

# East and West Oakland Health Data Existing Cumulative Health Impacts

Alameda County Public Health Department  
September 3, 2015

West Oakland Resident Action Council (RAC) Meeting



East and West Oakland is suffering from existing cumulative health impacts. This provides a more in depth look at the most recent health information for East Oakland, especially as it relates to air quality issues. We begin by showing that it is low-income people of color who are most impacted by the cumulative health impacts in East Oakland.

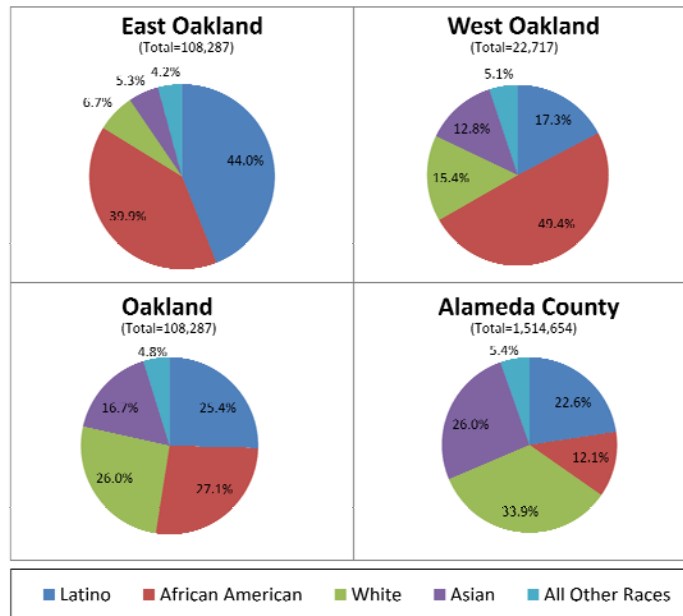
This handout was developed by the Alameda County Public Health Department Place Matters Initiative and the CAPE Unit.

## **Alameda County Public Health Vision of Health Equity**



**Everyone in Alameda County –  
no matter who you are, where you live,  
how much money you make,  
or the color of your skin –  
leads a healthy, fulfilling, and productive life.**

## East and West Oakland Racial/Ethnic Composition

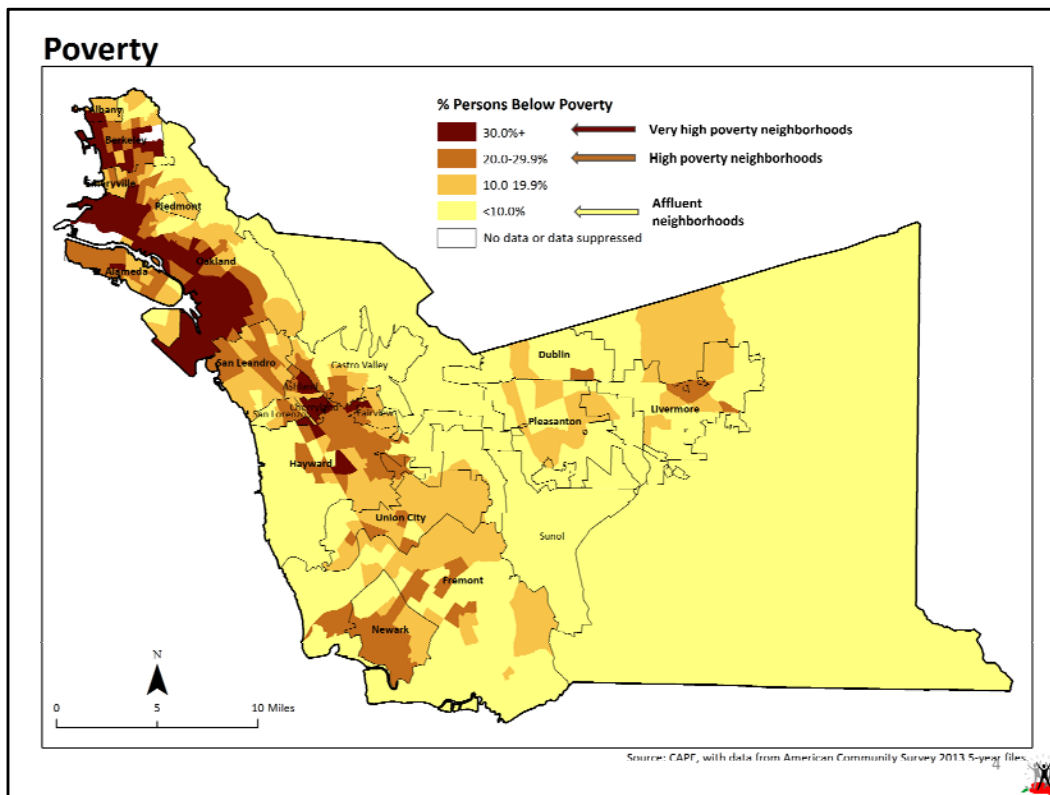


Source: Census 2010

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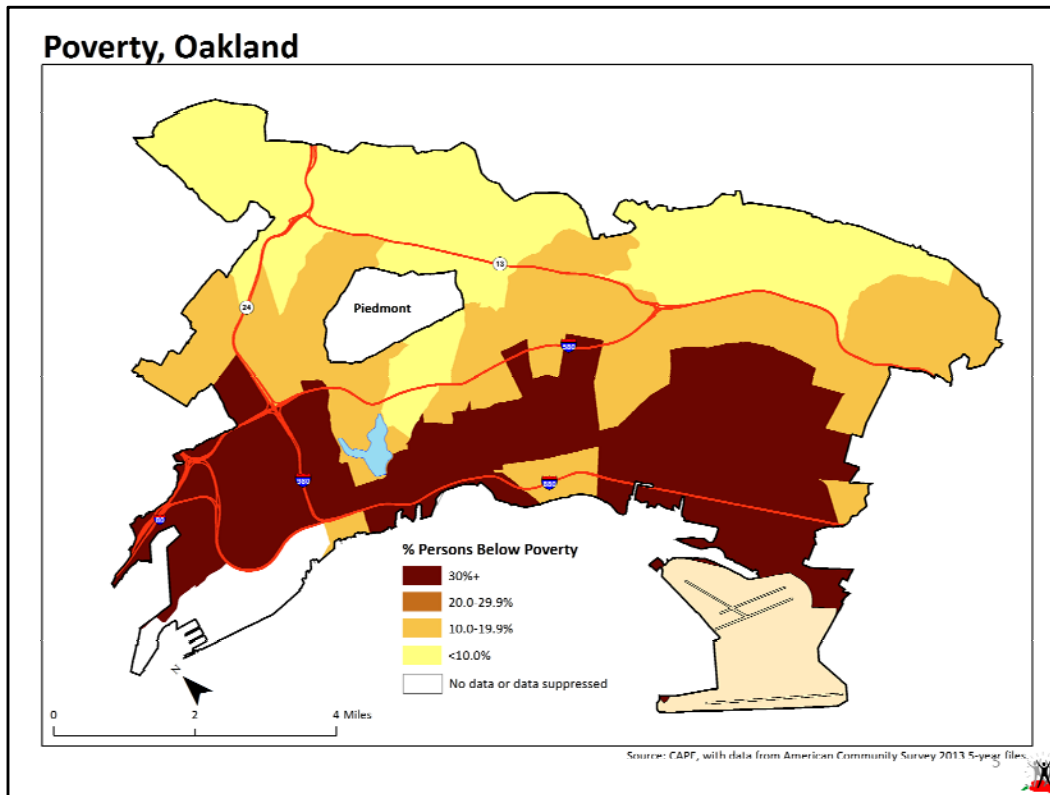


