Map Set 2016

COMMUNITY ASSESSMENT, PLANNING, AND EVALUATION (CAPE) UNIT

ALAMEDA COUNTY PUBLIC HEALTH DEPARTMENT

NOVEMBER 2016

This slide set was produced by the Alameda County Public Health Department Community Assessment, Planning, and Evaluation (CAPE) Unit. One way that we work to achieve the ACPHD mission and vision is to monitor the latest data about social and health issues affecting our county. The slide set is intended for anyone interested in several top socioeconomic and health indicators affecting the residents of Alameda County. We hope that this information is useful to policy makers, non-profit organizations, community educators, city planners, local service providers, and students.

Maps may be referenced and/or reproduced in reports, presentations and publications with the Alameda County Public Health logo and the citation: Alameda County Public Health Department, *Map Set 2016*, November 2016.
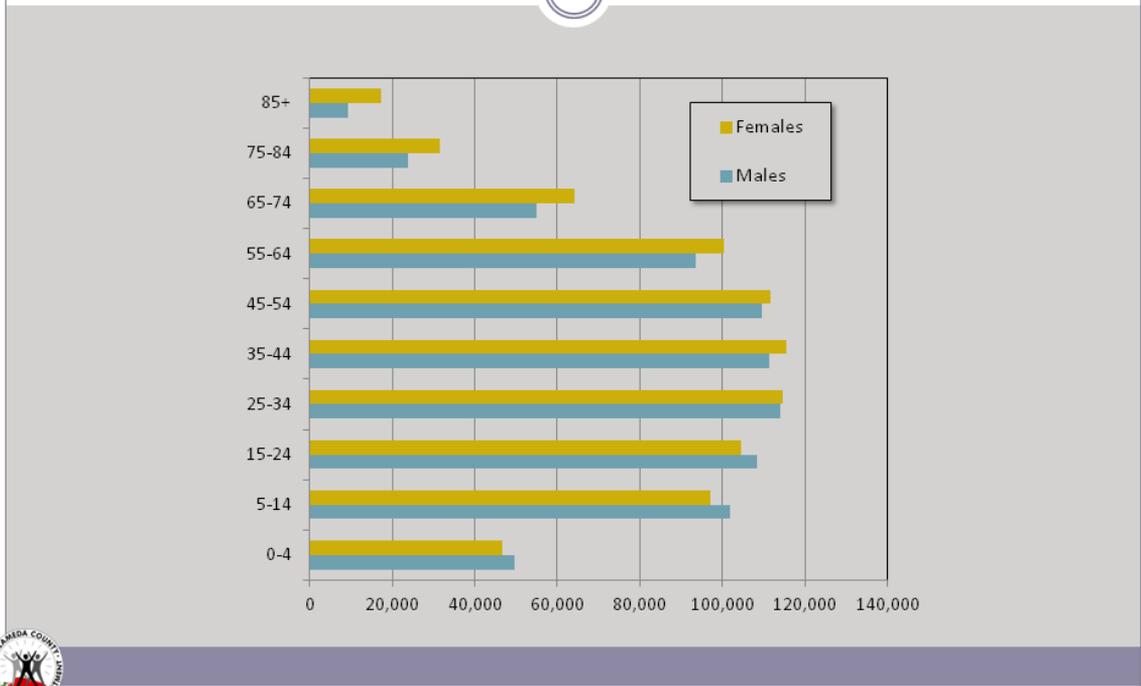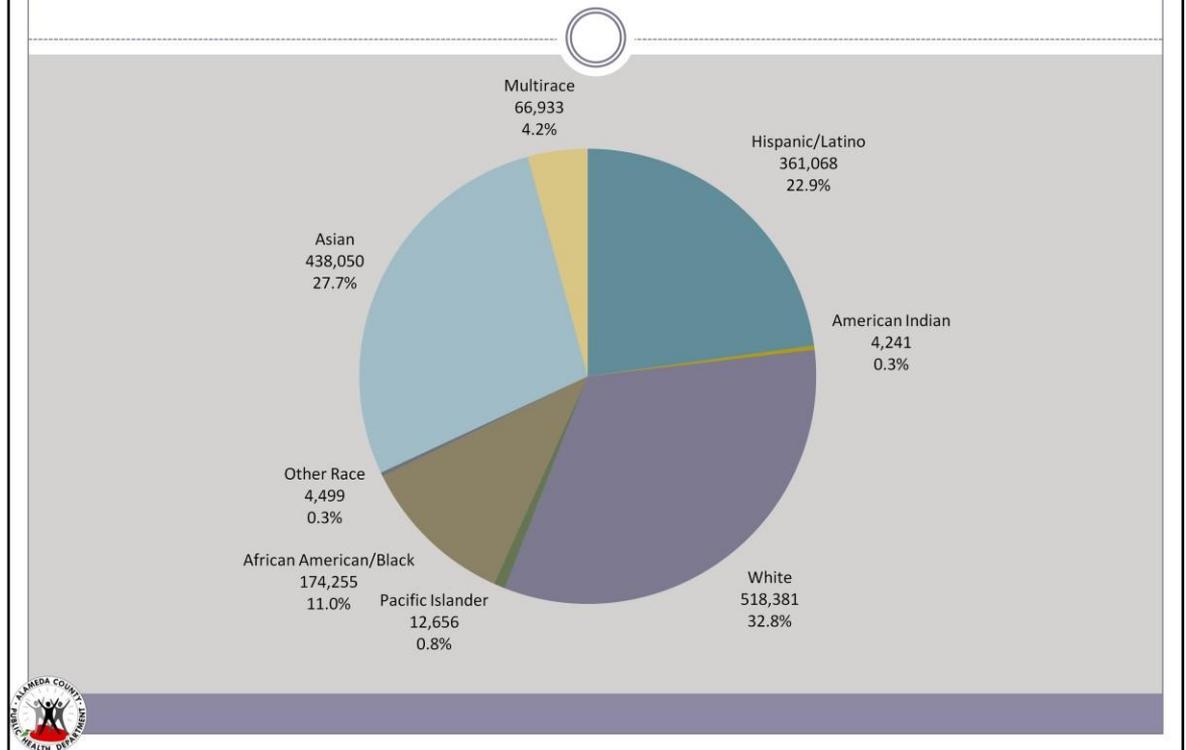
Demographic Characteristics

The following three slides provide a brief overview of the demographics characteristics of residents of Alameda County. For additional demographic information, please visit the Demographics page of http://www.healthyalamedacounty.org/
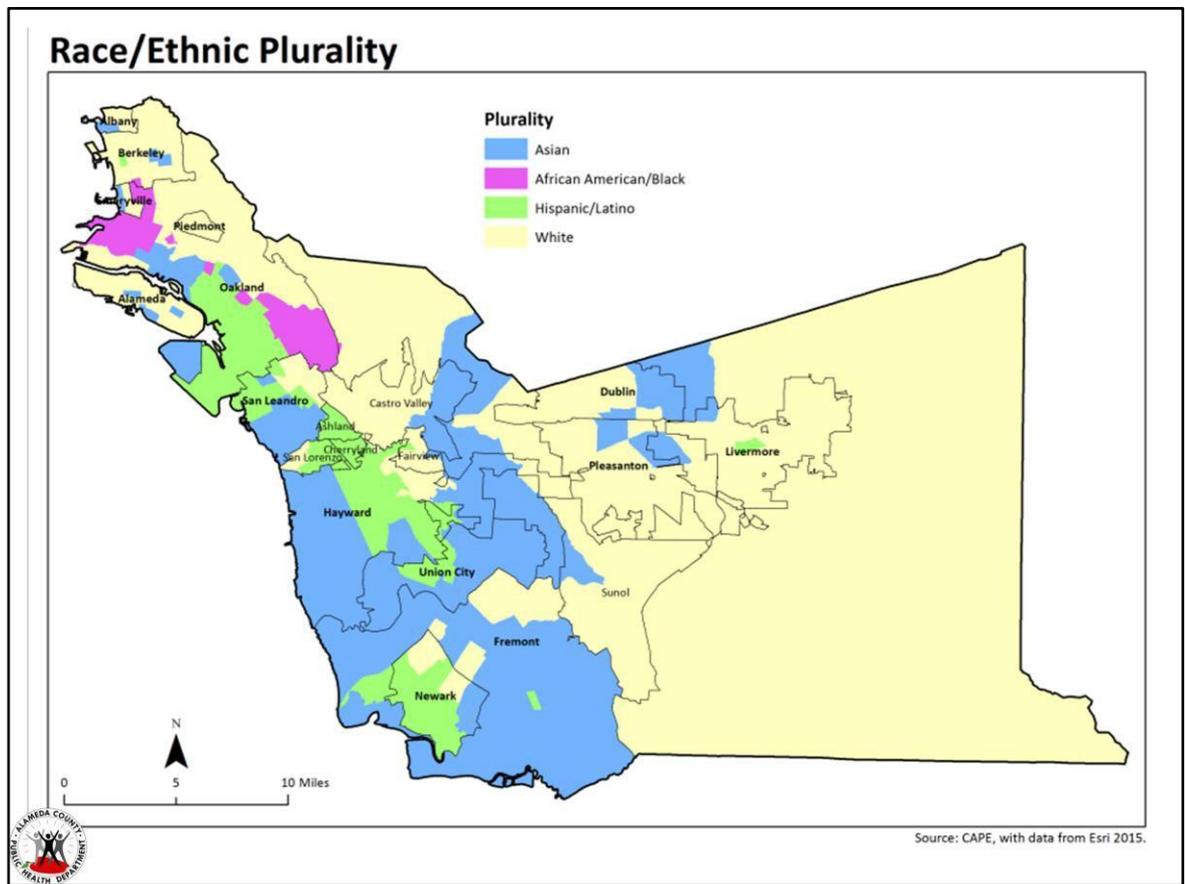
Alameda County by Age and Sex, 2015

The population of Alameda County in 2015 was 1,580,083. The figure above shows the population of Alameda County by sex and age group. Alameda County residents are almost evenly split by gender — 50.9% are female — but males make up the majority in younger age groups and females in older/ Most Alameda County residents are between 25 and 64 years.

Alameda County by Race/Ethnicity, 2015

Multirace
66,933
4.2%

Hispanic/Latino
361,068
22.9%

Asian
438,050
27.7%

American Indian
4,241
0.3%

Other Race
4,499
0.3%

African American/Black
174,255
11.0%

Pacific Islander
12,656
0.8%

White
518,381
32.8%

Alameda County is one of the most diverse counties in the country. The figure above displays the distribution by race/ethnicity for 2015. Whites are the largest group in Alameda County, followed by Asians, Hispanic/Latinos, and African Americans/Blacks.

Race/Ethnic Plurality

Plurality
- Asian
- African American/Black
- Hispanic/Latino
- White

Source: CAPE, with data from Esri 2015.

Racial/Ethnic Plurality

The race/ethnic plurality is defined as that race/ethnicity that has the highest population in a census tract, which may or may not be the majority. For example, a census tract might be composed of 40% African American, 27% Latino, 18% White, and 15% Asian, the plurality would be African American. This map represents the race/ethnic plurality at the census tract level for Alameda County from Esri data from
2015. The blue areas on the map correspond to Asians, pink to African American/Black, green to Hispanic/Latino, and yellow to White.

Asians are the plurality in many parts of the county, particularly in central Oakland and south county. African American/Blacks are the plurality in parts of north, west, and east Oakland. Hispanic/Latino plurality census tracts also span the county, but are particularly concentrated in East Oakland, central county including unincorporated areas and Hayward, and Newark. Whites are the plurality in many areas of the county, including Berkeley, the Oakland hills, Alameda, Castro Valley, and much of east county.
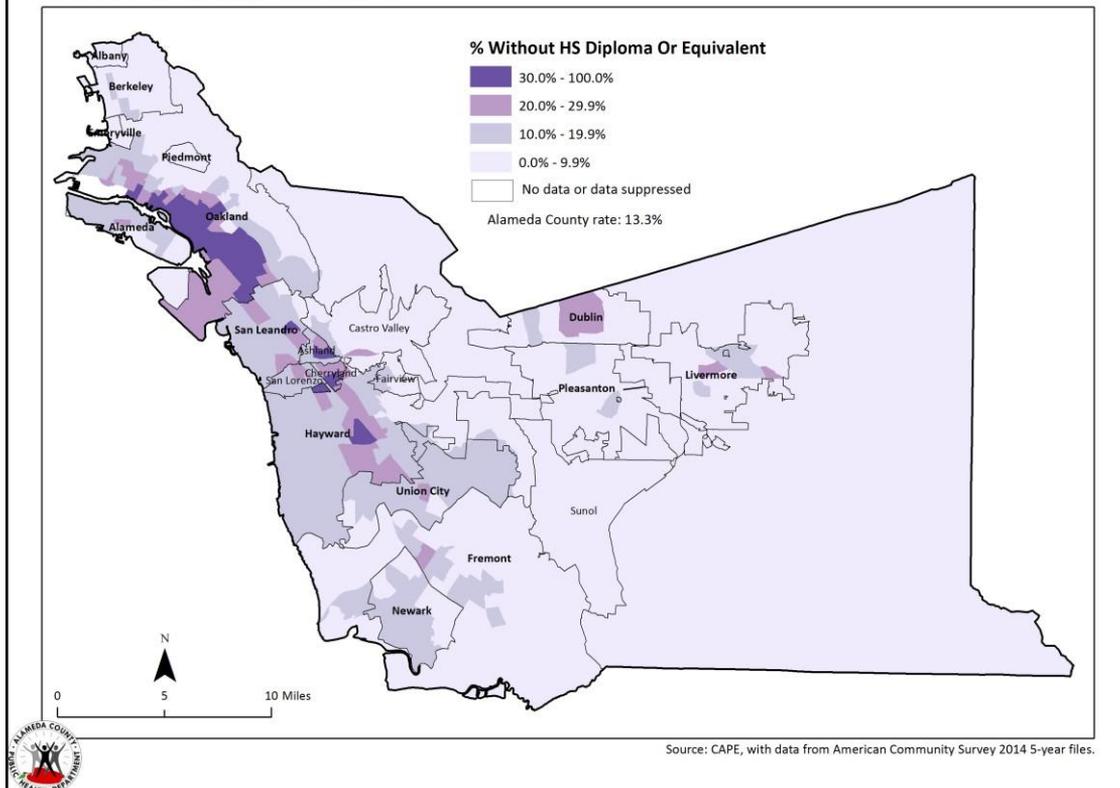
Socioeconomic Characteristics

The opportunity to live a long, healthy and productive life is not evenly distributed throughout Alameda County. The following five slides provide a socioeconomic snapshot of Alameda County. In Alameda County, neighborhood poverty greatly affects health outcomes and is a good indicator of overall deprivation. Educational attainment, employment, and levels of health insurance coverage are also closely tied to poverty and impact health outcomes as well. Opportunities for health are greater if you live over the poverty level, have a high school diploma or equivalent, are employed, and have health insurance.

Educational Attainment

% Without HS Diploma Or Equivalent
- 30.0% - 100.0%
- 20.0% - 29.9%
- 10.0% - 19.9%
- 0.0% - 9.9%
- No data or data suppressed

Alameda County rate: 13.3%

Source: CAPE, with data from American Community Survey 2014 5-year files.
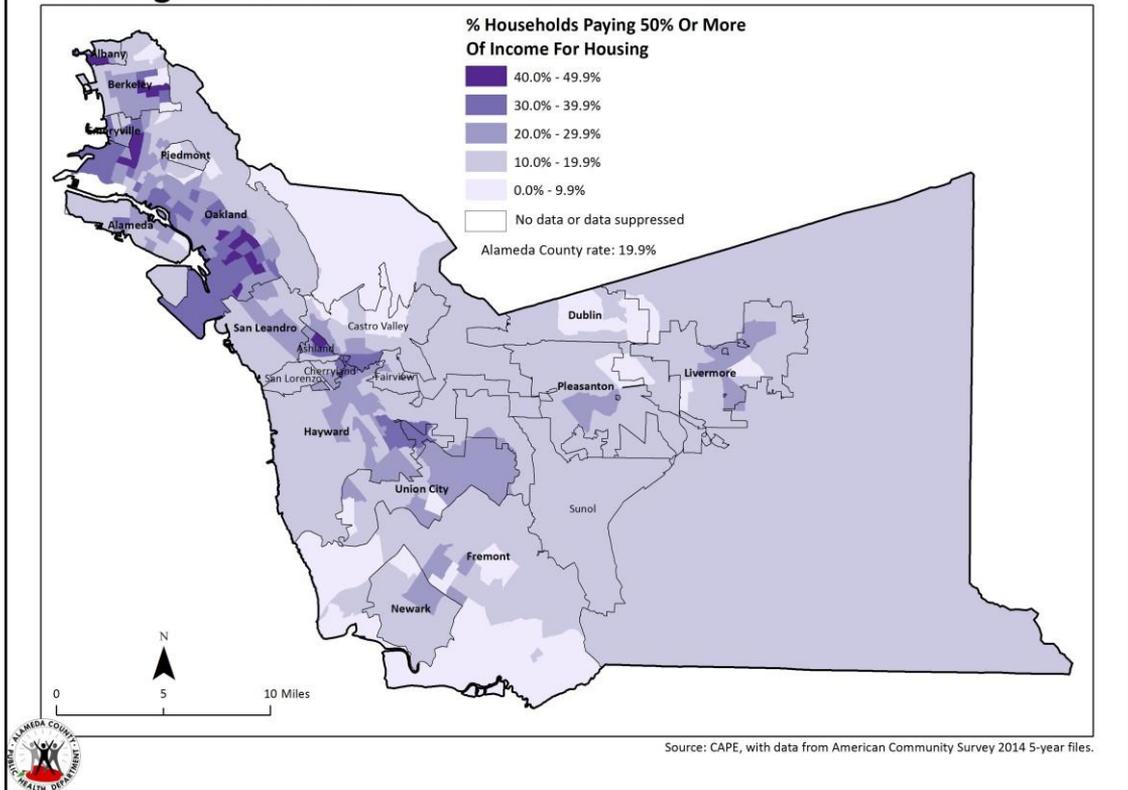
Educational Attainment

This map shows the percentage of residents age 25 or older without a high school diploma or its equivalent or greater, called educational attainment. Educational attainment is different from high school graduation rates; high school graduation rates are school based and show the percentage of students who graduate. Educational attainment takes into account high school equivalency exams, and is measured for individuals 25 years or older. This map represents high school or more educational attainment rate at the census tract level for Alameda County, with data from American Community Survey 2014 5-year files.

