

# AIR POLLUTION RISK & VULNERABILITY TO HEALTH IMPACTS: A LOOK AT WEST OAKLAND

AB 617 Community Air Protection Program  
Consultation Group Meeting

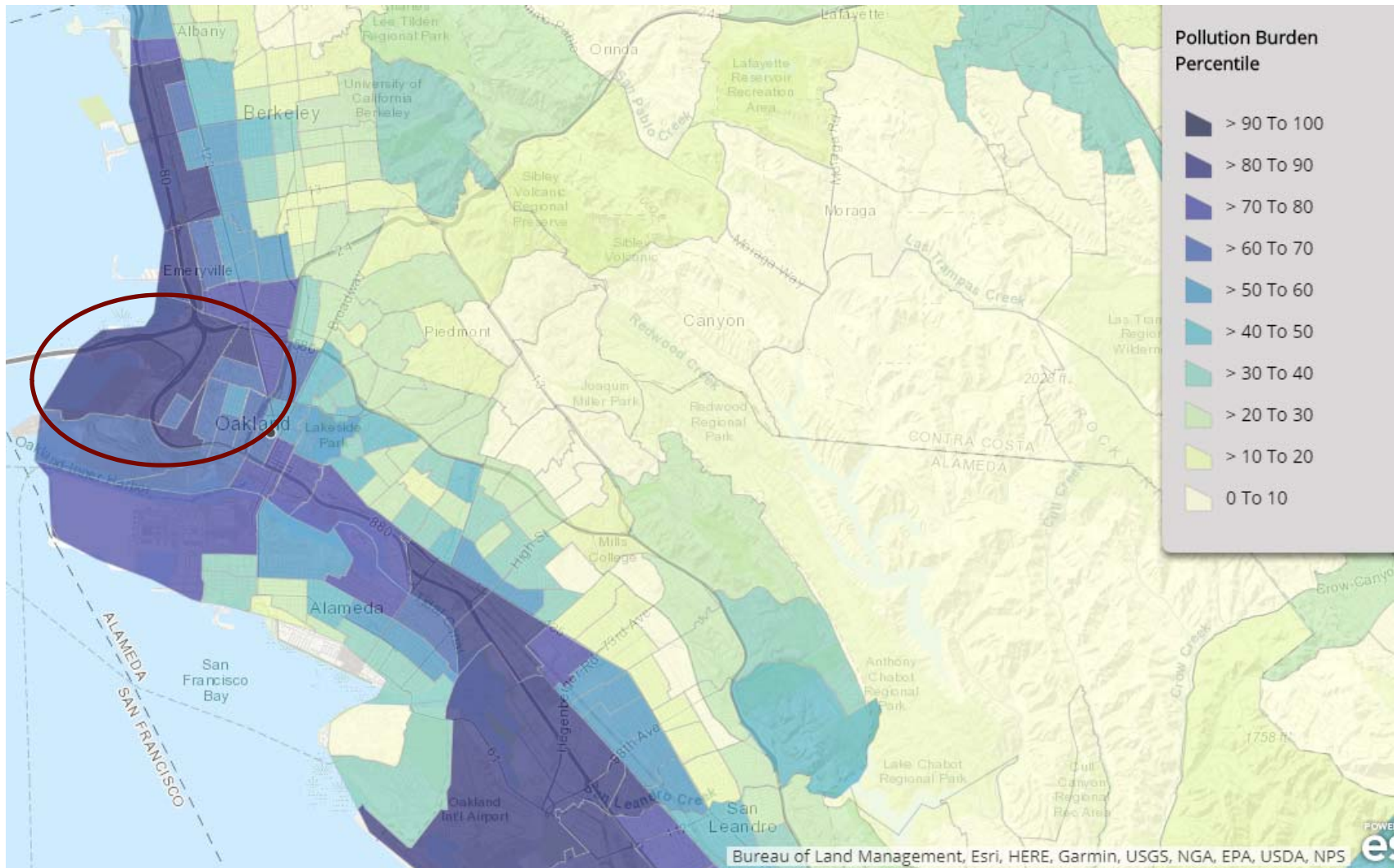
March 26, 2018



Muntu Davis, MD, MPH  
Alameda County Health Officer

West Oakland experiences **high levels of air pollution** from highways, the Port, & industrial facilities close to residents.

