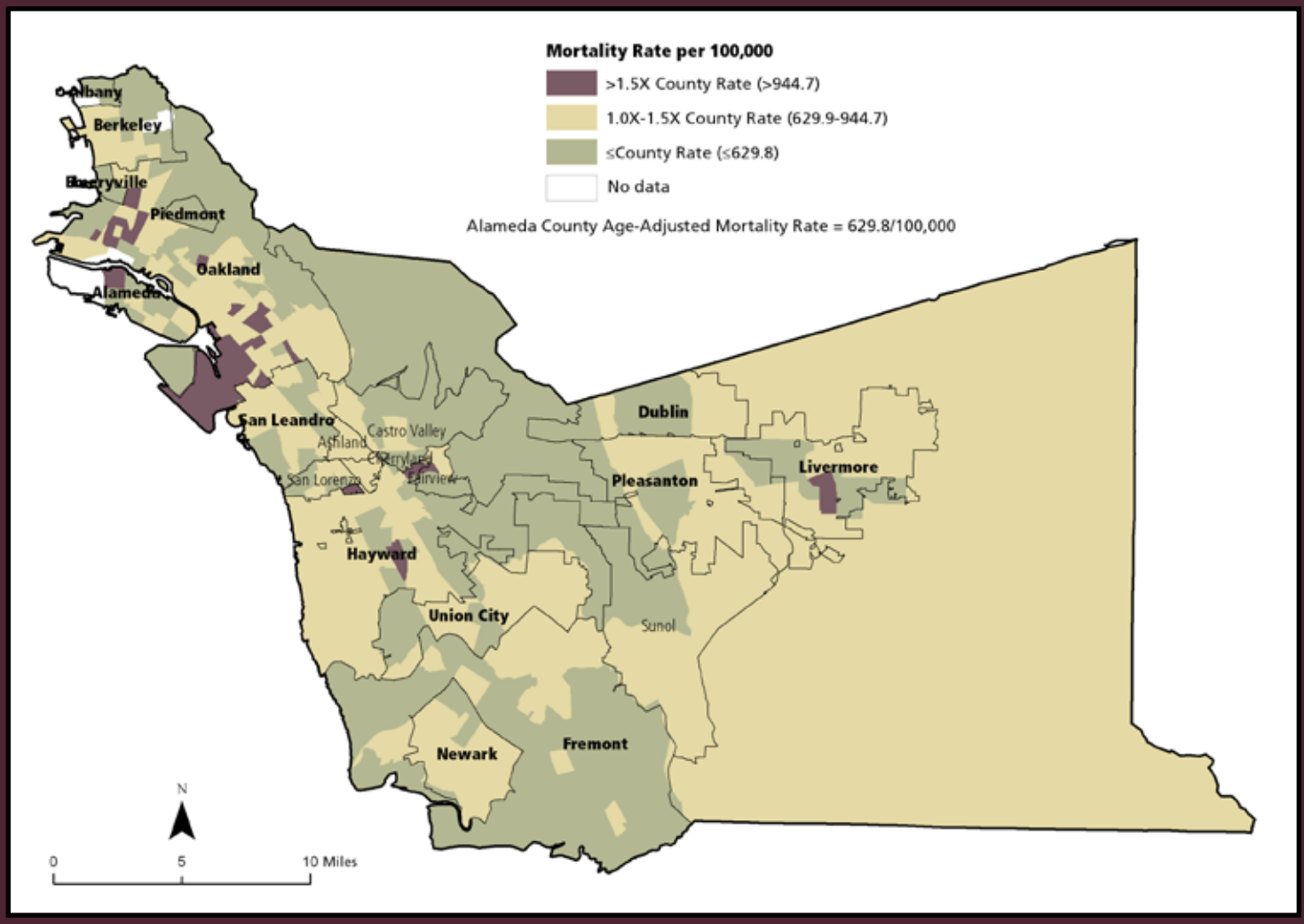
The Health of Alameda County Cities and Places

A Report for the Hospital Council of Northern and Central California, 2010



Community Assessment, Planning, Education, and Evaluation Unit
Alameda County Public Health Department

Comments and questions can be directed to:

Community Assessment, Planning, Education, and
Evaluation (CAPE) Unit

Alameda County Public Health Department
1000 Broadway, Suite 500
Oakland, California 94607
(510) 267-8020
www.acphd.org

Sandra Witt, Dr.P.H.
Deputy Director for Planning, Policy,
and Health Equity; CAPE Director

Muntu Davis, M.D., MPH
Health Officer

Anita Seigel, RN, MPH
Interim Director, Alameda County Public Health Department

Alex Briscoe
Director, Health Care Services Agency

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This report was produced by:

The Alameda County Public Health Department, Office of the Director
Community Assessment, Planning, Education, and Evaluation (CAPE) Unit

Director
Sandra Witt

Project Leads
Matt Beyers
Jane Martin
Neena Murgai

Authors
Elaine Bautista
Matt Beyers
Janet Brown
Sangsook Cho
Jane Martin
Neena Murgai

Lead Review and Quality Assurance
Sangsook Cho

Reviewers and Contributors

Bob Benjamin
Muntu Davis
Tammy Lee
Jessica Luginbuhl
Mia Luluquisen
Kelly Nanney
Rosilyn Ryals
Sandra Witt

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Executive Summary

The Hospital Council of Northern and Central California—on behalf of Alta Bates Summit Medical Center, Children's Hospital and Research Center at Oakland, Eden Medical Center, Kaiser Permanente (Oakland, Hayward and Fremont), Saint Rose Hospital, ValleyCare Health System, and Washington Hospital—commissioned the Alameda County Public Health Department to prepare *The Health of Alameda County Cities and Places: A Report for the Hospital Council of Northern and Central California, 2010.*

The purpose of the report is to inform the hospital community about the health status of county and city residents; to identify gaps in services; and to assist in developing programs that target appropriate population sub-groups and health conditions. The report includes the following health and demographic indicators selected by the Hospital Council: general health, summary measures of mortality, chronic disease, mental health and alcohol use, injury, maternal and child health, communicable disease, and access to and utilization of health care. The report provides details on morbidity and mortality at the city level that allow each hospital to understand important health problems affecting the population in their catchment areas. The report has been expanded to include data from a growing number of sources, for instance hospital emergency departments, the American Community Survey, and the California Health Interview Survey.

The Executive Summary includes key findings and three summary tables. The summary tables are included to provide a systematic overview of extensive health and demographic information. The first table summarizes health indicators by race/ethnicity and age at the county level with comparisons to the state and HP2010 objectives. The second table summarizes trends by race/ethnicity for each indicator. The third table shows high risk groups and high risk communities by each health indicator in the report.

In Alameda County, communities of color and low-income communities continue to fare poorest on most key health indicators tracked over time by our department. The Alameda County Public Health Department (ACPHD) is working in partnership with these communities to reduce unfavorable neighborhood and social conditions and improve health for all. ACPHD welcomes the continued partnership with the Hospital Council of Northern and Central California in addressing the root causes of poor health and health inequities in our communities.

Key Findings

General Health

- Fair/poor self-rated health is three times as common among adults 65 years or older than young adults. African Americans are more likely to report fair/poor health status compared to Whites. Low-income adults are over four times as likely to have fair or poor self-rated health as those from high-income households. The uninsured are over twice as likely to report fair/poor health status as the insured (27.1% versus 12.2%).

Summary Measures of Mortality

All-Cause Mortality

- In 2006-08, there were 27,728 deaths in Alameda County, with an age-adjusted mortality rate of 629.8 per 100,000. This was a 15% drop from the rate of 742.2 in 2001-03. Rates among African Americans and Pacific Islanders were substantially higher than those of other racial/ethnic groups.
- The highest all-cause mortality rates were found in Cherryland, Ashland, and Fairview. Emeryville, Albany, and Piedmont had the lowest rates.

Leading Causes of Death

- The three leading causes of death overall in Alameda County were heart disease, cancer, and stroke. This was true for females as well. However, for males, heart disease, cancer, and unintentional injuries were the three leading causes of death. Among those 1-24 year, homicide, unintentional injuries, and suicide were the leading causes of death.

Life Expectancy at Birth

- Life expectancy at birth in Alameda County was 81.4 years in 2006-08, improved by 2.2 years from 2001-03. The difference between the life expectancy at birth among Asian females and that among African American males was nearly 20 years.
- Emeryville, Piedmont, and Albany had the highest life expectancy (88.2, 85.7, and 85.4 years respectively) while Cherryland, Fairview, Oakland and Ashland had the lowest life expectancy (78.2, 79.0, 79.1, and 79.1 respectively).

Chronic Disease

Behavioral Risk Factors

Smoking

- In the county, the adult smoking prevalence rate was 13.4% in 2007. Prevalence was the highest among young adults 18-24 years compared to older adults. The multiracial group and African Americans had substantially higher smoking prevalence than other racial/ethnic groups. Low-income adults were more likely to smoke than high-income adults.

Physical Activity

- In the county, about three-fourths (74.2%) of adolescents and adults had visited a park, playground, or open space in the past month. Almost four in ten (38.5%) adults in the county reported being physically active regularly. Whites were much more likely to be physically active than African Americans (44.9% versus 29.0%).

Diet

- In the county, half of adults (50.2%) consume the recommended five servings of fruits and vegetables a day—considered an essential part of a healthy diet. Only one in five (20.2%) adolescents has the recommended daily servings of fruits and vegetables. Low-income adults are much less likely to consume fruits and vegetables than high-income adults. Over one in ten (12.7%) county residents consumes fast food (considered an unhealthy diet) three or more times a week. Consumption of fast food is 2.5 times more common among African Americans than Whites.

Overweight/Obesity

- In the county, 22.7% of adults were overweight and 30.5% were obese. Males were substantially more likely to be overweight than females. Whites and Latinos were most likely to be overweight of all racial/ethnic groups. African Americans had the highest prevalence of obesity (42.4%)—over five times the rate among Asian/Pacific Islanders and 2.4 times the rate among Whites. Prevalence of overweight increased with income; the

reverse pattern was observed for obesity. Among children, Pacific Islanders had the greatest overweight proportion (43.4%) and Asians the lowest (18.8%). One-third of males (33.2%) and one-quarter of females (25.2%) were overweight. The Sunol school district had the lowest percentage overweight (5.2%) and Emeryville the highest (50.3%).

Hypertension

- Almost three in ten adults in the county had high blood pressure. Seniors were substantially more likely to have high blood pressure than younger adults. Low-income adults are almost twice as likely to have high blood pressure as high-income adults. The insured are almost twice as likely to be diagnosed with high blood pressure as the uninsured.

Diabetes

- In Alameda County, 7.8% of adults have diabetes. The risk of diabetes increases substantially with age—elderly adults have over twice the diabetes prevalence of non-elderly adults. African Americans are twice as likely to have diabetes as Latinos. Adults who did not complete high school were almost twice as likely to have diabetes as those with a high school degree or higher.
- African American and Pacific Islander diabetes mortality rates were substantially higher than other racial/ethnic groups.
- Diabetes mortality increased until the mid 1990s and has gradually declined since.
- Hayward, San Lorenzo, and Cherryland had the highest diabetes mortality rates; Pleasanton, Berkeley, and Alameda had the lowest.

Coronary Heart Disease

- Between the ages of 35 and 74, rates of both hospitalization and mortality for coronary heart disease (CHD) were about two times higher for males than females. The CHD mortality rates for African Americans, Pacific Islanders, and Whites were significantly higher than those for other groups. African Americans and Whites also had the highest CHD-related hospitalization rates.
- Both CHD hospitalization and mortality declined steadily in the last 15 years for all racial/ethnic groups.
- The highest CHD hospitalization rates were found in Sunol, Newark, and Hayward, while the highest mortality rates were found in Fairview, Livermore, and Union City. The lowest hospitalization rates were found in Albany, Berkeley, and Dublin; the lowest mortality rates were found in Piedmont and Emeryville.

Stroke

- Pacific Islanders had the highest stroke mortality rate. African Americans were high on both stroke-related hospitalization and mortality.
- For each racial/ethnic group stroke mortality has declined steadily since the late 1990s.
- The highest stroke hospitalization rates were found in Oakland, Newark, and Hayward, while the highest mortality rates were found in Ashland and Fairview. Stroke hospitalization was lowest in Albany, Dublin, and Pleasanton. Stroke mortality lowest in Piedmont, Cherryland, Pleasanton, and Fremont.

Asthma

- Lifetime asthma prevalence is the highest among school-aged children 5-17 years as well as among African Americans. Both ED and inpatient hospital visits are most common among children under five years, particularly male children, and most common among African Americans.
- African American asthma hospitalization rates have declined significantly in the past decade.

- Oakland, San Leandro, and Hayward had substantially higher rates of asthma ED visits compared to other cities. The lowest rates were found in the Tri-Valley communities of Pleasanton, Dublin, and Livermore. By all measures, Alameda County has an asthma morbidity burden well above California.

Cancer

All Cancers Combined

- Both incidence and mortality rates of all types of cancer were higher among men than women after 55 years, and the gender gap widened with increasing age. Whites had the highest incidence of all cancers combined, 1.4 times that for Asian/Pacific Islanders. African Americans had a significantly higher mortality than any other racial/ethnic group.
- Both the incidence of all cancers and death from all cancers declined for all racial/ethnic groups in the last 15 to 20 years.
- Piedmont had the highest and Cherryland had the lowest cancer incidence in the county. Ashland, Newark, San Lorenzo, and Oakland had higher cancer mortality than the county.

Lung Cancer

- The highest lung cancer incidence and mortality rates were found among males over 75 years. African Americans had a significantly higher burden of lung cancer incidence and mortality than all other racial/ethnic groups.
- Both lung cancer incidence and mortality have declined over the past 20 years; mortality among African Americans has dropped significantly since 2001-03.
- The cities of Alameda, Oakland, and Livermore had the highest lung cancer incidence, while Ashland and Cherryland had the highest lung cancer mortality. Both incidence and mortality were lower in Berkeley than any other city.

Colorectal Cancer

- The incidence of colorectal cancer was significantly higher among men than women and among African Americans and Latinos compared to other groups. Latino males were twice as likely to die of colorectal cancer as Latino females.
- Colorectal cancer incidence and mortality have both declined overall since the early 1990s. However, the mortality rate among Latinos has increased in recent years.
- The incidence of new cases was highest in San Lorenzo, Newark, and Ashland, while mortality was highest in Cherryland and Piedmont. Union City, Alameda, and Berkeley had the lowest incidence, and Fremont, Livermore, and Berkeley had the lowest mortality from colorectal cancer.

Female Breast Cancer

- The risk of women developing breast cancer increases around 35 years, and more sharply among postmenopausal women 50 years or older. White women had significantly higher breast cancer incidence than women of all other racial/ethnic groups. African American women had a significantly higher mortality rate than Asian and Latino women.
- Despite fluctuations, breast cancer incidence overall has changed little since the early 1990s. Asian/Pacific Islanders have experienced a significant increase over this time period. Breast cancer mortality has declined over this period.
- Piedmont, Albany, and Livermore had the highest incidence, while Newark and Dublin had the highest breast cancer mortality. The lowest incidence was found in Ashland, while the lowest mortality was found in Pleasanton.

Prostate Cancer

- The incidence of prostate cancer is about 100 times higher among men 50 years or older than among younger men. Prostate cancer mortality also increases sharply with age, especially after 50 years. Both incidence and mortality rates are significantly higher among African Americans than any other racial/ethnic groups. For all racial/ethnic groups combined, the mortality rates from prostate cancer declined significantly after 1990 while incidence rates declined significantly after 2000.
- Prostate cancer incidence was highest in Fairview, Berkeley and Piedmont while mortality was highest in Livermore, Oakland, and Pleasanton. Both incidence and mortality were low in Hayward.

Mental Health

Mental Health and Receipt of Mental Health Services

- In Alameda County 8.9% of adults had experienced psychological distress in the past year. Women were much more likely to report psychological distress than men. Younger adults below 40 years were over twice as likely to experience psychological distress as older adults.
- Nearly one in five adults reported the need to see a professional for mental health issues in the past year. Women and younger adults were more likely to need professional help for their mental health than men or older adults.
- African Americans were about three times as likely to need professional help for mental health or alcohol use as Asian/Pacific Islanders. Among those who needed professional help for their mental health, four in ten did not receive help. Women and younger adults were more likely to not receive professional help for mental health than men or older adults. Among adolescents, 14.1% had received psychological counseling in the past year.
- In the county, 16.1% of adults saw a provider for mental health or alcohol use. More women and younger adults saw a provider for their mental health than men or older adults. Among those who saw any provider for their mental health, 41.4% saw a mental health provider, 33.2% both a mental health and primary care provider, and 25.4% saw a primary care provider.

Mental Disorders

- In the county, emergency department (ED) visits for mental disorders also varied by subgroup and location. The most common primary diagnoses among both age groups were drug abuse, neurotic disorders, nonorganic psychoses, and alcohol dependence.
- Alcohol dependence is less common among the younger age groups. Rates of ED visits for mental disorders were highest among males 45-54 years and females 15-24 years. African Americans had the highest rate and Asian/Pacific Islanders the lowest.
- Hayward had the highest rate; Dublin, Pleasanton, and Albany had the lowest rates—less than half the Hayward rate.

Alcohol Use: Binge Drinking

- In the county, 27.5% of adults reported binge drinking in the past year. Multiracial persons and Whites had the highest binge drinking rates of all racial/ethnic groups, and Asian/Pacific Islanders the lowest. Binge drinking is substantially more common among young adults than older adults, and more common among men than among women. Low- and moderate-income adults were less likely to binge drink than high-income adults.

Injury

Unintentional Injury

- Emergency department (ED) visits for unintentional injury were most common among younger males and older females. Mortality from unintentional injuries was higher among males than females in all but the

youngest age groups. Rates of ED visits were highest among African Americans and Whites while rates of mortality were highest among African Americans and Pacific Islanders.

- The rate of unintentional injury ED visits was highest in Sunol, Alameda, and Hayward. Fremont, Union City, and Livermore had the lowest rates. The rate of unintentional injury mortality was highest in Cherryland and Fairview and lowest in Dublin, San Lorenzo and Fremont.

Motor Vehicle Crash Mortality

- Mortality from motor vehicle crashes was higher among males than females between 15 and 64 years. The African American rate was the highest. In the county, the motor vehicle mortality rate has declined very little in the past decade.
- The motor vehicle crash mortality rate was highest in Castro Valley, Oakland, and Hayward and lowest in Berkeley.

Homicide and Assault

- Both homicide mortality and emergency department visits for assault-related injuries were highest among males 15-24 years. Rates were also three to 17 times higher among African American males relative to other racial/ethnic groups.
- Rates of both homicide and assault ED visits were highest in Oakland and San Leandro. The homicide rate was lowest in Fremont while the assault ED visit rate was lowest in the Tri-Valley cities of Pleasanton, Dublin, and Livermore.

Suicide

- Suicides rates were higher among males than females in every age group. The highest suicide rate was noted among the male elderly people 85 years or older. The suicide rate for Whites was approximately two times higher than any other racial/ethnic group. Suicide rates for all racial/ethnic groups declined significantly by 3.1% per year during the 1990s.
- The suicide rate was lowest in Berkeley and Union City and highest in Livermore.

Maternal and Child Health

Infant Mortality

- Infant mortality rates that had been declining for decades have tapered off in recent years. The infant mortality rate among African Americans was 2.6 times higher than the average for the county.
- Castro Valley had the highest infant mortality rate (5.8 per 1,000 live births) and Union City the lowest (3.3).

Low Birth Weight

- There has been no improvement in the percentage of low birth weight (LBW) babies in the last decade. Latinos had LBW rates lower than the county average, while African Americans had rates higher than the county average and twice that of Latinos.
- The percentage of LBW ranged from a high of 9.6% in Emeryville to a low of 4.9% in San Lorenzo.

Prenatal Care

- Only White (91.9%) and Asian (91.3%) women met the HP2010 objective of at least 90% of women receiving prenatal care (PNC) in their first trimester of pregnancy. Pacific Islanders had the lowest early PNC (72.2%).
- Sunol had the lowest early PNC rate (77.8%) and Piedmont had the highest (98.5%).

Teen Birth

- Teen birth rates which have been declining for decades have started to taper off. Beginning in 2000s, declines have been much smaller for White and African American teens and non-existent for Asian/Pacific Islanders.

For the three most recent years of data, Latino teens had rates 7.4 times higher than Asian/Pacific Islander teens and African American teens had rates 4.9 times higher than Asian/Pacific Islander teens.

- Teen birth rates ranged from a low of 4.6 per 1,000 females in Pleasanton to a high of 67.9 in Cherryland—a nearly 15-fold difference.

Childhood Immunization

- Overall 68% of children in Alameda County were up-to-date in their immunizations at two years, which was short of the HP2010 objective of at least 90%. Rates varied from a low of 59% among African Americans to a high of 78% among Asians.

Communicable Disease

H1N1 Novel Influenza 2009 (Swine Flu)

- Alameda County's H1N1 Influenza mortality rate was 2.25 per 100,000, 50% higher than the California rate of 1.5. The rate of severe illness was highest among infants (children under one year), those 50-64 years, and African Americans. Central Alameda County had the highest rate of severe H1N1 illness.

Tuberculosis

- The tuberculosis rates in Alameda County have been decreasing since the early 1990s, but continue to exceed the HP1020 objective of less than one case per 100,000. Rates among Asian/Pacific Islanders were highest, and two to three times the rate of all other races. Latinos and Whites had rates lower than the county rate.
- In the 2007-09, the rate of tuberculosis ranged from a low of 4.4 in the city of Berkeley to a high of 13.8 in San Leandro. In addition to San Leandro, Oakland, Hayward, Union City, Fremont and the city of Alameda all had rates higher than the county rate. Newark, Pleasanton, Castro Valley and Berkeley all had rates below the county rate.

HIV/AIDS

- African Americans were at greatest risk for HIV/AIDS with a rate 3.5 times the county rate (81.6 and 23.3, respectively). This was particularly true among African American males who had a rate of 121.3 per 100,000, which was 3.5 to 12 times higher than other race/ethnicity groups, and five times the county rate (23.3). The rate among African American females (46.7) was ten to 20 times higher than for other racial/ethnic groups and twice the county rate. Asian/Pacific Islanders of both sexes had the lowest rates.
- In the 2006-08, the county HIV/AIDS rate was 23.3 per 100,000. City rates ranged from a low of 6.4 in Livermore to a high of 85.0 in Emeryville. The Oakland and San Leandro rates exceeded the county rate.

Chlamydia

- Chlamydia case rates were highest among females 15-19 and 20-24 years, particularly African Americans. From 1998 to 2009, chlamydia rates for both males and females increased.
- The highest rates of chlamydia in Alameda County were found in Oakland and Ashland. Oakland cases account for 41% of cases in the county. Piedmont had the lowest rate (just one-eighth the Oakland rate) followed by Pleasanton and Dublin.

Gonorrhea

- The gonorrhea infection rate was highest among females 15-19 years in Alameda County, but the overall case rates were similar among males and females of the same racial/ethnic groups. The rate among African Americans was several times higher than other racial/ethnic groups.

- The highest rate of gonorrhea infection in Alameda County was found in Oakland, where the rate was nearly twice the countywide rate of 127.6. Rates in Emeryville and Ashland also were above the county rate. The lowest rates were found in the Tri-Valley cities of Livermore, Pleasanton, and Dublin.

Primary and Secondary Syphilis

- There were 207 primary and secondary syphilis cases reported in Alameda County from 2007 to 2009. The vast majority of cases, 93%, were male, and 84% of these were men who have sex with men. The syphilis case rate among African Americans was four to ten times higher than other racial/ethnic groups. The rate of primary and secondary syphilis increased significantly over the entire period from 1998 to 2009.
- The rate of primary and secondary syphilis was highest in the Oakland Area and North County regions, about four to five times the rates in the Central and South County regions.

Access to and Utilization of Health Care

Insurance Coverage

- In Alameda County, an estimated 12.6% of non-elderly adults were uninsured in 2005-2007. Adults below 25 years were over twice as likely to be uninsured compared to older adults. Almost one in four Latinos were uninsured, four times the percentage of uninsured Whites. Asian/Pacific Islanders and African Americans also had over twice the rate of uninsured as Whites. Low-income, non-citizens, those with limited English proficiency, and recent immigrants were much less likely to be insured than high-income, U.S-born citizens, the English proficient, and long-term immigrants. Oakland and had the highest rates of uninsured in the county—one in five residents. Berkeley had the highest rate of uninsured children. Pleasanton had the lowest rate of uninsured children and non-elderly adults in the county.
- In Alameda County over six in ten residents (61.9%) has employment-based health insurance. Public programs (Medicaid, Medicare, Healthy Families and the Children's Health Insurance) cover 23.5% of residents, and those who purchase insurance privately comprise a small proportion—5.9% of county residents.
- Half of seniors in the county lacked dental insurance. One in five non-elderly adults and one in ten children lacked dental insurance coverage.

Usual Source of Care and Delay in Care

- In the county, one in ten adults (10.3%) did not have a usual place to go for most of their health care. Young adults and the uninsured were substantially more likely to lack a usual source of care than other groups. The uninsured are also more likely than the insured to delay getting needed medical care.

Use of Prevention Services: Cancer Screening

- Two-thirds of women in the county had received a mammogram in the last two years. Asian/Pacific Islander women were least likely to have a mammogram. Low-income women had the highest mammography screening rates of all income groups. Only one in four uninsured women had received a mammogram.
- Eight in ten women in the county had been screened for cervical cancer with the Pap smear test. Young women below 25 years, Asian/Pacific Islanders, and the uninsured were much less likely to be screened than other groups. High-income women had the highest screening rates of all income groups.
- Over three-fourths of adults had been screened for colorectal cancer. African Americans and Latinos had lower rates of colorectal cancer screening than other racial/ethnic groups. Seniors and the insured were substantially more likely to be screened for colorectal cancer than other groups.
- Only one in four men 40 years or older had received a PSA test. Seniors were twice as likely as non-elderly men to have a PSA test. African American and White men had significantly higher rates of PSA screening than Asian/Pacific Islander and Latino men.

Table 1.1: Key Health Indicator Summary by Race/Ethnicity and Gender, Alameda County

Indicator			Healthy People 2010 Objective	California Rate	California Year(s)	Alameda County Rate	Alameda County Year(s)	African American	American Indian	Asian	Native Hawaiian, Pacific Islander	Latino	White	Multirace	Female	Male
	All-Cause Mortality		X	666.4	2006-08	629.8	2006-08	962.1	423.6	411.6	1,070.7	514.9	663.0	247.2	539.4	742.3
Chronic Disease	Smoking †	Prevalence (%)	≤12.0	14.2	2005 & 2007	13.4	2005 & 2007	16.4	✶	13.2		● 11.5	13.0	29.8	● 9.9	16.2
	Hypertension	Prevalence (%)	≤14.0	26.1	2007	28.6	2007	40.3	✶	26.3		26.1	26.6	44.0	27.7	29.5
	Obesity	Prevalence (%)	≤15.0	22.7	2007	22.7	2007	42.4	✶	● 8.3		32.7	17.5	✶	22.8	22.5
	Coronary Heart Disease	Hospitalization	X	X	X	924.6	2006-08	1,098.6	364.7	668.5		710.9	958.2	X	718.3	1,184.1
		Mortality	≤162.0	● 137.1	2006-08	● 115.3	2006-08	172.3	● 98.6	● 75.9	256.0	● 81.8	● 123.1	● 35.5	● 90.8	● 147.2
	Stroke	Hospitalization	X	X	X	432.2	2006-08	761.7	173.9	330.0		320.9	392.9	X	401.2	471.5
		Mortality	≤50.0	● 40.8	2006-08	● 40.7	2006-08	64.4	✶	● 37.6	✶	● 34.4	● 38.0	✶	● 39.8	● 41.3
	Diabetes	Prevalence (%)	X	7.8	2007	7.8	2007	11.8	✶	7.9		5.7	6.3	✶	6.4	9.3
		Mortality	X	21.1	2006-08	21.4	2006-08	40.2	✶	16.3	83.2	27.6	17.3	✶	18.9	24.6
	All Cancer	Incidence	X	464.8	2005-07	440.4	2005-07	464.3	✶	328.1		462.1	474.5	✶	420.9	474.0
		Mortality	≤158.6	● 155.9	2006-08	● 150.0	2006-08	213.5	● 78.0	● 111.4	186.0	● 119.9	159.6	● 66.4	● 132.2	176.2
	Lung Cancer	Incidence	X	52.5	2005-07	48.0	2005-07	68.4	✶	39.5		46.0	47.2	✶	43.1	55.0
		Mortality	≤43.3	● 38.1	2006-08	● 35.6	2006-08	55.3	✶	● 26.4	✶	● 21.8	● 37.7	● 15.8	● 29.8	43.9
	Female Breast Cancer	Incidence	X	149.3	2005-07	148.8	2005-07	131.8	✶	124.5		142.1	170.6	✶	148.8	X
		Mortality	≤21.3	● 21.2	2006-08	● 21.0	2006-08	28.1	✶	● 14.1	✶	● 15.4	23.6	✶	● 21.0	X
	Prostate Cancer	Incidence	X	142.4	2005-07	145.5	2005-07	180.4	✶	79.2		171.5	141.2	✶	X	145.5
		Mortality	≤28.2	● 21.8	2006-08	● 21.2	2006-08	52.1	✶	● 8.7	✶	● 17.6	● 20.7	✶	X	● 21.2
	Colorectal Cancer	Incidence	X	45.8	2005-07	43.7	2005-07	52.8	✶	35.6		51.6	43.4	✶	39.9	48.3
		Mortality	≤13.7	14.7	2006-08	15.6	2006-08	23.6	✶	● 10.2	✶	18.6	15.9	✶	● 13.2	18.7
	Asthma (All Ages)	Prevalence (%)	X	13.6	2007	16.6	2007	22.3	✶	13.2		16.0	16.5	✶	16.8	16.4
		ED Visits	X	366.4	2008	505.2	2006-08	1,452.2	268.5	141.0	349.1	350.4	381.7	X	528.8	478.0
		Hospitalization	X	90.8	2008	145.8	2006-08	387.7	55.9	82.3		106.3	104.4	X	162.4	125.8
	Asthma (<5 Years)	ED Visits	≤800.0	883.4	2008	1,427.1	2006-08	4,566.8	✶	● 458.4	1,002.7	1,252.4	888.4	X	1,056.2	1,783.6
		Hospitalization	≤250.0	● 220.1	2008	511.0	2006-08	1,387.0	✶	311.6		406.5	305.4	X	377.3	639.7

Table 1.1: Key Health Indicator Summary by Race/Ethnicity and Gender, Alameda County (continued)

	Indicator		Healthy People 2010 Objective	California Rate	Year(s)	Alameda County Rate	Year(s)	African American	American Indian	Asian	Native Hawaiian, Pacific Islander	Latino	White	Multirace	Female	Male
Mental Health	Mental Disorder	ED Visits	X			925.1	2006-08	1,533.3	512.2	218.6	341.3	670.5	1,156.1	X	896.5	953.2
	Binge Drinking	Prevalence (%)	13.4	29.7	2007	27.5	2007	20.9	✶	17.4		27.6	33.6	57.3	23.4	31.9
Maternal and Child Health	Infant Mortality		≤4.5/1,000 live births	5.2	2004-06	● 4.5	2006-08	11.7	✶	● 2.4		● 4.2	● 3.6	✶	X	X
	Low Birth Weight (%)		≤5.0% of live births	5.7	2008	7.2	2006-08	11.9	✶	7.4	5.6	5.5	6.7	6.9	X	X
	First Trimester Prenatal Care (%)		90% or more of live births	85.9	2006	88.1	2006-08	85.1	85.5	● 91.3	72.2	84.1	● 91.9	87.1	X	X
	Teen Births (Age 15-19) ‡		X	35.2	2008	26.5	2006-08	35.1	✶	5.9	31.8	51.8	9.6	✶	X	X
	Childhood Immunization (%)		90% of all children by age 2	78.0	2009	68	2009	59	✶	78	✶	67	70	✶	X	X
Injury	Unintentional Injury	ED Visits	X			3,799.8	2006-08	5,594.4	X	1,346.3	1,658.7	2,677.5	5,076.6	X	3,474.0	4,092.4
		Mortality	≤17.1	29.7	2006-08	26.9	2006-08	42.5	✶	● 13.7	36.9	26.0	29.8	● 15.4	● 17.0	37.8
	Motor Vehicle Crash	Mortality	≤8.0	10.3	2006-08	● 6.9	2006-08	10.2	✶	● 3.8	✶	8.4	● 6.9	✶	● 4.0	9.9
	Homicide/ Assault	ED Visits	X			328.6	2006-08	864.1	212.4	88.8	84.4	254.2	260.6	X	243.0	414.3
		Mortality	≤2.8	6.3	2006-08	10.7	2006-08	43.8	✶	● 2.2	✶	9.1	● 2.5	✶	3.1	18.2
	Suiicude	Mortality	≤4.8	9.4	2006-08	7.7	2006-08	● 4.5	✶	5.2	✶	● 4.6	11.8	✶	● 3.8	12.1
	HIV/AIDS	Incidence	X	X	2007	23.3	2006-08	81.6	✶	6.1		15.7	17.3	X	9.7	37.5
	Chlamydia	Incidence	X	390.8	2008	448.5	2007-09	1,922.0	288.1	154.6		463.3	139.3	X	630.6	261.7
	Gonorrhea	Incidence	≤19.0	66.7	2008	127.6	2007-09	733.7	199.2	23.5		51.5	38.8	X	124.2	131.1
	Syphilis (Primary and Secondary)	Incidence	X	5.7	2008	4.5	2007-09	15.6	✶	1.6		2.7	3.7	X	0.6	8.4
	Tuberculosis	Incidence	≤1.0	6.4	2009	9.8	2007-09	12.2	✶	25.0		6.3	1.8	X	7.8	11.8

● HP2010 objective met; X Data not available or applicable; ✶Rate cannot be calculated due to small numbers; † Gender rates are 2007; ‡ Rates are per 1,000 females aged 15-19.

Note: Unless otherwise stated, rates are per 100,000 population and are annual averages. Rates for chronic disease, all cause mortality, and injury are age-adjusted by the direct method to US 2000 standard population. Healthy People 2010 Objectives (Midcourse review) are not available for many indicators. Birth, death, and ED data show Asians and Pacific Islanders separately.

Table 1.2: Key Health Indicators Trends, Alameda County

Indicator		Trend Overall	Health Inequity	African American	Asian/API	Latino	White
All-Cause Mortality		↓	↓	↓	↓	↓	↓
Coronary Heart Disease	Hospitalization	↓	↓	↓	↓	↓	↓
	Mortality	↓	↓	↓	↓	↓	↓
Stroke	Hospitalization	↓	⇔	↓	↓	↓	↓
	Mortality	↓	↓	↓	↓	↓	↓
Diabetes	Mortality	⇔	↓	↓	↓	⇔	⇔
All Cancer	Incidence	↓	↓	↓	↓	↓	↓
	Mortality	↓	↓	↓	↓	↓	↓
Lung Cancer	Incidence	↓	↓	↓	↓	↓	↓
	Mortality	↓	↓	↓	↓	⇔	↓
Female Breast Cancer	Incidence	↓	↓	⇔	↑	⇔	⇔
	Mortality	↓	↓	↓	⇔	⇔	↓
Prostate Cancer	Incidence	↓	↓	↓	⇔	⇔	↓
	Mortality	↓	↓	↓	↓	⇔	↓
Colorectal Cancer	Incidence	↓	⇔	↓	↓	↓	↓
	Mortality	↓	⇔	⇔	↓	↑	↓
Asthma (All Ages)	Hospitalization	↓	⇔	↓	↓	↓	↓
Asthma (<5 Years)	Hospitalization	↓	⇔	↓	⇔	↓	↓

Table 1.2: Key Health Indicators Trends, Alameda County (continued)

	Indicator		Trend Overall	Health Inequity	African American	Asian/API	Latino	White
Maternal and Child Health	Infant Mortality (%)		↓	↑	⇔	↓	⇔	↓
	Low Birth Weight (%)		⇔	⇔	⇔	⇔	⇔	↑
	First Trimester Prenatal Care (%)		↓	⇔	↓	↓	↓	↓
	Teen Births (Age 15-19) ‡		↓	↓	↓	↓	↓	↓
	Unintentional Injury	Mortality	↑	↑	↑	↓	↑	↑
	Motor Vehicle Crash	Mortality	⇔	⇔	⇔	↓	⇔	⇔
	Homicide	Mortality	↑	↑	↑	⇔	↑	⇔
	Suicide	Mortality	⇔	⇔	⇔	⇔	⇔	⇔
	HIV/AIDS	Incidence	⇔	⇔	⇔	⇔	⇔	⇔
	Chlamydia	Incidence	↑	X	X	X	X	X
	Gonorrhea	Incidence	⇔	X	X	X	X	X
	Syphilis (Primary and Secondary)	Incidence	↑	X	X	X	X	X
	Tuberculosis	Incidence	↓	↓	↓	↓	↓	↓

↑ Increasing (upward) trend (or worsening ↓ trend); ↓ Declining (downward) trend; ⇔ Inconclusive, variable, no clear trend; X Data not available or applicable.

Notes: American Indian and multiracial groups are not presented because of small numbers. 1. Health inequity is measured by the gap between the group with the highest rate and the group with the lowest rate. Trend arrows are intended to summarize the most notable trends; in some cases this covers the entire time period and in some cases only the most recent years.

Table 1.3: Key Health Indicator Summary by City and High-Risk Groups, Alameda County

Indicator			Healthy People 2010 Objective	Alameda County Rate	High-Risk Groups	High-Risk Communities	Low-Risk Communities Among Places With At Least Ten Cases
	All-Cause Mortality		X	629.8	African American, Pacific Islander, White	Cherryland, Ashland, Fairview, Oakland, Livermore, Hayward	Emeryville, Albany , Piedmont, Dublin, Berkeley, Fremont
Chronic Disease	Smoking †	Prevalence (%	≤12.0	● 13.4	Ages 18-24, Multirace, high poverty	na	na
	Hypertension	Prevalence (%)	≤14.0	● 28.6	Ages 65+, Multirace, African American, High poverty	na	na
	Obesity	Prevalence (%)	≤15.0	● 22.7	Ages 40-64, African American, Latino, High poverty	na	na
	Coronary Heart Disease	Hospitalization	X	924.6	Elderly, African American, White	Sunol, Newark, Hayward, Union City, Fremont, San Lorenzo	Albany, Berkeley, Dublin
		Mortality	≤162.0	● 115.3	Pacific Islander, African American, White	Fairview, Livermore , Union City , Cherryland, Oakland	Piedmont, Emeryville, Berkeley
	Stroke	Hospitalization	X	432.2	Elderly, African American	Hayward, Newark, Oakland, Union City	Albany, Dublin, Pleasanton
		Mortality	≤50.0	● 40.7	African American, Pacific Islander	Ashland, Fairview, Oakland	Piedmont, Fremont
	Diabetes	Prevalence (%)	X	7.8	Males, Ages 65+, African American, High school or less	na	na
		Mortality	X	21.4	African American, Pacific Islander	Hayward, San Lorenzo	Pleasanton, Berkeley
	All Cancer	Incidence	X	440.4	Males 65+	Piedmont, Pleasanton, Livermore, Berkeley	Cherryland, Hayward
		Mortality	≤158.6	● 150.0	African American, White, Pacific Islander	Ashland, Newark, San Lorenzo, Oakland	Albany
	Lung Cancer	Incidence	X	48.0	Males 75+, African American	Alameda, Oakland	Berkeley
		Mortality	≤43.3	● 35.6	Males 75+, African American, White	Ashland, Cherryland, San Leandro, Hayward	Berkeley, Dublin
	Female Breast Cancer	Incidence	X	148.8	Ages 50+, White	Piedmont, Albany, Livermore	Ashland, Hayward, San Leandro
		Mortality	≤21.3	● 21.0	African American	Newark, Dublin, San Leandro	Pleasanton, Union City
	Prostate Cancer	Incidence	X	145.5	Ages 50+, African American, Latino	Fairview, Berkeley , Piedmont	Newark, Alameda, Hayward
		Mortality	≤28.2	● 21.2	African American	Livermore, Oakland	Hayward
	Colorectal Cancer	Incidence	X	43.7	Ages 50+, African american, Latino	San Lorenzo, Newark, Ashland	Union City, Alameda
		Mortality	≤13.7	● 15.6	African American	Cherryland, Piedmont, Newark, San Lorenzo	Fremont, Livermore, Berkeley
	Asthma (All Ages)	Prevalence (%)	X	16.6	Ages 5-17, African American	na	na
		ED Visits	X	505.2	African American, Children <5	Oakland, Hayward, San Leandro	Pleasanton, Dublin, Livermore
		Hospitalization	X	145.8	African American, Boys < 5, Females 75-84	Oakland, San Leandro	Dublin, Pleasanton, Livermore
	Asthma (<5 Years)	ED Visits	≤800.0	● 1,427.1	African American, Boys	Oakland, Hayward, San Leandro	Pleasanton, Livermore, Dublin
		Hospitalization	≤250.0	● 511.0	African American, Boys	Oakland, San Leandro	Pleasanton, Dublin, Livermore

Table 1.3: Key Health Indicator Summary by City and High-Risk Groups, Alameda County (continued)

Indicator			Healthy People 2010 Objective	Alameda County Rate	High-Risk Groups	High-Risk Communities	Low-Risk Communities Among Places With At Least Ten Cases
Mental Health	Mental Disorder	ED Visits		925.1	Males 45-54, Females 15-24, African American, White	Hayward, Oakland, San Lorenzo, Sunol	Dublin, Pleasanton, Albany
	Binge Drinking	Prevalence (%)	≤13.4	● 27.5	Ages 18-24, Multirace, White, Higher income	na	na
Maternal and Child Health	Infant Mortality (%)		≤4.5/1,000 live births	● 4.5	African American	Castro Vallley, Berkeley, Newark, Oakland	Union City, Livermore, Hayward
	Low Birth Weight (%)		≤5.0% of live births	● 7.2	African American	Emeryville, Dublin, Pleasanton	San Lorenzo, Cherryland, Albany
	First Trimester Prenatal Care (%)		90% or more of live births	● 88.1	Pacific Islander, Latino, African American	Sunol, Cherryland, Ashland, Hayward	Piedmont, Dublin, Pleasanton
	Teen Births (Age 15-19) ‡		X	26.5	Latino, African American	Cherryland, Ashland, Hayward, Oakland	Pleasanton, Berkeley Dublin
	Childhood Immunization (%)		90% of all children by age 2	● 68	African American	na	na
Injury	Unintentional Injury	ED Visits	X	3,799.8	Males <35, Elderly 75+, African American, White	Sunol, Alameda	Fremont, Union City, Livermore
		Mortality	≤17.1	● 26.9	Elderly, African American, Pacific Islander	Cherryland, Fairview, Ashland, Oakland	Dublin, San Lorenzo, Fremont, Alameda
	Motor Vehicle Crash	Mortality	≤8.0	● 6.9	Males 15-24, African American	Castro Valley, Oakland, Hayward	Berkeley
	Homicide/ Assault	ED Visits	X	328.6	Males, Youth 15-24, African American	Oakland, San Leandro, Hayward	Pleasanton, Dublin, Livermore
		Mortality	≤2.8	● 10.7	Males 15-34, African American	Oakland	Fremont, Alameda
	Suicide	Mortality	≤4.8	● 7.7	Males 75+, White	Livermore, Castro Valley, Alameda	Berkeley, Union City
Communicable Disease	HIV/AIDS	Incidence	≤1.0	● 23.3	Males, Ages 20-49, Men who have sex with men	Emeryville, Oakland	Livermore, Union City, Fremont
	Chlamydia	Incidence	X	448.5	Females 15-24, African American	Oakland, Ashland	Piedmont, Pleasanton, Dublin
	Gonorrhea	Incidence	≤19.0	● 127.6	Youth 15-24, African American	Oakland, Emeryville, Ashland	Livermore, Pleasanton, Dublin
	Syphilis (Primary and Secondary)	Incidence		4.5	Males, Men who have sex with men, African American	Oakland Area, North County	South County, Central County, (Tri-Valley—small numbers)
	Tuberculosis	Incidence	≤1.0	● 9.8	Asians& Pacific Islanders, Foreign-born residents	Oakland, San Leandro, Hayward	Berkeley, Castro valley, Pleasanton

● Met objective; ● Not met objective; ‡ Rate per 1,000 females 15-19 years. All rates are per 100,000, unless otherwise indicated.

Introduction

The Health of Alameda County Cities and Places: A Report for the Hospital Council of Northern and Central California, 2010 was prepared by the Community Assessment, Planning, Education, and Evaluation (CAPE) Unit of the Alameda County Public Health Department for the Hospital Council of Northern and Central California. It was requested on behalf of the following Alameda County acute care hospitals: Alta Bates Summit Medical Center, Children's Hospital and Research Center at Oakland, Eden Medical Center, Kaiser Permanente Oakland, Hayward and Fremont, Saint Rose Hospital, ValleyCare Health System, and Washington Hospital.

The purpose of the report is to inform the hospital community about the health status of county and city residents; to help identify gaps in services; and to assist in developing culturally appropriate programs that target population subgroups and health conditions. The report includes health and demographic indicators selected by the Hospital Council in the following areas: general health, summary measures of mortality, chronic disease, mental health and alcohol use, injuries, maternal and child health. In addition, for the first time, the report includes a chapter on communicable diseases and access to and utilization of health care. It provides details on morbidity and mortality at the city level that allow each hospital to understand the most important health problems affecting the population in their respective catchment areas.

The report also includes socioeconomic and health indicators selected by the group of hospitals. Data have been compiled and analyzed for each city in the county and for regions of the county. Comparable data, when available, are provided for California, the United States, and Healthy People 2010 (HP2010) national objectives based on the mid-course review. Comparing characteristics of cities with the county as a whole, other cities, and HP2010 illustrates some of the socioeconomic, racial/ethnic, and geographic health disparities that exist in the county.

The report is organized into chapters addressing the following health indicators:

Demographics

- Age, education, income, language, household income, poverty, unemployment, housing, and crime.

Summary Measures of Mortality

- Death from all causes, leading causes of death, life expectancy.

General Health

- Self-rated health.

Chronic Disease

- Behavioral risk factors; prevalence of overweight and obesity; prevalence of hypertension; prevalence of diabetes and diabetes mortality; prevalence of asthma and asthma morbidity; coronary heart disease mortality and hospitalization; stroke mortality and hospitalization, all cancers combined, lung cancer, colorectal cancer, female breast cancer, and prostate cancer mortality and morbidity.

Mental Health and Alcohol Use

- Prevalence of psychological distress; utilization of services for mental health; emergency department (ED) visits for mental disorders; binge drinking.

Injury

- Unintentional injury mortality and ED visits; motor vehicle crash mortality; homicide and ED visits for assault, and suicide.

Maternal and Child Health

- Infant mortality, low birth weight, teen births, prenatal care, and immunizations.

Communicable Disease

- Novel H1N1 (Swine Flu) 2009, HIV/AIDS, tuberculosis, chlamydia, gonorrhea, primary and secondary syphilis.

Access to and Utilization of Health Care

- Access to health care, use of prevention services, type of insurance and payer source.

The mission of the Alameda County Public Health Department includes working "in partnership with the community to ensure optimal health and well being of all people." The Public Health Department prepared this report as part of this mission. We believe it will be a valuable reference to support the planning and policy efforts of the hospitals to help build healthy communities. The Public Health Department is grateful for the support of the Hospital Council in fulfilling this mission.

Using the Report

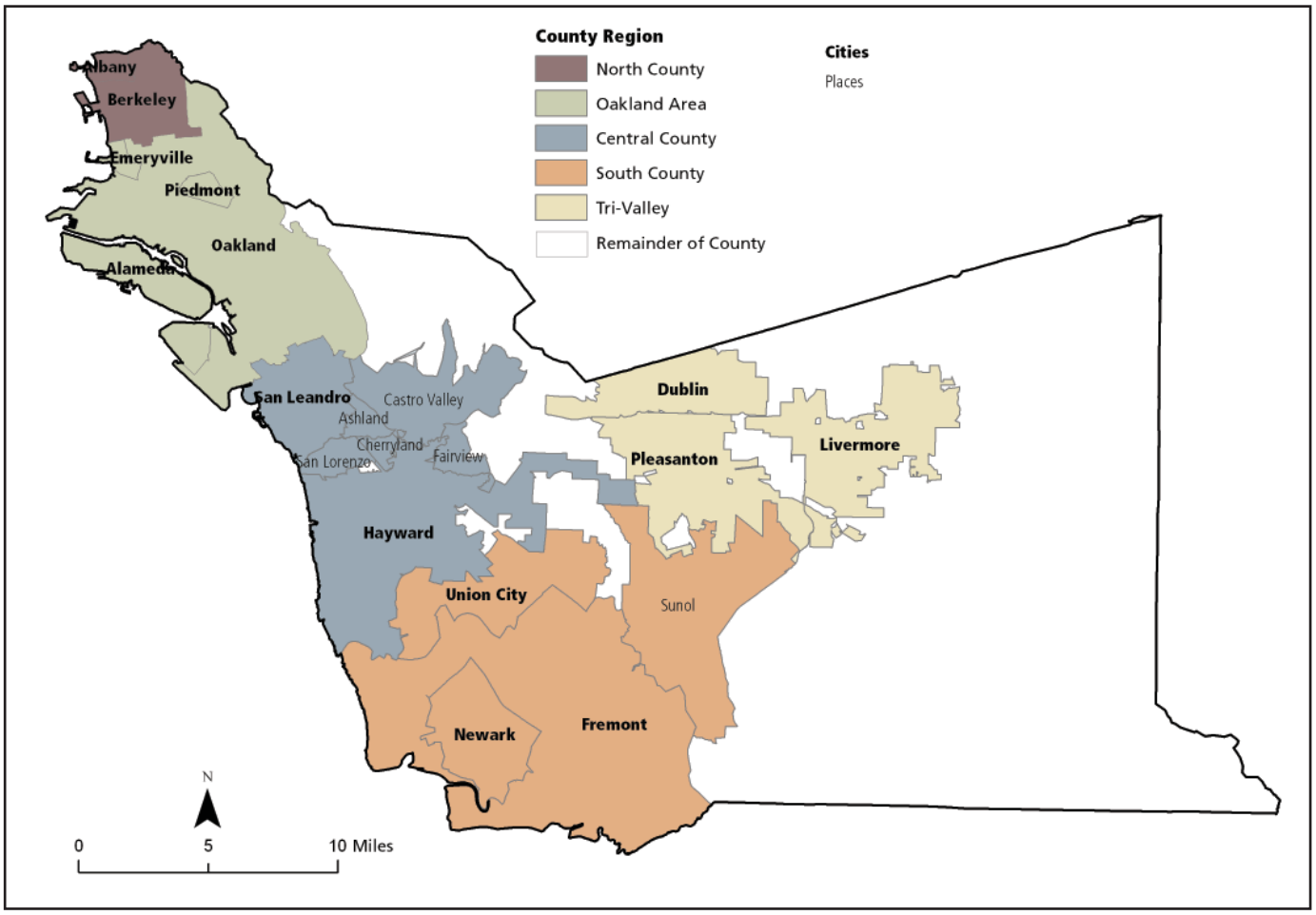
The demographic chapter provides information on key factors that influence health status, such as age, race/ethnicity, education, unemployment, crime, and other socioeconomic characteristics. Tables are presented for cities, places, and regions in Alameda County with current population estimates. Tables that have appeared in prior Hospital Council reports with numbers from Census 2000 are included in Appendix B of this report.

Each chapter or section begins with background information on the disease or health condition. For most indicators, data are presented first by age and gender, then by race/ethnicity, and by city, ranked from highest to lowest. A new feature in this report is a chart showing trends overall and for each of the largest racial/ethnic groups. Following the charts are sets of tables that show counts, rates, and 95% confidence limits for each city and region overall and by gender and race/ethnicity. Where counts are less than ten for the three-year period (or 20 for cancer incidence), no rate is presented.

Generally, data elements available at the city level are presented for a three-year period. The counts are three-year totals and the rates are three-year average rates. At the city level, detail on race/ethnicity is limited because of small numbers. Except for the larger cities, there are often insufficient numbers to calculate reliable rates, thus the requirement of ten cases, and in some cases 20, in order to present a rate. The appendix contains additional tables with trend data as well as tables showing the main indicators by race/ethnicity by gender if this information does not appear in the body of the report.

For chronic disease, mental health, and access to care measures, data from the California Health Interview Survey

Figure 1.1: Map of Alameda County Cities, Places, and Regions



Source: CAPE.

(CHIS) is presented. This data is available for the county with comparative estimates for California. CHIS findings are presented in tables that include percents and confidence intervals (CIs) by selected characteristics such as gender, race, poverty level, or insurance status. A detailed explanation of how to use CHIS findings is included in Technical Appendix A.

Data on emergency department visits reflect patients who were treated and released or transferred to another facility. Those who were admitted to the same hospital as an inpatient are not reflected here; they are reflected in the patient discharge data.

Geographic Measures

Twenty urban areas are covered in this report. These urban areas are 14 incorporated cities (Alameda, Albany, Berkeley, Dublin, Emeryville, Fremont, Hayward, Livermore, Newark, Oakland, Piedmont, Pleasanton, San Leandro, and Union City) and six unincorporated census designated places as defined by the Census Bureau (Ashland, Castro Valley, Cherryland, Fairview, San Lorenzo, and Sunol). These urban areas are frequently referred to as cities in this

report, even though not all are formally incorporated. Different data sources vary in terms of the geographic level of detail available; some are available at the census tract level and some only at the zip code level (See Technical Appendix A).

In addition to the cities, data are also presented by county region (see Figure 1.1). The number of vital (birth/death) or reportable disease events in some cities are so small that rates cannot be presented. Thus the cities are combined so that data unavailable at the city level may be available at the regional level thereby reflecting hospital catchment areas. The regions are north county (Albany and Berkeley); Oakland area (Oakland, Emeryville, Piedmont, and Alameda); central county (San Leandro, San Lorenzo, Hayward, Castro Valley, Ashland, Cherryland, and Fairview); south county (Fremont, Newark, Union City, and Sunol); and Tri-Valley (Livermore, Pleasanton, and Dublin).

It is important to note that for some indicators, such as those based on births and deaths, the city charts and tables show data for places (e.g., in the unincorporated areas) such as Ashland, Cherryland, and Fairview. And they also show data for Piedmont if there are sufficient numbers. This is possible because Alameda County Public Health Department has address-level information on record and these can be geocoded and aggregated to census tract or smaller geographic areas. For other indicators, such as those based on hospital or emergency department records, data are only available at the zip code level, and so zip codes are aggregated to approximate cities. In these cases we cannot achieve the same geographic resolution so the smaller places cannot be shown separately.

Race and Ethnicity

This report restricts descriptions of race and ethnicity to short words and phrases. It is recognized that individual preference varies and that classification is not trivial. Considering the report's many text references, tables, and figures that make comparisons between races, readability and space require consistent and abbreviated usage. Thus, the report refers to African American, rather than Black or African. In tables and figures, African American is usually shortened to AfrAmer. Other standard terms are White; American Indian (sometimes shortened to AmerInd); Pacific Islander (sometimes shortened to PacIsl); and Asian (sometimes combined with Pacific Islanders and shortened to API).

Latino includes all those of Spanish-speaking descent in the Americas, including people from Spain. Hispanic or Latino is considered by most data collectors such as the Census Bureau to be an ethnicity rather than a race. Thus, a Latino may be White or Asian or Black, but here all those persons are reported as Latino. Some data systems are allowing people to choose multiple races or simply a Multirace or Other category, so the report uses those designations when needed. In this report, we present mortality and birth data on the multirace group when there are sufficient numbers, but caution should be used when interpreting the data. Finally, race is often unreported, mis-reported, or unclassifiable in many data systems.

The reader will note that trend charts showing mortality rates over time have a break in the blue line between 1998-00 and 1999-01. This is because there was a change in classification of Asian/Pacific Islanders from Census 1990 to Census 2000. In Census 1990, all Asian and Pacific Islander subgroups were included in a single category. Census 2000 allowed people to mark Pacific Islander categories (e.g., Hawaiian, Guamanian, Samoan) separately from other Asian categories (e.g., Chinese, Japanese, Korean, Filipino). A similar change was made to California death certifi-

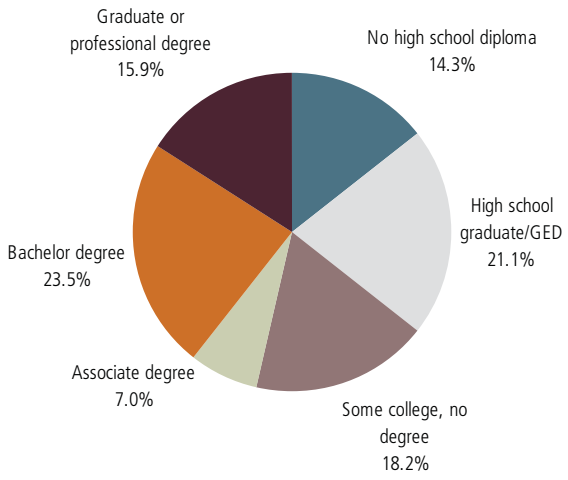
cates, thereby allowing calculation of rates for the Pacific Islander subgroup separately from Asians. Thus prior to 2000 the mortality trend line is a blue line with a square marker representing Asian/Pacific Islanders (labeled API), while after 2000 the blue line has a different marker and represents Asians only. The two groups are shown separately in the bar charts showing three-year rates for 2006-08. Pacific Islander trends are unstable and therefore not shown. The same is true for American Indians. Both of these groups comprise a relatively small portion of the population and the numbers of health and vital statistics events are small. Small numbers, combined with uncertainty in estimating the population at risk in these two groups, warrant a degree of caution when interpreting their rates presented here, even as three-year averages.

Demographics

Socioeconomic status measures such as education, income, and poverty are important factors that influence health and quality of life. Specifically, low socioeconomic status is linked to many adverse health outcomes.[1] In fact, these conditions may be more important than genetics, biology, and access to medical care. Thus, to better understand the health status of a population, it is important to examine the social, economic and environmental conditions in which people live. Data on key demographic, social, and economic factors are presented for each city and place in the county and county regions. We include data from the Census Bureau's American Community Survey, reported as rates from 2006 to 2008. The American Community Survey combines data from consecutive years to form estimates for smaller geographic areas; the available geographic areas for the years 2006 to 2008 are cities and places larger than 40,000 people. We also include data from Alameda County Public Health Department's own age, sex, and race/ethnicity breakdown of data from the California Department of Finance and Claritas. Finally, Census 2000 data (see Appendix B) give a range of indicators available at every geographic area.

In Alameda County, 35.4% of those adults 25 years or older had a high school degree (or equivalent) or less, and 39.4% had a bachelor degree or higher.

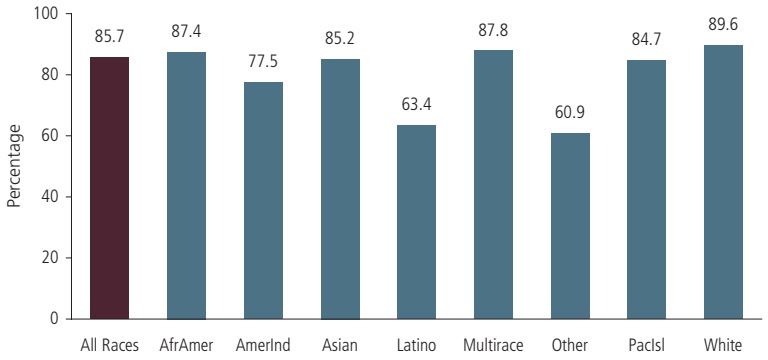
Figure 3.1: Educational Attainment, Alameda County



Source: American Community Survey, 2006-08.

In Alameda County, the percentage of adults 25 years or older with a high school diploma or equivalent or higher ranged from 63.4% among Latinos to 89.6% of Whites.

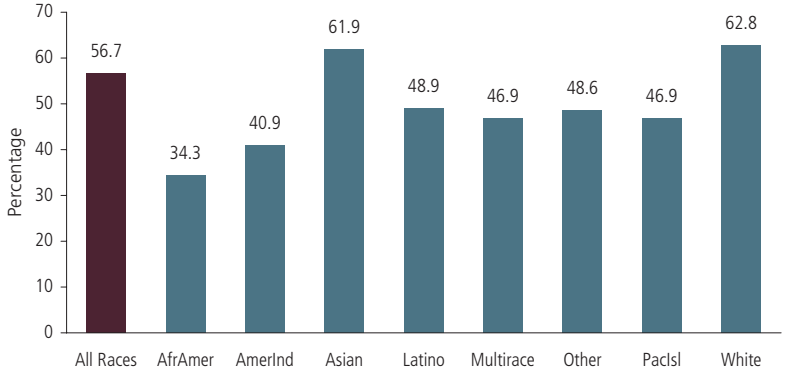
Figure 3.2: Percentage with High School Diploma or Better by Race/Ethnicity, Alameda County



Source: American Community Survey, 2006-08.
Note: Latino not broken out of other racial/ethnic categories; not mutually exclusive.

In Alameda County, 56.7% of households were owner occupied (versus renter-occupied). The percentage was lowest among African Americans (34.3%) and highest among Whites and Asians (62.8% and 61.9% respectively).

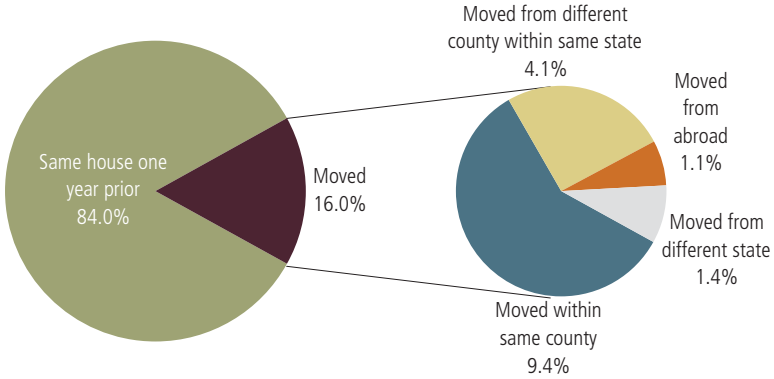
Figure 3.3: Percentage Owner-Occupied Homes by Race/Ethnicity, Alameda County



Source: American Community Survey, 2006-08.
Note: Latino not broken out of other racial/ethnic categories; not mutually exclusive.

Neighborhood and housing stability promotes social cohesion and social networks in a community. Eighty-four percent of Alameda County residents were in the same house one year prior. Most of those who moved had moved from elsewhere in the same county.

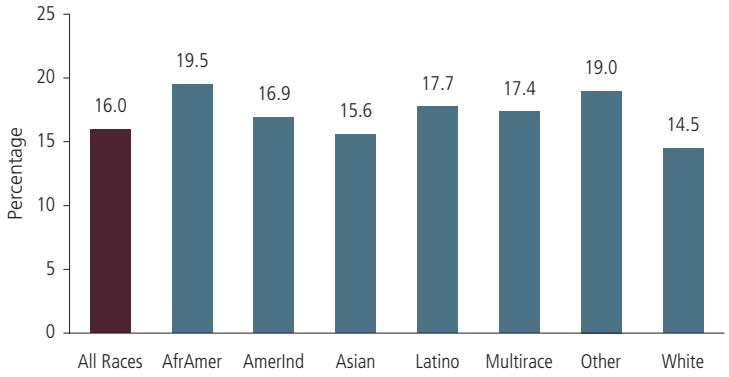
Figure 3.4: Geographic Mobility—Location One Year Earlier, Alameda County



Source: American Community Survey, 2006-08.

While 16.0% of Alameda County residents overall had moved within the prior year, only 14.5% of Whites had moved compared to 19.5% of African Americans.

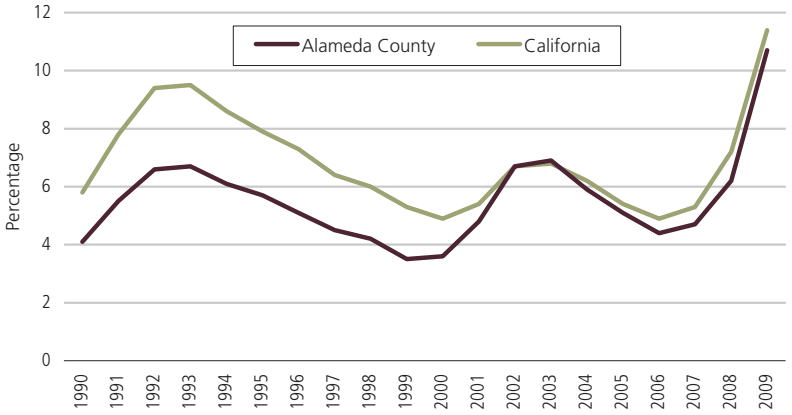
Figure 3.5: Geographic Mobility—Had Moved Within the Prior Year by Race/Ethnicity, Alameda County



Source: American Community Survey, 2006-08.
Note: Latino not broken out of other racial/ethnic categories; not mutually exclusive.

From 1990 to 2001, Alameda County experienced a lower unemployment rate than California as a whole. Since 2001, Alameda County's rate has tracked that of California, leading to Alameda County's high of 10.7% in 2009.

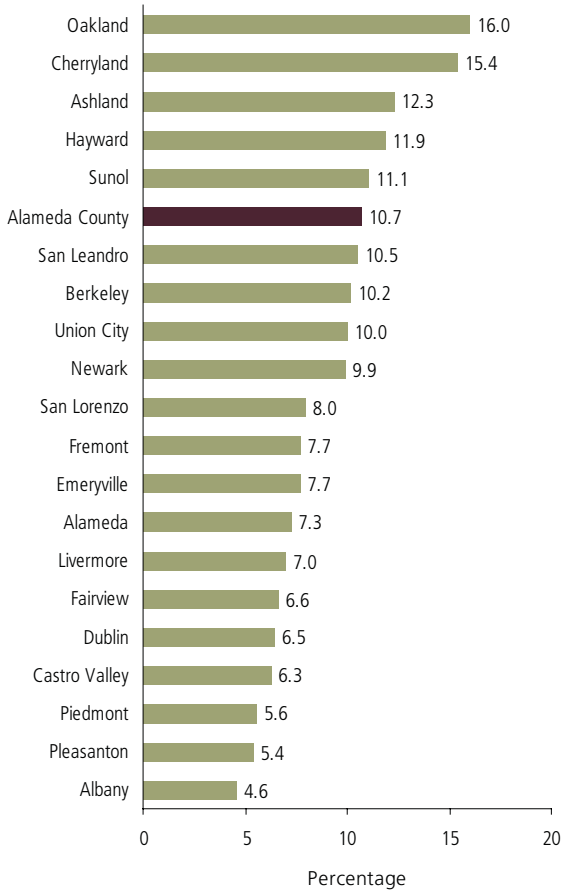
Figure 3.6: Unemployment Rate



Source: California Employment Development Department. 2010.

Cities in the county had very different unemployment rates. Unemployment ranged from a low of 4.6% in Albany to a high of 16% in Oakland, nearly a four-fold difference. Other cities with rates above the county rate were Oakland, Cherryland, Ashland, Hayward, and Sunol.

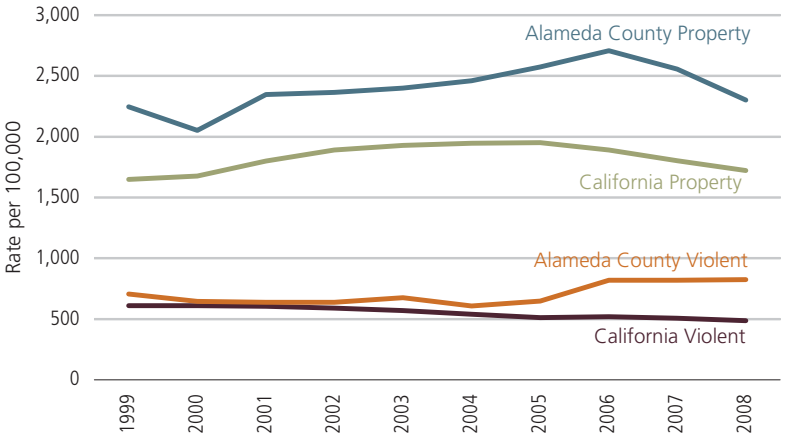
Figure 3.7: Unemployment Rate by City



Source: California Employment Development Department, 2009.

Crime rates are measured by the number of reports to police and reported by police jurisdiction. Data are from the Uniform Crime Reporting System, California Criminal Justice Statistics Center. Property crimes include burglary, larceny/theft over $400, and motor vehicle theft; violent crimes include homicide, forcible rape, robbery, and aggravated assault. Since 1999, both the property crime rate and the violent crime rate in Alameda County have increased. Between 2006 and 2008, the property crime rate decreased while the violent crime rate held steady.

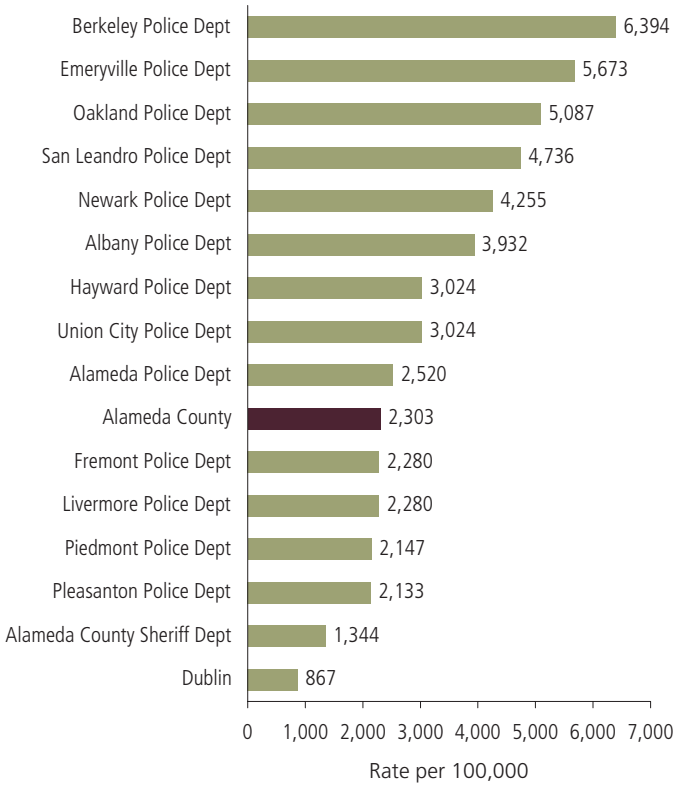
Figure 3.8: Property and Violent Crime Rate Trend



Source: California Criminal Justice Statistics Center, 2010.