The darker colors on the map correspond to higher rates of individuals without a high school diploma or equivalent, the lighter colors to lower rates of individuals without a high school diploma or equivalent, and thus higher educational attainment.

Lack of high school graduation or equivalent rates were lowest in parts of East and West Oakland, San Leandro, Ashland, Cherryland, and Hayward.

In 2014 5-year files, there were about 126,000 people age 25 years or older without a high school education or equivalent in Alameda County, for an overall rate of 11.8%. Educational attainment by census tracts ranged from 0% lacking HS diploma or equivalent to a high of 50.1% without a HS diploma or equivalent.

Housing Cost Burden

% Households Paying 50% Or More Of Income For Housing
- 40.0% - 49.9%
- 30.0% - 39.9%
- 20.0% - 29.9%
- 10.0% - 19.9%
- 0.0% - 9.9%
- No data or data suppressed

Alameda County rate: 19.9%

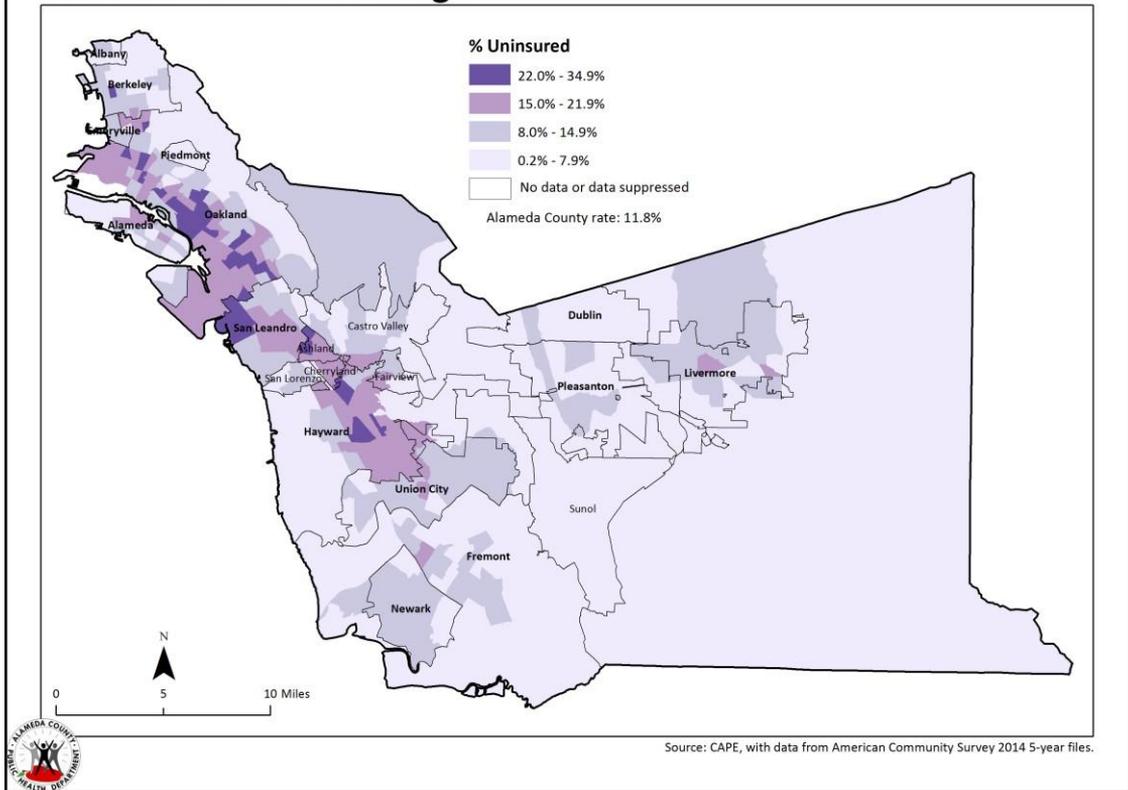Source: CAPE, with data from American Community Survey 2014 5-year files.

Housing Cost Burden

This map represents the housing cost burden at the census tract level for Alameda County with data from American Community Survey 2014 5-year files. The darker colors on the map correspond to higher percentages of households spending at least half of their income on housing.

Housing cost burden is highest in parts of West Oakland, scattered portions of East Oakland, a portion of Berkeley, Albany, Castro Valley, and San Lorenzo.

In 2014 5-year files, there were about 107,000 households spending 50% or more of their income on housing in Alameda County for an overall rate of 19.8%. The percentage of households paying 50% or more for housing across census tracts with 50 or more households ranged from a low of 4.8% to a high of 49.9%.
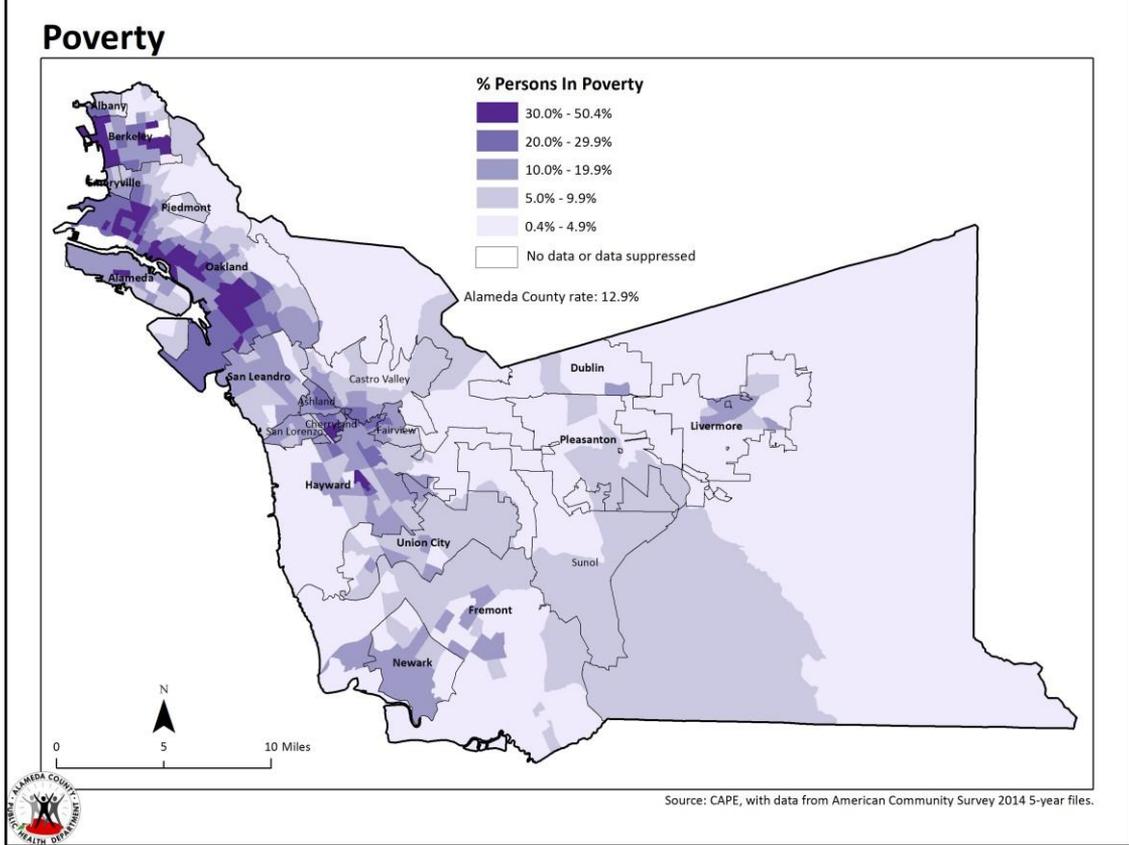
Health Insurance Coverage

Health insurance status is determined for individuals. If the individual has one or more sources of insurance coverage, either public or private, they are considered insured.

This map represents a lack of health insurance coverage at the census tract level for Alameda County with data from American Community Survey 2014 5-year files. The darker colors on the map correspond to higher percentages of the population without health insurance.

Lack of health insurance coverage is highest in parts of East and West Oakland, a portion of West Berkeley, Ashland, Cherryland, and parts of Hayward.

In 2014 5-year files, there were about 182,000 people without health insurance in Alameda County, for an overall uninsured rate of 11.8%. The percentage uninsured across census tracts ranged from a low of 0.2% to a high of 34.9%.

Poverty

% Persons In Poverty
- 30.0% - 50.4%
- 20.0% - 29.9%
- 10.0% - 19.9%
- 5.0% - 9.9%
- 0.4% - 4.9%
- No data or data suppressed

Alameda County rate: 12.9%

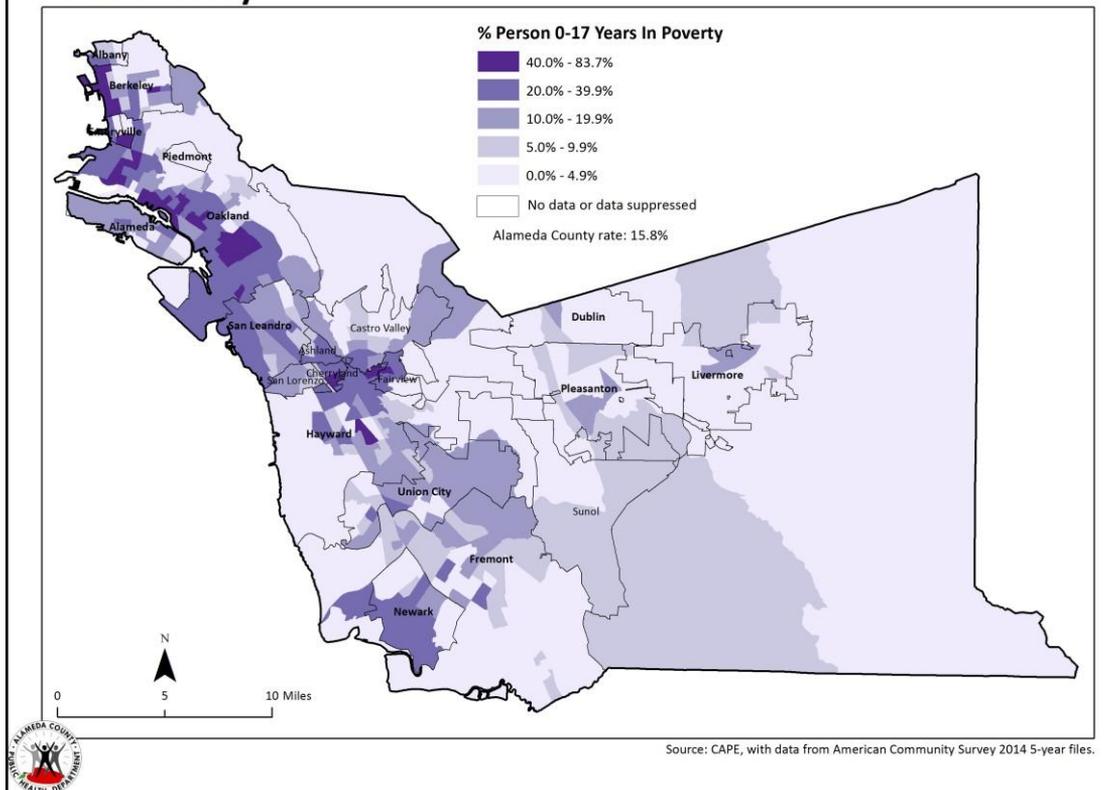Source: CAPE, with data from American Community Survey 2014 5-year files.

Poverty

The poverty rate is defined the federal Office of Management and Budget (OMB) by the income and size of the household. For example, the rate in 2014 for a family of four was $23,850 for the 48 contiguous states and DC. If the household is in poverty, then every person in that household is considered to be in poverty. High poverty neighborhoods may have scarcer resources and weaker infrastructure to support good health.

This map represents poverty at the census tract level for Alameda County from American Community Survey 2014 5-year files. The darker colors on the map correspond to higher poverty rates, the lighter colors to lower rates.

Poverty rates are highest in East and West Oakland, as well as near the UC-Berkeley campus, Cherryland, and parts of Hayward.

In 2014 5-year files, there were about 197,000 people in poverty in Alameda County, for an overall rate of 12.9%. The poverty rates among census tracts ranged from a low of 0.4% to a high of 50.4%.

Child Poverty

The poverty rate is defined by the federal Office of Management and Budget (OMB) by the income and size of the household. For example, the rate in 2013 for a family of four was $23,550 for the 48 contiguous states and DC. If the household is in poverty, then every person in that household is considered to be in poverty.

This map represents child poverty at the census tract level for Alameda County, with data from American Community Survey 2014 5-year files. The darker colors on the map correspond to higher child poverty rates, the lighter colors correspond to lower rates.

Child poverty rates are highest in East, West, and North Oakland, as well as West Berkeley, Cherryland, and parts of Hayward.

In 2014 5-year files, there were about 53,000 children in poverty in Alameda County, for an overall rate of 15.8%. Child poverty by census tracts ranged from a low of zero to a high of 83.7%.
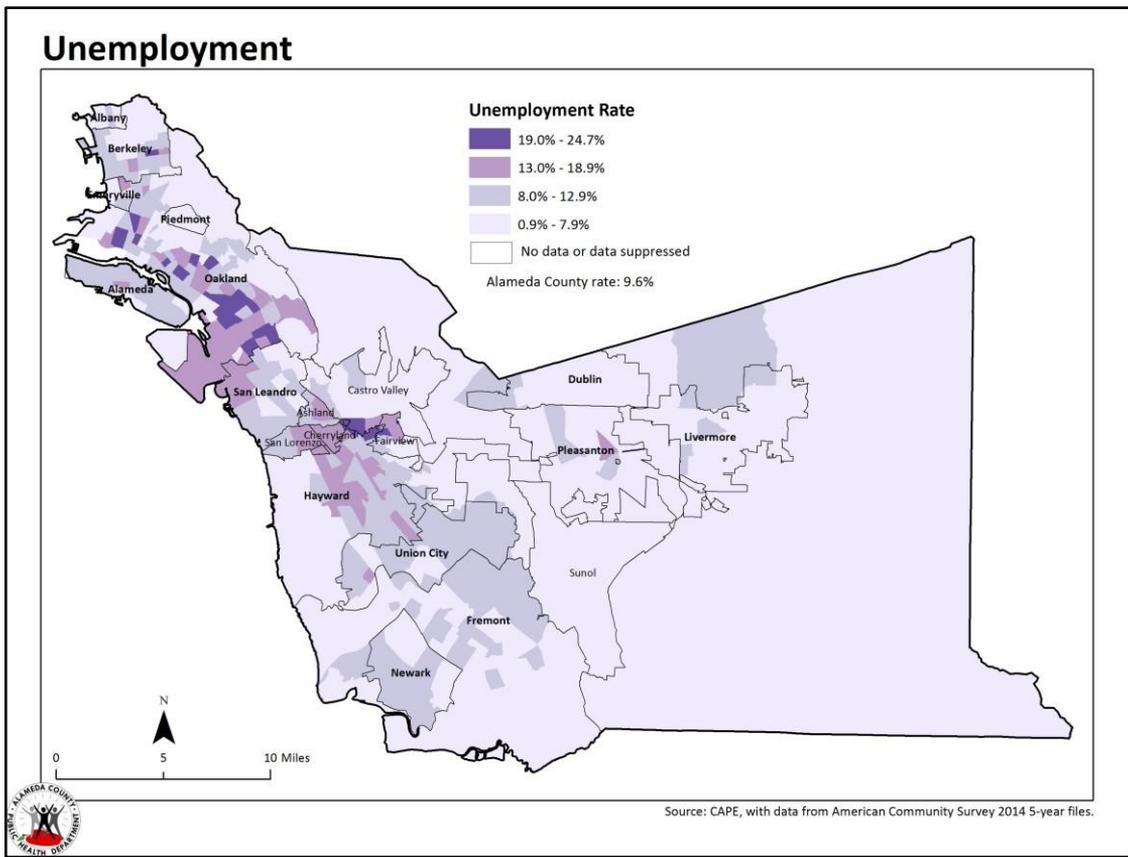
Unemployment

Employment is defined as any employment at the time of the survey, with those persons who are not at work and looking for work considered unemployed. If not at work and not looking for work, the person is not considered part of the labor force and is not included in the employment rate. Examples of people not counted in the employment rate are students, homemakers or retired individuals.

This map represents the unemployment rate at the census tract level for Alameda County from American Community Survey 2014 5-year files. The darker colors on the map correspond to higher unemployment rates, the lighter to lower rates.

Unemployment is highest in parts of east and west Oakland, and parts of Hayward and Fairview.

In 2014 5-year files, there were about 80,000 people unemployed in Alameda County, for an overall unemployment rate of 9.6%. Unemployment rates by census tracts ranged from a low of 0.9% to a high of 24.7%.