2

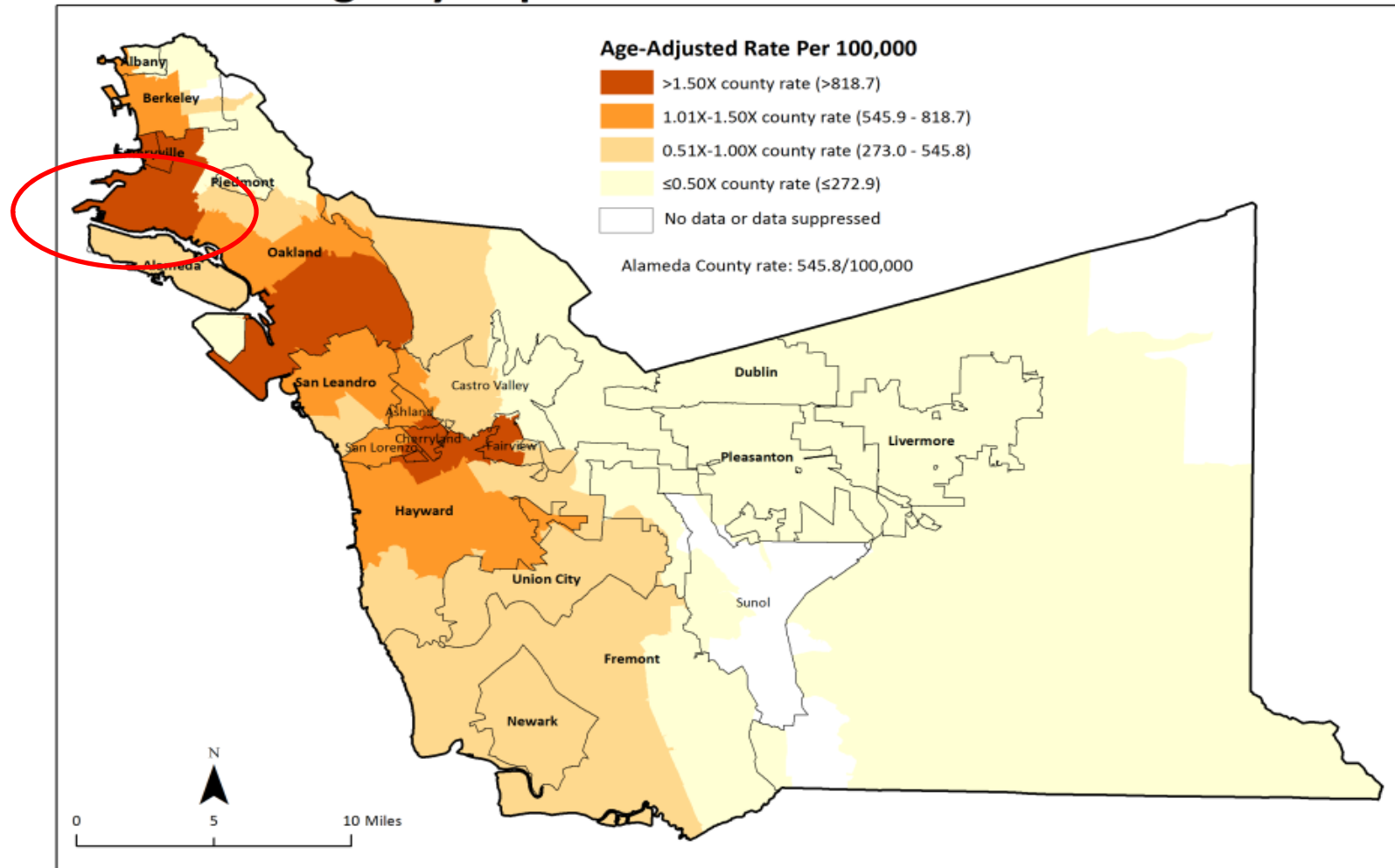


Source: OEHHA, CalEnviroScreen 3.0

# West Oakland has a high burden of asthma emergency department and hospitalizations visits.

3

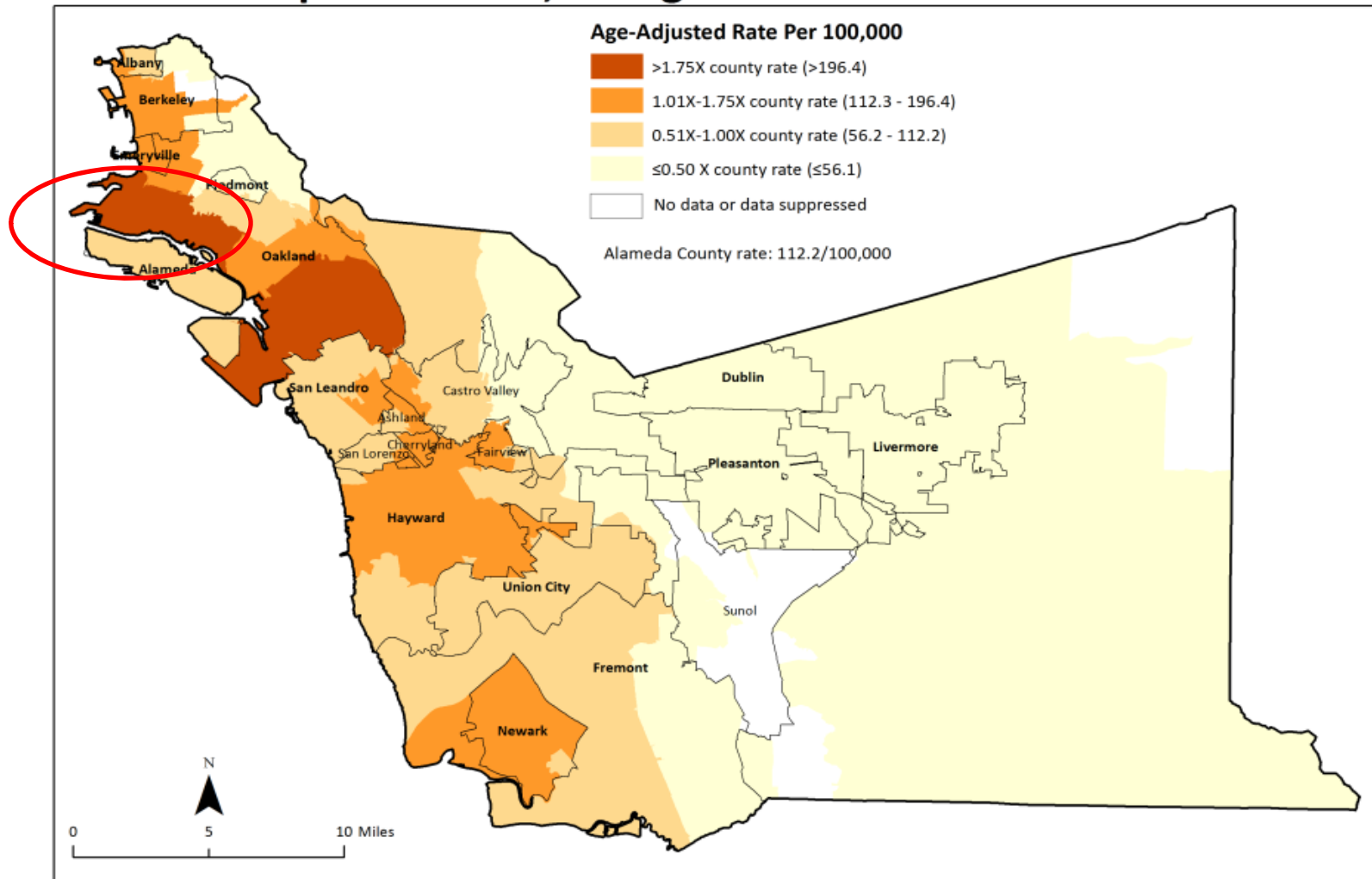
## Asthma Emergency Department Visits



Source: CAPE, with data from OSHPD, 2012-2014.