The property crime rate for the county was 2,303 crimes reported per 100,000 people. The Berkeley rate was over twice the county rate at 6,394 per 100,000. Other areas with high property crime rates were Emeryville, Oakland, and San Leandro. Dublin, patrolled by the Alameda County Sheriff Department but reported separately, had the lowest rate in the county at 867 per 100,000.

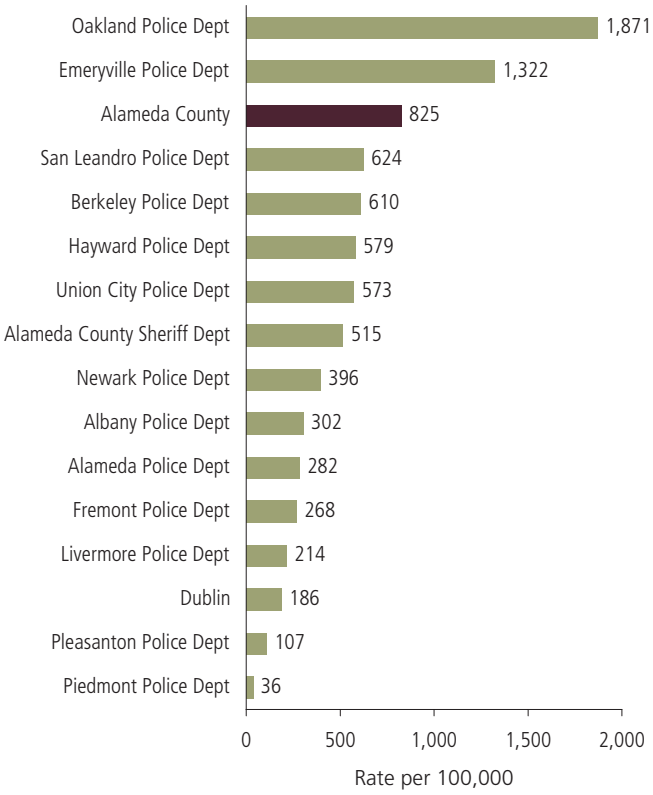
Figure 3.9: Property Crime Rate, 2008



Source: California Criminal Justice Statistics Center, 2010.
Note: The Alameda County Sheriff Department patrols Dublin and the unincorporated areas of Ashland, Cherryland, San Lorenzo, Fairview, Castro Valley, Sunol, and the remainder of the county.

Alameda County had a violent crime rate of 825 per 100,000 people. Two jurisdictions had a higher report rate than the county as a whole—Oakland and Emeryville. Piedmont had the lowest rate at 36 per 100,000.

Figure 3.10: Violent Crime Rate, 2008



Source: California Criminal Justice Statistics Center, 2010.
Note: The Alameda County Sheriff Department patrols Dublin and the unincorporated areas of Ashland, Cherryland, San Lorenzo, Fairview, Castro Valley, Sunol, and the remainder of the county.

Table 3.1: Demographic, Social, and Economic Indicators

		Alameda County	Ala-meda	Berkeley	Castro Valley	Dublin	Fremont	Hayward	Liver-more	Newark	Oakland	Pleasan-ton	San Leandro	San Lorenzo	Union City
Age	Median Age	37.0	40.8	34.1	42.9	33.8	37.4	34.9	38.9	35.5	36.7	38.9	37.8	37.9	36.5
	<18 years	23.7	21.6	13.6	22.8	23.9	25.5	24.5	27.6	24.8	23.0	28.6	24.7	25.1	25.0
	65+ years	10.8	13.5	11.2	13.8	5.2	10.7	9.8	8.9	9.1	11.0	9.4	12.8	12.8	11.7
Education	% HS or Better	85.7	91.0	93.5	90.4	90.5	91.3	80.0	91.8	81.2	77.9	96.0	83.3	84.0	84.1
	% Bach or Better	39.4	44.7	67.1	35.0	40.3	48.6	23.0	36.3	27.2	35.0	56.1	26.2	19.8	36.1
% Speak English Less Than Very Well		19.0	15.8	8.3	9.8	10.9	20.8	26.5	8.5	23.5	22.9	8.4	24.4	21.4	26.1
% Families with Children with Single Mothers		21.5	22.9	25.8	20.0	11.7	11.5	24.6	17.7	18.2	34.6	11.2	21.1	14.7	11.9
Average Household Size (# persons)		2.75	2.48	2.25	2.67	2.90	3.04	3.14	2.83	3.29	2.48	2.80	2.83	3.18	3.50
Median Household Income ($)		70,079	77,868	59,335	76,197	105,166	94,979	60,689	94,259	78,880	48,596	119,695	62,113	73,701	85,360
% Owner-Occupied Households		56.7	49.1	46.3	70.0	66.2	65.6	57.8	73.6	73.3	43.4	70.7	61.0	75.0	73.7
% Households Paying More Than 35% Household Income for Rent		43.0	33.6	51.8	46.2	20.8	32.1	48.6	40.8	36.8	47.7	24.7	36.0	39.4	48.1
% Per-sons in Poverty	Total	10.8	10.1	19.7	5.6	4.5	4.8	11.7	6.1	8.5	18.0	2.3	7.7	6.7	7.3
	<18 Yrs	13.6	16.9	12.2	4.6	2.9	3.4	16.8	9.5	14.6	26.9	1.9	11.8	7.3	9.3
	18-64 Yrs	10.2	8.8	23.1	5.8	5.2	4.3	10.7	4.7	6.8	15.7	2.0	6.5	6.7	6.4
	65+ Yrs	8.7	5.1	8.8	6.3	3.1	11.7	5.2	5.6	4.3	13.0	5.5	5.7	5.7	7.6
% Unemployed		6.6	7.8	5.3	6.5	6.0	4.9	7.6	5.0	5.7	8.7	3.7	7.1	5.9	5.6

Source: American Community Survey, 2006-08.

Table 3.2: Demographic Indicators

	Alameda County		Alameda		Albany		Ashland		Berkeley		Castro Valley		Cherryland	
Total	1,548,492		74,412		16,530		21,574		106,930		58,647		14,896	
Male	759,649	49.1%	36,000	48.4%	7,806	47.2%	10,642	49.3%	52,917	49.5%	28,653	48.9%	7,631	51.2%
Female	788,843	50.9%	38,412	51.6%	8,725	52.8%	10,932	50.7%	54,012	50.5%	29,994	51.1%	7,266	48.8%
Age														
Under 5 years	108,877	7.0%	4,030	5.4%	932	5.6%	1,902	8.8%	4,097	3.8%	3,322	5.7%	1,299	8.7%
5 to 14 years	199,646	12.9%	8,092	10.9%	1,688	10.2%	3,221	14.9%	8,174	7.6%	6,618	11.3%	2,209	14.8%
15 to 24 years	197,737	12.8%	8,699	11.7%	1,982	12.0%	2,827	13.1%	21,083	19.7%	7,670	13.1%	1,837	12.3%
25 to 34 years	218,749	14.1%	8,152	11.0%	2,206	13.3%	3,085	14.3%	16,733	15.6%	6,062	10.3%	2,173	14.6%
35 to 44 years	252,381	16.3%	11,797	15.9%	2,637	16.0%	3,661	17.0%	16,567	15.5%	7,708	13.1%	2,509	16.8%
45 to 54 years	232,844	15.0%	13,180	17.7%	3,039	18.4%	2,904	13.5%	14,934	14.0%	10,504	17.9%	2,012	13.5%
55 to 64 years	173,861	11.2%	9,837	13.2%	2,147	13.0%	1,990	9.2%	13,358	12.5%	7,761	13.2%	1,366	9.2%
65 to 74 years	82,347	5.3%	5,376	7.2%	960	5.8%	1,009	4.7%	6,375	6.0%	4,114	7.0%	741	5.0%
75 to 84 years	55,288	3.6%	3,490	4.7%	578	3.5%	612	2.8%	3,657	3.4%	3,211	5.5%	456	3.1%
85 years and over	26,762	1.7%	1,759	2.4%	360	2.2%	362	1.7%	1,952	1.8%	1,676	2.9%	295	2.0%
Race/Ethnicity														
Latino	353,430	22.8%	7,030	9.4%	1,342	8.1%	7,868	36.5%	11,671	10.9%	8,157	13.9%	7,120	47.8%
White	541,901	35.0%	34,036	45.7%	8,659	52.4%	4,029	18.7%	58,548	54.8%	33,280	56.7%	3,846	25.8%
African American	224,801	14.5%	4,887	6.6%	505	3.1%	4,663	21.6%	10,313	9.6%	3,412	5.8%	1,674	11.2%
American Indian	6,756	0.4%	388	0.5%	40	0.2%	132	0.6%	273	0.3%	183	0.3%	45	0.3%
Asian	348,986	22.5%	23,364	31.4%	5,033	30.4%	3,721	17.2%	20,017	18.7%	10,523	17.9%	1,483	10.0%
Pacific Islander	13,600	0.9%	460	0.6%	20	0.1%	245	1.1%	126	0.1%	298	0.5%	203	1.4%
Some other race	0	0.0%	222	0.3%	85	0.5%	50	0.2%	643	0.6%	166	0.3%	25	0.2%
Multirace	59,017	3.8%	4,026	5.4%	846	5.1%	868	4.0%	5,339	5.0%	2,627	4.5%	501	3.4%

	Dublin		Emeryville		Fairview		Fremont		Hayward		Livermore		Newark	
Total	47,429		9,907		9,744		214,561		150,033		84,001		43,952	
Male	24,850	52.4%	4,965	50.1%	4,843	49.7%	108,082	50.4%	74,754	49.8%	42,024	50.0%	22,196	50.5%
Female	22,579	47.6%	4,942	49.9%	4,901	50.3%	106,479	49.6%	75,278	50.2%	41,977	50.0%	21,756	49.5%
Age														
Under 5 years	2,897	6.1%	340	3.4%	552	5.7%	15,409	7.2%	11,972	8.0%	6,341	7.5%	3,204	7.3%
5 to 14 years	5,361	11.3%	713	7.2%	1,083	11.1%	29,083	13.6%	20,934	14.0%	11,867	14.1%	5,930	13.5%
15 to 24 years	6,266	13.2%	683	6.9%	1,294	13.3%	26,744	12.5%	20,320	13.5%	11,434	13.6%	6,151	14.0%
25 to 34 years	7,552	15.9%	2,217	22.4%	1,031	10.6%	28,509	13.3%	21,645	14.4%	9,080	10.8%	5,765	13.1%
35 to 44 years	9,519	20.1%	1,881	19.0%	1,337	13.7%	34,961	16.3%	23,838	15.9%	13,889	16.5%	7,176	16.3%
45 to 54 years	7,786	16.4%	1,562	15.8%	1,674	17.2%	34,853	16.2%	20,389	13.6%	13,647	16.2%	6,543	14.9%
55 to 64 years	4,790	10.1%	1,329	13.4%	1,472	15.1%	23,769	11.1%	14,846	9.9%	9,978	11.9%	4,880	11.1%
65 to 74 years	2,264	4.8%	712	7.2%	745	7.6%	12,546	5.8%	8,372	5.6%	4,815	5.7%	2,714	6.2%
75 to 84 years	787	1.7%	344	3.5%	389	4.0%	6,212	2.9%	5,150	3.4%	2,157	2.6%	1,209	2.7%
85 years and over	206	0.4%	127	1.3%	167	1.7%	2,474	1.2%	2,566	1.7%	792	0.9%	381	0.9%
Race/Ethnicity														
Latino	7,007	14.8%	814	8.2%	1,844	18.9%	29,493	13.7%	56,849	37.9%	14,008	16.7%	13,865	31.5%
White	27,670	58.3%	3,789	38.2%	4,131	42.4%	67,131	31.3%	32,012	21.3%	58,319	69.4%	13,759	31.3%
African American	3,441	7.3%	1,552	15.7%	1,950	20.0%	5,557	2.6%	15,985	10.7%	1,402	1.7%	1,546	3.5%
American Indian	208	0.4%	25	0.3%	19	0.2%	538	0.3%	474	0.3%	313	0.4%	130	0.3%
Asian	6,972	14.7%	3,183	32.1%	1,187	12.2%	100,186	46.7%	34,128	22.7%	6,408	7.6%	11,814	26.9%
Pacific Islander	157	0.3%	28	0.3%	61	0.6%	966	0.5%	2,932	2.0%	219	0.3%	455	1.0%
Some other race	91	0.2%	42	0.4%	31	0.3%	543	0.3%	716	0.5%	233	0.3%	128	0.3%
Multirace	1,884	4.0%	474	4.8%	521	5.3%	10,146	4.7%	6,938	4.6%	3,099	3.7%	2,255	5.1%

Source: CAPE, with data from Claritas and California Department of Finance, 2008.
Note: ***Some other race*** is in Claritas data but is not in CA Department of Finance data.

Table 3.3: Demographic Indicators (continued)

	Oakland		Piedmont		Pleasanton		San Leandro		San Lorenzo		Sunol		Union City	
Total	422,435		11,132		69,769		82,227		22,329		1,462		73,686	
Male	205,520	48.7%	5,399	48.5%	34,396	49.3%	39,972	48.6%	10,918	48.9%	751	51.4%	36,782	49.9%
Female	216,915	51.3%	5,732	51.5%	35,374	50.7%	42,255	51.4%	11,411	51.1%	711	48.6%	36,903	50.1%
Age														
Under 5 years	30,259	7.2%	696	6.3%	4,727	6.8%	5,151	6.3%	1,423	6.4%	71	4.8%	5,469	7.4%
5 to 14 years	55,332	13.1%	1,335	12.0%	9,566	13.7%	10,021	12.2%	2,713	12.2%	152	10.4%	10,026	13.6%
15 to 24 years	52,840	12.5%	1,913	17.2%	9,956	14.3%	9,321	11.3%	3,076	13.8%	182	12.5%	10,397	14.1%
25 to 34 years	60,925	14.4%	862	7.7%	6,443	9.2%	9,461	11.5%	2,535	11.4%	166	11.4%	9,960	13.5%
35 to 44 years	67,531	16.0%	657	5.9%	10,298	14.8%	12,868	15.6%	3,039	13.6%	172	11.8%	11,477	15.6%
45 to 54 years	61,518	14.6%	2,254	20.2%	12,685	18.2%	12,438	15.1%	3,491	15.6%	266	18.2%	10,803	14.7%
55 to 64 years	47,038	11.1%	1,790	16.1%	9,226	13.2%	9,830	12.0%	2,618	11.7%	246	16.8%	8,383	11.4%
65 to 74 years	24,305	5.8%	886	8.0%	4,251	6.1%	6,104	7.4%	1,593	7.1%	132	9.0%	4,303	5.8%
75 to 84 years	14,814	3.5%	501	4.5%	1,827	2.6%	4,731	5.8%	1,366	6.1%	55	3.8%	2,020	2.7%
85 years and over	7,871	1.9%	237	2.1%	791	1.1%	2,302	2.8%	474	2.1%	20	1.3%	847	1.1%
Race/Ethnicity														
Latino	115,513	27.3%	316	2.8%	5,961	8.5%	19,073	23.2%	6,753	30.2%	142	9.7%	19,226	26.1%
White	93,674	22.2%	8,175	73.4%	48,264	69.2%	25,613	31.1%	9,120	40.8%	1,116	76.4%	10,657	14.5%
African American	121,765	28.8%	130	1.2%	938	1.3%	9,351	11.4%	794	3.6%	0	0.0%	3,712	5.0%
American Indian	1,458	0.3%	11	0.1%	133	0.2%	305	0.4%	87	0.4%	19	1.3%	113	0.2%
Asian	71,274	16.9%	2,100	18.9%	11,846	17.0%	23,610	28.7%	4,407	19.7%	93	6.3%	35,590	48.3%
Pacific Islander	2,046	0.5%	4	0.0%	104	0.1%	743	0.9%	108	0.5%	7	0.5%	632	0.9%
Some other race	1,181	0.3%	38	0.3%	162	0.2%	159	0.2%	46	0.2%	0	0.0%	190	0.3%
Multirace	15,524	3.7%	356	3.2%	2,362	3.4%	3,373	4.1%	1,015	4.5%	86	5.9%	3,566	4.8%

	Remainder of County		North County		Oakland Area		Central County		South County		Tri-Valley	
Total	12,837		123,460		517,886		359,449		333,660		201,199	
Male	6,365	49.6%	60,723	49.2%	251,885	48.6%	177,412	49.4%	167,811	50.3%	101,270	50.3%
Female	6,472	50.4%	62,737	50.8%	266,001	51.4%	182,037	50.6%	165,850	49.7%	99,930	49.7%
Age												
Under 5 years	980	7.6%	5,030	4.1%	35,326	6.8%	25,622	7.1%	24,153	7.2%	13,964	6.9%
5 to 14 years	1,752	13.6%	9,862	8.0%	65,472	12.6%	46,800	13.0%	45,191	13.5%	26,794	13.3%
15 to 24 years	1,577	12.3%	23,065	18.7%	64,136	12.4%	46,346	12.9%	43,474	13.0%	27,657	13.7%
25 to 34 years	1,165	9.1%	18,939	15.3%	72,156	13.9%	45,991	12.8%	44,401	13.3%	23,075	11.5%
35 to 44 years	2,021	15.7%	19,204	15.6%	81,866	15.8%	54,960	15.3%	53,786	16.1%	33,706	16.8%
45 to 54 years	2,143	16.7%	17,973	14.6%	78,514	15.2%	53,412	14.9%	52,465	15.7%	34,118	17.0%
55 to 64 years	1,737	13.5%	15,506	12.6%	59,994	11.6%	39,884	11.1%	37,278	11.2%	23,995	11.9%
65 to 74 years	838	6.5%	7,335	5.9%	31,278	6.0%	22,678	6.3%	19,695	5.9%	11,330	5.6%
75 to 84 years	447	3.5%	4,235	3.4%	19,150	3.7%	15,915	4.4%	9,496	2.8%	4,771	2.4%
85 years and over	177	1.4%	2,312	1.9%	9,994	1.9%	7,842	2.2%	3,722	1.1%	1,789	0.9%
Race/Ethnicity												
Latino	1,969	15.3%	13,014	10.5%	123,673	23.9%	107,664	30.0%	62,725	18.8%	26,975	13.4%
White	7,021	54.7%	67,207	54.4%	139,674	27.0%	112,030	31.2%	92,663	27.8%	134,254	66.7%
African American	678	5.3%	10,817	8.8%	128,334	24.8%	37,828	10.5%	10,815	3.2%	5,780	2.9%
American Indian	35	0.3%	313	0.3%	1,882	0.4%	1,246	0.3%	800	0.2%	655	0.3%
Asian	2,560	19.9%	25,050	20.3%	99,922	19.3%	79,059	22.0%	147,683	44.3%	25,225	12.5%
Pacific Islander	55	0.4%	147	0.1%	2,538	0.5%	4,588	1.3%	2,060	0.6%	480	0.2%
Some other race	79	0.6%	727	0.6%	1,483	0.3%	1,191	0.3%	862	0.3%	487	0.2%
Multirace	440	3.4%	6,185	5.0%	20,380	3.9%	15,843	4.4%	16,053	4.8%	7,344	3.7%

Source: CAPE, with data from Claritas and California Department of Finance, 2008.
Note: ***Some other race*** is in Claritas data but is not in CA Department of Finance data.

References

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General Health

The World Health Organization defines health as "a state of complete physical, mental, and social well-being—not merely the absence of disease or infirmity."[1] A widely used global measure of health status is self-rated health. Self-rated health refers to a single-item measure of health status where individuals are asked to rate their own health on a five-point scale (excellent, very good, good, fair, or poor). The link between self-rated health and mortality has been documented in several studies showing the same to be true in different cultures and in a broad range of age groups.[2]

Self-rated health is one of the core measures to assess an individual's perceived sense of well-being. The Centers for Disease Control and Prevention developed and validated a set of measures that include self-rated health as a component of Health-Related Quality of Life, defined as "an individual's or group's perceived physical and mental health over time."[3] Self-rated health has become an important component of health surveillance and a valid measure of service needs and intervention outcomes. Self-rated health status is a useful indicator of a population's overall well-being because lower ratings of health status have been associated with increased mortality and morbidity.[4] Self-rated fair or poor health correlates with certain health risk factors, illness severity, and certain social and demographic characteristics. Health risk factors such as smoking and obesity are associated with fair or poor health, as are certain indicators of disease severity, such as insulin use and duration of diabetes.[5-7]

Research has shown that women, people of color, older persons, those living in poverty, persons with less than a high school education and persons without health insurance coverage are more likely than other subgroups to report fair or poor self-rated health. Higher income inequality also has been shown to be associated with higher prevalence of fair or poor self-rated health.[8-10]

Table 4.1: Self-Rated Health Comparison

	Alameda County	California[11]
Fair/Poor Self-Rated Health (Percentage)	13.2	15.8

In Alameda County, one-fourth (25.6%) of residents report excellent self-rated health. About one in three residents report either very good or good health status (32.2% and 29.0% respectively). One in ten (10.1%) report fair self-rated health and 3.1% poor self-rated health.

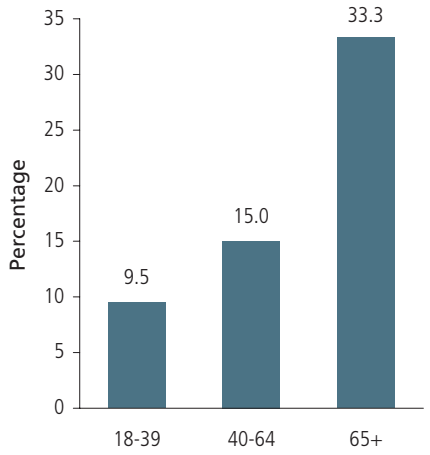
Table 4.2: Self-Rated Health, All Ages

Health Status	%	LCL	UCL
Excellent	25.6	22.6	28.6
Very Good	32.2	28.9	35.5
Good	29.0	25.7	32.3
Fair	10.1	8.1	12.0
Poor	3.1	1.8	4.4

Source: California Health Interview Survey, 2007.

Older adults are over three times as likely to report fair or poor self-rated health as younger adults—33.3% and 9.5% respectively.

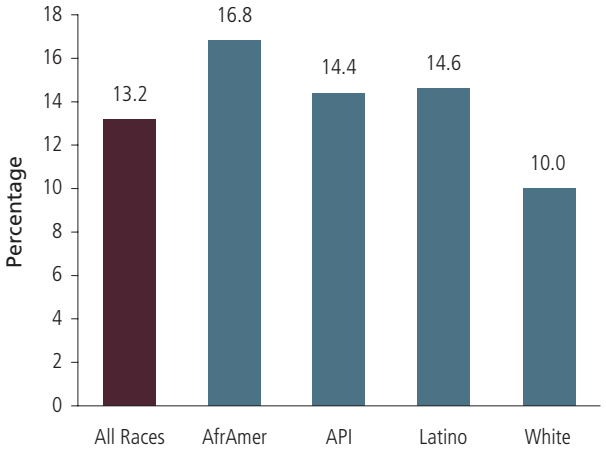
Figure 4.1: Fair or Poor Self-Rated Health by Age Group



Source: California Health Interview Survey, 2007.

In the county, 13.2% of residents report fair or poor self-rated health. African Americans are most likely to report fair or poor health status (16.8%), while Whites are least likely to do so (10.0%).

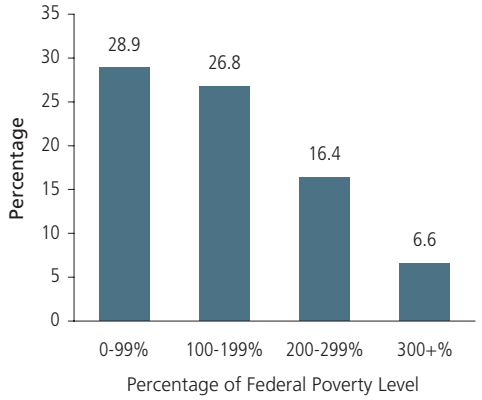
Figure 4.2: Fair or Poor Self-Rated Health by Race/Ethnicity



Source: California Health Interview Survey, 2007.

Income is a strong determinant of health; lower income is associated with poorer health status. In Alameda County, those from low-income households (those below the federal poverty level) are over four times as likely to have fair or poor self-rated health as those from high-income households (300% or higher than the federal poverty level)—28.9% and 6.6% respectively. In the middle income groups, the percentage of residents with fair or poor self-rated health increased with lower income—26.8% and 16.4%.

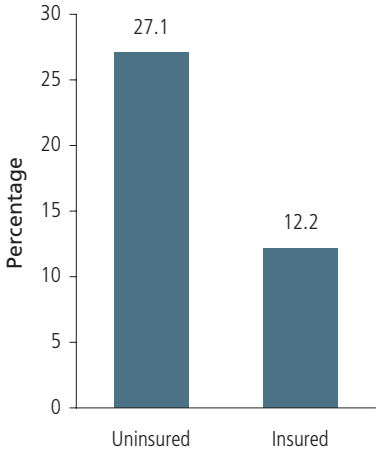
Figure 4.3: Fair or Poor Self-Rated Health by Poverty Level



Source: California Health Interview Survey, 2007.

Having health insurance coverage is generally associated with better access to health care. The uninsured are over twice as likely to report fair or poor self-rated health as the insured (27.1% versus 12.2%).

Figure 4.4: Fair or Poor Self-Rated Health by Insurance Status



Source: California Health Interview Survey, 2007.

Table 4.3: Fair or Poor Self-Rated Health by Selected Characteristics

		%	LCL	UCL
Alameda County		13.2	10.9	15.5
California		15.8	15.3	16.3
Gender	Female	13.2	9.6	16.7
	Male	13.2	10.3	16.1
Age Group	18-39	9.5	4.9	14.0
	40-64	15.0	11.3	18.8
	65+	33.3	26.6	40.0
Race/Ethnicity	AfrAmer	16.8	8.4	25.2
	API	14.4	9.9	19.0
	Latino	14.6	9.2	20.0
	White	10.0	7.1	13.0
Poverty Level	0-99%	28.9	19.3	38.6
	100-199%	26.8	17.2	36.4
	200-299%	16.4	10.0	22.8
	300+%	6.6	4.7	8.4
Insurance Status	Uninsured	27.1	14.9	39.3
	Insured	12.2	10.0	14.4

Source: California Health Interview Survey, 2007.

References

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Summary Measures of Mortality

All-Cause Mortality

Measuring mortality rates from all causes is a valuable tool for monitoring progress in fighting disease and improving health. In the early 1900s, the predominant health threats in the United States were diseases associated with poor hygiene and sanitation, poor nutrition, poor maternal and infant health, and diseases or injuries associated with unsafe workplaces or hazardous occupations. With the success of biomedical innovations such as vaccinations and antibiotics, and the development of interventions such as health education programs, the impact of these diseases has decreased significantly over the last 50 years.[1-5] Life expectancy at birth has also increased from 47.3 in 1900, to 68.2 in 1950, 70.8 in 1970, 75.4 in 1990, and 77.9 in 2007.[6-8]

In 2007, a total of 2,423,712 deaths occurred in the United States and the age-adjusted mortality rate from all causes was 760.2 per 100,000 population.[6] In California it was 666.4 for the period 2006-08.[9] Among the behaviors most clearly associated with chronic diseases are tobacco and alcohol use, poor diet, and lack of exercise. In turn, health behaviors are strongly influenced by social factors, such as income, education level, stress, workplace conditions, violence, and exposure to environmental toxins.[10-13] Routine screening, health education, and appropriate follow-up care can save lives, reduce illness and disability, and reduce health care costs.

In general, recent declines in mortality rates for many leading causes of death reflect the influence of healthier lifestyles, greater use of preventive care, public health efforts, and advances in medicine. However, the rising prevalence of overweight in children, adolescents, and adults, and the high percentage of physically inactive adolescents and adults create an added burden for future health outcomes.[8,11]

With the rapid growth of the elderly population and increasing racial and ethnic diversity, the public health care system faces a challenge. By 2050, one in every five Americans will be 65 years or older.[8,11] As the elderly population increases, more services will be required for the prevention, treatment, and management of chronic and other age-related health conditions.

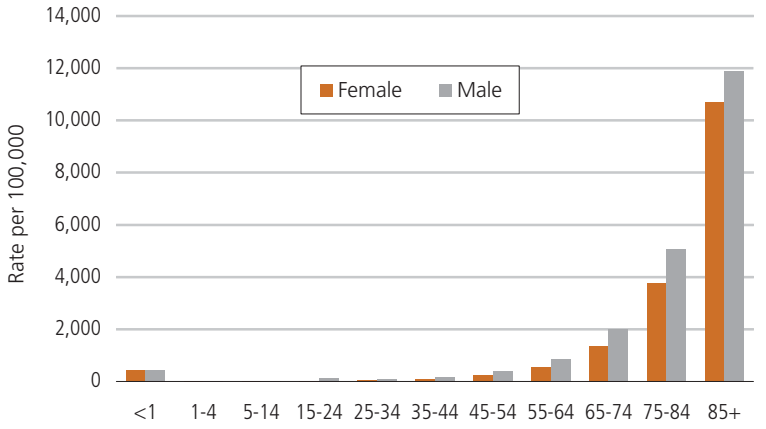
Despite overall declines in mortality, racial/ethnic and gender inequities in mortality persist. Low-income groups continue to have poorer health outcomes. Future progress in improving health status will require comprehensive interventions that address individual behaviors, neighborhood environments, and public policy.

Table 5.1: All-Cause Mortality Comparison

	Alameda County	California[9]	United States[6]
All-Cause Mortality (Rate per 100,000)	629.8	666.4	760.2

There were 27,728 deaths from all causes in Alameda County from 2006 to 2008. The age-adjusted mortality rate was 629.8 per 100,000 population. Mortality from all causes was higher among males than females in almost all age groups by 30% to 60%. Among teens and young adults, the male rates were about three to four times female rates. After the age of 35 years, all-cause mortality increased steeply with age.

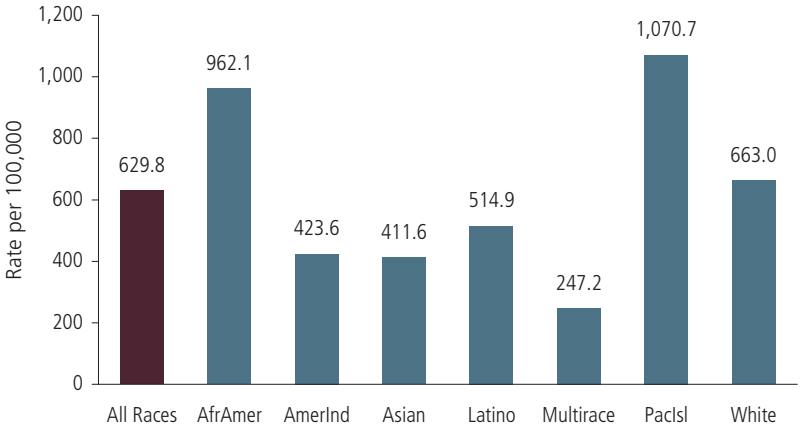
Figure 5.1: All-Cause Mortality Rate by Age Group and Gender



Source: Alameda County Vital Statistics Files, 2006-08.

The mortality rates from all causes for African Americans, Pacific Islanders, and Whites were significantly higher than the rates for American Indians, Asians, Latinos, and the multirace group. Rates among African Americans and Pacific Islanders rates were 1.5 to 2.3 times those among Asians, Latinos, and Whites. The multirace group had the lowest rate. However, deaths among this group may be underreported.

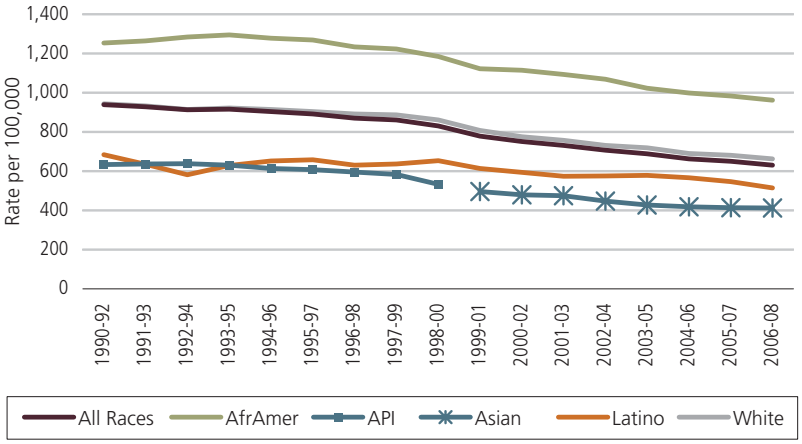
Figure 5.2: All-Cause Mortality Rate by Race/Ethnicity



Source: Alameda County Vital Statistics Files, 2006-08.

For all racial/ethnic groups combined, the mortality rates from all causes declined significantly by 3.4% per year after 1996-98. Rates among individual racial/ethnic groups declined by 2% to 3% per year after the mid 1990s. The gap between African Americans and the other racial/ethnic groups was the widest and has not narrowed.

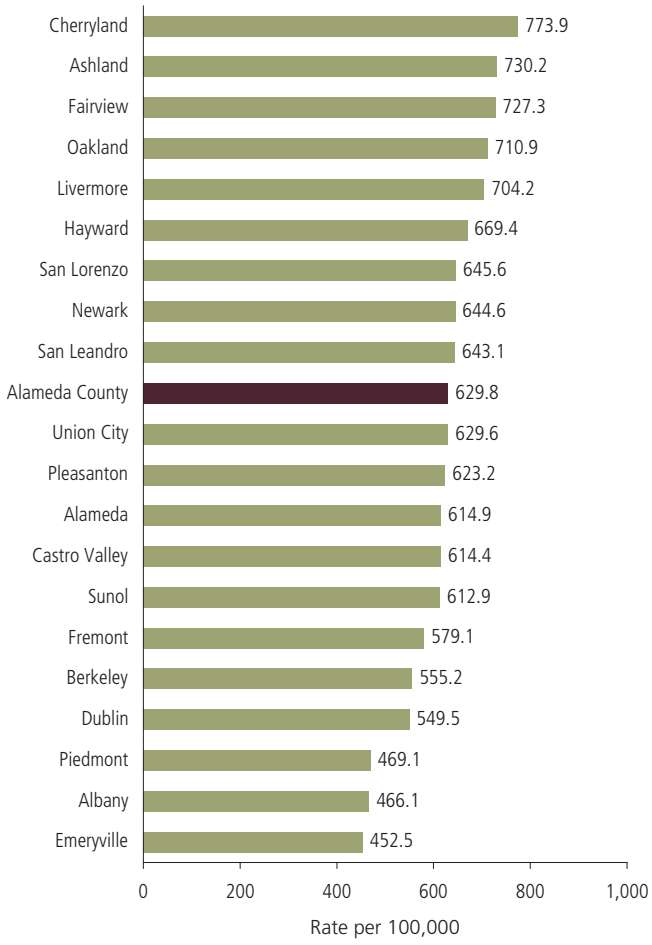
Figure 5.3: All-Cause Mortality Trend



Source: Alameda County Vital Statistics Files, 1990-08.
Note: Rate for Asian/Pacific Islanders (API) until 1998-00; rate for Asians (without Pacific Islanders) from 1999-01.

The age-adjusted mortality rate from all causes ranged from a low of 452.5 per 100,000 in Emeryville to a high of 773.9 in Cherryland. Other cities or places with high rates included Ashland, Fairview, Oakland, and Livermore. In addition to Emeryville, low rates were found in Albany and Piedmont.

Figure 5.4: All-Cause Mortality Rate by City



Source: Alameda County Vital Statistics Files, 2006-08.

Table 5.2: Three-Year All-Cause Mortality by City, Region, Gender, and Race/Ethnicity

	All				Female				Male				AfrAmer				AmerInd			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	27,728	629.8	622.2	637.3	14,050	539.4	530.3	548.5	13,678	742.3	729.6	755.0	5,906	962.1	937.1	987.1	73	423.6	332.1	532.7
Alameda	1,680	614.9	585.1	644.7	921	539.0	503.0	574.9	759	721.7	669.7	773.8	125	973.4	801.8	1,144.9	5	na	na	na
Albany	248	466.1	406.4	525.9	140	417.4	345.1	489.7	108	525.0	423.5	626.5	18	1,050.2	622.4	1,659.8	0	na	na	na
Ashland	400	730.2	657.3	803.2	186	590.0	503.2	676.7	214	926.5	797.7	1,055.2	78	911.7	720.6	1,137.8	<5	na	na	na
Berkeley	1,731	555.2	528.5	581.9	893	477.7	445.3	510.0	838	662.8	616.6	708.9	560	1,177.7	1,074.1	1,281.3	<5	na	na	na
Castro Valley	1,431	614.4	581.7	647.0	714	498.2	459.6	536.8	717	785.5	727.4	843.6	58	672.6	510.7	869.5	<5	na	na	na
Cherryland	307	773.9	685.3	862.6	149	630.0	524.8	735.1	158	947.2	794.6	1,099.7	31	890.8	605.3	1,264.4	<5	na	na	na
Dublin	327	549.5	483.2	615.8	165	513.6	429.4	597.8	162	596.5	488.0	704.9	9	na	na	na	0	na	na	na
Emeryville	118	452.5	368.2	536.9	63	432.4	332.3	553.2	55	481.9	363.0	627.3	31	728.1	494.7	1,033.4	0	na	na	na
Fairview	219	727.3	629.3	825.3	106	663.6	535.6	791.7	113	797.1	646.5	947.7	59	981.2	746.9	1,265.7	0	na	na	na
Fremont	2,841	579.1	557.3	600.8	1,461	510.6	484.2	537.1	1,380	673.0	635.3	710.7	107	901.2	704.1	1,098.4	11	1,475.9	736.7	2,640.7
Hayward	2,725	669.4	644.1	694.7	1,364	566.7	536.2	597.1	1,361	804.5	760.9	848.1	300	915.2	803.7	1,026.6	13	1,635.5	870.9	2,796.8
Livermore	1,227	704.2	663.4	745.0	664	656.7	606.0	707.5	563	759.2	690.9	827.5	19	954.1	574.4	1,489.9	0	na	na	na
Newark	613	644.6	591.0	698.2	277	523.6	460.6	586.5	336	809.4	712.2	906.5	27	921.4	607.2	1,340.6	0	na	na	na
Oakland	8,698	710.9	695.8	726.1	4,281	585.3	567.4	603.3	4,417	865.0	838.9	891.0	4,169	1,106.3	1,072.3	1,140.4	19	698.1	420.3	1,090.2
Piedmont	186	469.1	399.9	538.3	96	424.2	343.6	518.0	90	525.3	422.4	645.7	<5	na	na	na	0	na	na	na
Pleasanton	943	623.2	582.2	664.2	498	547.1	498.3	596.0	445	722.8	650.7	795.0	10	435.9	209.0	801.6	<5	na	na	na
San Leandro	2,110	643.1	615.1	671.1	1,139	555.1	521.5	588.7	971	758.3	710.4	806.2	178	827.2	700.0	954.4	6	na	na	na
San Lorenzo	538	645.6	590.7	700.6	271	541.0	475.7	606.3	267	785.1	690.4	879.8	12	682.6	352.7	1,192.4	<5	na	na	na
Sunol	24	612.9	392.7	912.0	14	642.1	351.0	1,077.3	10	522.1	250.4	960.1	0	na	na	na	0	na	na	na
Union City	1,041	629.6	590.5	668.7	502	511.0	465.8	556.2	539	815.2	741.7	888.6	79	826.0	654.0	1,029.5	<5	na	na	na
Remainder of Cty	207	619.5	533.6	705.4	96	508.1	411.5	620.4	111	741.4	597.4	885.4	14	1,167.6	638.3	1,959.0	0	na	na	na
North County	1,979	542.3	517.9	566.7	1,033	468.5	438.9	498.0	946	642.2	600.2	684.2	578	1,164.9	1,064.3	1,265.5	<5	na	na	na
Oakland Area	10,682	685.1	671.9	698.2	5,361	571.9	556.3	587.6	5,321	825.1	802.5	847.6	4,328	1,096.8	1,063.7	1,129.9	24	820.6	525.8	1,221.0
Central County	7,730	657.9	643.1	672.7	3,929	553.6	535.9	571.3	3,801	797.1	771.5	822.6	716	840.1	775.5	904.7	27	1,030.1	678.9	1,498.8
South County	4,519	599.1	581.2	617.0	2,254	513.3	491.9	534.7	2,265	719.8	688.2	751.5	213	836.4	709.3	963.5	15	1,600.6	895.8	2,639.9
Tri-Valley	2,497	645.6	619.2	672.0	1,327	590.0	557.6	622.4	1,170	713.1	668.4	757.9	38	520.9	368.6	715.0	<5	na	na	na

	Asian				Latino				Multirace				PacIsl				White			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	3,735	411.6	398.4	424.9	2,598	514.9	493.6	536.2	216	247.2	211.3	283.2	192	1,070.7	891.8	1,249.7	14,985	663.0	652.0	674.0
Alameda	280	473.2	416.6	529.8	86	418.1	334.4	516.4	10	117.7	56.5	216.5	5	na	na	na	1,168	701.3	659.6	743.1
Albany	26	266.7	174.2	390.8	8	na	na	na	<5	na	na	na	0	na	na	na	195	545.3	463.1	627.5
Ashland	41	502.4	360.5	681.6	71	497.8	388.8	627.9	5	na	na	na	<5	na	na	na	199	1,060.1	905.8	1,214.4
Berkeley	158	344.4	289.0	399.9	70	413.6	322.4	522.5	18	181.5	107.6	286.9	0	na	na	na	918	505.9	472.2	539.6
Castro Valley	90	366.3	294.5	450.2	105	535.7	432.2	639.1	<5	na	na	na	8	na	na	na	1,164	683.2	641.7	724.8
Cherryland	17	558.3	325.3	894.0	50	434.1	322.2	572.3	<5	na	na	na	<5	na	na	na	203	1,135.9	967.7	1,304.2
Dublin	46	594.9	435.5	793.5	34	684.3	473.9	956.3	7	na	na	na	<5	na	na	na	230	558.8	479.5	638.1
Emeryville	15	345.8	193.6	570.4	<5	na	na	na	<5	na	na	na	0	na	na	na	67	456.7	354.0	580.0
Fairview	11	388.2	193.8	694.6	24	536.7	343.8	798.5	<5	na	na	na	<5	na	na	na	121	774.1	633.8	914.3
Fremont	630	429.7	393.2	466.2	260	419.1	367.1	471.2	31	121.3	82.4	172.2	17	1,045.2	608.9	1,673.5	1,784	753.7	718.2	789.2
Hayward	348	472.1	421.2	523.1	479	501.3	454.7	547.9	27	153.4	101.1	223.2	72	1,526.0	1,194.0	1,921.8	1,484	856.1	809.8	902.5
Livermore	57	443.8	336.1	575.0	92	469.2	378.2	575.4	10	250.9	120.3	461.4	<5	na	na	na	1,046	779.7	730.9	828.5
Newark	110	468.5	374.8	562.3	120	501.5	404.2	598.9	6	na	na	na	12	1,457.2	753.0	2,545.5	338	871.0	774.4	967.7
Oakland	1,164	491.6	463.3	519.9	672	379.7	347.8	411.6	54	139.4	104.7	181.8	33	1,360.7	936.6	1,910.9	2,575	633.5	607.2	659.9
Piedmont	15	206.0	115.3	339.7	<5	na	na	na	0	na	na	na	0	na	na	na	164	521.9	438.8	605.0
Pleasanton	61	378.2	289.3	485.8	49	549.1	406.3	726.0	8	na	na	na	<5	na	na	na	811	663.0	616.1	709.8
San Leandro	275	533.7	468.5	598.9	216	430.0	372.2	487.7	12	97.4	50.3	170.1	17	1,090.7	635.4	1,746.3	1,406	758.9	714.9	802.9
San Lorenzo	44	435.6	316.5	584.8	66	451.0	348.8	573.8	<5	na	na	na	<5	na	na	na	410	758.3	681.4	835.1
Sunol	<5	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na	19	621.3	374.1	970.3
Union City	322	516.5	455.8	577.3	166	483.3	406.6	559.9	13	143.1	76.2	244.7	11	879.9	439.3	1,574.4	446	918.3	827.9	1,008.7
Remainder of Cty	13	329.4	175.4	563.3	14	304.4	166.4	510.8	<5	na	na	na	<5	na	na	na	163	727.6	614.0	841.3
North County	184	327.9	279.9	375.9	78	376.9	297.9	470.3	19	153.8	92.6	240.2	0	na	na	na	1,113	512.0	480.9	543.1
Oakland Area	1,474	478.7	454.2	503.2	765	382.9	353.3	412.4	66	134.6	104.1	171.2	38	1,145.3	810.5	1,572.1	3,974	639.3	618.3	660.4
Central County	826	473.2	440.1	506.4	1,011	479.2	449.0	509.3	54	117.9	88.6	153.9	106	1,399.7	1,072.7	1,726.6	4,987	784.7	761.5	808.0
South County	1,066	458.0	428.2	487.7	546	453.3	413.9	492.7	50	123.1	91.3	162.2	41	1,066.2	765.1	1,446.5	2,587	786.9	756.0	817.7
Tri-Valley	164	445.9	372.8	519.1	175	513.0	429.7	596.2	25	271.4	175.6	400.6	<5	na	na	na	2,087	697.0	666.1	727.9

Source: Alameda County Vital Statistics Files, 2006-08.

Leading Causes of Death

For prevention, it is helpful to understand the most common causes of death and how they vary in different age, race, and gender subgroups. This type of data informs resource allocation, program planning, and provision of services. In 2007, the ten leading causes of death accounted for 76% of all deaths occurring in the United States. Five chronic diseases—heart disease, cancer, stroke, chronic lower respiratory disease, and diabetes—accounted for more than 60% of all deaths in the United States.[6] The first and third leading causes of death—heart disease and stroke—have been declining since 1950 and the second leading cause of death, cancer, has been declining since 1990.[11]

In Alameda County, the three most common causes of death during 2006-08 were heart disease, cancer, and stroke. These three chronic diseases accounted for 54% of all deaths. Chronic lower respiratory diseases and unintentional injuries ranked fourth and fifth respectively.

Table 5.3: Leading Causes of Death, Alameda County

	#	%
Total	27,731	100.0
Diseases of the Heart	6,791	24.5
Cancer (Malignant Neoplasms)	6,434	23.2
Stroke (Cerebrovascular Disease)	1,794	6.5
Chronic Lower Respiratory Diseases	1,276	4.6
Unintentional Injuries	1,259	4.5

Source: Alameda County Vital Statistics Files, 2006-08.

For females, the three leading causes of death in Alameda County during 2006-08 were the same as in previous years: heart disease, cancer, and stroke. Chronic lower respiratory diseases ranked fourth and Alzheimers disease ranked fifth. The three leading causes of death for males in Alameda County during 2006-08 changed from prior years to heart disease, cancer, and unintentional injuries. Stroke ranked fourth and chronic lower respiratory diseases ranked fifth.

Table 5.4: Female Leading Causes of Death, Alameda County

	#	%
Total	14,050	100.0
Diseases of the Heart	3,371	24.0
Cancer (Malignant Neoplasms)	3,242	23.1
Stroke (Cerebrovascular Disease)	1,074	7.6
Chronic Lower Respiratory Diseases	694	4.9
Alzheimers Disease	565	4.0

Source: Alameda County Vital Statistics Files, 2006-08.

Table 5.5: Male Leading Causes of Death, Alameda County

	#	%
Total	13,681	100.0
Diseases of the Heart	3,420	25.0
Cancer (Malignant Neoplasms)	3,192	23.3
Unintentional Injuries	833	6.1
Stroke (Cerebrovascular Disease)	720	5.3
Chronic Lower Respiratory Diseases	582	4.3

Source: Alameda County Vital Statistics Files, 2006-08.

Birth defects were the leading cause of death among babies under one year of age, accounting for 21% of infant deaths. Disorders related to short gestation and low birth weight ranked second, followed by sudden infant death syndrome (SIDS), disorders affected by complication of placenta and cord, and intrauterine hypoxia (birth asphyxia).

As people get older, the leading causes of death shift from injuries to chronic diseases. Among those 1-24 years, homicide and unintentional injuries accounted for nearly two-thirds of deaths. Among those 25 to 44 years, the leading causes of death included a mix of injuries and chronic diseases: unintentional injuries, homicide, cancer, heart disease, and suicide. For those 45 to 64 years, four of the leading causes of death were chronic diseases: cancer, heart diseases, stroke, and chronic liver disease, and cirrhosis. These chronic diseases accounted for 60% of all deaths. Unintentional injuries ranked third. For those 65 years or older, heart diseases and cancer accounted for half of deaths, and stroke accounted for nearly 8%. Chronic lower respiratory diseases and Alzheimers disease combined accounted for almost 10%.

Table 5.6: Leading Causes of Death by Age Group, Alameda County

Age	Cause	#	%
<1	Total	284	100.0
	Congenital Malformations & Chromosomal Abnormalities	60	21.1
	Disorders Related to Short Gestation & Low Birth Weight	41	14.4
	Sudden Infant Death Syndrome	25	8.8
	Newborn Complication of Placenta, Cord, Membranes	18	6.3
	Intrauterine Hypoxia and Birth Asphyxia	12	4.2
1-24	Total	565	100.0
	Homicide	204	36.1
	Unintentional Injuries	162	28.7
	Suicide	47	8.3
	Cancer (Malignant Neoplasms)	42	7.4
	Diseases of the Heart	16	2.8
	Congenital Malformations & Chromosomal Abnormalities	16	2.8
25-44	Total	1,492	100.0
	Unintentional Injuries	349	23.4
	Homicide	210	14.1
	Cancer (Malignant Neoplasms)	198	13.3
	Diseases of the Heart	164	11.0
	Suicide	106	7.1
45-64	Total	5,705	100.0
	Cancer (Malignant Neoplasms)	1,771	31.0
	Diseases of the Heart	1,126	19.7
	Unintentional Injuries	420	7.4
	Stroke (Cerebrovascular Disease)	255	4.5
	Chronic Liver Disease & Cirrhosis	239	4.2
65+	Total	19,682	100.0
	Diseases of the Heart	5,482	27.9
	Cancer (Malignant Neoplasms)	4,422	22.5
	Stroke (Cerebrovascular Disease)	1,501	7.6
	Chronic Lower Respiratory Diseases	1,082	5.5
	Alzheimers Disease	811	4.1

Source: Alameda County Vital Statistics Files, 2006-08.

Heart disease and cancer were the two leading causes of death for every racial/ethnic group in Alameda County during 2006-08. For Asians, Latinos, and the multirace group, the order was different from other groups, with cancer first. Stroke was the third leading cause of death for all racial/ethnic groups except the multirace group and Latinos. For American Indians, chronic liver diseases and liver cirrhosis ranked third. Diabetes and stroke tied for third among Pacific Islanders. Unintentional injuries was among the five leading causes of death for every racial/ethnic group. Diabetes was among the five leading causes of death for American Indians, Asians, Latinos, and Pacific Islanders.

Table 5.7: Leading Causes of Death by Race/Ethnicity, Alameda County

Race/ Ethnicity	Cause	#	%
AfrAmer	Total	5,906	100.0
	Diseases of the Heart	1,406	23.8
	Cancer (Malignant Neoplasms)	1,299	22.0
	Stroke (Cerebrovascular Disease)	385	6.5
	Homicide	303	5.1
	Unintentional Injuries	289	4.9
AmerInd	Total	73	100.0
	Diseases of the Heart	18	24.7
	Cancer (Malignant Neoplasms)	14	19.2
	Chronic Liver Disease & Cirrhosis	7	9.6
	Unintentional Injuries	6	8.2
	Diabetes Mellitus	5	6.8
Asian	Total	3,737	100.0
	Cancer (Malignant Neoplasms)	1,035	27.7
	Diseases of the Heart	868	23.2
	Stroke (Cerebrovascular Disease)	336	9.0
	Diabetes Mellitus	148	4.0
	Unintentional Injuries	132	3.5
Latino	Total	2,598	100.0
	Cancer (Malignant Neoplasms)	573	22.1
	Diseases of the Heart	466	17.9
	Unintentional Injuries	217	8.4
	Stroke (Cerebrovascular Disease)	149	5.7
	Diabetes Mellitus	127	4.9
Multirace	Total	216	100.0
	Cancer (Malignant Neoplasms)	49	22.7
	Diseases of the Heart	40	18.5
	Unintentional Injuries	17	7.9
	Certain Conditions Originating in the Perinatal Period	9	4.2
	Suicide	9	4.2
	Homicide	9	4.2
PacIsl	Total	192	100.0
	Diseases of the Heart	59	30.7
	Cancer (Malignant Neoplasms)	33	17.2
	Diabetes Mellitus	15	7.8
	Stroke (Cerebrovascular Disease)	15	7.8
	Unintentional Injuries	12	6.3
White	Total	14,985	100.0
	Diseases of the Heart	3,932	26.2
	Cancer (Malignant Neoplasms)	3,428	22.9
	Stroke (Cerebrovascular Disease)	902	6.0
	Chronic Lower Respiratory Diseases	869	5.8
	Unintentional Injuries	583	3.9

Source: Alameda County Vital Statistics Files, 2006-08.

Table 5.8: Leading Causes of Death, Alameda

	#	%
Total	1,680	100.0%
Diseases of the Heart	493	29.3%
Cancer (Malignant Neoplasms)	392	23.3%
Stroke (Cerebrovascular Disease)	109	6.5%
Chronic Lower Respiratory Diseases	69	4.1%
Alzheimers Disease	62	3.7%

Source: Alameda County Vital Statistics Files, 2006-08.

Table 5.9: Leading Causes of Death, Albany

	#	%
Total	248	100.0%
Diseases of the Heart	68	27.4%
Cancer (Malignant Neoplasms)	60	24.2%
Stroke (Cerebrovascular Disease)	23	9.3%
Alzheimers Disease	13	5.2%
Unintentional Injuries	12	4.8%

Source: Alameda County Vital Statistics Files, 2006-08.

Table 5.10: Leading Causes of Death, Ashland

	#	%
Total	400	100.0%
Cancer (Malignant Neoplasms)	91	22.8%
Diseases of the Heart	81	20.3%
Stroke (Cerebrovascular Disease)	31	7.8%
Chronic Lower Respiratory Diseases	23	5.8%
Unintentional Injuries	23	5.8%

Source: Alameda County Vital Statistics Files, 2006-08.

Table 5.11 Leading Causes of Death, Berkeley

	#	%
Total	1,732	100.0%
Diseases of the Heart	419	24.2%
Cancer (Malignant Neoplasms)	407	23.5%
Stroke (Cerebrovascular Disease)	109	6.3%
Unintentional Injuries	84	4.8%
Alzheimers Disease	68	3.9%

Source: Alameda County Vital Statistics Files, 2006-08.

Table 5.12: Leading Causes of Death, Castro Valley

	#	%
Total	1,431	100.0%
Diseases of the Heart	343	24.0%
Cancer (Malignant Neoplasms)	338	23.6%
Stroke (Cerebrovascular Disease)	105	7.3%
Chronic Lower Respiratory Diseases	66	4.6%
Unintentional Injuries	63	4.4%

Source: Alameda County Vital Statistics Files, 2006-08.

Table 5.13: Leading Causes of Death, Cherryland

	#	%
Total	307	100.0%
Diseases of the Heart	65	21.2%
Cancer (Malignant Neoplasms)	57	18.6%
Chronic Lower Respiratory Diseases	24	7.8%
Unintentional Injuries	21	6.8%
Stroke (Cerebrovascular Disease)	13	4.2%

Source: Alameda County Vital Statistics Files, 2006-08.

Table 5.14: Leading Causes of Death, Dublin

	#	%
Total	327	100.0%
Cancer (Malignant Neoplasms)	98	30.0%
Diseases of the Heart	65	19.9%
Stroke (Cerebrovascular Disease)	18	5.5%
Chronic Lower Respiratory Diseases	16	4.9%
Diabetes Mellitus	13	4.0%

Source: Alameda County Vital Statistics Files, 2006-08.

Table 5.15: Leading Causes of Death, Emeryville

	#	%
Total	118	100.0%
Cancer (Malignant Neoplasms)	36	30.5%
Diseases of the Heart	21	17.8%
Stroke (Cerebrovascular Disease)	7	5.9%
Unintentional Injuries	7	5.9%
Alzheimers Disease	6	5.1%

Source: Alameda County Vital Statistics Files, 2006-08.

Table 5.16: Leading Causes of Death, Fairview

	#	%
Total	219	100.0%
Diseases of the Heart	60	27.4%
Cancer (Malignant Neoplasms)	42	19.2%
Stroke (Cerebrovascular Disease)	17	7.8%
Unintentional Injuries	13	5.9%
Chronic Lower Respiratory Diseases	10	4.6%

Source: Alameda County Vital Statistics Files, 2006-08.

Table 5.17: Leading Causes of Death, Fremont

	#	%
Total	2,841	100.0%
Cancer (Malignant Neoplasms)	723	25.4%
Diseases of the Heart	699	24.6%
Chronic Lower Respiratory Diseases	149	5.2%
Stroke (Cerebrovascular Disease)	148	5.2%
Unintentional Injuries	115	4.0%

Source: Alameda County Vital Statistics Files, 2006-08.

Table 5.18: Leading Causes of Death, Hayward

	#	%
Total	2,725	100.0%
Diseases of the Heart	662	24.3%
Cancer (Malignant Neoplasms)	587	21.5%
Stroke (Cerebrovascular Disease)	185	6.8%
Chronic Lower Respiratory Diseases	144	5.3%
Diabetes	125	4.6%
Unintentional Injuries	125	4.6%

Source: Alameda County Vital Statistics Files, 2006-08.

Table 5.19: Leading Causes of Death, Livermore

	#	%
Total	1,227	100.0%
Diseases of the Heart	328	26.7%
Cancer (Malignant Neoplasms)	285	23.2%
Chronic Lower Respiratory Diseases	80	6.5%
Stroke (Cerebrovascular Disease)	74	6.0%
Unintentional Injuries	48	3.9%

Source: Alameda County Vital Statistics Files, 2006-08.

Table 5.20: Leading Causes of Death, Newark

	#	%
Total	614	100.0%
Cancer (Malignant Neoplasms)	176	28.7%
Diseases of the Heart	135	22.0%
Stroke (Cerebrovascular Disease)	35	5.7%
Unintentional Injuries	32	5.2%
Chronic Lower Respiratory Diseases	22	3.6%

Source: Alameda County Vital Statistics Files, 2006-08.

Table 5.21: Leading Causes of Death, Oakland

	#	%
Total	8,698	100.0%
Diseases of the Heart	2,068	23.8%
Cancer (Malignant Neoplasms)	1,921	22.1%
Stroke (Cerebrovascular Disease)	581	6.7%
Unintentional Injuries	455	5.2%
Chronic Lower Respiratory Diseases	340	3.9%

Source: Alameda County Vital Statistics Files, 2006-08.

Table 5.22: Leading Causes of Death, Piedmont

	#	%
Total	186	100.0%
Cancer (Malignant Neoplasms)	59	31.7%
Diseases of the Heart	40	21.5%
Alzheimers Disease	12	6.5%
Stroke (Cerebrovascular Disease)	11	5.9%
Chronic Lower Respiratory Diseases	9	4.8%

Source: Alameda County Vital Statistics Files, 2006-08.

Table 5.23: Leading Causes of Death, Pleasanton

	#	%
Total	943	100.0%
Diseases of the Heart	241	25.6%
Cancer (Malignant Neoplasms)	231	24.5%
Chronic Lower Respiratory Diseases	56	5.9%
Stroke (Cerebrovascular Disease)	48	5.1%
Unintentional Injuries	41	4.3%

Source: Alameda County Vital Statistics Files, 2006-08.

Table 5.24: Leading Causes of Death, San Leandro

	#	%
Total	2,110	100.0%
Diseases of the Heart	506	24.0%
Cancer (Malignant Neoplasms)	491	23.3%
Stroke (Cerebrovascular Disease)	168	8.0%
Chronic Lower Respiratory Diseases	96	4.5%
Alzheimers Disease	65	3.1%
Unintentional Injuries	65	3.1%

Source: Alameda County Vital Statistics Files, 2006-08.

Table 5.25: Leading Causes of Death, San Lorenzo

	#	%
Total	538	100.0%
Cancer (Malignant Neoplasms)	138	25.7%
Diseases of the Heart	133	24.7%
Stroke (Cerebrovascular Disease)	33	6.1%
Chronic Lower Respiratory Diseases	27	5.0%
Diabetes	23	4.3%

Source: Alameda County Vital Statistics Files, 2006-08.

Table 5.26: Leading Causes of Death, Sunol

	#	%
Total	24	100.0%
Diseases of the Heart	9	37.5%

Source: Alameda County Vital Statistics Files, 2006-08.

Table 5.27: Leading Causes of Death, Remainder of the County

	#	%
Total	207	100.0%
Diseases of the Heart	49	23.7%
Cancer (Malignant Neoplasms)	39	18.8%
Alzheimers Disease	20	9.7%
Chronic Lower Respiratory Diseases	17	8.2%
Essential Hypertension & Hypertensive Renal Disease	9	4.3%
Stroke (Cerebrovascular Disease)	9	4.3%

Source: Alameda County Vital Statistics Files, 2006-08.

Life Expectancy

Life expectancy represents the number of years a group is expected to live, either from birth or from a given point in the lifespan.[7,8,16] Life expectancy at birth is the average number of years that a group of infants would be expected to live if they were to experience throughout their lifespan the same mortality experienced by the different age groups at the time of their birth.[7,14] This summary measure is strongly influenced by infant and childhood mortality. One of the advantages of using life expectancy is that it does not require the use of a standard population as does an age-adjusted rate. Therefore, it is easily comparable across different subgroups, time periods, and areas.

In the United States, life expectancy at birth changed from 47.3 in 1900 to 77.9 in 2007.[6,11] In 2007, U.S. life expectancy was 80.4 years for females and 75.4 years for males. Racial/ethnic disparities are pronounced. African American males had a life expectancy of 70.0 years compared to 75.9 years for White males. African American females had a life expectancy of 76.8 years compared to 80.8 years for White females.[6] However, the difference between male and female life expectancy at birth decreased over the past 15 years. During the same time period, the gap between Whites and African Americans narrowed from 7.0 years to 4.8 years.[6,8]

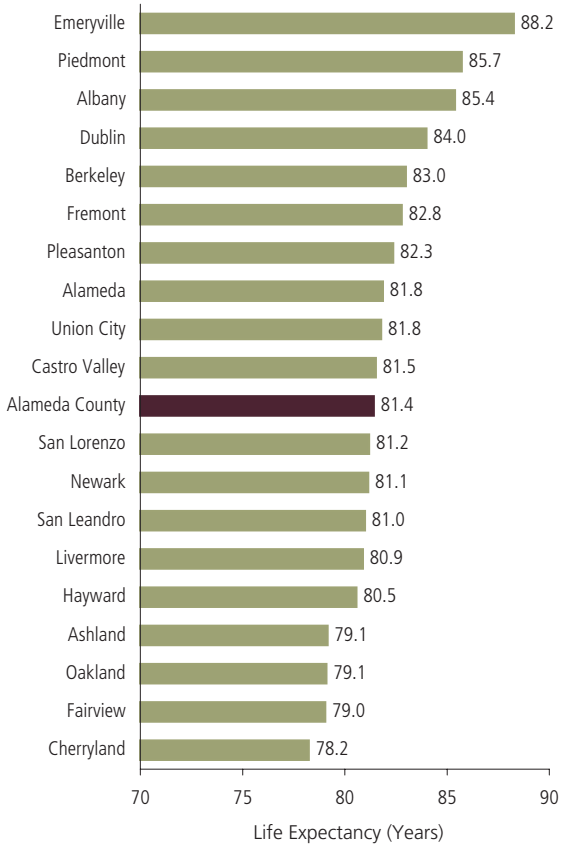
Table 5.28: Life Expectancy Comparison

	Alameda County	California[9]	United States[6]
Life Expectancy at Birth (Years)	81.4	80.2	77.9

Life expectancy at birth ranged from a low of 78.2 years in Cherryland to a high of 88.2 years in Emeryville. The gap was ten years between the lowest and highest communities. In Emeryville, Piedmont, Albany, Dublin, Berkeley, and Fremont, life expectancy at birth was significantly higher than in Alameda County.

Among many cities with low life expectancy at birth, Cherryland and Oakland had significantly lower life expectancy at birth than in Alameda County overall.

Figure 5.5: Life Expectancy at Birth by City



Source: Alameda County Vital Statistics Files, 2006-08.

Life expectancy at birth in Alameda County was 81.4 years in 2006-08. Asians had the highest life expectancy at birth, 87.4 years, compared to 73.8 years for African Americans, a gap of 13.6 years. The gender and racial differences were more profound—the difference between the life expectancy among Asian females and that among African American males was nearly 20 years.

Every racial/ethnic group showed some improvement in life expectancy at birth in the last five years: 2.3 years for Whites, 2.2 years for African Americans, 1.8 years for Latinos, and 1.5 years for Asians. Nationally the gap between Whites and African Americans narrowed during the last two decades, but this has not been the case in Alameda County.

Table 5.29: Life Expectancy at Birth by Race/Ethnicity and Gender

Race/ Ethnicity	Gender	LE	LCL	UCL
All Races	Total	81.4	81.2	81.5
	Male	78.9	78.7	79.1
	Female	83.7	83.5	83.9
AfrAmer	Total	73.8	73.4	74.3
	Male	69.9	69.3	70.5
	Female	77.5	76.9	78.1
Asian	Total	87.4	87.1	87.7
	Male	85.1	84.6	85.5
	Female	89.4	89.0	89.8
Latino	Total	84.0	83.6	84.4
	Male	80.7	80.1	81.2
	Female	87.1	86.6	87.7
PacIsl	Total	73.8	72.1	75.6
	Male	71.2	68.7	73.6
	Female	76.6	74.2	79.0
White	Total	81.0	80.8	81.2
	Male	78.9	78.6	79.2
	Female	83.0	82.7	83.3

Source: Alameda County Vital Statistics Files, 2006-08.

Table 5.30: Life Expectancy at Birth by City and Region

	LE	LCL	UCL
Alameda County	81.4	81.2	81.5
Alameda	81.8	80.9	82.8
Albany	85.4	83.2	87.6
Ashland	79.1	76.6	81.7
Berkeley	83.0	82.0	83.9
Castro Valley	81.5	80.3	82.7
Cherryland	78.2	75.4	81.1
Dublin	84.0	82.5	85.4
Emeryville	88.2	84.1	92.4
Fairview	79.0	75.9	82.1
Fremont	82.8	82.1	83.4
Hayward	80.5	79.7	81.4
Livermore	80.9	79.9	81.8
Newark	81.1	79.7	82.6
Oakland	79.1	78.6	79.6
Piedmont	85.7	83.5	87.8
Pleasanton	82.3	81.3	83.4
San Leandro	81.0	79.9	82.0
San Lorenzo	81.2	79.4	83.0
Union City	81.8	80.7	82.8
North County	83.3	82.4	84.2
Oakland Area	79.7	79.3	80.2
Central County	80.7	80.1	81.2
South County	82.3	81.8	82.8
Tri-Valley	82.0	81.4	82.6

Source: Alameda County Vital Statistics Files, 2006-08.

