

EPA's Ozone Standards: What's in the numbers?

What is Ozone and why is it dangerous to human health? Ground-level ozone, more commonly known as smog, burns lungs and airways, causing them to become inflamed. Children, the elderly, and people with lung diseases like asthma, chronic bronchitis, emphysema, and others are particularly vulnerable to the health effects of smog. When inhaled even at low levels, ozone can cause chest pain, aggravate asthma, reduce lung function, increase emergency room visits, and lead to irreversible lung damage. Ozone even causes premature death.

Setting Smog Standards under the Clean Air Act: The Clean Air Act requires EPA to set standards for ozone that protect the public health with an adequate margin of safety. Congress also requires EPA to review these standards periodically. The current standard limits the concentration of ozone in the outside air to 75 parts per billion. EPA's independent science health advisory committee reviewed evidence from over 1,700 studies of the health impacts of ozone. They concluded unanimously that the ozone standard should be set between 60-70 parts per billion to protect human health. EPA proposed to set ozone standards in this range and is expected to finalize standards by the end of December 2010.

What are the implications of setting the standard at different levels?

Standard (Benefits beyond those obtained at 84 ppb)	Current level -75 ppb	70 ppb	65 ppb	60 ppb
Number of Lives Saved Per Year	750 to 2,100	1,500-4,300	2,500-7,200	4,000-12,000
Number of Hospital Visits Avoided	2,600	6,700	11,000	21,000
Number of Asthma Attacks Avoided	12,000	23,000	38,000	58,000
Number of Avoided Work and School Absences	278,000	770,000	1,370,000	2,520,000

* Source: US EPA (2009) Summary of the updated Regulatory Impact Analysis for the Reconsideration of the 2008 Ozone NAAQS, Table S1.2. Estimates are for year 2020, include PM co-benefits, only include areas expected to attain 84 ppb standards by 2020.

A 60 ppb standard could save up to 7,700 more lives *per year* than a 70 ppb standard. A 65 ppb standard could save up to 3,900 more lives *per year* than a 70 ppb standard. EPA should adopt ozone standards at the lowest level possible within the range proposed to protect human health with an adequate margin of safety.

For more information,
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