# West Oakland has a high burden of asthma emergency department and hospitalizations visits.

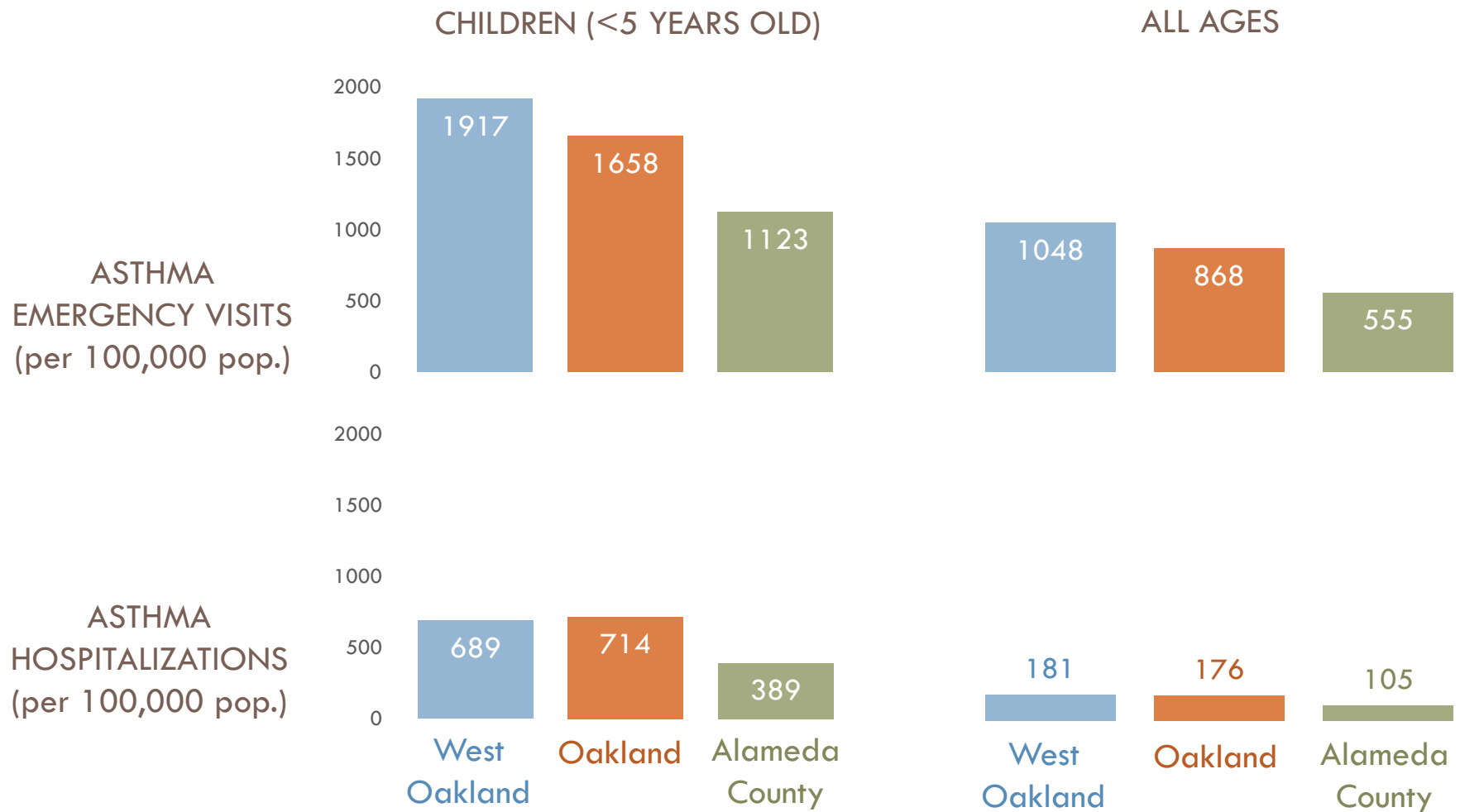
## Asthma Hospitalizations, All Ages



Source: CAPE, with data from OSHPD 2012-2014.

# Asthma hospitalization and emergency department visit rates are almost 2 times higher in West Oakland than for the County.

