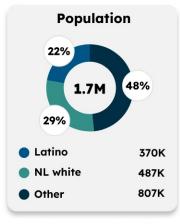
## AIR POLLUTION

# UCLA Latino Policy & Politics Institute Climate & Health Dashboard

## **Alameda County**

## **County Statistics**

#### **Factors Influencing Exposure to Air Pollution**



Median
Age
Latino: 32 yrs
NL white: 46 yrs

Noncitizen Population

Latino: 22% NL white: 4% A<sub>Z</sub>

Limited English
Proficiency

Latino: 25% NL white: 3%



Renter Households

Latino: 60% NL white: 39%



Poverty Rate

Latino: 11% NL white: 7%



Median Income (Household)

Latino: \$93k NL white: \$141k



SNAP Benefits

Latino: 12% NL white: 4%



Insecurity
Latino: 16%
NL white: 7%



Latino: 8% NL white: 2%



Latino: 14% NL white: 8%



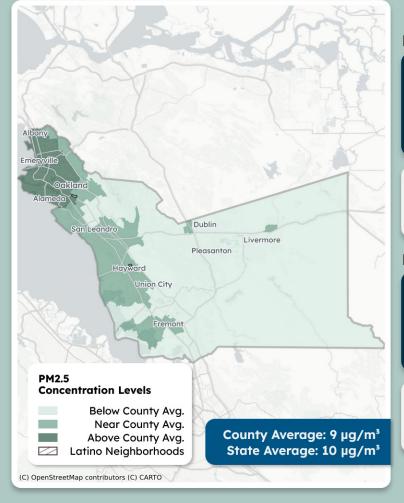
Expectancy Latino: 83 yrs

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  $\underline{\text{the same exposure}}$  to PM2.5 as NL white neighborhoods.

9 μg/m³ Latino neighborhoods

9 μg/m³

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  $\underline{\text{higher exposure}}$  to diesel PM than NL white neighborhoods.

**0.25** tons/year Latino neighborhoods

**0.12** tons/year NL white neighborhoods

Emissions

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

<sup>\*</sup>NL white = Non-Latino white

#### Latino Policy & Politics Institute UCLA Climate & Health Dashboard

## **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**

13

Latino neighborhoods **NL** white neighborhoods into the air, water, and soil.

Hazardous waste facilities are

treatment, storage, and disposal sites.

They can release toxic substances such

as carcinogens, mercury, and asbestos

**Exposure Score** 

0.2 0.8

Latino neighborhoods **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**

0.7 0.2

Latino neighborhoods **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% 19%

Latino neighborhoods **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 **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

520 km/hr 424 km/hr

Latino neighborhoods 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.

6% ages 0-5 8%

ages 65+ Latino neighborhoods

4% 23% ages 0-5 ages 65+

NL white neighborhoods

#### 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

4%

Latino **NL** white neighborhoods neighborhoods

**Coronary Heart Disease** 

11% Latino

9% NL white neighborhoods neighborhoods

Asthma

#### 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

#### Emergency Department Visits (per 10,000 people)

**17** 

Latino **NL** white neighborhoods neighborhoods

**Heart Attacks** 

117 Latino

**NL** white neighborhoods neighborhoods

Asthma Attacks

#### 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

50% Latino

0%

**NL** white neighborhoods neighborhoods