







Asthma/Air Quality

Asthma is a disease that affects the lungs, and is often triggered by environmental conditions such as poor outdoor air quality as well as mold, dust, and cleaning solutions in the home. Asthma and breathing problems are a health need in San Joaquin County, as marked by high prevalence of asthma in adults and youth. In particular, asthma disproportionately impacts non-Hispanic Blacks. Poor outdoor air quality not only exacerbates asthma, but it is also an issue that affects all residents, and ranges from second-hand cigarette smoke to greenhouse gas emissions (vehicle exhaust) and other elements that lead to high particulate matter (mixture of solid particles and liquid droplets found in the air such as dust, dirt, or soot). The percentage of days exceeding Fine Particulate Matter (PM 2.5) standards is high throughout the county and affects breathing and lung health for all residents.

Key Data

Indicators	Community Feedback		
<p>Among all California Counties, San Joaquin ranks 4th highest in agricultural pesticide use.¹</p>	<p>39.0% of Community Survey respondents report that air pollution is a major environmental concern in their community.</p>		
<p>Youth Ever Diagnosed with Asthma² <i>Percent of children ages 1-17 whose parents report that their child has ever been diagnosed with asthma</i></p> <p>San Joaquin  34.3% California  14.5%</p>	<p>27.7% of Community Survey respondents report that breathing problems are a top health concern in their community.</p> <p>Although unhealthy ozone days have fallen since 2000 by 41% in the region, the San Joaquin Valley is still home to some of the most polluted air in the United States, with San Joaquin County ranking 9th highest in the nation for particulate matter¹.</p>		
<p>Adults Ever Diagnosed with Asthma³ <i>Percent of adult population ever diagnosed with asthma</i></p> <p>San Joaquin  20.8% California  13.8%</p>	<p>Key Themes Expressed by Residents and Stakeholders</p> <table border="0"> <tr> <td data-bbox="181 1654 808 1797"> <ul style="list-style-type: none"> - Heavy cigarette smoke - Air pollution / heavy carbon footprint - Poor living conditions (e.g., housing quality) - Traffic congestion </td> <td data-bbox="824 1654 1438 1797"> <ul style="list-style-type: none"> - High pesticide exposure in agricultural community - Breathing problems are particularly high among agricultural workers. </td> </tr> </table>	<ul style="list-style-type: none"> - Heavy cigarette smoke - Air pollution / heavy carbon footprint - Poor living conditions (e.g., housing quality) - Traffic congestion 	<ul style="list-style-type: none"> - High pesticide exposure in agricultural community - Breathing problems are particularly high among agricultural workers.
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¹ State of the Air 2015, American Lung Association, San Joaquin Valley Regional Summary

Asthma/Air Quality (continued)



Additional Data and Key Drivers

Related Health Outcomes

Chronic Lower Respiratory Disease Mortality Rate
Age-adjusted mortality rate per 100,000 pop.⁴

44.4 | **37.5**
San Joaquin | California

Cigarette Smoke

Cigarette Smoking
% population smoking cigarettes; age-adjusted⁵

16.2 | **12.8**
San Joaquin | California

Community Feedback

28.6% of Community Survey respondents report that cigarette smoke is a major environmental concern in their community.

Air Quality

Pounds of Pesticides Used⁶

11,017,592

Pounds of pesticides applied in San Joaquin County

(Compared to 193,597,806 total pounds applied across California State.)