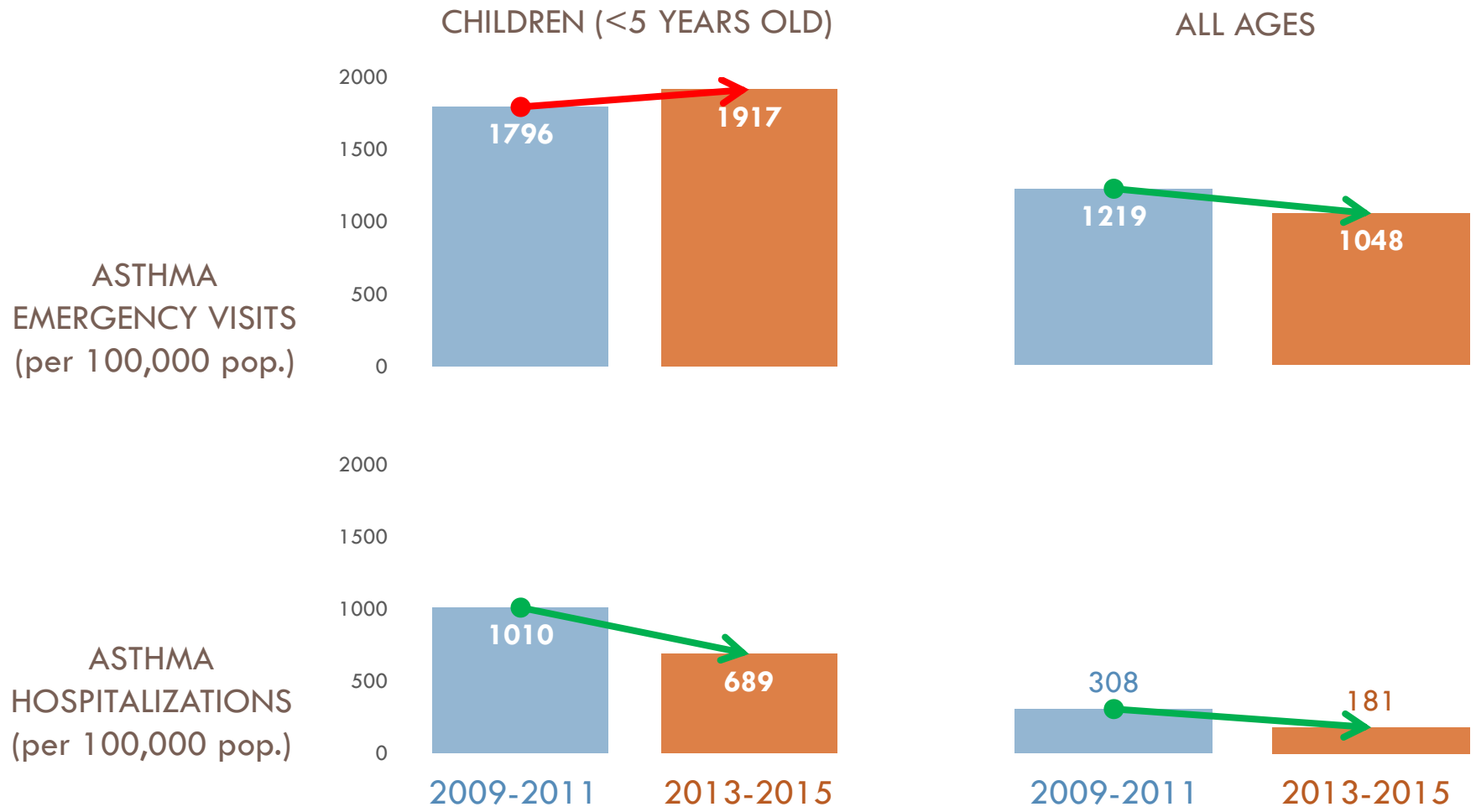
5



Source: OSHPD ED & PDD, 2013-3Q2015

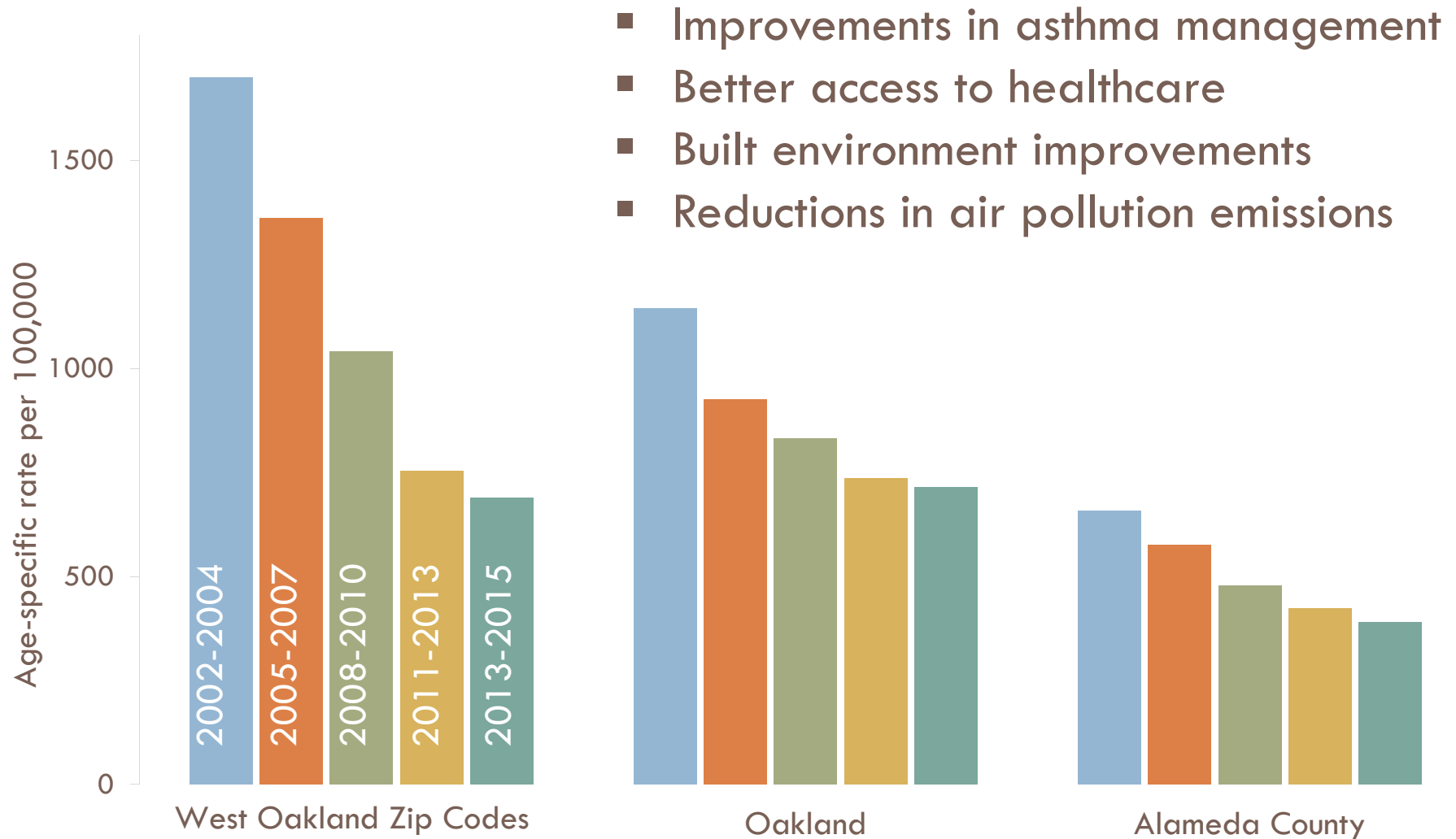
# Asthma hospitalizations have gone down in West Oakland, but child asthma emergency department (ED) visit rates went up.

6



# Multiple factors can contribute to the declining trend in child asthma hospitalizations.

7



Cancer, heart disease, stroke and chronic lower respiratory disease are top 5 leading causes of death in West Oakland.

