second, it should be emphasized that the health endpoints considered in the REA are limited, and do not represent the comprehensive array of health effects attributable to ozone exposure. For instance, the analysis mainly looks at lung function decrements, respiratory hospitalizations, and mortality. Respiratory emergency room visits are considered in only two cities, and respiratory symptoms in only one city.

Incorporating additional health endpoints, for a larger number of cities, would provide a clearer picture of the full spectrum of health effects of concern.

Examination of Alternative Standards

Third, the analysis only considers **alternative levels** of the standard of 70, 65, and 60 ppb, but our reading of the health literature indicates that a standard of 55 ppb may be necessary to protect public health.

With chamber studies indicating adverse effects in healthy young adults at concentrations of 60 ppb, it is clear that more stringent standards, such as 55 ppb or below, must be

considered to protect the health of children and people with lung disease.

Also, the risk assessment does not consider the public health implications of **alternative forms** of the standard. For instance, a “not to be exceeded” form, or alternative averaging times, or other possible forms should be evaluated.

We would like to see the final REA look at potential standards of 55 ppb, and to consider whether alternative forms of the standard can provide increased protection of public health.

The Emission Control Strategies Modeled Are Limited

Finally, it should be emphasized that the emissions control strategies modeled in the draft REA are limited. Localities will consider many additional factors such as updated emissions inventories and a variety of NO_x and VOC control measures that were not analyzed in the risk assessment. It would be useful to see how the results are impacted by considering VOC reduction strategies as well as NO_x controls.

With these changes, the REA would present a more complete picture of the nature of health risks and the impact of alternative standards.