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Chronic Disease

Chronic diseases are the leading cause of death and disability in the United States. They are defined as "non-communicable illnesses that are prolonged in duration, do not resolve spontaneously, and are rarely cured completely." Some of the major chronic diseases include heart disease, cancer, stroke, and diabetes. Chronic diseases cause seven in ten deaths each year in the United States. Nearly one in two adults live with at least one chronic illness. Although chronic diseases are more common in older adults, they affect people of all ages. The percentage of U.S. children and adolescents with a chronic disease has increased from 1.8% in 1960 to over 7% in 2004. About one-fourth of persons living with a chronic illness experience significant limitations in daily activities. More than 75% of health care costs are due to chronic health conditions.[1]

Although chronic diseases are among the most prevalent and costly health problems, they are also among the most preventable. Four common, health-damaging, but modifiable behaviors—tobacco use, insufficient physical activity, poor eating habits, and excessive alcohol use—are responsible for much of the illness, disability, and premature death related to chronic diseases.[1-3]

Research has shown that there are major racial/ethnic inequities in chronic disease burden and risk factors. Socioeconomic status is also an important determinant of chronic disease risk in a community.[4] The social environment influences risk behaviors through the shaping of norms, patterns of social control, or environmental opportunities that determine individual behavior choices. People who are poor, have lower levels of education, or are socially isolated are more likely to engage in a wide array of health-damaging behaviors. Moreover, the social environment can impact people in ways that go beyond individual behavior choice. These can include factors which individuals may have little control over and can impact the health of entire communities, such as: exposure to environmental hazards, lack of access to quality education, and lack of clean and affordable housing—all of which put people at risk of chronic diseases.[5,6]

Chronic diseases require long-term treatment and management since they do not go away. Access to prevention and health care services is also an important determinant of chronic disease burden and outcome. Growing evidence suggests that a comprehensive approach to prevention can reduce the tremendous costs and other negative impacts of chronic diseases on society.[1]

Smoking

Cigarette smoking is the single most preventable cause of disease, disability, and death in the United States. It is responsible for about one in five deaths annually, or about 443,000 premature deaths per year.[1] An estimated 49,000 of tobacco-related deaths are a result of secondhand smoke exposure.[2]

An estimated 46 million people or 20.6% of adults (18 years or older) in the United States are current smokers. Current smokers are defined as persons who report smoking at least 100 cigarettes during their lifetime and who report smoking every day or some days. Cigarette smoking is more common among men (23.1%) than women (18.3%). Among the racial/ethnic groups, American Indian/Alaskan Native adults are most likely to smoke, and Latino adults are much less likely to smoke than White or African American adults.[3] Nationally, an estimated 20.0% of high school students are current smokers.[4] Smoking is more common among low-income adults than high-income adults; those with lower education levels are more likely to be smokers than those with higher education levels.[3]

Smoking causes nearly 90% of lung cancer deaths in men and 80% of lung cancer deaths in women. It causes about 90% of deaths from chronic obstructive lung disease. Smoking increases the risk of coronary heart disease and stroke by two to four times. It also increases the risk of developing lung cancer by 23 times in men and 13 times in women. Smoking causes several major respiratory diseases such as emphysema, bronchitis, and chronic airway obstruction. Besides lung cancer, it is linked to the development of certain types of leukemia as well as cancers of the cervix, stomach, uterus, esophagus, bladder, larynx, pharynx, pancreas, and kidney. Cigarette smoking has many adverse reproductive and early childhood effects, including increased risk for infertility, pre-term delivery, stillbirth, low birth weight, and sudden infant death syndrome. Women who smoke have lower bone density and increased risk of hip fracture than women who never smoked.[5]

The harmful effects of smoking extend to non-smokers. Adults and children are regularly exposed to secondhand smoke. Even brief exposure can be dangerous because nonsmokers inhale many of the same harmful chemicals in cigarette smoke as smokers. Secondhand smoke exposure causes serious disease and death, including heart disease and lung cancer in nonsmoking adults and sudden infant death syndrome, acute respiratory infections, ear problems, and more frequent asthma attacks in children.[5]

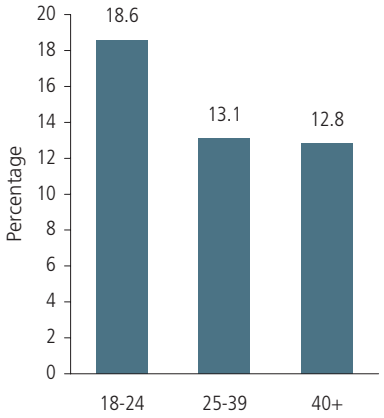
Annually, in the United States, cigarette smoking costs more than 193 billion dollars: 97 billion in lost productivity and 96 billion in health care expenditures. Secondhand smoke causes more than ten billion in health care expenditures. The Centers for Disease Control and Prevention recommend that comprehensive tobacco control include efforts to establish smoke-free policies and social norms, promote cessation, help tobacco users quit, and prevent initiation of tobacco use. This approach includes educational, clinical, regulatory, economic, and social strategies. Research has documented the effectiveness of laws and policies to protect the public from secondhand smoke exposure, promote cessation, and prevent initiation. Comprehensive approaches have been shown to reduce smoking rates and tobacco-related disease and death.[1]

Table 6.1: Adult Smoking Prevalence Comparison

	HP2010[6]	Alameda County	California[7]	United States[3]
Adult Smoking Prevalence (Percentage)	≤12.0	13.4	14.2	20.6

Current smokers are defined as persons who reported smoking at least 100 cigarettes during their lifetime and who, at the time of interview, reported smoking every day or some days. The percentage of current smokers was the highest among young adults 18-24 years (18.6%) compared to older adults 25-39 years or 40 years or older (13.1% and 12.8% respectively).

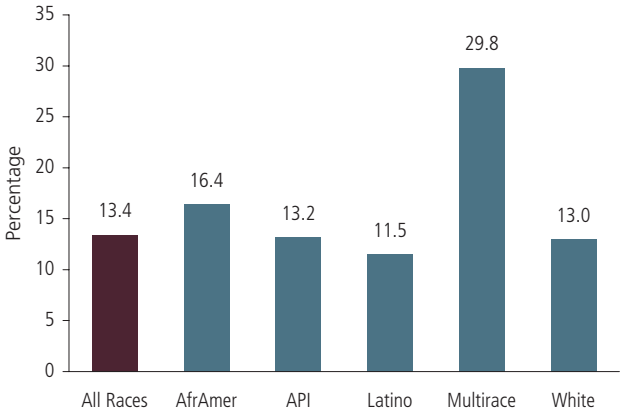
Figure 6.1: Adult Smoking Prevalence by Age Group



Source: California Health Interview Survey, 2005 & 2007.

In Alameda County, 13.4% of adults were current smokers. Multiracial persons had the highest smoking prevalence of all racial/ethnic groups, 2.6 times that of Latinos, who had the lowest rate (29.8% versus 11.5% respectively). African Americans had the second highest smoking prevalence rate; Whites and Asian/Pacific Islanders had similar rates (13.0% and 13.2% respectively).

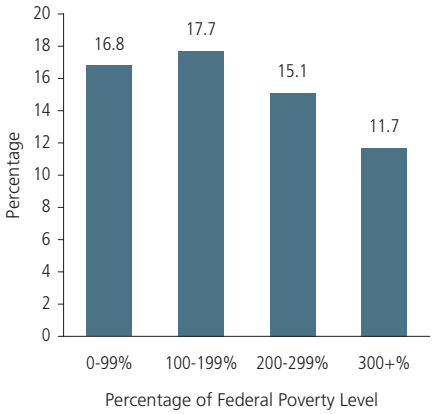
Figure 6.2: Adult Smoking Prevalence by Race/Ethnicity



Source: California Health Interview Survey, 2005 & 2007.

Smoking prevalence decreases with increasing income. Adults in the high-income group are much less likely to smoke than those in the lowest income group (11.7% versus 16.8%). Those in the middle income groups also had higher smoking prevalence (17.7% and 15.1%) than those in the high-income group.

Figure 6.3: Adult Smoking Prevalence by Poverty Level



Source: California Health Interview Survey, 2005 & 2007.

Physical Activity

In the United States, major changes in lifestyle and the built environment have contributed to dramatic declines in physical activity levels among adults over the last few decades. Sedentary lifestyle has become a pressing public health problem.[1,2] The Centers for Disease Control and Prevention recommend 30 minutes of moderate activity on at least five days of the week or 20 minutes of vigorous activity on at least three days of the week—also referred to as regular leisure time activity—to maintain health and wellness.[3] About half of adults in the United States (48.8%) are not physically active on a regular basis, and about one in four (24.1%) report no leisure-time activity at all.[4]

Physical activity has many health benefits. Physical activity is important in preventing obesity and other chronic conditions such as diabetes, heart disease, osteoporosis, and some types of cancer. It promotes weight loss while preserving and increasing lean mass. It also maintains muscle strength, bone mass, proper joint function, and may foster and maintain mental health. People may have a more positive self evaluation of physical and mental health status if they are more active. The benefits of physical activity are greatest for the elderly because it delays onset of disability, chronic disease, functional limitations, and subsequent loss of independence. [1]

Physical inactivity is linked with increased risk of coronary heart disease, colon cancer, and diabetes. Modest increases in physical activity levels are associated with substantial reduction in mortality from these conditions. Physical activity is protective against cognitive decline in the elderly, depression, osteoporosis, and a range of other common health conditions. Physical inactivity is a risk factor for overweight, which puts people at greater risk for type 2 diabetes, stroke, and other chronic diseases.[1]

The built environment influences all types of physical activity. A growing body of literature suggests that neighborhoods with stores, theaters, and other destinations within walking distance of home and work have the potential to promote physical activity. There is evidence that neighborhoods that provide facilities for active recreation such as nearby parks, multiuse trails, and appealing sidewalks or public spaces for walks may also promote recreational activity. Physical environments designed to facilitate commuting by foot, bicycle, or transit help promote physical activity by incorporating walking or biking into people's daily routine. Studies have demonstrated that perceived access to and safety of places to be physically active in a neighborhood are important predictors of physical activity level.[1,2]

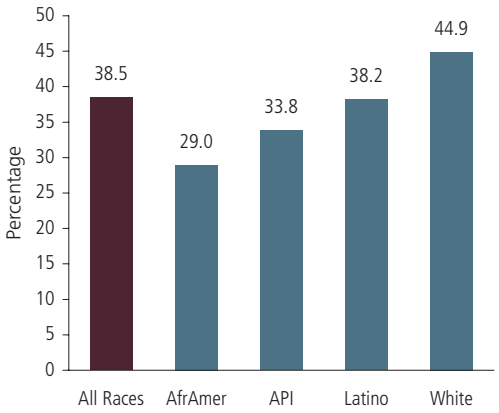
Physical inactivity is higher among people of color, low-income persons, and women. Research has shown that these groups experience more constraints in their environment to being physically active.[1] Poor availability and limited access to parks, playgrounds, lack of space to exercise, as well as safety concerns—all of which limit people from being physically active—are often distinctive characteristics of low-income urban neighborhoods.[3,5,6] In recent years, there has been increasing interest in public health and land use policies aimed at reducing barriers in the built environment, rather than changing individual behavior to promote physical activity.[2]

Table 6.2: Physical Activity and Park Use Comparison

	HP2010[7]	Alameda County	California[8]	United States[9]
Regular Physical Activity (Percentage)	≤50.0	38.5	36.3	31.9
Park Use (Percentage)	na	74.2	68.8	na

In Alameda County, 38.5% of adults reported being physically active. Whites were 1.5 times as likely to be physically active as African Americans (44.9% versus 29.0%). Latinos and Asian/Pacific Islanders had higher rates of physical activity than African Americans (38.2% and 33.8% respectively versus 29.0%).

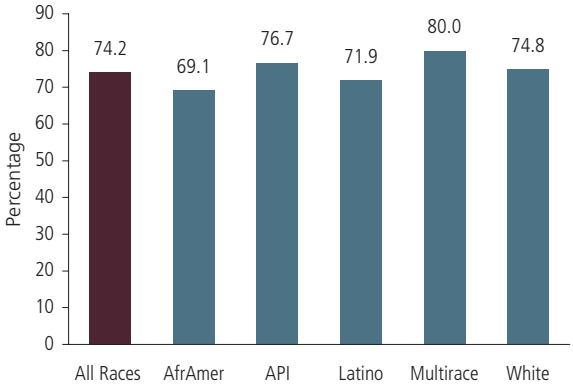
Figure 6.4: Adult Regular Physical Activity by Race/Ethnicity



Source: California Health Interview Survey, 2007.

In Alameda County, about three-fourths (74.2%) of adolescents and adults had visited a park, playground or open space in the past month. Use of parks varied by racial/ethnic group. African Americans were least likely to report use of parks and open spaces (69.1%) and multiracial persons were most likely (80.0%). Latinos reported only slightly higher rates of park use than African Americans; Asian/Pacific Islanders and Whites had similar rates of park use (76.7% and 74.8% respectively).

Figure 6.5: Adolescent and Adult Use of Parks and Open Space by Race/Ethnicity



Source: California Health Interview Survey, 2007.

Diet

Fruits and vegetables—as part of a healthy diet—are important for optimal child growth, weight management, and chronic disease prevention. Fruits and vegetables are low in calories and rich in vitamins, minerals, and fiber, and contain nutrients that help protect against adverse health outcomes. Numerous studies have shown that diets rich in fruits and vegetables are associated with reduced risk of several chronic diseases including heart disease, stroke, some cancers, diabetes, and osteoporosis.[1] Dietary guidelines recommend that adults consume at least five servings of fruits and vegetables a day.[2] Consumption of fruits and vegetables is one of several measures of a healthy diet. There is a large gap between recommended dietary patterns and actual consumption by persons of all ages. About one-fourth (24.8%) of adults in the United States eat the recommended five or more servings of fruits and vegetables each day. This percentage is slightly higher in California (29.2%).[3]

Fast food is defined as inexpensive food that is prepared and served quickly to consumers, often through drive-through or curbside service that tends to be high in fat and low in nutritional value. Fast food contributes to adverse health consequences like the obesity epidemic for many reasons, including large inexpensive portion sizes, and high energy density (that is, a large number of calories relative to volume) coupled with poor nutrition, ease of availability, and frequency of consumption. More frequent consumption of fast food has been linked to higher availability.[4]

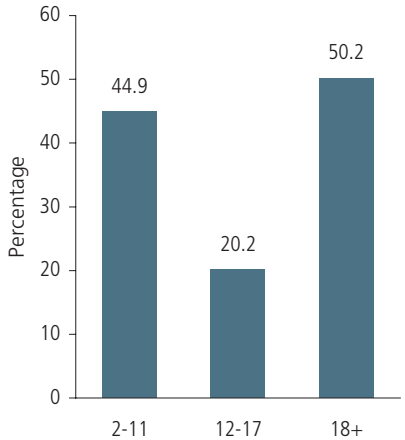
Research has shown that people make food choices based not only on personal preference but environmental factors such as food access, availability, and affordability.[5] Access to stores that sell affordable, nutritious food is important for adopting a healthy diet. Furthermore, studies show that low-income neighborhoods are less likely to have healthy food choices (for example, fresh fruits and vegetables) and more likely to have a higher concentration of fast food restaurants than affluent neighborhoods.[1]

Table 6.3: Diet Comparison

	Alameda County	California[6]
Five-a-Day (Percentage)	50.2	48.7
Fast Food Consumption (Percentage)	12.7	18.8

Consumption of fruits and vegetables varies by age group. Only one in five adolescents 12-17 years has the recommended servings of fruits and vegetables compared to half of adults (20.2% and 50.2% respectively). Children 2-11 years are over twice as likely to consume the recommended daily amount of fruits and vegetables as adolescents (44.9%).

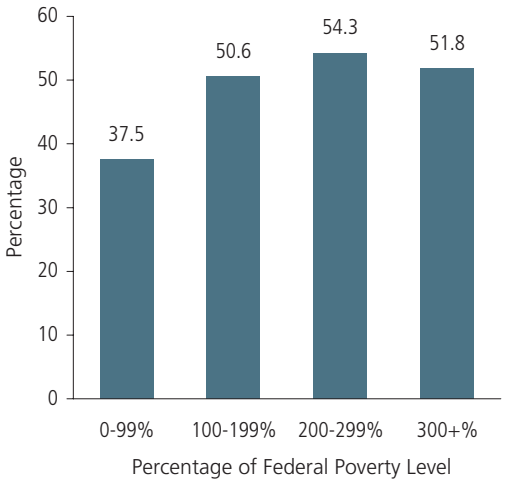
Figure 6.6: Five-a-Day Consumption by Age Group



Source: California Health Interview Survey (CHIS) 2007; except for 18+ CHIS, 2005.

Having a healthy diet is influenced by income. Adults from the lowest income households are much less likely to have the recommended five servings of fruits and vegetables a day than those from moderate- to high-income households (37.5% versus 51.8% to 54.3%).

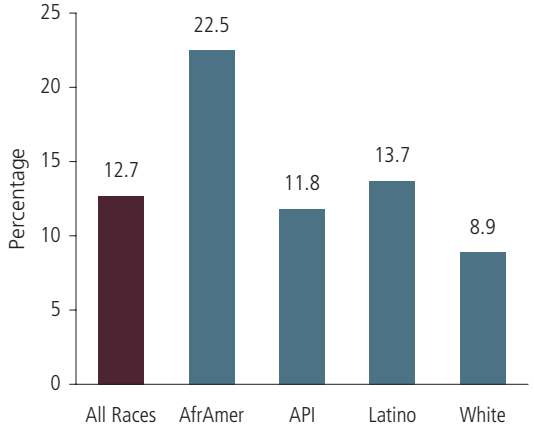
Figure 6.7: Five-a-Day Consumption Among Adults by Poverty Level



Source: California Health Interview Survey, 2005.

In Alameda County, 12.7% of residents had fast food—considered an unhealthy diet—three or more times a week. There were racial/ethnic differences in consumption of fast food. African Americans were 2.5 times as likely to consume fast food three or more times a week as Whites (22.5% versus 8.9% respectively). Latinos (13.7%) were less likely to have fast food than African Americans (22.5%), but more likely than Asian/Pacific Islanders (11.8%).

Figure 6.8: Fast Food Consumption by Race/Ethnicity



Source: California Health Interview Survey, 2007.

Table 6.4: Adult Smoking Prevalence by Selected Characteristics

		%	LCL	UCL
Alameda County		13.4	11.4	15.4
California		14.2	13.8	15.0
Gender	Female	9.9	6.7	13.1
	Male	16.2	11.4	21.1
Age Group	18-24	18.6	10.1	27.1
	25-39	13.1	9.2	17.0
	40+	12.8	10.6	15.0
Race/Ethnicity	AfrAmer	16.4	9.5	23.2
	API	13.2	8.6	17.8
	Latino	11.5	7.4	15.5
	Multirace	29.8	16.2	43.3
	White	13.0	10.2	15.7
Poverty Level	0-99%	16.8	10.6	23.0
	100-199%	17.7	11.4	24.0
	200-299%	15.1	9.0	21.2
	300+%	11.7	9.4	14.0

Source: California Health Interview Survey, 2005 & 2007.

Table 6.5: Regular Physical Activity by Race/Ethnicity and Poverty Level, Adults 18 Years or Older

		%	LCL	UCL
Alameda County		38.5	34.5	42.5
California		36.3	35.5	37.1
Race/Ethnicity	AfrAmer	29.0	16.6	41.4
	API	33.8	25.3	42.3
	Latino	38.2	27.1	49.3
	White	44.9	40.1	49.8
Poverty Level	0-99%	36.8	24.1	49.5
	100-199%	41.6	27.6	55.5
	200-299%	30.1	19.9	40.4
	300+%	39.9	35.2	44.5

Source: California Health Interview Survey, 2007.

Table 6.6: Park Use By Race/Ethnicity and Poverty Level, Adolescents and Adults 12 Years or Older

		%	LCL	UCL
Alameda County		74.2	70.7	77.6
California		68.8	68.1	69.5
Race/Ethnicity	AfrAmer	69.1	56.1	82.2
	API	76.7	69.7	83.8
	Latino	71.9	62.7	81.0
	Multirace	80.0	64.5	95.4
	White	74.8	70.7	79.0
Poverty Level	0-99%	66.3	54.8	77.9
	100-199%	67.5	57.1	77.9
	200-299%	61.5	49	74.0
	300+%	79.6	75.9	83.3

Source: California Health Interview Survey, 2007.

Table 6.7: Five-a-Day by Selected Characteristics

			%		LCL	UCL
Adults 18+ Years	Alameda County		50.2		46.6	53.9
	California		48.7		48	49.5
	Race/Ethnicity	AfrAmer	16.3	*	1.4	31.3
		API	20.3	*	4.5	36.1
		Latino	24.4		11.9	37.0
		Multirace	77.8		56.8	98.8
		White	20.2		11.7	28.8
	Poverty Level	0-99%	37.5		26.5	48.4
		100-199%	50.6		40.1	61.0
		200-299%	54.3		44.2	64.5
		300+%	51.8		47.4	56.3
Adolescents 12-17 Years	Alameda County		20.2		12.1	28.3
Children 2-11 Years	Alameda County		44.9		36.9	52.8

Source: California Health Interview Survey (CHIS), 2005; except adolescents and children, CHIS, 2007.
Note: *=Rate unreliable.

Table 6.8: Fast Food Consumption Three or More Days a Week by Race/Ethnicity, 2+ Years

		%	LCL	UCL
Alameda County		12.7	10.3	15.2
California		18.8	18.2	19.3
Race/Ethnicity	AfrAmer	22.5	12.6	32.4
	API	11.8	6.5	17.2
	Latino	13.7	7.8	19.6
	White	8.9	6.5	11.4

Source: California Health Interview Survey, 2007.

Overweight and Obesity

Overweight and obesity are defined as abnormal or excessive fat accumulation that may impair health. Body mass index (BMI) is a simple index of weight-for-height that is commonly used in classifying overweight and obesity in adult populations and individuals. It is defined as the weight in kilograms divided by the square of the height in meters (kg/m^2). BMI provides the most useful population-level measure of overweight and obesity as it is the same for both sexes and for all ages of adults. However, it should be considered as a rough guide because it may not correspond to the same degree of fatness in different individuals. The World Health Organization (WHO) defines "overweight" as a BMI equal to or more than 25, and "obesity" as a BMI equal to or more than 30. These cut-off points provide a benchmark for individual assessment, but there is evidence that risk of chronic disease increases progressively from a BMI of 21.[1]

A measurement called percentile of BMI is used to identify overweight and obesity in children and adolescents aged two to 19 years. The Centers for Disease Control and Prevention recommend not using the word "obesity" for children and adolescents. Rather, they recommend using two levels of overweight: 1) the 85th percentile, an "at risk" level, 2) the 95th percentile, the more severe level. CDC defines overweight as a BMI at or above the 95th percentile for children of the same age and sex. Classifications of overweight for children and adolescents are specific by age and gender because children's body composition varies as they age and varies between boys and girls.[2]. In 2007-08 9.5% of infants and toddlers were at or above the 95th percentile of the weight for age growth charts. Among children and adolescents aged two through 19 years, 11.9% were at or above the 97th percentile and 31.7% were at or above the 85th percentile of BMI for age. High BMI among children and adolescents is a major a public health concern in the United States. High BMI in children has many adverse health consequences.[3]. Research shows that overweight and obesity disproportionately affects low-income and minority children.[4]

More than one-third of U.S. adults—more than 72 million people—and 16% of U.S. children are obese. Since 1980, obesity rates for adults have doubled and rates for children have tripled. Obesity rates among all groups in society—irrespective of age, sex, race, ethnicity, socioeconomic status, education level, or geographic region—have increased markedly. Research has shown that as weight increases to reach levels of overweight and obesity, the risks for the following conditions also increases: coronary heart disease, type 2 diabetes, cancer (endometrial, breast, and colon), hypertension, high total cholesterol or high levels of triglycerides, stroke, liver and gallbladder disease, sleep apnea and respiratory problems, osteoarthritis, infertility.[5]

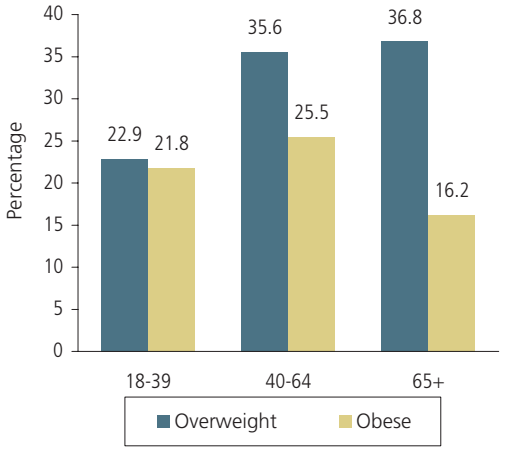
The determinants of obesity in the United States are complex, numerous, and operate at social, economic, environmental, and individual levels. American society has become 'obesogenic,' characterized by environments that promote increased food intake, unhealthy foods, and physical inactivity. Public health approaches that affect large numbers of different populations in multiple settings—communities, schools, work sites, and health care facilities—are needed. Policy and environmental change initiatives that make healthy choices in nutrition and physical activity available, affordable, and easy will likely prove most effective in combating obesity.[5]

Table 6.9: Overweight and Obesity Comparison

	HP2010[6]	Alameda County	California[7]	United States[8]
Overweight (Percentage)	na	30.5	34.4	34.2
Obesity (Percentage)	≤15.0	22.7	22.7	33.8

Overweight is defined as BMI 25.0 to 29.9 and obesity as BMI 30 or higher. Adults are more likely to be overweight with increasing age. Prevalence of overweight increases significantly from 22.9% among those 18-39 years to 35.6% among those 40-64 years, and is about the same among those 65 years or older (36.8%). The prevalence of obesity increases slightly with age from 21.8% among adults 18-39 years to 25.5% among those 40-64 years; it then declines among seniors 65 years or older.

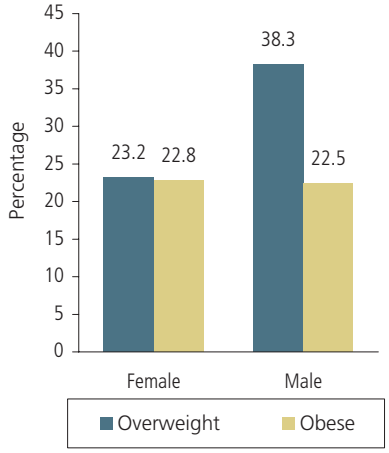
Figure 6.9: Adult Prevalence of Overweight and Obesity by Age Group



Source: California Health Interview Survey, 2007.

Males are significantly more likely to be overweight than females (38.3% versus 23.2% respectively). However, there are no gender differences in the prevalence of obesity: males and females have similar rates (22.5% and 22.8% respectively).

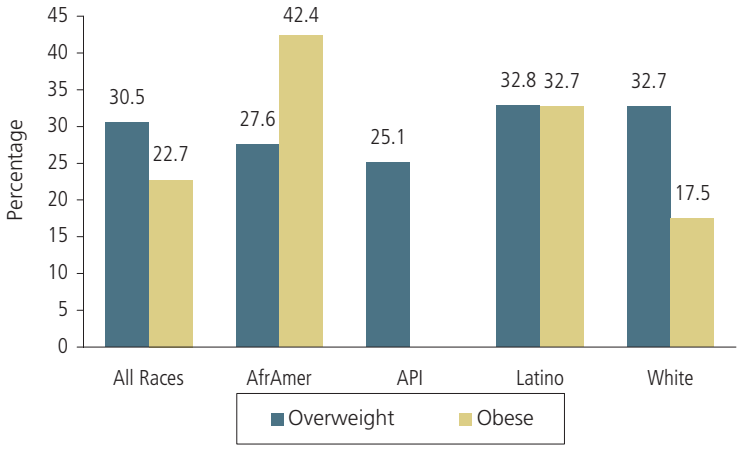
Figure 6.10: Adult Prevalence of Overweight and Obesity by Gender



Source: California Health Interview Survey, 2007.

In Alameda County, 30.5% of adults were overweight, and 22.7% were obese in 2007. The patterns of overweight and obesity by race/ethnicity are distinctly different. African Americans have the highest prevalence of obesity (42.4%), 2.4 times the rate among Whites (17.5%). Latinos have the second highest obesity rates (32.7%), almost twice the rate for Whites. In contrast, Whites and Latinos are most likely to be overweight of all racial/ethnic groups (32.7% and 32.8% respectively). Asian/Pacific Islanders have the lowest prevalence of overweight (25.1%), slightly lower than the rate among African Americans (27.6%).

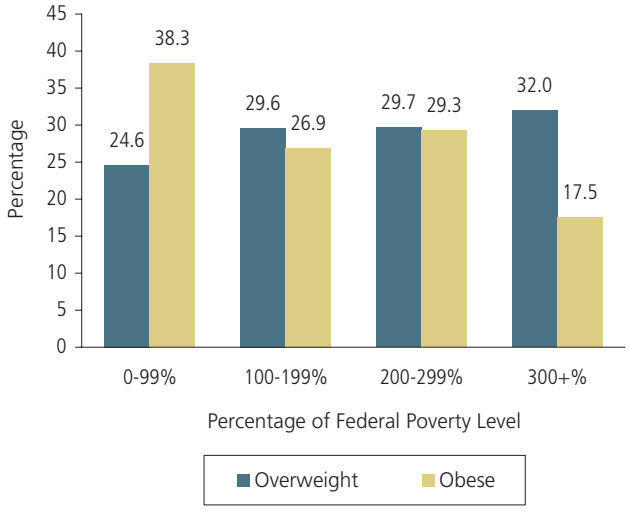
Figure 6.11: Adult Prevalence of Overweight and Obesity by Race/Ethnicity



Source: California Health Interview Survey, 2007.

Obesity rates among adults from low-income households are over twice the rate among those from high-income households (38.3% and 17.5% respectively). The reverse pattern is observed for adult overweight. The prevalence of overweight increases with higher income, varying from a low of 24.6% among adults from low-income households, to 32.0% among adults from high-income households.

Figure 6.12: Adult Prevalence of Overweight and Obesity by Poverty Level



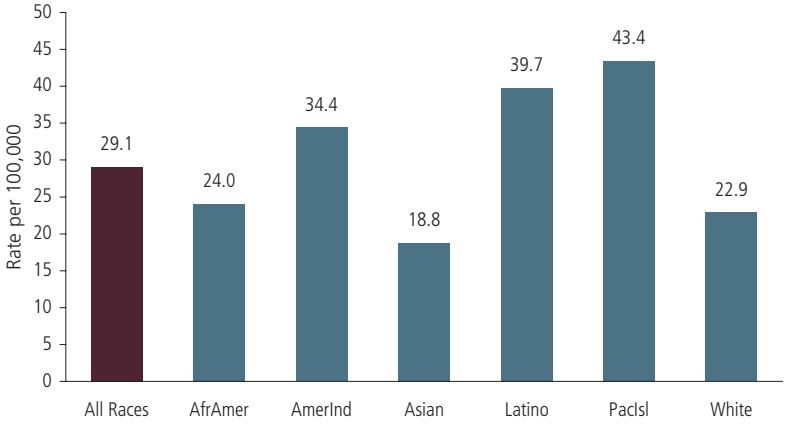
Source: California Health Interview Survey, 2007.

The California Department of Education requires that public schools conduct fitness testing every year among children in fifth, seventh, and ninth grades. One part of the test is body composition, measured by either skin fold test or by body mass index (BMI), a height-weight algorithm. Students are classified as within the fitness zone or not. Those not in the fitness zone are considered overweight. Data in this section show the percentage of students who are overweight, a summary measure that is an average of the three grade levels. In the 2008-09 school year, 29.1% of students in the county were overweight. The proportion of overweight children differed by race/ethnicity. Pacific Islander children experienced the greatest overweight proportion (43.4%) of all racial/ethnic groups. In comparison, Asian children had the lowest overweight proportion (18.8%).

In the 2008-09 school year, the proportion of children who were overweight ranged from a low of 5.2% in the Sunol Glen Unified School District to a high of 50.3% in the Emeryville Unified School District. In the county, 29.1% of students were considered overweight.

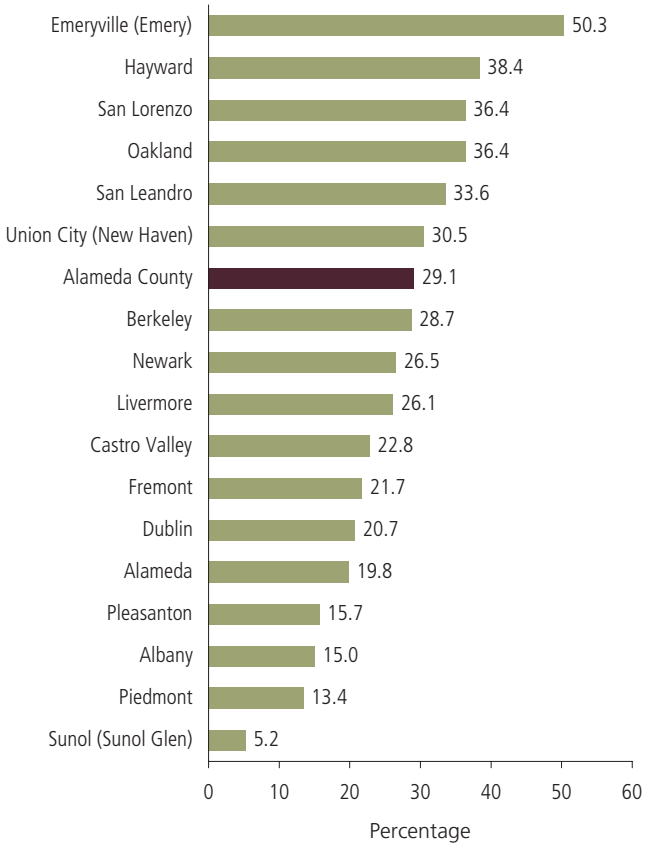
In each of the school districts, the proportion of overweight students was higher among males than females. Overall, one-third of males (33.2%) and one-quarter of females (25.2%) were overweight (data not shown). The greatest difference was in the Pleasanton Unified School District where the proportion of overweight males was 20%, compared to 11% among females.

Figure 6.13: Percentage Overweight Children by Race/Ethnicity



Source: California FitnessGram, California Department of Education, 2008-09.
Note: Sunol Glen total for 5th and 7th grades.

Figure 6.14: Percentage Overweight Children by School District



Source: California FitnessGram, California Department of Education, 2008-09.
Note: Sunol Glen total for 5th and 7th grades only.

Table 6.10: Overweight for Age, Children 0-11 Years

	%	LCL	UCL
Alameda County	9.9	5.0	14.9

Source: California Health Interview Survey, 2007.

Table 6.11: Prevalence of Overweight/Obesity, Adolescents 12-17 Years

	%	LCL	UCL
Alameda County	11.8	5.8	17.8

Source: California Health Interview Survey, 2005 & 2007.

Table 6.12: Prevalence of Adult Overweight and Obesity by Selected Characteristics

		Overweight			Obese		
		%	LCL	UCL	%	LCL	UCL
Alameda County		30.5	26.8	34.2	22.7	18.9	26.5
California		34.4	33.7	35.2	22.7	22.0	23.3
Gender	Female	23.2	19.4	27.1	22.8	18.3	27.4
	Male	38.3	32.0	44.6	22.5	16.4	28.6
Age Group	18-39	22.9	16.8	28.9	21.8	15.4	28.2
	40-64	35.6	30.4	40.9	25.5	19.9	31.1
	65+	36.8	29.4	44.1	16.2	11.8	20.7
Race/Ethnicity	White	32.7	28.2	37.2	17.5	13.9	21.0
	Latino	32.8	22.3	43.3	32.7	28.2	37.2
	AfrAmer	27.6	15.8	39.5	42.4	27.1	57.6
	API	25.1	17.5	32.6	8.3 *	2.9	13.6
Poverty Level	0-99%	24.6	15.3	33.9	38.3	24.4	52.2
	100-199%	29.6	18.6	40.6	26.9	13.9	39.8
	200-299%	29.7	16.6	42.8	29.3	17.8	40.7
	300+%	32.0	27.6	36.3	17.5	13.7	21.2

Source: California Health Interview Survey, 2007.
Note: *=Rate unreliable.

Table 6.13: Percentage Overweight Children by Race/Ethnicity and School District

District	Overall	AfrAmer	AmerInd	Asian	Latino	PacIsl	White
Alameda County	29.1	24.0	34.4	18.8	39.7	43.4	22.9
Alameda	19.8	30.8	na	14.4	30.7	42.9	17.5
Albany	41.8	16.5	na	14.2	21.3	na	19.2
Berkeley	28.7	36.8	na	29.4	36.6	na	14.1
Castro Valley	22.8	30.3	na	14.0	29.4	na	23.2
Dublin	20.7	21.8	na	18.4	31.2	na	19.5
Emeryville (Emery)	50.3	51.0	na	na	na	na	na
Fremont	21.7	32.5	na	15.1	37.5	29.1	24.7
Hayward	38.4	37.6	na	27.7	41.8	46.3	33.0
Livermore	26.1	37.9	na	20.9	37.2	na	22.0
Newark	26.5	36.4	na	25.1	35.8	36.4	27.9
Oakland	35.4	37.9	na	20.0	42.7	59.0	18.9
Piedmont	13.4	na	na	13.0	na	na	12.3
Pleasanton	15.7	16.3	na	21.7	24.6	na	15.8
San Leandro	33.6	35.0	na	47.2	40.3	na	32.7
San Lorenzo	36.4	34.8	na	26.7	39.2	59.6	36.7
Sunol (Sunol Glen)	5.2	na	na	na	na	na	na
Union City (New Haven)	30.5	36.4	na	25.1	35.8	36.4	27.9

Source: California Fitness Gram, California Department of Education, 2008-09.
Note: Sunol Glen total for 5th and 7th grades only.

Table 6.14: Percentage Overweight Children by Gender, Grade, and School District

City (District)	Overall	Female	Male	5th Grade	7th Grade	9th Grade
Alameda County	29.1	25.2	33.2	29.7	28.6	28.9
Alameda	19.8	15.2	32.6	21.9	18.3	19.3
Albany	41.8	37.3	46.0	100.0	24.6	16.7
Berkeley	28.7	23.6	33.5	23.0	28.2	40.3
Castro Valley	22.8	18.7	26.7	19.6	25.1	23.2
Dublin	20.7	16.8	24.5	18.2	21.6	22.6
Emeryville (Emery)	50.3	48.3	52.7	70.2	46.0	37.3
Fremont	21.7	15.6	27.1	22.4	22.2	20.5
Hayward	38.4	35.1	41.6	39.1	37.3	38.8
Livermore	26.1	22.0	30.2	26.4	27.2	24.9
Newark	26.5	27.4	36.1	27.1	18.9	33.2
Oakland	35.4	31.2	39.1	34.9	35.6	35.7
Piedmont	13.4	10.7	16.1	7.7	12.8	19.2
Pleasanton	15.7	11.2	20.2	16.6	15.6	15.0
San Leandro	33.6	28.8	38.3	35.9	38.7	26.4
San Lorenzo	36.4	32.4	40.3	32.0	37.4	39.2
Sunol (Sunol Glen)	5.2	0.0	11.1	6.7	3.6	na
Union City (New Haven)	30.5	25.2	35.3	30.6	32.1	29.0

Source: California Fitness Gram, California Department of Education, 2008-09.
Note: Sunol Glen total for 5th and 7th grades only.

Hypertension

Blood pressure is described as two numbers that represent different measures. The first (systolic) number represents the pressure when the heart beats. The second (diastolic) number represents the pressure when the heart rests between beats. The following is the classification system for blood pressure.

Classification	Definition
Normal Blood Pressure	Systolic: <120 mmHg and Diastolic: <80 mmHg
Prehypertension	Systolic: 120-139 mmHg or Diastolic: 80-89 mmHg
High Blood Pressure	Systolic: =>140 mmHg or Diastolic: =>90 mmHg or taking antihypertensive medication

Blood pressure that is slightly higher than normal is called prehypertension. People with prehypertension are more likely to develop high blood pressure than are people with normal blood pressure levels. High blood pressure usually has no warning signs or symptoms, so people may not know they have it. Nearly one of five people who have hypertension are not aware that they have it. In the United States, 74.5 million people have high blood pressure, also known as hypertension.[1]

Hypertension increases the risk of heart disease and stroke, the first and third leading causes of death in the United States.[2] High blood pressure was a primary or contributing cause of death for 326,000 Americans in 2006. Hypertension mortality in the United States was 8.0 per 100,000 in 2006. In the United States, hypertension is more common among African Americans than Whites.[1]

About one of three U.S. adults—32.0%—has high blood pressure.[2] About one in four American adults has prehypertension. In the United States an estimated 53% of nursing home residents had hypertension in 2004. In 2006 the number of ambulatory care visits (to physician's offices, hospital outpatient and emergency departments) for hypertension was 40.5 million dollars.[2] Nearly 45 million people visited their doctor for high blood pressure in 2006. In 2010, high blood pressure will cost the United States 76.6 billion dollars in health care services, medications, and missed days of work.[1]

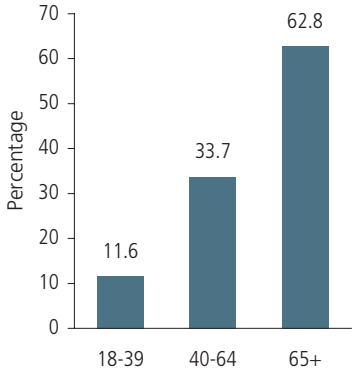
A diet high in sodium increases the risk for high blood pressure. Prevention and control of high blood pressure involves lifestyle changes that include regular monitoring of blood pressure, maintaining a healthy weight, having a diet rich in fruits and vegetables, moderate aerobic and muscle-strengthening physical activity, and limiting alcohol use.[1]

Table 6.15: Hypertension Comparison

	HP2010[2]	Alameda County	California[3]	United States[4]
Hypertension Prevalence (Percentage)	≤14.0	28.6	26.1	32.0

The risk of having high blood pressure increases dramatically with age. Over six in ten seniors (62.8%) have high blood pressure compared to about one in three (33.7%) adults 40-64 years, and just over one in ten (11.6%) adults 18-39 years.

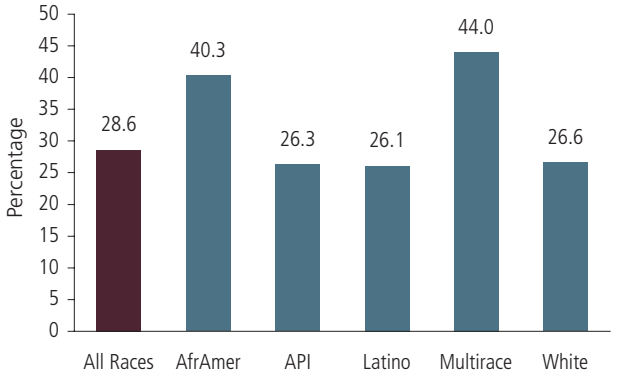
Figure 6.15: High Blood Pressure by Age Group



Source: California Health Interview Survey, 2007.

In Alameda County, over one in four (28.6%) adults had high blood pressure in 2007. Over four in ten multiracial and African American adults had high blood pressure (44.0% and 40.3% respectively). In comparison, just over one-fourth of those in other racial/ethnic groups had high blood pressure (26.1% to 26.6%).

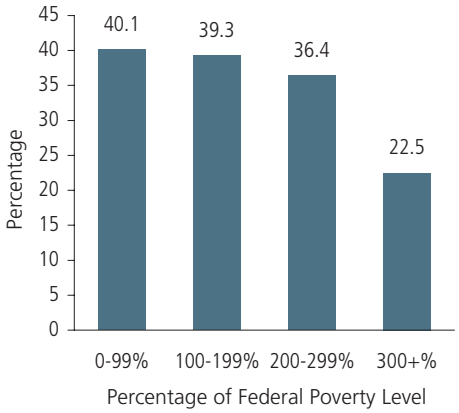
Figure 6.16: High Blood Pressure by Race/Ethnicity



Source: California Health Interview Survey, 2007.

The risk of high blood pressure is higher with lower income. Low-income adults are 1.8 times as likely to have high blood pressure as high-income adults (40.1% and 22.5% respectively).

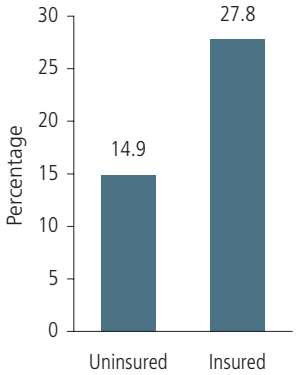
Figure 6.17: High Blood Pressure by Poverty Level



Source: California Health Interview Survey, 2007.

Having health insurance increases the likelihood of being diagnosed and treated for high blood pressure. Adults with health insurance are almost twice as likely to be diagnosed with high blood pressure as those who are uninsured (27.8% and 14.9% respectively).

Figure 6.18: High Blood Pressure by Insurance Status



Source: California Health Interview Survey, 2005 & 2007.

Table 6.16: Prevalence of High Blood Pressure by Selected Characteristics

		%	LCL	UCL
Alameda County		28.6	24.8	32.3
California		26.1	25.5	26.8
Gender	Female	27.7	23.2	32.2
	Male	29.5	23.3	35.6
Age Group	18-39	11.6	6.8	16.5
	40-64	33.7	28.0	39.4
	65+	62.8	55.9	69.8
Race/Ethnicity	AfrAmer	40.3	25.4	55.1
	API	26.3	18.9	33.6
	Latino	26.1	15.6	36.6
	Multirace	44.0	20.7	67.2
	White	26.6	22.4	30.9
Poverty Level	0-99%	40.1	27.0	53.2
	100-199%	39.3	25.8	52.7
	200-299%	36.4	24.3	48.5
	300+%	22.5	18.8	26.2
Insurance Status	Uninsured	14.9	8.6	21.2
	Insured	27.8	25.3	30.4

Source: California Health Interview Survey (CHIS), 2007 except Insurance Status CHIS, 2005 & 2007.

Diabetes

Diabetes mellitus is a chronic disease in which the body does not produce or properly use insulin, which can lead to blood glucose (sugar) levels that are too high. This is generally due to the body's inability to produce insulin (the hormone produced by the pancreas to regulate blood sugar) or use it properly. Prediabetes is a condition in which individuals have blood glucose levels higher than normal but not high enough to be classified as diabetes. People with prediabetes have an increased risk of developing type 2 diabetes, heart disease, and stroke. The two main types of diabetes are type 1 and type 2.[1]

Type 1 diabetes was previously called insulin-dependent diabetes mellitus or juvenile-onset diabetes. It develops when the body's immune system destroys pancreatic beta cells, the only cells in the body that make the hormone insulin that regulates blood glucose. This form of diabetes usually strikes children and young adults, although disease onset can occur at any age. Type 1 diabetes may account for 5% to 10% of all diagnosed cases of diabetes. Risk factors for type 1 diabetes may include autoimmune, genetic, and environmental factors.[1]

Type 2 diabetes was previously called non-insulin-dependent diabetes mellitus or adult-onset diabetes. Type 2 diabetes may account for about 90% to 95% of all diagnosed cases of diabetes. It usually begins as insulin resistance, a disorder in which the cells do not use insulin properly. As the need for insulin rises, the pancreas gradually loses its ability to produce insulin. Type 2 diabetes is associated with older age, obesity, family history of diabetes, history of gestational diabetes, impaired glucose metabolism, physical inactivity, and race/ethnicity. Type 2 diabetes is increasingly being diagnosed in children and adolescents.[1,]

Diabetes requires rigorous management to reduce the risk of serious complications and premature death. It contributes to a variety of medical problems, including heart disease, stroke, high blood pressure, blindness, kidney disease, diseases of the nervous system, amputations, dental problems, and complications during pregnancy.[1]

In 2007 an estimated 23.6 million people or 7.8% of the U.S. population had diabetes. About 1.6 million new cases of diabetes were diagnosed in people 20 years or older, and at least 57 million adults were at risk of developing diabetes. Among adults 20 years or older, 23.5 million or 10.7% had diabetes. Diabetes prevalence was 9.8% among Whites, 14.7% and among African Americans. Among adults 60 years or older, 23.1% had diabetes. Diabetes prevalence among men was 11.2%, while among women it was 10.2%. The prevalence of diabetes has increased steadily over the past 20 years among all gender-race/ethnicity groups. In 2007, the total direct and indirect cost of diabetes in the United States was $174 billion.[2]

Diabetes was the seventh leading cause of death in the United States in 2007. There were 71,382 deaths from diabetes in the United States. The age-adjusted rate was 22.5 per 100,000.[3] The diabetes mortality rate in California was 21.1 per 100,000 in 2006-08.[4]

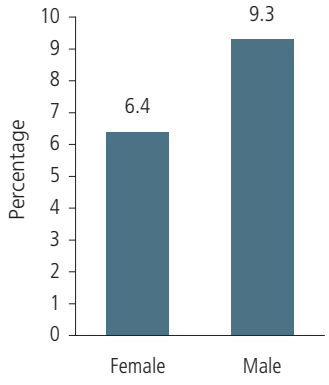
Table 6.17: Diabetes Comparison

	Alameda County	California[4,5]	United States[2,3]
Diabetes Prevalence (Percentage)	7.8	7.8	10.7
Mortality (Rate per 100,000)	21.4	21.1	22.5

Diabetes Prevalence

Males have higher diabetes prevalence than females (9.3% versus 6.4% respectively).

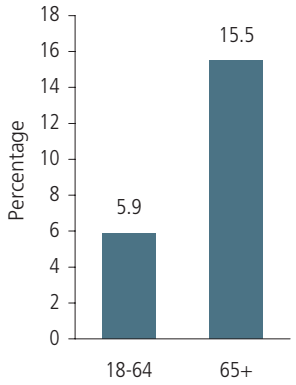
Figure 6.19: Adult Diabetes Prevalence by Gender



Source: California Health Interview Survey, 2007.

Elderly adults have much higher diabetes prevalence (2.6 times) compared to non-elderly adults (15.5% versus 5.9% respectively).

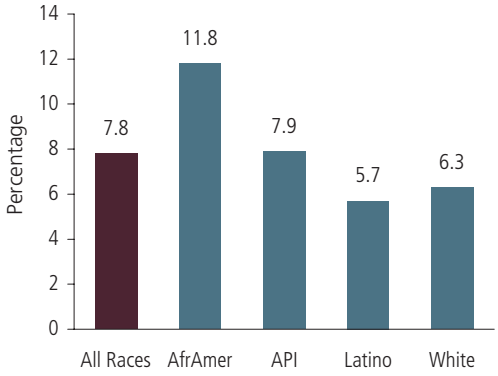
Figure 6.20: Adult Diabetes Prevalence by Age Group



Source: California Health Interview Survey, 2007.

In Alameda County, 7.8% of adults had diabetes in 2007. African Americans were twice as likely to have diabetes as Latinos (11.8% versus 5.7% respectively). Asian/Pacific Islanders had the second highest prevalence (7.9%), followed by Whites (6.3%).

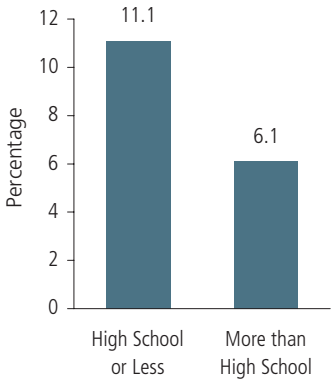
Figure 6.21: Adult Diabetes Prevalence by Race/Ethnicity



Source: California Health Interview Survey, 2007.

Education is an important aspect of socioeconomic status—a strong determinant of health. In Alameda County, adults with a high school education or less were almost twice as likely to have diabetes as those with a high school degree or higher (6.1% versus 11.1% respectively).

Figure 6.22: Adult Diabetes Prevalence by Education



Source: California Health Interview Survey, 2007.

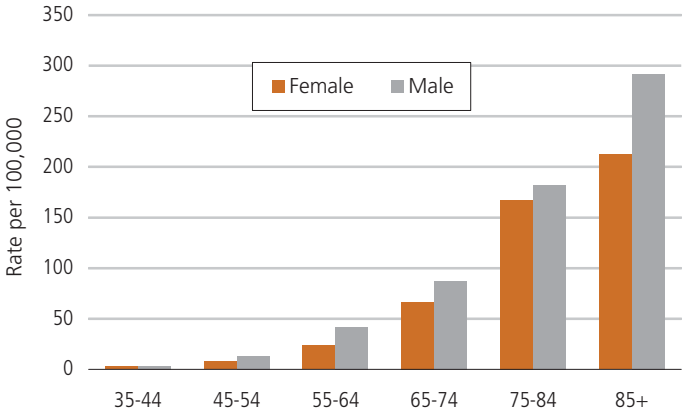
Diabetes Mortality

Diabetes mortality was higher among males than females in all age groups. Among middle-aged adults, 45 to 64 years, the rates were 60% to 80% higher among males than females. Diabetes mortality increased with age and was highest among males 85 years or older.

There were 917 deaths from diabetes in Alameda County from 2006 to 2008, for an age-adjusted diabetes mortality rate of 21.4 per 100,000. African American and Pacific Islander mortality rates were significantly higher than any other racial/ethnic group. The African American rate was more than twice the rates for Asians and Whites, and about 1.5 times the Latino rate. Although Pacific Islanders had the highest rate, it was based on a small numbers of deaths.

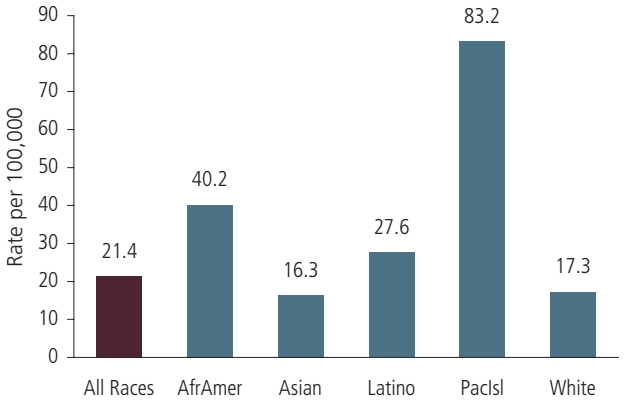
For all racial/ethnic groups combined, the mortality rate from diabetes increased significantly by 11.6% per year until the mid 1990s, then started to decline significantly at 0.8% per year since 1994-96. The rate for Whites also increased steeply at 10.3% per year before it started to decline at 2.2% per year since 1995-97. However, in recent years the trend appeared to be upward again. Rates for Latinos increased 3.5% per year until 2003-05, then appeared to decline in recent years but not significantly. African Americans had an increase of about 10.1% per year until 1994-96, then declined since 1998-00 by 2.2% per year. The rate for Asians declined 3.1% per year since the late 1990s.

Figure 6.23: Diabetes Mortality by Age Group and Gender



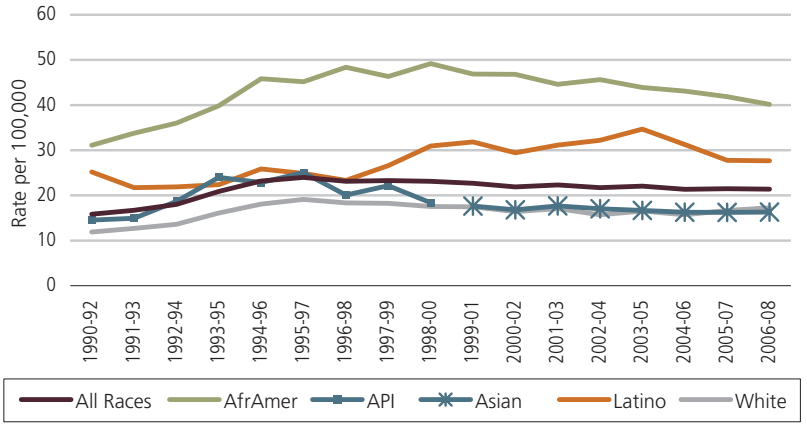
Source: Alameda County Vital Statistics Files, 2006-08.

Figure 6.24: Diabetes Mortality by Race/Ethnicity



Source: Alameda County Vital Statistics Files, 2006-08.

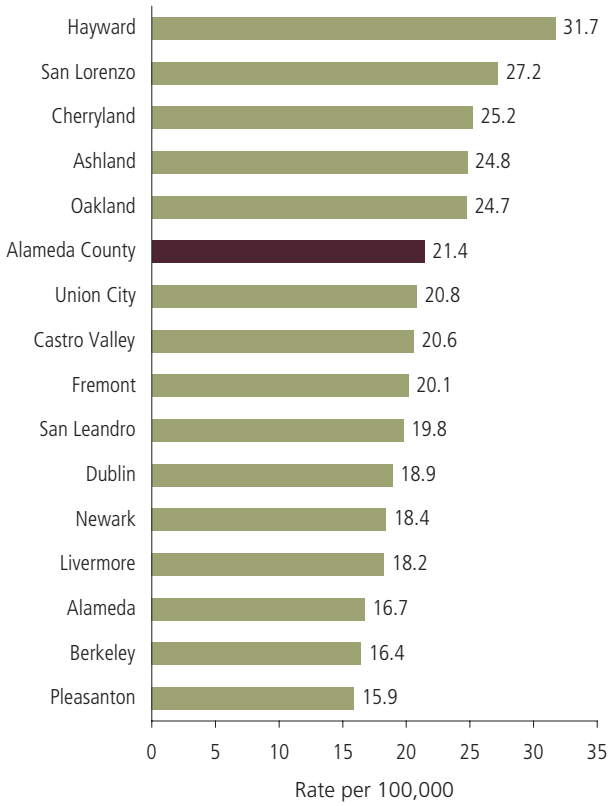
Figure 6.25: Diabetes Mortality Trend



Source: Alameda County Vital Statistics Files, 1990-08.
Note: Rate for Asian/Pacific Islanders (API) until 1998-00; rate for Asians (without Pacific Islanders) from 1999-01.

The age-adjusted diabetes mortality rates ranged from a low of 15.9 per 100,000 in Pleasanton to a high of 31.7 in Hayward. Pleasanton, Berkeley, and Alameda had the lowest diabetes mortality in the county. Hayward, San Lorenzo, and Cherryland had the highest rates in the county.

Figure 6.26: Diabetes Mortality by City



Source: Alameda County Vital Statistics Files, 2006-08.

DATA TABLES

Table 6.18: Adult Diabetes Prevalence by Selected Characteristics

		%	LCL	UCL
Alameda County		7.8	5.8	9.8
California		7.8	7.4	8.2
Gender	Female	6.4	4.4	8.3
	Male	9.3	5.8	12.8
Age Group	18-64	5.9	4.6	7.2
	65+	15.5	11.7	19.2
Race/Ethnicity	AfrAmer	11.8	6.4	17.1
	API	7.9	5.1	10.7
	Latino	5.7	3.1	8.3
	White	6.3	4.8	7.8
Education Level	High School or Less	11.1	6.3	15.9
	More than High School	6.1	4.4	7.7

Source: California Health Interview Survey (CHIS), 2007, except Age and Race/Ethnicity CHIS, 2005 & 2007.

Table 6.19: Three-Year Diabetes Mortality by City, Region, Gender, and Race/Ethnicity

	All				Female				Male				AfrAmer				AmerInd			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	917	21.4	20.0	22.8	462	18.9	17.1	20.6	455	24.6	22.3	27.0	242	40.2	35.0	45.3	5	na	na	na
Alameda	47	16.7	12.3	22.2	27	16.1	10.6	23.4	20	17.6	10.8	27.3	9	na	na	na	<5	na	na	na
Albany	5	na	na	na	<5	na	na	na	<5	na	na	na	<5	na	na	na	0	na	na	na
Ashland	13	24.8	13.2	42.3	5	na	na	na	8	na	na	na	<5	na	na	na	0	na	na	na
Berkeley	50	16.4	12.2	21.7	21	11.5	7.1	17.6	29	24.0	16.1	34.4	23	45.2	28.7	67.9	0	na	na	na
Castro Valley	46	20.6	15.1	27.4	17	12.1	7.1	19.4	29	31.6	21.1	45.4	<5	na	na	na	0	na	na	na
Cherryland	11	25.2	12.6	45.1	6	na	na	na	5	na	na	na	<5	na	na	na	0	na	na	na
Dublin	13	18.9	10.0	32.3	8	na	na	na	5	na	na	na	<5	na	na	na	0	na	na	na
Emeryville	<5	na	na	na	<5	na	na	na	<5	na	na	na	<5	na	na	na	0	na	na	na
Fairview	7	na	na	na	<5	na	na	na	<5	na	na	na	<5	na	na	na	0	na	na	na
Fremont	100	20.1	16.1	24.2	52	18.6	13.9	24.4	48	22.4	16.5	29.7	5	na	na	na	0	na	na	na
Hayward	125	31.7	26.1	37.3	57	25.4	19.2	32.9	68	39.1	30.3	49.5	13	38.5	20.5	65.9	<5	na	na	na
Livermore	30	18.2	12.3	26.0	18	19.5	11.6	30.9	12	17.5	9.0	30.6	<5	na	na	na	0	na	na	na
Newark	16	18.4	10.5	29.8	5	na	na	na	11	35.0	17.5	62.6	<5	na	na	na	0	na	na	na
Oakland	293	24.7	21.9	27.6	155	22.4	18.8	26.0	138	27.6	22.9	32.3	166	44.1	37.3	50.9	<5	na	na	na
Piedmont	<5	na	na	na	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na
Pleasanton	24	15.9	10.2	23.6	16	17.4	10.0	28.3	8	na	na	na	<5	na	na	na	0	na	na	na
San Leandro	63	19.8	15.2	25.3	33	17.7	12.2	24.9	30	22.8	15.4	32.5	6	na	na	na	0	na	na	na
San Lorenzo	23	27.2	17.2	40.8	15	29.0	16.2	47.9	8	na	na	na	<5	na	na	na	0	na	na	na
Sunol	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na
Union City	37	20.8	14.6	28.6	14	14.2	7.7	23.8	23	30.2	19.1	45.3	<5	na	na	na	0	na	na	na
Remainder of Cty	<5	na	na	na	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na
North County	55	15.6	11.7	20.3	23	11.0	7.0	16.5	32	22.5	15.4	31.8	24	45.1	28.9	67.1	0	na	na	na
Oakland Area	348	22.8	20.4	25.2	186	20.8	17.8	23.9	162	25.1	21.2	29.1	177	45.0	38.3	51.7	<5	na	na	na
Central County	288	25.2	22.3	28.1	136	20.4	16.9	23.9	152	31.5	26.5	36.6	28	35.3	23.4	51.0	<5	na	na	na
South County	153	19.9	16.7	23.2	71	16.5	12.9	20.8	82	25.2	20.0	31.3	9	na	na	na	0	na	na	na
Tri-Valley	67	17.5	13.6	22.2	42	19.1	13.8	25.9	25	15.6	10.1	23.0	<5	na	na	na	0	na	na	na

	Asian				Latino				Multirace				PacIsl				White			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	148	16.3	13.7	19.0	127	27.6	22.7	32.6	8	na	na	na	15	83.2	46.6	137.2	370	17.3	15.4	19.1
Alameda	16	26.7	15.3	43.3	<5	na	na	na	0	na	na	na	0	na	na	na	19	10.8	6.5	16.8
Albany	<5	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Ashland	<5	na	na	na	<5	na	na	na	<5	na	na	na	0	na	na	na	<5	na	na	na
Berkeley	<5	na	na	na	5	na	na	na	0	na	na	na	0	na	na	na	18	10.1	6.0	16.0
Castro Valley	<5	na	na	na	<5	na	na	na	0	na	na	na	<5	na	na	na	36	21.9	15.3	30.3
Cherryland	0	na	na	na	<5	na	na	na	<5	na	na	na	<5	na	na	na	6	na	na	na
Dublin	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	8	na	na	na
Emeryville	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Fairview	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Fremont	22	14.3	8.9	21.6	16	25.0	14.3	40.7	<5	na	na	na	0	na	na	na	56	23.8	18.0	30.9
Hayward	9	na	na	na	33	36.2	24.9	50.8	<5	na	na	na	11	189.0	94.4	338.2	55	34.9	26.3	45.4
Livermore	<5	na	na	na	5	na	na	na	0	na	na	na	0	na	na	na	23	18.3	11.6	27.5
Newark	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	8	na	na	na
Oakland	43	18.1	13.1	24.3	27	17.7	11.6	25.7	<5	na	na	na	<5	na	na	na	48	13.7	10.1	18.2
Piedmont	0	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Pleasanton	0	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	22	18.0	11.3	27.2
San Leandro	18	32.6	19.3	51.6	9	na	na	na	0	na	na	na	0	na	na	na	30	18.4	12.4	26.2
San Lorenzo	<5	na	na	na	7	na	na	na	0	na	na	na	0	na	na	na	12	21.4	11.1	37.4
Sunol	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na
Union City	17	20.9	12.2	33.5	5	na	na	na	0	na	na	na	0	na	na	na	12	24.7	12.8	43.2
Remainder of Cty	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
North County	5	na	na	na	5	na	na	na	0	na	na	na	0	na	na	na	21	10.0	6.2	15.3
Oakland Area	59	19.2	14.6	24.7	30	17.2	11.6	24.5	<5	na	na	na	<5	na	na	na	72	12.7	9.9	16.0
Central County	36	19.7	13.8	27.2	59	29.9	22.8	38.6	<5	na	na	na	13	134.6	71.7	230.2	146	24.3	20.1	28.4
South County	43	17.1	12.4	23.0	24	20.5	13.2	30.6	<5	na	na	na	0	na	na	na	76	23.3	18.3	29.1
Tri-Valley	<5	na	na	na	7	na	na	na	0	na	na	na	0	na	na	na	53	18.1	13.6	23.7

Source: Alameda County Vital Statistics Files, 2006-08.

Coronary Heart Disease

Coronary heart disease (CHD) develops when the arteries of the heart become narrowed or clogged and cannot supply enough oxygen-rich blood and nutrients to the heart muscle. Coronary heart disease usually results from the buildup of fatty material and plaque (atherosclerosis) in the inner layer of the walls of the coronary arteries. If the blood supply to the heart muscle is inadequate, a person may experience chest pain or pressure called angina. A heart attack (myocardial infarction) occurs when the blood supply to parts of the heart muscle is cut off completely.[1,2]

Several risk factors for coronary heart disease can be modified through lifestyle changes. The risk of developing CHD can be reduced significantly through a healthy diet, regular exercise, reducing stress levels, and not smoking, in addition to reducing or controlling high blood pressure, high blood cholesterol, and diabetes. Socioeconomic status, environment, and culture are also important risk factors in the development of the disease.[3-5]

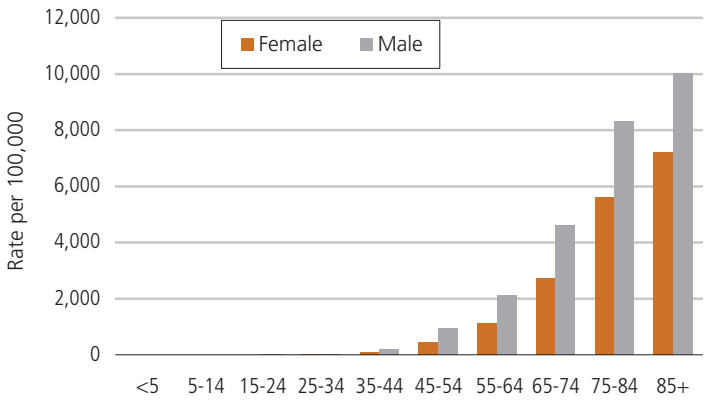
Deaths from all types of heart disease have declined steadily over the past 50 years, mostly from better medical treatments and effective prevention efforts to reduce controllable risk factors such as hypertension, smoking, high blood cholesterol, and physical inactivity.[3,5] Although some people die from hypertensive heart disease and rheumatic heart disease, most heart disease deaths occur due to CHD.[1,2,6] CHD is the most common cause of death in the United States, accounting for more than one of every six deaths. Most of these are sudden deaths are caused by cardiac arrest.[6,7]

It is estimated that 17.6 million people in the United States have CHD.[6] From 1996 to 2006, the U.S. mortality rate from CHD declined 36.4%. About 81% of people who died of CHD were 65 years or older. CHD occurs more often in men than in women. Approximately 15 years of life were lost on average due to heart attacks.[6] African American males had the highest CHD mortality rate, followed by White males, African American females, and White females.[6]

Coronary Heart Disease Hospitalization

Coronary heart disease-related hospitalizations are rare among children and young adults. Between 35 and 64 years, men are about twice as likely as women to be hospitalized for CHD-related illness. This differential decreases with increasing age. Among those 85 years or older, males are 40% more likely than females to be hospitalized.

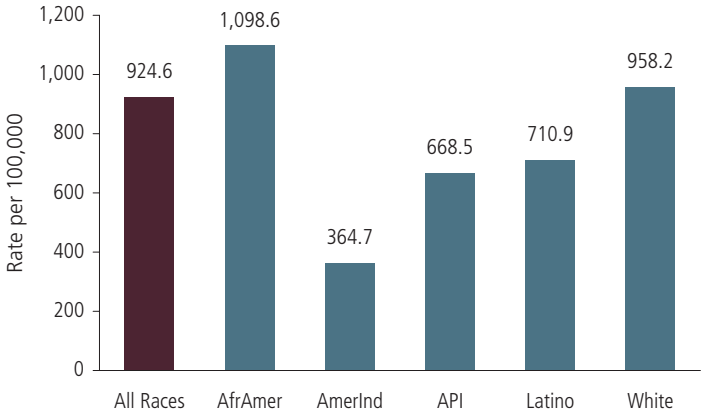
Figure 6.27: CHD-Related Hospitalization by Age Group and Gender



Source: OSHPD Patient Discharge Data, 2006-08.

There were 40,011 CHD-related hospitalizations in Alameda County from 2006 through 2008. The age-adjusted rate was 924.6 per 100,000 population. The highest rate of CHD-related hospitalization was found among African Americans, followed by Whites. American Indians had the lowest rate, about one-third (33%) that of African Americans and 38% that of Whites.

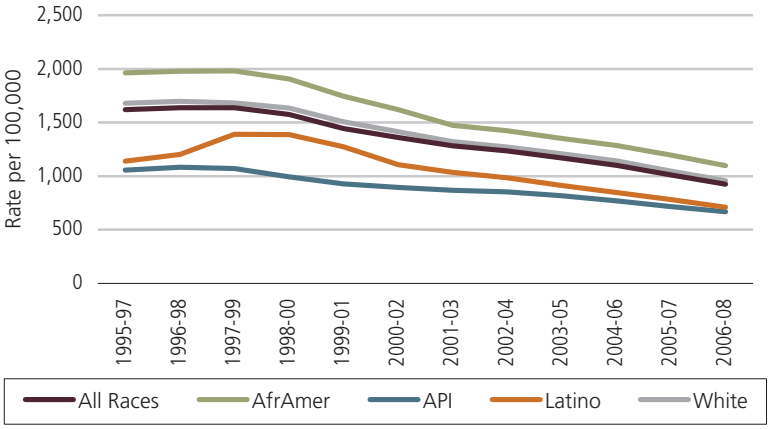
Figure 6.28: CHD-Related Hospitalization by Race/Ethnicity



Source: OSHPD Patient Discharge Data, 2006-08.

For all racial/ethnic groups combined, the rate of CHD-related hospitalizations dropped significantly by 6% per year since 1997-99. The rate among African Americans and Whites dropped by 6% per year; among Asian/Pacific Islanders, it dropped 4% per year; and among Latinos, it dropped 7% per year. Latinos were the only group to experience a significant increase in disease from 1995-97 to 1997-99.

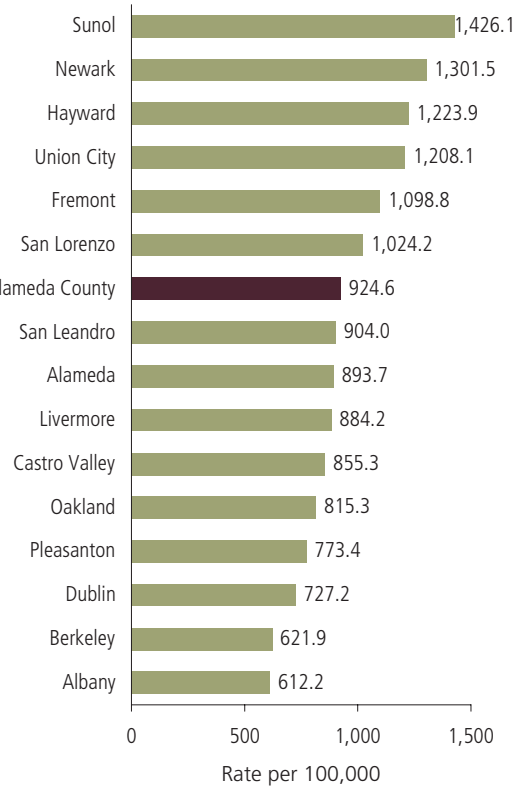
Figure 6.29: CHD-Related Hospitalization Trend



Source: OSHPD Patient Discharge Data, 1995-08.