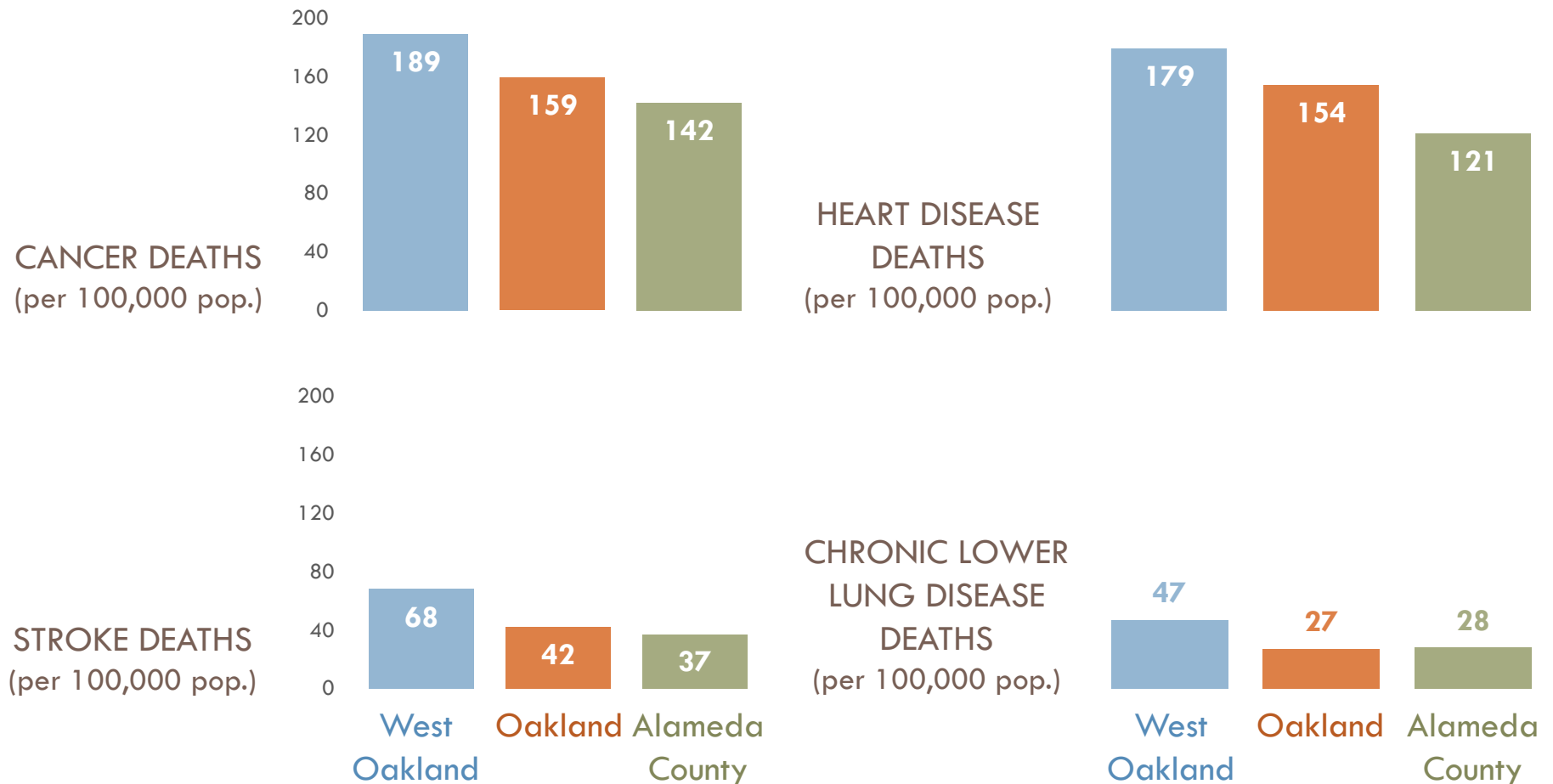
8

	<b>Leading Causes of Death in West Oakland</b>	<b>Percentage of all deaths</b>
➔	Cancer	22%
➔	Heart Disease	20%
	Unintentional Injuries	9%
➔	Stroke	7%
➔	Chronic Lower Respiratory Disease	5%
	Homicide	3%
	Diabetes	3%

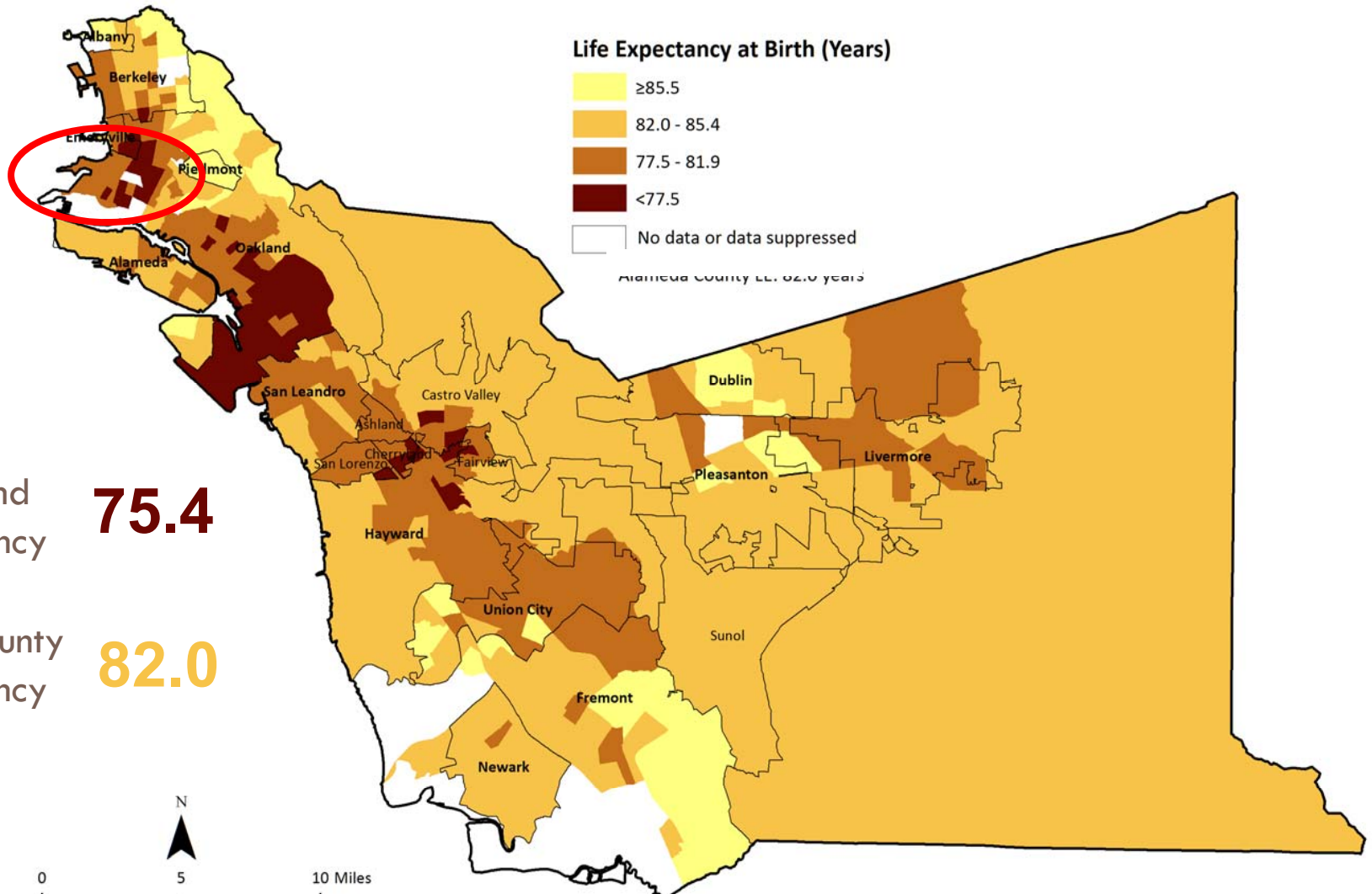


Those diseases are associated with air pollution, and West Oakland residents are dying from them at higher rates.

9



Due to cumulative health risks and impacts, life expectancy in West Oakland is 6.6 years less than in Alameda County.