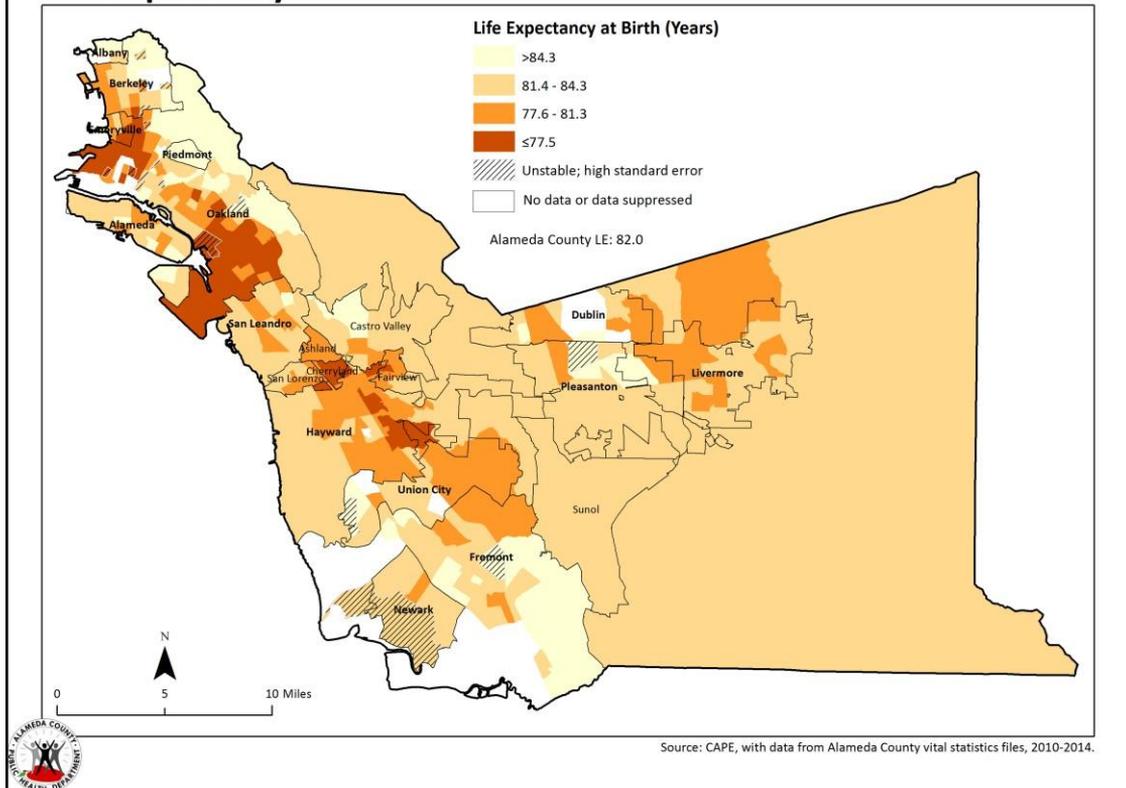# Life Expectancy & Leading Causes of Death

Life expectancy in Alameda County has increased for every racial and ethnic group and all-cause mortality has declined. The following nine slides shows life expectancy across the county and the seven leading causes of death with the neighborhoods where the disease burden is greatest. The data for these maps came from the vital statistic files for Alameda County.

Life Expectancy at Birth (Years)

- >84.3
- 81.4 - 84.3
- 77.6 - 81.3
- ≤77.5
- Unstable; high standard error
- No data or data suppressed

Alameda County LE: 82.0

Source: CAPE, with data from Alameda County vital statistics files, 2010-2014.

Life Expectancy

This map shows life expectancy at birth for census tracts for Alameda County residents in 2010-2014. The darker map colors correspond to lower life expectancy; the lighter colors to higher life expectancy.

Life expectancy was lowest in north, west, and east Oakland, as well as parts of Cherryland, Fairview, Hayward, and other unincorporated areas. Neighborhood poverty greatly impacts health outcomes in Alameda County. What we observe is a clear social gradient in health – a decline in life expectancy with each level in neighborhood poverty, and those in the most impoverished areas of Alameda County have a lower life expectancy.

In 2010-2014 in Alameda County, there were 46,190 deaths, for an overall life expectancy at birth of 82.0 years. For those census tracts with great enough poulations for stabele estimates, the life expectancy at birth ranged from a low of 68.0 years to a high of 89.3 years.
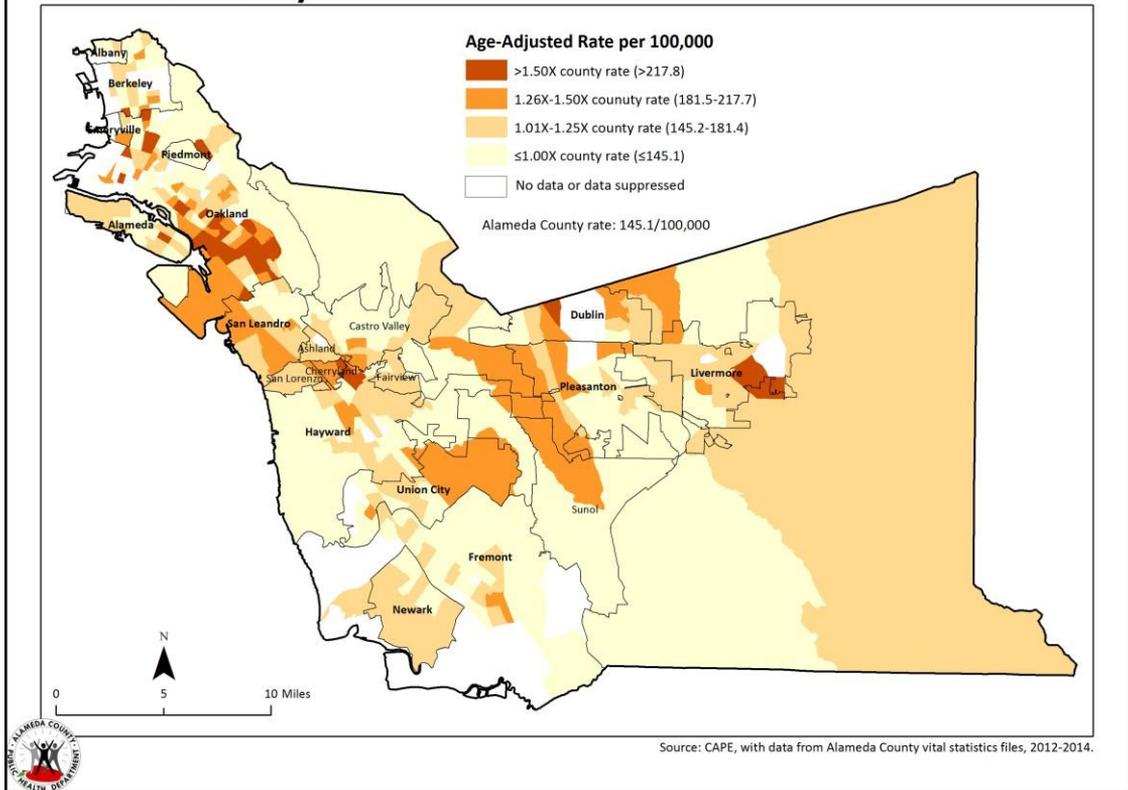
All-Cause Mortality
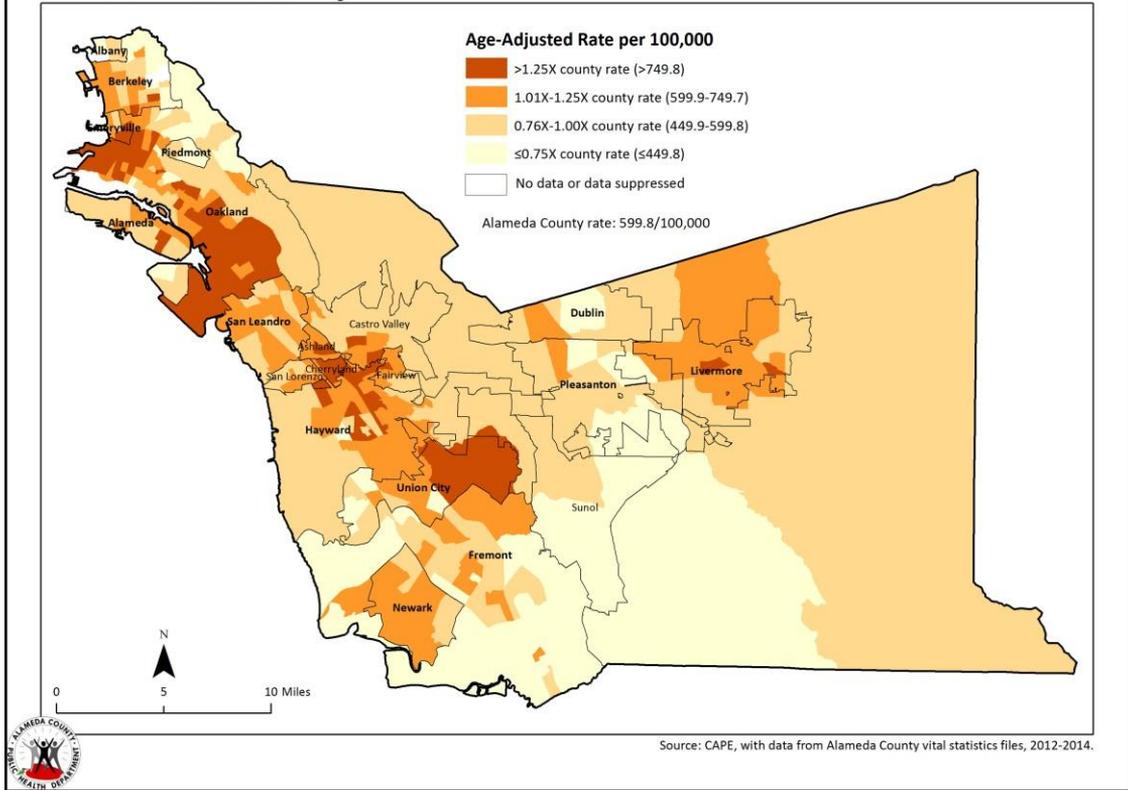
All-Cause Mortality

This map shows all-cause mortality for census tracts for Alameda County residents for 2012-2014. The darker map colors correspond to higher mortality rates; the lighter colors to lower mortality rates.

All-cause mortality was highest in north, west, and east Oakland; as well as pockets of Alameda, Cherryland, Castro Valley, Hayward, and other unincorporated areas. Neighborhood poverty greatly impacts health outcomes in Alameda County. What we observe is a clear social gradient in health – those in the most impoverished areas of Alameda County have a higher mortality rate.

In 2012-2014 in Alameda County, there were 28,226 deaths, for an overall age-adjusted rate of 599.8 per 100,000. For those census tracts with ten or more deaths, the rate ranged from a low of 311.7 to a high of 1,708.8.

Cancer Mortality

Age-Adjusted Rate per 100,000
- >1.50X county rate (>217.8)
- 1.26X-1.50X county rate (181.5-217.7)
- 1.01X-1.25X county rate (145.2-181.4)
- ≤1.00X county rate (≤145.1)
- No data or data suppressed

Alameda County rate: 145.1/100,000

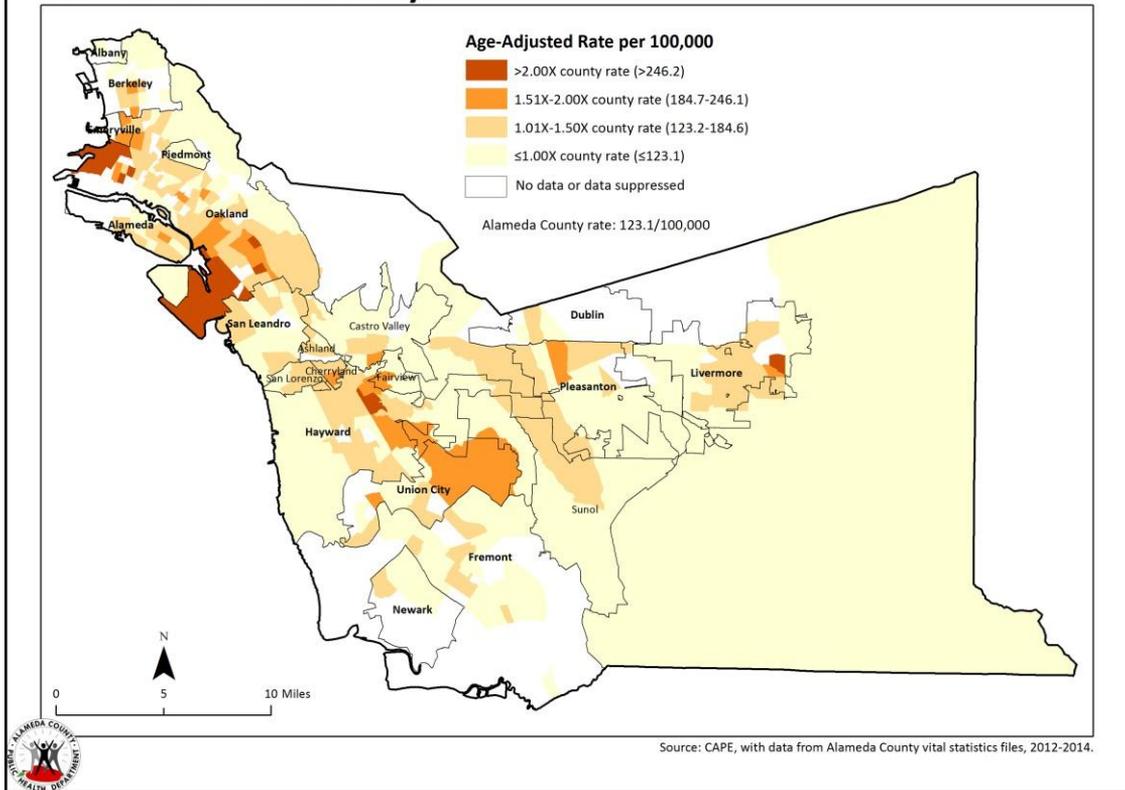Source: CAPE, with data from Alameda County vital statistics files, 2012-2014.

Cancer Mortality

Cancer is now the leading cause of death among residents in Alameda County, exceeding deaths from heart disease. Lung, breast, prostate, and colon cancer make up the majority of cancer deaths. This map shows cancer mortality for census tracts for Alameda County residents in 2012-2014. The darker map colors correspond to higher cancer mortality rates; the lighter colors to lower rates.

Cancer mortality rates were highest among residents of east, west, and north Oakland, as well as areas of Cherryland and Livermore.

In 2012-2014 in Alameda County, there were 6,834 deaths due to cancer, for an overall age-adjusted rate of 145.1 per 100,000. For those census tracts with ten or more deaths, the rate ranged from a low of 68.3 per 100,000 to a high of 353.4 per 100,000.

Heart Disease Mortality

Age-Adjusted Rate per 100,000

- >2.00X county rate (>246.2)
- 1.51X-2.00X county rate (184.7-246.1)
- 1.01X-1.50X county rate (123.2-184.6)
- ≤1.00X county rate (≤123.1)
- No data or data suppressed

Alameda County rate: 123.1/100,000

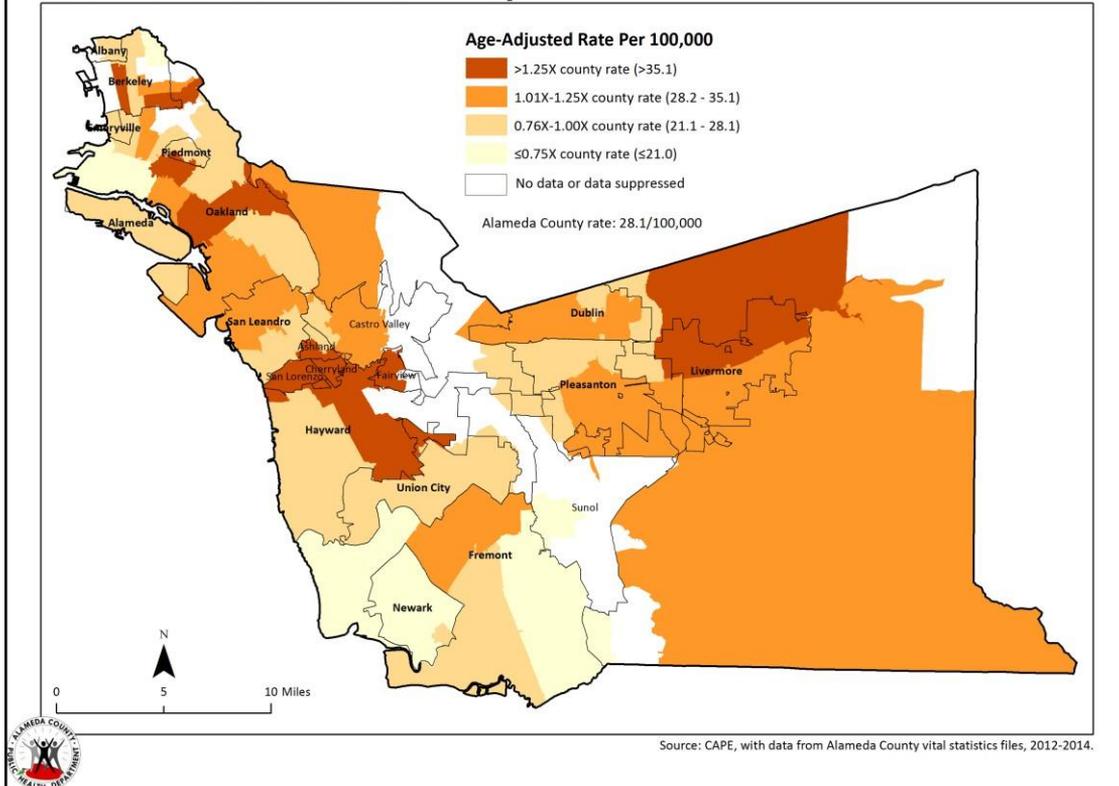Source: CAPE, with data from Alameda County vital statistics files, 2012-2014.

