

**Comments of the American Lung Association on  
EPA's Health Risk and Exposure Assessment for Ozone  
First External Review Draft**

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I would like to offer a few comments on the first draft Risk and Exposure Assessment for ozone on behalf of the American Lung Association.

### Populations Excluded

EPA's risk assessment systematically excludes children ages zero to five from the quantitative assessment of risks, despite the fact that children are identified as an especially susceptible population in the ISA. These young children represent more than 25 percent of children – thus the estimates in the risk assessment are gross underestimates. The stated rationale for excluding this important segment of the population is that the exposure model used by EPA lacks activity data for this age group. To exclude them entirely seems unreasonable. Preschool children are an active group that spends time playing outdoors. Use of surrogate measures or reasonable assumptions would provide a way to come up with quantitative estimates of exposure and risk for this population.

Another important population that is excluded is outdoor workers. We are very troubled that this diverse population on the frontlines of exposure to outdoor air pollution is categorically excluded from the quantitative risk assessment. Many outdoor occupations, such as farmworkers, landscapers, construction workers and many others engage in heavy exercise on a daily basis, exposing these workers to higher doses of ozone air pollution. It is inappropriate to categorically exclude this susceptible population from quantitative assessments of exposure and risk.

We support the inclusion of people aged 65 or older (instead of age 70, as in the Scope and Methods Plan) in the assessment of risks to the elderly. This is consistent with the populations examined in the underlying epidemiological studies that may rely on Medicare data to explore health impacts on elderly populations.

We would like to see an illustration of the size of the populations included in the risk assessment relative to the populations that are excluded, to put the scope of the risk assessment into context.

### Air Quality Scenarios

In 2012, people across the country experienced worse air quality than in recent years. It is hot and getting hotter. To the extent the risk assessment is modeling cleaner years, it likely greatly underestimates the benefits of alternative air quality standards for ozone. EPA should explore ways to characterize this important source of underestimation.

Additionally, as stated earlier in comments on the ISA, we agree that risks of total exposure to ozone should be modeled because the lungs do not differentiate based on the source of the ozone.

### Health Endpoints Examined

Lung function decrements are only one consequence in a long chain of respiratory health impacts caused by exposure to ozone. Since quantitative results are presented for this health endpoint, it is easy for policy makers to overlook the other health endpoints in this chain. For example, inflammation is not modeled in the risk assessment. There should be a way of placing the lung function decrements into broader context to illustrate the string of adverse health impacts that can accompany declines in lung function.

### Communication of Results

We are troubled by some summary statements in the draft risk assessment that do not include an explanation to put the results into context. Most often, the biggest driver in the risk estimates is the assumption about baseline air quality. If the air in a particular city is already assumed to be cleaner than the alternative standard being evaluated, the potential benefits of alternative standards will be minimized. This basic concept is not adequately conveyed in the draft risk assessment nor carried forward into the policy assessment.