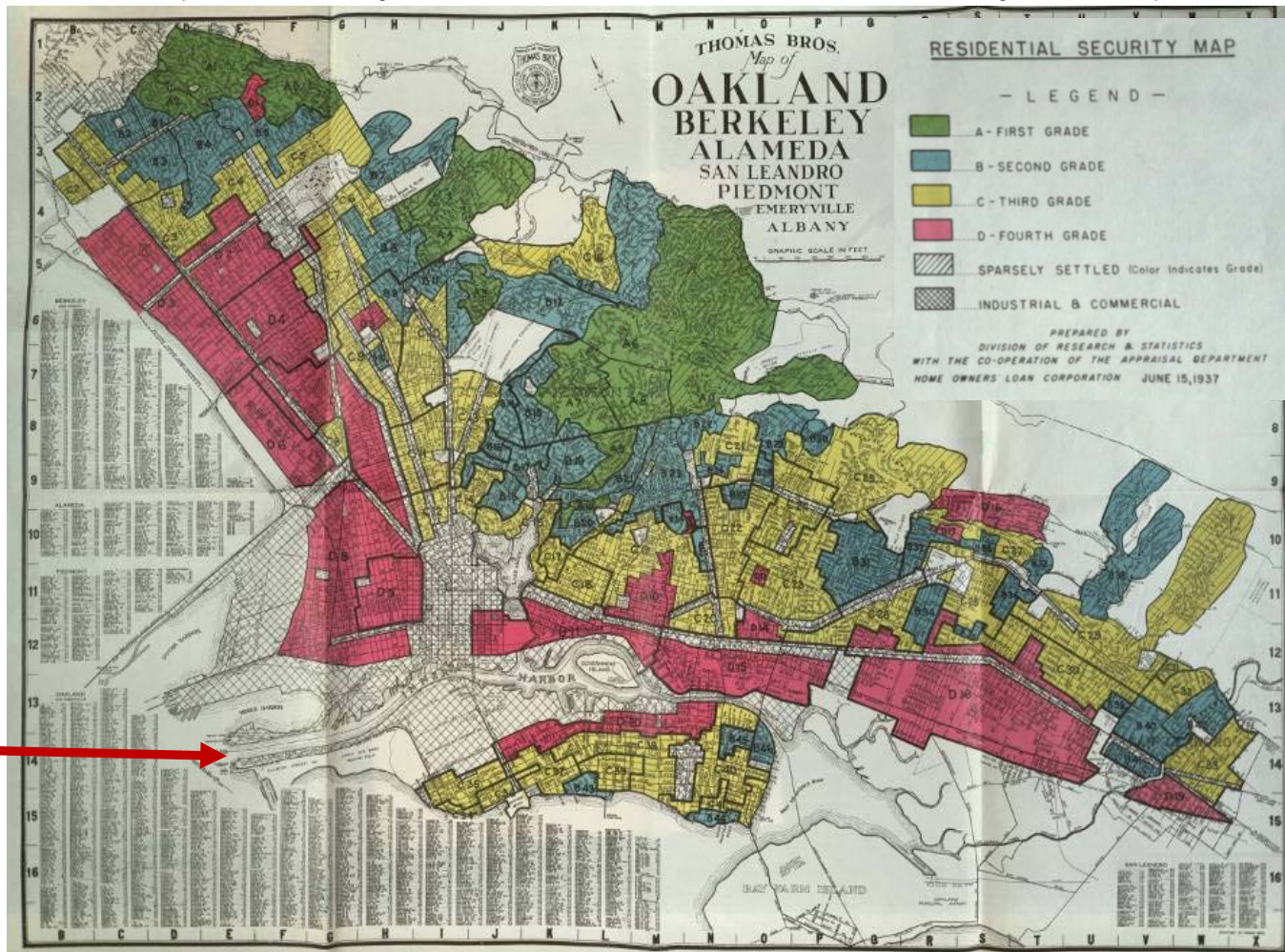


Source: CAPE, with data from Alameda County vital statistics files, 2011-2015.

These health inequities did not happen overnight. They have deep roots in historical practices, like Racial Redlining.

11

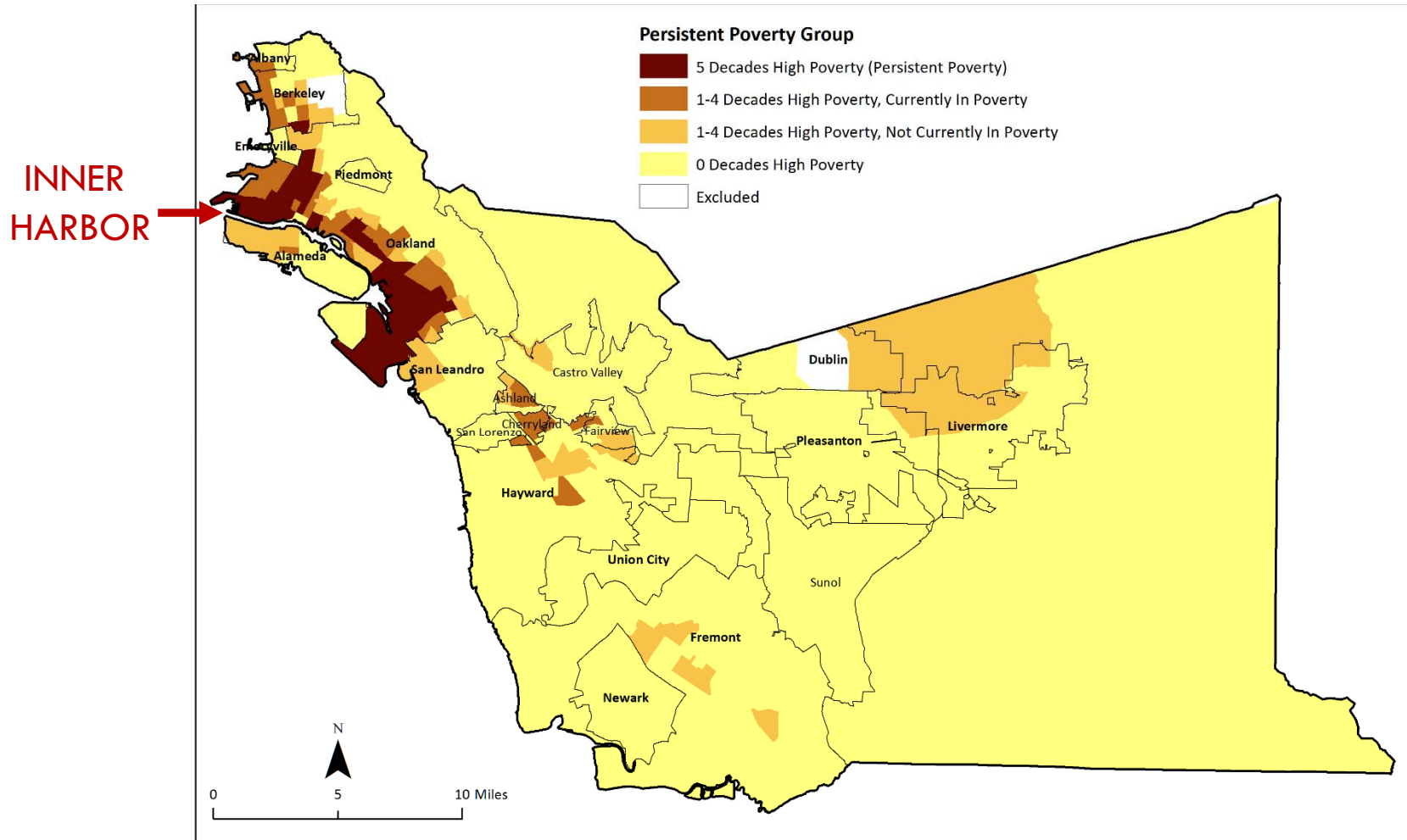
RESIDENTIAL SECURITY MAP, ALAMEDA COUNTY, 1937  
(Created by Federal Home Owners Loan Corporation)



INNER  
HARBOR

Impoverished areas see long-standing disinvestment, meaning fewer resources and weaker infrastructure to support health.