Heart Disease Mortality

This map shows heart disease mortality for census tracts for Alameda County residents in 2012-2014. The darker map colors correspond to higher heart disease mortality rates; the lighter colors to lower rates.

Heart disease mortality rates were highest in areas of West Oakland, East Oakland, Hayward, and Livermore.

In 2012-2014 in Alameda County, there were 5,798 deaths due to heart disease, for an overall age-adjusted rate of 123.1 per 100,000. For those census tracts with ten or more deaths, the rate ranged from a low of 66.2 per 100,000 to a high of 478.8 per 100,000.

Alzheimer's Disease Mortality

Age-Adjusted Rate Per 100,000
- >1.25X county rate (>35.1)
- 1.01X-1.25X county rate (28.2 - 35.1)
- 0.76X-1.00X county rate (21.1 - 28.1)
- ≤0.75X county rate (≤21.0)
- No data or data suppressed

Alameda County rate: 28.1/100,000

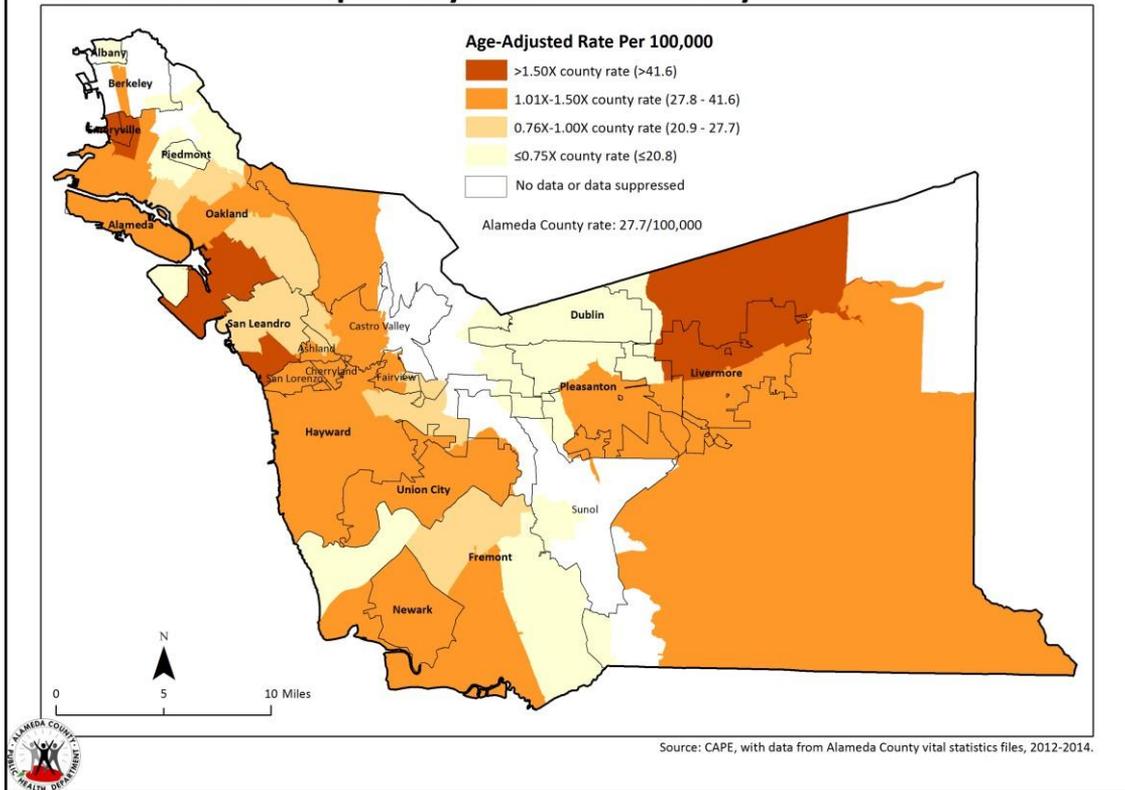Source: CAPE, with data from Alameda County vital statistics files, 2012-2014.

Alzheimer's Disease Mortality

This map shows mortality due to Alzheimer's disease for zip codes for Alameda County residents in 2012-2014. The darker map colors correspond to higher Alzheimer's disease mortality rates; the lighter colors to lower rates.

Alzheimer's disease mortality rates were highest among residents of west Berkeley, east Oakland, Cherryland and other unincorporated areas in central county, Hayward, and the north part of Livermore.

In 2012-2014 in Alameda County, there were 1,311 deaths due to Alzheimer's disease, for an overall age-adjusted rate of 28.1 per 100,000. For those zip codes with ten or more deaths, the rate ranged from a low of 10.2 per 100,000 to a high of 48.6 per 100,000.
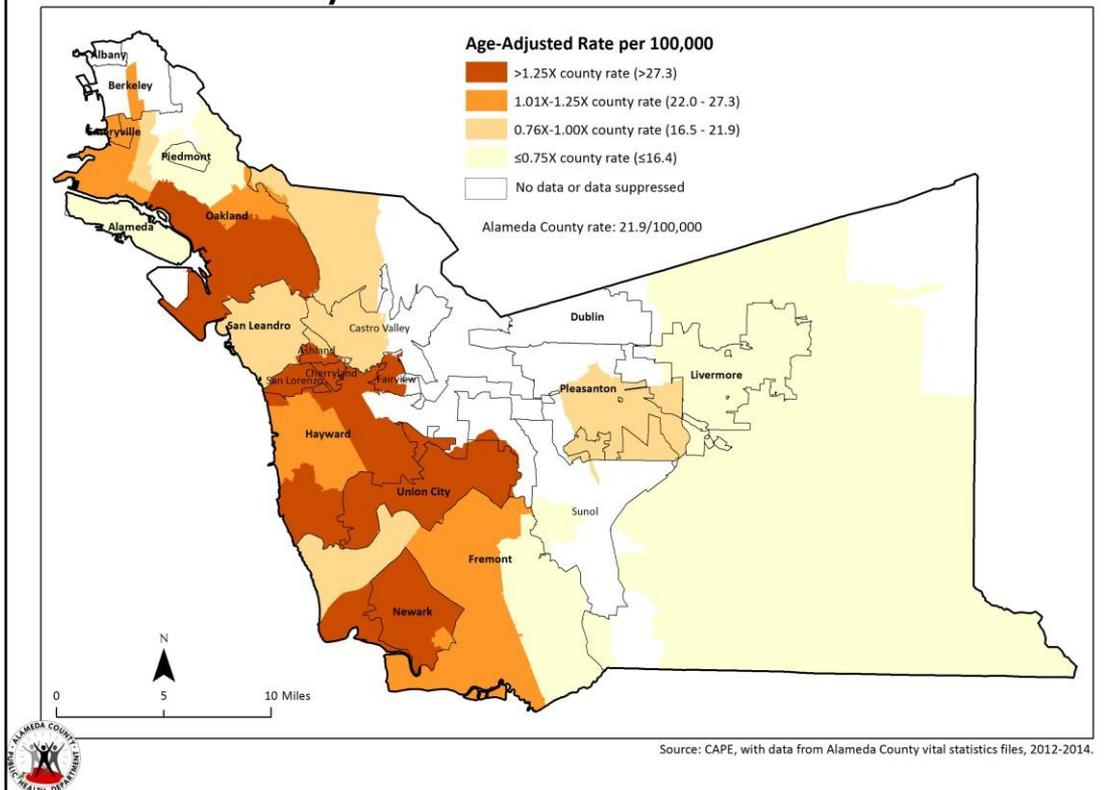
Chronic Lower Respiratory Disease Mortality

This map shows chronic lower respiratory disease (CLRD) mortality for zip codes for Alameda County residents for 2012-2014. The darker map colors correspond to higher CLRD mortality rates; the lighter colors to lower rates.

CLRD mortality rates were highest in zip codes in Emeryville and adjacent parts of Oakland, east Oakland, part of San Leandro, and part of Livermore.

In 2012-2014 in Alameda County, there were 1,275 deaths due to CLRD, for an overall age-adjusted rate of 27.7 per 100,000. For those zip codes with ten or more deaths, the rate ranged from a low of 10.5 per 100,000 to a high of 50.1 per 100,000.

Diabetes Mortality

Age-Adjusted Rate per 100,000
- >1.25X county rate (>27.3)
- 1.01X-1.25X county rate (22.0 - 27.3)
- 0.76X-1.00X county rate (16.5 - 21.9)
- ≤0.75X county rate (≤16.4)
- No data or data suppressed

Alameda County rate: 21.9/100,000

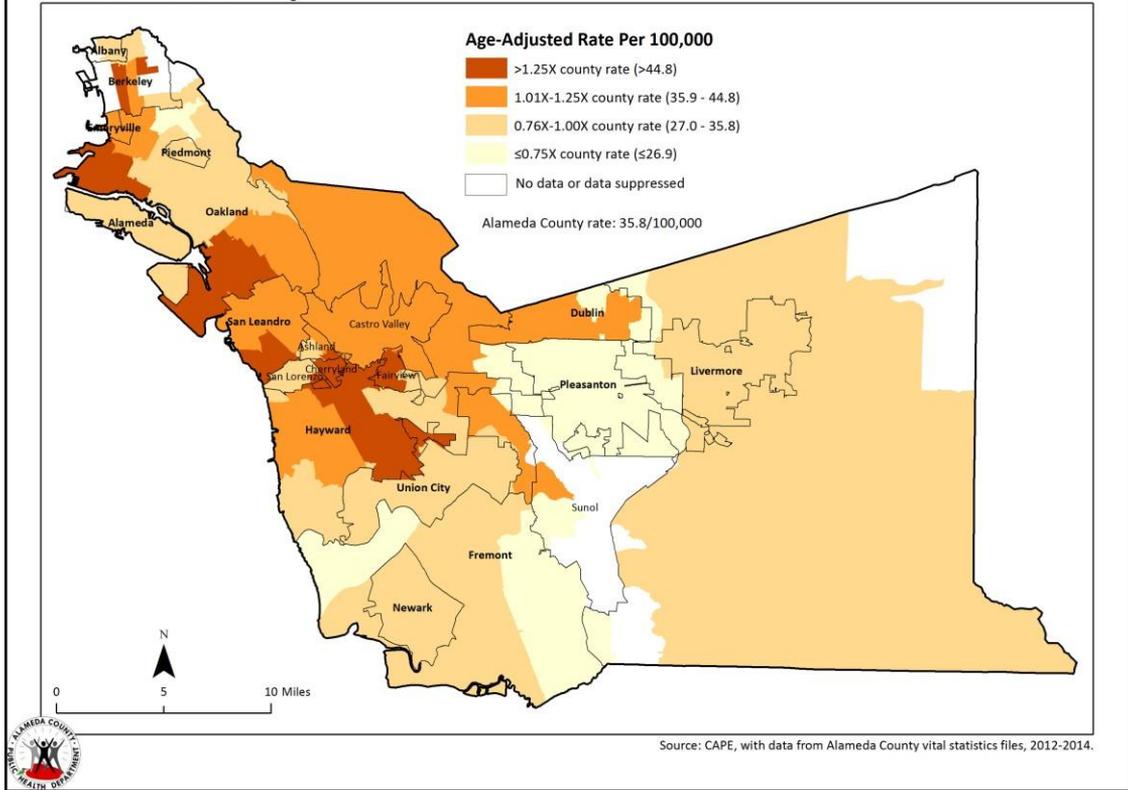Source: CAPE, with data from Alameda County vital statistics files, 2012-2014.

Diabetes Mortality

This map shows diabetes mortality for zip codes for Alameda County residents for 2012-2014. The darker map colors correspond to higher diabetes mortality rates; the lighter colors to lower rates.

Diabetes mortality rates were highest in zip codes in downtown Oakland, East Oakland, San Lorenzo, Cherryland, Fairview, Union City and nearby areas, Newark, and easthern portions of Hayward.

In 2012-2014 in Alameda County, there were 1,031 deaths due to diabetes, for an overall age-adjusted rate of 21.9 per 100,000. For those zip codes with ten or more deaths, the rate ranged from a low of 12.9 per 100,000 to a high of 53.9 per 100,000.

Stroke Mortality

Age-Adjusted Rate Per 100,000
- >1.25X county rate (>44.8)
- 1.01X-1.25X county rate (35.9 - 44.8)
- 0.76X-1.00X county rate (27.0 - 35.8)
- ≤0.75X county rate (≤26.9)
- No data or data suppressed

Alameda County rate: 35.8/100,000

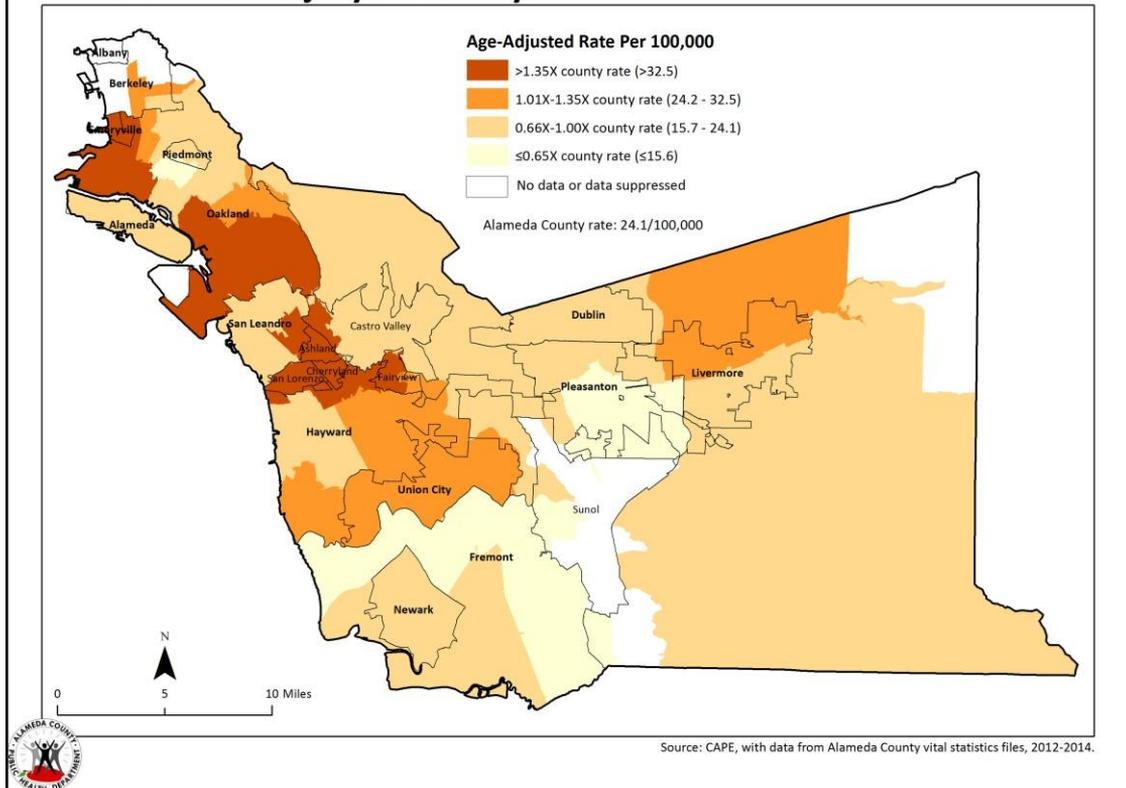Source: CAPE, with data from Alameda County vital statistics files, 2012-2014.

Stroke Mortality

This map shows mortality due to stroke for zip codes for Alameda County residents in 2012-2014. The darker map colors correspond to higher unintentional injury mortality rates; the lighter colors to lower rates.

Stroke mortality rates wee highest in zip codes in some pockets in Berkeley, east and west Oakland, and central county including San Leandro, Hayward, Cherryland, and Fairview.

In 2012-2014 in Alameda County, there were 1,668 deaths dues to stroke, for an overall age-adjusted rate of 35.8 per 100,000. For those zip codes with ten or more deaths, the rate ranged from a low of 19.2 per 100,000 to a high of 58.0 per 100,000.

Unintentional Injury Mortality

Age-Adjusted Rate Per 100,000
- >1.35X county rate (>32.5)
- 1.01X-1.35X county rate (24.2 - 32.5)
- 0.66X-1.00X county rate (15.7 - 24.1)
- ≤0.65X county rate (≤15.6)
- No data or data suppressed

Alameda County rate: 24.1/100,000

Source: CAPE, with data from Alameda County vital statistics files, 2012-2014.

Unintentional Injury Mortality

This map shows mortality due to unintentional injuries for zip codes for Alameda County residents in 2012-2014. The darker map colors correspond to higher unintentional injury mortality rates; the lighter colors to lower rates.

Unintentional injury mortality rates are highest among residents of East and West Oakland and central county: parts of San Lorenzo, Ashland, Cherryland, Fairview, and Hayward.

In 2012-2014 in Alameda County, there were 1,163 deaths dues to unintentional injury, for an overall age-adjusted rate of 24.1 per 100,000. For those zip codes with ten or more deaths, the rate ranged from a low of 8.9 per 100,000 to a high of 60.4 per 100,000.

Rates of Illness: Emergency Department Visits & Hospitalizations

Data for illness among residents of Alameda County comes from the California Office of Statewide Planning and Development (OSHPD), which collects emergency care data from hospital emergency departments and ambulatory surgery data from general acute care hospitals and licensed freestanding ambulatory surgery clinics in California.

Emergency department (ED) data include encounters from hospitals licensed to provide emergency medical services.