- People of color comprise a greater proportion of the population in East Oakland (93%) and West Oakland (85%) than overall Oakland (74%). Alameda County overall has the lowest proportion of people of color (66%).
- In East Oakland, Latinos make up the largest racial group at 44%, followed by African Americans at 40%.
- While Latinos make up 44% of the population in East Oakland, they make up 17% in West Oakland, 25% in Oakland overall and 23% in Alameda County overall.
- In West Oakland, African Americans make up the largest racial group at 49%. This can be compared to 27% in Oakland overall and 12% in Alameda County overall.
- In Oakland overall, the percentage of African Americans is 27%, the percentage of Whites is 26% and the percentage of Latinos is 25%.
- Alameda County overall has the highest percentage of Asians (26%) followed by Oakland overall (17%) and then West Oakland (13%).

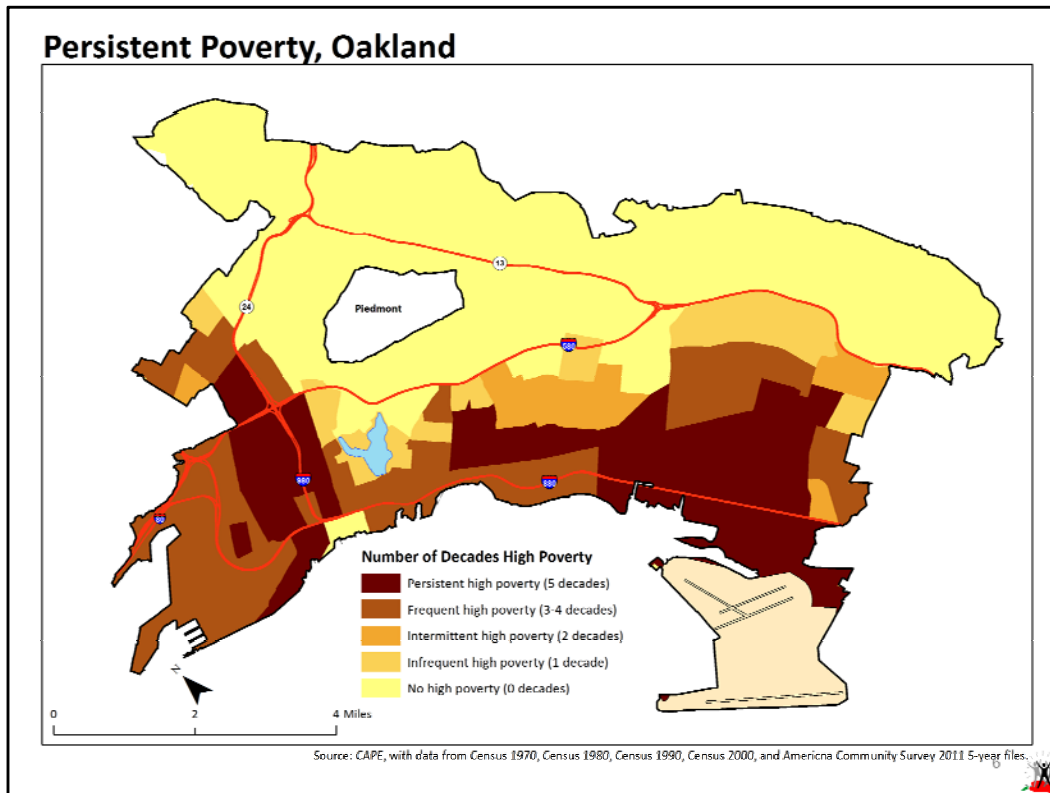


There is high poverty in East and West Oakland. Here is a map showing neighborhood poverty levels by census tract in Alameda County.

- You can see that poverty levels are not equal throughout the County and that neighborhoods with very high poverty (shown in the dark brown) are clustered in certain places, including parts of East, West, and North Oakland and Hayward.
- This is similar to the pattern we see for life expectancy. Many of the highest poverty neighborhoods in the County suffer from the poorest health outcomes because of fewer access to health-supporting opportunities and resources and more health risks in these places.
- There are also areas near UC-Berkeley that are high poverty. These are mostly students and are generally left out of our social gradient analyses.



Here the map is zoomed in on Oakland, showing the current areas of highest poverty in dark brown.



- Here is a map showing persistent high poverty by census tract, represented by the dark brown areas; these areas have had 20% or more of their population living in poverty for five straight decades, and the lighter brown areas for 3 to 4 decades.
- Parts of East, West, and North Oakland have experienced the most persistent levels of high poverty in the County. In the face of long-standing disinvestment, people living in these places often have especially few resources and weak infrastructure to support health.