CHD-related hospitalizations ranged from a low of 612.2 per 100,000 in Albany to a high of 1,426.1 in Sunol. The lowest rates were found in the north county cities of Albany and Berkeley. Sunol, Newark, and Hayward had the highest rate of CHD-related hospitalization in county.

Figure 6.30: CHD-Related Hospitalization by City



Source: OSHPD Patient Discharge Data, 2006-08.

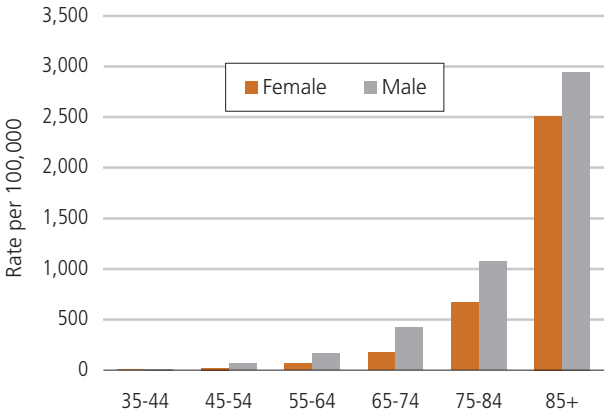
Coronary Heart Disease Mortality

Table 6.20: Coronary Heart Disease Comparison

	HP2010[8]	Alameda County	California[9]	United States[6]
CHD Mortality (Rate per 100,000)	≤162.0	115.3	137.1	134.9

In general, CHD mortality was 60% to 90% higher among males than females. CHD mortality increased with age. Very few deaths occurred before the age of 35. Between the ages of 35 and 74, the rate was two to three times higher for males than females.

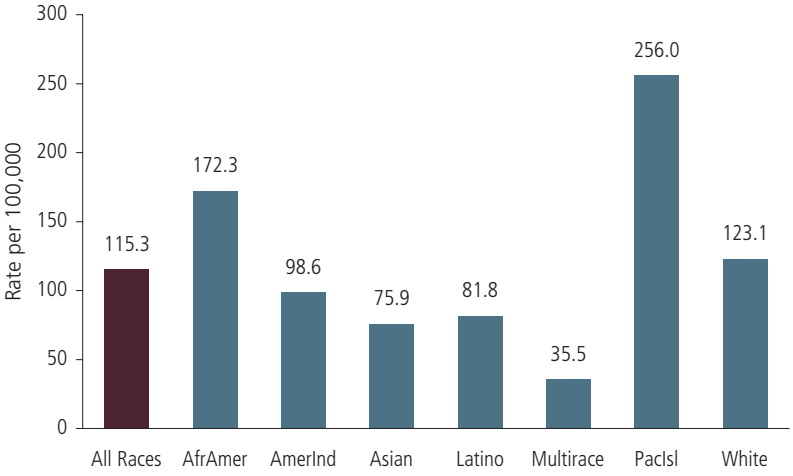
Figure 6.31: CHD Mortality by Age Group and Gender



Source: Alameda County Vital Statistics Files, 2006-08.

There were 5,077 deaths from CHD in Alameda County from 2006 to 2008, yielding an age-adjusted CHD mortality rate of 115.3 per 100,000 population. Rates for Pacific Islanders, African Americans, and Whites were significantly higher than those for Asians, Latinos, and the multiracial group. The Pacific Islander rate was more than 1.5 times the rate of African Americans, a difference that was statistically significant. The multiracial group had the lowest rate; however, it was based on a small number of deaths.

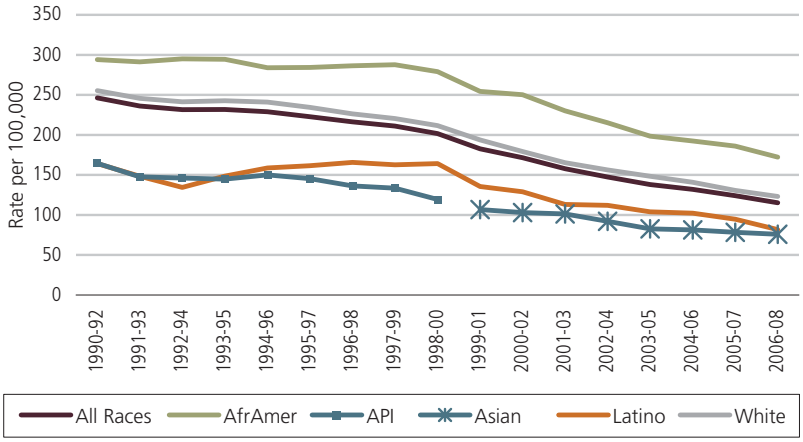
Figure 6.32: CHD Mortality by Race/Ethnicity



Source: Alameda County Vital Statistics Files, 2006-08.

For all racial/ethnic groups combined, the CHD mortality rates declined significantly by 6.7% per year since 1997-99. Also, for each racial/ethnic group, the rate declined significantly starting at the end of 1990s. The rates for Whites and African Americans declined at 6.5% and 5.5% per year respectively. Among Latinos, it declined at 6.9% per year, and the rate for Asians declined at 6.0% per year.

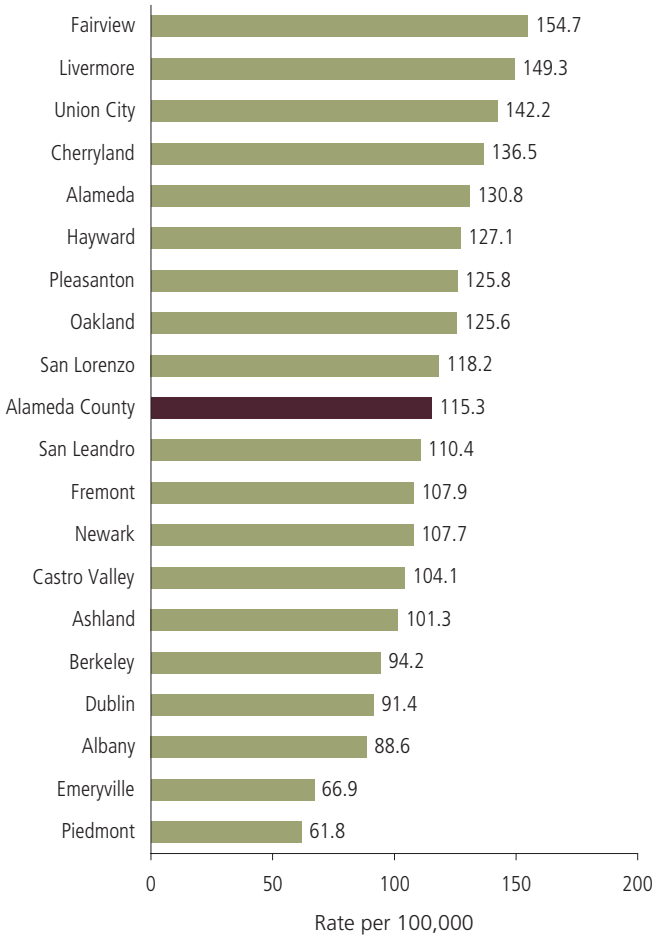
Figure 6.33: CHD Mortality Trend



Source: Alameda County Vital Statistics Files, 1990-08.
Note: Rate for Asian/Pacific Islanders (API) until 1998-00; rate for Asians (without Pacific Islanders) from 1999-01.

The CHD mortality rates ranged from a low of 61.8 per 100,000 in Piedmont to a high of 154.7 in Fairview. The rates in Piedmont, Emeryville, and Berkeley were substantially lower than the county rate. Fairview, Livermore, and Union City had the highest rates, much higher than the county.

Figure 6.34: CHD Mortality by City



Source: Alameda County Vital Statistics Files, 2006-08.

Table 6.21: Three-Year CHD Hospitalization by City, Region, Gender, and Race/Ethnicity

	All				Female				Male			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	40,011	924.6	915.4	933.9	17,626	718.3	707.5	729.0	22,384	1,184.1	1,168.2	1,200.1
Alameda	2,400	893.7	857.6	929.9	1,065	658.8	618.4	699.3	1,335	1,206.0	1,140.3	1,271.8
Albany	316	612.2	542.6	681.8	141	462.4	383.1	541.7	175	819.4	693.6	945.2
Berkeley	2,118	621.9	595.0	648.9	878	452.2	421.7	482.7	1,240	859.0	809.9	908.1
Castro Valley	1,805	855.3	815.1	895.5	784	638.4	592.0	684.8	1,021	1,158.8	1,086.9	1,230.6
Dublin	539	727.2	657.3	797.1	204	557.3	474.2	640.4	335	923.0	804.0	1,042.0
Fremont	5,636	1,098.8	1,069.3	1,128.3	2,348	832.0	797.9	866.0	3,288	1,432.8	1,380.6	1,484.9
Hayward	6,070	1,223.9	1,192.9	1,255.0	2,695	954.1	917.7	990.5	3,375	1,568.2	1,514.2	1,622.2
Livermore	1,817	884.2	841.6	926.8	774	698.9	648.6	749.1	1,043	1,117.5	1,042.9	1,192.2
Newark	1,355	1,301.5	1,228.9	1,374.1	578	1,026.4	940.6	1,112.2	777	1,641.2	1,514.5	1,767.9
Oakland	10,275	815.3	799.3	831.2	4,795	665.0	645.8	684.1	5,480	1,008.8	981.5	1,036.2
Pleasanton	1,326	773.4	729.9	816.9	509	535.9	488.4	583.5	817	1,072.4	991.9	1,152.9
San Leandro	3,272	904.0	872.7	935.3	1,493	691.1	655.2	727.0	1,778	1,182.8	1,127.5	1,238.0
San Lorenzo	927	1,024.2	958.1	1,090.4	387	739.6	665.5	813.7	540	1,375.4	1,258.4	1,492.3
Sunol	33	1,426.1	981.6	2,002.7	14	1,386.6	758.1	2,326.5	19	1,368.5	823.9	2,137.1
Union City	2,122	1,208.1	1,155.1	1,261.2	961	993.6	929.9	1,057.4	1,161	1,510.9	1,417.0	1,604.7
North County	2,434	620.4	595.3	645.5	1,019	452.9	424.5	481.2	1,415	852.6	807.0	898.2
Oakland Area	12,675	830.2	815.5	844.8	5,860	665.6	648.3	683.0	6,815	1,043.4	1,018.1	1,068.7
Central County	12,074	1,041.9	1,023.2	1,060.7	5,359	796.9	775.2	818.6	6,714	1,360.3	1,327.4	1,393.1
South County	9,146	1,150.5	1,126.2	1,174.8	3,901	893.8	865.4	922.2	5,245	1,477.6	1,434.8	1,520.5
Tri-Valley	3,682	814.7	786.9	842.5	1,487	612.7	580.7	644.6	2,195	1,065.5	1,016.0	1,115.0

	AfrAmer				AmerInd				API			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	6,890	1,098.6	1,072.1	1,125.1	67	364.7	282.7	463.2	6,320	668.5	651.9	685.1
Alameda	150	1,186.3	995.5	1,377.2	<5	na	na	na	393	648.7	582.8	714.7
Albany	28	1,070.2	711.1	1,546.7	0	na	na	na	27	249.1	164.1	362.4
Berkeley	576	1,211.1	1,108.6	1,313.6	<5	na	na	na	147	314.6	263.2	366.0
Castro Valley	62	956.7	733.5	1,226.5	<5	na	na	na	137	534.6	441.8	627.4
Dublin	28	601.2	399.5	869.0	<5	na	na	na	80	858.5	680.7	1,068.5
Fremont	155	1,200.1	981.9	1,418.3	<5	na	na	na	1,305	794.5	747.9	841.0
Hayward	638	1,347.1	1,237.3	1,456.9	11	1,000.4	499.4	1,790.0	1,121	1,134.6	1,066.0	1,203.2
Livermore	23	661.3	419.2	992.3	<5	na	na	na	86	554.2	443.3	684.5
Newark	33	641.0	441.3	900.3	<5	na	na	na	313	1,061.3	936.7	1,186.0
Oakland	4,718	1,218.5	1,183.2	1,253.8	15	756.8	423.6	1,248.2	1,232	488.3	461.0	515.7
Pleasanton	14	888.6	485.8	1,491.0	<5	na	na	na	98	523.7	425.1	638.2
San Leandro	298	951.2	836.7	1,065.8	17	1,855.0	1,080.6	2,970.1	493	765.0	694.4	835.7
San Lorenzo	51	1,615.1	1,202.5	2,123.5	<5	na	na	na	116	877.4	708.4	1,046.4
Sunol	0	na	na	na	0	na	na	na	<5	na	na	na
Union City	116	1,070.5	857.8	1,283.2	<5	na	na	na	770	1,075.3	993.1	1,157.6
North County	604	1,200.4	1,101.3	1,299.5	<5	na	na	na	174	303.6	258.2	348.9
Oakland Area	4,868	1,218.1	1,183.4	1,252.8	16	654.1	373.9	1,062.2	1,625	516.9	491.6	542.1
Central County	1,049	1,184.1	1,109.0	1,259.3	34	1,249.2	865.1	1,745.6	1,867	914.7	871.6	957.9
South County	304	1,049.9	918.0	1,181.7	6	na	na	na	2,390	893.2	854.5	931.8
Tri-Valley	65	672.5	519.0	857.2	7	na	na	na	264	594.8	517.0	672.6

	Latino				White			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	3,497	710.9	686.2	735.6	20,734	958.2	944.8	971.5
Alameda	101	477.0	383.5	570.4	1,480	923.0	874.9	971.2
Albany	32	958.0	655.3	1,352.4	200	593.6	505.8	681.4
Berkeley	58	360.8	274.0	466.4	1,146	554.6	521.7	587.6
Castro Valley	78	442.6	349.8	552.3	1,373	900.8	851.4	950.1
Dublin	14	287.4	157.1	482.2	357	700.4	618.3	782.4
Fremont	434	683.0	617.5	748.4	3,565	1,480.0	1,430.7	1,529.4
Hayward	879	755.4	704.2	806.6	3,094	1,509.6	1,454.9	1,564.4
Livermore	126	618.4	503.9	732.9	1,463	920.7	871.4	970.0
Newark	225	996.1	859.2	1,133.0	741	1,752.8	1,620.8	1,884.7
Oakland	766	480.5	444.8	516.3	2,849	683.4	657.2	709.7
Pleasanton	37	355.7	250.4	490.2	1,062	770.5	722.2	818.7
San Leandro	348	596.8	533.9	659.8	1,922	1,016.5	968.2	1,064.8
San Lorenzo	126	743.5	612.4	874.7	582	1,123.3	1,029.7	1,217.0
Sunol	<5	na	na	na	29	1,462.5	979.4	2,100.4
Union City	272	771.7	677.3	866.1	871	1,986.7	1,849.9	2,123.5
North County	90	446.9	359.4	549.3	1,346	560.3	529.5	591.1
Oakland Area	867	478.4	445.3	511.5	4,329	749.8	726.6	773.0
Central County	1,431	677.1	641.6	712.7	6,971	1,166.7	1,138.3	1,195.0
South County	932	763.8	713.5	814.0	5,206	1,573.5	1,530.0	1,617.1
Tri-Valley	177	475.4	400.0	550.9	2,882	826.7	795.1	858.4

Source: OSHPD Patient Discharge Data, 2006-08.

Table 6.22: Three-Year CHD Mortality by City, Region, Gender, and Race/Ethnicity

	All				Female				Male				AfrAmer				AmerInd			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	5,077	115.3	112.0	118.5	2,464	90.8	87.1	94.4	2,613	147.2	141.5	153.0	1,046	172.3	161.6	182.9	15	98.6	55.2	162.7
Alameda	372	130.8	117.4	144.3	191	99.9	85.4	114.5	181	175.8	149.9	201.7	22	172.3	108.0	260.8	<5	na	na	na
Albany	49	88.6	65.5	117.1	26	73.0	47.7	107.0	23	112.2	71.1	168.3	<5	na	na	na	0	na	na	na
Ashland	55	101.3	76.3	131.9	24	73.5	47.1	109.4	31	138.3	94.0	196.4	9	na	na	na	<5	na	na	na
Berkeley	296	94.2	83.3	105.1	141	73.5	61.1	86.0	155	124.9	104.7	145.0	117	223.7	181.1	266.3	0	na	na	na
Castro Valley	258	104.1	91.1	117.1	119	71.7	58.2	85.2	139	153.1	127.5	178.8	5	na	na	na	<5	na	na	na
Cherryland	54	136.5	102.5	178.1	22	93.5	58.6	141.5	32	196.3	134.3	277.2	8	na	na	na	0	na	na	na
Dublin	48	91.4	67.4	121.2	21	80.4	49.8	122.9	27	103.8	68.4	151.0	<5	na	na	na	0	na	na	na
Emeryville	16	66.9	38.2	108.7	5	na	na	na	11	118.6	59.2	212.2	7	na	na	na	0	na	na	na
Fairview	48	154.7	114.1	205.1	21	126.6	78.4	193.5	27	184.4	121.5	268.3	9	na	na	na	0	na	na	na
Fremont	511	107.9	98.4	117.4	254	90.5	79.3	101.7	257	130.6	113.7	147.4	16	130.1	74.4	211.3	<5	na	na	na
Hayward	514	127.1	116.0	138.1	249	100.2	87.6	112.8	265	162.5	142.6	182.4	43	134.1	97.1	180.7	<5	na	na	na
Livermore	243	149.3	130.0	168.5	131	135.2	111.8	158.6	112	165.2	132.4	198.0	<5	na	na	na	0	na	na	na
Newark	97	107.7	87.4	131.4	33	66.4	45.7	93.2	64	166.4	128.1	212.5	<5	na	na	na	0	na	na	na
Oakland	1,536	125.6	119.2	132.0	742	97.8	90.6	105.0	794	163.0	151.4	174.5	745	196.6	182.3	210.9	<5	na	na	na
Piedmont	25	61.8	40.0	91.2	14	60.0	32.8	100.7	11	63.2	31.6	113.2	<5	na	na	na	0	na	na	na
Pleasanton	182	125.8	107.1	144.5	91	101.8	82.0	125.0	91	158.7	127.7	194.8	<5	na	na	na	0	na	na	na
San Leandro	383	110.4	99.2	121.7	193	84.5	72.1	96.8	190	147.3	126.3	168.2	28	139.4	92.6	201.4	<5	na	na	na
San Lorenzo	100	118.2	94.9	141.5	47	90.4	66.4	120.2	53	155.8	116.7	203.8	<5	na	na	na	<5	na	na	na
Sunol	7	na	na	na	6	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na
Union City	223	142.2	123.2	161.1	108	111.8	90.6	133.1	115	190.3	153.6	226.9	15	172.7	96.7	284.9	0	na	na	na
Remainder of Cty	43	128.1	92.7	172.5	22	119.1	74.6	180.3	21	133.6	82.7	204.3	<5	na	na	na	0	na	na	na
North County	345	93.6	83.5	103.6	167	73.7	62.1	85.2	178	123.1	104.6	141.6	120	220.7	179.3	262.2	0	na	na	na
Oakland Area	1,949	123.9	118.4	129.5	952	96.6	90.3	102.8	997	161.0	150.9	171.2	775	195.4	181.4	209.3	5	na	na	na
Central County	1,412	117.8	111.6	124.0	675	88.7	81.8	95.5	737	157.8	146.3	169.2	103	124.6	99.5	149.7	8	na	na	na
South County	838	116.2	108.1	124.2	401	93.6	84.4	102.8	437	147.4	132.8	162.1	35	139.4	97.1	193.9	<5	na	na	na
Tri-Valley	473	131.2	119.0	143.4	243	113.9	99.4	128.4	230	152.2	131.0	173.5	<5	na	na	na	0	na	na	na

	Asian				Latino				Multirace				PacIsl				White			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	674	75.9	70.2	81.7	351	81.8	72.9	90.6	26	35.5	23.2	52.0	46	256.0	187.4	341.5	2,917	123.1	118.5	127.8
Alameda	54	89.4	67.2	116.7	18	89.2	52.9	140.9	<5	na	na	na	0	na	na	na	272	151.2	132.7	169.6
Albany	5	na	na	na	<5	na	na	na	<5	na	na	na	0	na	na	na	39	100.3	71.3	137.1
Ashland	6	na	na	na	11	83.9	41.9	150.1	0	na	na	na	0	na	na	na	28	146.5	97.4	211.8
Berkeley	26	56.5	36.9	82.7	12	84.8	43.8	148.1	<5	na	na	na	0	na	na	na	138	74.7	61.9	87.4
Castro Valley	17	75.1	43.7	120.2	14	76.5	41.8	128.3	0	na	na	na	0	na	na	na	221	117.2	101.2	133.2
Cherryland	<5	na	na	na	9	na	na	na	0	na	na	na	<5	na	na	na	33	169.0	116.3	237.4
Dublin	7	na	na	na	<5	na	na	na	0	na	na	na	<5	na	na	na	36	95.6	67.0	132.4
Emeryville	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	7	na	na	na
Fairview	<5	na	na	na	7	na	na	na	<5	na	na	na	<5	na	na	na	28	179.6	119.4	259.6
Fremont	110	84.2	67.6	100.9	38	66.7	47.2	91.6	<5	na	na	na	5	na	na	na	337	139.4	124.4	154.5
Hayward	65	94.7	73.1	120.7	82	94.9	75.5	117.8	<5	na	na	na	20	437.8	267.4	676.1	296	161.9	142.6	181.2
Livermore	10	71.6	34.3	131.7	13	80.2	42.7	137.1	<5	na	na	na	0	na	na	na	215	171.1	147.7	194.5
Newark	20	80.9	49.4	124.9	10	46.9	22.5	86.2	0	na	na	na	<5	na	na	na	62	171.1	131.2	219.4
Oakland	214	90.1	78.0	102.2	67	51.6	40.0	65.6	5	na	na	na	9	na	na	na	493	114.2	103.5	125.0
Piedmont	<5	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	22	66.2	41.5	100.3
Pleasanton	12	92.5	47.8	161.6	8	na	na	na	<5	na	na	na	0	na	na	na	159	132.1	111.1	153.1
San Leandro	43	89.8	65.0	120.9	22	44.0	27.6	66.6	<5	na	na	na	<5	na	na	na	284	138.1	120.7	155.4
San Lorenzo	<5	na	na	na	9	na	na	na	0	na	na	na	<5	na	na	na	85	153.1	122.3	189.3
Sunol	<5	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	5	na	na	na
Union City	68	113.4	88.1	143.8	24	81.7	52.3	121.6	<5	na	na	na	<5	na	na	na	113	217.9	175.1	260.8
Remainder of Cty	<5	na	na	na	<5	na	na	na	0	na	na	na	<5	na	na	na	35	154.3	107.5	214.6
North County	31	55.0	37.4	78.1	13	75.1	40.0	128.5	<5	na	na	na	0	na	na	na	177	79.2	67.2	91.2
Oakland Area	271	88.5	77.9	99.0	86	55.9	44.7	69.1	9	na	na	na	9	na	na	na	794	119.3	110.6	128.0
Central County	139	85.4	71.0	99.9	154	77.3	64.9	89.6	5	na	na	na	27	360.3	237.4	524.2	975	142.2	132.8	151.5
South County	200	92.4	78.7	106.0	72	67.9	53.1	85.5	<5	na	na	na	8	na	na	na	517	155.5	141.9	169.1
Tri-Valley	29	83.0	55.6	119.3	24	79.0	50.6	117.5	5	na	na	na	<5	na	na	na	410	144.4	130.1	158.7

Source: Alameda County Vital Statistics Files, 2006-08.

Stroke

A stroke occurs when the blood supply to the brain is cut off or when a blood vessel bursts. Within a few minutes of being deprived of oxygen, brain cells begin to die. Death or permanent disability can result.

There are two main types of stroke: ischemic and hemorrhagic. Most strokes are of the ischemic type. Ischemic stroke is caused by blockage in an artery that supplies blood to the brain, resulting in a deficiency in blood flow. Ischemic stroke develops in major blood vessels on the brain's surface or in small blood vessels deep in the brain. During ischemic stroke, diminished blood flow initiates a series of events (called ischemic cascade) that may result in additional, delayed damage to brain cells. Early emergency medical intervention helps to lessen damage to the brain and subsequent disability.[1,2]

Hemorrhagic stroke starts with the rupture of a blood vessel in the brain. Bleeding from the rupture compresses nearby blood vessels, depriving surrounding tissue of oxygen and causing stroke. Hemorrhagic stroke usually affects a large area of the brain, many times leading to death.[1,2] Hypertension is the most common cause of hemorrhagic stroke. Strokes in young adults tend to be hemorrhagic.

About 795,000 people in the United States experience a new or recurrent stroke each year.[3] Although mortality rates from stroke have declined steadily since the early part of the twentieth century, stroke is still the third leading cause of death in this country. It is also a leading cause of serious, long-term disability.

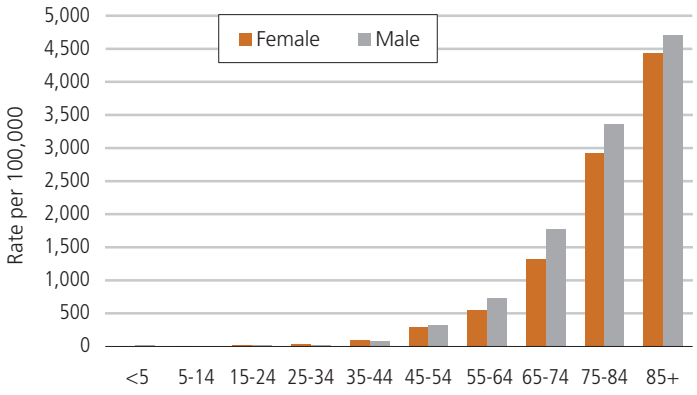
Nationally, more women than men die of stroke each year. This is in part because women live longer than men and stroke occurs at older ages. Of all racial/ethnic groups, African Americans have the highest mortality rate from stroke.[4,5] African Americans living in California have a higher mortality rate from stroke than the national rate.[6]

High blood pressure, diabetes, smoking, and having had a previous stroke or heart attack increase a person's chances of having a stroke. Maintaining healthy blood pressure through diet, exercise, and medication, if necessary, can decrease the risk for stroke.[3,5,7]

Stroke Hospitalization

Hospitalization for a stroke-related illness increases with increasing age and is 10% to 30% higher among men than women after 45 years. The largest gender difference is between 55 and 74 years.

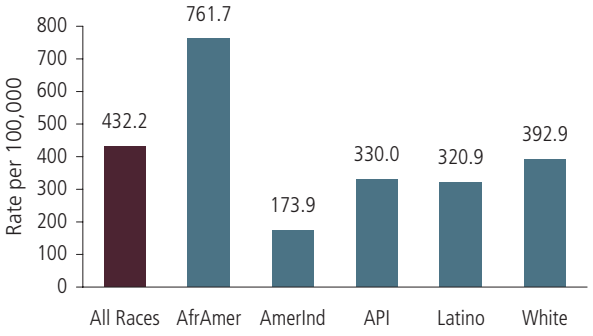
Figure 6.35: Stroke Hospitalization by Age Group and Gender



Source: OSHPD Patient Discharge Data, 2006-08.

There were 18,725 stroke-related hospitalizations in Alameda County from 2006 through 2008. The age-adjusted rate was 432.2 per 100,000 population. The rate of stroke-related hospitalization was highest among African Americans—80% above the county as a whole, four times higher than American Indians, and approximately two times higher than Asian/Pacific Islanders, Latinos, and Whites.

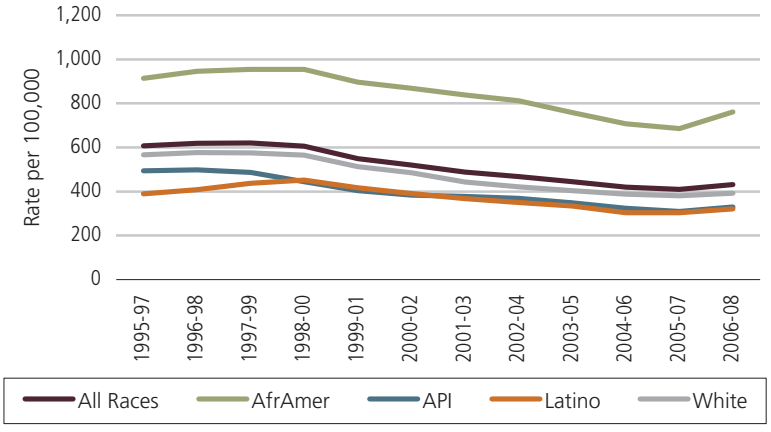
Figure 6.36: Stroke Hospitalization Race/Ethnicity



Source: OSHPD Patient Discharge Data, 2006-08.

For all racial/ethnic groups combined, the rate of stroke-related hospitalizations dropped significantly by 5.7% per year from 1997-99 to 2004-06 and then leveled off. The rate among African Americans dropped by 4.6% per year until it increased substantially in 2006-08. Latinos were the only group to experience a significant increase up to 1998-00, which was followed by an annual 6% decline. The rate among Asian/Pacific Islanders declined by about 4% per year while among Whites it declined by about 6% per year before leveling off in recent years.

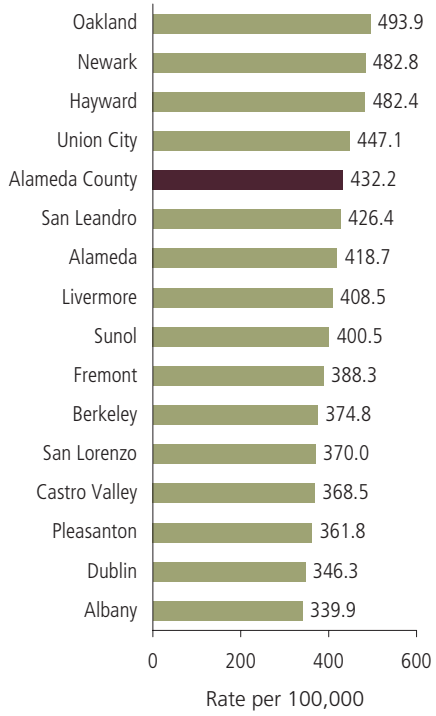
Figure 6.37: Stroke Hospitalization Trend



Source: OSHPD Patient Discharge Data, 1995-08.

Stroke hospitalization rates ranged from a low of 339.9 per 100,000 to a high of 493.9 per 100,000. The cities of Oakland, Newark, and Hayward had higher rates than the county. The lowest rates—for Albany, Dublin, and Pleasanton—were much lower than the county.

Figure 6.38: Stroke Hospitalization by City



Source: OSHPD Patient Discharge Data, 2006-08.

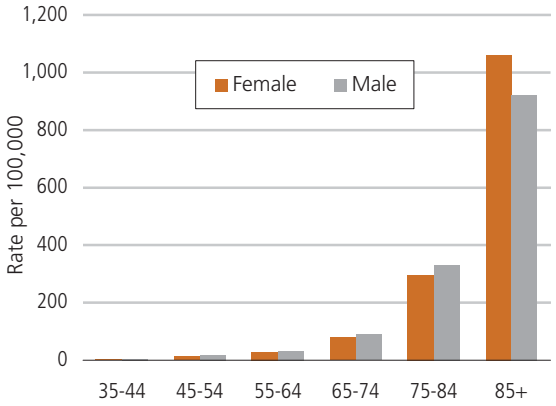
Table 6.23: Stroke Comparison

	HP2010[8]	Alameda County	California[6]	United States[4]
Stroke Mortality (rate per 100,000)	≤50.0	40.7	40.8	42.2

Stroke Mortality

Stroke deaths are rare before 35 years. Mortality from stroke increased with age., especially after age 75 years. Rates were only slightly higher among males than females until 85 years; for those 85 years or older the female rate was 15% higher than the male rate.

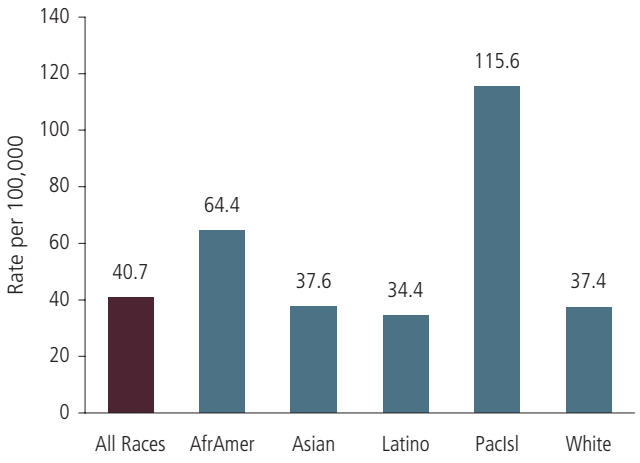
Figure 6.39: Stroke Mortality by Age Group and Gender



Source: Alameda County Vital Statistics Files, 2006-08.

There were 1,794 deaths from stroke in Alameda County from 2006 to 2008 for an age-adjusted stroke mortality rate of 40.7 per 100,000. African American and Pacific Islander mortality rates from stroke were significantly higher than any other racial/ethnic group. The African American rate was about two times the rates of Asians, Latinos, and Whites. Pacific Islanders had the highest rate, however, the rate was based on a small number of deaths.

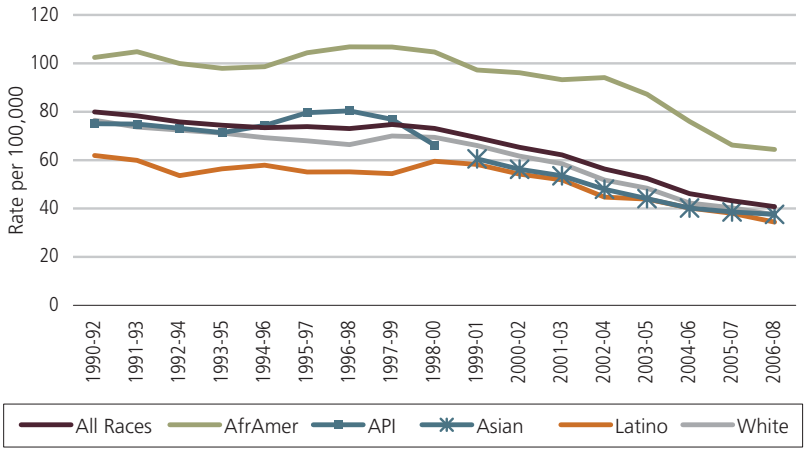
Figure 6.40: Stroke Mortality by Race/Ethnicity



Source: Alameda County Vital Statistics Files, 2006-08.

For all racial/ethnic groups combined, the mortality rate from stroke declined significantly by 7.8% per year since 1999-01. The rate for Whites declined 8.0% per year since 1999-01. African Americans had a declining trend of 9.3% per year since 2002-04. Rates for Latinos declined 7.1% per year since 1999-01. The rate for Asians also declined significantly at 7.6% per year.

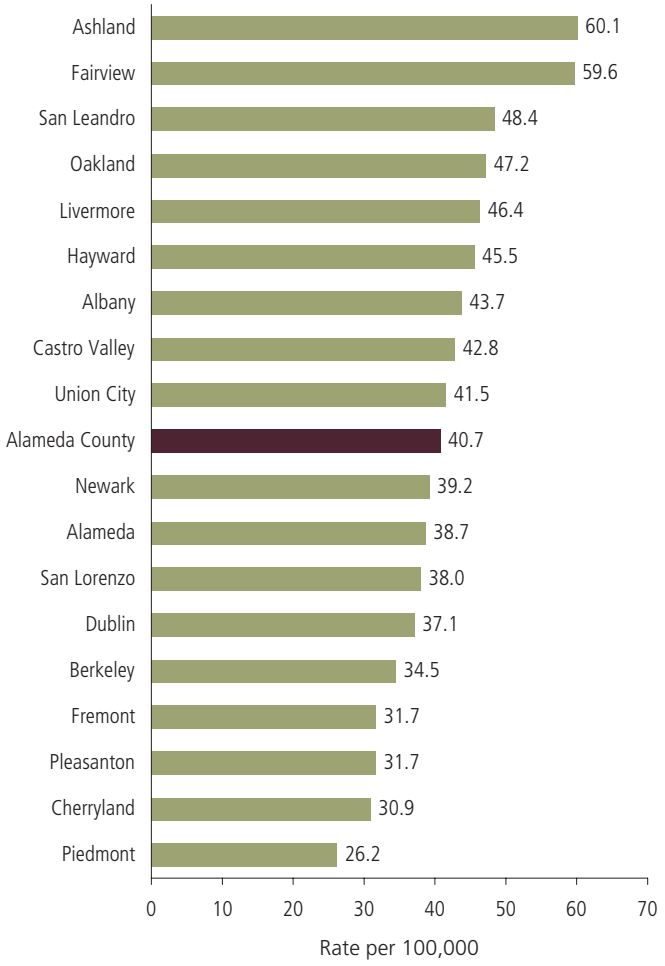
Figure 6.41: Stroke Mortality Trend



Source: Alameda County Vital Statistics Files, 1990-08.
Note: Rate for Asian/Pacific Islanders (API) until 1998-00; rate for Asians (without Pacific Islanders) from 1999-01.

The age-adjusted stroke mortality rates ranged from a low of 26.2 per 100,000 in Piedmont to a high of 60.1 in Ashland. The rates in Piedmont, Cherryland, and Pleasanton were among the lowest, much lower than the county. Ashland, Fairview, and San Leandro had the highest rates, substantially higher than the county.

Figure 6.42: Stroke Mortality by City



Source: Alameda County Vital Statistics Files, 2006-08.

Table 6.24: Three-Year Stroke Hospitalization by City, Region, Gender, and Race/Ethnicity

	All				Female				Male			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	18,725	432.2	425.9	438.4	9,939	401.2	393.2	409.2	8,785	471.5	461.4	481.6
Alameda	1,121	418.7	393.9	443.5	583	362.0	331.9	392.2	538	489.7	447.7	531.6
Albany	178	339.9	288.4	391.4	91	298.4	240.3	366.4	87	391.7	313.7	483.1
Berkeley	1,266	374.8	353.8	395.7	687	350.3	323.5	377.0	578	406.5	372.5	440.5
Castro Valley	783	368.5	342.1	394.8	429	346.4	312.2	380.7	354	401.8	359.4	444.1
Dublin	245	346.3	296.9	395.8	127	338.1	273.3	402.9	118	357.3	279.7	435.0
Fremont	1,970	388.3	370.7	405.8	960	334.8	313.4	356.2	1,010	457.7	427.7	487.7
Hayward	2,390	482.4	462.9	501.9	1,241	434.9	410.4	459.3	1,149	547.4	515.2	579.7
Livermore	778	408.5	378.8	438.2	432	402.1	363.6	440.6	346	417.8	370.3	465.3
Newark	493	482.8	438.0	527.5	254	451.0	394.2	507.8	239	527.3	453.4	601.1
Oakland	6,221	493.9	481.5	506.4	3,409	471.8	455.7	487.9	2,812	522.8	503.1	542.6
Pleasanton	604	361.8	331.7	391.8	302	310.8	274.9	346.7	302	432.6	379.7	485.4
San Leandro	1,537	426.4	404.9	448.0	847	405.2	377.1	433.3	690	459.7	425.2	494.2
San Lorenzo	332	370.0	330.0	409.9	179	343.2	292.5	393.8	153	407.9	342.8	472.9
Sunol	7	na	na	na	6	na	na	na	<5	na	na	na
Union City	800	447.1	415.1	479.0	392	393.1	353.6	432.6	408	527.5	472.2	582.8
North County	1,444	370.3	350.9	389.8	778	342.2	317.6	366.7	665	406.0	374.4	437.7
Oakland Area	7,342	481.4	470.2	492.5	3,992	453.4	439.1	467.7	3,350	517.3	499.4	535.2
Central County	5,042	433.6	421.5	445.6	2,696	400.0	384.6	415.4	2,346	481.2	461.5	500.9
South County	3,270	413.2	398.6	427.8	1,612	362.9	345.0	380.9	1,658	480.7	456.0	505.5
Tri-Valley	1,627	380.5	361.1	399.8	861	357.3	332.9	381.8	766	412.2	380.2	444.2

	AfrAmer				AmerInd				API			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	4,734	761.7	739.6	783.9	33	173.9	119.7	244.2	3,101	330.0	318.3	341.7
Alameda	130	1,024.7	847.6	1,201.7	<5	na	na	na	249	408.7	356.4	461.0
Albany	14	706.5	386.2	1,185.3	0	na	na	na	25	253.9	164.3	374.8
Berkeley	414	893.2	804.0	982.3	<5	na	na	na	108	231.9	186.9	277.0
Castro Valley	45	706.8	515.5	945.7	<5	na	na	na	88	338.9	271.8	417.5
Dublin	27	854.0	562.8	1,242.5	<5	na	na	na	41	443.0	317.9	601.0
Fremont	79	554.6	439.0	691.1	<5	na	na	na	488	298.2	269.7	326.8
Hayward	378	869.6	777.6	961.7	<5	na	na	na	444	475.6	430.0	521.3
Livermore	21	827.4	512.1	1,264.7	5	na	na	na	49	326.6	241.6	431.7
Newark	16	351.8	201.1	571.3	0	na	na	na	117	436.7	352.1	521.4
Oakland	3,285	854.3	824.6	883.9	9	na	na	na	870	344.6	321.6	367.5
Pleasanton	13	1,101.5	586.5	1,883.7	0	na	na	na	67	375.7	291.2	477.2
San Leandro	226	671.6	578.6	764.6	6	na	na	na	258	400.7	349.8	451.7
San Lorenzo	7	na	na	na	<5	na	na	na	52	410.4	306.5	538.2
Sunol	0	na	na	na	0	na	na	na	<5	na	na	na
Union City	79	734.2	581.2	915.0	0	na	na	na	244	344.0	297.2	390.9
North County	428	878.7	792.5	965.0	<5	na	na	na	133	230.6	190.8	270.3
Oakland Area	3,415	859.4	830.2	888.6	10	425.2	203.9	782.0	1,119	355.0	334.1	375.9
Central County	656	757.3	696.5	818.2	14	550.2	300.8	923.1	842	428.1	398.2	458.1
South County	174	590.5	492.9	688.0	<5	na	na	na	850	323.1	299.7	346.6
Tri-Valley	61	865.1	661.7	1,111.3	6	na	na	na	157	363.7	301.8	425.5

	Latino				White			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	1,635	320.9	304.4	337.4	8,495	392.9	384.3	401.5
Alameda	48	227.3	167.6	301.4	627	389.9	358.4	421.4
Albany	13	345.0	183.7	589.9	120	347.8	281.5	414.0
Berkeley	38	194.7	137.8	267.3	641	314.6	289.7	339.6
Castro Valley	43	248.2	179.7	334.4	584	374.9	343.1	406.7
Dublin	14	162.6	88.9	272.8	151	317.9	260.5	375.3
Fremont	155	247.5	207.9	287.2	1,188	497.5	468.8	526.2
Hayward	379	317.0	284.1	349.9	1,108	532.9	500.4	565.5
Livermore	55	283.7	213.7	369.3	624	425.1	390.8	459.5
Newark	96	435.3	352.6	531.5	246	579.9	504.1	655.7
Oakland	444	261.3	235.4	287.3	1,387	333.0	314.6	351.5
Pleasanton	28	268.0	178.1	387.4	468	348.2	315.5	380.9
San Leandro	161	273.3	230.8	315.8	814	436.3	403.6	469.0
San Lorenzo	39	235.6	167.5	322.0	219	401.6	347.0	456.2
Sunol	<5	na	na	na	5	na	na	na
Union City	121	319.9	260.8	378.9	313	703.4	622.3	784.6
North County	51	215.1	160.1	282.8	761	320.6	297.2	344.0
Oakland Area	492	258.2	234.1	282.2	2,014	348.1	332.2	364.0
Central County	622	290.6	267.3	313.8	2,725	448.9	431.2	466.6
South County	373	303.9	272.1	335.6	1,752	531.0	505.6	556.3
Tri-Valley	97	261.3	211.9	318.8	1,243	377.8	356.0	399.6

Source: OSHPD Patient Discharge Data, 2006-08.

Table 6.25: Three-Year Stroke Mortality by City, Region, Gender, and Race/Ethnicity

	All				Female				Male				AfrAmer				AmerInd			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	1,794	40.7	38.8	42.7	1,074	39.8	37.4	42.2	720	41.3	38.3	44.4	385	64.4	57.9	71.0	0	na	na	na
Alameda	109	38.7	31.3	46.0	71	39.4	30.8	49.7	38	37.1	26.2	50.9	7	na	na	na	0	na	na	na
Albany	23	43.7	27.7	65.6	17	53.0	30.9	84.9	6	na	na	na	<5	na	na	na	0	na	na	na
Ashland	31	60.1	40.8	85.3	19	60.5	36.4	94.4	12	54.7	28.3	95.6	7	na	na	na	0	na	na	na
Berkeley	109	34.5	27.9	41.0	66	32.3	25.0	41.1	43	37.9	27.4	51.0	34	61.4	42.5	85.8	0	na	na	na
Castro Valley	105	42.8	34.4	51.2	59	38.0	29.0	49.1	46	51.0	37.4	68.1	<5	na	na	na	0	na	na	na
Cherryland	13	30.9	16.5	52.9	9	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na
Dublin	18	37.1	22.0	58.6	8	na	na	na	10	53.2	25.5	97.8	<5	na	na	na	0	na	na	na
Emeryville	7	na	na	na	<5	na	na	na	<5	na	na	na	<5	na	na	na	0	na	na	na
Fairview	17	59.6	34.7	95.5	11	71.5	35.7	127.9	6	na	na	na	6	na	na	na	0	na	na	na
Fremont	148	31.7	26.5	36.9	80	28.3	22.4	35.2	68	36.2	28.1	45.8	<5	na	na	na	0	na	na	na
Hayward	185	45.5	38.9	52.1	111	44.0	35.7	52.3	74	46.6	36.6	58.5	28	98.9	65.7	143.0	0	na	na	na
Livermore	74	46.4	36.4	58.2	50	52.1	38.7	68.7	24	36.7	23.5	54.6	0	na	na	na	0	na	na	na
Newark	35	39.2	27.3	54.5	18	35.5	21.0	56.1	17	42.2	24.6	67.6	<5	na	na	na	0	na	na	na
Oakland	581	47.2	43.3	51.1	349	46.1	41.1	51.0	232	48.0	41.7	54.3	274	72.7	63.9	81.4	0	na	na	na
Piedmont	11	26.2	13.1	46.9	8	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na
Pleasanton	48	31.7	23.3	42.0	28	29.5	19.6	42.6	20	34.6	21.1	53.4	0	na	na	na	0	na	na	na
San Leandro	168	48.4	40.9	55.8	104	46.1	37.0	55.3	64	49.8	38.3	63.6	11	49.9	24.9	89.2	0	na	na	na
San Lorenzo	33	38.0	26.2	53.4	18	33.1	19.6	52.4	15	44.7	25.0	73.7	0	na	na	na	0	na	na	na
Sunol	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na
Union City	64	41.5	32.0	53.0	36	36.8	25.8	51.0	28	49.8	33.1	71.9	<5	na	na	na	0	na	na	na
Remainder of Cty	9	na	na	na	<5	na	na	na	5	na	na	na	0	na	na	na	0	na	na	na
North County	132	35.7	29.5	41.9	83	35.2	28.0	43.6	49	36.4	26.9	48.1	38	65.4	46.3	89.8	0	na	na	na
Oakland Area	708	44.8	41.4	48.1	431	44.2	39.9	48.4	277	45.0	39.7	50.4	283	71.6	63.2	80.1	0	na	na	na
Central County	552	45.8	41.9	49.6	331	43.6	38.8	48.4	221	47.6	41.3	53.9	54	68.6	51.5	89.5	0	na	na	na
South County	249	35.0	30.6	39.4	136	31.4	26.1	36.7	113	39.8	32.1	47.5	9	na	na	na	0	na	na	na
Tri-Valley	140	39.0	32.3	45.6	86	39.4	31.6	48.7	54	38.0	28.6	49.6	<5	na	na	na	0	na	na	na

	Asian				Latino				Multirace				PacIsl				White			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	336	37.6	33.6	41.6	149	34.4	28.7	40.2	<5	na	na	na	7	na	na	na	349	38.0	34.0	42.1
Alameda	21	37.5	23.2	57.3	<5	na	na	na	0	na	na	na	<5	na	na	na	77	42.7	33.7	53.4
Albany	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	13	36.7	19.6	62.8
Ashland	6	na	na	na	6	na	na	na	0	na	na	na	<5	na	na	na	11	48.1	24.0	86.1
Berkeley	14	29.0	15.9	48.7	<5	na	na	na	0	na	na	na	0	na	na	na	57	30.9	23.4	40.0
Castro Valley	10	43.5	20.8	79.9	11	58.8	29.4	105.3	0	na	na	na	<5	na	na	na	80	42.8	33.9	53.2
Cherryland	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	10	45.9	22.0	84.5
Dublin	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	12	35.9	18.6	62.8
Emeryville	<5	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Fairview	<5	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	9	na	na	na
Fremont	42	29.7	21.4	40.1	18	30.9	18.3	48.9	<5	na	na	na	<5	na	na	na	83	35.5	28.3	44.0
Hayward	36	52.8	37.0	73.1	20	23.7	14.5	36.6	<5	na	na	na	5	na	na	na	95	48.2	39.0	58.9
Livermore	14	116.4	63.6	195.2	<5	na	na	na	<5	na	na	na	0	na	na	na	56	44.9	33.9	58.3
Newark	11	46.6	23.3	83.4	6	na	na	na	0	na	na	na	<5	na	na	na	15	38.8	21.7	64.0
Oakland	101	42.2	34.0	50.5	39	25.8	18.3	35.2	<5	na	na	na	<5	na	na	na	164	35.9	30.1	41.8
Piedmont	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	9	na	na	na
Pleasanton	7	na	na	na	5	na	na	na	0	na	na	na	0	na	na	na	36	29.0	20.3	40.1
San Leandro	32	65.8	45.0	92.8	15	29.9	16.7	49.3	0	na	na	na	<5	na	na	na	108	50.5	40.3	60.7
San Lorenzo	<5	na	na	na	5	na	na	na	0	na	na	na	0	na	na	na	24	40.8	26.2	60.8
Sunol	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Union City	25	46.7	30.2	69.0	7	na	na	na	<5	na	na	na	<5	na	na	na	26	44.5	29.1	65.2
Remainder of Cty	0	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	8	na	na	na
North County	18	31.3	18.5	49.5	6	na	na	na	0	na	na	na	0	na	na	na	70	31.6	24.6	39.9
Oakland Area	124	40.2	33.1	47.3	43	24.9	18.0	33.5	<5	na	na	na	<5	na	na	na	254	36.7	32.0	41.4
Central County	91	56.0	45.1	68.8	59	30.3	23.1	39.1	<5	na	na	na	10	176.7	84.7	325.0	337	47.1	41.8	52.4
South County	78	35.6	28.1	44.4	31	29.0	19.7	41.1	<5	na	na	na	<5	na	na	na	126	38.4	31.6	45.2
Tri-Valley	24	72.2	46.3	107.5	9	na	na	na	<5	na	na	na	0	na	na	na	104	36.7	29.5	43.9

Source: Alameda County Vital Statistics Files, 2006-08.

Asthma

Asthma is a chronic lung condition that causes swelling, excess mucus, and narrowing of the airways. An asthma attack occurs when the airways become so swollen and clogged that the person has trouble getting enough air to breathe. Symptoms include coughing, wheezing, shortness of breath, and a tight feeling in the chest. Asthma can be triggered by exposures and conditions such as respiratory infections, dust mites, animal dander, mold, pollen, tobacco smoke, wood smoke, indoor and outdoor air pollutants, and even exercise.[1] Although the exact cause of asthma is not known, the development of asthma is determined by the interaction between genetics and environmental exposures.

There is no cure for asthma, so effective management of the condition is essential. Effective management of asthma involves: 1) controlling exposure to asthma triggers; 2) adequately managing asthma with medications; 3) monitoring lung function; and 4) educating asthma patients to partner with medical providers in their own care.[1]

Asthma prevalence has been increasing nationally since 1980.[2] The 2008 Behavioral Risk Factor Surveillance System estimates that over 30 million adults in the United States and nearly four million California adults have self-reported lifetime asthma.[3] More recent data shows that 8.8% of U.S. adults and 7.8% of California adults currently have asthma.[4] In general, asthma rates are higher among females and children five to 14 years.[5] They are also higher among African Americans and low-income residents of inner cities.[2]

Chronic conditions such as asthma can affect the physical, cognitive, social, and emotional development of young children. According to *The Health of Young Children in California*, asthma is the most common health condition among young children.[6] Approximately 10.5% of California children one to five years have been diagnosed with asthma. This rate is highest among African American children. Many children diagnosed with asthma do not get the medication they need to control it, leaving them to suffer symptoms and physical limitations that could otherwise be controlled. In addition, about 22% of children diagnosed with asthma have an asthma-related emergency room visit each year. Asthma is the single largest contributor to preventable hospital admissions among children.[6]

Nationally, there are approximately 502,000 asthma hospitalizations per year.[7] Rates of asthma hospitalization are highest among children under five years, followed by adults 65 years or older, and children five to 14 years. In California, asthma hospitalization rates are highest among African Americans even when income is taken into account. Statewide and nationally, rates among African Americans are at least three times those for Whites.[8]

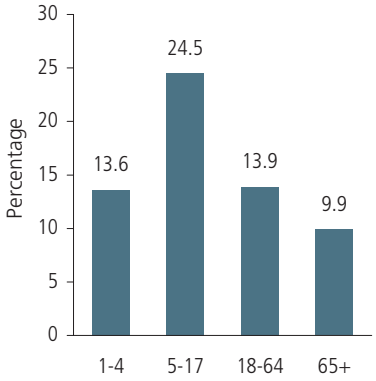
Table 6.26: Asthma Comparison

	HP2010[9]	Alameda County	California[10,11]
Lifetime Prevalence (Percentage)	na	16.6	13.6
ED Visits (Rate per 100,000)	na	505.2	366.4
ED Visits, <5 Years (Rate per 100,000)	≤800.0	1,427.1	883.4
Hospitalization (Rate per 100,000)	na	145.8	90.8
Hospitalization, <5 Years (Rate per 100,000)	≤250.0	511.0	220.1

Asthma Prevalence

Lifetime asthma prevalence is the percentage of persons ever diagnosed with asthma in their lifetime. Lifetime asthma prevalence is the highest among school-aged children 5-17 years. In comparison, children below five years and non-elderly adults have much lower asthma prevalence (13.6% and 13.9% respectively); seniors have the lowest prevalence (9.9%).

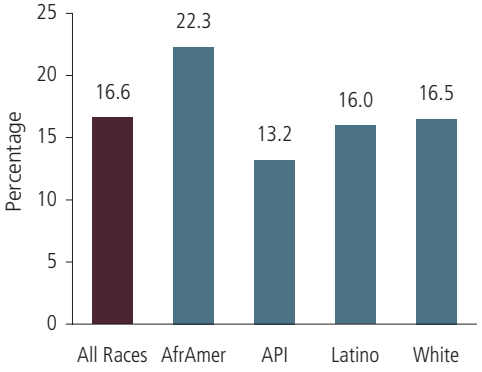
Figure 6.43: Lifetime Asthma Prevalence by Age Group



Source: California Health Interview Survey, 2005 & 2007.

In Alameda County, the lifetime asthma prevalence rate was 16.6%. African Americans had the highest asthma prevalence by far of all racial/ethnic groups (22.3%), 1.7 times that for Asian/Pacific Islanders, the group that has the lowest prevalence.

Figure 6.44: Lifetime Asthma Prevalence by Race/Ethnicity

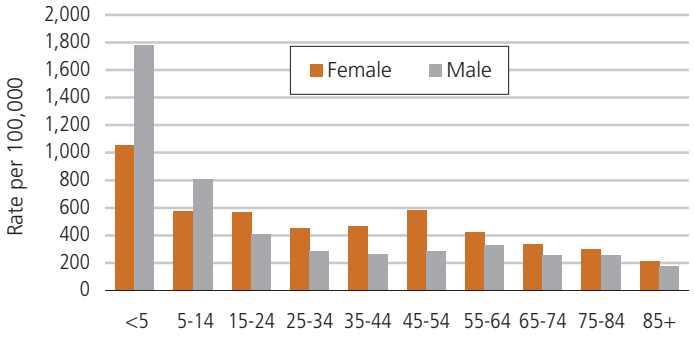


Source: California Health Interview Survey, 2007.

Asthma Emergency Department Visits

Children under five years, particularly male children, visit the ED for asthma at rates several times higher than older age groups. Male rates are higher than female rates in the two youngest age groups. However, beginning with those 15-24 years, female rates are higher, particularly for those 45-54 years.

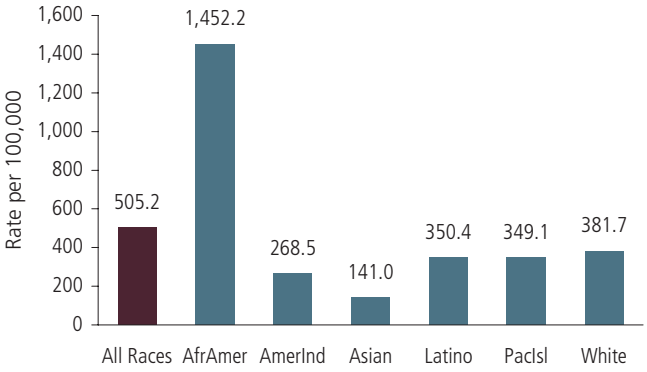
Figure 6.45: Asthma Emergency Department Visits by Age Group and Gender



Source: OSPHD Emergency Department Files, 2006-08.

There were 23,006 ED visits for asthma in Alameda County from 2006 through 2008. The age-adjusted rate was 505.2 per 100,000 population. The African American rate exceeded those of other racial/ethnic groups by many times, ten times compared to Asians and four or five times compared to all other groups.

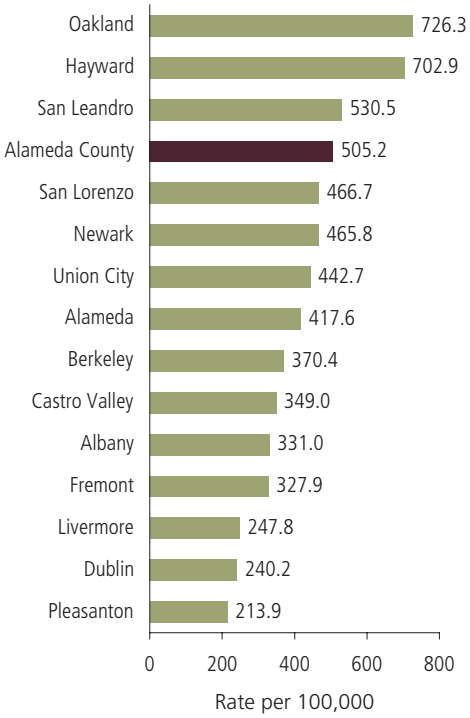
Figure 6.46: Asthma Emergency Department Visits by Race/Ethnicity



Source: OSPHD Emergency Department Files, 2006-08.

Oakland and Hayward had substantially higher rates of asthma ED visits compared to the Alameda County rate of 505.2 per 100,000. The lowest rates of ED visits were found in the Tri-Valley communities of Pleasanton, Dublin, and Livermore, much lower than the county.

Figure 6.47: Asthma Emergency Department Visits by City



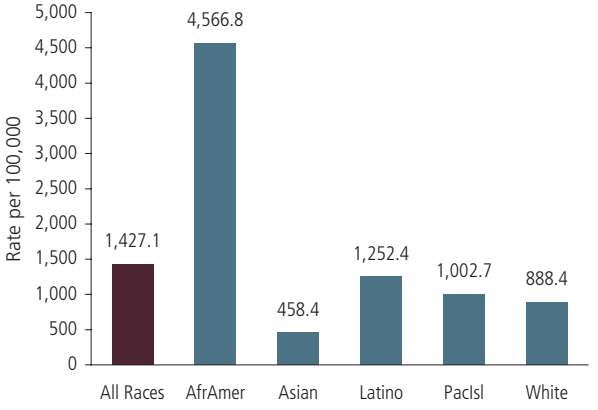
Source: OSPHD Emergency Department Files, 2006-08.

Asthma Emergency Department Visits, Children Under Five Years

There were 4,507 ED visits among children under five years from 2006 though 2008 in Alameda County. The rate was 1,427.1 per 100,000 children less than five years.

Asthma ED visit rates for children under age five mirror those seen for the all-ages rate. The African American rate was 4,566.8 per 100,000 (over four out of every 100 children). This rate was three times higher than the Alameda County rate of 1,427.1 per 100,000 and ten times higher than the Asian rate, which was the lowest of any racial/ethnic group.

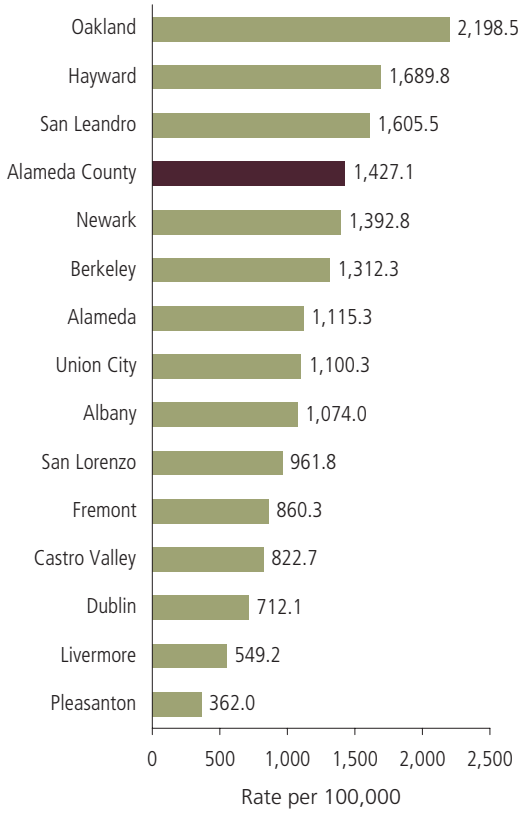
Figure 6.48: Asthma Emergency Department Visits, Children Under Five Years, by Race/Ethnicity



Source: OSPHD Emergency Department Files, 2006-08.

Geographic patterns of ED visits for childhood asthma are essentially the same as those for the age-adjusted rate for all age groups combined. Rates in Oakland and Hayward were significantly higher than nearly every other city. Pleasanton, Livermore, and Dublin had much lower rates than the county.

Figure 6.49: Asthma Emergency Department Visits by City, Children Under Five Years

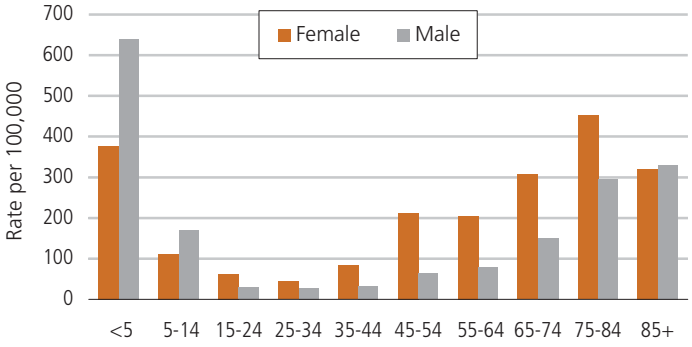


Source: OSPHD Emergency Department Files, 2006-08.

Asthma Hospitalization

In comparison to ED visits, asthma hospitalizations exhibit a similar pattern among the younger age groups, with males having higher rates than females in the <5 and 5-14 age groups. However, unlike ED visits, hospitalization rates increased in each age group beyond 55-64 years, and female rates were consistently well above male rates until age 85 years or older.

Figure 6.50: Asthma Hospitalizations by Age Group and Gender

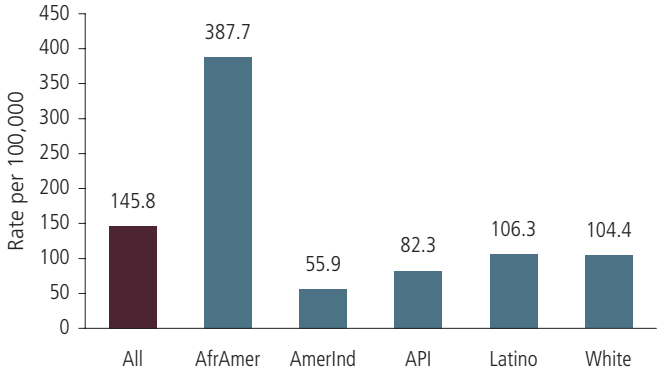


Source: OSHPD Patient Discharge Data, 2006-08.

There were 6,534 asthma hospitalizations in Alameda County from 2006 through 2008. The age-adjusted rate was 145.8 per 100,000 population.

African Americans had the highest rate of asthma hospitalizations (387.7 per 100,000), a rate 2.6 times the Alameda County rate of 145.8 per 100,000 and three to seven times rates observed among other racial/ethnic groups.

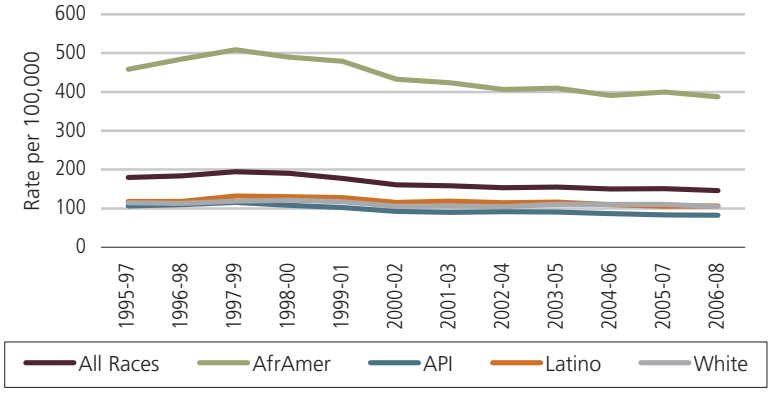
Figure 6.51: Asthma Hospitalizations by Race/Ethnicity



Source: OSHPD Patient Discharge Data, 2006-08.

For all racial/ethnic and age groups combined, the rate of asthma hospitalization reached a high point in 1997-99 and declined since, dropping by an average of 1.5% per year from 2000-02. The African American rate was at least 2.5 times higher than other groups throughout the period. It declined significantly by 4.5% per year on average following a peak in 1997-99 but has leveled off in recent years. For Asian/Pacific Islanders and Latinos, the declines were approximately 2% per year and for Whites it was just under 1% per year.

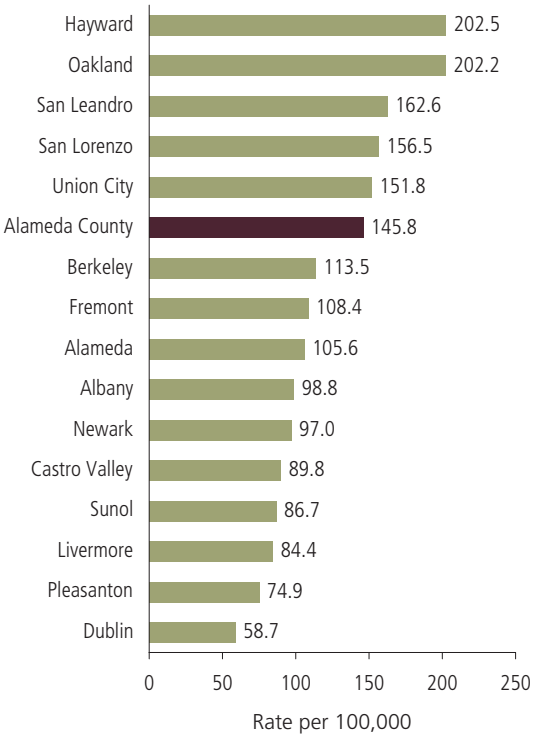
Figure 6.52: Asthma Hospitalization Trend



Source: OSHPD Patient Discharge Data, 1995-08.

The geographic pattern of asthma hospitalizations was similar to that for ED visits. Rates of asthma hospitalization were substantially higher among Oakland and Hayward residents compared to the county. San Leandro, San Lorenzo, and Union City rates were also higher than the county rate of 145.8 per 100,000. The lowest rates of ED visits were found in the Pleasanton, Dublin, and Livermore.

Figure 6.53: Asthma Hospitalization by City



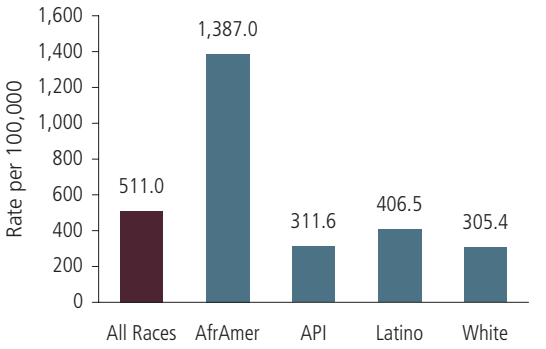
Source: OSHPD Patient Discharge Data, 2006-08.

Asthma Hospitalization, Children Under Five Years

There were 1,614 asthma hospitalizations among children under five years in Alameda County from 2006 through 2008. The rate in this age group was 511.0 per 100,000 children under five years.

African American children under five years had a rate of asthma hospitalization (1,387.0 per 100,000) that was 2.7 times the county rate of 511.0 per 100,000. This rate was three to four times higher than the rate among other racial/ethnic groups.