Diabetes Hospitalizations
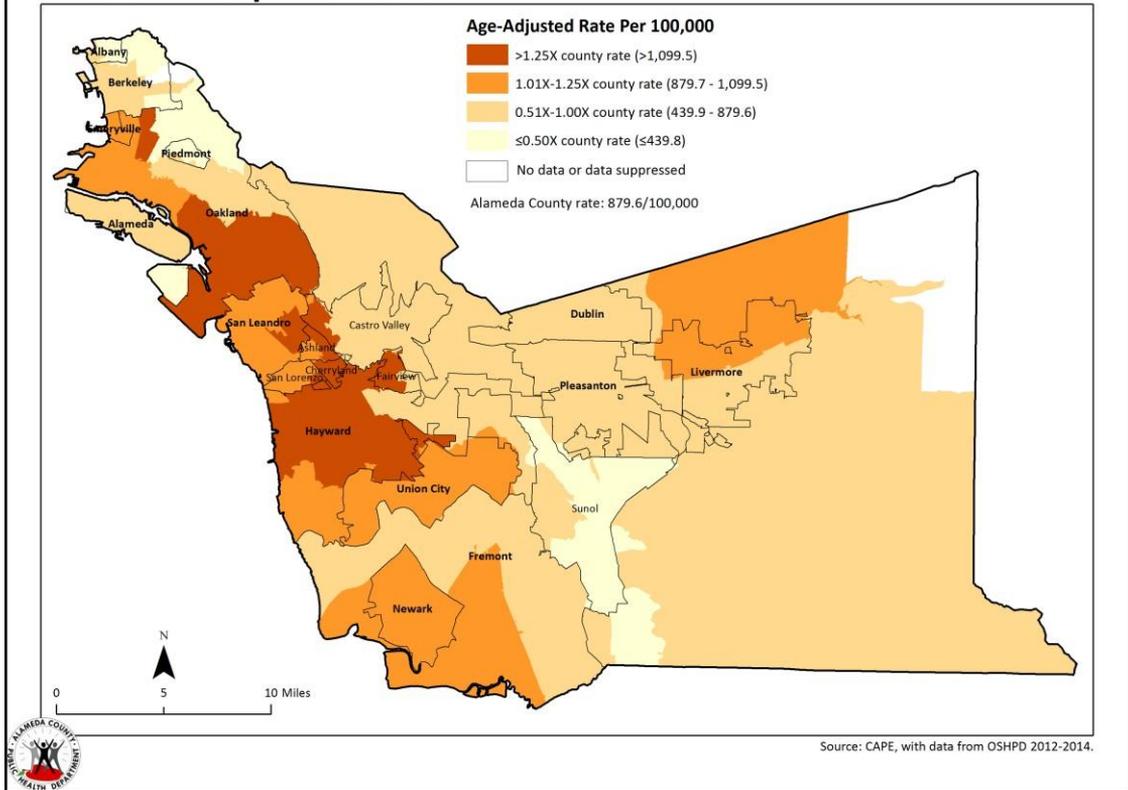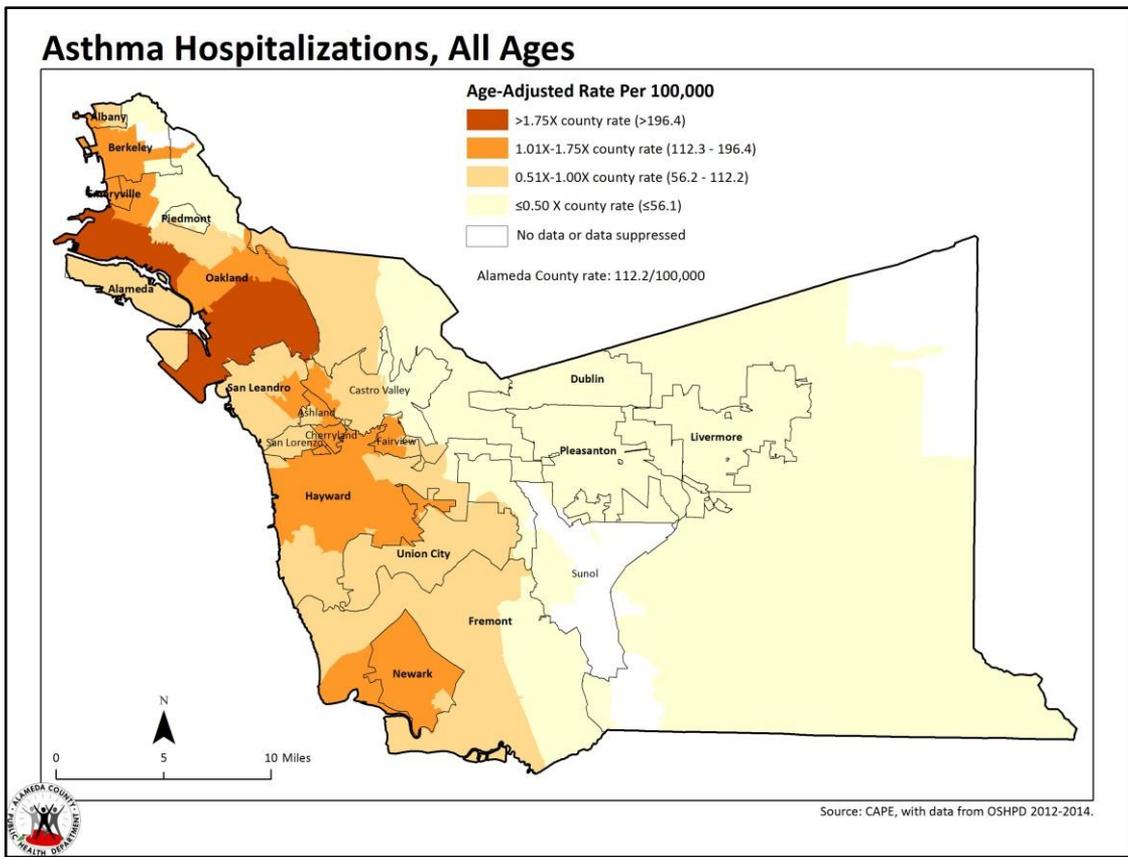
Diabetes Hospitalizations

Diabetes hospitalizations are defined as hospitalizations for which diabetes is coded as the primary through fifth diagnoses, using ICD-9 codes 250.00 through 250.99.

This map represents diabetes hospitalizations for zip codes for Alameda County in 2012-2014. The darker colors on the map correspond to higher diabetes hospitalization rates, the lighter colors correspond to lower rates.

Diabetes hospitalization rates are highest among residents of East Oakland, Cherryland, and parts of Hayward, Fairview, Ashland, and San Leandro.

In 2012-2014 in Alameda County, there were 42,288 diabetes hospitalizations, at an age-adjusted rate of 879.6 hospitalizations per 100,000 population. For those zip codes with ten or more hospitalizations in 2012-2014, the diabetes hospitalization rate ranges from a low of 155.2 hospitalizations per 100,000 population to a high of 1,921.3 hospitalizations per 100,000.

For more information about diabetes hospitalizations, please see pages 65-67 in
http://www.acphd.org/media/395851/acphd_cha.pdf.

Asthma Hospitalizations, All Ages

Age-Adjusted Rate Per 100,000

- >1.75X county rate (>196.4)
- 1.01X-1.75X county rate (112.3 - 196.4)
- 0.51X-1.00X county rate (56.2 - 112.2)
- ≤0.50 X county rate (≤56.1)
- No data or data suppressed

Alameda County rate: 112.2/100,000

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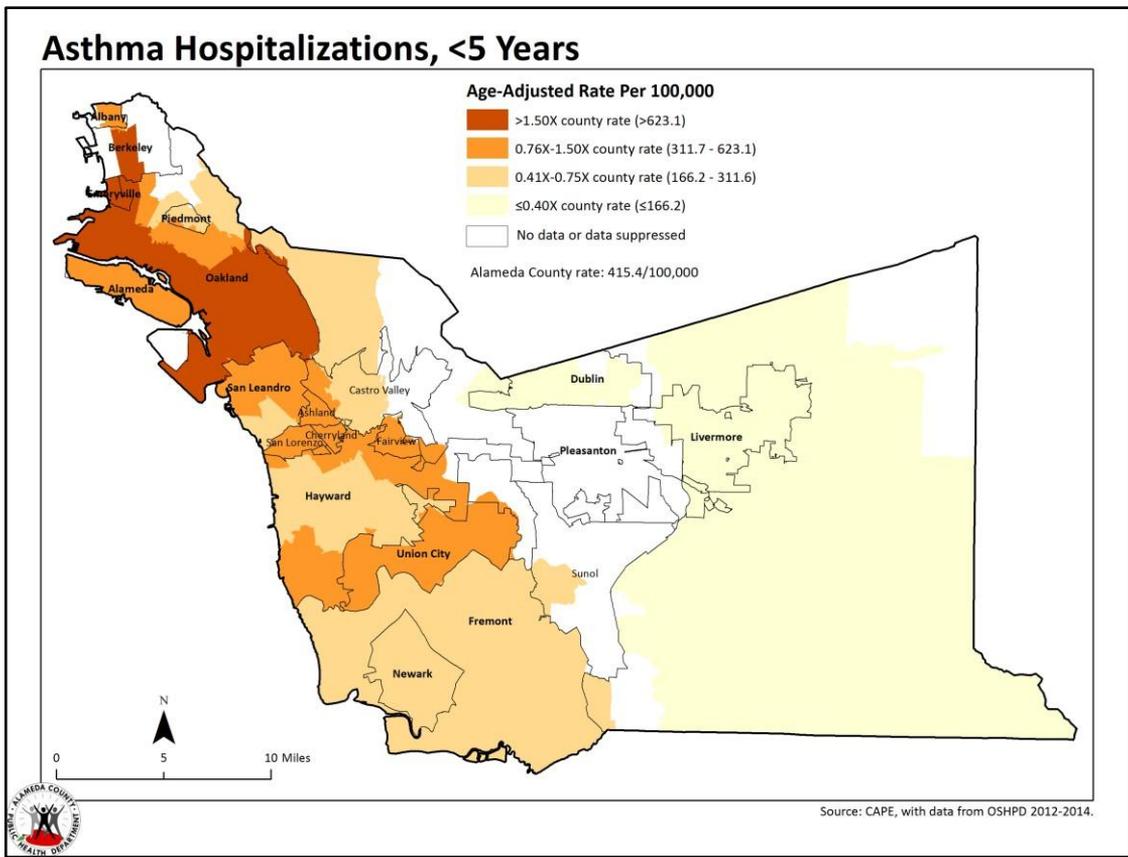
Asthma Hospitalizations

Asthma hospitalizations are defined as hospitalizations for which asthma is coded as the primary diagnosis, using ICD-9 codes 493.00 through 493.99.

This map represents asthma hospitalizations for zip codes for Alameda County residents in 2012-2014. The darker colors on the map correspond to higher asthma hospitalization rates, the lighter colors correspond to lower rates.

Asthma hospitalization rates are highest among residents of East Oakland and a portion of West Oakland. Both East and West Oakland are situated along parts of the I-880 Corridor, and West Oakland is adjacent to the Port of Oakland. Both the highway and the port expose residents to higher levels of diesel particles. These areas also have higher poverty rates than much of the county. Unhealthy housing conditions such as mold, dust and allergens can also contribute to asthma.

In 2012-2014 in Alameda County, there were 5,074 asthma hospitalizations, at an age-adjusted rate of 112.2 hospitalizations per 100,000 population. For those zip codes with ten or more hospitalizations during this time period, the asthma hospitalization rate ranges from a low of 28.2 hospitalizations per 100,000 population to a high of 324.0 hospitalizations per 100,000.

For more information about asthma hospitalizations, please see pages 76-77 in
http://www.acphd.org/media/395851/acphd_cha.pdf.

Asthma Hospitalizations, <5 Years

Age-Adjusted Rate Per 100,000

- >1.50X county rate (>623.1)
- 0.76X-1.50X county rate (311.7 - 623.1)
- 0.41X-0.75X county rate (166.2 - 311.6)
- ≤0.40X county rate (≤166.2)
- No data or data suppressed

Alameda County rate: 415.4/100,000

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

Asthma Hospitalizations Among Children <5 Years

Asthma hospitalizations are defined as hospitalizations for which asthma is coded as the primary diagnosis, using ICD-9 codes 493.00 through 493.99.
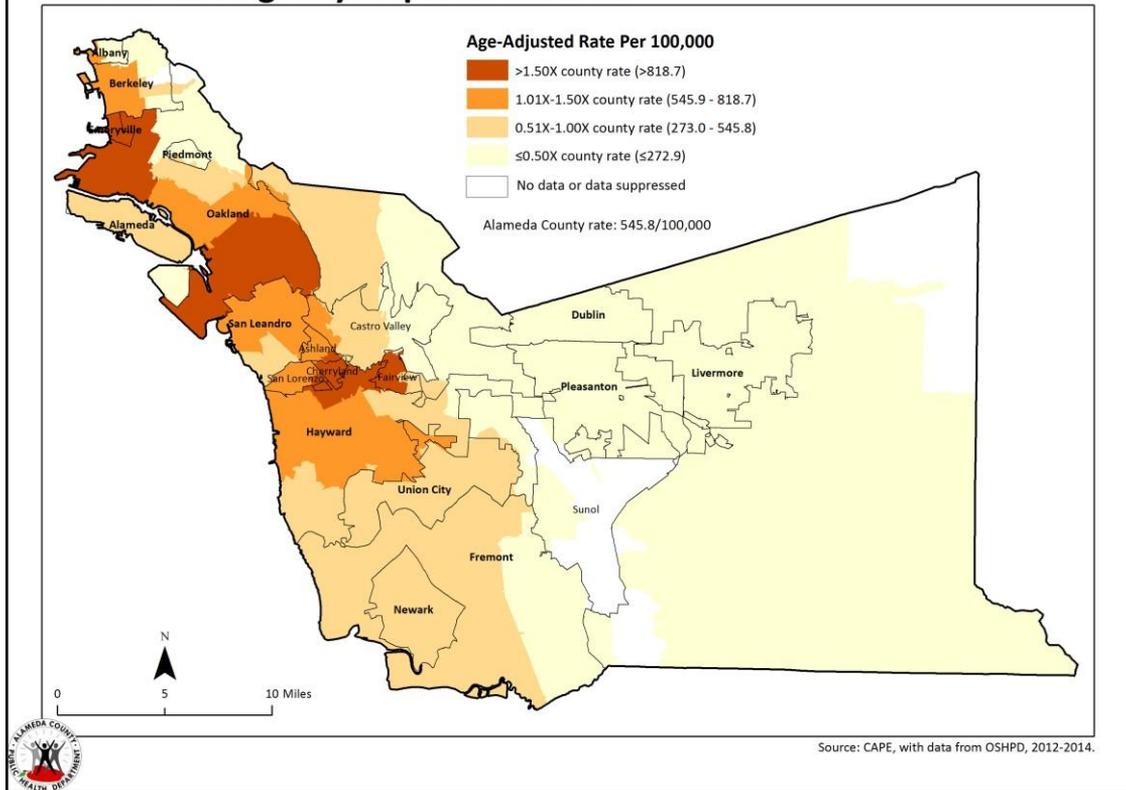
This map represents asthma hospitalizations for zip codes for Alameda County residents less than five years in 2012-2014. The darker colors on the map correspond to higher asthma hospitalization rates, the lighter colors correspond to lower rates. Zip codes that do not have sufficient numbers for a stable estimate are shown in white.

Asthma hospitalization rates are highest among residents of East Oakland, West Oakland, Emeryville, and west Berkeley. These areas are situated along parts of the I-880 Corridor, and West Oakland is adjacent to the Port of Oakland. Both the highway and the port expose residents to higher levels of diesel particles. Some of these areas, particularly in East and West Oakland, also have higher poverty rates than much of the county. Unhealthy housing conditions such as mold and allergens can also contribute to asthma.

In 2012-2014 in Alameda County, there were 1,210 asthma hospitalizations among children 0-4 years, at an age-specific rate of 415.4 hospitalizations per 100,000 population. For those zip codes with ten or more hospitalizations in 2012-2014, the asthma hospitalization rate ranges from a low of 133.7 hospitalizations per 100,000 population to a high of 1,182.2 hospitalizations per 100,000.

For more information about asthma hospitalizations, please see pages 77-79 in
http://www.acphd.org/media/395851/acphd_cha.pdf.