## Health Risks Concentrated in Low Income Communities of Color

Compared to people living in affluent neighborhoods of Alameda County, residents of very high poverty neighborhoods are:



**BURDENED BY A 4X HIGHER DENSITY OF  
INDUSTRIAL CHEMICAL AND FUEL RELEASE SITES  
THAT POLLUTE GROUNDWATER AND SOIL**

**83** Industrial chemical and fuel release sites  
per 100,000 residents in affluent neighborhoods

**Compared to 332** Industrial chemical and fuel release sites  
per 100,000 residents in very high poverty neighborhoods

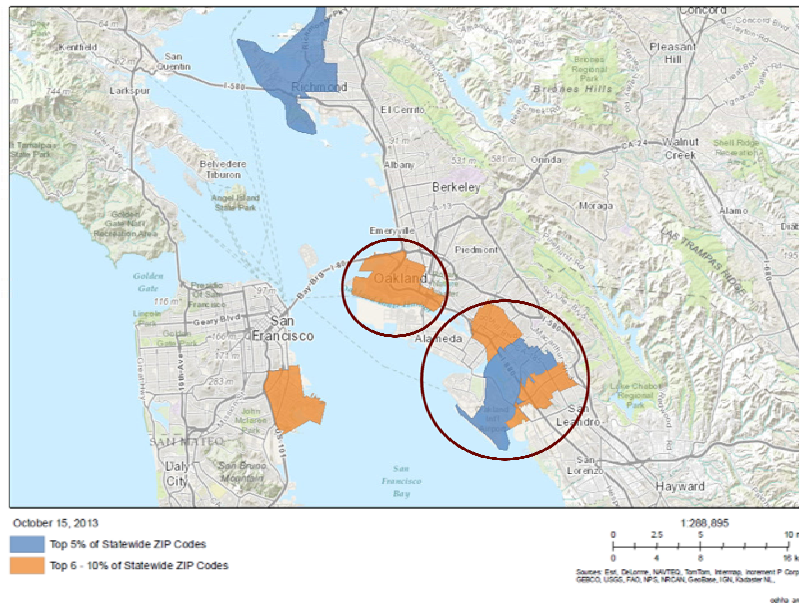
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- Low-income neighborhoods and communities of color are often unjustly burdened by a disproportionate number of hazardous facilities that pollute the air, ground water and soil with toxic contaminants.
- In Alameda County, the density of industrial chemical and fuel release sites in very high poverty neighborhoods is 4 times higher than in affluent neighborhoods, and as we have seen, there is a concentration of high poverty neighborhoods in Oakland.
- There is a long history of policies and practices, such as racial residential segregation, in the US that led to high poverty having fewer resources and weaker infrastructure to support good health. They can also have higher levels of exposure to multiple stressors that harm health.
- Because of this difference in access to opportunities for healthy living, low-income communities of color like East and West Oakland disproportionately suffer from chronic disease complications and deaths.

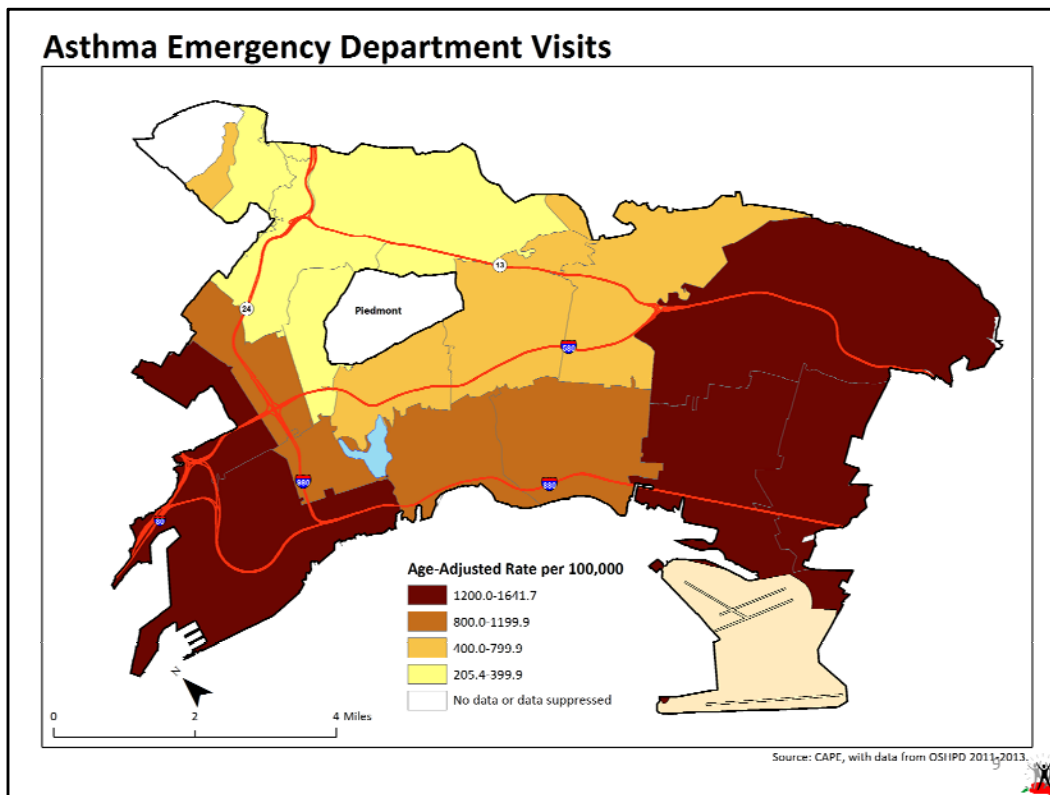
## Communities identified with highest burden of pollution in the State