Figure 6.54: Asthma Hospitalization by Race/Ethnicity, Children Under Five Years

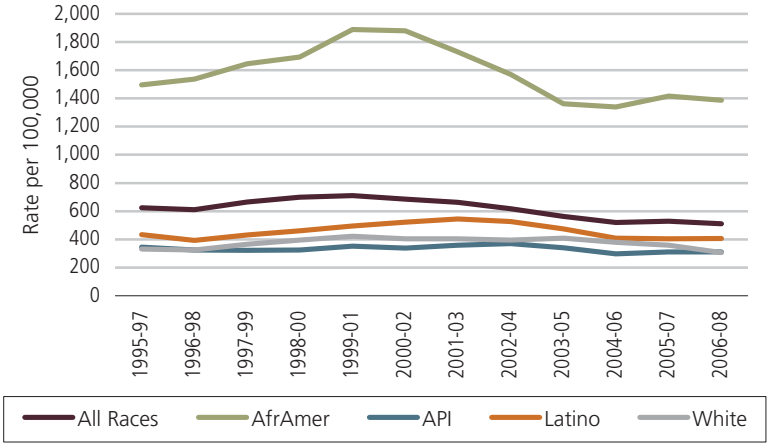


Source: OSHPD Patient Discharge Data, 2006-08.

For all racial/ethnic groups combined, the rate of asthma hospitalization among children under five years increased significantly during the latter half of the 1990s and then declined steadily by 5% per year between 1999-01 and 2006-08.

Similar periods of increase followed by decline were observed for individual racial/ethnic groups, though the timing and magnitude of decline varied. African American rates, which were at least 2.5 times higher than other groups throughout the period, declined significantly by 10% per year between 2000-02 and 2003-05 but have leveled off since. Latinos experienced a 6% decline and Whites a 3% decline. Asian/Pacific Islander rates were unstable, likely due to small numbers.

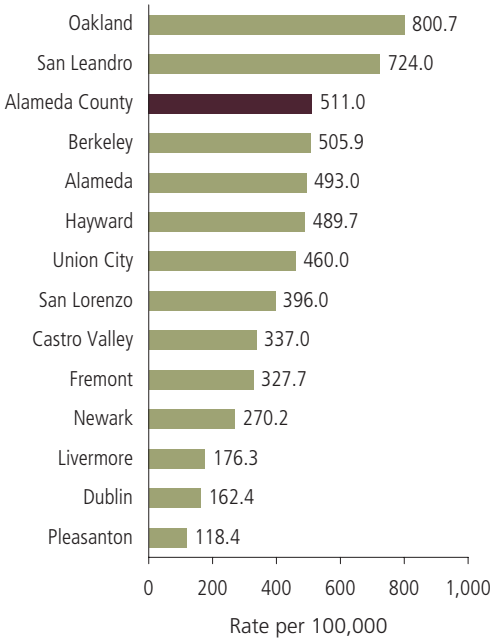
Figure 6.55: Asthma Hospitalization Trend, Children Under Five Years



Source: OSHPD Patient Discharge Data,. 1995-08.

Geographic patterns of childhood asthma hospitalization were similar to ED patterns. The Oakland and San Leandro rates were significantly higher than most other cities and places and higher than the county rate. As for every other asthma indicator, Pleasanton, Dublin, and Livermore had the lowest rates.

Figure 6.56: Asthma Hospitalization by City, Children Under Five Years



Source: OSHPD Patient Discharge Data, 2006-08.

Table 6.27: Lifetime Asthma Prevalence by Selected Characteristics, All Ages

		%	LCL	UCL
Alameda County		16.6	13.8	19.4
California		13.6	13.2	14.1
Gender	Female	16.8	12.9	20.7
	Male	16.4	12.4	20.4
Age Group	1-4	13.6	6.2	21.0
	5-17	24.5	19.4	29.6
	18-64	13.9	11.7	16.0
	65+	9.9	7.0	12.9
Race/Ethnicity	AfrAmer	22.3	13.1	31.6
	API	13.2	5.8	20.6
	Latino	16.0	10.4	21.6
	White	16.5	13.2	19.8
Insurance Status	Uninsured	13.8	7.2	20.4
	Insured	15.4	13.5	17.2

Source: California Health Interview Survey (CHIS), 2007, except Age and Insurance Status, CHIS 2005 & 2007.

Table 6.28: Three-Year Asthma Emergency Department Visits by City, Region, Gender, and Race/Ethnicity, All Ages

	All				Female				Male			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	23,006	505.2	498.7	511.8	12,244	528.8	519.4	538.2	10,761	478.0	468.9	487.1
Alameda	870	417.6	389.3	445.8	522	480.2	437.9	522.5	348	349.7	312.6	386.8
Albany	149	331.0	276.2	385.8	69	280.7	218.4	355.3	80	378.4	300.0	470.9
Berkeley	1,146	370.4	347.5	393.4	602	368.7	337.2	400.2	544	371.4	338.2	404.6
Castro Valley	561	349.0	319.6	378.4	306	365.8	323.8	407.9	255	328.6	287.8	369.4
Dublin	299	240.2	211.5	269.0	173	282.5	238.1	326.8	126	198.7	163.0	234.4
Fremont	2,059	327.9	313.5	342.2	1,094	347.8	327.0	368.6	965	306.8	287.1	326.5
Hayward	3,881	702.9	680.7	725.1	2,178	799.4	765.7	833.1	1,703	609.4	580.2	638.6
Livermore	640	247.8	228.3	267.3	323	253.8	225.8	281.9	317	236.6	210.2	262.9
Newark	609	465.8	428.4	503.3	297	458.2	405.8	510.7	312	472.8	418.3	527.3
Oakland	9,482	726.3	711.6	741.0	5,004	756.9	735.8	778.1	4,477	689.9	669.6	710.3
Pleasanton	437	213.9	193.4	234.4	247	240.1	209.5	270.8	190	183.7	157.0	210.3
San Leandro	1,543	530.5	503.8	557.2	799	541.2	503.1	579.3	744	515.1	477.9	552.2
San Lorenzo	366	466.7	418.7	514.8	189	471.9	404.0	539.8	177	460.5	392.5	528.5
Sunol	5	na	na	na	<5	na	na	na	<5	na	na	na
Union City	959	442.7	414.4	470.9	439	404.9	366.9	443.0	520	478.9	436.8	520.9
North County	1,295	365.7	344.6	386.8	671	356.5	327.8	385.1	624	373.8	342.8	404.7
Oakland Area	10,352	682.4	669.2	695.6	5,526	717.2	698.1	736.2	4,825	641.9	623.7	660.1
Central County	6,351	584.5	570.1	598.9	3,472	635.8	614.6	657.1	2,879	531.3	511.8	550.8
South County	3,632	370.7	358.6	382.9	1,832	374.8	357.5	392.0	1,800	365.3	348.1	382.5
Tri-Valley	1,376	231.4	219.0	243.9	743	251.4	233.1	269.8	633	207.5	191.2	223.9

	AfrAmer				AmerInd				Asian			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	9,421	1,452.2	1,422.5	1,482.0	53	268.5	201.2	351.3	1,405	141.0	133.6	148.4
Alameda	202	1,364.4	1,175.7	1,553.2	<5	na	na	na	71	114.8	89.7	144.9
Albany	44	3,095.6	2,249.3	4,155.7	0	na	na	na	14	122.7	67.1	205.8
Berkeley	688	2,136.2	1,972.3	2,300.1	<5	na	na	na	28	61.9	41.1	89.4
Castro Valley	81	1,218.8	967.9	1,514.8	0	na	na	na	44	145.9	106.0	195.9
Dublin	56	1,131.1	854.4	1,468.8	<5	na	na	na	38	241.8	171.1	331.9
Fremont	237	1,392.4	1,213.3	1,571.5	<5	na	na	na	212	73.9	63.4	84.3
Hayward	1,152	1,817.5	1,711.4	1,923.7	10	624.8	299.6	1,149.1	274	260.2	229.0	291.4
Livermore	46	1,091.0	798.7	1,455.2	<5	na	na	na	24	133.0	85.2	197.9
Newark	80	1,881.9	1,492.2	2,342.1	0	na	na	na	39	128.8	91.6	176.1
Oakland	5,989	1,563.1	1,523.3	1,603.0	17	347.3	202.3	556.0	296	144.0	127.4	160.7
Pleasanton	30	1,011.8	682.7	1,444.4	<5	na	na	na	38	123.8	87.6	169.9
San Leandro	607	1,422.7	1,308.5	1,537.0	5	na	na	na	141	202.8	168.4	237.2
San Lorenzo	48	1,024.7	755.5	1,358.6	<5	na	na	na	38	251.1	177.7	344.7
Sunol	0	na	na	na	0	na	na	na	0	na	na	na
Union City	161	1,407.7	1,187.0	1,628.3	<5	na	na	na	148	157.1	130.4	183.7
North County	732	2,180.6	2,018.5	2,342.7	<5	na	na	na	42	72.5	52.3	98.1
Oakland Area	6,191	1,556.7	1,517.7	1,595.7	21	348.7	215.9	533.1	367	135.8	121.7	149.9
Central County	1,888	1,606.1	1,532.9	1,679.3	19	465.2	280.1	726.5	497	223.8	203.8	243.8
South County	478	1,429.9	1,300.0	1,559.8	<5	na	na	na	399	99.5	89.2	109.8
Tri-Valley	132	954.8	783.3	1,126.3	8	353.2	152.5	695.9	100	153.5	120.8	186.3

	Latino				PacIsl				White			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	3,980	350.4	338.6	362.1	123	349.1	281.9	416.3	5,559	381.7	371.1	392.2
Alameda	52	238.8	178.4	313.2	17	1,513.2	881.5	2,422.9	296	317.0	278.4	355.7
Albany	8	na	na	na	0	na	na	na	58	234.0	177.7	302.5
Berkeley	74	201.7	158.4	253.2	0	na	na	na	219	129.4	110.4	148.4
Castro Valley	82	366.5	291.5	454.9	<5	na	na	na	296	316.5	278.5	354.5
Dublin	30	152.1	102.6	217.1	<5	na	na	na	147	198.8	165.2	232.4
Fremont	253	266.2	232.9	299.5	18	767.1	454.6	1,212.4	1,175	648.4	610.1	686.6
Hayward	1,110	482.9	452.6	513.2	34	359.1	248.7	501.9	839	736.9	683.9	790.0
Livermore	142	298.0	245.9	350.1	<5	na	na	na	397	223.1	200.7	245.6
Newark	124	273.6	221.5	325.8	6	na	na	na	320	839.5	745.1	934.0
Oakland	1,504	399.7	377.6	421.8	22	496.2	311.0	751.2	724	261.4	240.5	282.3
Pleasanton	44	232.6	169.0	312.2	<5	na	na	na	288	205.5	180.9	230.1
San Leandro	280	329.9	290.4	369.4	12	495.4	256.0	865.4	321	377.0	331.1	422.9
San Lorenzo	93	373.7	301.6	457.8	<5	na	na	na	129	460.5	376.2	544.7
Sunol	0	na	na	na	0	na	na	na	5	na	na	na
Union City	184	308.5	262.8	354.3	5	na	na	na	345	1,213.7	1,081.2	1,346.2
North County	82	202.6	161.1	251.5	0	na	na	na	277	144.5	125.7	163.3
Oakland Area	1,556	388.6	367.8	409.4	39	704.6	501.0	963.2	1,020	275.2	256.8	293.6
Central County	1,565	429.5	407.4	451.7	49	376.3	278.4	497.5	1,585	500.5	474.2	526.8
South County	561	278.8	255.2	302.5	29	571.8	382.9	821.2	1,845	737.7	703.0	772.4
Tri-Valley	216	248.6	214.0	283.2	6	428.8	157.4	933.3	832	211.0	196.3	225.7

Source: OSPHD Patient Discharge Data, 2006-08.

Table 6.29: Three-Year Asthma Emergency Department Visits by City, Region, Gender, and Race/Ethnicity, Children Under Five Years

	All				Female				Male			
	# <5	Rate	LCL	UCL	# <5	Rate	LCL	UCL	# <5	Rate	LCL	UCL
Alameda County	4,507	1,427.1	1,385.4	1,468.7	1,635	1,056.2	1,005.0	1,107.4	2,872	1,783.6	1,718.4	1,848.8
Alameda	138	1,115.3	929.2	1,301.4	57	950.3	719.8	1,231.3	81	1,270.4	1,008.9	1,579.0
Albany	27	1,074.0	707.8	1,562.6	13	1,064.3	566.7	1,820.0	14	1,083.1	592.2	1,817.3
Berkeley	179	1,312.3	1,120.1	1,504.6	68	1,026.8	797.4	1,301.7	111	1,581.7	1,287.5	1,876.0
Castro Valley	83	822.7	655.3	1,019.9	23	469.8	297.8	704.9	60	1,155.5	881.8	1,487.4
Dublin	57	712.1	539.4	922.7	17	429.7	250.3	688.0	40	988.2	706.0	1,345.7
Fremont	399	860.3	775.9	944.7	144	637.5	533.3	741.6	255	1,072.0	940.4	1,203.5
Hayward	735	1,689.8	1,567.6	1,812.0	277	1,288.9	1,137.1	1,440.7	458	2,081.3	1,890.7	2,271.9
Livermore	109	549.2	446.1	652.3	34	354.6	245.5	495.5	75	731.0	575.0	916.4
Newark	134	1,392.8	1,157.0	1,628.6	25	535.3	346.4	790.3	109	2,201.6	1,788.3	2,614.9
Oakland	2,040	2,198.5	2,103.1	2,293.9	784	1,736.9	1,615.3	1,858.5	1,256	2,635.6	2,489.8	2,781.4
Pleasanton	52	362.0	270.4	474.7	8	na	na	na	44	593.5	431.2	796.7
San Leandro	326	1,605.5	1,431.2	1,779.8	119	1,209.8	992.4	1,427.2	207	1,977.3	1,708.0	2,246.7
San Lorenzo	51	961.8	716.1	1,264.6	14	547.9	299.5	919.2	37	1,346.9	948.3	1,856.5
Sunol	0	na	na	na	0	na	na	na	0	na	na	na
Union City	177	1,100.3	938.2	1,262.4	52	666.8	498.0	874.4	125	1,508.2	1,243.8	1,772.6
North County	206	1,275.2	1,101.1	1,449.4	81	1,032.7	820.1	1,283.5	125	1,504.2	1,240.5	1,767.9
Oakland Area	2,178	2,071.0	1,984.0	2,158.0	841	1,644.7	1,533.5	1,755.8	1,337	2,474.5	2,341.9	2,607.1
Central County	1,195	1,509.0	1,423.4	1,594.6	433	1,116.6	1,011.4	1,221.8	762	1,885.5	1,751.6	2,019.4
South County	710	983.0	910.7	1,055.4	221	629.2	546.2	712.2	489	1,318.0	1,201.2	1,434.9
Tri-Valley	218	516.5	447.9	585.1	59	287.9	219.2	371.4	159	732.2	618.4	846.0

	AfrAmer				AmerInd				Asian			
	# <5	Rate	LCL	UCL	# <5	Rate	LCL	UCL	# <5	Rate	LCL	UCL
Alameda County	1,587	4,566.8	4,342.1	4,791.5	<5	na	na	na	321	458.4	408.3	508.5
Alameda	35	3,405.6	2,372.1	4,736.3	0	na	na	na	11	298.1	148.8	533.4
Albany	8	na	na	na	0	na	na	na	<5	na	na	na
Berkeley	80	4,834.3	3,833.3	6,016.8	0	na	na	na	6	na	na	na
Castro Valley	13	3,081.0	1,640.5	5,268.6	0	na	na	na	8	na	na	na
Dublin	10	6,824.6	3,272.7	12,550.7	0	na	na	na	16	1,131.8	646.9	1,838.0
Fremont	22	2,244.3	1,406.5	3,397.9	0	na	na	na	74	302.4	237.4	379.6
Hayward	196	4,265.3	3,668.1	4,862.4	<5	na	na	na	40	544.4	388.9	741.4
Livermore	8	na	na	na	0	na	na	na	6	na	na	na
Newark	12	3,988.1	2,060.7	6,966.4	0	na	na	na	16	692.6	395.9	1,124.8
Oakland	1,034	4,020.0	3,775.0	4,265.0	0	na	na	na	80	703.0	557.4	875.0
Pleasanton	8	na	na	na	0	na	na	na	6	na	na	na
San Leandro	127	4,259.0	3,518.2	4,999.7	<5	na	na	na	30	598.3	403.6	854.1
San Lorenzo	5	na	na	na	0	na	na	na	7	na	na	na
Sunol	0	na	na	na	0	na	na	na	0	na	na	na
Union City	29	4,007.0	2,683.6	5,754.7	0	na	na	na	18	239.5	141.9	378.5
North County	88	5,062.8	4,060.5	6,237.5	0	na	na	na	9	na	na	na
Oakland Area	1,069	3,996.4	3,756.8	4,235.9	0	na	na	na	91	603.9	486.2	741.4
Central County	341	4,067.7	3,635.9	4,499.4	<5	na	na	na	85	547.1	437.0	676.4
South County	63	3,142.3	2,414.6	4,020.4	0	na	na	na	108	314.7	255.3	374.1
Tri-Valley	26	4,025.7	2,629.7	5,898.5	0	na	na	na	28	480.6	319.4	694.7

	Latino				PacIsl				White			
	# <5	Rate	LCL	UCL	# <5	Rate	LCL	UCL	# <5	Rate	LCL	UCL
Alameda County	1,254	1,252.4	1,183.0	1,321.7	25	1,002.7	648.9	1,480.2	669	888.4	821.1	955.7
Alameda	16	1,007.1	575.7	1,635.5	<5	na	na	na	30	678.2	457.6	968.2
Albany	<5	na	na	na	0	na	na	na	11	1,020.5	509.4	1,825.9
Berkeley	21	803.2	497.2	1,227.9	0	na	na	na	32	509.7	348.6	719.5
Castro Valley	15	712.7	398.9	1,175.5	0	na	na	na	35	794.4	553.3	1,104.8
Dublin	5	na	na	na	0	na	na	na	20	433.2	264.6	669.0
Fremont	80	1,063.6	843.4	1,323.8	13	8,487.0	4,519.0	14,513.0	172	1,832.5	1,558.6	2,106.4
Hayward	336	1,487.5	1,328.5	1,646.6	6	na	na	na	64	1,210.3	932.1	1,545.6
Livermore	41	914.0	655.9	1,239.9	0	na	na	na	49	404.6	299.3	534.9
Newark	43	1,044.4	755.8	1,406.8	<5	na	na	na	51	2,440.4	1,817.1	3,208.7
Oakland	522	1,387.2	1,268.2	1,506.2	<5	na	na	na	97	786.2	637.5	959.1
Pleasanton	<5	na	na	na	0	na	na	na	29	338.6	226.8	486.3
San Leandro	99	1,354.8	1,101.1	1,649.4	<5	na	na	na	22	638.3	400.0	966.4
San Lorenzo	24	1,074.3	688.3	1,598.5	0	na	na	na	7	na	na	na
Sunol	0	na	na	na	0	na	na	na	0	na	na	na
Union City	47	951.5	699.1	1,265.3	<5	na	na	na	50	3,332.2	2,473.2	4,393.1
North County	22	754.4	472.8	1,142.1	0	na	na	na	43	584.5	423.0	787.3
Oakland Area	538	1,371.8	1,255.9	1,487.7	<5	na	na	na	127	757.7	625.9	889.5
Central County	474	1,384.6	1,260.0	1,509.3	7	na	na	na	128	888.5	734.6	1,042.4
South County	170	1,025.1	871.0	1,179.2	16	5,101.9	2,916.2	8,285.1	273	2,088.6	1,840.8	2,336.4
Tri-Valley	50	699.7	519.3	922.5	0	na	na	na	98	387.5	314.6	472.2

Source: OSPHD Patient Discharge Data, 2006-08.

Table 6.30: Three-Year Asthma Hospitalization by City, Region, Gender, and Race/Ethnicity, All Ages

	All				Female				Male			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	6,534	145.8	142.3	149.4	3,832	162.4	157.2	167.6	2,702	125.8	121.0	130.6
Alameda	224	105.6	91.5	119.7	135	116.1	95.8	136.4	89	91.5	73.5	112.6
Albany	43	98.8	71.5	133.1	17	74.9	43.6	120.0	26	127.9	83.5	187.4
Berkeley	319	113.5	100.3	126.6	191	120.3	102.2	138.3	128	102.9	84.2	121.6
Castro Valley	152	89.8	75.2	104.4	99	109.2	88.7	132.9	53	68.6	51.4	89.7
Dublin	68	58.7	45.6	74.4	46	74.7	54.7	99.6	22	45.1	28.3	68.3
Fremont	632	108.4	99.7	117.0	347	113.2	101.1	125.2	285	104.1	91.2	117.0
Hayward	1,080	202.5	190.3	214.6	710	259.0	239.9	278.2	370	140.4	125.7	155.1
Livermore	205	84.4	72.3	96.4	128	99.6	81.8	117.3	77	64.1	50.6	80.1
Newark	123	97.0	79.4	114.6	72	110.3	86.3	138.9	51	82.2	61.2	108.1
Oakland	2,622	202.2	194.4	210.0	1,491	220.5	209.2	231.8	1,131	178.8	168.2	189.3
Pleasanton	139	74.9	61.9	87.9	87	86.0	68.9	106.1	52	63.3	47.3	83.0
San Leandro	504	162.6	148.2	176.9	273	164.9	144.8	184.9	231	156.7	136.4	176.9
San Lorenzo	128	156.5	129.2	183.7	64	145.3	111.9	185.6	64	168.2	129.5	214.8
Sunol	<5	na	na	na	0	na	na	na	<5	na	na	na
Union City	293	151.8	133.9	169.7	172	168.7	143.1	194.4	121	132.3	106.7	157.8
North County	362	111.4	99.3	123.5	208	113.9	97.5	130.4	154	105.5	88.2	122.9
Oakland Area	2,846	188.1	181.2	195.1	1,626	204.9	194.8	214.9	1,220	166.5	157.1	175.9
Central County	1,864	166.2	158.6	173.8	1,146	194.7	183.3	206.1	718	133.8	124.0	143.7
South County	1,050	116.5	109.3	123.7	591	124.9	114.7	135.1	459	107.8	97.2	118.4
Tri-Valley	412	76.6	68.8	84.4	261	90.6	79.3	102.0	151	60.2	49.6	70.7

	AfrAmer				AmerInd				API			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	2,453	387.7	372.1	403.3	11	55.9	27.9	100.1	809	82.3	76.5	88.0
Alameda	36	247.8	173.6	343.1	<5	na	na	na	45	83.7	61.0	112.0
Albany	14	889.3	486.2	1,492.2	0	na	na	na	<5	na	na	na
Berkeley	190	579.4	494.9	663.9	0	na	na	na	8	na	na	na
Castro Valley	12	172.8	89.3	301.8	0	na	na	na	17	57.4	33.4	91.9
Dublin	12	217.5	112.4	379.9	0	na	na	na	9	na	na	na
Fremont	51	295.2	219.8	388.1	<5	na	na	na	161	73.0	60.3	85.8
Hayward	309	532.7	471.2	594.1	0	na	na	na	128	126.8	104.1	149.4
Livermore	7	na	na	na	<5	na	na	na	14	73.2	40.0	122.7
Newark	19	339.4	204.3	530.0	0	na	na	na	22	70.7	44.3	107.0
Oakland	1,596	412.9	392.5	433.3	<5	na	na	na	193	86.9	74.4	99.3
Pleasanton	<5	na	na	na	0	na	na	na	8	na	na	na
San Leandro	158	375.6	315.7	435.4	<5	na	na	na	64	99.2	76.4	126.6
San Lorenzo	11	227.1	113.4	406.3	0	na	na	na	17	128.8	75.0	206.3
Sunol	0	na	na	na	0	na	na	na	0	na	na	na
Union City	34	327.4	226.8	457.5	<5	na	na	na	121	160.6	129.3	191.8
North County	204	590.4	507.2	673.6	0	na	na	na	10	21.1	10.1	38.8
Oakland Area	1,632	407.4	387.5	427.3	7	na	na	na	238	84.6	73.7	95.5
Central County	490	442.9	402.4	483.3	<5	na	na	na	226	107.7	93.2	122.2
South County	104	317.7	253.5	382.0	<5	na	na	na	304	95.3	83.4	107.2
Tri-Valley	23	187.8	119.1	281.9	<5	na	na	na	31	54.6	37.1	77.6

	Latino				White			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	991	106.3	98.6	114.0	1,785	104.4	99.3	109.6
Alameda	23	102.0	64.7	153.1	78	75.0	59.3	93.6
Albany	<5	na	na	na	12	63.3	32.7	110.6
Berkeley	19	67.0	40.3	104.6	70	47.9	37.4	60.6
Castro Valley	20	86.8	53.0	134.0	89	83.2	66.8	102.4
Dublin	8	na	na	na	33	41.9	28.8	58.8
Fremont	76	92.8	73.1	116.1	324	154.9	137.3	172.5
Hayward	260	139.3	120.3	158.3	328	201.0	177.7	224.3
Livermore	25	68.3	44.2	100.9	151	84.6	70.5	98.7
Newark	22	55.8	35.0	84.5	56	128.4	97.0	166.8
Oakland	377	101.3	89.4	113.1	239	82.6	71.0	94.2
Pleasanton	6	na	na	na	112	80.9	65.3	96.5
San Leandro	73	91.2	71.5	114.6	154	139.2	113.4	164.9
San Lorenzo	37	147.4	103.8	203.1	57	173.5	131.4	224.8
Sunol	0	na	na	na	<5	na	na	na
Union City	41	81.8	58.7	110.9	80	254.3	201.6	316.5
North County	23	71.1	45.1	106.7	82	50.9	40.4	63.1
Oakland Area	400	103.2	91.6	114.7	317	80.6	70.8	90.4
Central County	390	121.2	108.3	134.2	628	148.8	136.0	161.6
South County	139	82.2	67.6	96.8	462	162.2	146.7	177.6
Tri-Valley	39	61.1	43.4	83.5	296	76.1	67.1	85.2

Source: OSPHD Emergency Department Files, 2006-08.

Table 6.31: Three-Year Asthma Hospitalization by City, Region, Gender, and Race/Ethnicity, Children Under Five Years

	All				Female				Male			
	# <5	Rate	LCL	UCL	# <5	Rate	LCL	UCL	# <5	Rate	LCL	UCL
Alameda County	1,614	511.0	486.1	536.0	584	377.3	346.7	407.9	1,030	639.7	600.6	678.7
Alameda	61	493.0	377.1	633.3	21	350.1	216.7	535.2	40	627.4	448.2	854.3
Albany	9	na	na	na	<5	na	na	na	6	na	na	na
Berkeley	69	505.9	393.6	640.2	29	437.9	293.3	628.9	40	570.0	407.2	776.2
Castro Valley	34	337.0	233.4	471.0	13	265.5	141.4	454.1	21	404.4	250.3	618.2
Dublin	13	162.4	86.5	277.7	6	na	na	na	7	na	na	na
Fremont	152	327.7	275.6	379.8	44	194.8	141.5	261.5	108	454.0	368.4	539.6
Hayward	213	489.7	423.9	555.5	77	358.3	282.8	447.8	136	618.0	514.2	721.9
Livermore	35	176.3	122.8	245.2	8	na	na	na	27	263.2	173.4	382.9
Newark	26	270.2	176.5	396.0	9	na	na	na	17	343.4	200.0	549.8
Oakland	743	800.7	743.1	858.3	290	642.5	568.5	716.4	453	950.6	863.0	1,038.1
Pleasanton	17	118.4	68.9	189.5	<5	na	na	na	15	202.3	113.2	333.7
San Leandro	147	724.0	606.9	841.0	54	549.0	412.4	716.3	93	888.4	717.0	1,088.3
San Lorenzo	21	396.0	245.2	605.4	<5	na	na	na	17	618.8	360.5	990.8
Sunol	0	na	na	na	0	na	na	na	0	na	na	na
Union City	74	460.0	361.2	577.5	24	307.8	197.2	457.9	50	603.3	447.8	795.4
North County	78	482.9	381.7	602.6	32	408.0	279.0	575.9	46	553.5	405.3	738.3
Oakland Area	804	764.5	711.7	817.4	311	608.2	540.6	675.8	493	912.4	831.9	993.0
Central County	415	524.0	473.6	574.5	148	381.7	320.2	443.2	267	660.7	581.4	739.9
South County	252	348.9	305.8	392.0	77	219.2	173.0	274.0	175	471.7	401.8	541.6
Tri-Valley	65	154.0	118.9	196.3	16	78.1	44.6	126.8	49	225.6	166.9	298.3

	AfrAmer				AmerInd				API			
	# <5	Rate	LCL	UCL	# <5	Rate	LCL	UCL	# <5	Rate	LCL	UCL
Alameda County	482	1,387.0	1,263.2	1,510.8	0	na	na	na	226	311.6	271.0	352.3
Alameda	<5	na	na	na	0	na	na	na	13	346.7	184.6	592.9
Albany	0	na	na	na	0	na	na	na	0	na	na	na
Berkeley	22	1,329.4	833.1	2,012.8	0	na	na	na	<5	na	na	na
Castro Valley	5	na	na	na	0	na	na	na	6	na	na	na
Dublin	<5	na	na	na	0	na	na	na	<5	na	na	na
Fremont	7	na	na	na	0	na	na	na	68	276.1	214.4	350.1
Hayward	44	957.5	695.7	1,285.4	0	na	na	na	28	352.0	233.9	508.8
Livermore	<5	na	na	na	0	na	na	na	5	na	na	na
Newark	<5	na	na	na	0	na	na	na	7	na	na	na
Oakland	343	1,333.5	1,192.4	1,474.6	0	na	na	na	43	362.6	262.4	488.5
Pleasanton	<5	na	na	na	0	na	na	na	0	na	na	na
San Leandro	43	1,442.0	1,043.6	1,942.4	0	na	na	na	24	461.6	295.7	686.8
San Lorenzo	<5	na	na	na	0	na	na	na	<5	na	na	na
Sunol	0	na	na	na	0	na	na	na	0	na	na	na
Union City	6	na	na	na	0	na	na	na	24	315.2	201.9	469.0
North County	22	1,265.7	793.2	1,916.3	0	na	na	na	<5	na	na	na
Oakland Area	347	1,297.2	1,160.7	1,433.7	0	na	na	na	56	358.8	271.0	465.9
Central County	93	1,109.4	895.4	1,359.1	0	na	na	na	61	371.9	284.4	477.7
South County	16	798.0	456.2	1,296.0	0	na	na	na	99	285.9	232.3	348.0
Tri-Valley	<5	na	na	na	0	na	na	na	8	135.3	*	*

	Latino				White			
	# <5	Rate	LCL	UCL	# <5	Rate	LCL	UCL
Alameda County	407	406.5	367.0	446.0	230	305.4	266.0	344.9
Alameda	7	na	na	na	14	316.5	173.0	531.1
Albany	0	na	na	na	<5	na	na	na
Berkeley	9	na	na	na	20	318.5	194.6	492.0
Castro Valley	5	na	na	na	9	na	na	na
Dublin	<5	na	na	na	5	na	na	na
Fremont	24	319.1	204.4	474.8	47	500.7	367.9	665.9
Hayward	97	429.4	348.2	523.9	13	245.8	130.9	420.4
Livermore	9	na	na	na	15	123.9	69.3	204.3
Newark	6	na	na	na	9	na	na	na
Oakland	186	494.3	423.3	565.3	43	348.5	252.2	469.4
Pleasanton	<5	na	na	na	13	151.8	80.8	259.6
San Leandro	30	410.6	277.0	586.1	18	522.2	309.5	825.4
San Lorenzo	14	626.7	342.6	1,051.5	<5	na	na	na
Sunol	0	na	na	na	75	573.8	451.3	719.3
Union City	16	323.9	185.1	526.0	19	1,266.2	762.4	1,977.4
North County	9	na	na	na	23	312.7	198.2	469.1
Oakland Area	193	492.1	422.7	561.5	57	340.1	257.6	440.6
Central County	146	426.5	357.3	495.7	42	291.5	210.1	394.1
South County	46	277.4	203.1	370.0	0	na	na	na
Tri-Valley	13	181.9	96.9	311.1	33	130.5	89.8	183.2

Source: OSPHD Emergency Department Files, 2006-08.

All Cancers Combined

Cancer is a large group of diseases in which abnormal cells divide uncontrollably. Cancer cells differ from normal cells in size and in function. They are characterized by uncontrolled growth and rapid spread of abnormal cells throughout the body as well as independently from the primary site to other tissues. They can spread, or metastasize, to other locations via the bloodstream, the lymphatic system, or by accidental transplantation from one site to another during surgery.[1,2]

Every year, cancer kills half a million Americans. Cancer is the second leading cause of death in the United States, exceeded only by heart disease. It accounts for nearly one of every four deaths.[3,4] Over 1.5 million new cases of cancer are expected to be diagnosed, and more than 569,000 Americans are expected to die of cancer in 2010. The financial costs of cancer are overwhelming—cancer will cost the United States an estimated $264 billion in 2010.[5] Cancer does not affect all races and ethnicities equally. African Americans are most likely to die of cancer than people of any other racial or ethnic group. In 2006, the mortality rate for all cancers combined was 219 per 100,000 for African Americans, 180 for Whites, 120 for American Indian/Alaska Natives, 119 for Latinos, and 108 for Asian/Pacific Islanders.[3]

The overall cancer incidence and mortality rate have declined in recent years for men and women overall and for most racial/ethnic populations in the United States. This decline is mostly because the rates for the three most common cancers in men (lung, prostate, and colorectal cancers) and for two of the three leading cancers in women (breast and colorectal cancers) have dropped. The incidence rate for all types of cancers combined in the United States decreased about one percent per year from 1999 to 2006. The mortality rate decreased 1.6% per year from 2001 to 2006. The continued declines in mortality rates for all cancers combined likely reflect the impact of increased screening, reduction of risk factors, and improved treatments. Differences in mortality rates by racial/ethnic group, sex, and cancer site suggest differences in risk behaviors, socioeconomic status, and access to and use of screening, treatment, and other health care.[5,6]

The number of new cancer cases can be reduced, and many cancer deaths can be prevented. A person's cancer risk can be reduced by receiving regular medical care, avoiding tobacco, limiting alcohol use, avoiding excessive exposure to ultraviolet rays, eating a diet rich in fruits and vegetables, maintaining a healthy weight, and being physically active. Research shows that screening for cervical and colorectal cancers as recommended helps prevent these diseases by finding precancerous lesions so they can be treated before they become cancerous. Screening for cervical, colorectal, and breast cancers also helps find these diseases at an early, often highly treatable stage.[3] Cancers that can be detected by screening account for about half of all new cancer cases. The five-year relative survival rate for all cancers diagnosed between 1999 and 2005 is 68%, up from 50% in 1975-77.[5]

Although the rates of cancer incidence and death have declined recently, the actual number of people diagnosed with cancer is expected to double in the next several decades, as the elderly population grows.[7] Adequate access to cancer screening and the availability of high-quality treatment among poor and underserved populations are critical to reducing the burden of cancer.[8]

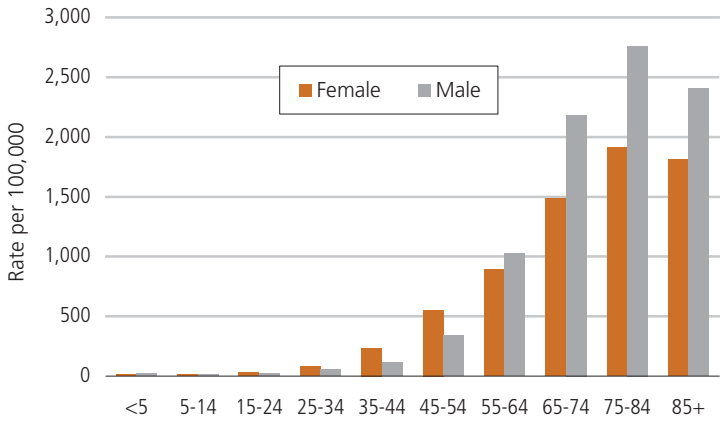
Table 6.32: All Cancers Combined Comparison

	HP2010[9]	Alameda County	California[10,11]	United States[12]
All Cancers Combined Incidence (Rate per 100,000)	na	440.4	464.8	na
All Cancers Combined Mortality (Rate per 100,000)	158.6	150.0	155.9	178.4

All Cancers Combined—Incidence

New cases of cancer (cancer incidence) for all sites combined are rare before 35 years for both females and males. Among women in the 35-44 and 45-54 age groups, cancer incidence is higher than among men. For all successive age groups men have higher cancer incidence than women and the gender gap increases with age.

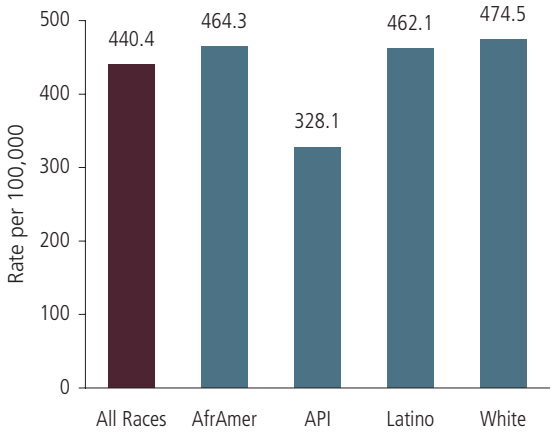
Figure 6.57: All Cancers Combined Incidence by Age Group and Gender



Source: Cancer Prevention Institute of California, 2005-07.

In Alameda County, there were 19,107 new cases of all types of cancer between 2005 and 2007; the incidence rate for this period was 440.4 per 100,000. Whites had the highest incidence of all cancers combined, 1.4 times that for Asian/Pacific Islanders (474.5 and 328.1 per 100,000 respectively). The rates for African Americans and Latinos which were slightly lower than for Whites, were also significantly higher than the rate for Asian/Pacific Islanders.

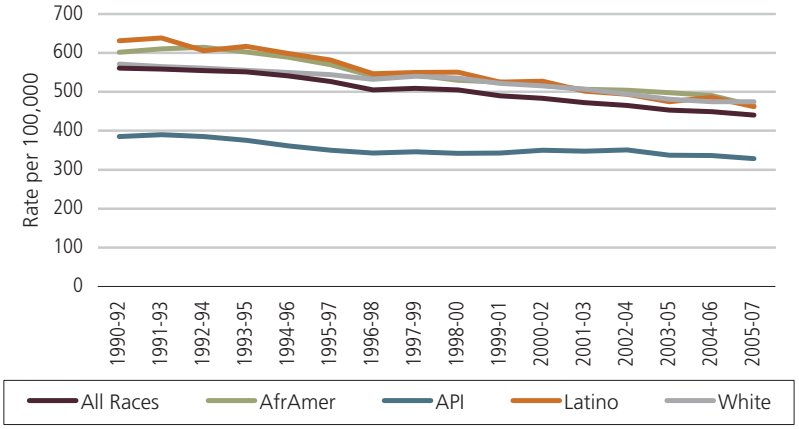
Figure 6.58: All Cancers Combined Incidence by Race/Ethnicity



Source: Cancer Prevention Institute of California, 2005-07.

From 1990 to 2007, the incidence of all cancers combined declined significantly at a steady rate of 1.7% annually. There were notable differences in the pattern of decline among racial/ethnic groups. Among African Americans there were significant declines in cancer incidence starting in the early 1990s and then a more gradual rate from the mid 1990s. Among Asian/Pacific Islanders cancer incidence declined significantly during most of the 1990s through 2005-07. Latino cancer incidence rates declined steadily at an annual rate of 2.2% between 1990-02 and 2005-07. Among Whites, cancer incidence declined gradually in the 1990s and more steeply during subsequent years. The cancer incidence rates for Asian/Pacific Islanders were consistently the lowest among all racial/ethnic groups between 1990-02 and 2005-07.

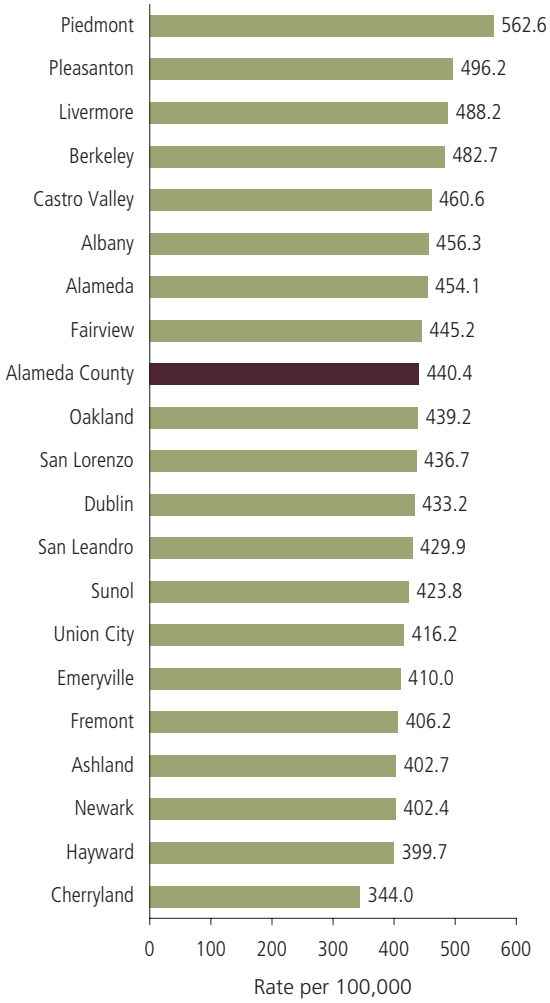
Figure 6.59: All Cancers Combined Incidence Trend



Source: Cancer Prevention Institute of California, 1990-07.

Incidence of all cancers combined ranged from a high of 562.6 per 100,000 in Piedmont to a low of 344.0 in Cherryland. Piedmont, Pleasanton, and Livermore had much higher incidence than the county. Cherryland, Hayward, and Newark were among cities with the lowest rates, substantially lower than the county.

Figure 6.60: All Cancers Combined Incidence by City

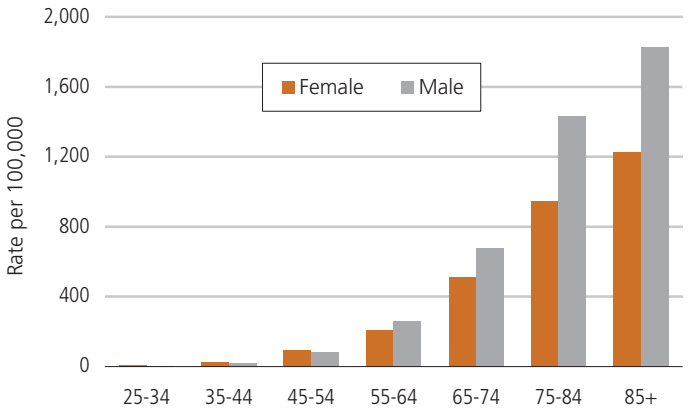


Source: Cancer Prevention Institute of California, 2005-07.

All Cancers Combined—Mortality

After 35 years, mortality from all cancers combined increased steeply with age, significantly more for males than females. The male-to-female difference increased from 24% for those 55-64 years to about 50% for those 75 years or older.

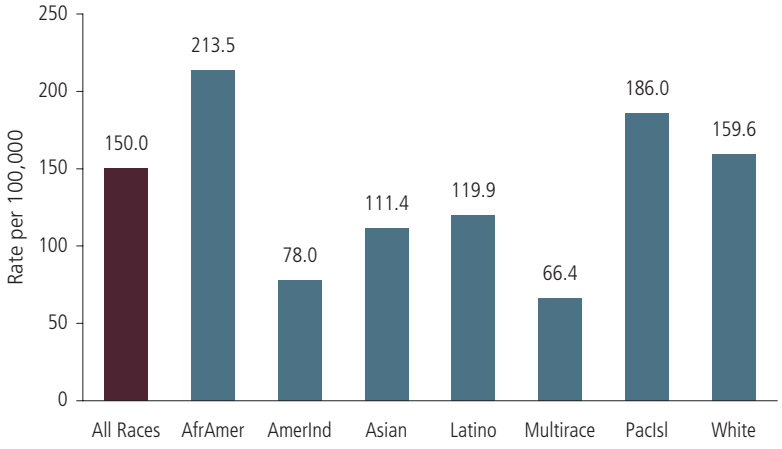
Figure 6.61: All Cancers Combined Mortality by Age Group and Gender



Source: Alameda County Vital Statistics Files, 2006-08.

There were 6,434 deaths from all types of cancer in Alameda County from 2006 to 2008. The age-adjusted mortality rate from all cancers combined was 150.0 per 100,000 population. The African American mortality rate from all cancers was significantly higher than any other racial/ethnic groups except Pacific Islanders. The rate for Pacific Islanders was also significantly higher than the rates for the Asian and multiracial groups.

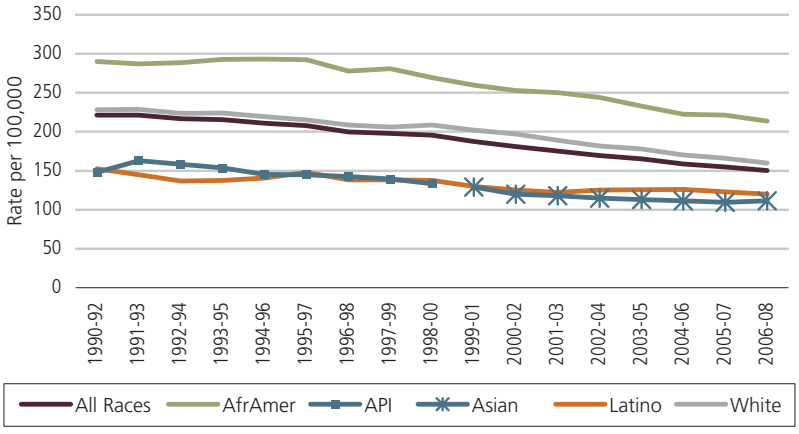
Figure 6.62: All Cancers Combined Mortality by Race/Ethnicity



Source: Alameda County Vital Statistics Files, 2006-08.

Mortality rates from all cancers declined significantly by 3.2% per year since the late 1990s. The rates for Whites showed a decline of 3.4% per year since the early 1990s. African Americans showed a clear declining trend at about 2.8% per year since the mid 1990s. Rates for Latinos leveled off since 2000-02 after declining about 2.9% per year during the late 1990s.

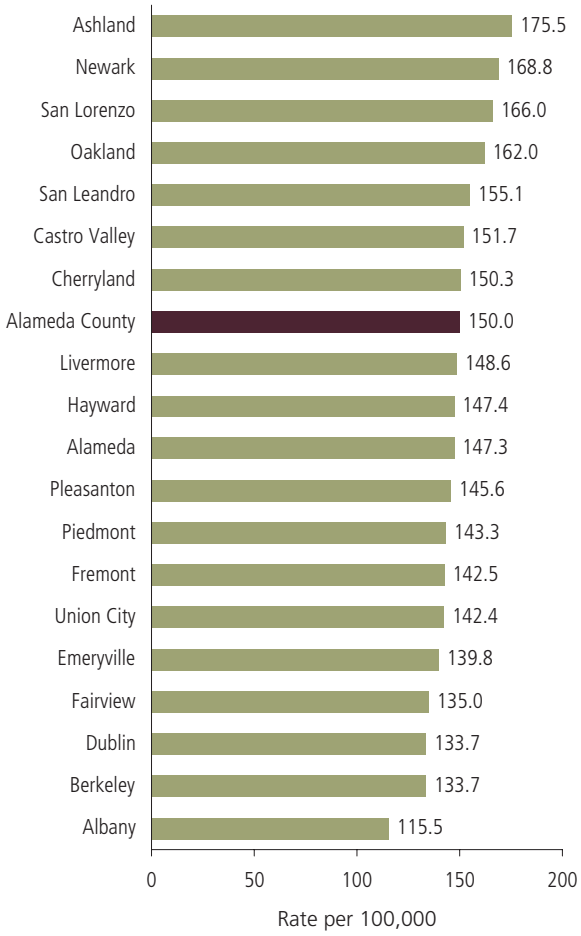
Figure 6.63: All Cancers Combined Mortality Trend



Source: Alameda County Vital Statistics Files, 1990-08.
Note: Rate for Asian/Pacific Islanders (API) until 1998-00; rate for Asians (without Pacific Islanders) from 1999-01.

Mortality from all cancers combined ranged from a low of 115.5 per 100,000 in Albany to a high of 175.5 in Ashland. Albany, Berkeley, and Dublin were among the cities that had much lower cancer mortality than the county. Ashland, Newark, and San Lorenzo had higher mortality than the county.

Figure 6.64: Mortality of All Cancers Combined by City



Source: Alameda County Vital Statistics Files, 2006-08.

Table 6.33: Three-Year Incidence of All Cancers Combined by Region, Gender, and Race/Ethnicity

	All				Female				Male				AfrAmer			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	19,107	440.4	434.1	446.7		420.9	412.6	429.2	9,003	474.0	463.9	484.0	2,868	464.3	447.0	481.6
North County	1,726	479.4	456.4	502.5	907	448.7	418.9	478.4	819	532.6	495.0	570.3	269	560.7	491.8	629.6
Oakland Area	6,706	443.8	433.1	454.5	3,560	422.2	408.2	436.2	3,143	477.6	460.6	494.6	2,044	515.2	492.6	537.8
Central County	4,683	421.8	409.7	433.9	2,467	403.4	387.4	419.5	2,215	459.0	439.7	478.3	380	438.5	392.0	485.1
South County	3,493	408.5	394.5	422.5	1,839	389.3	371.2	407.3	1,653	446.7	423.7	469.7	137	480.0	388.9	571.2
Tri-Valley	2,377	480.9	460.3	501.5	1,265	467.4	440.6	494.1	1,111	510.3	476.9	543.8	35	365.9	254.8	508.8

	API				Latino				White			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	3,145	328.1	316.5	339.7	2,456	462.1	442.5	481.6	9,942	474.5	464.9	484.0
North County	161	301.5	254.4	348.7	94	432.9	349.8	529.7	1,120	509.5	478.5	540.5
Oakland Area	1,030	333.1	312.7	353.6	587	295.7	270.3	321.1	2,759	508.2	488.5	527.8
Central County	751	356.7	330.2	383.1	951	463.0	432.9	493.1	2,470	452.6	433.9	471.2
South County	1,007	319.1	297.6	340.6	568	440.2	402.9	477.5	1,670	487.7	463.9	511.6
Tri-Valley	188	373.3	314.3	432.2	245	581.3	500.5	662.1	1,829	482.3	458.9	505.7

Source: Cancer Prevention Institute of California, 2005-07.

Table 6.34: Three-Year Incidence of All Cancers Combined by City

	#	Rate	LCL	UCL
Alameda	1,184	454.1	428.0	480.2
Albany	241	456.3	397.1	515.5
Ashland	216	402.7	348.2	457.2
Berkeley	1,485	482.7	457.6	507.7
Castro Valley	982	460.6	431.3	489.9
Cherryland	128	344.0	283.5	404.5
Dublin	408	433.2	384.6	481.7
Emeryville	114	410.0	332.6	487.4
Fairview	152	445.2	372.7	517.6
Fremont	2,245	406.2	388.8	423.5
Hayward	1,594	399.7	380.0	419.5
Livermore	1,042	488.2	457.1	519.4
Newark	454	402.4	363.8	441.0
Oakland	5,192	439.2	427.1	451.2
Piedmont	216	562.6	481.4	643.9
Pleasanton	927	496.2	462.5	529.9
San Leandro	1,263	429.9	405.9	453.8
San Lorenzo	348	436.7	390.4	483.0
Sunol	21	423.8	262.4	647.9
Union City	773	416.2	385.9	446.4
Remainder of County	122	375.1	306.7	443.4

Source: Cancer Prevention Institute of California, 2005-07.

Table 6.35: Three-Year All Cancers Combined Mortality by City, Region, Gender, and Race/Ethnicity

	All				Female				Male				AfrAmer				AmerInd			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	6,434	150.0	146.3	153.8	3,242	132.2	127.6	136.8	3,192	176.2	169.9	182.4	1,299	213.5	201.7	225.4	14	78.0	42.6	130.9
Alameda	392	147.3	132.6	162.0	213	136.0	117.4	154.6	179	166.0	141.3	190.7	26	203.6	133.0	298.4	<5	na	na	na
Albany	60	115.5	88.2	148.7	34	109.9	76.1	153.6	26	126.2	82.5	185.0	<5	na	na	na	0	na	na	na
Ashland	91	175.5	141.3	215.5	43	151.1	109.3	203.5	48	217.4	160.3	288.3	18	264.9	157.0	418.7	0	na	na	na
Berkeley	407	133.7	120.4	146.9	208	118.4	102.0	134.8	199	159.7	136.9	182.4	103	207.4	165.8	248.9	<5	na	na	na
Castro Valley	338	151.7	135.3	168.1	166	130.1	109.8	150.4	172	182.0	154.4	209.5	14	161.2	88.1	270.5	<5	na	na	na
Cherryland	57	150.3	113.9	194.8	23	100.9	64.0	151.4	34	224.5	155.4	313.6	5	na	na	na	0	na	na	na
Dublin	98	133.7	108.5	162.9	62	158.0	121.2	202.6	36	106.6	74.6	147.5	<5	na	na	na	0	na	na	na
Emeryville	36	139.8	97.9	193.6	17	119.2	69.5	190.9	19	169.8	102.2	265.2	7	na	na	na	0	na	na	na
Fairview	42	135.0	97.3	182.5	21	131.8	81.6	201.5	21	140.8	87.1	215.2	11	180.5	90.1	322.9	0	na	na	na
Fremont	723	142.5	131.9	153.2	380	130.2	117.0	143.5	343	164.3	145.9	182.6	33	300.9	207.2	422.6	<5	na	na	na
Hayward	587	147.4	135.4	159.4	291	126.9	112.2	141.6	296	177.1	156.5	197.6	67	200.6	155.5	254.7	<5	na	na	na
Livermore	285	148.6	130.6	166.7	147	131.3	109.5	153.0	138	178.1	145.9	210.3	6	na	na	na	0	na	na	na
Newark	176	168.8	142.7	194.9	83	142.5	113.5	176.7	93	206.4	166.6	252.9	7	na	na	na	0	na	na	na
Oakland	1,921	162.0	154.7	169.4	953	138.0	129.1	146.9	968	196.3	183.7	208.9	932	249.0	232.8	265.2	<5	na	na	na
Piedmont	59	143.3	109.1	184.9	24	109.5	70.2	162.9	35	189.2	131.8	263.1	<5	na	na	na	0	na	na	na
Pleasanton	231	145.6	126.0	165.2	114	124.4	101.0	147.9	117	180.3	144.9	215.7	<5	na	na	na	<5	na	na	na
San Leandro	491	155.1	141.2	168.9	253	137.6	120.1	155.1	238	184.7	161.2	208.3	35	168.5	117.4	234.3	<5	na	na	na
San Lorenzo	138	166.0	138.1	193.9	76	156.0	122.9	195.3	62	177.4	136.0	227.4	<5	na	na	na	0	na	na	na
Sunol	<5	na	na	na	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na
Union City	243	142.4	124.0	160.8	109	109.3	88.4	130.1	134	196.6	161.1	232.1	16	144.1	82.4	234.0	<5	na	na	na
Remainder of Cty	39	112.2	79.8	153.3	15	82.1	45.9	135.4	24	144.6	92.7	215.2	<5	na	na	na	0	na	na	na
North County	467	131.2	119.0	143.3	242	117.2	102.1	132.3	225	155.0	134.2	175.8	106	203.2	163.2	243.2	<5	na	na	na
Oakland Area	2,408	158.6	152.2	165.0	1,207	136.7	128.9	144.6	1,201	190.3	179.3	201.2	966	246.4	230.6	262.1	5	na	na	na
Central County	1,744	152.6	145.4	159.8	873	132.7	123.7	141.6	871	182.3	170.1	194.5	153	183.6	153.0	214.1	<5	na	na	na
South County	1,146	145.8	137.1	154.5	573	126.9	116.4	137.4	573	176.7	161.3	192.1	56	212.5	160.6	276.0	<5	na	na	na
Tri-Valley	614	144.7	132.6	156.8	323	132.0	117.1	146.9	291	166.7	145.7	187.7	11	80.9	40.4	144.7	<5	na	na	na

	Asian				Latino				Multirace				PacIsl				White			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	1,035	111.4	104.6	118.3	573	119.9	109.6	130.2	49	66.4	49.2	87.8	33	186.0	128.0	261.2	3,428	159.6	154.2	165.1
Alameda	77	124.0	97.8	154.9	18	85.3	50.5	134.8	<5	na	na	na	<5	na	na	na	266	170.1	149.2	191.0
Albany	9	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	47	134.8	99.0	179.2
Ashland	9	na	na	na	14	111.0	60.7	186.3	<5	na	na	na	0	na	na	na	49	283.4	209.7	374.7
Berkeley	38	89.7	63.5	123.2	14	77.8	42.5	130.5	5	na	na	na	0	na	na	na	246	139.0	121.1	156.9
Castro Valley	27	103.6	68.3	150.8	19	92.1	55.4	143.8	<5	na	na	na	0	na	na	na	275	171.5	150.7	192.4
Cherryland	5	na	na	na	11	92.6	46.2	165.8	0	na	na	na	0	na	na	na	36	207.8	145.5	287.6
Dublin	16	173.7	99.3	282.1	15	256.4	143.5	423.0	<5	na	na	na	0	na	na	na	62	119.7	91.7	153.4
Emeryville	7	na	na	na	0	na	na	na	<5	na	na	na	0	na	na	na	21	154.1	95.4	235.5
Fairview	<5	na	na	na	5	na	na	na	<5	na	na	na	0	na	na	na	24	149.1	95.5	221.8
Fremont	167	100.1	83.4	116.7	61	99.6	76.2	127.9	6	na	na	na	<5	na	na	na	451	190.7	172.9	208.6
Hayward	105	132.4	106.2	158.6	101	111.2	89.0	133.3	<5	na	na	na	10	239.5	114.9	440.5	299	178.7	157.6	199.8
Livermore	11	78.2	39.0	139.9	19	101.5	61.1	158.6	<5	na	na	na	0	na	na	na	247	165.9	144.3	187.5
Newark	31	117.9	80.1	167.3	35	152.1	105.9	211.5	<5	na	na	na	<5	na	na	na	97	221.3	179.5	270.0
Oakland	321	135.1	120.3	150.0	135	85.4	70.1	100.8	11	30.6	15.3	54.7	5	na	na	na	510	138.0	125.4	150.6
Piedmont	7	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	51	158.1	117.7	207.8
Pleasanton	21	127.8	79.1	195.3	10	106.8	51.2	196.4	<5	na	na	na	<5	na	na	na	194	151.7	129.5	173.9
San Leandro	70	125.5	97.8	158.5	65	132.2	102.0	168.5	<5	na	na	na	<5	na	na	na	315	183.0	161.3	204.8
San Lorenzo	18	155.1	91.9	245.1	13	91.3	48.6	156.2	<5	na	na	na	0	na	na	na	103	198.2	157.9	238.4
Sunol	<5	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na	<5	na	na	na
Union City	89	130.2	104.6	160.3	35	105.1	73.2	146.2	<5	na	na	na	5	na	na	na	93	208.3	168.1	255.2
Remainder of Cty	<5	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na	31	130.2	88.5	184.8
North County	47	87.4	64.2	116.3	15	71.2	39.8	117.4	5	na	na	na	0	na	na	na	293	139.2	122.7	155.7
Oakland Area	412	132.1	119.3	144.9	153	83.6	69.7	97.5	15	31.5	17.6	51.9	6	na	na	na	848	148.0	137.7	158.3
Central County	235	122.7	106.4	138.9	228	112.8	98.0	127.6	11	25.3	12.6	45.3	13	173.7	92.5	297.0	1,101	182.3	171.1	193.5
South County	288	110.7	96.8	124.5	131	110.7	91.2	130.1	13	32.7	17.4	56.0	12	289.5	149.6	505.7	643	196.0	180.6	211.5
Tri-Valley	48	120.8	89.1	160.2	44	128.3	93.3	172.3	5	na	na	na	<5	na	na	na	503	153.2	139.1	167.2

Source: Alameda County Vital Statistics Files, 2006-08.

Lung Cancer

Lung cancer is caused by an uncontrolled growth of abnormal cells in lung tissue. Primary lung cancer originates in the lungs, while metastatic lung cancer spreads to the lungs from another organ.[1,2] Lung cancer is classified clinically as small cell (14%) or non-small cell (85%) for the purposes of treatment. Smoking is the principal cause of about 90% of lung cancer in men and almost 80% in women.[3]

In the United States, an estimated 222,520 new cases of lung cancer are expected in 2010, accounting for about 15% of cancer diagnoses. The incidence rate is declining significantly in men, while in women the rate is approaching a plateau after a long period of increase. Since 1987, more women have died each year from lung cancer than from breast cancer. Lung cancer accounts for more deaths than any other cancer in both men and women. In the United States, among men, African Americans had the highest lung cancer incidence, followed by Whites, American Indian/Alaska Natives, Asian/Pacific Islanders, and Latinos. Among women, White women had the most new cases of lung cancer, followed by African Americans, American Indian/Alaska Native, Asian/Pacific Islander, and Latino women.[3]

An estimated 157,300 deaths, accounting for about 28% of all cancer deaths in the United States, are expected to occur in 2010.[3] In 2007, lung cancer mortality in the United States was 50.6 per 100,000.[4] In California, lung cancer incidence was 52.5 per 100,000 and mortality was 38.1 per 100,000 in 2005-07.[5,6]

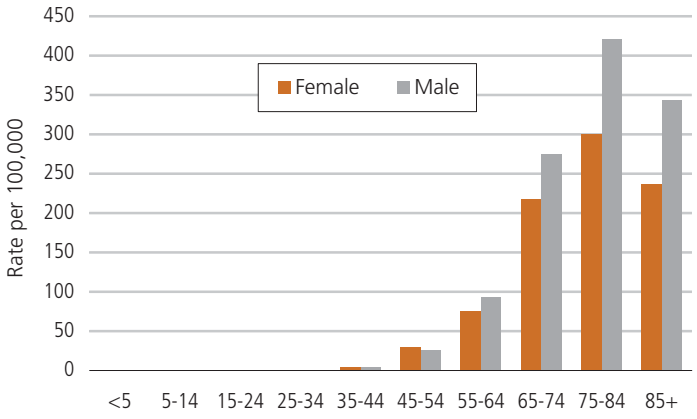
Table 6.36: Lung Cancer Comparison

	HP2010[7]	Alameda County	California[5,6]	United States[4]
Lung Cancer Incidence (Rate per 100,000)	na	48.0	52.5	na
Lung Cancer Mortality (Rate per 100,000)	43.3	35.6	38.1	50.6

Lung Cancer Incidence

New cases of lung cancer (lung cancer incidence) are extremely rare before age 35 years. Among those 35-44 years, men and women have similar lung cancer incidence rates. In the 45-54 age group women have higher incidence than men. Among older age groups, men have higher lung cancer incidence; furthermore, the gender gap increases with age.

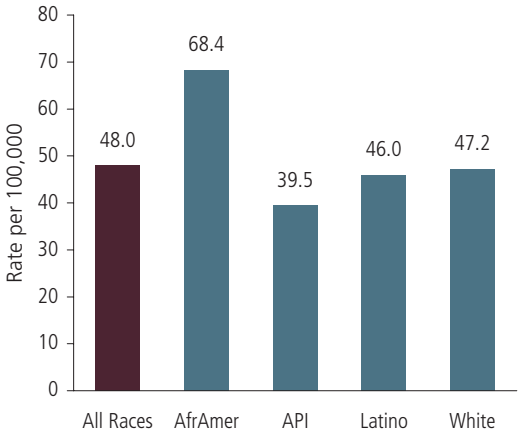
Figure 6.65: Lung Cancer Incidence by Age Group and Gender



Source: Cancer Prevention Institute of California 2005-07.

In Alameda County there were 1,985 new cases of lung cancer from 2005 to 2007, for an incidence rate of 48.0 per 100,000. African Americans had the highest lung cancer incidence rate of all racial/ethnic groups (68.4 per 100,000)—1.7 times the rate for Asian/Pacific Islanders, 1.5 times the Latino rate, and 1.4 times the White rate.

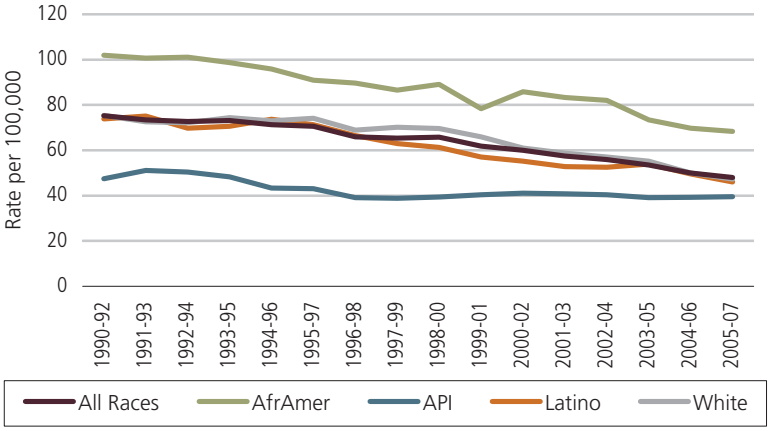
Figure 6.66: Lung Cancer Incidence by Race/Ethnicity



Source: Cancer Prevention Institute of California 2005-07.

Lung cancer incidence declined significantly from at 1.8% annually in the 1990s and more rapidly at 4.2% in subsequent years. Among African Americans, lung cancer incidence declined steadily at 2.5% a year between 1990 and 2007. For Asian/Pacific Islanders lung cancer incidence declined significantly during the early to mid 1990s at 5.9% annually, and then remained flat for subsequent years. Among Latinos there has been a significant decline in lung cancer incidence since 1994-96. For Whites, after a gradual decline in the early 1990s, there was a much steeper decline since the late 1990s. African American rates for lung cancer were the highest of all racial/ethnic groups between 1990-02 and 2005-07, and rates for Asian/Pacific Islanders the lowest. The gap between Latino and White incidence rates and that for Asian/Pacific Islanders and Whites narrowed in recent years.

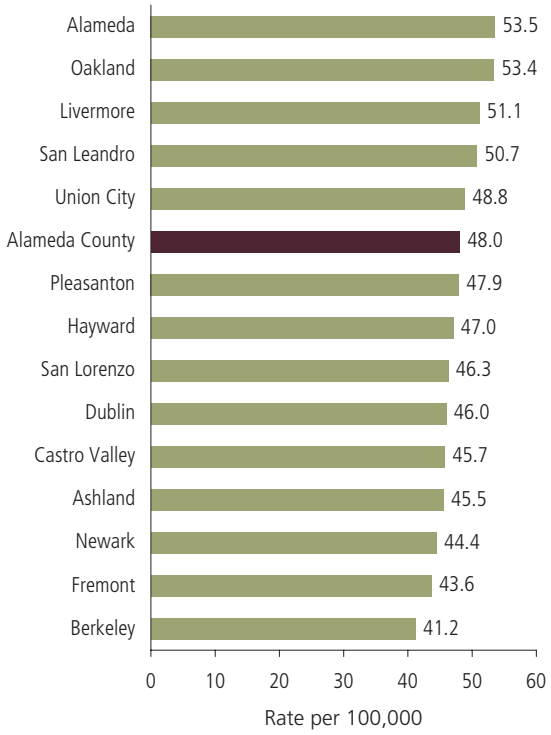
Figure 6.67: Lung Cancer Incidence Trend



Source: Cancer Prevention Institute of California, 1990-07.

The city of Alameda had the highest lung cancer incidence (53.5 per 100,000), Berkeley had the lowest rate (41.2) in the county. Alameda, Oakland, and Livermore had much higher lung cancer incidence than the county. Berkeley, Fremont, and Newark were among the cities that had lower rates than the county.

Figure 6.68: Lung Cancer Incidence by City

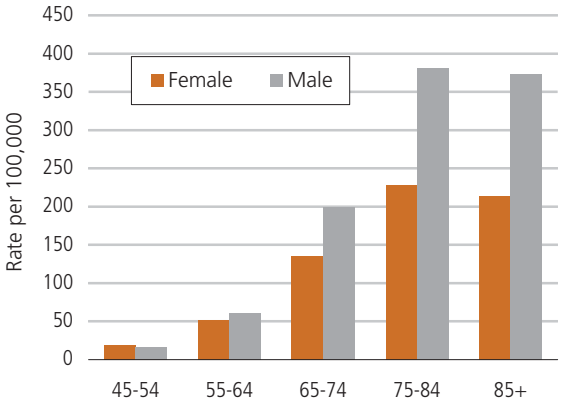


Source: Cancer Prevention Institute of California, 2005-07.

Lung Cancer Mortality

After 45 years, lung cancer mortality increased steeply with age. Lung cancer mortality was 50% to 70% higher among males than females starting at 65 years. The highest rates were found among males 75 years or older.

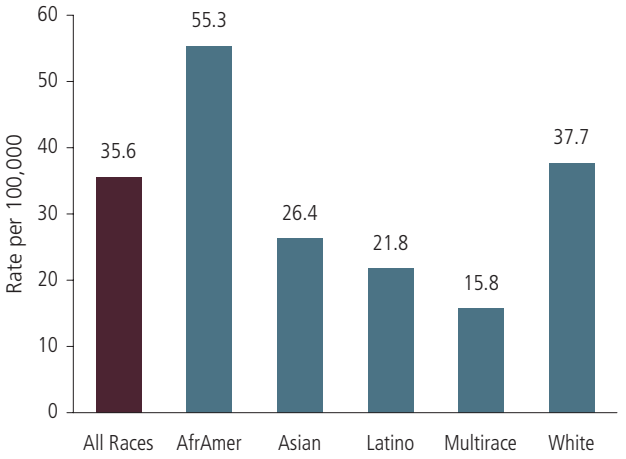
Figure 6.69: Lung Cancer Mortality by Age Group and Gender



Source: Alameda County Vital Statistics Files, 2006-08.