Asthma Emergency Department Visits

Age-Adjusted Rate Per 100,000

- >1.50X county rate (>818.7)
- 1.01X-1.50X county rate (545.9 - 818.7)
- 0.51X-1.00X county rate (273.0 - 545.8)
- ≤0.50X county rate (≤272.9)
- No data or data suppressed

Alameda County rate: 545.8/100,000

Source: CAPE, with data from OSHPD, 2012-2014.
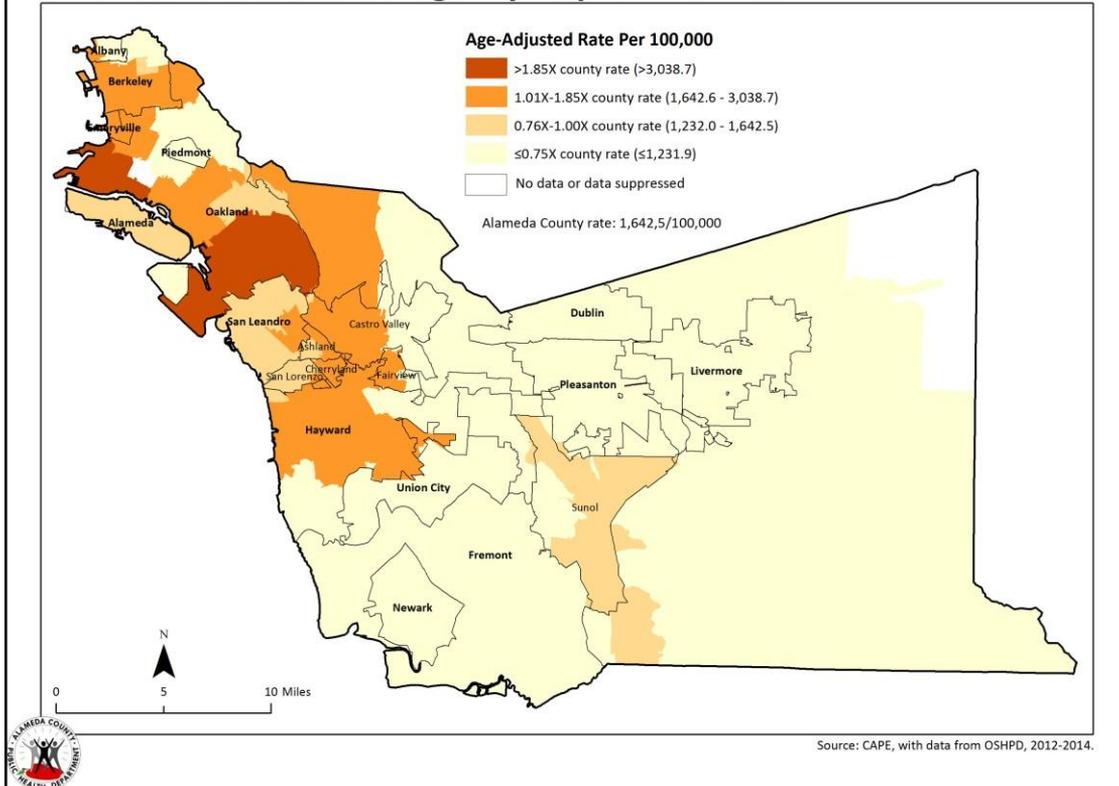
Asthma Emergency Department (ED) Visits

Asthma emergency department (ED) visits are defined as ED visits for which asthma is coded as the primary diagnosis, using ICD-9 codes 493.00 through 493.99.

This map represents asthma ED visits for zip codes for Alameda County residents in 2012-2014. The darker colors on the map correspond to higher asthma ED visit rates, the lighter colors correspond to lower rates.

Asthma ED visit rates are highest among residents of Emeryville, east Oakland, west Oakland, and portions of Cherryland and Fairview. Many of these communities are situated along parts of the I-880 Corridor. Additionally, West Oakland is adjacent to the Port of Oakland. Both the highway and the port expose residents to higher levels of diesel particles. These areas also have inequitable economic, educational, and social conditions such as higher poverty and unemployment rates than much of the county. Unhealthy housing conditions such as mold, dust, and allergens can also contribute to asthma.

In 2012-2014 in Alameda County, there were 25,165 asthma ED visits, at an age-adjusted rate of 545.8 ED visits per 100,000 population. Among those zip codes with ten or more ED visits during this time period, the asthma ED visit rate ranges from a low of 388.6 ED visits per 100,000 population to a high of 1,181.0 ED visits per 100,000.
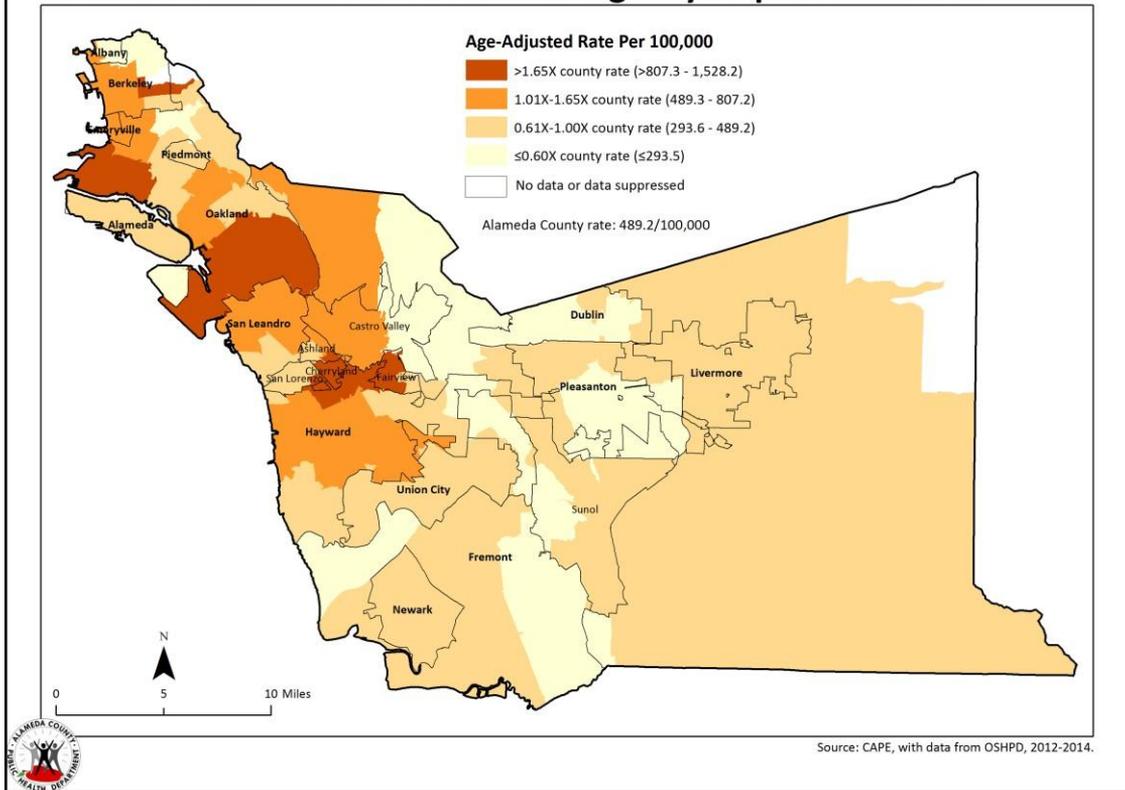
Substance-Related Emergency Department (ED) Visits

Substance-related ED visits are defined as emergency room visits for which individuals are treated for alcohol or drug use and released. These visits are coded as alcohol or drug use as any of the first five diagnosis codes.

This map represents substance-related ED visits at the zip code level for Alameda County residents in 2012-2014. The darker colors on the map correspond to higher substance-related ED visit rates, the lighter colors correspond to lower rates. Substance-related ED rates are highest among residents in portions of east and west Oakland.

In 2012-2014 in Alameda County, there were 80,732 substance-related ED visits, at an age-adjusted rate of 1642.5 ED visits per 100,000 population. For those zip codes with ten or more substance use ED visits in 2012-2014, the substance use ED visit rate ranges from a low of 420.5 per 100,000 ED visits to a high of 5009.5 per 100,000.

Severe Mental Illness-Related Emergency Department Visits

Age-Adjusted Rate Per 100,000
- >1.65X county rate (>807.3 - 1,528.2)
- 1.01X-1.65X county rate (489.3 - 807.2)
- 0.61X-1.00X county rate (293.6 - 489.2)
- ≤0.60X county rate (≤293.5)
- No data or data suppressed

Alameda County rate: 489.2/100,000

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

Severe Mental Illness-Related Emergency Department Visits

Severe mental illness-related ED visits are defined as emergency room visits for which an individual is treated for a severe mental illness and released. These visits may include personality, schizophrenia, anxiety or mood disorders in any of the first five diagnosis codes.

This map represents severe mental illness-related ED visits at the zip code level for Alameda County residents in 2012-2014. The darker colors on the map correspond to higher severe mental illness-related ED visit rates, the lighter colors correspond to lower rates.

Severe mental illness-related ED rates are highest among residents in portions of Berkeley, east and west Oakland, as well as portions of Hayward, Cherryland, and Fairview. Some of these areas have higher poverty rates than much of the county.

In 2012-2014 in Alameda County, there were 23,779 severe mental illness-related ED visits, at an age-adjusted rate of 489.2 hospitalizations per 100,000 population. For those zip codes with ten or more severe mental illness-related ED visits in 2012-2014, the severe mental illness-related ED visit rate ranges from a low of 161.2 per 100,000 to a high of 1528.2 per 100,000 ED visits.

Emergency Department Visits Due to Injury

The following maps depict the rates of ED visits due to injury for four injury indicators: motor vehicle crashes, unintentional injury, self-inflicted injury, and assault. The rates include those who were treated and released from the emergency department as well as those admitted as inpatient stays through the ER.

Motor Vehicle Crash-Related Emergency Department Visits

Age-Adjusted Rate Per 100,000
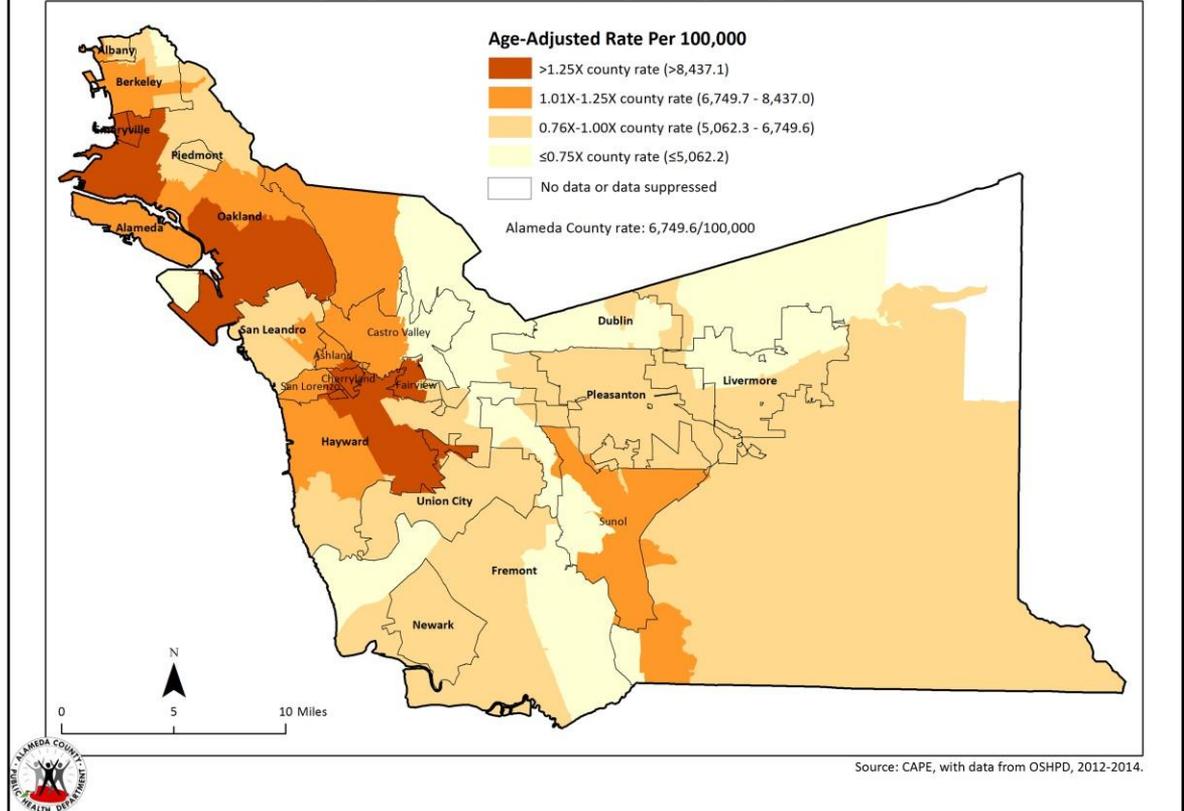
Source: CAPE, with data from OSHPD, 2012-2014.
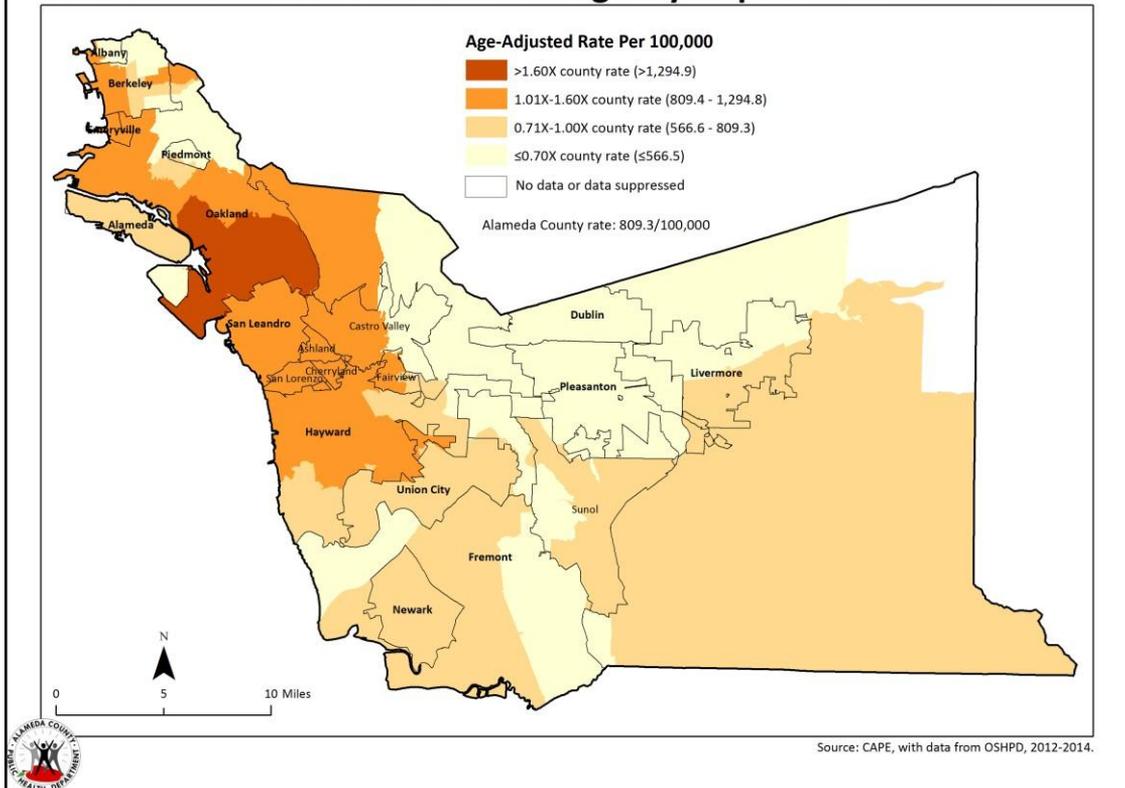
Motor Vehicle Crash-Related Emergency Department (ED) Visits

Motor vehicle crash-related ED visits are defined as emergency room visits for which motor vehicle crashes are coded using ICD-9 codes 810.0 through 825.9.

This map represents motor vehicle crash-related emergency department (ED) visits of those who were treated and released, as well as those individuals admitted through the ED at the facility. The data is presented at the zip code level for Alameda County residents in 2012-2014. The darker colors on the map correspond to higher ED visit rates, while the lighter colors correspond to lower rates. Motor vehicle crash-related rates are highest among residents in portions of East Oakland.

In 2012-2014 in Alameda County, there were 38,514 motor vehicle crash-related ED visits, at an age-adjusted rate of 809.3 visits per 100,000 population. For those zip codes with ten or more motor vehicle crash-related ED visits in 2012-2014, the motor vehicle crash-related ED visit rate ranges from a low of 353.0 per 100,000 ED visits to a high of 1723.8.

Unintentional Injury-Related Emergency Department Visits

Age-Adjusted Rate Per 100,000

- >1.25X county rate (>8,437.1)
- 1.01X-1.25X county rate (6,749.7 - 8,437.0)
- 0.76X-1.00X county rate (5,062.3 - 6,749.6)
- ≤0.75X county rate (≤5,062.2)
- No data or data suppressed

Alameda County rate: 6,749.6/100,000

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

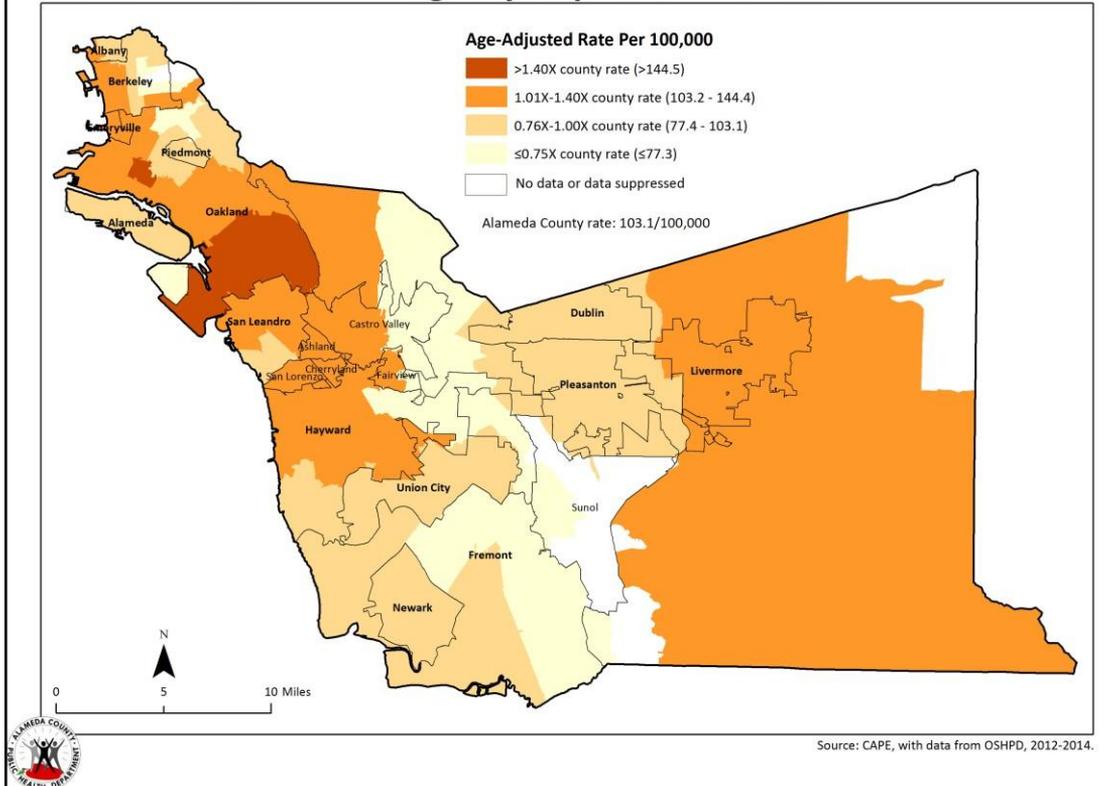Unintentional Injury Emergency Department Visits

Unintentional injury-related ED visits are defined as emergency room visits for which unintentional injuries – physical injury that is largely unintended, and not purposely inflicted, such as falls, drownings and poisonings - are coded in the first five diagnosis codes using ICD-9 codes 960.0 through 969.9 or 979.0 through 979.9.