CalEnviroScreen 1.1 Results: Highest Scoring ZIP Codes



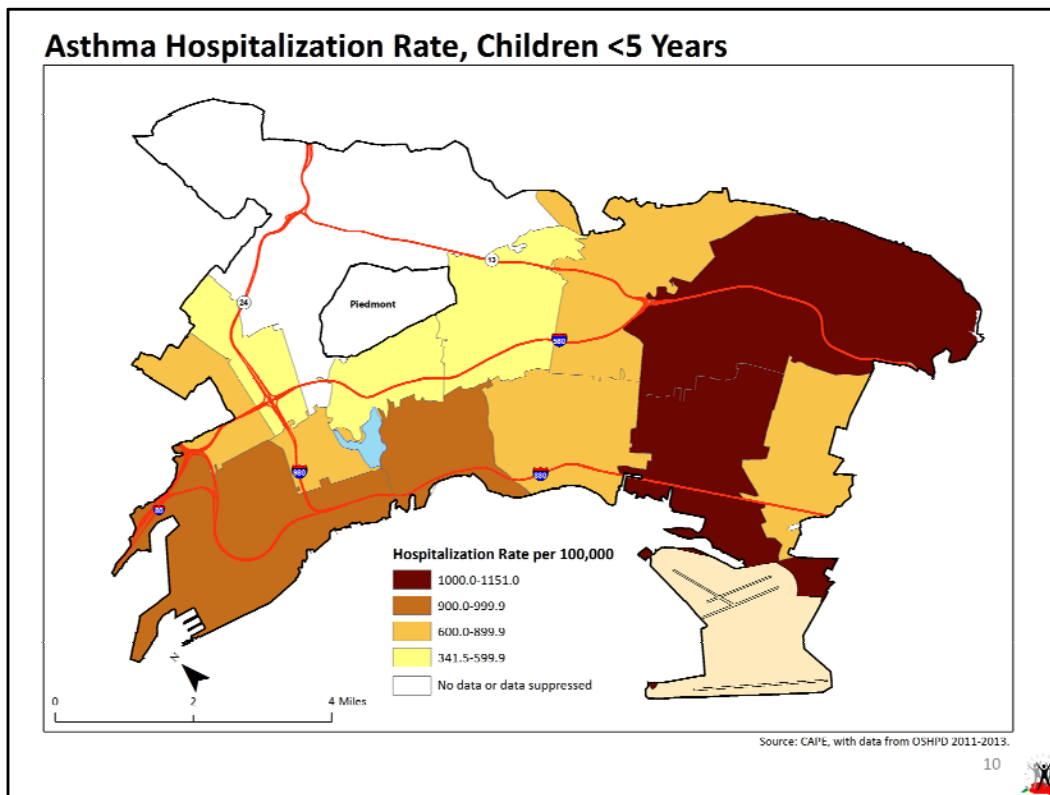
- This is a partial map of the top 5% of statewide Zip codes (in blue) and the top 6-10% of statewide zip codes (in orange) that are disproportionately burdened by multiple sources of pollution.
- The circles represent the areas in East and West Oakland.
- The Cal EnviroScreen tool is by the California Office of Environmental Health Hazard Assessment in Cal EPA.





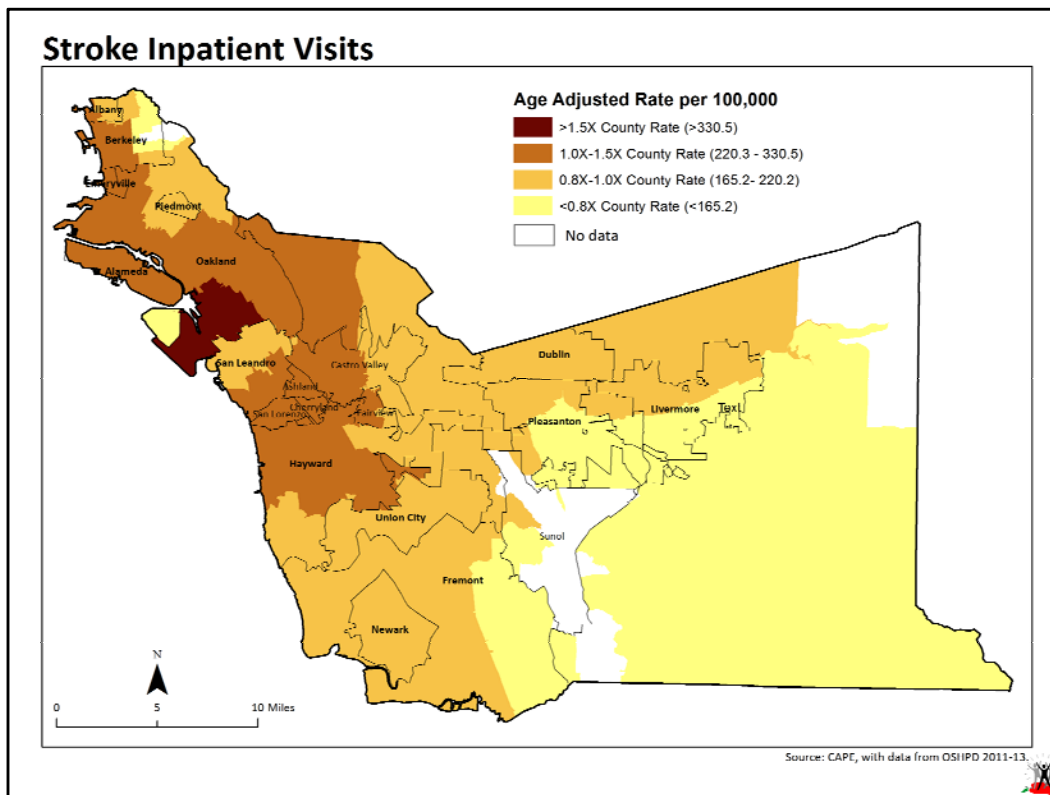
- The dark brown color represents the highest rates of asthma emergency department (ED) visits, and the darker orange-brown represents the next highest rates.
- East and West Oakland have some of the highest Emergency Department (ED) and hospitalization rates than both Oakland overall and Alameda County overall for causes that are linked to air pollution, including childhood asthma, overall asthma, and congestive heart failure.
- Air pollution contributes to increased asthma hospitalizations. In children, air pollution has been linked to onset of asthma and could negatively affect the long term development of the lungs. In adults and children, air pollution has been linked to increased asthma exacerbations, leading to emergency department visits and hospitalizations. Air pollution affects the cardiovascular and pulmonary system by causing inflammation, blood clotting, reduced immune function, and cell damage through oxidative stress.
- The overall rate of asthma emergency department (ED) visits for parts of East Oakland is two times the Alameda County rate. For East Oakland zip codes 94601, 94603, 94605 and 94621, the overall rate of asthma ED visits is 1065.4 per 100,000 residents; the Alameda County rate is 531.8 per 100,000. The asthma ED visit rate for children (0-4 year-olds) is 1168.2 per 100,000 compared to the Alameda County rate of 929.0 per 100,000.
- For West Oakland, the overall rate of asthma emergency department (ED) visits is almost two times the Alameda County rate. For West Oakland zip codes 94607, 94608, 94609, and 94612, the overall rate of asthma ED visits is 1014.6 per 100,000 residents; the Alameda County rate is 531.8 per 100,000. The asthma ED visit rate for children (0-4 year-olds) is 1224.3 per 100,000 compared to the Alameda County rate of 929.0 per 100,000.

Source: CAPE Unit, Alameda County Public Health Department/ Health Care Services Agency with data from California Office of Statewide Health Planning and Development (OSHPD), 2011-2013.