There were 1,496 deaths from lung cancer in Alameda County from 2006 to 2008, for an age-adjusted lung cancer mortality rate of 35.6 per 100,000 population. African American mortality rate from lung cancer was significantly higher than any other racial/ethnic groups. The rate of Whites was significantly lower than African Americans, but significantly higher than other racial/ethnic groups. The rates of Asians, Latinos, and multirace group were significantly lower than the county rate.

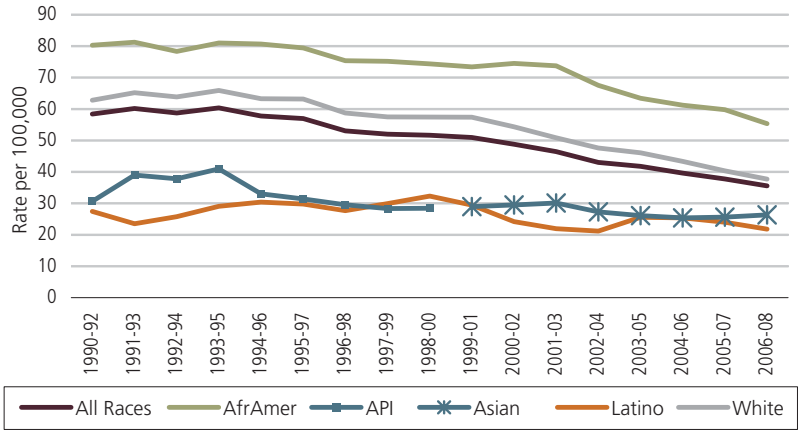
Figure 6.70: Lung Cancer Mortality by Race/Ethnicity



Source: Alameda County Vital Statistics Files, 2006-08.

For all racial/ethnic groups combined, the mortality rates from lung cancer declined significantly by 2.9% from 1993-95 to 2000-02 and then started to decline more steeply at 5.0% per year. The rates for Whites and African Americans also declining more steeply in recent years at 5% to 6% per year following a gradual decline during the early 2000s. The rates for Asians showed a gradual declining trend between 1990 and 2008. Rates for Latinos showed an increasing trend for most of the 1990s, but in more recent years no clear trend was observed.

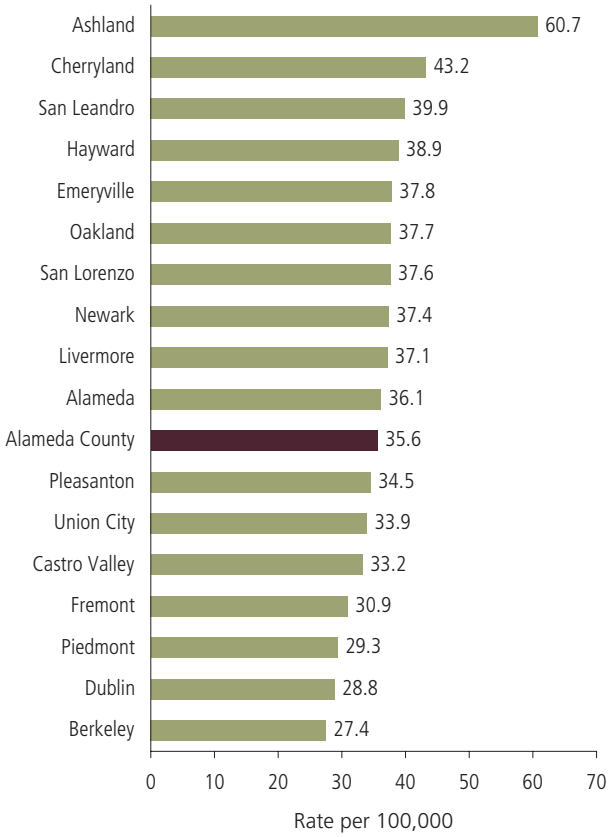
Figure 6.71: Lung Cancer Mortality Trend



Source: Alameda County Vital Statistics Files, 1990-08.
Note: Rate for Asian/Pacific Islanders (API) until 1998-00; rate for Asians (without Pacific Islanders) from 1999-01.

Age-adjusted lung cancer mortality rates ranged from a low of 27.4 per 100,000 in Berkeley to a high of 60.7 in Ashland. The highest rates were in Ashland, Cherryland, and San Leandro, much higher than the county. Berkeley, Dublin, and Piedmont had much lower lung cancer mortality than the county.

Figure 6.72: Lung Cancer Mortality by City



Source: Alameda County Vital Statistics Files, 2006-08.

Table 6.37: Three-Year Lung Cancer Incidence by Region, Gender, and Race/Ethnicity

	All				Female				Male				AfrAmer			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	1,985	48.0	45.9	50.2	1,003	43.1	40.4	45.8	982	55.0	51.5	58.6	403	68.4	61.6	75.2
North County	127	37.5	30.9	44.1	67	35.0	27.1	44.4	60	42.1	32.2	54.2	43	86.4	62.5	116.4
Oakland Area	770	52.5	48.7	56.2	387	46.2	41.5	50.8	383	60.9	54.7	67.1	302	78.3	69.4	87.2
Central County	521	47.0	43.0	51.1	269	42.5	37.4	47.7	252	54.1	47.3	60.8	37	48.4	34.1	66.7
South County	347	44.7	39.9	49.5	164	37.8	31.9	43.6	183	55.3	46.8	63.8	18	na	na	na
Tri-Valley	213	49.4	42.4	56.3	113	47.6	38.5	56.6	100	51.9	40.7	63.1	<5	na	na	na

	API				Hispanic				White			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	357	39.5	35.4	43.7	208	46.0	39.5	52.4	980	47.2	44.2	50.3
North County	13	na	na	na	<5	na	na	na	66	33.3	25.8	42.4
Oakland Area	151	49.3	41.4	57.2	43	25.6	18.5	34.4	249	45.3	39.5	51.1
Central County	91	46.4	37.4	57.0	85	45.6	36.4	56.4	304	51.8	45.9	57.8
South County	84	32.2	25.6	39.8	56	45.8	34.6	59.5	185	57.8	49.3	66.2
Tri-Valley	17	na	na	na	20	55.1	33.7	85.1	171	51.0	43.0	59.0

Source: Cancer Prevention Institute of California, 2005-07.

Table 6.38: Three-Year Lung Cancer Incidence by City

	#	Rate	LCL	UCL
Alameda	139	53.5	44.6	62.5
Albany	8	na	na	na
Ashland	24	45.5	29.2	67.7
Berkeley	119	41.2	33.7	48.7
Castro Valley	101	45.7	36.7	54.7
Cherryland	12	na	na	na
Dublin	38	46.0	32.5	63.1
Emeryville	8	na	na	na
Fairview	11	na	na	na
Fremont	222	43.6	37.7	49.5
Hayward	180	47.0	40.1	53.9
Livermore	96	51.1	41.4	62.4
Newark	45	44.4	32.4	59.5
Oakland	609	53.4	49.1	57.7
Piedmont	14	na	na	na
Pleasanton	79	47.9	37.9	59.7
San Leandro	155	50.7	42.7	58.8
San Lorenzo	38	46.3	32.7	63.5
Sunol	<5	na	na	na
Union City	79	48.8	38.7	60.9
Remainder of County	7	na	na	na

Source: Cancer Prevention Institute of California, 2005-07.

Table 6.39: Three-Year Lung Cancer Mortality by City, Region, Gender, and Race/Ethnicity

	All				Female				Male				AfrAmer				AmerInd			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	1,496	35.6	33.7	37.4	717	29.8	27.6	32.0	779	43.9	40.7	47.0	331	55.3	49.3	61.4	<5	na	na	na
Alameda	96	36.1	29.3	44.1	47	31.3	23.0	41.6	49	44.9	33.2	59.4	10	77.9	37.4	143.3	0	na	na	na
Albany	5	na	na	na	5	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na
Ashland	31	60.7	41.3	86.2	15	52.3	29.2	86.2	16	77.1	44.1	125.2	7	na	na	na	0	na	na	na
Berkeley	82	27.4	21.8	34.0	42	23.6	17.0	31.9	40	32.3	23.0	43.9	27	56.1	37.0	81.6	<5	na	na	na
Castro Valley	74	33.2	26.1	41.7	33	26.3	18.1	36.9	41	43.5	31.2	59.0	<5	na	na	na	0	na	na	na
Cherryland	16	43.2	24.7	70.1	7	na	na	na	9	na	na	na	<5	na	na	na	0	na	na	na
Dublin	22	28.8	18.0	43.6	12	31.3	16.2	54.7	10	25.8	12.4	47.5	0	na	na	na	0	na	na	na
Emeryville	10	37.8	18.1	69.5	5	na	na	na	5	na	na	na	<5	na	na	na	0	na	na	na
Fairview	9	na	na	na	5	na	na	na	<5	na	na	na	<5	na	na	na	0	na	na	na
Fremont	155	30.9	25.9	35.9	86	29.8	23.9	36.8	69	33.8	26.3	42.7	6	na	na	na	<5	na	na	na
Hayward	153	38.9	32.7	45.1	76	32.9	25.9	41.2	77	47.5	37.5	59.4	14	46.3	25.3	77.8	0	na	na	na
Livermore	71	37.1	29.0	46.8	39	34.3	24.4	46.9	32	43.6	29.8	61.5	<5	na	na	na	0	na	na	na
Newark	39	37.4	26.6	51.1	21	34.8	21.5	53.2	18	42.5	25.2	67.1	<5	na	na	na	0	na	na	na
Oakland	436	37.7	34.1	41.3	201	29.7	25.5	33.9	235	48.8	42.5	55.2	233	63.3	55.1	71.6	0	na	na	na
Piedmont	11	29.3	14.6	52.4	7	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na
Pleasanton	56	34.5	26.1	44.8	30	32.9	22.2	47.0	26	35.7	23.3	52.4	0	na	na	na	0	na	na	na
San Leandro	127	39.9	32.9	46.9	51	28.1	20.9	36.9	76	58.6	46.2	73.4	10	53.6	25.7	98.6	0	na	na	na
San Lorenzo	31	37.6	25.5	53.4	15	30.3	17.0	50.0	16	45.4	26.0	73.8	<5	na	na	na	0	na	na	na
Sunol	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na
Union City	55	33.9	25.5	44.1	16	16.9	9.6	27.4	39	60.0	42.6	82.0	6	na	na	na	0	na	na	na
Remainder of Cty	11	30.2	15.1	54.1	<5	na	na	na	10	55.4	26.6	101.8	<5	na	na	na	0	na	na	na
North County	46	13.3	9.7	17.8	47	22.6	16.6	30.1	40	27.8	19.9	37.9	27	53.3	35.2	77.6	<5	na	na	na
Oakland Area	266	17.5	15.3	19.6	260	30.2	26.5	33.9	293	47.1	41.7	52.6	244	63.2	55.1	71.2	0	na	na	na
Central County	190	16.5	14.1	18.9	202	30.9	26.6	35.2	239	50.8	44.3	57.3	40	52.6	37.6	71.6	0	na	na	na
South County	110	14.2	11.5	17.0	123	27.5	22.6	32.4	126	40.2	32.8	47.6	15	64.4	36.0	106.1	<5	na	na	na
Tri-Valley	51	13.3	9.9	17.5	81	32.9	26.2	40.9	68	37.5	29.1	47.5	<5	na	na	na	0	na	na	na

	Asian				Latino				Multirace				PacIsl				White			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	241	26.4	23.0	29.7	101	21.8	17.4	26.2	12	15.8	8.1	27.5	8	na	na	na	799	37.7	35.0	40.4
Alameda	19	30.7	18.5	48.0	<5	na	na	na	<5	na	na	na	<5	na	na	na	62	39.8	30.5	51.1
Albany	<5	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Ashland	<5	na	na	na	5	na	na	na	0	na	na	na	0	na	na	na	17	98.1	57.1	157.0
Berkeley	9	na	na	na	0	na	na	na	<5	na	na	na	0	na	na	na	43	25.1	18.2	33.8
Castro Valley	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	64	39.6	30.5	50.5
Cherryland	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	8	na	na	na
Dublin	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	17	30.7	17.9	49.2
Emeryville	5	na	na	na	0	na	na	na	<5	na	na	na	0	na	na	na	<5	na	na	na
Fairview	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	6	na	na	na
Fremont	26	14.8	9.7	21.7	11	16.5	8.3	29.6	<5	na	na	na	<5	na	na	na	106	46.1	37.2	55.0
Hayward	26	31.3	20.5	45.9	19	21.7	13.0	33.8	0	na	na	na	<5	na	na	na	92	55.4	44.7	68.0
Livermore	<5	na	na	na	5	na	na	na	0	na	na	na	0	na	na	na	60	40.2	30.7	51.7
Newark	<5	na	na	na	6	na	na	na	0	na	na	na	0	na	na	na	26	61.5	40.2	90.1
Oakland	83	34.8	27.8	43.2	21	14.2	8.8	21.8	<5	na	na	na	<5	na	na	na	96	26.5	21.5	32.4
Piedmont	<5	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	10	33.7	16.1	61.9
Pleasanton	<5	na	na	na	<5	na	na	na	<5	na	na	na	0	na	na	na	51	39.1	29.1	51.4
San Leandro	23	41.9	26.6	62.9	10	19.7	9.4	36.1	<5	na	na	na	<5	na	na	na	80	46.5	36.9	57.9
San Lorenzo	6	na	na	na	5	na	na	na	0	na	na	na	0	na	na	na	19	39.1	23.5	61.0
Sunol	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na
Union City	16	26.6	15.2	43.2	7	na	na	na	<5	na	na	na	<5	na	na	na	24	57.2	36.6	85.1
Remainder of Cty	<5	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	7	na	na	na
North County	10	18.2	8.7	33.5	0	na	na	na	<5	na	na	na	0	na	na	na	47	23.0	16.9	30.6
Oakland Area	108	34.7	28.2	41.3	24	14.3	9.2	21.3	<5	na	na	na	<5	na	na	na	171	30.4	25.7	35.1
Central County	64	33.3	25.7	42.6	45	22.9	16.7	30.6	<5	na	na	na	<5	na	na	na	286	47.4	41.7	53.0
South County	46	17.9	13.1	23.9	24	19.0	12.2	28.3	<5	na	na	na	<5	na	na	na	156	49.2	41.3	57.0
Tri-Valley	10	27.5	13.2	50.6	8	na	na	na	<5	na	na	na	0	na	na	na	128	38.2	31.3	45.2

Source: Alameda County Vital Statistics Files, 2006-08.

Colorectal Cancer

Colorectal cancer is caused by abnormal tissue growth in the colon or rectum that is malignant. Symptoms for colorectal cancer may include rectal bleeding, abdominal discomfort, pain, bloating, a change in bowel habits, iron deficiency anemia, and unexplained weight loss.[1,2]

An estimated 142,570 cases of colorectal cancer are expected to occur in 2010. Colorectal cancer is the third most common cancer in both men and women. Colorectal cancer incidence rates have been decreasing for most of the past two decades. The decline accelerated from 1998 to 2006 (3.0% per year in men and 2.2% per year in women), which has largely been attributed to increases in the use of colorectal cancer screening tests that allow the detection and removal of colorectal polyps before they progress to cancer. In contrast to the overall declines, among adults younger than 50 years, for whom screening is not recommended for those at average risk, colorectal cancer incidence rates have been increasing by about 2% per year since 1994 in both men and women.[3]

An estimated 51,370 deaths from colorectal cancer are expected to occur in 2010, accounting for 9% of all cancer deaths. Mortality rates for colorectal cancer have declined in both men and women over the past two decades, with steeper declines in the most recent time period (3.9% per year from 2002 to 2006 in men and 3.4% per year from 2001 to 2006 in women). This decrease reflects declining incidence rates and improvements in early detection and treatment.[3]

The risk of colorectal cancer increases with age; 91% of cases are diagnosed in individuals aged 50 or older. Several modifiable factors are associated with increased risk of colorectal cancer. Among these are obesity, physical inactivity, a diet high in red or processed meat, heavy alcohol consumption, long-term smoking, and possibly inadequate intake of fruits and vegetables. Consumption of milk and calcium appears to decrease risk. Early stage colorectal cancer does not usually have symptoms; therefore, screening is often necessary to detect colorectal cancer in its early stages.[3]

In 2007, colorectal cancer mortality in the United States was 16.9 per 100,000.[4] In California, colorectal cancer incidence was 45.8 per 100,000 and mortality was 14.7 per 100,000 in 2005-07.[5,6]

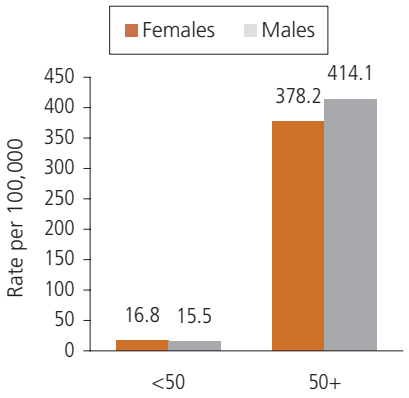
Table 6.40: Colorectal Cancer Comparison

	HP2010[7]	Alameda County	California[5,6]	United States[4]
Colorectal Cancer Incidence (Rate per 100,000)	na	43.7	45.8	na
Colorectal Cancer Mortality (Rate per 100,000)	13.7	15.6	14.7	16.9

Colorectal Cancer Incidence

Most new cases of colorectal cancer are diagnosed among adults 50 years or older. Current screening guidelines recommend that adults be screened starting at 50 years. Men have significantly higher colorectal cancer incidence overall than women (48.3 and 39.9 per 100,000 respectively). Men 50 years or older have much higher colorectal cancer incidence than women (414.1 and 378.2 per 100,000 respectively).

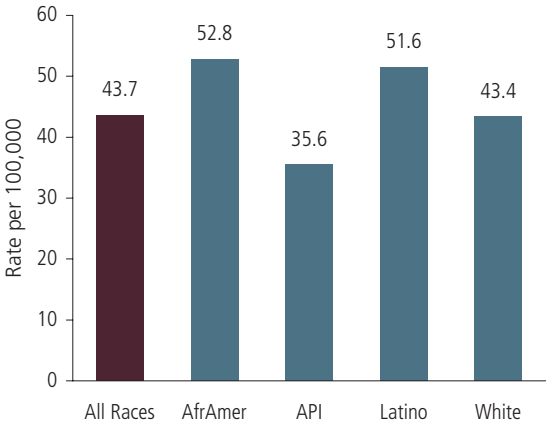
Figure 6.73: Colorectal Cancer Incidence by Age Group and Gender



Source: Cancer Prevention Institute of California, 2005-07.

In Alameda County there were 1,845 new cases of colorectal cancer between 2005 and 2007. The incidence rate for this period was 43.7 per 100,000. African Americans had the highest colorectal cancer incidence (52.8 per 100,000) of all racial/ethnic groups—1.5 times the rate for Asian/Pacific Islanders (35.6) and 1.2 times the rate for Whites. Colorectal cancer incidence among Latinos (51.6) was comparable to that for African Americans (52.0).

Figure 6.74: Colorectal Cancer Incidence by Race/Ethnicity

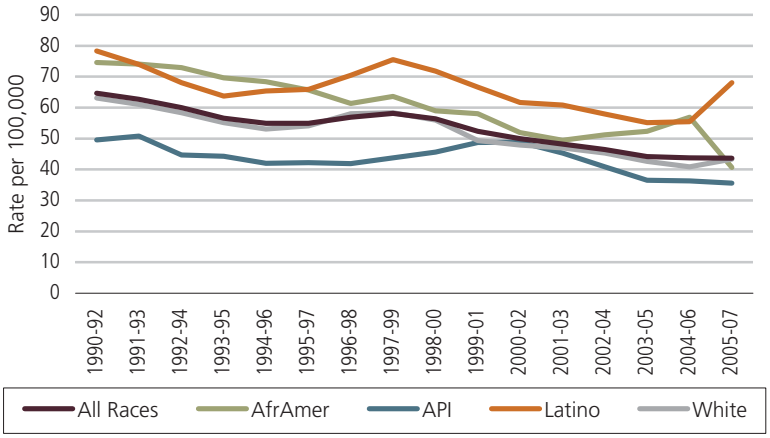


Source: Cancer Prevention Institute of California, 2005-07.

From 1990 to 2007, there was an initial significant decline in colorectal cancer incidence of 4.3% annually during the early to mid 1990s, followed by a slight increase through the late 1990s. Subsequently, there was a more rapid decline through the early 2000s, with rates leveling off in recent years. African Americans were the only racial ethnic group with a significant steady decline in colorectal cancer incidence between 1990 and 2007, at 3.2% a year. For Asian/Pacific Islanders there were two periods of significant decline during the early to mid 1990s and 2000s. Among Latinos, colorectal cancer incidence declined in the early 1990s and then increased in the mid to late 1990s. For subsequent years there was a significant annual decline which became steeper in recent years. Among Whites rates declined significantly from the early to mid 1990s and again since 2000. Racial/ethnic differences in incidence narrowed the most around 1999-01; the gap between African American and Latino rates appeared to widen since 2004-06.

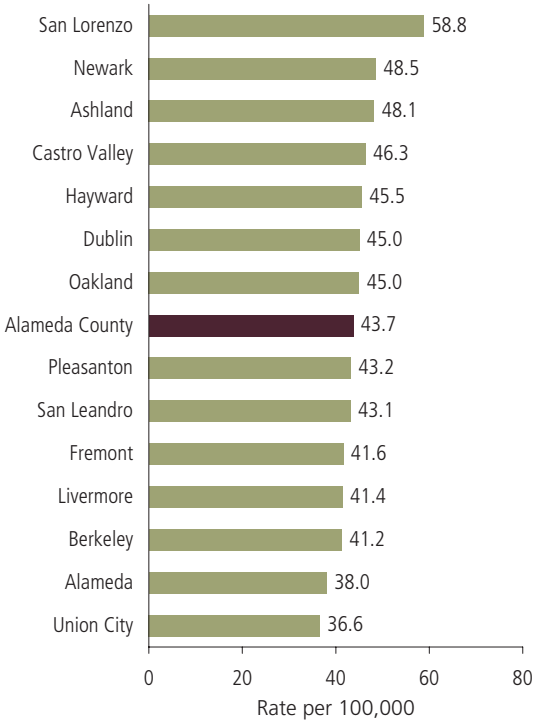
San Lorenzo had the highest colorectal cancer incidence in the county and Union City had the lowest (58.8 and 36.6 per 100,000 respectively). Among the cities that had higher colorectal cancer incidence than the county were San Lorenzo, Newark, and Ashland. The cities Union City, Alameda, and Berkeley had lower colorectal cancer incidence rates than the county.

Figure 6.75: Colorectal Cancer Incidence Trend



Source: Cancer Prevention Institute of California, 1990-07.

Figure 6.76: Colorectal Cancer Incidence by City

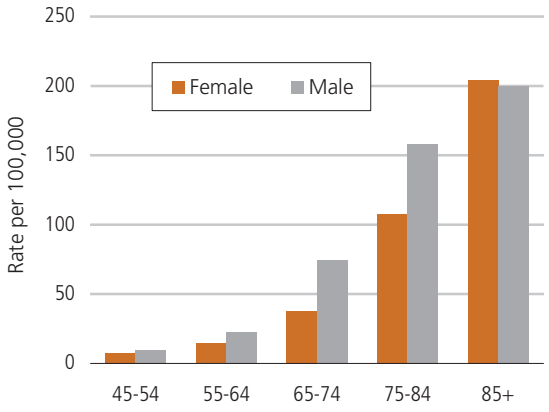


Source: Cancer Prevention Institute of California, 2005-07.

Colorectal Cancer Mortality

Colorectal cancer mortality increased steadily with age and was higher among males than females in every age group except those 85 years or older.

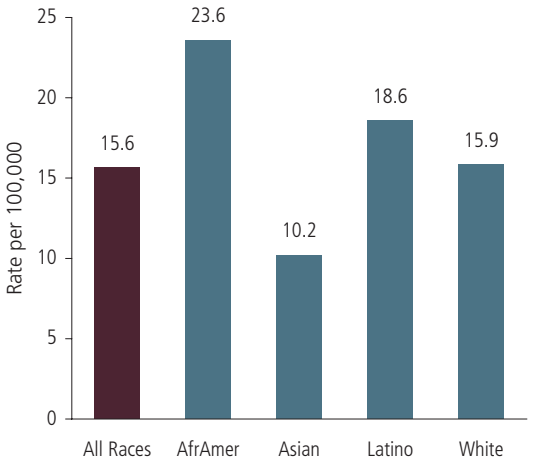
Figure 6.77: Colorectal Cancer Mortality by Age Group and Gender



Source: Alameda County Vital Statistics Files, 2006-08.

There were 668 deaths from colorectal cancer in Alameda County from 2006 to 2008, for an age-adjusted mortality rate was 15.6 per 100,000 population. African American mortality rate from colorectal cancer was significantly higher than the rates for Asians and Whites. The African American rate was more than two times the rate of Asians, and 1.5 times the rate of Whites, and about 1.3 times the rate of Latinos. Latino males had a rate more than two times that of females.

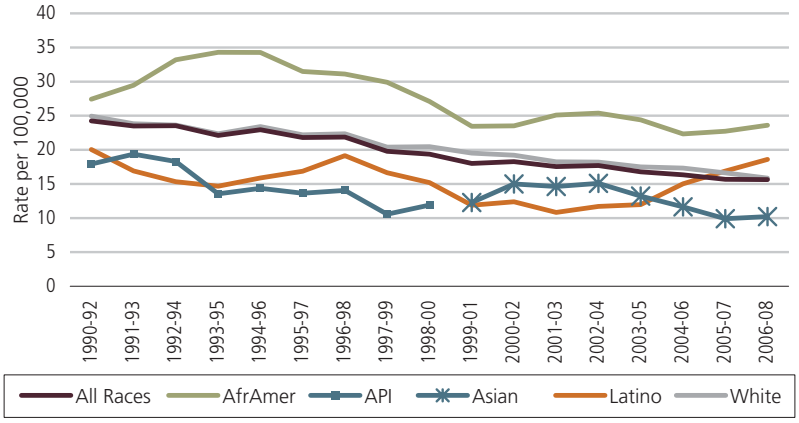
Figure 6.78: Colorectal Cancer Mortality by Race/Ethnicity



Source: Alameda County Vital Statistics Files, 2006-08.

For all racial/ethnic groups combined, the mortality rates from colorectal cancer declined significantly by 2.9% per year. The rates for Whites also showed a similar pattern; declining at 2.7% per year. The rates for Asians showed a declining trend since 2002-04. The rates for African Americans increased during the earlier 1990s, then started to decline at 5.8% per year during the later 1990s. However, more recently they remained unchanged, leveling off since 1999-01. The rates for Latinos were variable during the earlier 1990s, then started to decline steeply during the later 1990s. Since 2001-03, the trend for Latinos was significantly upward at 12.4% per year.

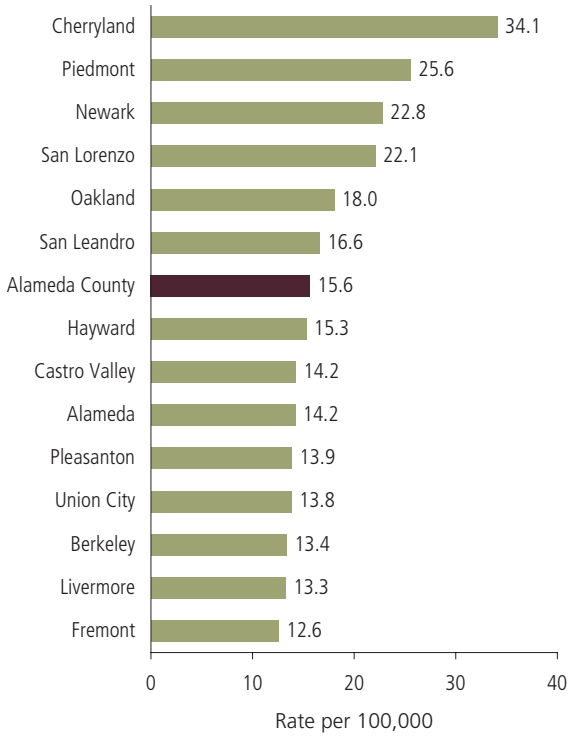
Figure 6.79: Colorectal Cancer Mortality Trend



Source: Alameda County Vital Statistics Files, 1990-08.
Note: Rate for Asian/Pacific Islanders (API) until 1998-00; rate for Asians (without Pacific Islanders) from 1999-01.

Age-adjusted colorectal cancer mortality rates ranged from a low of 12.6 per 100,000 in Fremont to a high of 34.1 in Cherryland. Fremont, Livermore, and Berkeley had lower colorectal cancer mortality than the county. Cherryland, Piedmont, and Newark had substantially higher rates than the county.

Figure 6.80: Colorectal Cancer Mortality by City



Source: Alameda County Vital Statistics Files, 2006-08.

Table 6.41: Three-Year Colorectal Cancer Incidence by Region, Gender, and Race/Ethnicity

	All				Female				Male				AfrAmer			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	1,840	43.7	41.6	45.7	955	39.9	37.4	42.5	885	48.3	45.1	51.6	310	52.8	46.9	58.8
North County	142	40.5	33.7	47.3	62	31.0	23.8	39.8	80	53.0	42.0	66.0	29	51.8	34.7	74.4
Oakland Area	648	43.8	40.4	47.2	353	41.6	37.2	46.0	295	46.2	40.9	51.6	231	59.9	52.1	67.7
Central County	519	46.3	42.3	50.3	268	41.4	36.3	46.4	251	53.2	46.6	59.9	33	41.0	28.2	57.5
South County	336	41.4	36.9	46.0	172	38.0	32.2	43.7	164	45.8	38.4	53.3	13	na	na	na
Tri-Valley	186	42.8	36.2	49.3	96	40.0	32.4	48.9	90	47.4	38.1	58.3	<5	na	na	na

	API				Latino				White			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	330	35.6	31.7	39.5	239	51.6	44.7	58.4	921	43.4	40.5	46.3
North County	13	na	na	na	13	na	na	na	84	37.5	29.9	46.4
Oakland Area	130	42.3	35.0	49.6	48	27.6	20.3	36.5	223	40.9	35.4	46.5
Central County	67	35.4	27.4	44.9	107	55.5	44.8	66.1	304	50.9	45.0	56.8
South County	105	33.6	26.6	40.6	50	42.2	31.3	55.7	161	48.4	40.8	56.0
Tri-Valley	14	na	na	na	20	59.7	36.5	92.2	142	41.6	34.4	48.9

Source: Cancer Prevention Institute of California, 2005-07.

Table 6.42: Three-Year Colorectal Cancer Incidence by City

	#	Rate	LCL	UCL
Alameda	98	38.0	30.9	46.3
Albany	18	na	na	na
Ashland	26	48.1	31.5	70.5
Berkeley	124	41.2	33.8	48.6
Castro Valley	100	46.3	37.1	55.5
Cherryland	14	na	na	na
Dublin	35	45.0	31.3	62.6
Emeryville	13	na	na	na
Fairview	16	na	na	na
Fremont	221	41.6	35.9	47.2
Hayward	178	45.5	38.8	52.2
Livermore	76	41.4	32.6	51.9
Newark	52	48.5	36.2	63.6
Oakland	519	45.0	41.0	48.9
Piedmont	18	na	na	na
Pleasanton	75	43.2	34.0	54.2
San Leandro	136	43.1	35.8	50.4
San Lorenzo	49	58.8	43.5	77.7
Sunol	0	na	na	na
Union City	63	36.6	28.1	46.8
Remainder of County	9	na	na	na

Source: Cancer Prevention Institute of California, 2005-07.

Table 6.43: Three-Year Colorectal Cancer Mortality by City, Region, Gender, and Race/Ethnicity

	All				Female				Male				AfrAmer				AmerInd			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	668	15.6	14.4	16.8	334	13.2	11.8	14.7	334	18.7	16.7	20.8	140	23.6	19.6	27.6	<5	na	na	na
Alameda	38	14.2	10.0	19.5	25	15.3	9.9	22.6	13	11.9	6.3	20.3	<5	na	na	na	0	na	na	na
Albany	7	na	na	na	5	na	na	na	<5	na	na	na	<5	na	na	na	0	na	na	na
Ashland	7	na	na	na	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na
Berkeley	39	13.4	9.5	18.3	18	9.9	5.9	15.7	21	17.6	10.9	26.9	12	22.5	11.6	39.3	0	na	na	na
Castro Valley	32	14.2	9.7	20.1	14	9.8	5.3	16.4	18	18.6	11.0	29.5	0	na	na	na	0	na	na	na
Cherryland	13	34.1	18.2	58.3	5	na	na	na	8	na	na	na	<5	na	na	na	0	na	na	na
Dublin	9	na	na	na	5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na
Emeryville	<5	na	na	na	<5	na	na	na	<5	na	na	na	<5	na	na	na	0	na	na	na
Fairview	6	na	na	na	<5	na	na	na	<5	na	na	na	<5	na	na	na	0	na	na	na
Fremont	63	12.6	9.7	16.1	33	10.9	7.5	15.4	30	15.0	10.1	21.5	5	na	na	na	0	na	na	na
Hayward	60	15.3	11.6	19.6	32	13.7	9.4	19.4	28	17.7	11.8	25.6	6	na	na	na	0	na	na	na
Livermore	22	13.3	8.3	20.1	11	11.0	5.5	19.7	11	16.8	8.4	30.0	<5	na	na	na	0	na	na	na
Newark	24	22.8	14.6	33.9	9	na	na	na	15	35.3	19.7	58.2	<5	na	na	na	0	na	na	na
Oakland	214	18.0	15.6	20.5	106	15.2	12.2	18.1	108	21.6	17.5	25.8	101	27.4	22.0	32.9	<5	na	na	na
Piedmont	12	25.6	13.2	44.7	5	na	na	na	7	na	na	na	<5	na	na	na	0	na	na	na
Pleasanton	20	13.9	8.5	21.4	10	10.9	5.2	20.0	10	19.2	9.2	35.2	0	na	na	na	0	na	na	na
San Leandro	54	16.6	12.5	21.7	28	13.6	9.0	19.7	26	20.5	13.4	30.0	<5	na	na	na	0	na	na	na
San Lorenzo	18	22.1	13.1	34.9	12	25.7	13.3	44.8	6	na	na	na	0	na	na	na	0	na	na	na
Sunol	<5	na	na	na	0	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na
Union City	22	13.8	8.7	20.9	9	na	na	na	13	20.1	10.7	34.4	<5	na	na	na	0	na	na	na
Remainder of Cty	<5	na	na	na	0	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na
North County	46	13.3	9.7	17.8	23	10.6	6.7	16.0	23	16.8	10.6	25.1	14	24.7	13.5	41.5	0	na	na	na
Oakland Area	266	17.5	15.3	19.6	137	15.3	12.7	17.9	129	20.2	16.6	23.7	105	27.3	22.0	32.5	<5	na	na	na
Central County	190	16.5	14.1	18.9	96	13.7	11.1	16.7	94	20.0	16.2	24.5	12	12.5	6.4	21.8	0	na	na	na
South County	110	14.2	11.5	17.0	51	11.1	8.2	14.6	59	18.8	14.3	24.2	7	na	na	na	0	na	na	na
Tri-Valley	51	13.3	9.9	17.5	26	11.2	7.3	16.4	25	16.8	10.8	24.7	<5	na	na	na	0	na	na	na

	Asian				Latino				Multirace				PacIsl				White			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	93	10.2	8.2	12.5	84	18.6	14.8	23.0	0	na	na	na	<5	na	na	na	347	15.9	14.1	17.6
Alameda	11	18.9	9.4	33.8	<5	na	na	na	0	na	na	na	0	na	na	na	23	13.8	8.7	20.7
Albany	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	5	na	na	na
Ashland	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Berkeley	<5	na	na	na	6	na	na	na	0	na	na	na	0	na	na	na	18	10.7	6.3	16.9
Castro Valley	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	28	17.5	11.6	25.3
Cherryland	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	10	57.3	27.5	105.4
Dublin	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Emeryville	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Fairview	0	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Fremont	13	8.9	4.7	15.1	5	na	na	na	0	na	na	na	0	na	na	na	40	16.8	12.0	22.9
Hayward	5	na	na	na	16	19.0	10.9	30.9	0	na	na	na	<5	na	na	na	32	17.7	12.1	25.0
Livermore	0	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	20	16.0	9.8	24.7
Newark	<5	na	na	na	7	na	na	na	0	na	na	na	0	na	na	na	14	28.8	15.8	48.3
Oakland	34	14.4	10.0	20.1	21	14.1	8.7	21.6	0	na	na	na	0	na	na	na	56	15.2	11.5	19.8
Piedmont	<5	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	9	na	na	na
Pleasanton	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	17	14.4	8.4	23.1
San Leandro	6	na	na	na	9	na	na	na	0	na	na	na	0	na	na	na	36	19.5	13.7	27.1
San Lorenzo	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	14	28.3	15.5	47.4
Sunol	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Union City	5	na	na	na	6	na	na	na	0	na	na	na	<5	na	na	na	9	na	na	na
Remainder of Cty	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
North County	<5	na	na	na	6	na	na	na	0	na	na	na	0	na	na	na	23	11.2	7.1	16.8
Oakland Area	47	15.1	11.1	20.1	23	13.2	8.4	19.9	0	na	na	na	0	na	na	na	89	15.1	12.1	18.6
Central County	19	11.0	6.6	17.1	31	16.1	10.9	22.8	0	na	na	na	<5	na	na	na	127	20.2	16.6	23.9
South County	20	8.8	5.4	13.7	18	15.9	9.4	25.1	0	na	na	na	<5	na	na	na	64	19.0	14.6	24.2
Tri-Valley	<5	na	na	na	5	na	na	na	0	na	na	na	0	na	na	na	41	14.3	10.3	19.4

Source: Alameda County Vital Statistics Files, 2006-08.

Female Breast Cancer

Female breast cancer is a disease in which cancer cells are found in the tissues of the breast. In its early stages, the cancer cells stay in the breast as a tiny nodule or lump. In later stages, some cells from the lump spread to other parts of the body and cause tumors to grow in these new sites. While breast cancer can occur in men, women comprise the vast majority of breast cancer cases. The earlier breast cancer is discovered, the greater the chance for survival.[1,2]

An estimated 207,090 new cases of invasive breast cancer are expected to occur among women in the United States during 2010. Excluding cancers of the skin, breast cancer is the most frequently diagnosed cancer in women. After increasing from 1994 to 1999, female breast cancer incidence rates decreased from 1999 to 2006 by 2.0% per year. This decrease may reflect reductions in the use of menopausal hormone therapy (MHT), previously known as hormone replacement therapy, following the publication of results from the Women's Health Initiative in 2002, which linked combined estrogen plus progestin MHT use to increased risk of coronary heart disease and breast cancer. It might also reflect a slight drop in mammography utilization during that time period, which could delay the diagnosis of some tumors. In addition to invasive breast cancer, 54,010 new cases of in situ breast cancer are expected to occur among women in 2010. Of these, approximately 85% will be ductal carcinoma in situ (DCIS). Since 1998, in situ breast cancer incidence rates have been stable in white women and increasing in African American women.[3]

The earliest sign of breast cancer is often an abnormality detected on a mammogram, before it can be felt by the woman or a health care professional. Age is the most important risk factor for breast cancer among women. Potentially modifiable risk factors include weight gain after 18 years, being overweight or obese (for postmenopausal breast cancer), use of combined estrogen and progestin MHT, physical inactivity, and consumption of one or more alcoholic beverages per day. Medical findings that predict higher risk include high breast tissue density, high bone mineral density, and biopsy-confirmed hyperplasia. High-dose radiation to the chest, typically related to cancer treatment, also increases risk. Reproductive factors that increase risk include a long menstrual history, recent use of oral contraceptives, never having children, and having one's first child after age 30. Risk is also increased by a personal or family history of breast cancer and inherited genetic mutations in the breast cancer susceptibility genes BRCA1 and BRCA2. Modifiable factors that are associated with a lower risk of breast cancer include breastfeeding, moderate or vigorous physical activity, and maintaining a healthy body weight. Numerous studies have shown that early detection saves lives and increases treatment options. Steady declines in breast cancer mortality among women since 1990 have been attributed to a combination of early detection and improvements in treatment.[3]

An estimated 39,840 female breast cancer deaths are expected in 2010. Breast cancer ranks second as a cause of cancer death in women (after lung cancer). Mortality rates for breast cancer have steadily decreased in women since 1990, with larger decreases in women younger than 50 (a decrease of 3.2% per year) than in those 50 and older (2.0% per year). The decrease in breast cancer mortality rates represents progress due to earlier detection, improved treatment, and in the more recent time period, decreased incidence.[3]

In 2007, breast cancer mortality among women in the United States was 21.3 per 100,000.[4] In California, breast cancer incidence was 149.3 per 100,000 and mortality was 21.2 per 100,000 in 2005-07.[5,6]

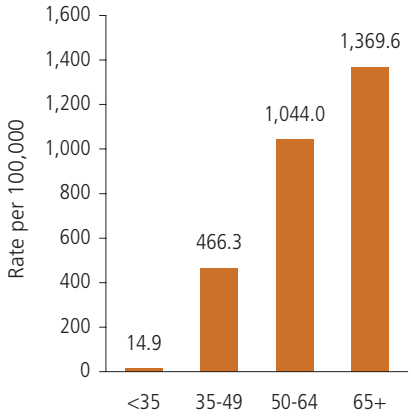
Table 6.44: Female Breast Cancer Comparison

	HP2010[7]	Alameda County	California[5,6]	United States[4]
Female Breast Cancer Incidence (Rate per 100,000)	na	148.8	149.3	na
Female Breast Cancer Mortality (Rate per 100,000)	21.3	21.0	21.2	12.9

Female Breast Cancer Incidence

The risk of women developing breast cancer increases around age 35 years, and more sharply among postmenopausal women 50 years or older. Breast cancer incidence among women 50-64 years (1,044.0 per 100,000) was 2.3 times that for women 35-49 years. The rate among seniors 65 years or older (1,369.6) was 1.3 times the rate for women 50-64 years.

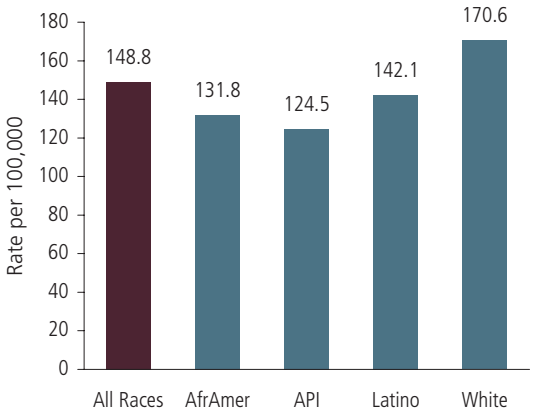
Figure 6.81: Female Breast Cancer Incidence by Age Group



Source: Cancer Prevention Institute of California, 2005-07.

In Alameda County, there were 3,607 new cases of breast cancer among women between 2005 and 2007, for an incidence rate of 148.8 per 100,000. White women had significantly higher breast cancer incidence than women of all other racial/ethnic groups. The White rate (170.6) was 1.4 times that of Asian/Pacific Islander women (124.5), 1.3 times that of African American women (131.8), and 1.2 times that of Latino women (142.1).

Figure 6.82: Female Breast Cancer Incidence by Race/Ethnicity

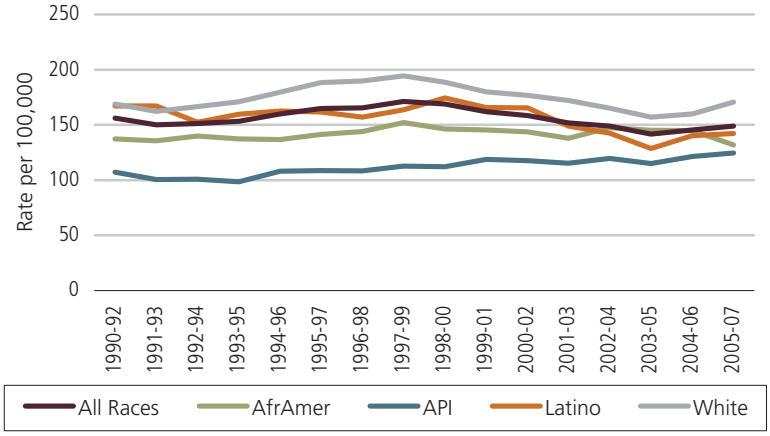


Source: Cancer Prevention Institute of California, 2005-07.

Breast cancer incidence among women increased significantly between the periods 1992-94 and 1997-99 at 2.8% a year and declined at 3.1% a year between 1995-97 and 2003-05. Notably, among African American women breast cancer incidence has remained flat over the period 1990 to 2007. In contrast, for Asian/Pacific Islanders breast cancer incidence has shown a significant increase of 1.3% annually over this time period. Among Latino women, breast cancer incidence remained flat throughout the 1990s. There was a period of steep decline in the early 2000s and then an increasing trend since 2003-05. Among White women, breast cancer incidence increased for most of the 1990s at 2.7% annually. There was a significant decline of 3.4% a year from 1997-99 to 2003-05. Breast cancer incidence for White women was the highest and that for Asian/Pacific Islanders the lowest for most of the period 1990 to 2007. Racial/ethnic gaps in incidence appeared to narrow in more recent years.

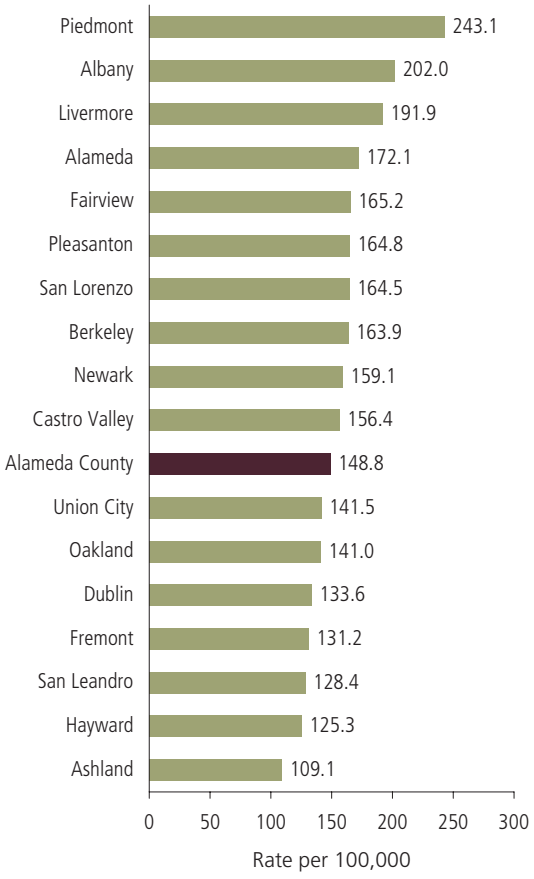
Piedmont had the highest breast cancer incidence (243.1 per 100,000) and Ashland had the lowest rate (109.1) of all cities in the county. Piedmont, Albany, and Livermore had higher breast cancer incidence than the county. Ashland, Hayward, and San Leandro had lower breast cancer incidence than the county.

Figure 6.83: Female Breast Cancer Incidence Trend



Source: Cancer Prevention Institute of California, 1990-07.

Figure 6.84: Female Breast Cancer Incidence by City

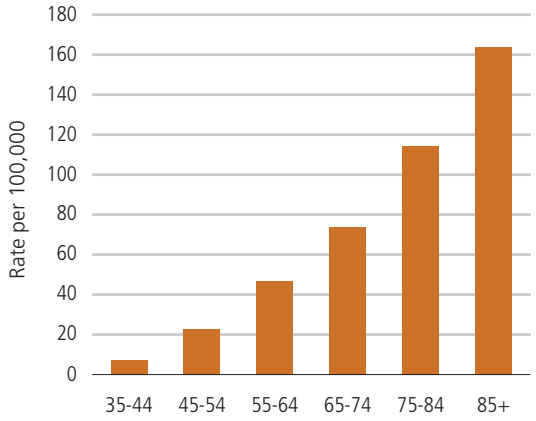


Source: Cancer Prevention Institute of California, 2005-07.

Female Breast Cancer Mortality

From 2006 to 2008 breast cancer deaths were rare before 35 years. Breast cancer mortality increased steadily with age.

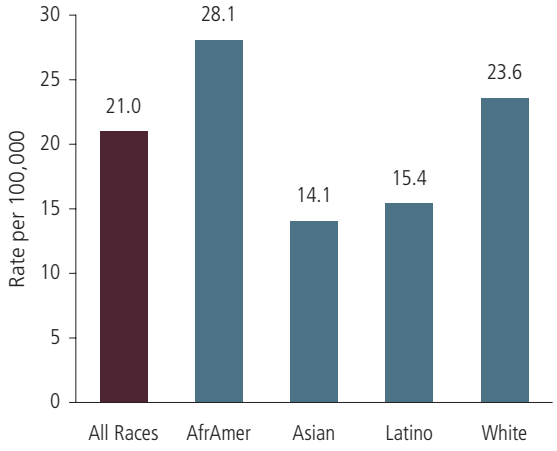
Figure 6.85: Female Breast Cancer Mortality by Age Group



Source: Alameda County Vital Statistics Files, 2006-08.

There were 525 deaths from breast cancer in Alameda County from 2006 to 2008, with an age-adjusted mortality rate of 21.0 per 100,000 females. The African American mortality rate from breast cancer was significantly higher than and about two times the rates for Asians and Latinos.

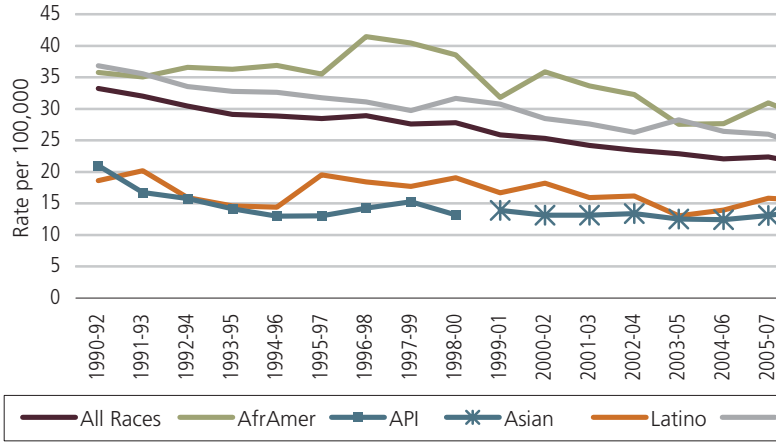
Figure 6.86: Female Breast Cancer Mortality by Race/Ethnicity



Source: Alameda County Vital Statistics Files, 2006-08.

For all racial/ethnic groups combined, the mortality rates from breast cancer declined significantly by 2.7% per year since 1990-92. The rates for Whites also showed a steady declining trend at 2.3% per year. Among African Americans the trend was upward until 1997-99, then it started to decline at about 3.9% per year. The trends for Latinos and Asians did not show any clear patterns.

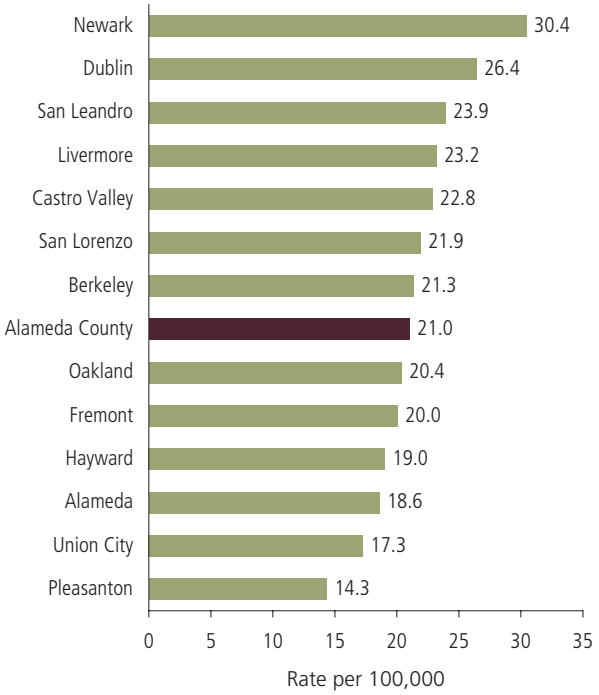
Figure 6.87: Female Breast Cancer Mortality Trend



Source: Alameda County Vital Statistics Files, 1990-08.
Note: Rate for Asian/Pacific Islanders (API) until 1998-00; rate for Asians (without Pacific Islanders) from 1999-01.

Breast cancer mortality rates ranged from a low of 14.3 per 100,000 in Pleasanton to a high of 30.4 in Newark. Pleasanton, Union City, and Alameda had among the lowest rates, much lower than the county. Newark and Dublin had much higher rates than the county.

Figure 6.88: Female Breast Cancer Mortality by City



Source: Alameda County Vital Statistics Files, 2006-08.

DATA TABLES

Table 6.45: Three-Year Female Breast Cancer Incidence by Region and Race/Ethnicity

	Female				AfrAmer				API			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	3,607	148.8	143.9	153.7	491	131.8	120.0	143.6	685	124.5	115.1	133.9
North County	343	169.7	151.5	188.0	37	138.3	97.4	190.6	49	171.1	126.6	226.2
Oakland Area	1,254	148.2	139.9	156.5	342	144.1	128.7	159.5	201	116.9	100.7	133.1
Central County	801	133.5	124.1	142.8	70	135.6	105.7	171.4	160	128.1	107.9	148.3
South County	682	137.3	126.8	147.7	30	158.6	107.0	226.3	232	114.1	98.9	129.3
Tri-Valley	501	172.1	156.5	187.7	12	na	na	na	40	123.5	88.2	168.2

	Latino				White			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	450	142.1	128.4	155.8	1,910	170.6	162.8	178.4
North County	16	na	na	na	229	181.4	157.2	205.6
Oakland Area	108	98.6	79.6	117.7	573	193.1	176.9	209.3
Central County	156	140.0	117.9	162.2	404	142.8	128.1	157.5
South County	108	151.7	122.8	180.5	298	157.2	139.1	175.4
Tri-Valley	58	219.7	166.8	284.0	387	174.3	156.4	192.3

Source: Cancer Prevention Institute of California, 2005-07.

Table 6.46: Three-Year Female Breast Cancer Incidence by City

	#	Rate	LCL	UCL
Alameda	247	172.1	150.5	193.8
Albany	65	202.0	155.9	257.4
Ashland	33	109.1	75.1	153.2
Berkeley	278	163.9	144.3	183.4
Castro Valley	178	156.4	132.9	179.9
Cherryland	16	na	na	na
Dublin	83	133.6	106.4	165.6
Emeryville	17	na	na	na
Fairview	30	165.2	111.5	235.9
Fremont	421	131.2	118.5	143.8
Hayward	273	125.3	110.4	140.2
Livermore	234	191.9	166.7	217.2
Newark	102	159.1	127.7	190.5
Oakland	938	141.0	131.9	150.1
Piedmont	52	243.1	181.5	318.8
Pleasanton	184	164.8	140.2	189.4
San Leandro	202	128.4	110.3	146.4
San Lorenzo	69	164.5	128.0	208.2
Sunol	5	na	na	na
Union City	154	141.5	118.8	164.1
Remainder of County	26	150.0	98.0	219.8

Source: Cancer Prevention Institute of California, 2005-07.

Table 6.47: Three-Year Female Breast Cancer Mortality by City, Region, and Race/Ethnicity

	Female				AfrAmer				AmerInd				Asian			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	525	21.0	19.2	22.8	104	28.1	22.6	33.6	<5	na	na	na	78	14.1	11.1	17.6
Alameda	30	18.6	12.5	26.5	<5	na	na	na	0	na	na	na	6	na	na	na
Albany	<5	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na
Ashland	7	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Berkeley	36	21.3	14.9	29.5	10	37.5	18.0	68.9	0	na	na	na	<5	na	na	na
Castro Valley	30	22.8	15.4	32.6	0	na	na	na	0	na	na	na	<5	na	na	na
Cherryland	<5	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na
Dublin	14	26.4	14.4	44.3	<5	na	na	na	0	na	na	na	<5	na	na	na
Emeryville	7	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na
Fairview	6	na	na	na	<5	na	na	na	0	na	na	na	<5	na	na	na
Fremont	61	20.0	15.3	25.8	<5	na	na	na	0	na	na	na	18	15.2	9.0	24.0
Hayward	43	19.0	13.8	25.6	6	na	na	na	0	na	na	na	11	23.4	11.7	41.8
Livermore	28	23.2	15.4	33.5	<5	na	na	na	0	na	na	na	<5	na	na	na
Newark	17	30.4	17.7	48.7	0	na	na	na	0	na	na	na	5	na	na	na
Oakland	143	20.4	17.0	23.7	74	32.5	25.5	40.8	0	na	na	na	11	8.3	4.1	14.8
Piedmont	6	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Pleasanton	14	14.3	7.8	24.0	0	na	na	na	<5	na	na	na	<5	na	na	na
San Leandro	45	23.9	17.4	32.0	<5	na	na	na	0	na	na	na	<5	na	na	na
San Lorenzo	10	21.9	10.5	40.2	0	na	na	na	0	na	na	na	0	na	na	na
Sunol	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na
Union City	18	17.3	10.2	27.3	0	na	na	na	0	na	na	na	7	na	na	na
Remainder of Cty	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na
North County	40	20.0	14.3	27.3	10	35.9	17.2	66.1	0	na	na	na	<5	na	na	na
Oakland Area	186	20.7	17.7	23.8	76	32.0	25.2	40.1	0	na	na	na	18	9.8	5.8	15.6
Central County	142	21.5	17.9	25.1	11	21.7	10.9	38.9	0	na	na	na	22	18.4	11.5	27.9
South County	96	20.5	16.6	25.0	<5	na	na	na	0	na	na	na	30	17.0	11.5	24.3
Tri-Valley	56	20.2	15.3	26.3	<5	na	na	na	<5	na	na	na	5	na	na	na

	Latino				Multirace				PacIsl				White			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	44	15.4	11.2	20.7	<5	na	na	na	<5	na	na	na	289	23.6	20.8	26.4
Alameda	<5	na	na	na	0	na	na	na	0	na	na	na	20	21.1	12.9	32.6
Albany	0	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Ashland	0	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Berkeley	<5	na	na	na	0	na	na	na	0	na	na	na	21	21.2	13.1	32.4
Castro Valley	<5	na	na	na	0	na	na	na	0	na	na	na	25	25.9	16.7	38.2
Cherryland	0	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Dublin	<5	na	na	na	<5	na	na	na	0	na	na	na	5	na	na	na
Emeryville	0	na	na	na	0	na	na	na	0	na	na	na	6	na	na	na
Fairview	<5	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Fremont	5	na	na	na	0	na	na	na	0	na	na	na	35	24.7	17.2	34.4
Hayward	5	na	na	na	<5	na	na	na	<5	na	na	na	19	18.9	11.4	29.5
Livermore	<5	na	na	na	0	na	na	na	0	na	na	na	24	25.5	16.3	37.9
Newark	<5	na	na	na	0	na	na	na	0	na	na	na	9	na	na	na
Oakland	7	na	na	na	<5	na	na	na	<5	na	na	na	46	19.6	14.3	26.1
Piedmont	0	na	na	na	0	na	na	na	0	na	na	na	5	na	na	na
Pleasanton	0	na	na	na	0	na	na	na	0	na	na	na	12	15.6	8.0	27.2
San Leandro	7	na	na	na	0	na	na	na	0	na	na	na	30	29.5	19.9	42.1
San Lorenzo	<5	na	na	na	0	na	na	na	0	na	na	na	9	na	na	na
Sunol	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na
Union City	<5	na	na	na	0	na	na	na	<5	na	na	na	8	na	na	na
Remainder of Cty	0	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
North County	<5	na	na	na	0	na	na	na	0	na	na	na	25	21.1	13.7	31.2
Oakland Area	10	9.1	4.4	16.7	<5	na	na	na	<5	na	na	na	77	22.2	17.5	27.7
Central County	17	15.3	8.9	24.5	<5	na	na	na	<5	na	na	na	90	25.3	20.3	31.1
South County	10	14.7	7.1	27.1	0	na	na	na	<5	na	na	na	53	27.4	20.5	35.8
Tri-Valley	5	na	na	na	<5	na	na	na	0	na	na	na	41	19.4	13.9	26.3

Source: Alameda County Vital Statistics Files, 2006-08.

Prostate Cancer

Prostate cancer is caused by malignant, abnormal tissue growth in the prostate gland, the walnut-sized gland deep in the pelvis, between the bladder and the penis. The prostate, which wraps around the urethra, produces the fluid part of semen, which carries sperm. Most prostate cancer develops in the posterior part of the prostate gland, and the rest near the urethra. Prostate cancer is a slow-growing cancer that rarely produces symptoms until it is well advanced.[1,2] Screening with the prostate-specific antigen test (PSA) can usually detect prostate cancer years earlier than it would be detected by a digital rectal exam or the development of symptoms.[3]

Prostate cancer is the most commonly diagnosed cancer among men in the United States and the second most common cause of cancer death among men. It is estimated that about one in six men in the United States will be diagnosed with prostate cancer during their lifetime and one in 36 will die from this disease. Prostate cancer accounts for about one in four newly diagnosed cancers each year among U.S. men. In 2010, an estimated 217,730 new cases of prostate cancer will be diagnosed in the United States.[3]

Age is the most important risk factor for prostate cancer. Prostate cancer incidence and mortality rates increase with age. African American men have a higher incidence of prostate cancer and are more likely to die from the disease than White men in every age group. Incidence and mortality rates for prostate cancer are lower among men of other racial and ethnic groups than among white and African American men. Prostate cancer mortality rates vary by years of education, especially among African American men—those with less than a high school education have substantially higher mortality rates than those with a higher education level.[3]

Prostate cancer is the second most common cause of cancer death in men. In 2010, approximately 32,050 men are expected to die from prostate cancer. Only lung cancer accounts for more cancer deaths in U.S. men. In 2007, prostate cancer mortality in the United States was 9.2 per 100,000.[4] In California, prostate cancer incidence was 142.4 per 100,000 and mortality was 21.8 per 100,000 in 2005-07.[5,6]

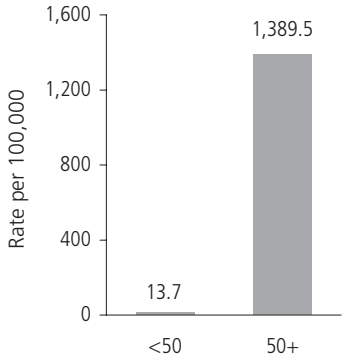
Table 6.48: Prostate Cancer Comparison

	HP2010[7]	Alameda County	California[5,6]	United States[4]
Prostate Cancer Incidence (Rate per 100,000)	na	145.5	142.4	na
Prostate Cancer Mortality (Rate per 100,000)	28.2	21.2	21.8	9.2

Prostate Cancer Incidence

Prostate cancer diagnosis is rare before 50 years; current screening guidelines recommend screening for men 50 years or older for most groups of men. The incidence of prostate cancer is about 100 times higher among men 50 years or older than among younger men in Alameda County.

Figure 6.89: Prostate Cancer Incidence by Age Group



Source: Cancer Prevention Institute of California, 2005-07.

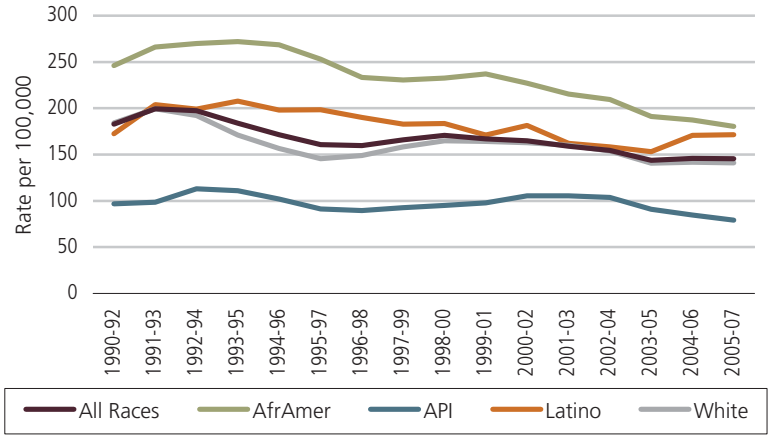
In Alameda County there were 2,759 new cases of prostate cancer from 2005 to 2007, for an incidence rate of 145.5 per 100,000. African Americans had the highest prostate cancer incidence (180.4 per 100,000) of all racial/ethnic groups, 2.3 times the rate for Asian/Pacific Islanders (79.2), the group with the lowest rate, and 1.3 times the rate for Whites (141.2). Both African Americans and Latinos had significantly higher rates than Whites or Asian/Pacific Islanders.

Figure 6.90: Prostate Cancer Incidence by Race/Ethnicity

Source: Cancer Prevention Institute of California, 2005-07.

Prostate cancer incidence fluctuated between 1990 and 2007. Rates increased in the early 1990s, declined in the mid 1990s, and then went up through the late 1990s. In subsequent years there was a significant decline at a rate of 2.6% annually. Among African Americans prostate cancer incidence increased significantly in the early and mid 1990s and then declined in the later 1990s through 2007. Among Asian/Pacific Islanders prostate cancer incidence increased in the early 1990s, declined in the mid and late 1990s, and then showed an upward trend during subsequent years. Among Latino men, after an increase in prostate cancer incidence in the early 1990s, there was a significant decline in the mid 1990s and 2000s. Among White males there were slight increases in prostate cancer incidence in the early and late 1990s. There were also periods of significant annual decline around the mid 1990s and since 1999-01. African American men had the highest incidence rate of all racial/ethnic groups and Asian/Pacific Islanders had the lowest rate throughout the period 1990 to 2007.

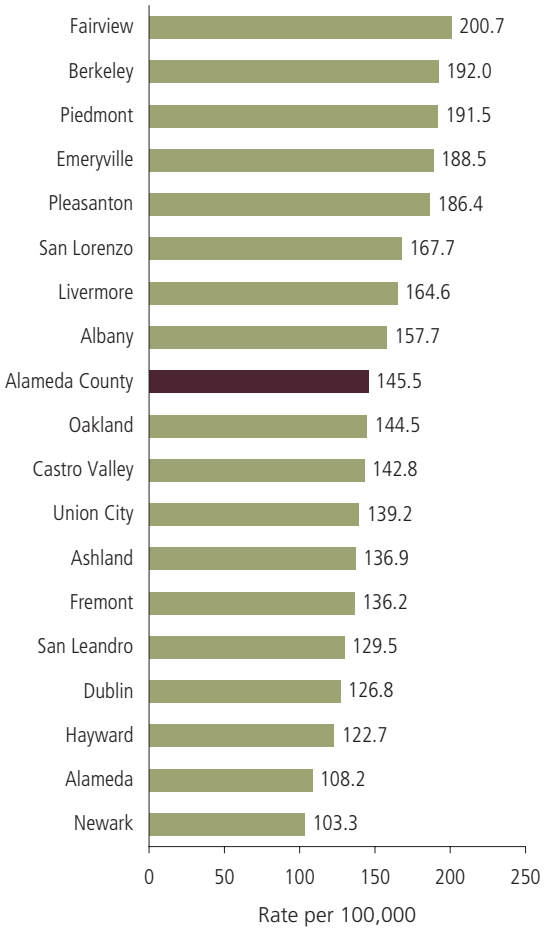
Figure 6.91: Prostate Cancer Incidence Trend



Source: Cancer Prevention Institute of California, 1990-07.

Prostate cancer incidence ranged from a high of 200.7 per 100,000 in Fairview to a low of 103.3 per 100,000 in Newark. The cities of Fairview, Berkeley and Piedmont had much higher prostate cancer incidence than the county. Newark, Alameda, and Hayward had much lower prostate cancer incidence than the county.

Figure 6.92: Prostate Cancer Incidence by City

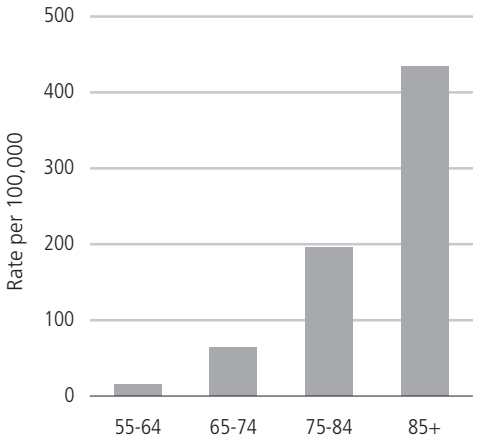


Source: Cancer Prevention Institute of California, 2005-07.

Prostate Cancer Mortality

After 55 years, prostate cancer mortality more than doubled in each successive ten-year age group, increasing from 14.8 per 100,000 among males 55-64 years to 434.0 per 100,000 for those 85 years or older.

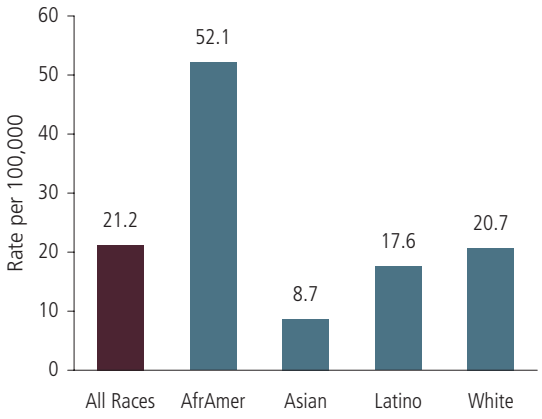
Figure 6.93: Prostate Cancer Mortality by Age Group



Source: Alameda County Vital Statistics Files, 2006-08.

There were 354 deaths from prostate cancer in Alameda County from 2006 to 2008. The age-adjusted mortality rate was 21.2 per 100,000 males. The African American mortality rate from prostate cancer was significantly higher than any other racial/ethnic groups. African American rate was six times the rate of Asians, almost three times the rate of Latinos, and about 2.5 times the rate of Whites. Asians had significantly lower rate than the countywide rate.