This map represents unintentional injury-related Emergency Department (ED) visits of those who were treated and released as well as those individuals admitted through the ED at the facility. The data is presented at the zip code level for Alameda County residents in 2012-2014. The darker colors on the map correspond to higher unintentional injury-related ED visit rates, while the lighter colors correspond to lower rates.

Unintentional injury-related ED rates were highest among residents in portions of Emeryville, East and West Oakland, Cherryland, Fairview, as well as portions of Hayward. Several of these areas also have higher poverty rates than much of the county.

In 2012-2014 in Alameda County, there were 313,664 unintentional injury-related ED visits, at an age-adjusted rate of 6749.6 visits per 100,000 population. Rates for unintentional injury-related ED visits in 2012-2014 ranges from a low of 3,457.1 per residents to a high of 10,724.2 per 100,000.

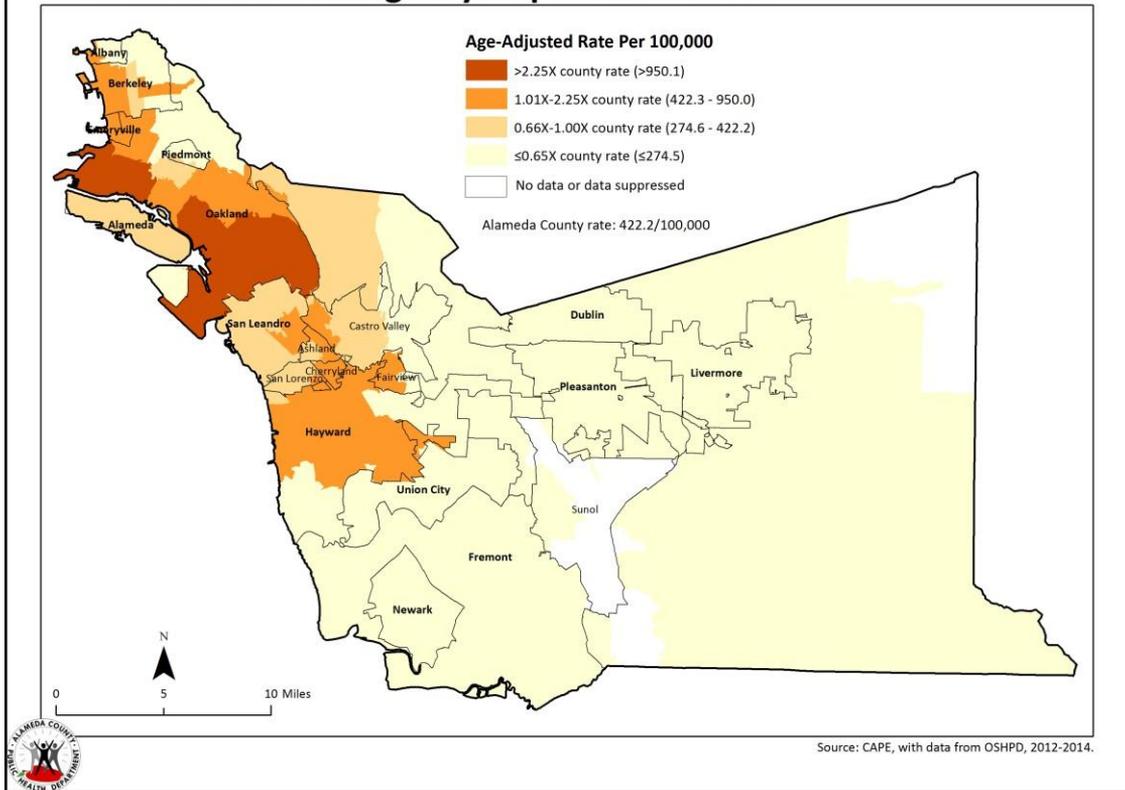Self-Harm-Related Emergency Department (ED) visits

Injury due to self harm ED visits are defined as emergency room visits where injury is purposely inflicted upon oneself, such as attempted suicide or trauma, and coded using ICD-9 codes 950.0 through 959.9 in any of the first five diagnosis codes.

This map represents self-harm-related ED visits of those who were treated and released, as well as those admitted as inpatients through the Emergency Department. The data is presented at the zip code level for Alameda County residents in 2012-2014. The darker colors on the map correspond to higher self-harm-related ED visit rates, while the lighter colors correspond to lower rates.

Self-harm-related ED rates were highest among portions of East Oakland, and a small portion of West Oakland.

In 2012-2014 in Alameda County, there were 4,823 self-harm-related ED visits, at an age-adjusted rate of 103.1 visits per 100,000 population. For those zip codes with ten or more self-harm-related ED visits in 2012-2014, the rate ranged from a low of 54.6 per 100,000 ED visits to a high of 189.2 per 100,000.

Assault-Related Emergency Department Visits

Age-Adjusted Rate Per 100,000
- >2.25X county rate (>950.1)
- 1.01X-2.25X county rate (422.3 - 950.0)
- 0.66X-1.00X county rate (274.6 - 422.2)
- ≤0.65X county rate (≤274.5)
- No data or data suppressed

Alameda County rate: 422.2/100,000

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

Assault-Related Injury Emergency Department (ED) Visits

Assault-related ED visits are defined as emergency room visits for intentionally inflicted injury to another person that may or may not involve intent to kill using ICD-9 codes 960.0 through 969.9 and 979.0 through 979.9.

This map represents assault-related injury emergency department (ED) visits of those who were treated and released, in addition to those admitted as inpatients through the ED. The data is presented at the zip code level for Alameda County residents in 2012-2014. The darker colors on the map correspond to higher assault-related injury ED visit rates, while the lighter colors correspond to lower rates.

Assault-related ED rates were highest among residents of East and West Oakland. In 2012-2014 in Alameda County, there were 20,165 assault-related injury ED visits, at an age-adjusted rate of 422.2 visits per 100,000 population. For those zip codes with ten or more assault-related injury ED visits in 2012-2014, the rate ranged from a low of 81.3 per 100,000 ED visits to a high of 1395.1 per 100,000.

Maternal, Child, and Adolescent Health

The core maternal, child, and adolescent health (MCAH) indicators are covered in the following three maps. Alameda County performs well in most of the MCAH indicators. Infant mortality and teen birth rates are lower than the state rates. While the county does meet the Healthy People 2020 objective for low birth weight, the county has a higher percentage than the state.

Infant Mortality
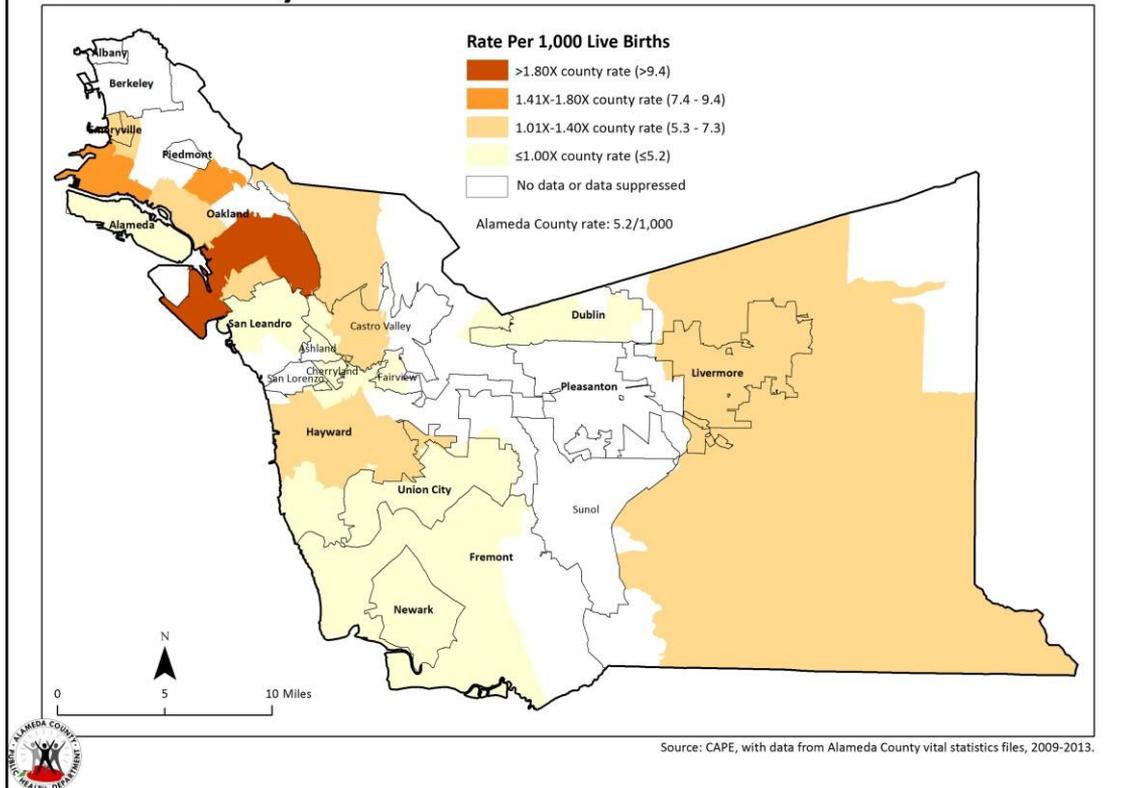
Infant Mortality

Infant mortality is defined as the number of babies who die before their first birthday per 1,000 live births.
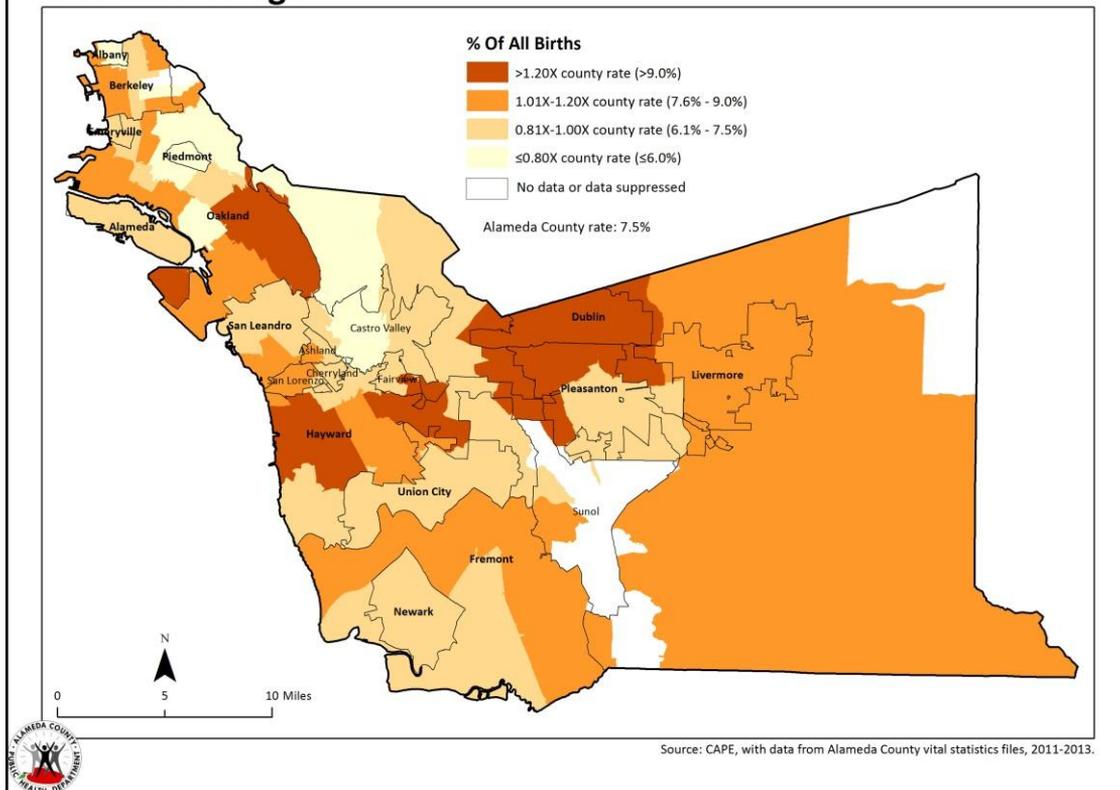
This map represents infant deaths at the zip code level for Alameda County residents for 2009-2013. The darker colors on the map correspond to higher infant mortality rates, the lighter colors correspond to lower rates.

Infant mortality rates are the highest in a portion of East Oakland. Compared to other indicators, infant mortality is relatively rare. Five years of data are shown instead of three years in order to increase the stability of the rates. Despite using five years of data, many rates by zip codes are too unstable to present. Overall, infant mortality is in neighborhoods with high poverty rates.

In 2009-2013 in Alameda County, there was an average of 101 infant deaths per year, a rate of 5.2 infant deaths per 1,000 births. For those zip codes with ten or more infant deaths in 2009-2013, the lowest was 3.5 per 1,000 live births and the highest infant mortality rate was 13.9.

For more information about infant deaths, please see pages 76-77 at
http://www.acphd.org/media/395851/acphd_cha.pdf.

Low Birth Weight

% Of All Births

- ■ >1.20X county rate (>9.0%)
- ■ 1.01X-1.20X county rate (7.6% - 9.0%)
- ■ 0.81X-1.00X county rate (6.1% - 7.5%)
- ■ ≤0.80X county rate (≤6.0%)
- □ No data or data suppressed

Alameda County rate: 7.5%

Source: CAPE, with data from Alameda County vital statistics files, 2011-2013.

Low Birth Weight

Low birth weight is defined as a baby born alive at a weight of less than 2,500 grams (5.5 lbs).
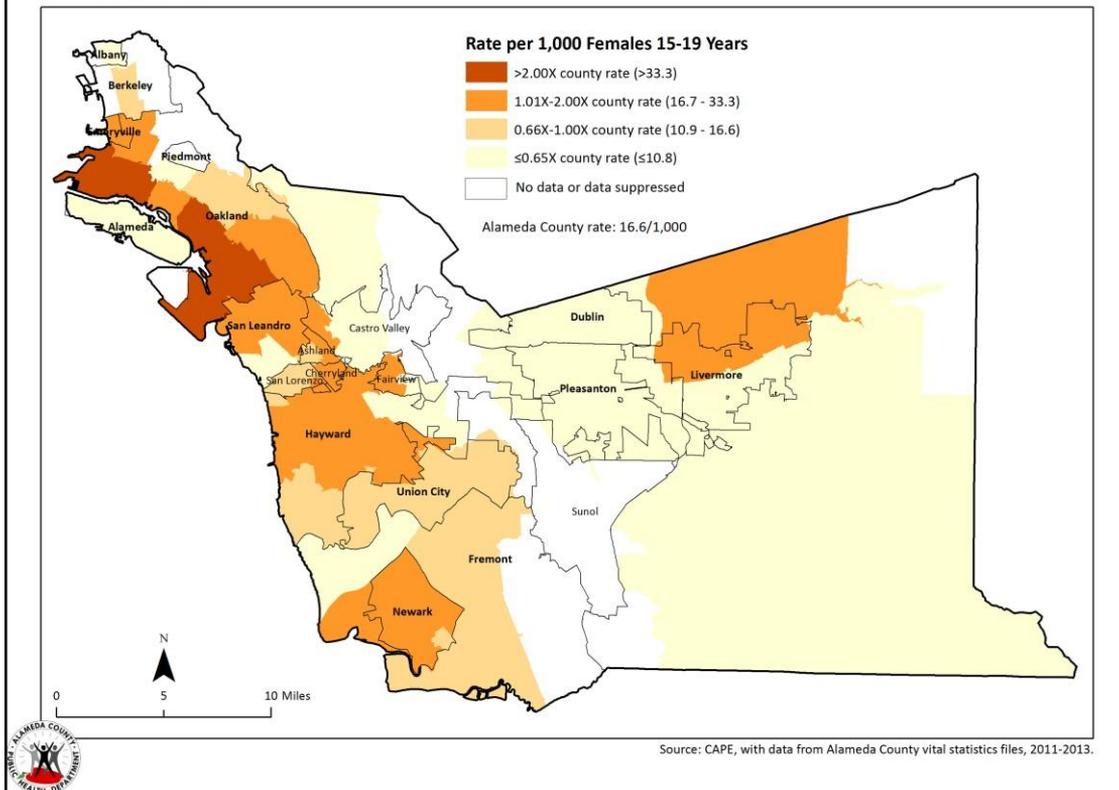
This map represents the distribution of low birth weight babies at the zip code level for Alameda County residents In 2011-2013. The darker colors on the map correspond to higher asthma hospitalization rates, the lighter colors correspond to lower rates.

Low birth weight rates are highest among residents of East Oakland, Bay Farm, as well as in portions of Hayward and Dublin. Because the reasons for low birth weight are multifactoral, the pattern is not as clear as it is for other indicators. That is, it does not track as closely to poverty rates.