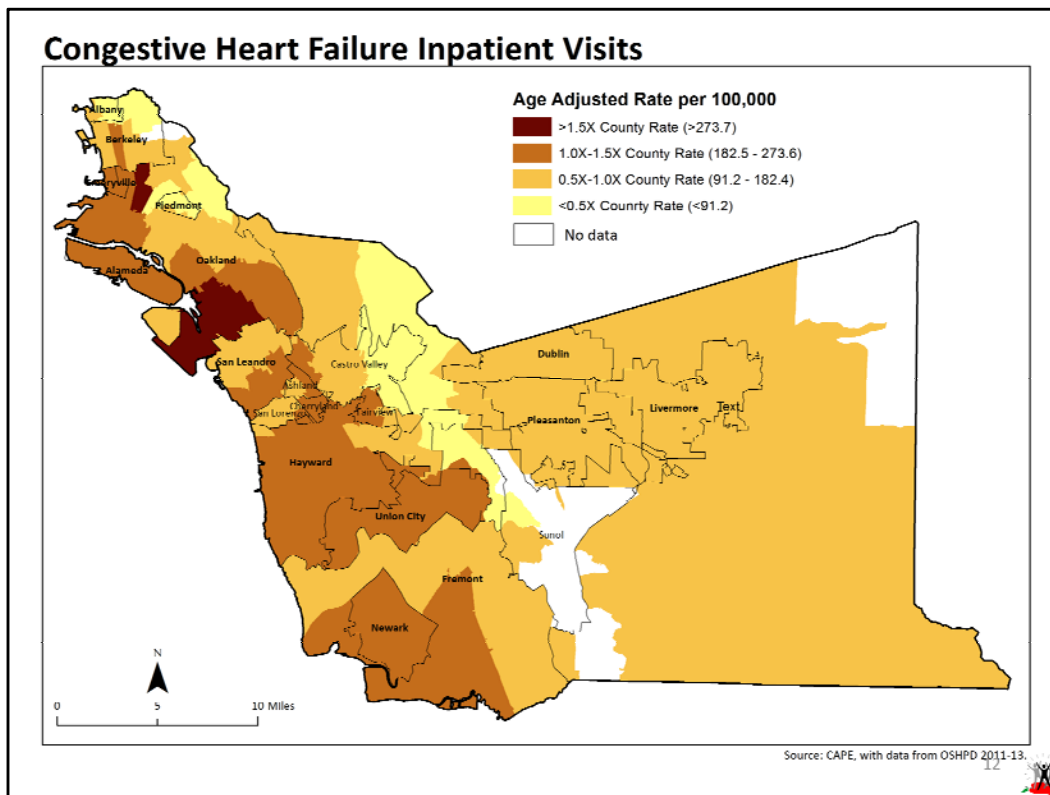


- The dark brown color represents the highest rates of asthma hospitalizations, and the darker orange-brown represents the next highest rates.
- East Oakland residents have some of the highest rates of asthma hospitalization in Alameda County. The overall rate of asthma hospitalizations in East Oakland is over two times the Alameda County rate. Among children under the age of five years, the asthma hospitalization rate in East Oakland is more than two times the Alameda County rate. For East Oakland zip codes 94601, 94603, 94605 and 94621, the asthma inpatient hospitalization rate is 265.0 per 100,000 residents; the county rate is 120.6 per 100,000. The childhood (0-4 year-olds) asthma hospitalization rate for East Oakland is 899.4 per 100,000; the county rate is 421.9 per 100,000.
- Among children under the age of five years, the asthma hospitalization rate in West Oakland is almost two times the Alameda County rate. For West Oakland 94607, 94608, 94609, and 94612 the overall rate of asthma inpatient hospitalization is 206.8 per 100,000 residents; the Alameda County rate is 120.6 per 100,000. The childhood (0-4 year-olds) asthma hospitalization rate for West Oakland is 752.3 per 100,000; the county rate is 421.9 per 100,000.

Source: CAPE Unit, Alameda County Public Health Department/ Health Care Services Agency with data from California Office of Statewide Health Planning and Development (OSHPD), 2011-2013.

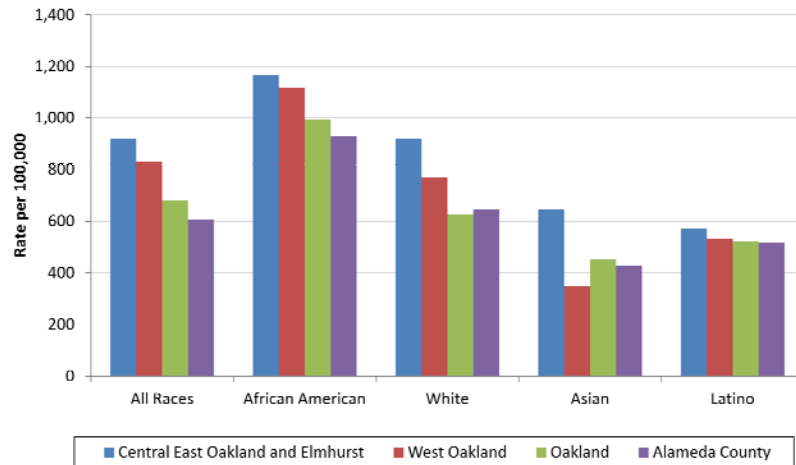


- The darkest brown color represents the highest rates of stroke-related hospitalizations, and the darker brown represents the next highest rates.
- As we see, parts of East and West Oakland have some of the highest stroke-related hospitalization rates in Alameda County.
- Air pollution contributes to increased stroke-related hospitalizations. Air pollution affects the cardiovascular system by causing blood clotting, and cell damage through oxidative stress.



- The darkest brown color represents the highest rates of congestive heart failure hospitalizations, and the darker brown represents the next highest rates.
- As we see, parts of East and West Oakland have some of the highest rates of congestive heart failure hospitalizations in Alameda County.
- Air pollution contributes to increased congestive heart failure hospitalizations. Air pollution affects the cardiovascular system by causing blood clotting, and cell damage through oxidative stress.
- Note that congestive heart failure is a condition in which the heart is unable to provide sufficient pump action to maintain blood flow to meet the needs of the body. The heart is weakened to this state by a number of factors. One of these factors may be a preceding heart attack (which happens when blood flow to a part of the heart is blocked for a long enough time that part is damaged or dies), which high air pollution levels also contribute to through blood clotting.