Pounds of pesticides used
Per square mile

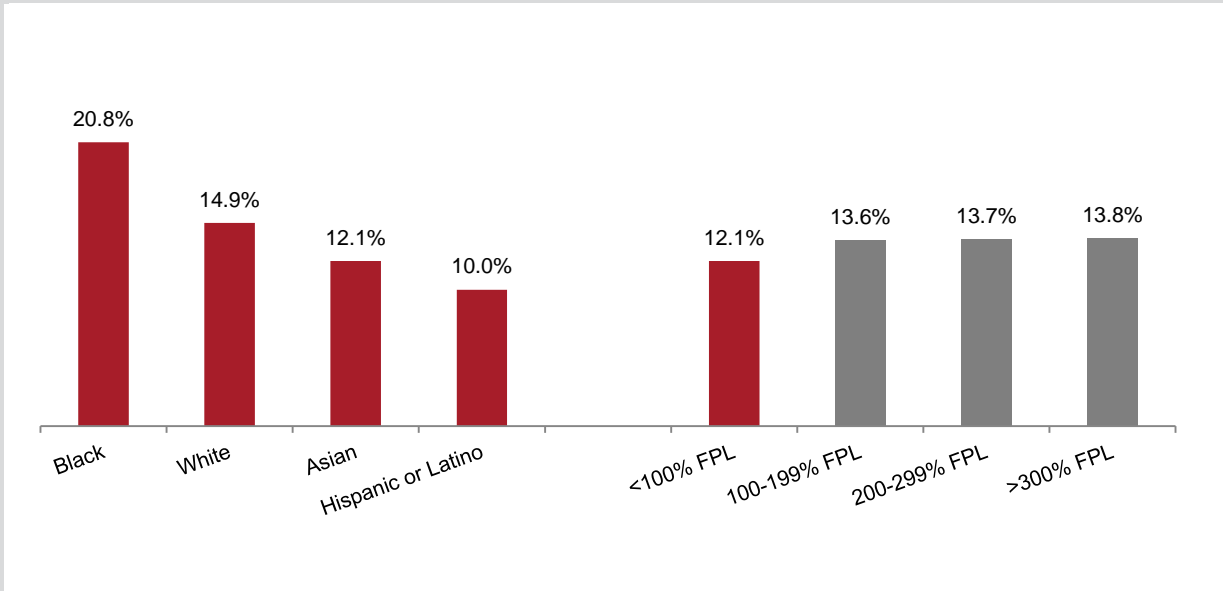
7,726 | **1,183**
San Joaquin | California



Asthma/Air Quality (continued)

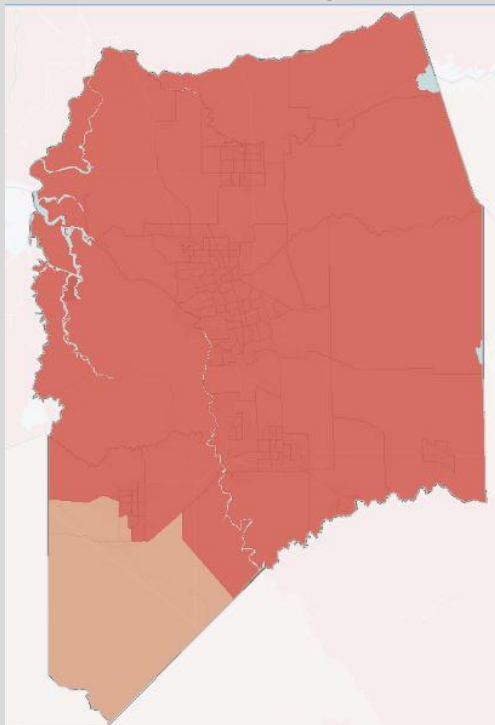
Salient Disparities

Percent of Adult Population In California Ever Diagnosed with Asthma, by Race/Ethnicity⁷ and Income⁸



Geographic Areas with Highest Particulate Levels

Fine Particulate Matter (PM 2.5) Levels⁹



Key: Percent of Days PM 2.5 above National Ambient Air Quality Standards

- Over 6.0%
- 1.1 - 6.0%
- 0.51 - 1.0%
- Under 0.51%
- No Days Above NAAQS Standards
- No Data or Data Suppressed

This map demonstrates that the percentage of days exceeding Fine Particulate Matter (PM 2.5) standards is high throughout the county, with the most affected areas in the northern and central part of the county. Within the red, census tracts concentrated near **Lodi** and **Stockton** exhibit the highest percentages of days with levels above PM 2.5 standards.

Asthma/Air Quality (continued)



Assets

Examples of Existing Community Assets[†]

Hospitals and Health Organizations



Land Use and Transportation Planners



[†] Assets excerpted from qualitative data and San Joaquin CHNA Core Planning Group. For a comprehensive list of county assets and resources, reference <http://www.211sj.org/>.

¹ California Department of Pesticide Regulation, 2013.

² California Health Interview Survey, 2014.

³ Ibid.

⁴ California Department of Public Health, 2009-2011.

⁵ Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System, 2006-12. Accessed via the Health Indicators Warehouse.

⁶ California Department of Pesticide Regulation, 2013.

⁷ California Health Interview Survey, 2007-09.

⁸ California Health Interview Survey, 2009.

⁹ Centers for Disease Control and Prevention, National Environmental Public Health Tracking Network: 2008. Additional data analysis by CARES.