From 2011 to 2013 in Alameda County, an average of about 1500 low birth weight babies were born per year, at a rate of 7.5%. (The exact average is 1,443 LBW births per year.) For those zip codes with ten or more low birth weight babies in 2011-2013, the low birth weight rate ranges from a low of 4.4% to a high of 9.8%.

For more information about teen births, please see pages 47-48 at
http://www.acphd.org/media/395851/acphd_cha.pdf.

Teen Births

Rate per 1,000 Females 15-19 Years

- >2.00X county rate (>33.3)
- 1.01X-2.00X county rate (16.7 - 33.3)
- 0.66X-1.00X county rate (10.9 - 16.6)
- ≤0.65X county rate (≤10.8)
- No data or data suppressed

Alameda County rate: 16.6/1,000

Source: CAPE, with data from Alameda County vital statistics files, 2011-2013.

Teen Births

Teen birth rate is defined as the number of births to teens ages 15-19 per 1,000 of females ages 15-19 in the population.

This map represents teen births at the zip code level for Alameda County residents in 2011-2013. The darker colors on the map correspond to higher teen birth rates, the lighter colors correspond to lower rates.

Teen birth rates are highest among residents of East Oakland and West Oakland. Teen births track very closely to high poverty areas.

In 2011-2013 in Alameda County, there were just under 800 teen births (exact number 794) at a rate of 16.4 teen births per 1,000 females ages 15-19. For those zip codes with ten or more hospitalizations in 2011-2013, the teen birth rate ranges from a low of 2.4 per 1,000 females ages 15-19 to a high of 58.9.

For more information about teen births, please see pages 50-51 at http://www.acphd.org/media/395851/acphd_cha.pdf.
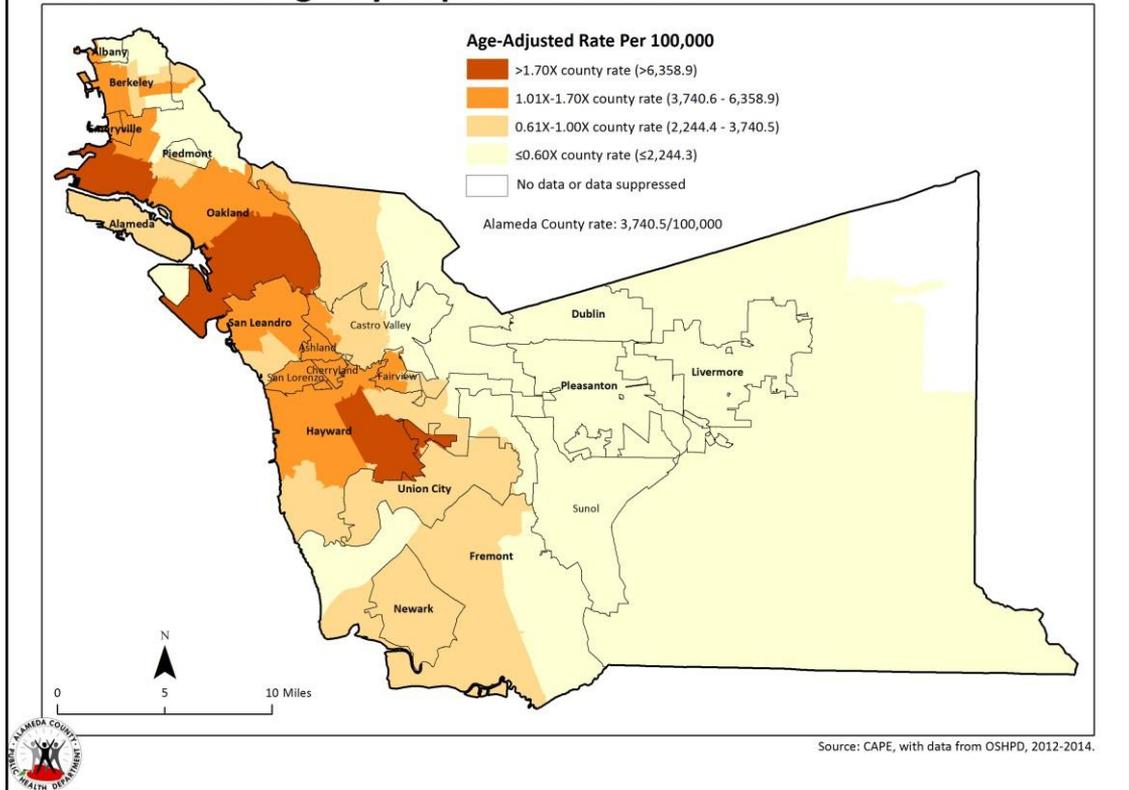
Health Care Access and Quality of Care

The following three slides show the impact of avoidable emergency department (ED) visits and hospitalizations that could have been avoided had high-quality primary and preventative outpatient care been received earlier. Preventable hospitalizations and avoidable ED visits are good measures of lack of access to primary health care or a medical home. Preventable hospitalizations are measured by prevention quality indicators (PQIs), which are a standardized set of measures developed to evaluate preventable hospitalizations at the local level.

To find additional information on prevention quality indicators in Alameda County, please go to
http://www.acphd.org/media/367609/pqi.pdf

Avoidable Emergency Department Visits

Age-Adjusted Rate Per 100,000

- >1.70X county rate (>6,358.9)
- 1.01X-1.70X county rate (3,740.6 - 6,358.9)
- 0.61X-1.00X county rate (2,244.4 - 3,740.5)
- ≤0.60X county rate (≤2,244.3)
- No data or data suppressed

Alameda County rate: 3,740.5/100,000
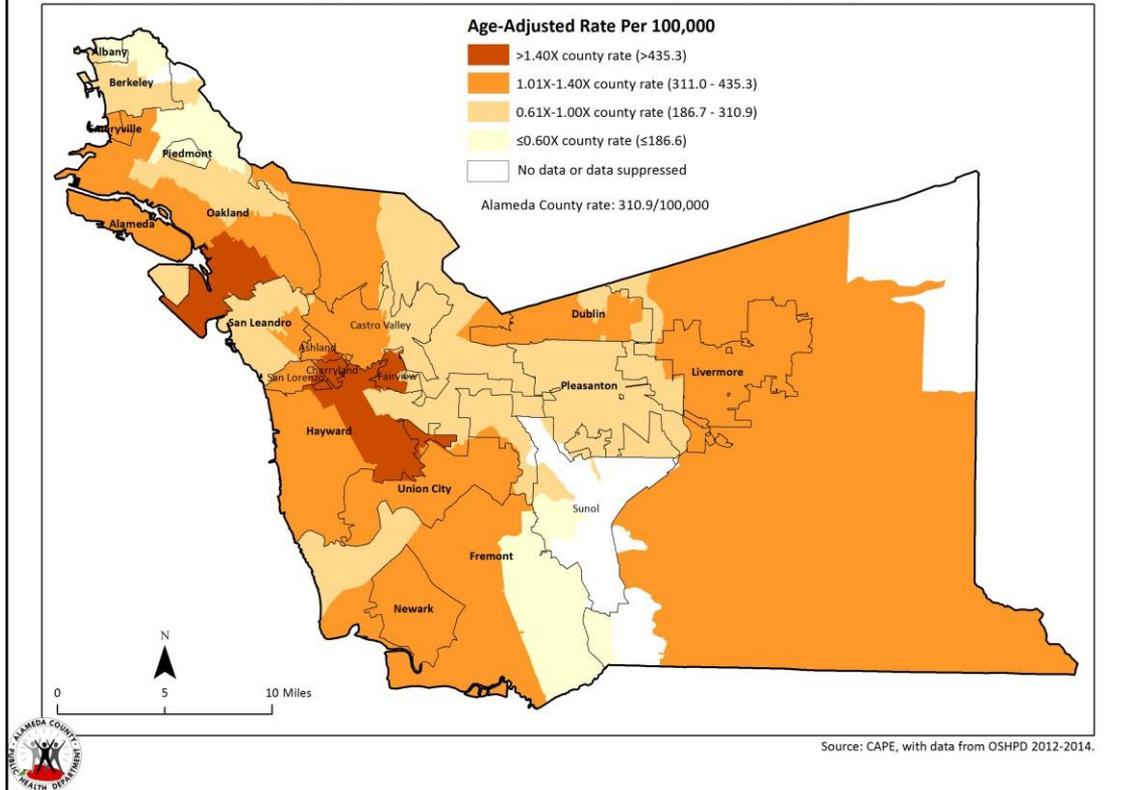
Source: CAPE, with data from OSHPD, 2012-2014.

Avoidable Emergency Department (ED) Visits

Avoidable ED visits are defined by the MediCal Managed Care Division of the California Department of Health Care Services as emergency department visits that could have been more appropriately managed by or referred to a primary care physician in an office or clinical setting. Avoidable ED visits excludes ED visits among residents less than 1 year of age. Avoidable ED visits are a good measure of lack of access to primary health care or a medical home.

This map represents avoidable ED visits at the zip code level for Alameda County residents in 2012-2014. The darker colors on the map correspond to higher avoidable ED visit rates, while the lighter colors correspond to lower rates. Avoidable ED rates are highest among residents in portions of east and west Oakland and portions of Hayward.

In 2012-2014 in Alameda County, there were 173,156 avoidable ED visits, at an age-adjusted rate of 3740.5 visits per 100,000 population. For those zip codes with ten or more avoidable ED visits in 2012-2014, the avoidable ED visit rate ranges from a low of 813.0 per 100,000 ED visits to a high of 8,765.3 per 100,000.

PQI #91 Acute Composite Preventable Hospitalizations, 18+ Years

Age-Adjusted Rate Per 100,000
- >1.40X county rate (>435.3)
- 1.01X-1.40X county rate (311.0 - 435.3)
- 0.61X-1.00X county rate (186.7 - 310.9)
- ≤0.60X county rate (≤186.6)
- No data or data suppressed

Alameda County rate: 310.9/100,000

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

Prevention Quality Indicator (PQI) #91: Acute Composite Preventable Hospitalizations, 18+ Years

The acute composite is basically a summary measure for acute disease preventable hospitalizations, and includes dehydration-related, bacterial pneumonia-related, and urinary tract infection-related preventable hospitalizations. A patient with an acute composite preventable hospitalization (PQI #91) has one or more hospitalizations indicated by one or more of the following prevention quality indicators (PQIs): dehydration hospitalizations (PQI #10), bacterial pneumonia hospitalizations (PQI #11), and urinary tract infection hospitalizations (PQI #12).
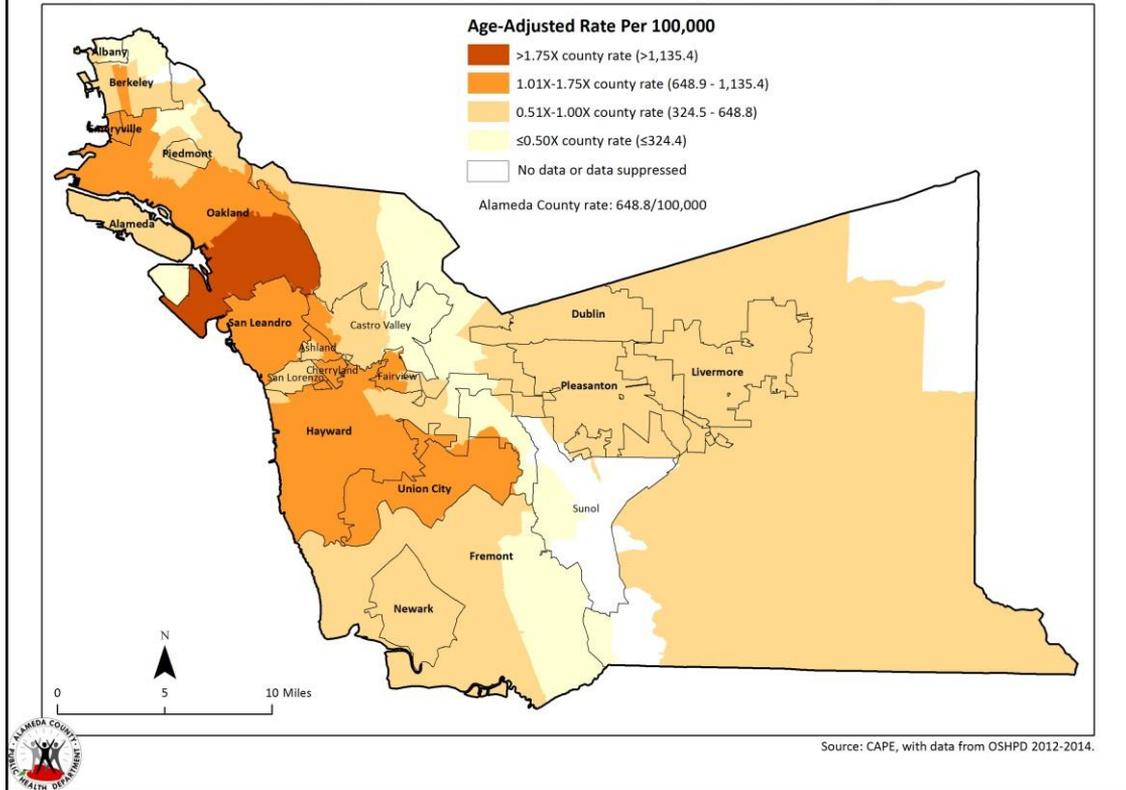
This map represents PQI #91, or acute composite preventable hospitalizations at the zip code level for Alameda County residents 18 years or more in 2012-2014. The darker colors on the map correspond to higher chronic composite preventable hospitalization rates, the lighter colors correspond to lower rates.

Acute composite preventable hospitalization rates are highest among residents of East Oakland, Cherryland, and parts of Hayward and Fairview. Other parts of Oakland (West Oakland, Southeast Hills and North Oakland), Emeryville, Union City, Newark, and parts of Castro Valley, Hayward, San Lorenzo, Fremont, Dublin, Livermore, and unincorporated Alameda County also have high rates.

In 2012-2014 in Alameda County, there were 10,929 acute composite preventable hospitalizations, at an age- adjusted rate of 310.9 hospitalizations per 100,000 population. For those zip codes with ten or more hospitalizations in 2012-2014, the asthma hospitalization rate ranges from a low of 111.3 hospitalizations per 100,000 population to a high of 538.6 hospitalizations per 100,000.

For technical specifications about the ICD-9 codes used for each of these as well as inclusion and exclusion criteria, please go to "Version 4.4, March 2012" of *Technical Specifications* in http://www.qualityindicators.ahrq.gov/Archive/default.aspx#pqi. For more information about acute composite preventable hospitalizations (PQI #91), please see http://www.acphd.org/media/367609/pqi.pdf and http://www.qualityindicators.ahrq.gov/Modules/pqi_resources.aspx.

PQI #92 Chronic Composite Preventable Hospitalizations, 18+ Years

Age-Adjusted Rate Per 100,000

- >1.75X county rate (>1,135.4)
- 1.01X-1.75X county rate (648.9 - 1,135.4)
- 0.51X-1.00X county rate (324.5 - 648.8)
- ≤0.50X county rate (≤324.4)
- No data or data suppressed

Alameda County rate: 648.8/100,000

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

Prevention Quality Indicator (PQI) #92: Chronic Composite Preventable Hospitalizations, 18+ Years

The chronic composite is basically a summary measure for chronic disease preventable hospitalizations, and includes diabetes-related, respiratory-related, and circulatory-related preventable hospitalizations. Specifically, a patient with a chronic composite preventable hospitalization (PQI #92) has one or more hospitalizations indicated by one or more of the following PQIs: diabetes short-term complications, diabetes long-term complications, chronic obstructive pulmonary disease (COPD) or asthma in older adults, hypertension, congestive heart failure (CHF), angina without procedure, uncontrolled diabetes, asthma in younger adults, and lower-extremity amputation among patients with diabetes.

This map represents PQI #92 for zip codes for Alameda County residents 18 years or more in 2012-2014. The darker colors on the map correspond to higher chronic composite preventable hospitalization rates, the lighter colors correspond to lower rates. Chronic composite preventable hospitalization rates are highest among residents of east Oakland. Other parts of Oakland also have high rates.

In 2012-2014 in Alameda County, there were 23,293 chronic composite preventable hospitalizations, at an age- adjusted rate of 648.8 hospitalizations per 100,000 population. For those zip codes with ten or more hospitalizations in 2012-2014, the asthma hospitalization rate ranges from a low of 126.5 hospitalizations per 100,000 population to a high of 1,740.2 hospitalizations per 100,000.

A patient with a chronic composite preventable hospitalization (PQI #92) has one or more hospitalizations indicated by one or more of the following PQIs: diabetes short-term complications (PQI #1); diabetes long-term complications (PQI #3); chronic obstructive pulmonary disease (COPD) or asthma in older adults (PQI #5); hypertension (PQI #7); congestive heart failure (CHF) (PQI #8); angina without procedure (PQI #13); uncontrolled diabetes (PQI #14); asthma in younger adults (PQI#15); and lower-extremity amputation among patients with diabetes (PQI #16). For technical specifications about the ICD-9 codes used for each of these as well as inclusion and exclusion criteria, please go to "Version 4.4, March 2012" of *Technical Specifications* at http://www.qualityindicators.ahrq.gov/Archive/default.aspx#pqi. For more information about chronic composite preventable hospitalizations (PQI #92), please see http://www.acphd.org/media/367609/pqi.pdf and http://www.qualityindicators.ahrq.gov/Modules/pqi_resources.aspx.

Comments or Questions?

Community Assessment, Planning, and Evaluation (CAPE) Unit

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For additional summary information of the health status of the residents of Alameda County, please see *Alameda County Health Data Profile, 2014* at http://www.acphd.org/data-reports.aspx