### All-Cause Deaths by Race/Ethnicity in East and West Oakland



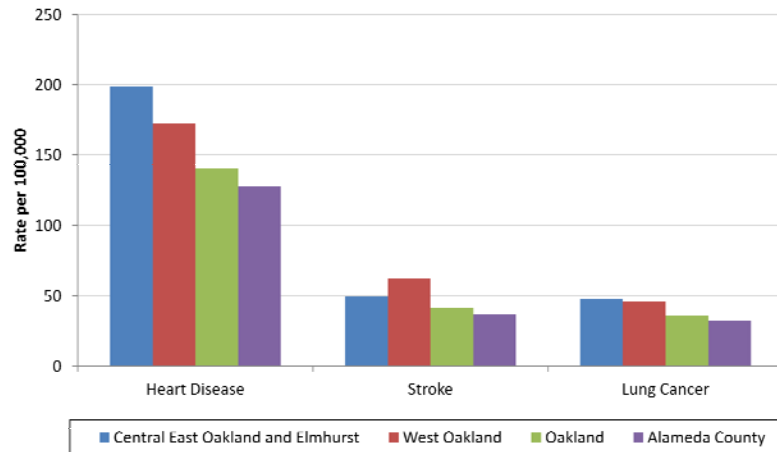
Source: Alameda County Vital Statistics files, 2011-2013

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- Both East and West Oakland have higher death rates than both Oakland overall and Alameda County overall for most racial/ethnic groups. East Oakland’s rates are the highest- for all races, its rates are 1.3 times the rate for Oakland overall, and 1.5 times the rate for Alameda County overall. West Oakland’s rates are 1.2 times the rate for Oakland overall and 1.4 times the rate for Alameda County overall.
- Within East and West Oakland, Oakland overall, and Alameda County overall, African Americans have the highest all-cause death rates, 1.3 to 3.2 times the rate for other major racial/ethnic groups.

## Increased Deaths in East and West Oakland Related to Air Pollution

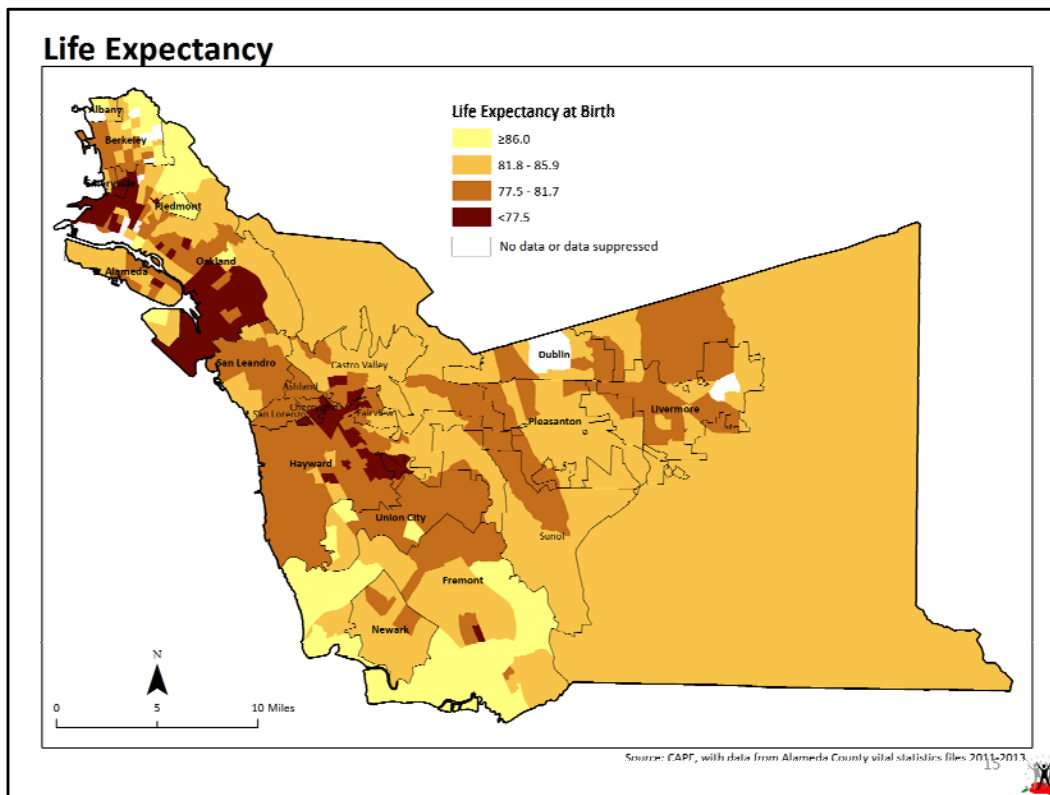


Source: Alameda County Vital Statistics files, 2011-2013

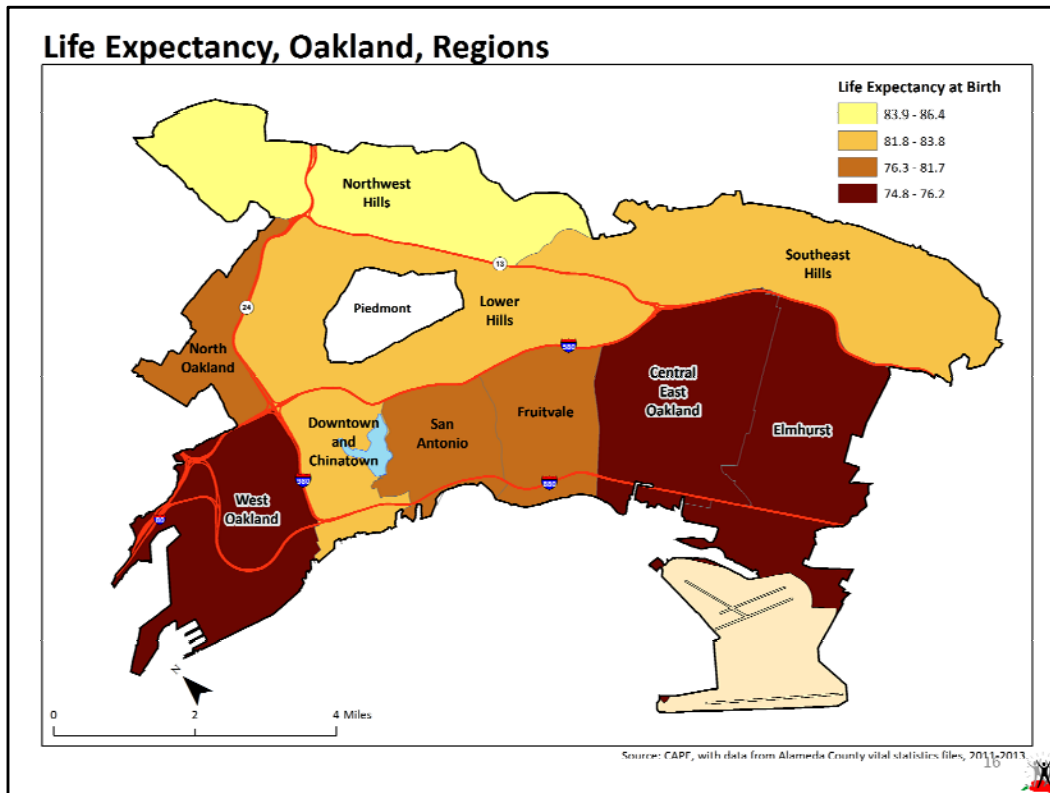
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- Both East and West Oakland have higher death rates than both Oakland and Alameda County for heart disease deaths, stroke deaths, and lung cancer deaths.
- These deaths are related to multiple factors including stress, access to healthy foods, opportunities to engage in physical activity, and indoor and outdoor air quality. High outdoor air pollution levels, from motor vehicles, refineries, and power plants, increase coronary heart disease deaths and stroke deaths, and increase lung cancer rates. Air pollution contributes to increased lung cancer deaths as well.

