# Environmental Defense comments for Governors' Task Force on ozone-reducing fuels

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*ENVIRONMENTAL DEFENSE* 

finding the ways that work

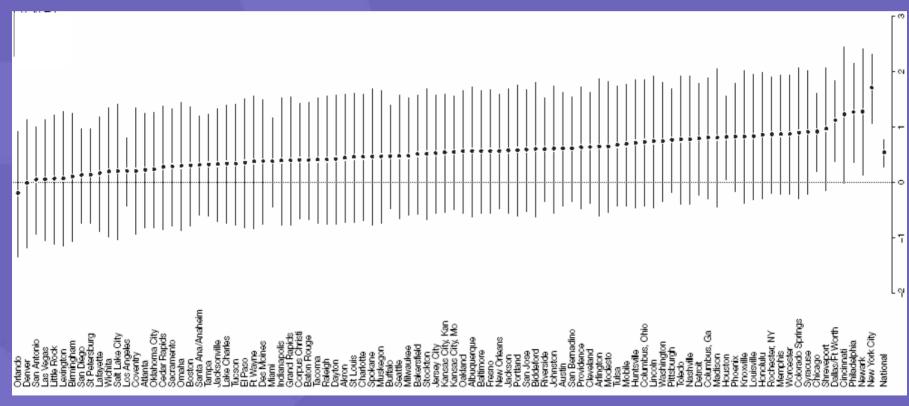
### Balancing Community Health and Economics

- Health imperative to lower harmful ozone due to VOCs in gasoline
- Variations are market-based solutions to local problems
- New ozone health science compels continued efforts to reduce exposure

### New studies demonstrate ozone linked with deaths

- Estimated 0.3-0.9% increase in mortality with 10 ppb increase in ozone
  - (Bell et al., 2005; Levy et al., 2005; Ito et al., 2005)
- Studies able to control for effects of PM
- Effects seen at doses well below current standard

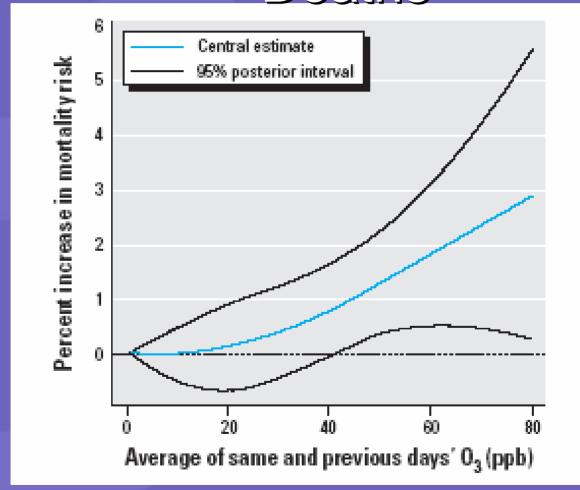
### % Change in Daily Mortality per 10-ppb Increase in Daily Ozone in 95 U.S. Cities



(Bell et al., 2004)

Reduced Ozone = Reduced

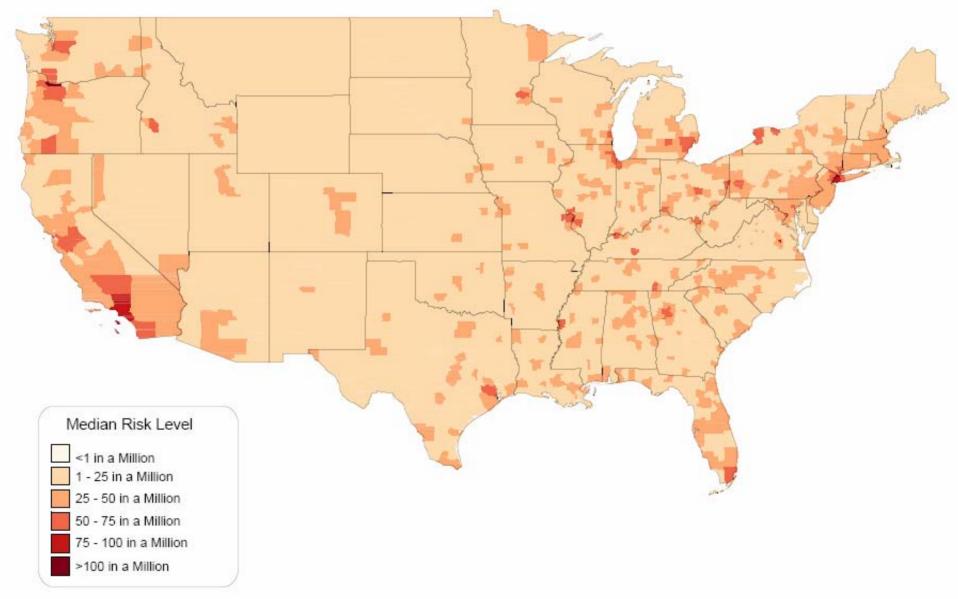
Deaths



#### Additional health effects of ozone

- Acute heart attacks (Ruidavets et al., 2005)
- Asthma exacerbation and causation (e.g., Tolbert et al., 2000; McConnell et al, 2002)
- Hospital admissions for COPD and pneumonia (Medina-Ramon et al., 2005)
- Reduced birth weight (Salam et al., 2005)

#### US air toxics cancer risks



### 12 of EPA's 21 Mobile Source Air Toxics are VOC's

- 1,3-Butadiene
- Acrolein
- Acetaldehyde
- Formaldehyde
- n-Hexane
- Naphthalene

- Ethylbenzene
- Toluene
- MTBE
- Benzene
- Styrene
- Xylene

## Blended gasolines significantly reduce VOC emissions

Table 1: Projected Emissions Reductions Resulting from Low-RVP, RFG, and CBG Gasoline Blends

	Estimated emissions reductions <sup>a</sup>		3ª
Gasoline blend	VOC	NOx	co
Low RVP			
7.8	12 to 16%	0.7%	No effect
7.2	19 to 23%	0.7%	No effect
7.0	21 to 25%	0.7%	No effect
RFG			
Federal RFG	25 to 29%	0.7%	10 to 20%
California CBG <sup>b</sup>	25 to 29%	5.7%	Not estimated
Source: GAO analysis of EPA data.			

GAO, 2005 http://www.gao.gov/new.items/d05421.pdf

### Summary

- Mortality and other health effects of ozone are more serious than previously understood
- Careful study needed
  - Actual reductions in today's cars
  - Actual reasons for variation in blends
- Harmonization must be health-protective