

Ozone: Global Pollutant, Personal Effects

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The Ozone Challenge

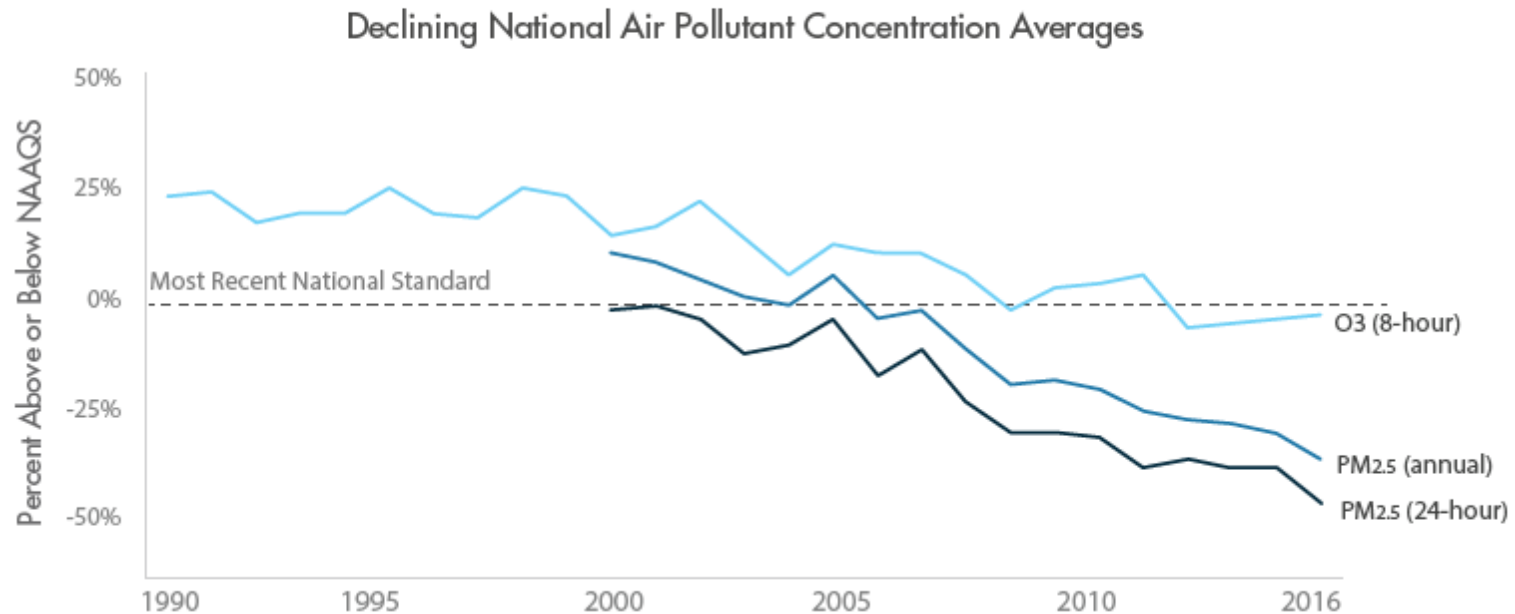
- **Significant Progress, but...**
 - Continued challenges of international transport and climate change
- **New and Emerging Science**
 - Exploring new health endpoints
 - Testing effects at lower levels
- **Where the “rubber meets the road”**
 - *The challenges of actually trying to attain the standards*
- **... and our Session Today**



There has been progress... But not as much as for PM

Criteria Pollutant Trends Show Clean Air Progress

Ground-level ozone and fine particles (PM_{2.5}) continue to pose serious air quality problems in many areas of the U.S. People with heart or lung disease, older adults, and children may be particularly sensitive. Levels of both pollutants have decreased over the years, improving quality of life for many Americans.



EPA Air Quality Trends Report 2017



There has been progress...