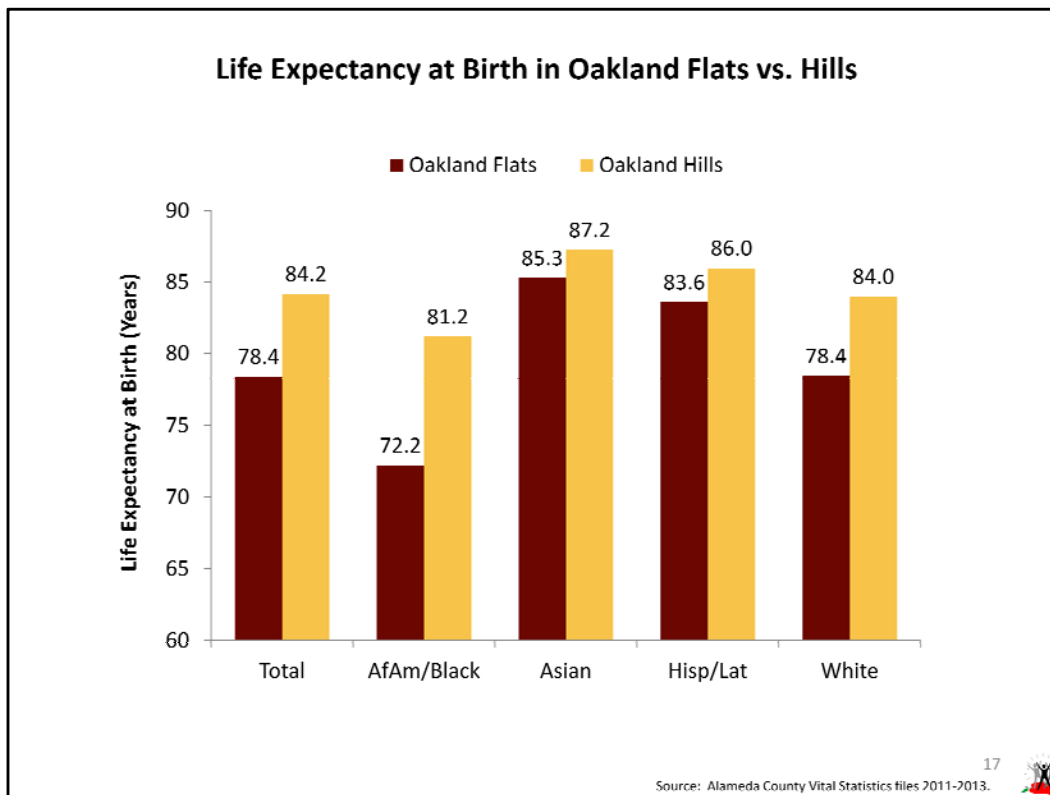


- In Alameda County, the opportunity to live a long, healthy, and productive life is not evenly distributed throughout the County.
- Here you see a map of average life expectancy by census tract and it's clear that good health outcomes are not spread evenly throughout and that poor health is concentrated in certain places within Alameda County (the dark brown areas on the map).
- The poorest health outcomes – in this case the shortest life expectancies – are concentrated in parts of North, West, and East Oakland, unincorporated Alameda County (Ashland/Cherryland, Castro Valley, Fairview) and South Hayward. People living in these areas can expect to live over 9 fewer years than people living in the light yellow areas of the County.