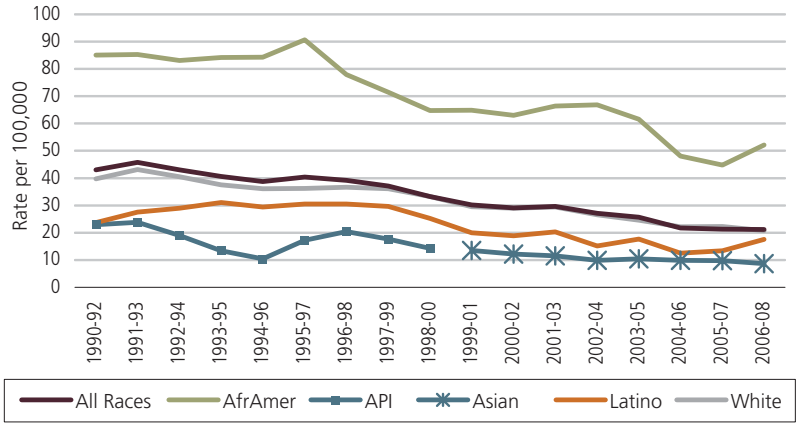
Figure 6.94: Prostate Cancer Mortality by Race/Ethnicity



Source: Alameda County Vital Statistics Files, 2006-08.

For all racial/ethnic groups combined, the mortality rates from prostate cancer declined significantly by 2.4% per year until the mid 1990s and then declined more steeply at 6.1% per year. The rate for African Americans declined significantly by 3.7% per year for the period 1990 to 2007. The rates for Whites also declined steeply in recent years at 5.7% per year. The rates for Latinos increased until for most of the 1990s, then declined significantly at 10.2% per year until 2004-06. The rate for Asians also declined.

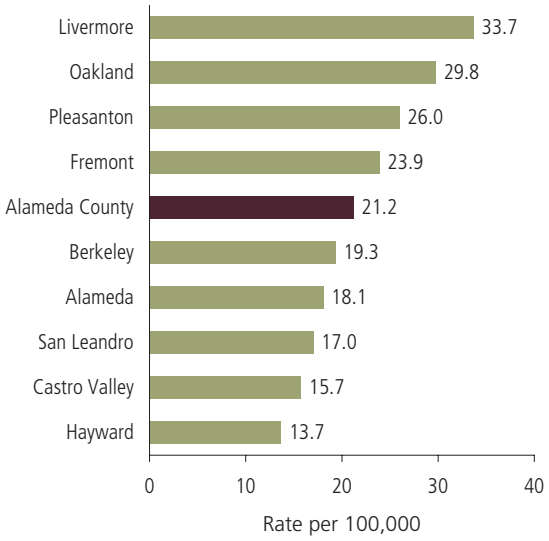
Figure 6.95: Prostate Cancer Mortality Trend



Source: Alameda County Vital Statistics Files, 1990-08.
Note: Rate for Asian/Pacific Islanders (API) until 1998-00; rate for Asians (without Pacific Islanders) from 1999-01.

Prostate cancer mortality rates ranged from a low of 13.7 per 100,000 in Hayward to a high of 33.7 in Livermore. Hayward, Castro Valley, and San Leandro were among the cities that had much lower prostate cancer mortality than the county. Livermore, Oakland, and Pleasanton had substantially higher rates than the county.

Figure 6.96: Prostate Cancer Mortality by City



Source: Alameda County Vital Statistics Files, 2006-08.

Table 6.49: Three-Year Prostate Cancer Incidence by Region and Race/Ethnicity

	Male				AfrAmer				API			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	2,759	145.5	139.9	151.0	460	180.4	163.3	197.5	314	79.2	70.3	88.0
North County	288	187.2	165.0	209.5	45	222.5	162.3	297.7	13	na	na	na
Oakland Area	924	140.3	131.1	149.6	306	185.5	164.2	206.8	85	63.4	50.7	78.4
Central County	647	133.7	123.3	144.2	72	194.7	152.4	245.2	83	89.4	71.2	110.8
South County	496	134.2	121.7	146.7	29	228.8	153.2	328.5	108	87.3	69.7	104.8
Tri-Valley	383	166.9	148.5	185.2	8	na	na	na	25	113.0	73.1	166.8

	Latino				White			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	354	171.5	152.6	190.4	1,385	141.2	133.5	148.8
North County	11	na	na	na	189	200.6	170.5	230.8
Oakland Area	69	91.1	70.9	115.4	371	148.0	132.5	163.5
Central County	143	160.2	133.3	187.1	296	122.4	108.3	136.4
South County	95	177.2	143.3	216.6	223	143.0	123.3	162.6
Tri-Valley	35	196.8	137.1	273.7	288	162.4	141.7	183.1

Source: Cancer Prevention Institute of California, 2005-07.

Table 6.50: Three-Year Prostate Cancer Incidence by City

	#	Rate	LCL	UCL
Alameda	125	108.2	88.9	127.5
Albany	32	157.7	107.8	222.6
Ashland	32	136.9	93.6	193.3
Berkeley	256	192.0	167.8	216.2
Castro Valley	137	142.8	118.5	167.0
Cherryland	12	na	na	na
Dublin	56	126.8	95.8	164.7
Emeryville	22	188.5	118.1	285.4
Fairview	33	200.7	138.2	281.9
Fremont	326	136.2	120.6	151.8
Hayward	211	122.7	105.9	139.6
Livermore	166	164.6	137.5	191.7
Newark	54	103.3	77.6	134.7
Oakland	736	144.5	133.8	155.1
Piedmont	41	191.5	137.4	259.8
Pleasanton	161	186.4	154.8	218.0
San Leandro	165	129.5	109.6	149.3
San Lorenzo	57	167.7	127.0	217.2
Sunol	8	na	na	na
Union City	108	139.2	111.4	167.1
Remainder of County	21	128.5	79.5	196.4

Source: Cancer Prevention Institute of California, 2005-07.

Table 6.51: Three-Year Prostate Cancer Mortality by City, Region, and Race/Ethnicity

	Male				AfrAmer				AmerInd				Asian			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	354	21.2	19.0	23.5	112	52.1	42.2	62.1	<5	na	na	na	30	8.7	5.9	12.4
Alameda	18	18.1	10.7	28.6	<5	na	na	na	0	na	na	na	<5	na	na	na
Albany	5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na
Ashland	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na
Berkeley	23	19.3	12.3	29.0	12	60.3	31.2	105.4	0	na	na	na	<5	na	na	na
Castro Valley	14	15.7	8.6	26.4	<5	na	na	na	0	na	na	na	<5	na	na	na
Cherryland	<5	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na
Dublin	<5	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na
Emeryville	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na
Fairview	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na
Fremont	41	23.9	17.2	32.5	<5	na	na	na	0	na	na	na	<5	na	na	na
Hayward	21	13.7	8.5	20.9	8	na	na	na	<5	na	na	na	<5	na	na	na
Livermore	21	33.7	20.9	51.6	0	na	na	na	0	na	na	na	<5	na	na	na
Newark	5	na	na	na	0	na	na	na	0	na	na	na	13	13.5	7.2	23.1
Oakland	136	29.8	24.7	34.8	79	56.4	44.7	70.3	0	na	na	na	0	na	na	na
Piedmont	<5	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na
Pleasanton	13	26.0	13.8	44.5	0	na	na	na	0	na	na	na	0	na	na	na
San Leandro	22	17.0	10.7	25.8	<5	na	na	na	0	na	na	na	<5	na	na	na
San Lorenzo	7	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na
Sunol	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na
Union City	9	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na
Remainder of Cty	<5	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
North County	28	20.4	13.5	29.4	13	62.5	33.3	106.9	0	na	na	na	<5	na	na	na
Oakland Area	159	27.2	23.0	31.5	81	55.5	44.1	69.0	0	na	na	na	16	13.2	7.6	21.5
Central County	72	15.7	12.3	19.8	14	66.9	36.6	112.3	<5	na	na	na	7	na	na	na
South County	55	20.9	15.8	27.2	<5	na	na	na	0	na	na	na	<5	na	na	na
Tri-Valley	37	26.8	18.9	37.0	0	na	na	na	0	na	na	na	<5	na	na	na

	Latino				Multirace				PacIsl				White			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	26	17.6	11.5	25.8	<5	na	na	na	<5	na	na	na	182	20.7	17.6	23.7
Alameda	<5	na	na	na	0	na	na	na	0	na	na	na	13	20.9	11.2	35.8
Albany	0	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Ashland	<5	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Berkeley	0	na	na	na	0	na	na	na	0	na	na	na	10	14.4	6.9	26.4
Castro Valley	0	na	na	na	0	na	na	na	0	na	na	na	11	16.2	8.1	29.1
Cherryland	0	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Dublin	0	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Emeryville	0	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Fairview	0	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Fremont	<5	na	na	na	0	na	na	na	0	na	na	na	31	38.1	25.9	54.0
Hayward	<5	na	na	na	0	na	na	na	<5	na	na	na	6	na	na	na
Livermore	<5	na	na	na	0	na	na	na	0	na	na	na	18	36.5	21.6	57.7
Newark	<5	na	na	na	<5	na	na	na	0	na	na	na	<5	na	na	na
Oakland	7	na	na	na	<5	na	na	na	0	na	na	na	36	25.7	18.0	35.6
Piedmont	0	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Pleasanton	<5	na	na	na	0	na	na	na	0	na	na	na	12	30.3	15.6	52.9
San Leandro	<5	na	na	na	0	na	na	na	0	na	na	na	14	17.4	9.5	29.2
San Lorenzo	0	na	na	na	0	na	na	na	0	na	na	na	7	na	na	na
Sunol	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na
Union City	<5	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Remainder of Cty	0	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
North County	0	na	na	na	0	na	na	na	0	na	na	na	14	17.6	9.6	29.5
Oakland Area	8	na	na	na	<5	na	na	na	0	na	na	na	53	23.8	17.9	31.2
Central County	6	na	na	na	0	na	na	na	<5	na	na	na	43	16.1	11.7	21.7
South County	9	na	na	na	<5	na	na	na	0	na	na	na	37	32.9	23.1	45.3
Tri-Valley	<5	na	na	na	0	na	na	na	0	na	na	na	33	30.6	21.1	43.0

Source: Alameda County Vital Statistics Files, 2006-08.

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Mental Health and Alcohol Use

Mental Health

Mental health has been defined as a state of "successful performance of mental function resulting in productive activities, fulfilling relationships with other people, and the ability to adapt to change and to cope with adversity."[1] In 2004, the World Health Organization published its first report on mental health promotion, conceptualizing mental health as not merely the absence of mental illness but the presence of "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community."[2] Mental illness has been defined as a separate concept. Mental disorders are characterized by "alterations in thinking, mood, or behavior (or some combination thereof) associated with distress and/or impaired functioning."[2]

Mental disorders are common in the United States. An estimated 26.2 percent of Americans 18 years or older—about one in four adults—suffer from a diagnosable mental disorder in a given year.[3,4] Even though mental disorders are widespread in the population, the main burden of illness is concentrated in a much smaller proportion—about six percent, or one in 17—who suffer from a serious mental illness.[4] In addition, mental disorders are the leading cause of disability in the United States.[5] Many people suffer from more than one mental disorder at a given time. Nearly half (45 percent) of those with any mental disorder meet criteria for two or more disorders, with severity strongly related to comorbidity In the United States, mental disorders are diagnosed based on the Diagnostic and Statistical Manual of Mental Disorders, fourth edition (DSM-IV).[6]

The prevalence of mental illness differs between Whites and other racial/ethnic populations. The prevalence of any psychiatric disorder in the past 12 months is 15% for African Americans, 9% for Asian Americans, 16% for Latinos, and 21% for Whites.[7] Although African Americans and Latinos have a lower risk of lifetime prevalence of mental disorders than do Whites[8], they tend to have a longer course of illness and disability from mental illness.[9] Additionally, racial/ethnic minority populations are disproportionately represented in vulnerable populations, such as the homeless and incarcerated[10] and are underserved in the mental health care system. Furthermore, racial/ethnic minorities may be disproportionately affected by barriers such as limited English proficiency, remote geographic settings, stigma, fragmented services, cost, co-morbidity of mental illness and chronic diseases, cultural understanding of health care services, and incarceration.[11]

Mental health and mental illnesses can be influenced by positive or negative social determinants of health, which include income, housing, stress, early childhood experiences, social exclusion, occupation, education level, sanitation, social support, discrimination (for example, racism), and lack of access to resources. Negative determinants are often

disproportionately distributed among people of color, placing them at greater risk for the development of mental illness.[12,13]

In the last decade there have been major advancements in ongoing mental health surveillance as a domain of public health surveillance.[14] Recent studies suggest that primary care settings provide a unique opportunity for early detection and treatment of common mental disorders by identifying early warning signs and mitigating risk factors.[15]

Mental Health and Receipt of Mental Health Services

In 2007, 8.9% of Alameda County adults experienced psychological distress in the past year. Women were much more likely to report psychological distress than men (11.0% versus 6.7%). Adults below 40 years were over twice as likely to experience psychological distress than older adults (13.7% and 5.5% respectively).

Table 7.1: Psychological Distress in the Past Year, Adults 18 Years and Older

		%	LCL	UCL
Alameda County		8.9	6.3	11.5
California		8.5	8.0	9.0
Gender	Female	11.0	6.9	15.2
	Male	6.7	3.6	9.8
Age Group	18-39	13.7	8.1	19.3
	40+	5.5	3.7	7.4

Source: California Health Interview Survey, 2007.

In Alameda County, nearly one in five (19.4%) adults reported that they needed professional help for emotional health or alcohol use in 2007. A higher percentage of women perceived the need to see a professional for mental health issues than men (22.7% versus 15.8%). The percentage of adults who felt the need to see a mental health professional varied by age group as well—nearly one in four (24.5%) adults 18-39 years needed help, compared to 17.5% of older non-elderly adults, and only 9.6% of those 65 years or older. There were also racial/ethnic differences in mental health—African Americans were about three times as likely to report the need to see a professional for their mental health as Asian/Pacific Islanders (33.1% versus 10.7%). Over one in five Whites (21.8%) and 15.6% of Latinos reported the need to see a professional for their mental health.

Table 7.2: Adults Who Needed Professional Help for Mental Health Issues in the Past Year

		%	LCL	UCL
Alameda County		19.4	15.9	22.8
California		16.5	15.8	17.1
Gender	Female	22.7	18.3	27.1
	Male	15.8	10.4	21.1
Age Group	18-39	24.5	17.5	31.5
	40-64	17.5	14.1	21.0
	65+	9.6	5.1	14.2
Race/Ethnicity	AfrAmer	33.1	17.3	48.8
	API	10.7	4.6	16.8
	Latino	15.6	8.2	22.9
	White	21.8	17.7	25.9

Source: California Health Interview Survey, 2007.

Among adults who reported needing professional help for mental or alcohol use issues, 39.2% did not receive help. Women were more likely to not receive needed mental health services than men (40.8% versus 36.8% respectively). Adults 18-40 years and those 65 years or older (43.3% and 40.0% respectively) were more likely to not receive needed mental health services compared to adults 40-64 years (33.9%).

Among adolescents 12-17 years, 14.1% had received psychological counseling in 2007.

Table 7.3: Adults Who Needed but Did Not Receive Mental Health Services

		%	LCL	UCL
Alameda County		39.2	29.6	48.9
California		43.0	40.9	45.0
Gender	Female	40.8	29.7	51.8
	Male	36.8	19.5	54.2
Age Group	18-40	43.3	26.6	59.9
	40-64	33.9	24.1	43.6
	65+	40.0	17.1	62.8

Source: California Health Interview Survey, 2007.

Table 7.4: Adolescents Who Received Psychological Counseling in the Past Year

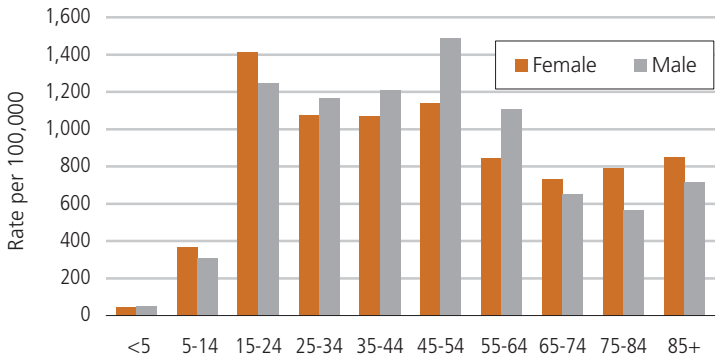
	%	LCL	UCL
Alameda County	14.1	6.9	21.3
California	8.8	7.5	10.0

Source: California Health Interview Survey, 2007.

Emergency Department Visits for Mental Disorders

Emergency department (ED) visits for mental disorders were most common between the ages of 15 and 64 years. Rates were highest among males 45-54 years and females 15-24 years. The most common primary diagnoses among both age groups were drug abuse, neurotic disorders, non-organic psychoses, and alcohol dependence. Alcohol dependence is less common among the younger age groups.

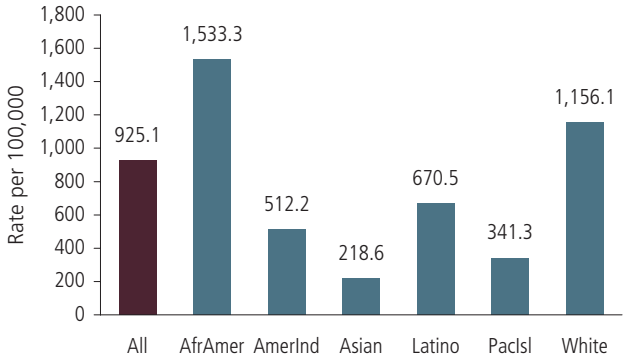
Figure 7.1: Emergency Department Visits for Mental Disorders by Age Group and Gender



Source: OSPHD Emergency Department Files, 2006-08.

From 2006 to 2008 there were 43,264 ED visits for mental disorders among Alameda County residents. The age-adjusted rate was 925.1 per 100,000 population. It was highest among African Americans, followed by Whites and Latinos. Asians and Pacific Islanders had the lowest rates.

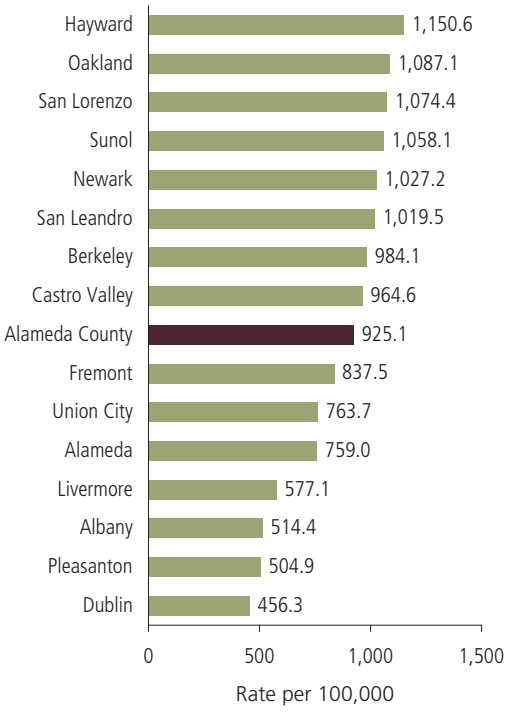
Figure 7.2: Emergency Department Visits for Mental Disorders by Race/Ethnicity



Source: OSPHD Emergency Department Files, 2006-08.

Hayward had the highest rate of ED visits for mental disorders in Alameda County, followed by Oakland, San Lorenzo, Sunol, Newark, San Leandro, and Berkeley. Dublin, Pleasanton, and Albany had the lowest rates; these were less than half the Hayward rate.

Figure 7.3: Emergency Department Visits for Mental Disorders by City



Source: OSPHD Emergency Department Files, 2006-08.

Table 7.5: Three-Year Emergency Department Visits for Mental Disorders by City, Region, Gender, and Race/Ethnicity

	All				Female				Male			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	43,264	925.1	916.3	933.8	21,178	896.5	884.4	908.7	22,084	953.2	940.5	965.9
Alameda	1,770	759.0	722.9	795.2	930	796.5	743.8	849.2	840	723.9	674.1	773.7
Albany	250	514.4	448.9	580.0	127	510.0	417.8	602.1	123	520.7	426.9	614.5
Berkeley	3,649	984.1	951.3	1,016.9	1,682	893.5	849.6	937.4	1,967	1,075.1	1,026.2	1,124.0
Castro Valley	1,618	964.6	916.5	1,012.7	798	912.8	847.3	978.2	820	1,016.9	946.0	1,087.8
Dublin	612	456.3	417.5	495.1	342	531.2	472.1	590.3	270	388.2	336.5	440.0
Fremont	5,258	837.5	814.6	860.4	2,735	878.3	845.1	911.5	2,523	791.6	760.1	823.1
Hayward	6,196	1,150.6	1,121.9	1,179.4	3,142	1,174.5	1,133.3	1,215.7	3,054	1,127.5	1,087.2	1,167.9
Livermore	1,464	577.1	547.0	607.3	818	640.4	595.9	684.9	646	509.0	468.8	549.2
Newark	1,339	1,027.2	971.4	1,083.0	672	1,050.2	970.3	1,130.2	667	1,005.5	926.8	1,084.2
Oakland	14,444	1,087.1	1,069.2	1,104.9	6,600	974.4	950.7	998.1	7,843	1,209.2	1,182.3	1,236.1
Pleasanton	1,043	504.9	473.4	536.5	573	542.5	497.0	588.0	470	461.6	418.3	505.0
San Leandro	3,072	1,019.5	983.1	1,055.9	1,502	974.8	924.5	1,025.0	1,569	1,058.7	1,006.0	1,111.3
San Lorenzo	863	1,074.4	1,002.3	1,146.6	382	925.6	831.7	1,019.5	481	1,222.0	1,112.3	1,331.8
Sunol	30	1,058.1	713.9	1,510.5	18	1,253.2	742.7	1,980.5	12	864.5	446.7	1,510.1
Union City	1,656	763.7	726.6	800.9	857	788.3	735.3	841.4	799	737.1	684.9	789.3
North County	3,899	922.4	892.7	952.1	1,809	839.3	799.6	878.9	2,090	1,007.0	962.7	1,051.3
Oakland Area	16,214	1,037.4	1,021.3	1,053.5	7,530	946.8	925.2	968.4	8,683	1,136.0	1,111.9	1,160.0
Central County	11,749	1,076.2	1,056.6	1,095.7	5,824	1,058.6	1,031.2	1,086.0	5,924	1,091.4	1,063.5	1,119.3
South County	8,283	845.2	826.8	863.6	4,282	880.8	854.2	907.4	4,001	805.8	780.4	831.3
Tri-Valley	3,119	523.6	504.9	542.4	1,733	583.8	555.9	611.8	1,386	460.6	435.6	485.6

	AfrAmer				AmerInd				Asian			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	10,672	1,533.3	1,504.0	1,562.7	114	512.2	416.9	607.5	2,248	218.6	209.5	227.7
Alameda	204	1,433.3	1,236.0	1,630.7	<5	na	na	na	107	157.9	127.5	188.2
Albany	40	2,652.0	1,894.6	3,611.2	0	na	na	na	20	158.0	96.5	244.1
Berkeley	1,090	3,222.6	3,026.5	3,418.7	<5	na	na	na	148	196.2	157.9	234.4
Castro Valley	123	1,851.8	1,521.5	2,182.1	5	na	na	na	63	205.7	158.1	263.2
Dublin	42	350.5	252.6	473.7	<5	na	na	na	36	195.2	136.7	270.2
Fremont	244	1,465.0	1,275.4	1,654.5	7	na	na	na	398	150.5	134.6	166.5
Hayward	1,047	1,709.9	1,604.5	1,815.3	18	939.4	556.7	1,484.6	333	304.4	271.3	337.6
Livermore	49	1,240.5	917.7	1,640.0	<5	na	na	na	34	195.9	135.6	273.7
Newark	78	1,743.1	1,377.8	2,175.5	<5	na	na	na	98	293.9	238.6	358.1
Oakland	6,917	1,788.8	1,746.3	1,831.4	51	1,051.5	782.9	1,382.6	539	239.3	218.9	259.7
Pleasanton	33	1,143.9	787.4	1,606.4	0	na	na	na	45	141.4	103.1	189.2
San Leandro	609	1,485.6	1,363.9	1,607.3	18	1,224.0	725.4	1,934.5	183	242.2	206.5	278.0
San Lorenzo	62	1,378.5	1,056.9	1,767.2	<5	na	na	na	41	252.8	181.4	343.0
Sunol	<5	na	na	na	0	na	na	na	<5	na	na	na
Union City	133	1,205.8	994.3	1,417.2	<5	na	na	na	202	201.2	172.1	230.3
North County	1,130	3,190.9	3,000.2	3,381.7	<5	na	na	na	168	182.7	150.7	214.7
Oakland Area	7,121	1,775.7	1,734.1	1,817.3	54	876.7	658.6	1,144.0	646	219.5	202.5	236.6
Central County	1,841	1,621.1	1,545.6	1,696.6	44	948.6	689.2	1,273.4	620	265.4	244.2	286.6
South County	456	1,403.1	1,270.6	1,535.5	12	505.8	261.4	883.6	699	174.8	161.0	188.7
Tri-Valley	124	694.2	553.9	834.5	<5	na	na	na	115	170.0	137.5	202.6

	Latino				PacIsl				White			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	6,521	670.5	653.0	687.9	130	341.3	272.9	409.8	19,365	1,156.1	1,139.2	1,173.1
Alameda	118	559.1	457.9	660.3	15	1,336.3	747.9	2,204.1	1,035	926.5	865.7	987.3
Albany	14	375.0	205.0	629.1	<5	na	na	na	144	536.8	443.2	630.4
Berkeley	243	677.8	585.2	770.4	<5	na	na	na	1,831	879.8	838.0	921.6
Castro Valley	164	801.2	677.6	924.7	<5	na	na	na	1,111	1,127.1	1,057.3	1,196.9
Dublin	58	326.8	248.1	422.4	5	na	na	na	425	525.7	473.0	578.3
Fremont	532	634.7	579.9	689.4	9	na	na	na	3,678	1,830.1	1,768.9	1,891.3
Hayward	1,530	778.5	737.6	819.3	43	493.3	357.0	664.5	2,462	1,878.4	1,799.7	1,957.1
Livermore	198	481.7	410.6	552.8	5	na	na	na	1,101	617.0	579.5	654.5
Newark	235	592.1	513.3	670.8	5	na	na	na	819	1,921.7	1,786.1	2,057.3
Oakland	2,243	741.9	708.9	774.9	10	183.3	87.9	337.1	3,320	1,018.2	980.1	1,056.3
Pleasanton	81	437.1	347.1	543.2	<5	na	na	na	823	571.6	530.7	612.5
San Leandro	592	850.7	781.1	920.3	6	na	na	na	1,315	1,411.9	1,328.1	1,495.7
San Lorenzo	208	910.9	785.1	1,036.7	<5	na	na	na	456	1,402.1	1,266.0	1,538.2
Sunol	<5	na	na	na	0	na	na	na	23	969.8	614.8	1,455.2
Union City	303	594.8	526.2	663.3	16	903.1	516.2	1,466.6	822	2,502.7	2,325.0	2,680.5
North County	257	647.2	562.4	732.0	5	na	na	na	1,975	840.5	802.0	879.0
Oakland Area	2,361	730.6	699.3	762.0	25	405.6	262.5	598.7	4,355	993.7	961.5	1,025.9
Central County	2,494	801.5	769.2	833.9	56	454.4	343.2	590.0	5,344	1,501.3	1,458.4	1,544.1
South County	1,072	613.4	575.9	650.9	30	494.7	333.7	706.2	5,342	1,912.5	1,859.4	1,965.5
Tri-Valley	337	422.9	374.7	471.2	14	926.7	506.7	1,554.9	2,349	581.7	557.4	605.9

Source: OSPHD Emergency Department Files, 2006-08.

Alcohol Use: Binge Drinking

Binge drinking is a common pattern of excessive alcohol use in the United States. The National Institute of Alcohol Abuse and Alcoholism defines binge drinking as a pattern of drinking that brings a person's blood alcohol concentration (BAC) to 0.08 grams percent or above. This typically happens when men consume five or more drinks, and when women consume four or more drinks, in about two hours. Most people who binge drink are not alcohol dependent.[1,2]

According to national surveys, approximately 92% of U.S. adults who drink excessively report binge drinking in the past 30 days.[3] Although college students commonly binge drink, 70% of binge drinking episodes involve adults 25 years or older.[4] The prevalence of binge drinking among men is two times the prevalence among women.[5] Binge drinkers are 14 times more likely to report alcohol-impaired driving than non-binge drinkers.[4] About 90% of the alcohol consumed by youth under the age of 21 years in the United States is in the form of binge drinks.[6] About 75% of the alcohol consumed by adults in the United States is in the form of binge drinks.[6] The proportion of current drinkers that binge is highest among those 18-20 years (51%).[4]

Binge drinking is associated with many health problems, including but not limited to unintentional injuries (for example, car crashes, falls, burns, drowning); intentional injuries (for example, firearm injuries, sexual assault, domestic violence); alcohol poisoning; sexually transmitted diseases; and unintended pregnancy. It is also linked to children born with fetal alcohol spectrum disorders; high blood pressure, stroke, and other cardiovascular diseases; liver disease; neurological damage; sexual dysfunction; and poor control of diabetes.[1]

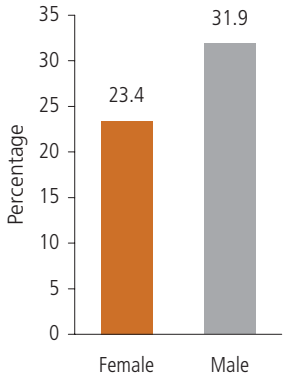
Evidence-based interventions to prevent binge drinking and its adverse consequences include increasing alcoholic beverage costs and excise taxes; limiting the number of retail alcohol outlets that sell alcoholic beverages in a given area; consistent enforcement of laws against underage drinking and alcohol-impaired driving; and screening and counseling for alcohol misuse.[7-11]

Table 7.6: Binge Drinking Comparison

	HP2010[12]	Alameda County	California[13]
Binge Drinking Prevalence (Percentage)	≤13.4	27.5	29.7

Men were 1.4 times as likely to binge drink in the past year than women (31.9% and 23.4% respectively).

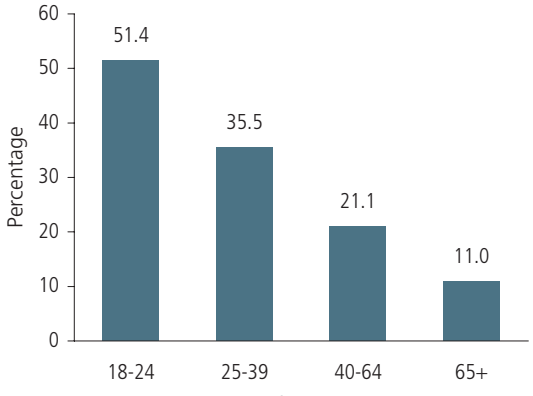
Figure 7.4: Adult Binge Drinking Prevalence by Gender



Source: California Health Interview Survey, 2007.

Binge drinking is substantially more common among young adults 18-24 years than older adults. Over half (51.4%) of adults 18-24 years reported binge drinking in the past year, a significantly higher percentage than those 40-64 years (21.1%). Among those 25-39 years, over one-third (35.5%) reported binge drinking. Those 65 years or older were significantly less likely to binge drink than younger adults (11.0% and 51.4% respectively).

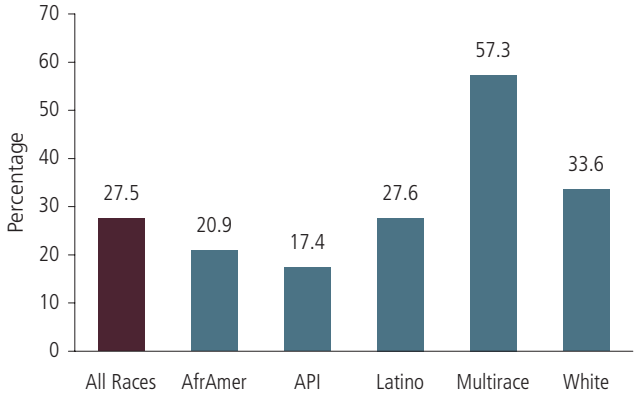
Figure 7.5: Adult Binge Drinking Prevalence by Age Group



Source: California Health Interview Survey, 2007.

In Alameda County, 27.5% of adults reported binge drinking in the past year. The multirace group had a significantly higher rate of binge drinking (57.3%) than all other racial/ethnic groups except Whites, who had the next highest rate (33.6%). Asian/Pacific Islanders had the lowest binge drinking prevalence (17.4%); rates for African Americans and Latinos were 20.9% and 27.6% respectively.

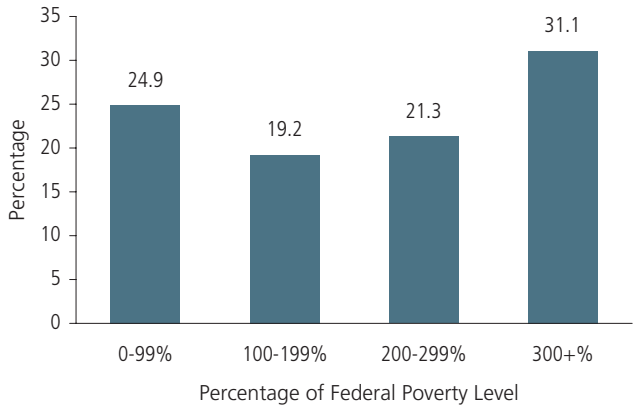
Figure 7.6: Adult Binge Drinking Prevalence by Race/Ethnicity



Source: California Health Interview Survey, 2007.

Low- and moderate-income adults were less likely to binge drink (24.9% and 19.2% respectively) than high-income adults (31.1%).

Figure 7.7: Adult Binge Drinking Prevalence by Poverty Level



Source: California Health Interview Survey, 2007.

Table 7.7: Binge Drinking Prevalence, Adults 18 Years and Older

		%	LCL	UCL
Alameda County		27.5	23.6	31.4
California		29.7	28.9	30.4
Gender	Female	23.4	18.2	28.6
	Male	31.9	25.9	38.0
Age Group	18-24	51.4	37.2	65.6
	25-39	35.5	26.4	44.6
	40-64	21.1	16.9	25.3
	65+	11.0	6.2	15.7
Race/Ethnicity	AfrAmer	20.9	9.4	32.3
	API	17.4	7.7	27.2
	Latino	27.6	17.5	37.8
	Multirace	57.3	37.0	77.7
	White	33.6	28.8	38.4
Poverty Level	0-99%	24.9	13.0	36.8
	100-199%	19.2	8.4	29.9
	200-299%	21.3	9.4	33.2
	300+%	31.1	26.2	35.9

Source: California Health Interview Survey, 2007.

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Alcohol Use: Binge Drinking

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Injury

Unintentional Injury

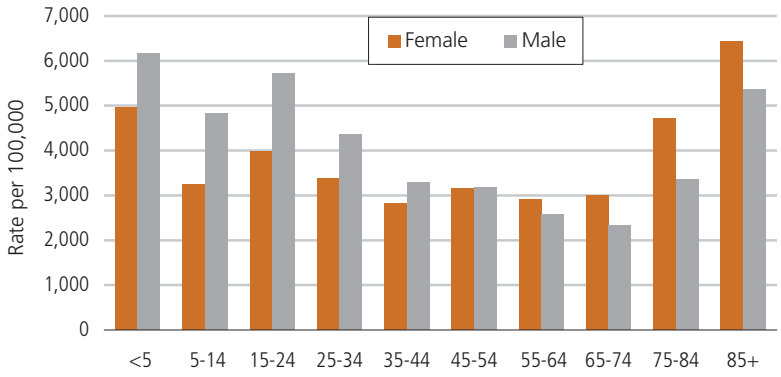
Physical injury that is not purposely inflicted is unintentional injury. Based on 2000 National Electronic Injury Surveillance System, 94% of nonfatal injuries treated in emergency departments were unintentional[1] and more than two-thirds of injury deaths were unintentional.[2,3] In the United States unintentional injuries were the leading cause of death for those one to 44 years , and the fifth leading cause of death for all ages.[4,5]

Most unintentional injuries are predictable and preventable. Motor vehicle crashes are the primary source of unintentional injury death, followed by poisoning, firearms, and falls.[2] Nearly two-thirds of deaths by unintentional injury are among males. Generally, rates of death from unintentional injury are higher for older age groups.[4] American Indians have disproportionately high rates of death from unintentional injury. Rural or isolated living, minimal emergency medical services, and great distances from sophisticated trauma care contribute to these increased rates.[6]

Emergency Department Visits for Unintentional Injury

Emergency department (ED) visits for unintentional injury were most common among the younger and the older age groups. Below the age of 45 years, male rates exceeded female rates by as much as 48%. For those 55 years or older, the pattern was reversed and female rates exceeded male rates by as much as 40%.

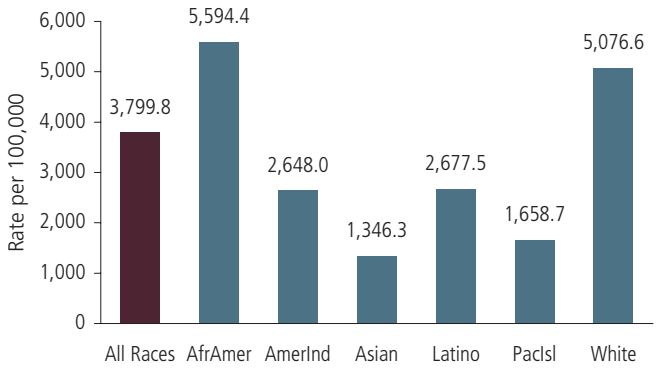
Figure 8.1: Unintentional Injury Emergency Department Visits by Age Group and Gender



Source: OSPHD Emergency Department Files, 2006-08.

There were 172,830 ED visits for unintentional injuries in Alameda County from 2006 to 2008. The age-adjusted rate was 3,799.8 per 100,000 population. Rates were significantly higher among African Americans and Whites compared to other racial/ethnic groups and the county as a whole. Rates for these two groups were about two times higher than American Indians and Latinos, three times higher than Pacific Islanders, and four times higher than Asians.

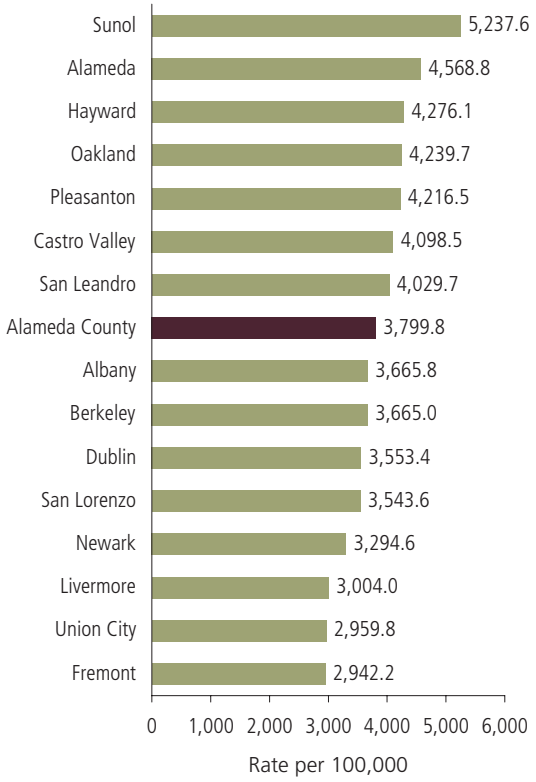
Figure 8.2: Unintentional Injury Emergency Department Visits by Race/Ethnicity



Source: OSPHD Emergency Department Files, 2006-08.

The rate of unintentional injury ED visits ranged from a low of 2,942.2 per 100,000 in Fremont to a high of 5,237.6 in Sunol. Other cities with high rates included Alameda, Hayward, and Oakland. The lowest rates were found in Fremont, Union City, and Livermore.

Figure 8.3: Unintentional Injury Emergency Department Visits by City



Source: OSPHD Emergency Department Files, 2006-08.

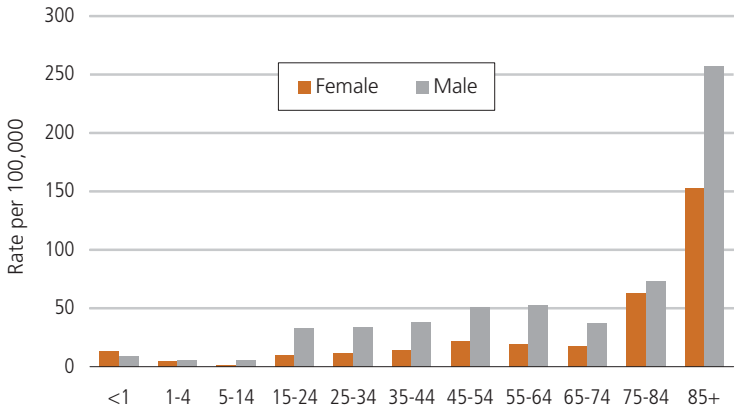
Unintentional Injury Mortality

Table 8.1: Unintentional Injury Mortality Comparison

	HP2010[7]	Alameda County	California[8]	United States[4]
Unintentional Injury Mortality (Rate per 100,000)	≤17.1	26.9	29.7	40.0

Mortality from unintentional injuries was higher among males than females in all age groups, except young children. Between the ages of five and 74 years, male rates were about two to three times female rates. After age 75, the unintentional injury mortality rate jumped for both sexes, particularly males aged 85 years or older.

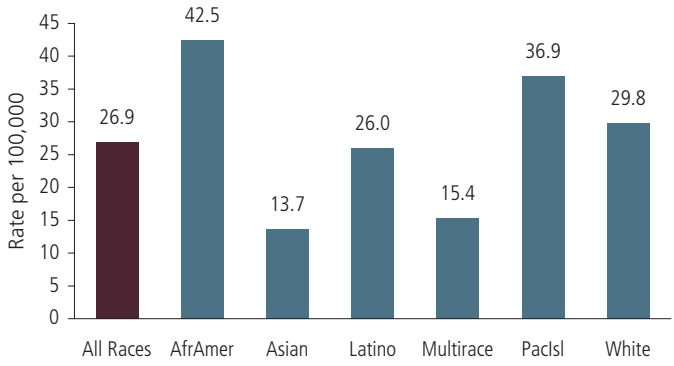
Figure 8.4: Unintentional Injury Mortality by Age Group and Gender



Source: Alameda County Vital Statistics Files, 2006-08.

There were 1,259 deaths from unintentional injuries in Alameda County from 2006 to 2008. The age-adjusted unintentional injury mortality rate was 26.9 per 100,000 population. The African American mortality rate from unintentional injuries was significantly higher than any other racial/ethnic group except Pacific Islanders. It was about three times the rate of Asians and about 1.5 times the rates of Latinos and Whites. The rate for Pacific Islanders was also high, but it may be unreliable due to a small number of deaths.

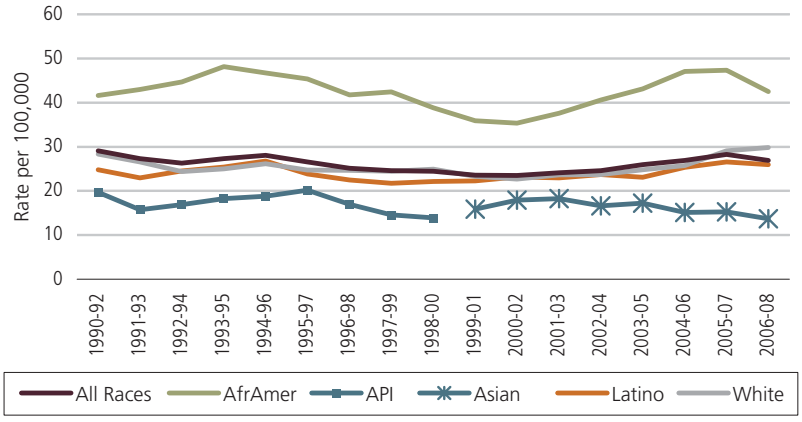
Figure 8.5: Unintentional Injury Mortality by Race/Ethnicity



Source: Alameda County Vital Statistics Files, 2006-08.

For all racial/ethnic groups combined, the mortality rate for unintentional injury declined significantly by 2% per year, on average, during the 1990s and then increased significantly by 3% per year since 2000-02. Among African Americans the rates declined in the latter half of the 1990s and then increased 7.7% per year up to 2005-07. Rates among Whites and Latinos increased by 7% per year since 2002-04 and 2.3% per year since 1997-99, respectively. Among Asians the rate declined 5.7% per year since 2001-03.

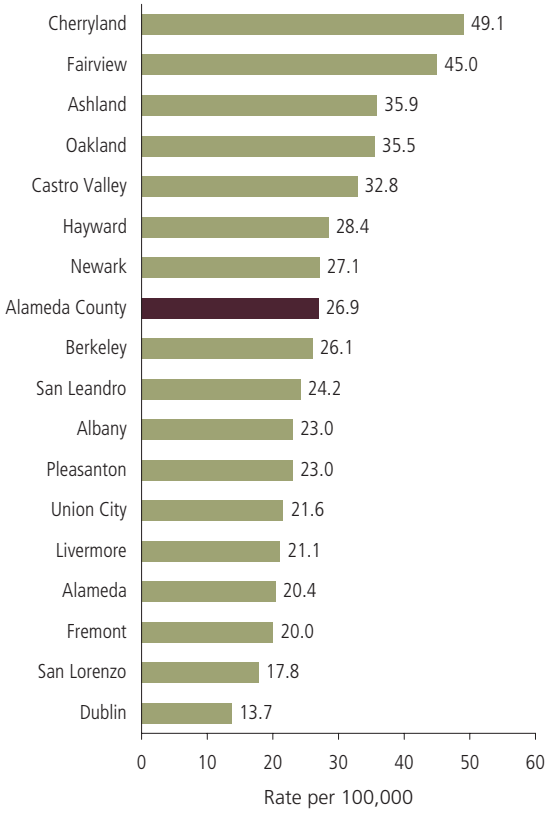
Figure 8.6: Unintentional Injury Mortality Trend



Source: Alameda County Vital Statistics Files, 1990-08.
Note: Rate for Asian/Pacific Islanders (API) until 1998-00; rate for Asians (without Pacific Islanders) from 1999-01.

The rate of unintentional injury mortality ranged from a low of 13.7 per 100,000 in Dublin to a high of 49.1 in Cherryland, reflecting a three-fold difference across cities. Rates in Fairview, Ashland, Oakland, and Castro Valley were also well above the county rate.

Figure 8.7: Unintentional Injury Mortality by City



Source: Alameda County Vital Statistics Files, 2006-08.

Table 8.2: Three-Year Emergency Department Visits for Unintentional Injury by City, Region, Gender, and Race/Ethnicity

	All				Female				Male			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	172,830	3,799.8	3,781.8	3,817.9	81,010	3,474.0	3,449.9	3,498.1	91,817	4,092.4	4,065.7	4,119.1
Alameda	9,969	4,568.8	4,477.2	4,660.4	5,004	4,303.3	4,179.8	4,426.8	4,965	4,782.8	4,648.1	4,917.5
Albany	1,620	3,665.8	3,482.7	3,848.9	767	3,224.4	2,986.3	3,462.4	853	4,081.3	3,803.3	4,359.3
Berkeley	12,129	3,665.0	3,595.8	3,734.2	5,655	3,333.0	3,240.6	3,425.4	6,474	3,966.8	3,864.1	4,069.6
Castro Valley	6,756	4,098.5	3,998.5	4,198.4	3,180	3,644.9	3,513.5	3,776.4	3,576	4,548.2	4,397.1	4,699.4
Dublin	4,310	3,553.4	3,438.2	3,668.7	1,959	3,409.2	3,247.7	3,570.7	2,351	3,636.2	3,474.2	3,798.1
Fremont	18,046	2,942.2	2,898.6	2,985.7	8,344	2,703.0	2,644.5	2,761.5	9,702	3,148.3	3,083.8	3,212.8
Hayward	23,275	4,276.1	4,220.9	4,331.3	10,840	3,976.7	3,901.5	4,051.8	12,434	4,538.0	4,457.4	4,618.5
Livermore	7,548	3,004.0	2,934.7	3,073.3	3,350	2,646.9	2,555.9	2,737.9	4,198	3,314.0	3,210.5	3,417.5
Newark	4,231	3,294.6	3,193.6	3,395.6	1,941	3,054.6	2,917.4	3,191.8	2,289	3,479.6	3,332.7	3,626.4
Oakland	55,183	4,239.7	4,204.1	4,275.3	25,974	3,876.2	3,828.7	3,923.8	29,208	4,575.8	4,522.9	4,628.6
Pleasanton	8,552	4,216.5	4,124.8	4,308.2	3,915	3,755.3	3,635.0	3,875.6	4,637	4,644.5	4,505.8	4,783.1
San Leandro	11,977	4,029.7	3,956.8	4,102.6	5,832	3,770.6	3,671.6	3,869.6	6,145	4,247.4	4,140.8	4,354.0
San Lorenzo	2,804	3,543.6	3,411.7	3,675.5	1,274	3,107.9	2,935.1	3,280.7	1,530	3,941.3	3,743.1	4,139.5
Sunol	126	5,237.6	4,283.4	6,191.8	50	4,264.0	3,164.8	5,621.5	76	6,084.5	4,793.9	7,615.7
Union City	6,304	2,959.8	2,885.9	3,033.8	2,925	2,727.5	2,628.1	2,827.0	3,379	3,169.1	3,059.0	3,279.2
North County	13,749	3,671.6	3,606.9	3,736.3	6,422	3,322.5	3,236.4	3,408.5	7,327	3,991.1	3,894.8	4,087.5
Oakland Area	65,152	4,291.6	4,258.4	4,324.8	30,978	3,944.8	3,900.4	3,989.2	34,173	4,606.4	4,557.2	4,655.6
Central County	44,812	4,124.9	4,086.6	4,163.2	21,126	3,798.6	3,746.9	3,850.3	23,685	4,417.2	4,360.8	4,473.7
South County	28,707	2,996.7	2,961.5	3,031.8	13,260	2,756.6	2,709.4	2,803.9	15,446	3,203.3	3,151.3	3,255.3
Tri-Valley	20,410	3,523.8	3,474.2	3,573.3	9,224	3,184.6	3,118.5	3,250.8	11,186	3,810.0	3,736.8	3,883.3

	AfrAmer				AmerInd				Asian			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	37,149	5,594.4	5,536.8	5,651.9	437	2,648.0	2,343.4	2,952.7	13,450	1,346.3	1,323.4	1,369.2
Alameda	1,046	7,127.9	6,694.0	7,561.9	16	1,453.9	831.0	2,361.1	1,061	1,625.4	1,525.9	1,724.9
Albany	124	9,325.3	7,610.7	11,039.9	5	na	na	na	237	2,020.9	1,756.9	2,285.0
Berkeley	2,760	8,673.7	8,343.0	9,004.3	10	1,080.3	518.0	1,986.7	837	1,335.9	1,221.4	1,450.5
Castro Valley	450	6,781.3	6,149.0	7,413.7	14	2,831.1	1,547.8	4,750.0	571	1,880.5	1,723.4	2,037.6
Dublin	304	5,186.1	4,434.3	5,937.8	10	3,117.7	1,495.1	5,733.6	448	2,680.2	2,403.2	2,957.1
Fremont	664	3,999.9	3,685.7	4,314.0	33	2,795.4	1,924.2	3,925.7	1,941	758.8	721.7	795.9
Hayward	3,999	6,472.8	6,269.2	6,676.5	79	4,186.4	3,314.4	5,217.5	1,559	1,484.9	1,410.0	1,559.8
Livermore	247	6,216.9	5,393.1	7,040.8	9	na	na	na	253	1,392.2	1,217.1	1,567.3
Newark	190	4,370.7	3,647.2	5,094.1	<5	na	na	na	269	865.3	757.7	972.8
Oakland	23,927	6,341.0	6,260.1	6,421.8	127	2,835.2	2,288.6	3,381.7	3,229	1,497.0	1,444.7	1,549.2
Pleasanton	210	7,888.4	6,654.6	9,122.3	16	4,280.0	2,446.4	6,950.4	695	2,179.1	2,005.4	2,352.8
San Leandro	2,401	5,738.1	5,504.2	5,971.9	80	6,483.0	5,140.6	8,068.6	1,236	1,726.3	1,627.8	1,824.7
San Lorenzo	221	4,831.5	4,181.9	5,481.0	10	2,409.1	1,155.2	4,430.4	223	1,416.8	1,225.4	1,608.2
Sunol	<5	na	na	na	<5	na	na	na	5	na	na	na
Union City	604	5,413.6	4,971.0	5,856.2	23	6,105.4	3,870.3	9,161.1	886	921.4	857.3	985.6
North County	2,884	8,672.0	8,348.5	8,995.5	15	3,311.1	1,853.2	5,461.2	1,074	1,533.8	1,424.2	1,643.5
Oakland Area	24,973	6,369.8	6,290.3	6,449.3	143	2,526.3	2,065.4	2,987.2	4,290	1,524.4	1,478.3	1,570.5
Central County	7,071	6,156.8	6,011.1	6,302.5	183	4,349.0	3,696.2	5,001.7	3,589	1,611.2	1,557.6	1,664.9
South County	1,460	4,494.3	4,258.0	4,730.7	61	2,825.9	2,161.6	3,630.0	3,101	806.1	775.5	836.8
Tri-Valley	761	5,257.0	4,831.7	5,682.3	35	1,738.6	1,211.0	2,418.0	1,396	2,065.4	1,951.2	2,179.6

	Latino				PacIsl				White			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	28,219	2,677.5	2,643.4	2,711.6	551	1,658.7	1,492.6	1,824.8	76,315	5,076.6	5,038.7	5,114.6
Alameda	377	1,784.8	1,604.1	1,965.4	121	12,261.3	9,772.3	14,750.4	5,439	5,432.9	5,276.2	5,589.7
Albany	110	2,920.4	2,370.1	3,470.7	6	na	na	na	879	3,718.0	3,456.4	3,979.6
Berkeley	920	2,608.6	2,424.1	2,793.1	10	54,620.0	26,192.4	100,448.1	6,290	3,529.9	3,435.1	3,624.7
Castro Valley	617	2,882.6	2,652.1	3,113.2	20	4,239.4	2,589.6	6,547.5	4,670	4,953.3	4,802.4	5,104.2
Dublin	378	2,178.3	1,916.5	2,440.0	35	8,181.0	5,698.4	11,377.8	2,808	3,934.3	3,779.4	4,089.3
Fremont	1,515	1,735.2	1,645.9	1,824.6	39	1,491.5	1,060.6	2,038.9	12,535	6,759.9	6,637.8	6,882.0
Hayward	7,198	3,306.4	3,225.4	3,387.3	100	1,098.9	876.9	1,320.9	7,565	6,353.1	6,199.3	6,507.0
Livermore	1,133	2,573.6	2,412.4	2,734.9	10	1,479.6	709.5	2,721.0	5,658	3,254.5	3,167.5	3,341.6
Newark	715	1,737.8	1,600.4	1,875.3	13	1,089.2	579.9	1,862.5	2,797	7,231.4	6,956.1	7,506.8
Oakland	10,221	2,958.5	2,895.1	3,021.9	96	1,754.2	1,420.9	2,142.1	12,275	4,293.6	4,209.5	4,377.7
Pleasanton	567	3,044.3	2,783.1	3,305.5	12	3,870.8	2,000.1	6,761.6	6,593	4,694.2	4,576.5	4,811.9
San Leandro	2,605	3,407.2	3,273.6	3,540.8	43	1,679.9	1,215.7	2,262.8	4,462	5,136.6	4,966.8	5,306.3
San Lorenzo	747	3,098.2	2,870.4	3,326.1	10	2,277.0	1,091.9	4,187.5	1,318	4,493.6	4,233.0	4,754.2
Sunol	6	na	na	na	<5	na	na	na	105	5,376.2	4,292.4	6,460.0
Union City	1,110	2,000.8	1,879.1	2,122.5	33	1,936.3	1,332.9	2,719.3	2,921	9,887.8	9,514.9	10,260.7
North County	1,030	2,613.8	2,443.0	2,784.7	16	55,839.9	31,917.3	90,680.5	7,169	3,566.4	3,477.1	3,655.7
Oakland Area	10,598	2,881.0	2,821.3	2,940.7	217	4,159.1	3,488.3	4,829.9	17,714	4,591.0	4,516.7	4,665.3
Central County	11,167	3,275.6	3,212.5	3,338.7	173	1,348.4	1,139.8	1,557.0	18,015	5,472.1	5,385.8	5,558.4
South County	3,346	1,812.2	1,748.7	1,875.7	88	1,542.5	1,237.1	1,900.4	18,358	7,178.1	7,071.0	7,285.1
Tri-Valley	2,078	2,538.9	2,421.7	2,656.2	57	3,922.0	2,970.5	5,081.5	15,059	3,886.2	3,822.6	3,949.9

Source: OSPHD Emergency Department Files, 2006-08.

Table 8.3: Three-Year Unintentional Injury Mortality by City, Region, Gender, and Race/Ethnicity

	All				Female				Male				AfrAmer				AmerInd			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	1,259	26.9	25.4	28.4	426	17.0	15.3	18.6	833	37.8	35.2	40.4	289	42.5	37.5	47.5	6	na	na	na
Alameda	52	20.4	15.2	26.7	20	14.9	9.1	23.1	32	28.7	19.7	40.6	7	na	na	na	0	na	na	na
Albany	12	23.0	11.9	40.2	<5	na	na	na	11	48.3	24.1	86.4	<5	na	na	na	0	na	na	na
Ashland	23	35.9	22.7	53.8	7	na	na	na	16	51.3	29.3	83.3	6	na	na	na	0	na	na	na
Berkeley	84	26.1	20.8	32.3	30	16.6	11.2	23.8	54	38.5	28.9	50.2	21	62.1	38.4	94.9	0	na	na	na
Castro Valley	63	32.8	25.2	42.0	24	22.2	14.2	33.0	39	45.6	32.4	62.4	<5	na	na	na	0	na	na	na
Cherryland	21	49.1	30.4	75.0	6	na	na	na	15	67.9	38.0	112.0	0	na	na	na	0	na	na	na
Dublin	12	13.7	7.1	23.9	<5	na	na	na	10	21.4	10.2	39.3	0	na	na	na	0	na	na	na
Emeryville	7	na	na	na	<5	na	na	na	<5	na	na	na	<5	na	na	na	0	na	na	na
Fairview	13	45.0	24.0	77.0	<5	na	na	na	11	79.0	39.4	141.3	<5	na	na	na	0	na	na	na
Fremont	115	20.0	16.3	23.8	43	14.2	10.3	19.1	72	27.7	21.7	34.9	9	na	na	na	<5	na	na	na
Hayward	125	28.4	23.4	33.5	42	17.7	12.7	23.9	83	39.0	31.1	48.3	13	25.7	13.7	43.9	<5	na	na	na
Livermore	48	21.1	15.6	28.0	16	14.4	8.2	23.4	32	26.4	18.1	37.3	<5	na	na	na	0	na	na	na
Newark	32	27.1	18.5	38.2	6	na	na	na	26	47.5	31.0	69.6	<5	na	na	na	0	na	na	na
Oakland	455	35.5	32.2	38.8	152	22.0	18.4	25.5	303	50.3	44.6	56.0	210	54.3	46.8	61.7	<5	na	na	na
Piedmont	5	na	na	na	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na
Pleasanton	41	23.0	16.5	31.2	17	18.1	10.5	28.9	24	27.0	17.3	40.1	<5	na	na	na	0	na	na	na
San Leandro	65	24.2	18.7	30.8	22	13.6	8.5	20.6	43	35.5	25.7	47.8	5	na	na	na	0	na	na	na
San Lorenzo	12	17.8	9.2	31.1	<5	na	na	na	10	30.1	14.4	55.3	0	na	na	na	0	na	na	na
Sunol	<5	na	na	na	0	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na
Union City	41	21.6	15.5	29.3	16	16.6	9.5	27.0	25	26.3	17.0	38.8	6	na	na	na	0	na	na	na
Remainder of Cty	7	na	na	na	0	na	na	na	7	na	na	na	0	na	na	na	0	na	na	na
North County	96	25.6	20.7	31.2	31	14.6	9.9	20.7	65	39.4	30.4	50.2	22	62.1	38.9	94.1	0	na	na	na
Oakland Area	519	32.5	29.6	35.3	178	20.6	17.5	23.7	341	45.7	40.8	50.6	220	54.2	47.0	61.4	<5	na	na	na
Central County	322	28.9	25.7	32.0	105	16.9	13.6	20.2	217	41.3	35.8	46.9	27	23.1	15.2	33.6	<5	na	na	na
South County	189	21.2	18.1	24.3	65	14.1	10.8	17.9	124	29.8	24.1	35.5	16	49.7	28.4	80.8	<5	na	na	na
Tri-Valley	101	19.6	15.6	23.7	35	13.8	9.6	19.2	66	24.4	18.9	31.0	<5	na	na	na	0	na	na	na

	Asian				Latino				Multirace				PacIsl				White			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	132	13.7	11.3	16.1	217	26.0	22.1	29.8	17	15.4	9.0	24.6	12	36.9	19.1	64.5	583	29.8	27.3	32.4
Alameda	10	16.0	7.7	29.4	6	na	na	na	0	na	na	na	0	na	na	na	29	21.7	14.5	31.2
Albany	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	9	na	na	na
Ashland	<5	na	na	na	5	na	na	na	0	na	na	na	0	na	na	na	9	na	na	na
Berkeley	8	na	na	na	9	na	na	na	<5	na	na	na	0	na	na	na	45	24.4	17.8	32.6
Castro Valley	0	na	na	na	6	na	na	na	<5	na	na	na	<5	na	na	na	52	43.3	32.3	56.8
Cherryland	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	16	105.0	60.0	170.5
Dublin	<5	na	na	na	<5	na	na	na	<5	na	na	na	0	na	na	na	7	na	na	na
Emeryville	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Fairview	0	na	na	na	<5	na	na	na	0	na	na	na	<5	na	na	na	9	na	na	na
Fremont	28	15.0	10.0	21.7	18	24.5	14.5	38.7	<5	na	na	na	<5	na	na	na	56	25.4	19.2	33.0
Hayward	11	11.7	5.9	21.0	42	30.0	21.7	40.6	<5	na	na	na	<5	na	na	na	54	41.2	30.9	53.7
Livermore	<5	na	na	na	<5	na	na	na	0	na	na	na	<5	na	na	na	41	25.1	18.0	34.1
Newark	<5	na	na	na	12	31.9	16.5	55.7	<5	na	na	na	<5	na	na	na	14	28.7	15.7	48.2
Oakland	33	14.6	10.0	20.5	73	25.6	20.1	32.2	6	na	na	na	<5	na	na	na	125	34.9	28.2	41.7
Piedmont	<5	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Pleasanton	5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	32	26.1	17.9	36.9
San Leandro	9	na	na	na	12	24.5	12.7	42.8	<5	na	na	na	0	na	na	na	37	33.3	23.4	45.9
San Lorenzo	<5	na	na	na	<5	na	na	na	<5	na	na	na	0	na	na	na	6	na	na	na
Sunol	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Union City	11	14.5	7.2	25.9	12	26.4	13.6	46.1	0	na	na	na	0	na	na	na	12	29.9	15.4	52.2
Remainder of Cty	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	7	na	na	na
North County	9	na	na	na	10	37.2	17.8	68.4	<5	na	na	na	0	na	na	na	54	24.8	18.7	32.4
Oakland Area	45	14.6	10.6	19.5	80	26.6	21.1	33.0	6	na	na	na	<5	na	na	na	160	29.6	24.7	34.6
Central County	26	12.7	8.3	18.6	74	26.3	20.6	33.0	5	na	na	na	5	na	na	na	183	42.1	35.4	48.8
South County	42	14.9	10.8	20.2	42	26.8	19.3	36.2	<5	na	na	na	<5	na	na	na	83	26.3	20.9	32.6
Tri-Valley	9	na	na	na	7	na	na	na	<5	na	na	na	<5	na	na	na	80	22.3	17.7	27.7

Source: Alameda County Vital Statistics Files,, 2006-08.

Motor Vehicle Crashes

Motor vehicle crash injuries include all injuries to motor vehicle occupants during a collision, as well as injuries in which a pedestrian or cyclist was struck by a vehicle. Motor vehicle crashes are the single largest cause of all injury mortality in the United States.[3] Nationally, in 2007, there were over 42,000 motor vehicle crash deaths, comprising 23% of all injury deaths. The age-adjusted mortality rate was 13.8 per 100,000 and the 4.2% drop in mortality rate from 2006 was statistically significant.[4]

Motor vehicle crashes are the leading cause of death among U.S. teens aged 16 to 19 years. Per mile driven, teen drivers ages 16 to 19 are four times more likely than older drivers to crash.[9] While people aged 15 to 24 years represent only 14% of the U.S. population, they account for 30% ($19 billion) of the total costs of motor vehicle injuries among males and 28% ($7 billion) among females.[9]

There has been a significant decline in deaths attributable to motor vehicle crashes, especially in the 1990s. Prevention of motor vehicle-related injuries has focused on environmental interventions such as highway and vehicle safety, reduction of risky behaviors such as drunken driving, and legislation on vehicle occupant protection such as helmet and seat belt laws. These strategies have substantially reduced the burden of injury morbidity and mortality.[10,11]

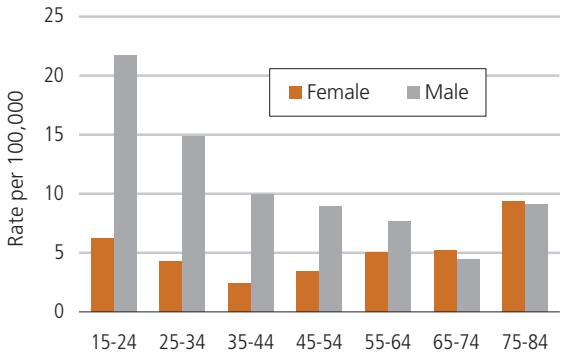
Motor Vehicle Crash Mortality

Table 8.4: Motor Vehicle Crash Mortality Comparison

	HP2010[7]	Alameda County	California[8]	United States[4]
Motor Vehicle Crash Mortality (Rate per 100,000)	≤8.0	6.9	10.3	14.4

Mortality from motor vehicle crashes was higher among males than females in all age groups between 15 and 64 years. Among teens and young adults, male rates were about 3.5 times female rates. The highest rate was found among males 15-24 years. Male rates decreased with increasing age until 75 years.

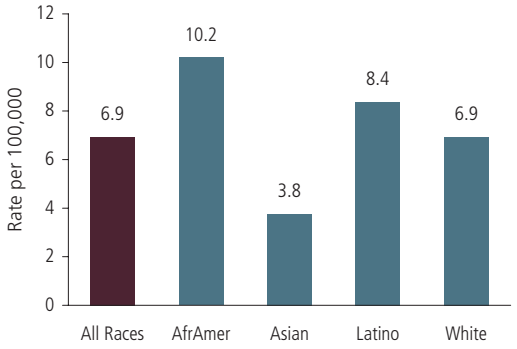
Figure 8.8: Motor Vehicle Crash Mortality by Age Group and Gender



Source: Alameda County Vital Statistics Files, 2006-08.

There were 319 deaths from motor vehicle crashes in Alameda County from 2006 to 2008, yielding an age-adjusted mortality rate of 6.9 per 100,000 population. The mortality rate from motor vehicle crashes for Asians was significantly lower than any other racial/ethnic group. The African American rate was the highest at 2.7 times that of Asians and 1.5 times that of Whites.

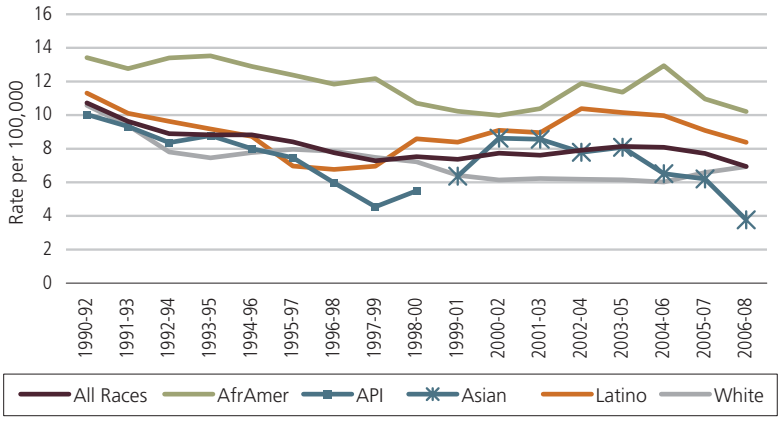
Figure 8.9: Motor Vehicle Crash Mortality by Race/Ethnicity



Source: Alameda County Vital Statistics Files, 2006-08.

For all racial/ethnic groups combined, the motor vehicle crash mortality rate declined significantly by 4.8% per year until 1997-99 and then stabilized. Among African Americans, there was a declining trend of 3% per year during the 1990s, with an inconsistent pattern since then. The rate among Whites decreased steadily by 2.6% per year between 1995-97 and 2004-06. Among Asian/Pacific Islanders, the rate declined 8% per year until 1998-00. The Asian rate declined significantly by 13% per year since 2001-03. Among Latinos the rate also declined about 7.5% per year during the early 1990s, then increased from the late 1990s to the early 2000s, and decreased again by 7.3% per year after 2003-05.

