



# **PUBLIC HEALTH ADVOCACY FOR SUSTAINABLE COMMUNITIES**

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# State of the Air 2012

**American Lung Association  
State of the Air 2012  
Most Polluted Cities in America**

**Ozone  
(CA Cities: 9 of the Top 10)**

**#1 Los Angeles- Long Beach  
Riverside**

#2 Visalia

#3 Bakersfield

#4 Fresno

#5 Hanford

#6 Sacramento

#7 San Diego

#10 Merced

**Short-Term Particle Pollution  
(CA Cities: 6 of the Top 10)**

#1 Bakersfield

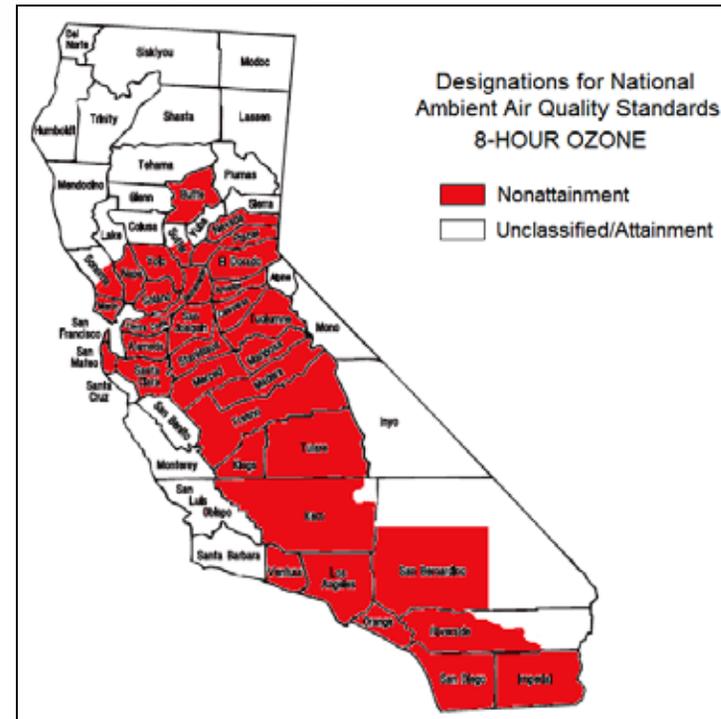
#2 Fresno

#3 Hanford

**#4 Los Angeles-Long Beach  
Riverside**

#5 Modesto

#10 Merced





## **Air Pollution Health Risks**

- Premature death
- Asthma attacks
- Heart attacks, strokes
- Worsening of pulmonary & cardiovascular diseases
- Hospital and emergency room admissions
- Stunted lung growth

# Healthy Growth Avoids:



## Chronic Illnesses:

Asthma & respiratory illnesses

Heart disease

Obesity

Diabetes

Mental health problems

## Other health problems:

Health disparities

Premature deaths

Traffic/Pedestrian injury & death



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# Health Engagement Strategies

- **Health Data:** *Reduced chronic illness rates with compact growth/active transportation*  
*(emissions and physical activity)*
- **Health Metrics:** *performance measures focused on health outcomes*
- **Health Outreach:** *Educating elected officials/local governments and public*

## Health Metrics



- Exposures to traffic pollutants
- Reductions in illness/premature deaths
- Changes in incidents of illness
- Increasing active transportation/proximity to active transportation
- Pedestrian/bicycle collisions



## **2012 RTP/SCS Public Health Metrics**

Formal metrics were limited and used as proxies for health outcomes:

- Reductions in particulates and smog-forming pollutants
- Changes in VMT
- Investment in Active Transportation



# **SCAG RTP/SCS Performance Measures (monitor or develop)**

- Percent of households living <500 feet from high-volume roadways
- Pre-mature deaths due to PM2.5
- Housing siting and near roadway emissions



# Smart Growth/Active Transportation = Avoided Health Costs

American Lung Association in California research finds smart growth in Southern California can avoid:

- Over \$16 billion in health and societal costs (2010 – 2035)
- Includes costs of medical care, premature deaths, lost work and school days
- Savings of almost - \$1 billion in 2035 alone in Southern California.



# Analysis of Health Benefits of Smart Growth Policies

Health Impacts Avoided By 2035 In Southern California

- 16,377 asthma attacks and lower respiratory symptoms
- 53,000 missed work days
- 10,500 missed school days
- 320,800 other respiratory symptoms

# SCAG Strategy - Respiratory Health Impacts

Cost reduction from status quo due to health incidents, Annual in 2035



1

2

3

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# Measuring Health Outcomes in SCAG's Sustainable Communities Strategy

- **GHG reductions: 9% by 2020, 16% by 2035**
- **24% reduction in respiratory health incidences from vehicle pollution**
- **Tripled funding for active transportation over prior RTP (to \$6 billion), including:**
  - Added 5,800 miles of bikeways
- **Doubled households near transit**
  - Over half of new jobs in high quality transit areas



# Ongoing Monitoring of Health Outcomes SCAG SCS Implementation

- a) Incorporate enhanced tracking of **chronic disease outcomes**, such as asthma incidence and exacerbation, heart disease, stroke and diabetes.
  
- b) Include an expanded analysis of traffic pollution impacts to include areas with housing within 1,000 feet of high-volume roadways.
  
- c) Monitor and report on the outcomes and impacts as well as possible mitigation strategies.

# Active Transport and Health

(Bay Area Example)

- Increasing daily walking and bicycling from 4.5 to 22 minutes:

	Change in disease burden		Change in premature deaths
Cardiovascular Dis.	15%	↓	1895
Diabetes	15%	↓	189
Depression	6%	↓	<2
Dementia	6%	↓	132
Breast cancer	5%	↓	48
Colon Cancer	6%	↓	53
CO <sub>2</sub>	15%	↓	-



Source: CDPH, 2011([www.cdph.ca.gov/programs/CCDHP/ Documents/ITHIM\\_Technical\\_Report11-21-11.pdf](http://www.cdph.ca.gov/programs/CCDHP/ Documents/ITHIM_Technical_Report11-21-11.pdf))

# Recommendations Going Forward

## More health analysis:

- Expanded analysis of health benefits of walking, cycling and transit.
- Health analysis of growth scenarios for 2016 RTPSCS
- Expanded analysis of traffic pollution impacts
- Enhanced tracking of chronic disease outcomes, asthma incidence and exacerbation, heart disease, stroke and diabetes.



# Recommendations Going Forward

- More collaboration with health partners
- Promote funding for complete streets and active transportation



“I see too many children suffering because of asthma attacks and respiratory illness that is made worse by poor air quality. Healthier air is an immediate imperative for Southern California families.”

Afif El-Hasan, M.D.

American Lung Association in California volunteer  
Pediatric Asthma Doctor

# Southern California Health Partners





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