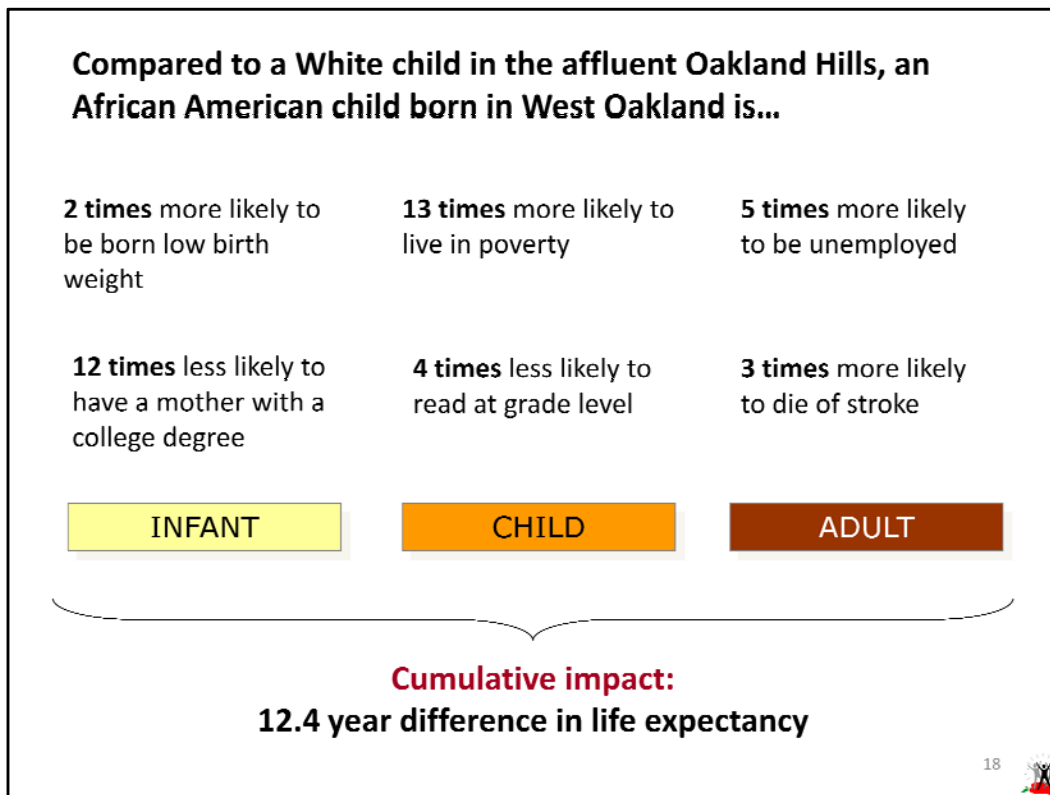


- This pattern of life expectancy in Oakland mirrors the pattern of poverty, with East and West Oakland populations living shorter lives on average.
- People living in the Northwest Hills can expect to live one decade or more longer than people living in West Oakland, Elmhurst, or Central East Oakland.

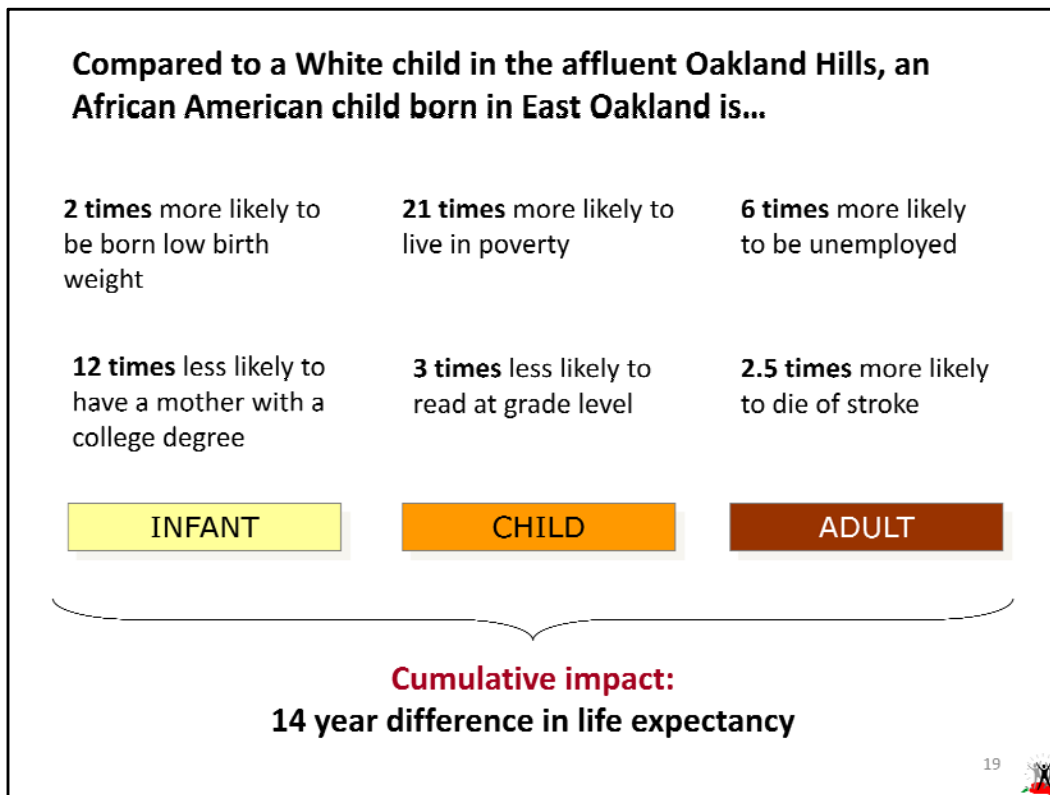




- If we look at life expectancy in the Oakland Flats vs. Oakland Hills, we can see the impact of neighborhood poverty on life expectancy of all races, Whites, and Blacks. Asians and Latinos show a kind of resilience against neighborhood poverty. People living in the Northwest Hills can expect to live one decade or more longer than people living in West Oakland, Elmhurst, or Central East Oakland.



- There are differences in opportunities for health and exposure to health risks that accumulate over the life course.
- Compared to a White child in the affluent Oakland Hills, an African American child born in West Oakland is...
  - 2 times more likely to be born premature or low birth weight and 12 times less likely to have a mother with a college degree
  - As a child, 13 times more likely to be born into poverty and 4 times less likely to read at grade level
  - And as an adult, 5 times more likely to be unemployed, and 3 times more likely to die of stroke.
- Over the life course, these increased risks have a cumulative impact of 12.4 years difference in life expectancy. (71.6 compared to 84 yrs Life Expectancy)
- Death data 2011-13, Birth data 2009-11, poverty data ACS 2007-11, reading level 2012-13



- There are differences in opportunities for health and exposure to health risks that accumulate over the life course.
- Compared to a White child in the affluent Oakland Hills, an African American child born in East Oakland is...
  - 2 times more likely to be born premature or low birth weight and 12 times less likely to have a mother with a college degree
  - As a child, 21 times more likely to be born into poverty and 3 times less likely to read at grade level
  - And as an adult, 6 times more likely to be unemployed and 2.5 times more likely to die of stroke.
- Over the life course, these increased risks have a cumulative impact of 14 years difference in life expectancy.
- Stroke and life expectancy is from Death Files 2010-12, Low birth weight and mother with a college degree is from Birth files 2009-11 , poverty and unemployment data from American Community Survey 2007-11, reading at grade level is from California Department of education 2012-13



- The Public Health Department is working to ensure all residents one day can lead a healthy, fulfilling and productive life.
- This requires partnership with community groups, decision-makers and many others to work together towards this goal.

Some original slides from the slide set available at [www.acphd.org](http://www.acphd.org) called: "How Place, Racism, and Poverty Matter for Health in Alameda County, " plus a few newer ones focused either on Oakland or the built environment.

For questions or more information, please contact:

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