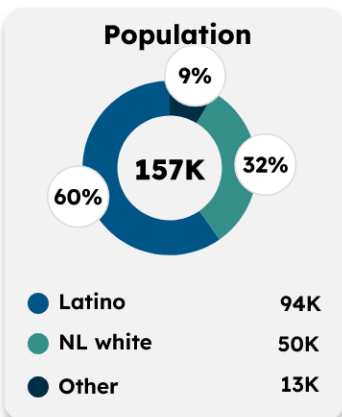


# AIR POLLUTION

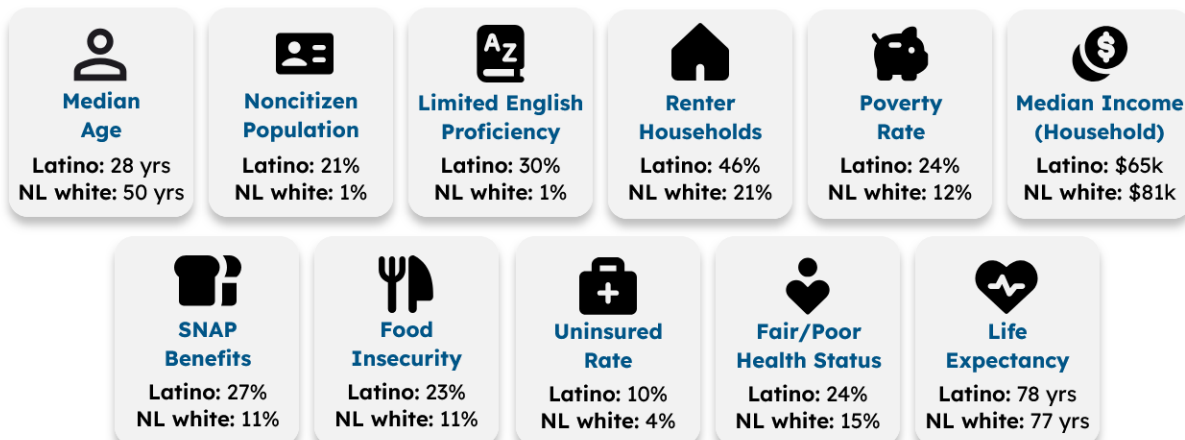
## Madera County

### County Statistics

#### Factors Influencing Exposure to Air Pollution



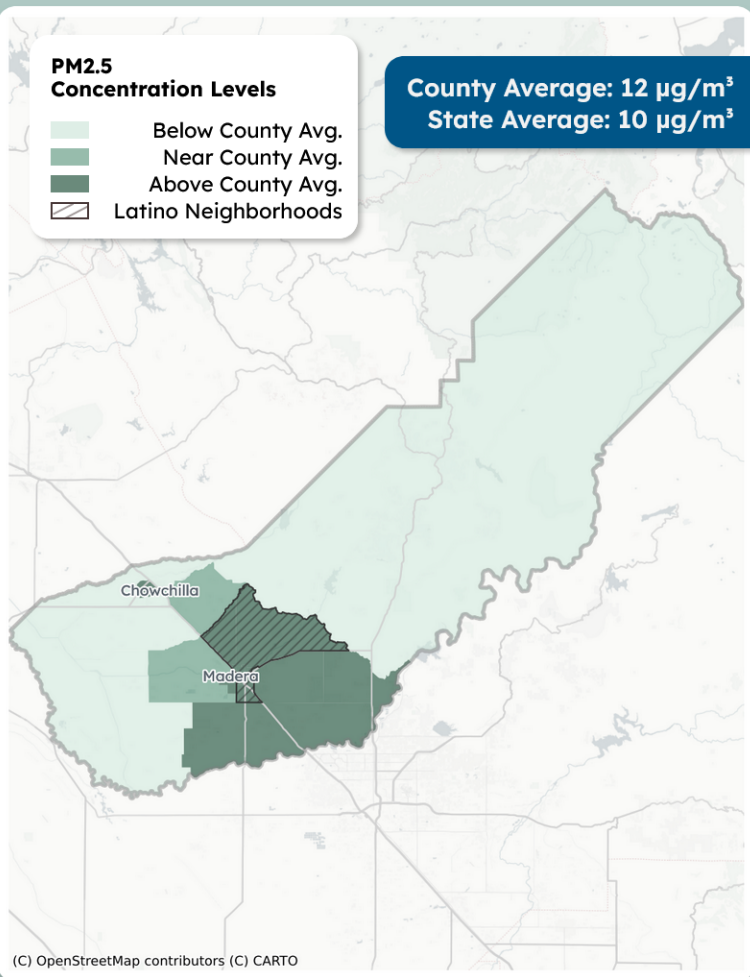
\*NL white = Non-Latino white



### Neighborhood Statistics

#### Air Pollutants

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

Note:  $\mu\text{g}/\text{m}^3$  = one-millionth of a gram per cubic meter of airNote: California's state standard for PM2.5 is an annual average of 12  $\mu\text{g}/\text{m}^3$ , while the federal standard is 9  $\mu\text{g}/\text{m}^3$ . 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.

**13  $\mu\text{g}/\text{m}^3$**  Latino neighborhoods  
**9  $\mu\text{g}/\text{m}^3$**  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, a higher exposure than NL white neighborhoods.

**0.21 tons/year** Latino neighborhoods  
**0.01 tons/year** 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

**5** Latino neighborhoods  
**1** 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

**0.3** Latino neighborhoods  
**0.2** 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** Latino neighborhoods  
**0.0** 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

**2%** Latino neighborhoods  
**5%** 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

**13%** Latino neighborhoods  
**16%** 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

**821 km/hr** Latino neighborhoods  
**397 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.

**8%** ages 0-5  
**9%** ages 65+  
Latino neighborhoods

**3%** ages 0-5  
**30%** 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

**5%** Latino neighborhoods  
**8%** NL white neighborhoods  
**Coronary Heart Disease**

**11%** Latino neighborhoods  
**10%** NL white neighborhoods  
**Asthma**

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

**31** Latino neighborhoods  
**8** NL white neighborhoods  
**Heart Attacks**

**94** Latino neighborhoods  
**30** NL white neighborhoods  
**Asthma Attacks**

#### 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

**100%** Latino neighborhoods  
**0%** NL white neighborhoods