AIR POLLUTION

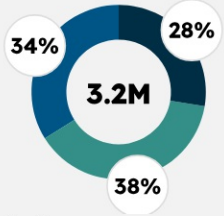
Orange County

UCLA Latino Policy & Politics Institute
Climate & Health Dashboard

County Statistics

Factors Influencing Exposure to Air Pollution

Population



Latino	1.1M
NL white	1.2M
Other	877K

*NL white = Non-Latino white

Median Age
Latino: 31 yrs
NL white: 48 yrs

Noncitizen Population
Latino: 20%
NL white: 4%

Limited English Proficiency
Latino: 26%
NL white: 3%

Renter Households
Latino: 61%
NL white: 36%

Poverty Rate
Latino: 12%
NL white: 7%

Median Income (Household)
Latino: $88k
NL white: $121k

SNAP Benefits
Latino: 12%
NL white: 4%

Food Insecurity
Latino: 17%
NL white: 7%

Uninsured Rate
Latino: 13%
NL white: 3%

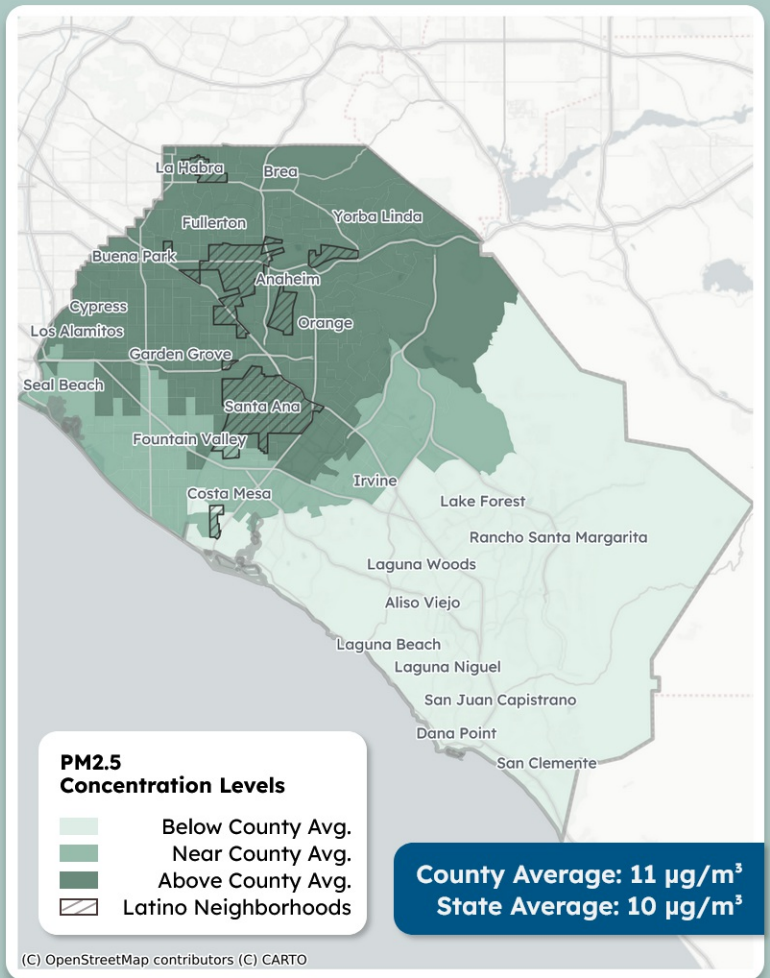
Fair/Poor Health Status
Latino: 15%
NL white: 9%

Life Expectancy
Latino: 81 yrs
NL white: 81 yrs

Neighborhood Statistics

Air Pollutants

Latino Neighborhoods and Exposure to Particulate Matter 2.5 (PM2.5), 2015-2017



Note: µg/m³ = one-millionth of a gram per cubic meter of air

Note: California's state standard for PM2.5 is an annual average of 12 µg/m³, while the federal standard is 9 µg/m³. There is no state or federal or state standard for Diesel PM.

PM2.5

PM2.5 is produced from sources like vehicle exhaust, wildfires, and industrial activity. These fine air particles enter the lungs and bloodstream and worsen conditions like asthma and heart disease.