### Persistence of Neighborhood Poverty by Census Tract

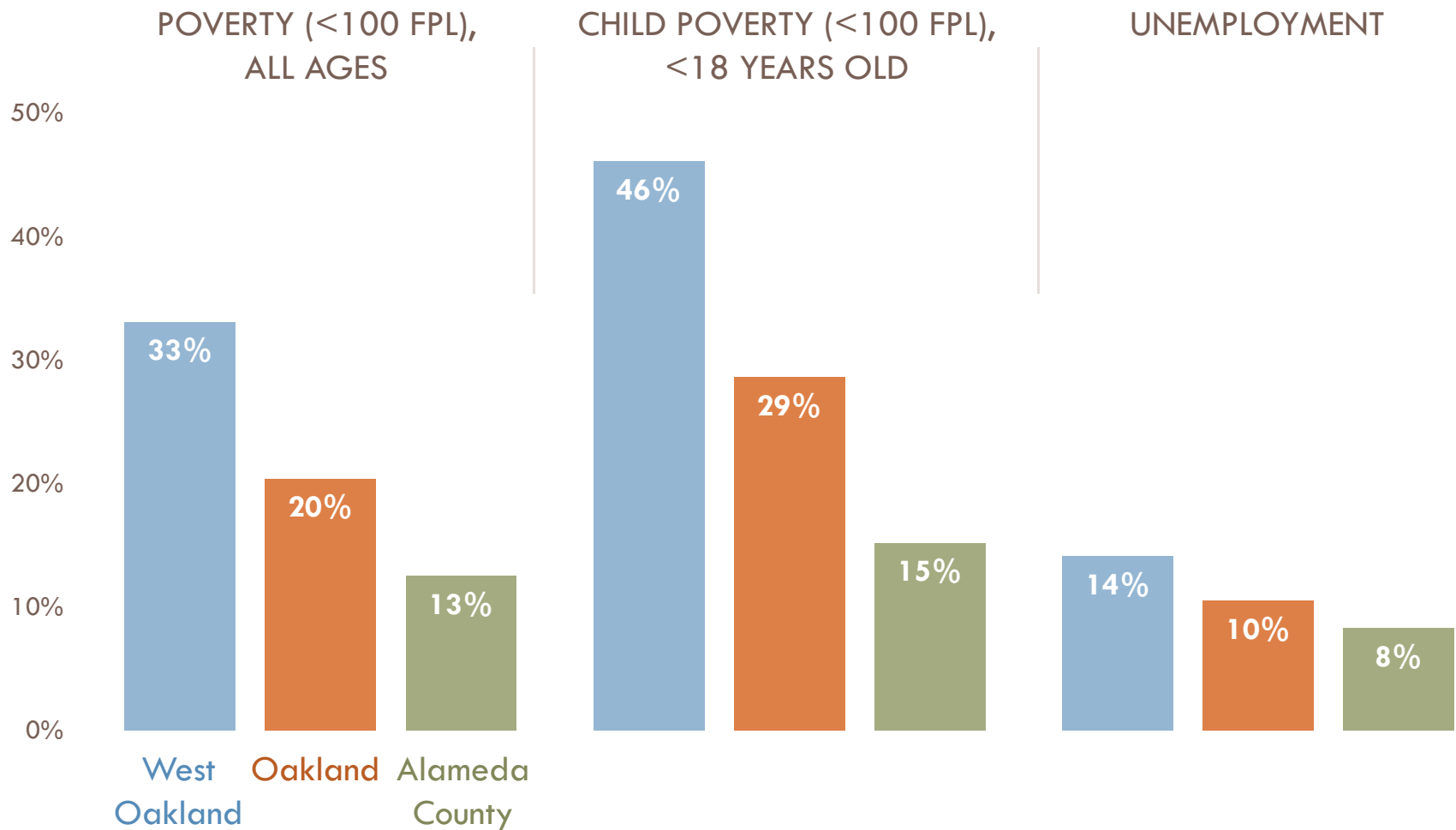


Source: CAPE, with data from Geolytics Neighborhood Change Database, 1970-1990; Census 2000; and American Community Survey 2013 5-year files.



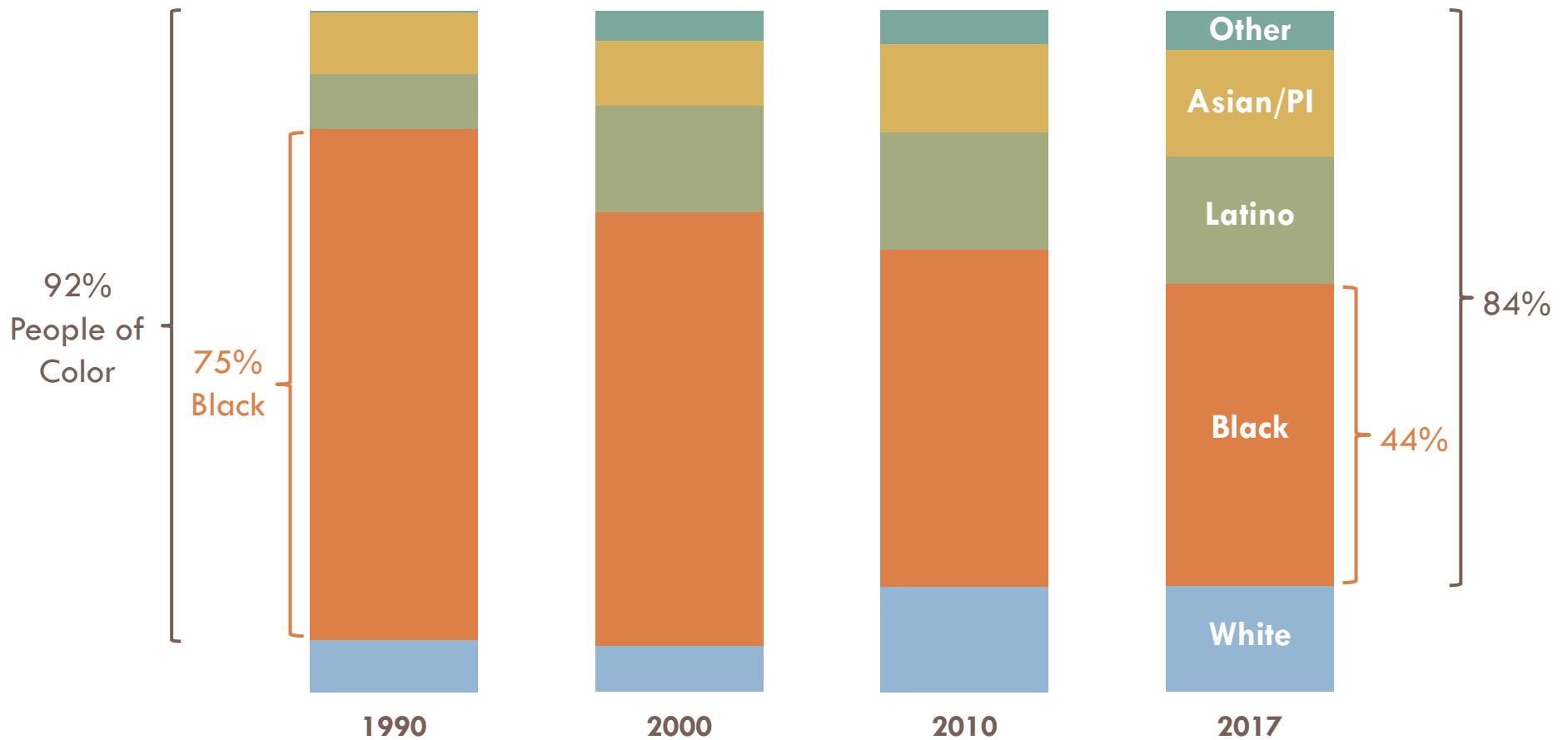
# Continued disinvestment in persistent, very high poverty areas continues to be a main barrier to health in West Oakland.

