Air Pollution and Community Health
Key Air Pollution Health Impacts

Air pollution can lead to illness and premature death.

Health risks from:
- OZONE POLLUTION
- PARTICLE POLLUTION

- PREMATURE DEATH
- May cause developmental harm
- May cause reproductive harm
- Asthma attack
- Lung cancer
- Wheezing and coughing
- Shortness of breath
- Cardiovascular harm
- Susceptibility to infections
- Lung tissue redness, swelling

AMERICAN LUNG ASSOCIATION®
Climate change: a top lung health concern

“Given the potential of climate change to reverse the health gains from economic development, and the health co-benefits that accrue from actions for a sustainable economy, tackling climate change could be the greatest global health opportunity of this century.”

Lancet Commission on Health and Climate Change, June 2015
Climate Change & Public Health

- Heat Waves
- Increased Ozone
- Particle Pollution
- Hospital & ER Visits
- Premature Death
- Vector Borne Illness
- Water Quality
- Asthma & Allergy
- Historic Wildfires
- Extreme Drought
Climate Penalty

Climate Change Slows Air Quality Progress

- Extreme events include: drought, heat waves, wildfires
- Studies show increased emissions, more unhealthy days in Bay Area, Los Angeles, San Joaquin Valley
State of the Air 2017

OZONE POLLUTION is smog, which is a highly irritating, but invisible gas.

YEAR ROUND PARTICLE pollution is the avg. level of microscopic bits of solids and aerosols in the air.

SHORT TERM PARTICLE pollution are days with spikes in those bits of pollution.

SOURCES OF POLLUTION

AMERICAN LUNG ASSOCIATION®
State of the Air 2017

Who is at risk?

91% of Californians live in a county with a failing grade

91%  35 Million

39%  125 Million
<table>
<thead>
<tr>
<th>State of the Air 2017</th>
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<tbody>
<tr>
<td><strong>Most Polluted US Cities:</strong></td>
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<tr>
<td><strong>Unhealthy Ozone Days</strong></td>
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<tr>
<td>Los Angeles-Long Beach, CA</td>
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<tr>
<td>Bakersfield, CA</td>
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<td>Fresno-Madera, CA</td>
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<td>Visalia-Porterville-Hanford, CA</td>
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<td>Phoenix-Mesa-Scottsdale, AZ</td>
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<td>Modesto-Merced, CA</td>
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<td>San Diego, CA</td>
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<td>Sacramento-Roseville, CA</td>
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<td>New York-Newark, NY-NJ-CT-PA</td>
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<td>Las Vegas-Henderson, NV-AZ</td>
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Reduced Smoggy Days

Fresno

45%

2017: Weighted average of 93 bad air days
Soot Challenges Bakersfield

Local Sources
• Diesel Trucks
• AG Equipment
• Oil and Gas
• Wood Smoke

Climate Impacts
• Drought
• Wildfires

2017: 53 unhealthy days
San Joaquin Valley Soot Challenges Hanford/Modesto

Local Sources
• Diesel Trucks
• AG Equipment
• Oil and Gas
• Wood Smoke

Climate Impacts
• Drought
• Wildfires

2017: 41 unhealthy days
What do we need to breathe easy?

Cut Short-Lived Climate Pollutants

Black Carbon 50% by 2030
Methane 40% by 2030
F-Gases 40% by 2030

STAND WITH DOCTORS to Fight Super Pollutants and Climate Change

doctorsforclimatehealth.org

lung.org/california #ClimateHealth
Zero Emission
Vehicles (Electric/Hydrogen)
Transit and School Buses
Freight and Logistics

Community Measures
Facility Controls
Short-lived Climate Pollutants
Cap and Trade Investments

Clean Air
Healthy Climate

Clean, Renewable Power
Solar/Wind
Efficiency/storage

Land Use/Transportation
Walking/Biking/Transit
Less Sprawl and Driving
Coordinate state/local efforts

Clean Air
Healthy Climate
How do we get to clean air?

- Move away from fossil fuels
- Increase zero emission transportation and renewable energy.
- Strengthen diesel clean up requirements
- Reduce “super pollutants” like black carbon and methane.
- Avoid residential wood burning; support investment in the cleanest heating options.
- Link local controls on criteria pollutants and toxics to cap and trade program.