But not as much as for PM and NO₂

The case of Southern California

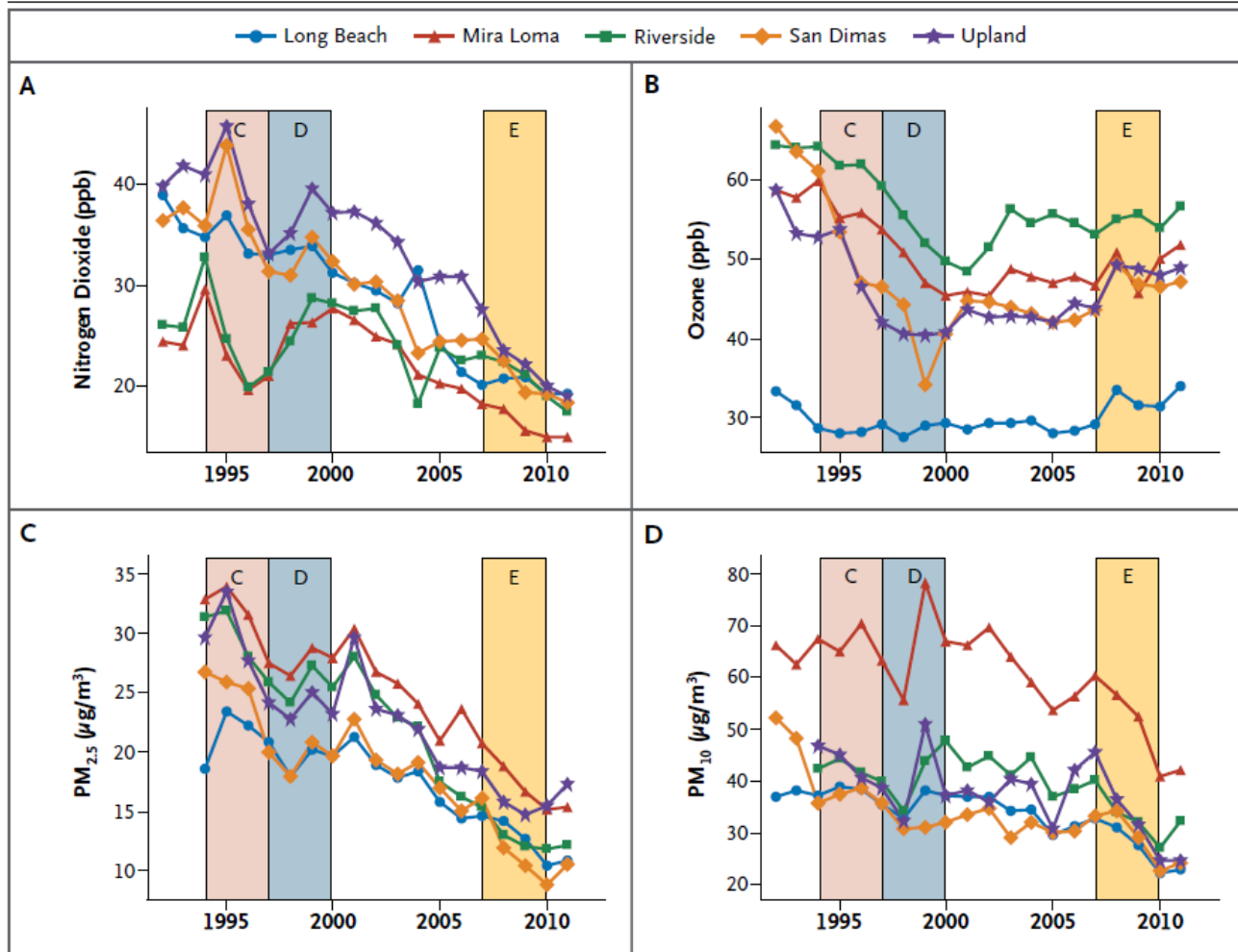


Figure 1. Levels of Four Air Pollutants from 1994 to 2011 in Five Southern California Communities.

Colored bands represent the relevant 4-year averaging period for the analysis of lung-function growth in each of the three cohorts, C, D, and E. PM_{2.5} denotes particulate matter with an aerodynamic diameter of less than 2.5 µm, and PM₁₀ particulate matter with an aerodynamic diameter of less than 10 µm.



Our Session Today:

Ozone: Global Pollutant, Personal Effects

- Global Dimensions to Regional Air Quality: Transboundary Transport and Climate Change *Arlene Fiore*, Columbia University
- Recent Studies That Will Contribute to the Ozone Health Assessment and the Setting of the Standard
 - Introduction *Jana Milford*
 - Link Between Ozone and Health: Epidemiologic Evidence
Mike Jerrett, University of California–Los Angeles
 - Link Between Ozone and Health: Clinical Studies
Mark Frampton, University of Rochester Medical Center and HEI Review Committee
- Panel Discussion: How Does Scientific Knowledge and Uncertainty Inform Attainment Efforts at Ground Level?
 - *Philip Fine*, South Coast Air Quality Management District
 - *David Brymer*, Texas Commission on Environmental Quality
- General Discussion



Thank You

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