13



# Race and class demographics are changing in West Oakland, but it remains a predominantly low-income community of color.

PERCENTAGE OF POPULATION BY RACE BY YEAR, WEST OAKLAND  
(Total Population increased from 24,187 to 28,163)

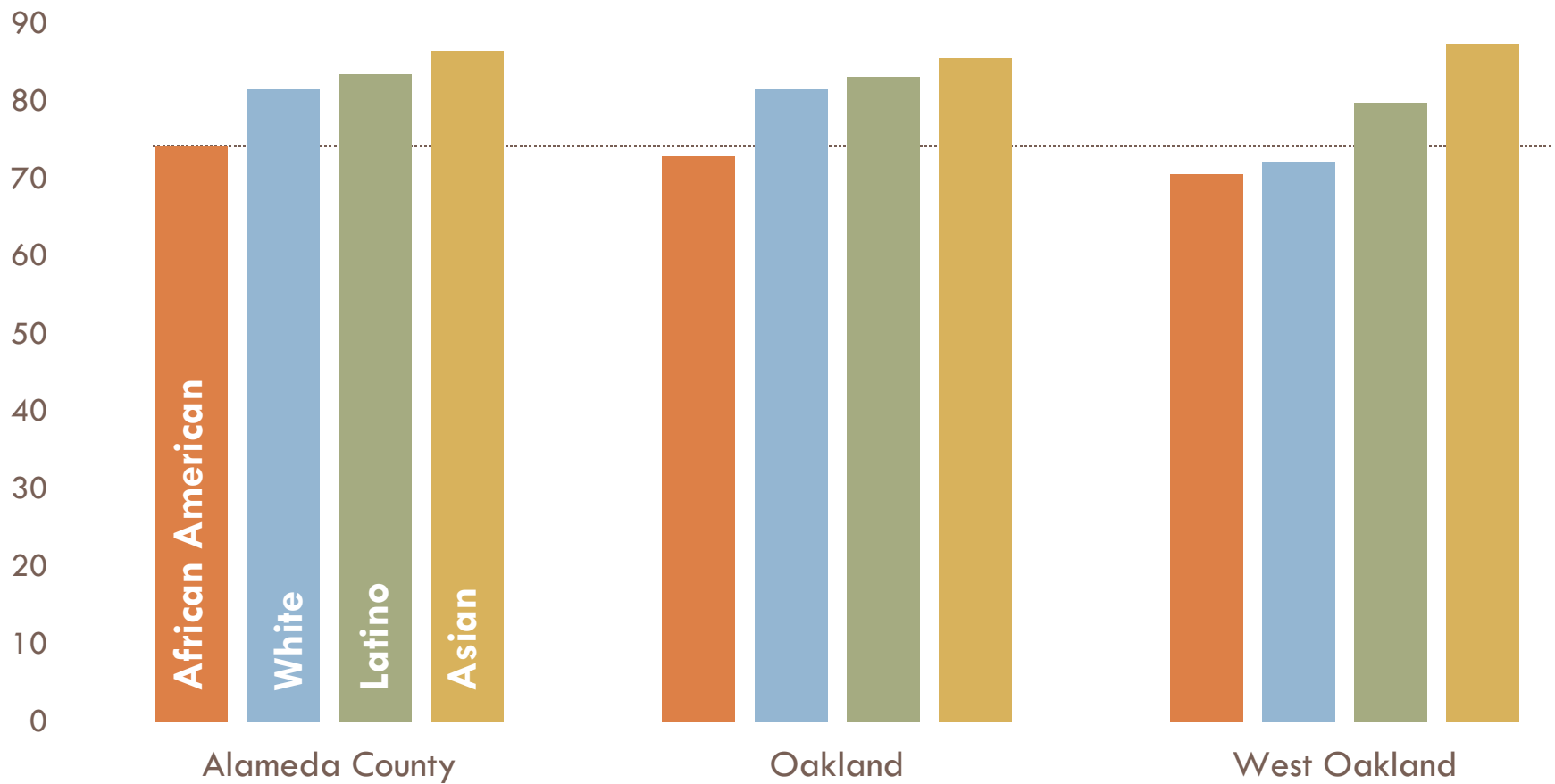


Source: Census, 1990-2010; CAPE with data from ESRI, 2017

# African Americans are especially exposed to and impacted by cumulative health risks.

15

## Life Expectancy (Years) at Birth by Place & Race



# AB 617 provides opportunities to reduce air pollution emissions and maximize health co-benefits in communities like West Oakland.

16





To maximize the health co-benefits of AB 617, consider these health indicators when implementing and identifying strategies.

17

- ❑ Air pollution exposure
- ❑ Specific health risks associated with air pollution
  - ❑ Asthma, chronic lower respiratory disease
  - ❑ Stroke, heart attacks, cancer
- ❑ Cumulative health risks and impacts
  - ❑ All-cause mortality, life expectancy
- ❑ Social & economic factors that lead to extreme health vulnerability
  - ❑ Persistent & high poverty
  - ❑ Race & racism

Thank you!  
For questions or more info, please contact us.



18

Muntu Davis, MD, MPH  
Alameda County Health Officer  
[muntu.davis@acgov.org](mailto:muntu.davis@acgov.org)

Sandi Gálvez  
Director, Health Equity, Policy, & Planning  
[sandi.galvez@acgov.org](mailto:sandi.galvez@acgov.org)

Anna Lee  
Local Policy Coordinator, Place Matters  
[anna.lee@acgov.org](mailto:anna.lee@acgov.org)

Tammy Lee  
Community Epidemiologist  
[tammy.lee@acgov.org](mailto:tammy.lee@acgov.org)