Latino neighborhoods had **similar exposure** to PM2.5 as NL white neighborhoods.

12 µg/m³	10 µg/m³
Latino neighborhoods	**NL white** neighborhoods

Annual mean concentration

Diesel PM

Diesel emissions from vehicles and heavy-duty equipment release harmful particulate matter. Exposure to diesel exhaust can raise blood pressure, trigger heart attacks, and worsen lung conditions.

Latino neighborhoods had **higher exposure** to diesel PM than NL white neighborhoods.

0.3 tons/year	0.13 tons/year
Latino neighborhoods	**NL white** neighborhoods

Emissions

Latino neighborhoods = Census tracts with 70%+ Latino residents
NL white neighborhoods = Census tracts with 70%+ NL white residents

Neighborhood Statistics (cont.)

Proximity to Major Sources of Air Pollution

Note: Exposure and proximity scores take into account the number of sites/facilities and their proximity to neighborhoods. **Higher scores = more exposure to pollutants for residents.**

Cleanup sites, , such as Superfunds, are polluted with materials like lead and asbestos. Examples include old and abandoned processing plants and manufacturing facilities.

Exposure Score

21	**Latino** neighborhoods
5	**NL white** neighborhoods

Hazardous waste facilities are treatment, storage, and disposal sites. They can release toxic substances such as carcinogens, mercury, and asbestos into the air, water, and soil.

Exposure Score

2.0	**Latino** neighborhoods
0.3	**NL white** neighborhoods

RMP facilities are sites where hazardous chemicals—like propane, pesticides, ammonia, and explosives—are present, posing risks to the environment and communities if released.

Proximity Score

0.9	**Latino** neighborhoods
0.2	**NL white** neighborhoods

Vehicle Types and Traffic

Lower-emission vehicles (LEVs) use battery electric, plug-in hybrid, or hybrid technology to reduce greenhouse gas emissions.

% of LEVs owned

3%	**Latino** neighborhoods
12%	**NL white** neighborhoods

Clunker vehicles (vehicles 20 years or older) emit high levels of pollutants because they lack advanced emission-control equipment.

% of clunker vehicles owned

12%	**Latino** neighborhoods
7%	**NL white** neighborhoods

Traffic density measures the concentration of vehicles on roads within an area. Neighborhoods near major roadways face greater exposure to harmful emissions released from vehicles.

Vehicle kilometers per hour

1717 km/hr	**Latino** neighborhoods
1221 km/hr	**NL white** neighborhoods

Vulnerable Groups

Age

Children and older adults are more vulnerable to air pollution and have a higher risk of developing respiratory and cardiovascular diseases.

Latino neighborhoods: 7% ages 0-5; 9% ages 65+

NL white neighborhoods: 4% ages 0-5; 22% ages 65+

Health

Air pollution worsens pre-existing health conditions like asthma and coronary heart disease, increasing emergency visits and health complications. Long-term exposure to air pollution can cause chronic illness and premature death.

% of Adults (18+) with Pre-Existing Conditions

Coronary Heart Disease

4% **Latino** neighborhoods	5% **NL white** neighborhoods

Asthma

10% **Latino** neighborhoods	9% **NL white** neighborhoods

Emergency Department Visits (per 10,000 people)

Heart Attacks

12 **Latino** neighborhoods	9 **NL white** neighborhoods

Asthma Attacks

47 **Latino** neighborhoods	22 **NL white** neighborhoods

Low Birth Weight (LBW) Babies

LBW babies are born under 5 lbs. LBW increases the risk of infant mortality, developmental delays, and chronic health conditions. Exposure to air pollution, such as PM2.5, contributes to higher rates of LBW babies.

% of Infants

- 5% **Latino** neighborhoods
- 4% **NL white** neighborhoods

Disadvantaged Communities

The CA Environmental Protection Agency defines disadvantaged communities based on their environmental pollution burden and population characteristics. Under Senate Bill 535, revenue from CA's Cap-and-Trade Program is partly directed toward these communities through the CA Climate Investments program to reduce pollution, enhance climate resilience, and improve health and economic well-being.

% of Disadvantaged Communities

73% **Latino** neighborhoods	0% **NL white** neighborhoods