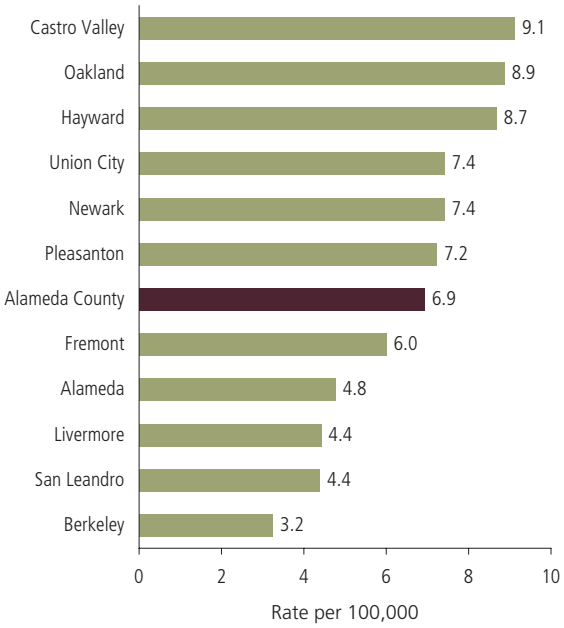
Figure 8.10: Motor Vehicle Crash Mortality Trend



Source: Alameda County Vital Statistics Files, 1990-08.
Note: Rate for Asian/Pacific Islanders (API) until 1998-00; rate for Asians (without Pacific Islanders) from 1999-01.

The motor vehicle crash mortality rate ranged from a low of 3.2 per 100,000 in Berkeley to a high of 9.1 in Castro Valley, reflecting a three-fold difference across cities. Rates in Castro Valley, Oakland, and Hayward were at least 25% higher than the Alameda County rate. The rate in Berkeley was substantially lower than the county rate.

Figure 8.11: Motor Vehicle Crash Mortality by City



Source: Alameda County Vital Statistics Files, 2006-08.

Table 8.5: Three-Year Motor Vehicle Crash Mortality by City, Region, Gender, and Race/Ethnicity

	All				Female				Male				AfrAmer				AmerInd			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	319	6.9	6.2	7.7	95	4.0	3.3	4.9	224	9.9	8.6	11.2	68	10.2	7.9	12.9	<5	na	na	na
Alameda	11	4.8	2.4	8.5	<5	na	na	na	9	na	na	na	<5	na	na	na	0	na	na	na
Albany	<5	na	na	na	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na
Ashland	6	na	na	na	<5	na	na	na	5	na	na	na	<5	na	na	na	0	na	na	na
Berkeley	10	3.2	1.6	6.0	6	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na
Castro Valley	16	9.1	5.2	14.8	6	na	na	na	10	12.4	5.9	22.7	0	na	na	na	0	na	na	na
Cherryland	<5	na	na	na	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na
Dublin	<5	na	na	na	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na
Emeryville	<5	na	na	na	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na
Fairview	<5	na	na	na	0	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na
Fremont	37	6.0	4.2	8.3	10	3.1	1.5	5.8	27	9.1	6.0	13.3	<5	na	na	na	0	na	na	na
Hayward	39	8.7	6.2	11.9	11	4.8	2.4	8.6	28	12.4	8.2	17.9	5	na	na	na	0	na	na	na
Livermore	11	4.4	2.2	7.9	0	na	na	na	11	9.1	4.5	16.3	0	na	na	na	0	na	na	na
Newark	10	7.4	3.6	13.6	<5	na	na	na	8	na	na	na	<5	na	na	na	0	na	na	na
Oakland	111	8.9	7.2	10.5	33	5.2	3.6	7.3	78	12.6	10.0	15.7	49	13.5	10.0	17.9	<5	na	na	na
Piedmont	<5	na	na	na	0	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na
Pleasanton	13	7.2	3.8	12.4	5	na	na	na	8	na	na	na	<5	na	na	na	0	na	na	na
San Leandro	10	4.4	2.1	8.1	<5	na	na	na	6	na	na	na	<5	na	na	na	0	na	na	na
San Lorenzo	<5	na	na	na	0	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na
Sunol	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na
Union City	15	7.4	4.2	12.2	<5	na	na	na	11	10.6	5.3	19.0	<5	na	na	na	0	na	na	na
Remainder of Cty	<5	na	na	na	0	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na
North County	13	3.5	1.9	6.0	7	na	na	na	6	na	na	na	0	na	na	na	0	na	na	na
Oakland Area	125	8.2	6.7	9.6	36	4.7	3.3	6.5	89	11.8	9.5	14.5	52	13.7	10.3	18.0	<5	na	na	na
Central County	80	7.6	6.0	9.5	23	4.2	2.7	6.3	57	11.0	8.3	14.2	9	na	na	na	0	na	na	na
South County	62	6.5	5.0	8.4	16	3.2	1.8	5.2	46	9.8	7.2	13.1	5	na	na	na	0	na	na	na
Tri-Valley	27	4.9	3.2	7.1	6	na	na	na	21	7.3	4.5	11.1	<5	na	na	na	0	na	na	na

	Asian				Latino				Multirace				PacIsl				White			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	37	3.8	2.7	5.2	84	8.4	6.7	10.4	6	na	na	na	6	na	na	na	115	6.9	5.6	8.2
Alameda	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Albany	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Ashland	0	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Berkeley	0	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	8	na	na	na
Castro Valley	0	na	na	na	<5	na	na	na	<5	na	na	na	<5	na	na	na	13	13.2	7.0	22.5
Cherryland	0	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Dublin	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Emeryville	0	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Fairview	0	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Fremont	11	5.2	2.6	9.3	8	na	na	na	0	na	na	na	<5	na	na	na	14	6.6	3.6	11.0
Hayward	<5	na	na	na	18	10.2	6.1	16.2	0	na	na	na	<5	na	na	na	10	9.1	4.4	16.8
Livermore	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	11	6.0	3.0	10.8
Newark	0	na	na	na	5	na	na	na	<5	na	na	na	<5	na	na	na	<5	na	na	na
Oakland	7	na	na	na	30	8.6	5.8	12.3	<5	na	na	na	<5	na	na	na	20	7.5	4.6	11.5
Piedmont	<5	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na
Pleasanton	<5	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	10	8.3	4.0	15.3
San Leandro	<5	na	na	na	<5	na	na	na	<5	na	na	na	0	na	na	na	<5	na	na	na
San Lorenzo	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Sunol	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na
Union City	6	na	na	na	5	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Remainder of Cty	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
North County	0	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	11	5.3	2.7	9.5
Oakland Area	10	3.3	1.6	6.1	33	9.0	6.2	12.6	<5	na	na	na	<5	na	na	na	25	5.9	3.8	8.7
Central County	7	na	na	na	27	8.6	5.7	12.5	<5	na	na	na	<5	na	na	na	32	10.0	6.8	14.1
South County	17	5.0	2.9	8.1	18	10.4	6.2	16.4	<5	na	na	na	<5	na	na	na	19	6.1	3.7	9.5
Tri-Valley	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	22	5.8	3.6	8.7

Source: Alameda County Vital Statistics Files,, 2006-08.

Homicide is any intentionally inflicted fatal injury to another person. This excludes deaths caused by law enforcement officers in the line of duty. Assault is intentionally inflicted injury to another person that may, or may not, involve intent to kill.

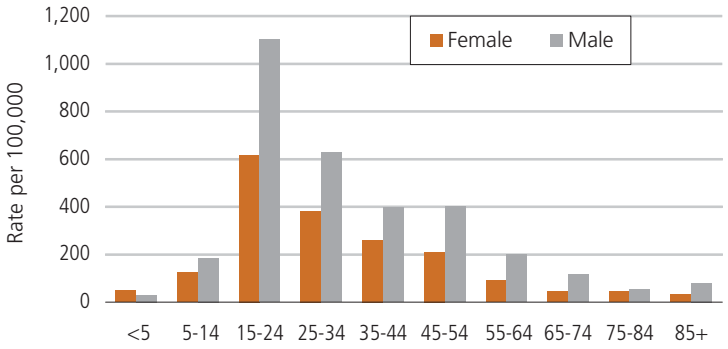
In 2007, there were over 18,000 known homicide victims in the United States. Four out of five victims were males. The male homicide rate is nearly four times that of females. Homicide victimization was especially high among African American males, exceeding that of White males by nearly seven times.[4]

Homicide was the second leading cause of death, after unintentional injury, for those 15-24 years. In 2006 homicide ranked as the sixth leading cause of death among African Americans.[5] Almost three-quarters of homicides involved firearms.[4]

Emergency Department Visits for Assault

Emergency Department visits for assault-related injuries were 1.5 to 2.5 times higher among males in nearly every age group. The exception was children under five years, where the rate for females was 60% higher than males.

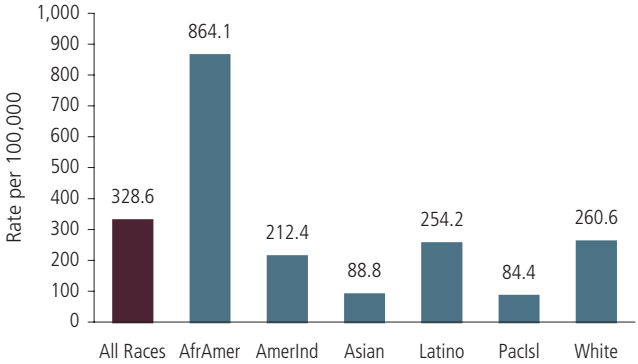
Figure 8.12: Assault Emergency Department Visits by Age Group and Gender



Source: OSPHD Emergency Department Files, 2006-08.

There were 15,089 ED visits for assault-related injuries between 2006 and 2008. The age-adjusted rate was 328.6 per 100,000 population. African Americans were three to ten times more likely to visit the emergency department for an assault-related injury compared to other racial/ethnic groups in Alameda County. The lowest rates were among Asian/Pacific Islanders.

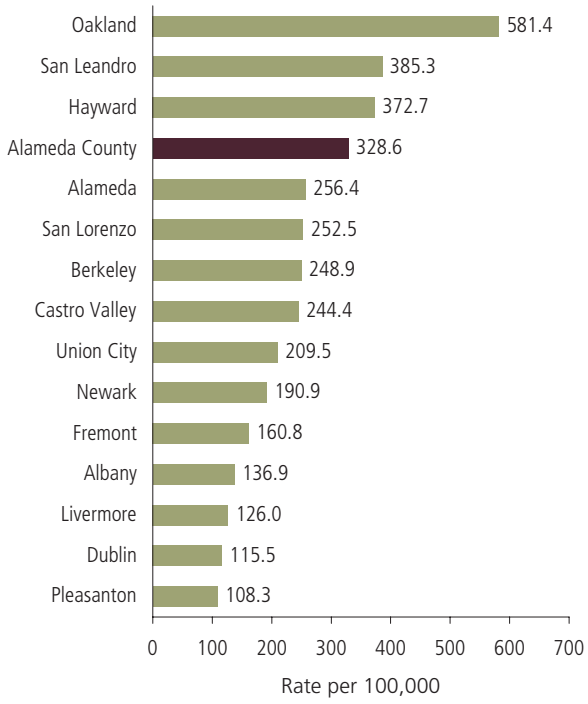
Figure 8.13: Assault Emergency Department Visits by Race/Ethnicity



Source: OSPHD Emergency Department Files, 2006-08.

The rate of ED visits for assault-related injuries ranged from a low of 108.3 per 100,000 in Pleasanton to a high of 581.4 in Oakland, a five-fold difference. Rates in San Leandro and Hayward were also higher than the Alameda County rate of 328.6. In addition to Pleasanton, low rates were also found in Dublin, Livermore, and Albany.

Figure 8.14: Assault Emergency Department Visits by City



Source: OSPHD Emergency Department Files, 2006-08.

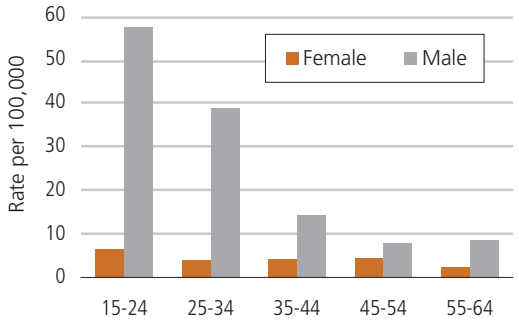
Homicide Mortality

Table 8.6: Homicide Comparison

	HP2010[7]	Alameda County	California[8]	United States[4]
Homicide Mortality (Rate per 100,000)	≤2.8	10.7	6.3	6.1

Homicides were much higher among males than females in all age groups, especially among those 15-24 and 25-34 years, where there was a nine- to ten-fold difference between male and female rates. Homicide rates decreased with increasing age.

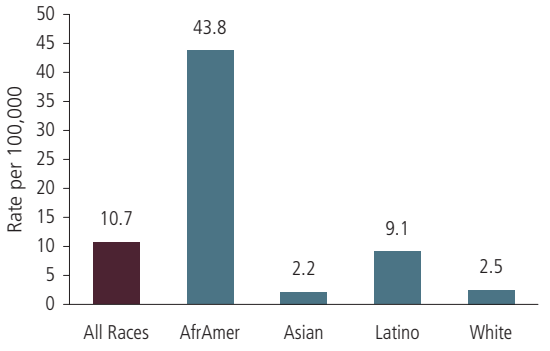
Figure 8.15: Homicide Mortality by Age Group and Gender



Source: Alameda County Vital Statistics Files, 2006-08.

There were 491 homicides in Alameda County from 2006 to 2008. The age-adjusted rate was 10.7 per 100,000 population. The African American homicide rate of 43.8 per 100,000 was significantly higher than any other racial/ethnic group—more than 17 times the rates of Asians and Whites, and about five times the rate of Latinos.

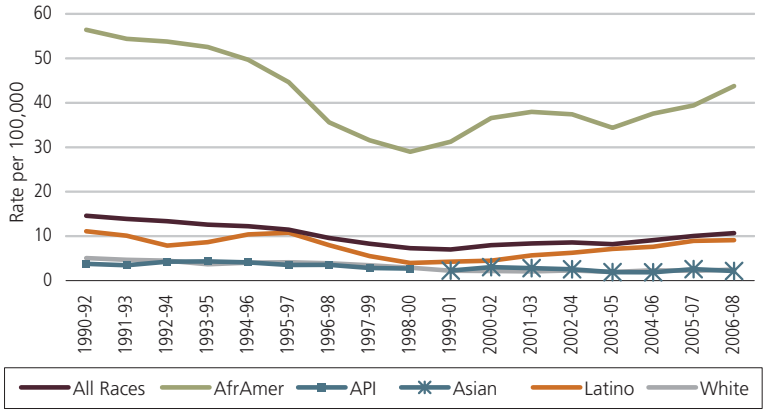
Figure 8.16: Homicide Mortality by Race/Ethnicity



Source: Alameda County Vital Statistics Files, 2006-08.

For all racial/ethnic groups combined, the homicide rate declined significantly by 8.0% per year during the 1990s and then increased significantly 4.8% per year after 1999-01. Among African Americans the rate also declined 7.8% per year during the 1990s and then increased significantly by 3.3% per year after 1998-00. Among Latinos the homicide rate increased significantly by 11.6% per year after 1998-00. Asians and Whites, the rate declined about 4% to 7% per year prior to 2003-05. The gap between African Americans and other racial/ethnic groups has increased in recent years.

Figure 8.17: Homicide Mortality Trend



Source: Alameda County Vital Statistics Files, 1990-08.
Note: Rate for Asian/Pacific Islanders (API) until 1998-00; rate for Asians (without Pacific Islanders) from 1999-01.

Homicide rates ranged from a low of 3.1 per 100,000 in Fremont to a high of 25.5 in Oakland. The Oakland rate was 2.4 times higher than the Alameda County rate of 10.7 per 100,000. Rates in Fremont and Alameda were substantially lower than the Alameda County rate.

Figure 8.18: Homicide Mortality by City

Source: Alameda County Vital Statistics Files, 2006-08.

Table 8.7: Three-Year Emergency Department Visits for Assault by City, Region, Gender, and Race/Ethnicity

	All				Female				Male			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	15,089	328.6	323.4	333.9	5,567	243.0	236.5	249.4	9,520	414.3	405.9	422.6
Alameda	534	256.4	234.3	278.4	217	206.1	178.1	234.1	317	305.4	271.4	339.4
Albany	61	136.9	104.7	175.8	18	73.4	43.5	116.1	43	199.0	144.0	268.0
Berkeley	926	248.9	232.2	265.5	310	170.2	150.6	189.9	616	327.2	300.4	354.0
Castro Valley	374	244.4	219.3	269.5	134	171.3	141.8	200.8	240	318.2	277.5	358.9
Dublin	160	115.5	97.3	133.7	55	85.6	64.5	111.5	105	141.1	113.7	168.5
Fremont	986	160.8	150.7	170.9	298	98.6	87.3	109.9	687	219.3	202.8	235.8
Hayward	2,017	372.7	356.4	389.0	759	286.9	266.5	307.4	1,258	455.4	430.2	480.7
Livermore	312	126.0	111.9	140.2	91	73.8	59.4	90.6	221	176.9	153.3	200.5
Newark	254	190.9	167.4	214.4	80	124.6	98.8	155.1	174	253.3	215.6	290.9
Oakland	7,529	581.4	568.2	594.6	2,905	446.0	429.7	462.4	4,624	722.9	702.0	743.9
Pleasanton	209	108.3	93.3	123.2	61	62.3	47.7	80.1	148	153.3	128.1	178.4
San Leandro	1,068	385.3	362.1	408.6	412	300.4	271.0	329.7	655	466.6	430.7	502.5
San Lorenzo	194	252.5	216.9	288.2	76	201.0	158.4	251.6	118	302.6	247.8	357.3
Sunol	7	na	na	na	<5	na	na	na	<5	na	na	na
Union City	458	209.5	190.3	228.8	148	137.8	115.5	160.0	310	278.9	247.7	310.0
North County	987	233.4	218.4	248.4	328	157.4	139.8	175.0	659	309.5	285.2	333.9
Oakland Area	8,063	535.0	523.2	546.7	3,122	412.6	398.0	427.2	4,941	662.2	643.6	680.7
Central County	3,653	347.8	336.5	359.1	1,381	266.4	252.3	280.5	2,271	426.5	408.9	444.1
South County	1,705	176.1	167.7	184.5	529	111.1	101.6	120.7	1,175	237.5	223.8	251.1
Tri-Valley	681	117.3	108.4	126.2	207	72.8	62.8	82.8	474	159.4	144.9	173.8

	AfrAmer				AmerInd				Asian			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	6,019	864.1	842.1	886.0	46	212.4	155.5	283.3	898	88.8	83.0	94.7
Alameda	101	690.0	555.2	824.9	<5	na	na	na	51	75.3	56.1	99.0
Albany	17	1,365.0	795.2	2,185.5	0	na	na	na	<5	na	na	na
Berkeley	421	1,379.8	1,246.6	1,513.0	0	na	na	na	50	69.6	51.7	91.8
Castro Valley	40	624.8	446.4	850.8	<5	na	na	na	28	87.2	58.0	126.1
Dublin	29	293.7	196.7	421.8	<5	na	na	na	10	52.0	24.9	95.7
Fremont	74	470.4	369.4	590.6	<5	na	na	na	79	28.2	22.3	35.1
Hayward	488	789.3	718.8	859.8	5	na	na	na	106	95.9	77.5	114.3
Livermore	21	496.1	307.1	758.4	0	na	na	na	<5	na	na	na
Newark	26	606.5	396.2	888.6	<5	na	na	na	10	31.1	14.9	57.3
Oakland	4,347	1,188.4	1,152.9	1,224.0	21	419.4	259.6	641.1	387	176.0	158.3	193.6
Pleasanton	12	449.0	232.0	784.3	0	na	na	na	8	na	na	na
San Leandro	327	776.3	691.6	861.0	12	892.3	461.1	1,558.6	98	135.7	110.2	165.4
San Lorenzo	33	709.2	488.2	996.0	0	na	na	na	10	60.8	29.2	111.9
Sunol	0	na	na	na	0	na	na	na	<5	na	na	na
Union City	83	731.5	582.6	906.8	<5	na	na	na	56	53.5	40.4	69.5
North County	438	1,375.0	1,244.9	1,505.2	0	na	na	na	53	57.2	42.8	74.8
Oakland Area	4,448	1,168.9	1,134.4	1,203.5	23	362.8	230.0	544.4	438	152.2	137.9	166.6
Central County	888	772.0	721.0	823.1	18	404.0	239.5	638.5	242	104.7	91.4	118.1
South County	183	581.3	496.7	666.0	<5	na	na	na	146	34.8	29.1	40.6
Tri-Valley	62	324.0	248.4	415.3	<5	na	na	na	19	26.7	16.1	41.7

	Latino				PacIsl				White			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	2,834	254.2	244.5	263.8	37	84.4	59.4	116.3	3,882	260.6	252.1	269.0
Alameda	37	176.5	124.2	243.2	8	na	na	na	222	253.2	217.8	288.6
Albany	10	282.6	135.5	519.6	0	na	na	na	24	106.1	68.0	157.8
Berkeley	66	169.1	130.8	215.2	<5	na	na	na	294	143.3	126.4	160.3
Castro Valley	43	196.6	142.3	264.8	<5	na	na	na	229	271.8	235.7	307.9
Dublin	25	111.4	72.1	164.5	<5	na	na	na	84	108.0	86.1	133.7
Fremont	118	126.7	103.7	149.7	<5	na	na	na	635	352.6	324.6	380.7
Hayward	615	274.6	252.5	296.7	9	na	na	na	553	522.5	477.2	567.7
Livermore	74	154.3	121.2	193.7	<5	na	na	na	204	122.2	105.1	139.2
Newark	51	108.3	80.6	142.4	0	na	na	na	152	384.2	321.7	446.8
Oakland	1,382	395.3	373.1	417.4	9	na	na	na	794	280.5	259.0	302.1
Pleasanton	26	120.2	78.5	176.1	0	na	na	na	148	114.2	95.1	133.2
San Leandro	242	319.4	278.7	360.1	<5	na	na	na	282	409.4	358.9	459.8
San Lorenzo	40	165.0	117.9	224.7	0	na	na	na	95	361.4	292.4	441.8
Sunol	0	na	na	na	<5	na	na	na	5	na	na	na
Union City	105	181.4	146.3	216.6	0	na	na	na	161	566.9	477.4	656.5
North County	76	179.6	141.5	224.8	<5	na	na	na	318	138.3	122.6	154.0
Oakland Area	1,419	381.3	360.4	402.2	17	243.0	141.6	389.1	1,016	275.3	256.8	293.7
Central County	940	271.6	254.0	289.2	13	91.6	48.8	156.7	1,159	405.0	380.9	429.2
South County	274	138.8	122.1	155.4	<5	na	na	na	953	381.3	356.5	406.0
Tri-Valley	125	134.7	111.0	158.5	<5	na	na	na	436	116.6	105.5	127.8

Source: OSPHD Emergency Department Files, 2006-08.

Table 8.8: Three-Year Homicide Mortality by City, Region, Gender, and Race/Ethnicity

	All				Female				Male				AfrAmer				AmerInd			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	491	10.7	9.7	11.6	73	3.1	2.4	3.9	418	18.2	16.4	19.9	303	43.8	38.8	48.7	<5	na	na	na
Alameda	10	4.7	2.2	8.6	<5	na	na	na	8	na	na	na	5	na	na	na	0	na	na	na
Albany	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na
Ashland	9	na	na	na	0	na	na	na	9	na	na	na	<5	na	na	na	<5	na	na	na
Berkeley	30	9.3	6.2	13.2	9	na	na	na	21	12.0	7.4	18.3	21	74.6	46.1	114.0	0	na	na	na
Castro Valley	5	na	na	na	0	na	na	na	5	na	na	na	<5	na	na	na	0	na	na	na
Cherryland	6	na	na	na	<5	na	na	na	5	na	na	na	<5	na	na	na	<5	na	na	na
Dublin	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na
Emeryville	<5	na	na	na	0	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na
Fairview	<5	na	na	na	0	na	na	na	<5	na	na	na	<5	na	na	na	0	na	na	na
Fremont	19	3.1	1.9	4.8	<5	na	na	na	15	4.9	2.7	8.1	7	na	na	na	0	na	na	na
Hayward	31	6.9	4.7	9.8	6	na	na	na	25	11.0	7.2	16.3	13	26.5	14.1	45.3	0	na	na	na
Livermore	<5	na	na	na	0	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na
Newark	6	na	na	na	0	na	na	na	6	na	na	na	<5	na	na	na	0	na	na	na
Oakland	313	25.5	22.6	28.3	37	5.8	4.1	8.0	276	45.2	39.8	50.6	215	61.0	52.8	69.2	<5	na	na	na
Piedmont	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na
Pleasanton	<5	na	na	na	0	na	na	na	<5	na	na	na	<5	na	na	na	0	na	na	na
San Leandro	29	13.2	8.9	19.0	7	na	na	na	22	20.1	12.6	30.5	16				0	na	na	na
San Lorenzo	<5	na	na	na	0	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na
Sunol	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na
Union City	15	6.8	3.8	11.2	<5	na	na	na	12	10.7	5.5	18.7	5	na	na	na	0	na	na	na
Remainder of Cty	5	na	na	na	<5	na	na	na	<5	na	na	na	<5	na	na	na	0	na	na	na
North County	31	8.2	5.6	11.6	10	5.8	2.8	10.6	21	10.5	6.5	16.0	21	71.0	44.0	108.6	0	na	na	na
Oakland Area	324	21.7	19.3	24.1	39	5.0	3.6	6.9	285	38.4	33.9	42.9	220	59.2	51.3	67.1	<5	na	na	na
Central County	85	8.2	6.6	10.2	14	2.7	1.5	4.5	71	13.6	10.6	17.1	41	35.7	25.7	48.5	<5	na	na	na
South County	40	4.1	2.9	5.6	7	na	na	na	33	6.7	4.6	9.4	15	48.8	27.3	80.5	0	na	na	na
Tri-Valley	<5	na	na	na	0	na	na	na	<5	na	na	na	<5	na	na	na	0	na	na	na

	Asian				Latino				Multirace				PacIsl				White			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	22	2.2	1.4	3.3	107	9.1	7.3	10.9	9	na	na	na	6	na	na	na	40	2.5	1.8	3.4
Alameda	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Albany	0	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Ashland	0	na	na	na	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na
Berkeley	<5	na	na	na	<5	na	na	na	<5	na	na	na	0	na	na	na	<5	na	na	na
Castro Valley	0	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na
Cherryland	0	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na
Dublin	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na
Emeryville	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Fairview	0	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na
Fremont	5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	5	na	na	na
Hayward	<5	na	na	na	10	5.4	2.6	9.9	<5	na	na	na	<5	na	na	na	<5	na	na	na
Livermore	0	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Newark	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Oakland	10	4.8	2.3	8.8	68	16.7	13.0	21.2	<5	na	na	na	<5	na	na	na	14	6.4	3.5	10.8
Piedmont	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na
Pleasanton	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na
San Leandro	<5	na	na	na	6	na	na	na	0	na	na	na	<5	na	na	na	<5	na	na	na
San Lorenzo	0	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na
Sunol	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na
Union City	0	na	na	na	6	na	na	na	<5	na	na	na	0	na	na	na	<5	na	na	na
Remainder of Cty	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
North County	<5	na	na	na	<5	na	na	na	<5	na	na	na	0	na	na	na	<5	na	na	na
Oakland Area	11	3.7	1.9	6.6	69	16.0	12.4	20.2	<5	na	na	na	<5	na	na	na	18	5.2	3.1	8.2
Central County	<5	na	na	na	25	7.3	4.7	10.8	<5	na	na	na	<5	na	na	na	7	na	na	na
South County	6	na	na	na	9	na	na	na	<5	na	na	na	0	na	na	na	8	na	na	na
Tri-Valley	0	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na

Source: Alameda County Vital Statistics Files, 2006-08.

Suicide

Suicide is any purposely self-inflicted injury that is fatal. Fatal injury events that involve reckless behavior, such as driving at high speeds or drinking and driving, are not classified as suicides. Non-fatal self-inflicted injury of the type seen in emergency departments is often, but not always, the result of a suicide attempt.

In 2007, there were 34,598 suicides in the United States. Half of these suicide victims used firearms. Among those 31,224 persons died from firearm injuries, firearm suicide accounted for 56% of all firearm injury deaths.[4]

Nationally, the male suicide rate was nearly four times that of females. Whites had the highest suicide rates; especially, male rate was more than two times the rates of other male racial/ethnic groups except American Indians/Alaska Natives who had the second highest.[4]

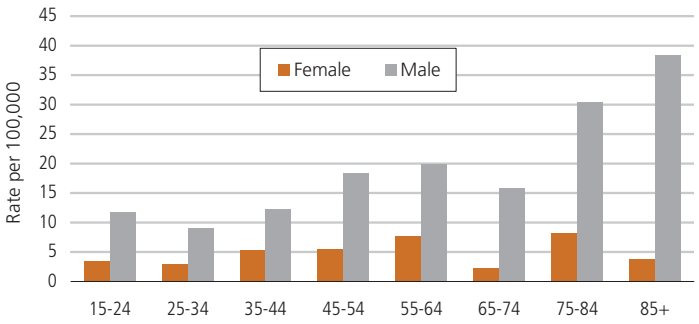
Suicide was the second leading cause of death in the 25-34 age group and the third leading cause of death in the 15-24 age group. Among males 25-34 years , American Indians have the highest suicide rate, followed by Whites. Among females in this age group, Whites have the highest suicide rates followed by Asian/Pacific Islanders.[5]

Table 8.9: Suicide Comparison

	HP2010[7]	Alameda County	California[8]	United States[4]
Suicide Mortality (Rate per 100,000)	≤4.8	7.7	9.4	11.3

Suicides rates were higher among males than females in every age group. Among teens, youth and middle-aged adults, the male rates were more than three times of female rates. The greater gender differences were seen with increasing ages. The highest suicide rate was noted among the male elderly people above age 85.

Figure 8.19: Suicide Mortality by Age Group and Gender

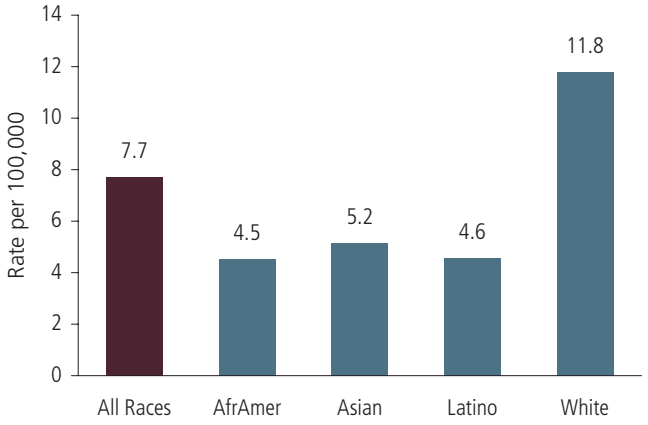


Source: Alameda County Vital Statistics Files, 2006-08

There were 362 suicides in Alameda County from 2006 through 2008. The age-adjusted suicide rate was 7.7 per 100,000 population.

The suicide rate for Whites was significantly higher than any other racial/ethnic group. White rate was more than two times the rate of Asians, and more than 2.5 times the rates of African Americans and Latinos.

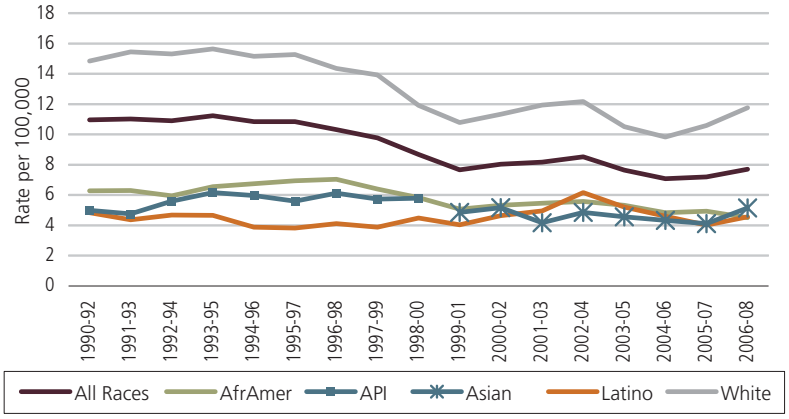
Figure 8.20: Suicide Mortality by Race/Ethnicity



Source: Alameda County Vital Statistics Files, 2006-08.

Suicide rates for all racial/ethnic groups combined declined significantly by 3.1% per year during 1990s. Since 1999-01 the rate has been stable. The trend among Whites was similar, declining by 2.8% per year during the same time. Among African Americans the rate declined from 1996-98 to 1999-01. The rates among Latinos, Asian/Pacific Islanders (and Asians after 1998-00) were variable over the period and showed no clear trend.

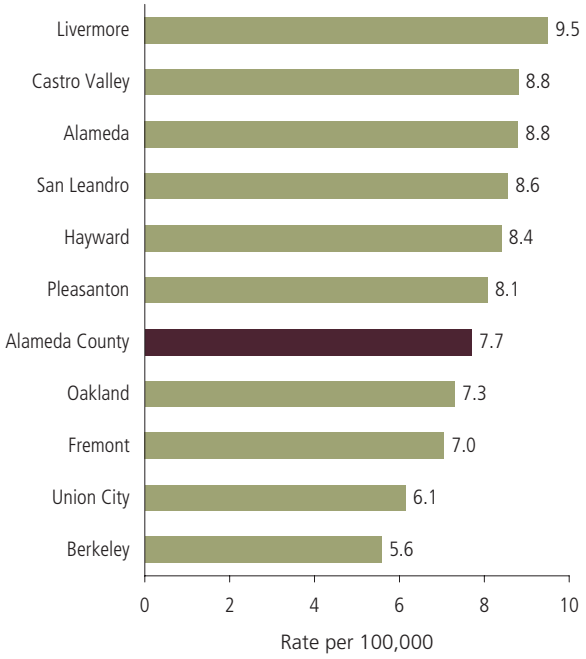
Figure 8.21: Suicide Mortality Trend



Source: Alameda County Vital Statistics Files, 1990-08.
Note: Rate for Asian/Pacific Islanders (API) until 1998-00; rate for Asians (without Pacific Islanders) from 1999-01.

The age-adjusted suicide rate ranged from a low of 5.6 per 100,000 in Berkeley to a high of 9.5 in Livermore. While the rate in Livermore was 23% higher than the Alameda County rate, the rates in Berkeley and Union City were at least 20% lower than the county rate.

Figure 8.22: Suicide Mortality by City



Source: Alameda County Vital Statistics Files, 2006-08.

Table 8.10: Three-Year Suicide Mortality by City, Region, Gender, and Race/Ethnicity

	All				Female				Male				AfrAmer				AmerInd			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	362	7.7	6.9	8.5	93	3.8	3.1	4.6	269	12.1	10.6	13.6	31	4.5	3.1	6.4	<5	na	na	na
Alameda	21	8.8	5.4	13.4	7	na	na	na	14	12.0	6.6	20.2	0	na	na	na	0	na	na	na
Albany	<5	na	na	na	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na
Ashland	8	na	na	na	<5	na	na	na	5	na	na	na	<5	na	na	na	0	na	na	na
Berkeley	19	5.6	3.4	8.7	5	na	na	na	14	8.8	4.8	14.7	<5	na	na	na	<5	na	na	na
Castro Valley	18	8.8	5.2	13.9	<5	na	na	na	14	14.1	7.7	23.7	0	na	na	na	0	na	na	na
Cherryland	<5	na	na	na	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na
Dublin	9	na	na	na	<5	na	na	na	7	na	na	na	0	na	na	na	0	na	na	na
Emeryville	5	na	na	na	<5	na	na	na	<5	na	na	na	<5	na	na	na	0	na	na	na
Fairview	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na
Fremont	44	7.0	5.1	9.5	8	na	na	na	36	11.9	8.3	16.4	<5	na	na	na	0	na	na	na
Hayward	36	8.4	5.9	11.6	8	na	na	na	28	13.8	9.2	19.9	<5	na	na	na	0	na	na	na
Livermore	23	9.5	6.0	14.2	6	na	na	na	17	15.5	9.0	24.8	0	na	na	na	0	na	na	na
Newark	7	na	na	na	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na
Oakland	93	7.3	5.9	8.9	27	4.0	2.6	5.8	66	11.0	8.5	14.0	16	4.6	2.6	7.5	0	na	na	na
Piedmont	5	na	na	na	0	na	na	na	5	na	na	na	0	na	na	na	0	na	na	na
Pleasanton	16	8.1	4.6	13.1	<5	na	na	na	13	14.5	7.7	24.8	<5	na	na	na	0	na	na	na
San Leandro	24	8.6	5.5	12.7	5	na	na	na	19	14.6	8.8	22.7	<5	na	na	na	0	na	na	na
San Lorenzo	<5	na	na	na	0	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na
Sunol	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na
Union City	13	6.1	3.3	10.5	5	na	na	na	8	na	na	na	<5	na	na	na	0	na	na	na
Remainder of Cty	<5	na	na	na	0	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na
North County	22	5.5	3.5	8.4	6	na	na	na	16	8.9	5.1	14.5	<5	na	na	na	<5	na	na	na
Oakland Area	124	7.9	6.5	9.3	37	4.4	3.1	6.1	87	11.8	9.5	14.6	17	4.6	2.7	7.4	0	na	na	na
Central County	94	8.4	6.7	10.2	22	3.7	2.3	5.7	72	13.5	10.6	17.0	6	na	na	na	0	na	na	na
South County	64	6.6	5.0	8.4	16	3.2	1.8	5.2	48	10.3	7.6	13.7	<5	na	na	na	0	na	na	na
Tri-Valley	48	8.8	6.5	11.7	11	4.0	2.0	7.1	37	15.0	10.5	20.6	<5	na	na	na	0	na	na	na

	Asian				Latino				Multirace				PacIsl				White			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	53	5.2	3.9	6.7	34	4.6	3.2	6.4	9	na	na	na	6	na	na	na	228	11.8	10.2	13.4
Alameda	5	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na	15	12.3	6.9	20.3
Albany	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Ashland	0	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	5	na	na	na
Berkeley	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	13	6.4	3.4	10.9
Castro Valley	<5	na	na	na	<5	na	na	na	<5	na	na	na	0	na	na	na	12	10.2	5.3	17.9
Cherryland	0	na	na	na	<5	na	na	na	0	na	na	na	<5	na	na	na	<5	na	na	na
Dublin	<5	na	na	na	0	na	na	na	<5	na	na	na	0	na	na	na	7	na	na	na
Emeryville	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Fairview	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Fremont	13	5.4	2.9	9.2	0	na	na	na	<5	na	na	na	<5	na	na	na	26	12.0	7.9	17.6
Hayward	8	na	na	na	10	7.1	3.4	13.1	<5	na	na	na	<5	na	na	na	14	11.0	6.0	18.4
Livermore	0	na	na	na	5	na	na	na	0	na	na	na	0	na	na	na	18	9.4	5.6	14.8
Newark	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	5	na	na	na
Oakland	14	6.2	3.4	10.5	7	na	na	na	<5	na	na	na	0	na	na	na	54	16.3	12.3	21.3
Piedmont	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	5	na	na	na
Pleasanton	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	12	7.9	4.1	13.9
San Leandro	<5	na	na	na	<5	na	na	na	0	na	na	na	<5	na	na	na	17	15.7	9.1	25.1
San Lorenzo	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Sunol	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na
Union City	<5	na	na	na	<5	na	na	na	<5	na	na	na	<5	na	na	na	<5	na	na	na
Remainder of Cty	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
North County	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na	16	6.7	3.8	10.8
Oakland Area	19	6.1	3.7	9.6	7	na	na	na	<5	na	na	na	<5	na	na	na	78	15.8	12.5	19.7
Central County	13	5.9	3.1	10.0	16	6.0	3.4	9.8	<5	na	na	na	<5	na	na	na	54	12.0	9.0	15.7
South County	18	4.7	2.8	7.4	<5	na	na	na	<5	na	na	na	<5	na	na	na	34	11.2	7.8	15.7
Tri-Valley	<5	na	na	na	7	na	na	na	<5	na	na	na	0	na	na	na	37	9.0	6.4	12.4

Source: Alameda County Vital Statistics Files, 2006-08.

Injury Deaths by Mechanism and Intent

More than half of injury deaths from 2006 to 2008 were unintentional (1,259 or 58.4%). An additional 22.8% of injury deaths were from homicides, 16.8% from suicides, and 1.9% from other or unknown causes.

The leading mechanism of unintentional injury death was poisoning (36.9%), followed by motor vehicle crashes (25.3%), falls (17.6%), and drowning (4.1%). Motor vehicle crashes, the primary cause of death from transport-related injuries, accounted for one-fourth of unintentional injury deaths.

The majority of homicides (83.5%) involved guns. A smaller number of homicides involved stabbing, striking, or suffocation (7.1%, 1.2%, and 1.0% respectively). Guns were used in 33.1% of suicides. Most others involved suffocation (28.7%), and poisoning (21.2%).

In 2006-08, the five leading mechanisms of injury death accounted for 83.9% of all injury deaths in Alameda County: poisoning, firearm, motor vehicle crashes, falls, and suffocation.

Table 8.11: Injury Deaths by Mechanism and Intent

	Unintentional Injuries		Homicide		Suicide		All Other		Total	
Mechanism	#	%	#	%	#	%	#	%	#	%
Total	1,259	100.0	491	100.0	363	100.0	42	100.0	2,155	100.0
Poisoning	464	36.9	<5	na	77	21.2	9	21.4	552	25.6
Fall	222	17.6	0	0.0	21	5.8	0	0.0	243	11.3
Firearm	7	0.6	410	83.5	120	33.1	7	16.7	544	25.2
Cut/pierce	<5	na	35	7.1	17	4.7	0	0.0	53	2.5
Drowning	51	4.1	<5	na	5	1.4	<5	na	61	2.8
Fire/Hot Object or Substance	32	2.5	<5	na	<5	na	0	0.0	35	1.6
Suffocation	41	3.3	5	1.0	104	28.7	0	0.0	150	7.0
Machinery	5	0.4	0	0.0	0	0.0	0	0.0	5	0.2
Natural/Environmental	9	0.7	0	0.0	0	0.0	0	0.0	9	0.4
Overexertion	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Struck By or Against	<5	na	6	1.2	0	0.0	0	0.0	9	0.4
Other/Unspecified	66	5.2	30	6.1	16	4.4	22	52.4	134	6.2
All Transport	358	28.4	0	0.0	<5	na	0	0.0	360	16.7
Motor Vehicle Crashes	319	25.3	0	0.0	0	0.0	0	0.0	319	14.8
All Other Transport Related	39	3.1	0	0.0	<5	na	0	0.0	41	1.9

Source: Alameda County Vital Statistics Files, 2006-08.

Deaths due to unintentional injuries ranged from a low of 45% in Piedmont to a high of 76% in Fairview of all injury deaths across Alameda County cities. Homicides ranged from zero percent of all injury deaths in Piedmont to 35.6% in Oakland. Suicides ranged from 5.9% of injury deaths in Fairview to 45.5% in Piedmont.

Table 8.12: Injury Deaths by Intent by City and Region

	Unintentional Injuries		Suicide		Homicide		Other		Total	
	#	%	#	%	#	%	#	%	#	%
Alameda County	1,259	58.4	363	16.8	491	22.8	42	1.9	2,155	100.0
Alameda	52	59.8	21	24.1	10	11.5	<5	na	87	100.0
Albany	12	75.0	<5	na	<5	na	0	na	16	100.0
Ashland	23	57.5	8	20.0	9	22.5	0	na	40	100.0
Berkeley	84	61.8	20	14.7	30	22.1	<5	na	136	100.0
Castro Valley	63	72.4	18	20.7	5	5.7	<5	na	87	100.0
Cherryland	21	67.7	<5	na	6	19.4	0	na	31	100.0
Dublin	12	52.2	9	39.1	0	na	<5	na	23	100.0
Emeryville	7	53.8	5	38.5	<5	na	0	na	13	100.0
Fairview	13	76.5	<5	na	<5	na	0	na	17	100.0
Fremont	115	63.2	44	24.2	19	10.4	<5	na	182	100.0
Hayward	125	64.8	36	18.7	31	16.1	<5	na	193	100.0
Livermore	48	64.9	23	31.1	<5	na	<5	na	74	100.0
Newark	32	69.6	7	15.2	6	13.0	<5	na	46	100.0
Oakland	455	51.7	93	10.6	313	35.6	19	2.2	880	100.0
Piedmont	5	45.5	5	45.5	0	na	<5	na	11	100.0
Pleasanton	41	70.7	16	27.6	<5	na	0	na	58	100.0
San Leandro	65	53.7	24	19.8	29	24.0	<5	na	121	100.0
San Lorenzo	12	66.7	<5	na	<5	na	<5	na	18	100.0
Union City	41	58.6	13	18.6	15	21.4	<5	na	70	100.0
North County	96	63.2	23	15.1	31	20.4	<5	na	152	100.0
Oakland Area	519	52.4	124	12.5	324	32.7	24	2.4	991	100.0
Central County	322	63.5	94	18.5	85	16.8	6	1.2	507	100.0
South County	189	63.2	64	21.4	40	13.4	6	2.0	299	100.0
Tri-Valley	101	65.2	48	31.0	<5	na	<5	na	155	100.0

Source: Alameda County Vital Statistics Files, 2006-08.

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Maternal, Child, and Adolescent Health

The health of mothers, infants, and children is important, both as an indicator of population health and as a predictor of the next generation's health. Traditional maternal and child health indicators include those that affect pregnant and postpartum women, as well as the health and survival of their infants and children. Increasingly, there is recognition that the general health status of women even before pregnancy has an impact on birth outcomes. This implies that in order to influence areas where there has been little or no improvement, such as low birth weight rates, overall women's health need to be addressed as well as areas that may fall outside of the traditional domain of health. This chapter covers a variety of maternal, child, and adolescent indicators: birth characteristics, infant mortality, low birth weight, prenatal care, births to teenagers, and immunizations.

Alameda County is doing well in three of the five indicators in this chapter. The infant mortality rate has achieved the HP2010 goal and is lower than both California and the United States. The teen birth rate is lower and prenatal care is higher in Alameda County than in California and in the United States overall. The two indicators that need improvement are the percentage of low birth weight babies and the immunization rate in Alameda County.

Characteristics of Live Births

The average number of births in Alameda County was 21,080 births per year from 2006 to 2008. The birth rate has decreased from 18.3 per 1,000 people in 1990 to 13.4 in 2008. Latinos had the highest birth rate (19.8 per 1,000 people) followed closely by Pacific Islanders (17.7). Because the Pacific Islander population is much smaller than the Latino population, the actual number of births per year among Pacific Islanders is very small (231) compared to Latinos (6,774).

From 2006 to 2008, 32.1% of all births were to Latinas, 25.8% to Asians, 24.7% to Whites, and 11.8% to African Americans. A majority of births (70.8%) were to mothers 20 to 34 years. Under 7% were to mothers 19 years and younger while 22.8% were to those 35 years and older. Nearly 32% of births were funded by Medi-Cal.

Table 9.1: Select Characteristics of Live Births

		Average Number of Births	Percentage	Crude Birth Rate
Birth Rate by Year	1990	23,315	na	18.3
	1995	20,441	na	15.3
	2000	22,148	na	15.2
	2005	20,856	na	13.9
	2006	21,030	na	13.9
	2007	21,414	na	14.0
	2008	20,797	na	13.4
Race/Ethnicity of Mother	All Races	21,080	100.0%	13.8
	African American	2,479	11.8%	11.1
	American Indian	53	0.2%	8.0
	Asian	5,431	25.8%	15.9
	Latina	6,774	32.1%	19.8
	Multirace	479	2.3%	8.5
	Pacific Islander	231	1.1%	17.7
	White	5,200	24.7%	9.5
	Other/Unknown/Withheld	434	2.1%	na
Age of Mother (Years)	<15	14	0.1%	na
	15-19	1,337	6.3%	na
	20-34	14,931	70.8%	na
	35+	4,798	22.8%	na
Medi-Cal Delivery		6,663	31.6%	na

Source: Alameda County Vital Statistics Files. Except for Birth Rate by Year, data are for 2006-08.
Notes: Crude rates are births per 1,000 population.

Infant Mortality

Infant mortality is defined as the death of a child less than one year of age. The infant mortality rate is the number of deaths of children less than one year old per 1,000 live births. Infant mortality is an important indicator of the health status of a community: it signifies the general health status of new mothers and their ability to access prenatal care.

One of the great public health successes has been the dramatic decrease (97% since 1915) in infant mortality rates.[1] In no other area has mortality decreased by this much in the last hundred years. However, the persistent challenge in infant mortality remains the inequities by race/ethnicity. African American infants continue to be more than two times as likely to die before their first birthday than White infants.[2]

The reasons for these differences in birth outcomes are complicated. Some of the differences have been explained by differences in income, the effects of racism, and stress levels. Other research has suggested that answers will be found in the study of women's health and risk factors throughout her life span and not just during pregnancy. The body of research suggests that a series of events affect African American and White women differently throughout their lives that affect not only their overall health but their reproductive health as well.[3]

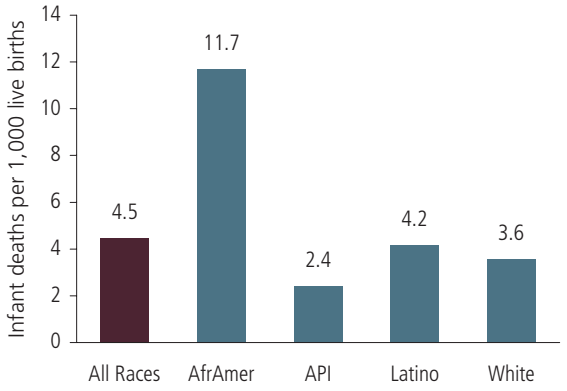
Other risks associated with infant mortality are substance abuse by the mother, young age of mother (less than 17 years), pre-term birth, low birth weight, exposure to secondhand smoke, inadequate prenatal care, and infections and other complications during pregnancy.

Table 9.2: Infant Mortality Comparison

	HP2010[4]	Alameda County	California[5]	United States[2]
Infant Mortality (Rate per 1,000 Live Births)	≤4.5	4.5	5.2	6.7

The infant mortality rate among African Americans was 11.7 per 1,000 live births, a rate 2.6 times higher than the average for the county and almost five times higher than for Asian/Pacific Islanders. All racial/ethnic groups except African Americans met the HP2010 objective of no more than 4.5 infants deaths per 1,000 live births.

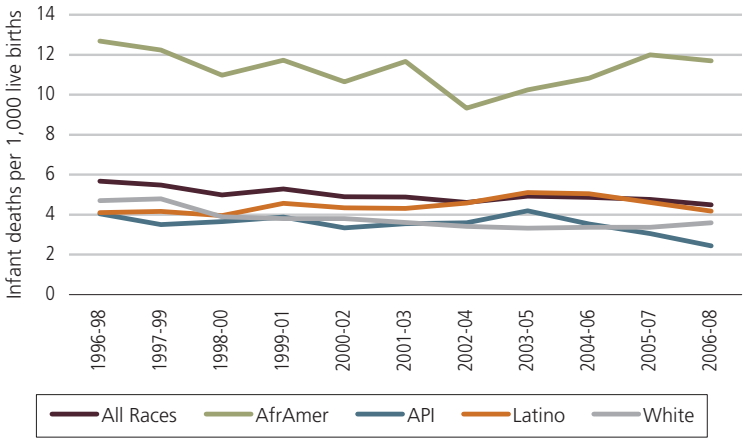
Figure 9.1: Infant Mortality by Race/Ethnicity



Source: Alameda County Vital Statistics Files, 2006-08.

Infant mortality rates that had been declining for many decades have in recent years tapered off. Rates that are based on events that are relatively rare are less stable which make it more difficult to predict trends. While it may appear visually from the graph that the infant mortality rates among African Americans are increasing, statistically this is not the case. What is clear, however, is that African Americans continue to have much higher infant deaths rates than any other racial/ethnic groups.

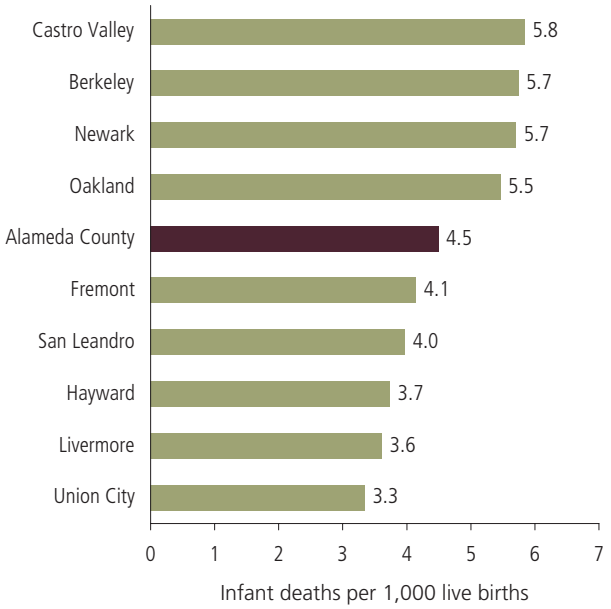
Figure 9.2: Infant Mortality Trend



Source: Alameda County Vital Statistics Files, 1996-08.

Alameda County had 4.5 infant deaths per 1,000 births in 2006-08, achieving the HP2010 objective. There was an average of 95 infants deaths per year from 2006 through 2008 in Alameda County. Several cities met the HP2010 objective and achieved even lower infant mortality rates: Union City, Livermore, Hayward, San Leandro, and Fremont.

Figure 9.3: Infant Mortality by City



Source: Alameda County Vital Statistics Files, 2006-08.

DATA TABLES

Table 9.3: Three-Year Infant Mortality by City and Region

	#	Births	Rate	LCL	UCL
Alameda County	284	63,241	4.5	4.0	5.0
Alameda	9	2,475	na	na	na
Albany	<5	737	na	na	na
Ashland	7	1,267	na	na	na
Berkeley	16	2,786	5.7	3.3	9.3
Castro Valley	11	1,885	5.8	2.9	10.4
Cherryland	5	841	na	na	na
Dublin	6	2,129	na	na	na
Emeryville	<5	333	na	na	na
Fairview	<5	386	na	na	na
Fremont	38	9,171	4.1	2.9	5.7
Hayward	27	7,227	3.7	2.5	5.4
Livermore	12	3,324	3.6	1.9	6.3
Newark	12	2,105	5.7	2.9	10.0
Oakland	100	18,322	5.5	4.4	6.5
Piedmont	0	205	na	na	na
Pleasanton	8	2,127	na	na	na
San Leandro	14	3,529	4.0	2.2	6.7
San Lorenzo	<5	840	na	na	na
Sunol	0	18	na	na	na
Union City	10	2,990	3.3	1.6	6.2
Remainder of County	<5	333	na	na	na
North County	18	3,523	5.1	3.0	8.1
Oakland Area	110	21,335	5.2	4.2	6.1
Central County	68	15,975	4.3	3.3	5.4
South County	60	14,284	4.2	3.2	5.4
Tri-Valley	26	7,580	3.4	2.2	5.0

Source: Alameda County Vital Statistics Files, 2006-08.

Table 9.4: Three-Year Infant Mortality by Region and Race/Ethnicity

	All Races					AfrAmer					Asian				
	#	Births	Rate	LCL	UCL	#	Births	Rate	LCL	UCL	#	Births	Rate	LCL	UCL
Alameda County	284	63,241	4.5	4.0	5.0	87	7,436	11.7	9.4	14.4	40	16,292	2.5	1.8	3.3
North County	18	3,523	5.1	3.0	8.1	7	366	na	na	na	<5	711	na	na	na
Oakland Area	110	21,335	5.2	4.2	6.1	48	4,625	10.4	7.7	13.8	6	3,516	na	na	na
Central County	68	15,975	4.3	3.3	5.4	29	1,747	16.6	11.1	23.8	8	3,131	na	na	na
South County	60	14,284	4.2	3.2	5.4	<5	511	na	na	na	20	7,180	2.8	1.7	4.3
Tri-Valley	26	7,580	3.4	2.2	5.0	<5	158	na	na	na	<5	1,607	na	na	na

	PacIsl					Latino					White				
	#	Births	Rate	LCL	UCL	#	Births	Rate	LCL	UCL	#	Births	Rate	LCL	UCL
Alameda County	<5	692	na	na	na	85	20,323	4.2	3.3	5.2	56	15,601	3.6	2.7	4.7
North County	0	8	na	na	na	<5	503	na	na	na	5	1,741	na	na	na
Oakland Area	<5	176	na	na	na	31	6,994	4.4	3.0	6.3	19	5,061	3.8	2.3	5.9
Central County	0	347	na	na	na	19	7,466	2.5	1.5	4.0	10	2,639	3.8	1.8	7.0
South County	0	137	na	na	na	25	3,493	7.2	4.6	10.6	9	2,454	na	na	na
Tri-Valley	0	18	na	na	na	6	1,687	na	na	na	12	3,558	3.4	1.7	5.9

Source: Alameda County Vital Statistics Files, 2006-08.

Low Birth Weight

Infants weighing less than 2,500 grams (5 lbs 8 oz) at birth are considered low birth weight (LBW). Achieving a healthy weight is critical for a newborn's survival. LBW is the most common cause of death during the neonatal period, the first 28 days of life. Thus, improvements in infant birth weight can contribute substantially to reducing infant mortality. In addition, LBW infants who survive their first year are at increased risk of long-term physical and developmental complications compared to infants of normal birth weight.

In the past decade, infant mortality has declined largely due to improved survival rates of LBW infants, not to a decrease in the number of LBW infants.[6] Nationally, rates of LBW have slowly increased over time, partially because of an increase of multiple births. An additional area of concern is that no progress has been made in decreasing racial inequities in LBW infants. Rates of LBW are two times higher for African Americans than for Whites.

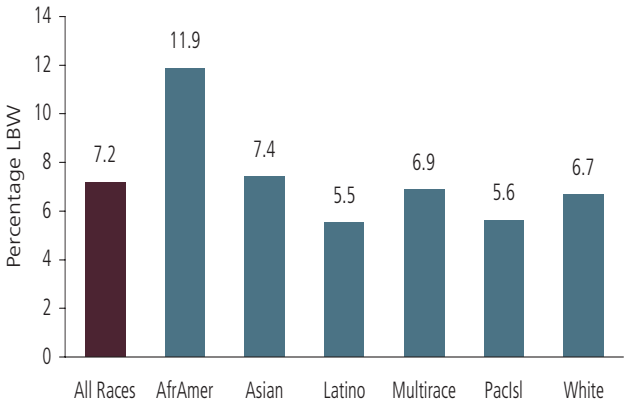
Many factors increase the risk of low weight at birth. Some of the most important factors are pre-term delivery, maternal smoking and illicit drug use, poor maternal nutrition, young maternal age, low maternal educational attainment, low family income, late or no prenatal care, and pregnancy-associated hypertension.[7,8] Emerging research also suggests that cumulative stress, racism, and maternal infections may also affect the weight of babies.[3] Of all infants that are LBW, the smallest—those weighing less than 1,500 grams—are at the highest risk of dying in their first year of life.

Table 9.5: Low Birth Weight Comparison

	HP2010[4]	Alameda County	California[9]	United States[9]
Low Birth Weight (Percentage)	≤5.0	7.2	5.7	8.2

LBW rates varied substantially by race/ethnicity. Overall, African Americans had LBW rates 1.5 to 2.5 times higher than those of Whites or Latinos.

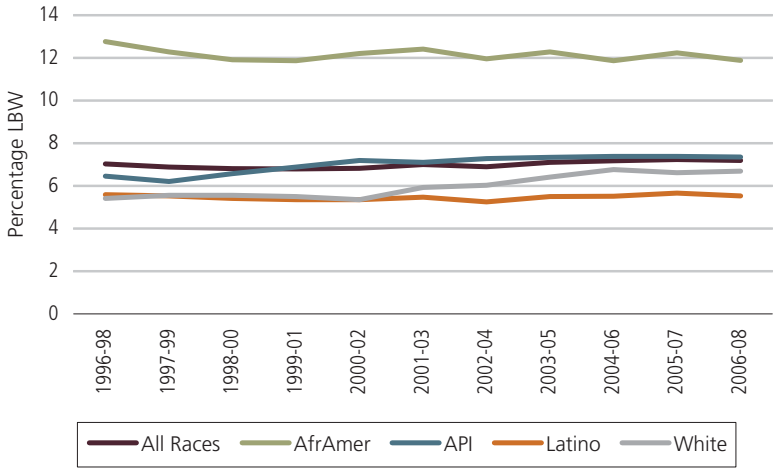
Figure 9.4: Low Birth Weight by Race/Ethnicity



Source: Alameda County Vital Statistics Files, 2006-08.

The percentage of LBW babies in Alameda County was 7.2% for the three most recent years of data. Rates have increased slightly since 2000-02. LBW rates among Whites and Asian/Pacific Islanders have increased slightly during this time, while they have remained constant among African Americans and Latinos.

Figure 9.5: Low Birth Weight Trend

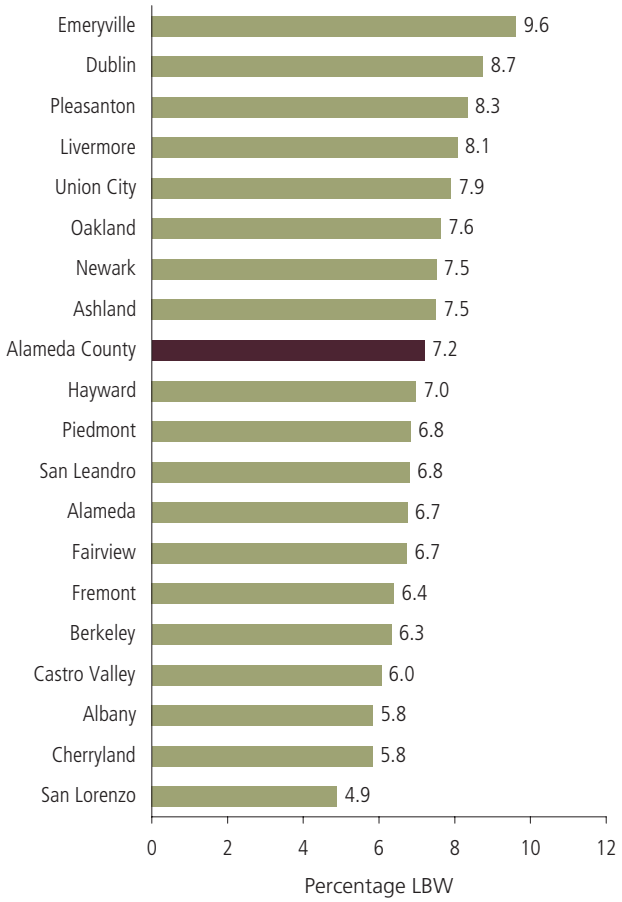


Source: Alameda County Vital Statistics Files, 1996-08.

In Alameda County, an average of 1,516 births per year or 7.2% of all births were LBW in 2006-08. This exceeds the HP2010 objective of 5% or less.

The percentage of LBW births ranged from a low of 4.9% in San Lorenzo to a high of 9.6% in Emeryville, nearly a two-fold difference. Other cities with high rates included Dublin, Pleasanton, and Livermore. Others with low rates included Cherryland and Albany.

Figure 9.6: Low Birth Weight by City



Source: Alameda County Vital Statistics Files, 2006-08.

Table 9.6: Three-Year Low Birth Weight by City, Region, and Race/Ethnicity

	All Races					AfrAmer					AmerInd					Asian				
	#	Births	%	LCL	UCL	#	Births	%	LCL	UCL	#	Births	%	LCL	UCL	#	Births	%	LCL	UCL
Alameda County	4,548	63,238	7.2	7.0	7.4	883	7,435	11.9	11.1	12.6	9	158	na	na	na	1,211	16,292	7.4	7.0	7.8
Alameda	167	2,475	6.7	5.8	7.7	21	187	11.2	6.7	15.8	<5	9	na	na	na	59	844	7.0	5.3	8.7
Albany	43	737	5.8	4.1	7.5	<5	21	na	na	na	0	3	na	na	na	18	296	6.1	3.4	8.8
Ashland	95	1,267	7.5	6.0	8.9	34	245	13.9	9.5	18.2	<5	4	na	na	na	8	136	na	na	na
Berkeley	176	2,786	6.3	5.4	7.2	40	345	11.6	8.2	15.0	0	2	na	na	na	36	415	8.7	6.0	11.4
Castro Valley	114	1,885	6.0	5.0	7.1	13	146	8.9	4.3	13.5	0	4	na	na	na	22	384	5.7	3.4	8.1
Cherryland	49	841	5.8	4.2	7.4	6	73	na	na	na	<5	5	na	na	na	<5	59	na	na	na
Dublin	186	2,129	8.7	7.5	9.9	7	67	na	na	na	0	3	na	na	na	74	725	10.2	8.0	12.4
Emeryville	32	333	9.6	6.4	12.8	12	61	19.7	9.7	29.6	0	0	na	na	na	7	113	na	na	na
Fairview	26	386	6.7	4.2	9.2	8	71	na	na	na	0	0	na	na	na	7	66	na	na	na
Fremont	586	9,171	6.4	5.9	6.9	23	269	8.6	5.2	11.9	0	9	na	na	na	322	5,099	6.3	5.6	7.0
Hayward	504	7,227	7.0	6.4	7.6	84	784	10.7	8.5	12.9	<5	16	na	na	na	110	1,332	8.3	6.8	9.7
Livermore	268	3,324	8.1	7.1	9.0	7	55	na	na	na	0	7	na	na	na	37	319	11.6	8.1	15.1
Newark	158	2,105	7.5	6.4	8.6	7	74	na	na	na	0	1	na	na	na	61	614	9.9	7.6	12.3
Oakland	1,396	18,320	7.6	7.2	8.0	542	4,372	12.4	11.4	13.4	<5	67	na	na	na	170	2,521	6.7	5.8	7.7
Piedmont	14	205	6.8	3.4	10.3	0	4	na	na	na	0	1	na	na	na	0	38	na	na	na
Pleasanton	177	2,127	8.3	7.1	9.5	6	36	na	na	na	0	2	na	na	na	62	563	11.0	8.4	13.6
San Leandro	240	3,528	6.8	6.0	7.6	51	392	13.0	9.7	16.3	0	15	na	na	na	78	991	7.9	6.2	9.5
San Lorenzo	41	840	4.9	3.4	6.3	<5	36	na	na	na	0	6	na	na	na	9	163	na	na	na
Sunol	0	18	na	na	na	0	0	na	na	na	0	0	na	na	na	0	3	na	na	na
Union City	236	2,990	7.9	6.9	8.9	17	168	10.1	5.6	14.7	<5	3	na	na	na	121	1,464	8.3	6.9	9.7
Remainder of Cty	18	333	5.4	3.0	7.8	<5	20	na	na	na	0	0	na	na	na	<5	84	na	na	na
North County	219	3,523	6.2	5.4	7.0	41	366	11.2	8.0	14.4	0	5	na	na	na	54	711	7.6	5.6	9.5
Oakland Area	1,609	21,333	7.5	7.2	7.9	575	4,624	12.4	11.5	13.4	5	77	na	na	na	236	3,516	6.7	5.9	7.5
Central County	1,069	15,974	6.7	6.3	7.1	197	1,747	11.3	9.8	12.8	<5	50	na	na	na	236	3,131	7.5	6.6	8.5
South County	980	14,284	6.9	6.4	7.3	47	511	9.2	6.7	11.7	<5	13	na	na	na	504	7,180	7.0	6.4	7.6
Tri-Valley	631	7,580	8.3	7.7	8.9	20	158	12.7	7.5	17.8	0	12	na	na	na	173	1,607	10.8	9.2	12.3

	Latino					Multirace					PacIsl					White				
	#	Births	%	LCL	UCL	#	Births	%	LCL	UCL	#	Births	%	LCL	UCL	#	Births	%	LCL	UCL
Alameda County	1,123	20,322	5.5	5.2	5.8	99	1,438	6.9	5.6	8.2	39	692	5.6	3.9	7.4	1,044	15,600	6.7	6.3	7.1
Alameda	14	256	5.5	2.7	8.3	9	92	na	na	na	0	17	na	na	na	58	1,021	5.7	4.3	7.1
Albany	9	68	na	na	na	0	16	na	na	na	0	2	na	na	na	12	312	3.8	1.7	6.0
Ashland	38	682	5.6	3.9	7.3	0	25	na	na	na	<5	30	na	na	na	13	132	9.8	4.8	14.9
Berkeley	22	435	5.1	3.0	7.1	<5	78	na	na	na	0	6	na	na	na	68	1,429	4.8	3.7	5.9
Castro Valley	26	485	5.4	3.4	7.4	<5	67	na	na	na	0	17	na	na	na	46	751	6.1	4.4	7.8
Cherryland	28	568	4.9	3.1	6.7	<5	10	na	na	na	<5	12	na	na	na	6	107	na	na	na
Dublin	14	234	6.0	2.9	9.0	7	62	na	na	na	0	4	na	na	na	73	920	7.9	6.2	9.7
Emeryville	<5	32	na	na	na	<5	9	na	na	na	0	0	na	na	na	9	115	na	na	na
Fairview	7	125	na	na	na	<5	18	na	na	na	0	6	na	na	na	<5	94	na	na	na
Fremont	95	1,650	5.8	4.6	6.9	7	151	na	na	na	<5	54	na	na	na	111	1,768	6.3	5.1	7.4
Hayward	197	3,791	5.2	4.5	5.9	16	202	7.9	4.2	11.6	17	227	7.5	4.1	10.9	70	805	8.7	6.7	10.6
Livermore	103	1,107	9.3	7.6	11.0	<5	68	na	na	na	0	7	na	na	na	115	1,624	7.1	5.8	8.3
Newark	57	958	5.9	4.5	7.4	<5	35	na	na	na	<5	37	na	na	na	16	350	4.6	2.4	6.8
Oakland	339	6,695	5.1	4.5	5.6	26	373	7.0	4.4	9.6	9	159	na	na	na	267	3,778	7.1	6.3	7.9
Piedmont	<5	10	na	na	na	0	2	na	na	na	0	0	na	na	na	13	147	8.8	4.3	13.4
Pleasanton	24	346	6.9	4.3	9.6	<5	48	na	na	na	0	7	na	na	na	69	1,014	6.8	5.3	8.4
San Leandro	63	1,366	4.6	3.5	5.7	7	85	na	na	na	0	49	na	na	na	39	592	6.6	4.6	8.6
San Lorenzo	14	449	3.1	1.5	4.7	0	16	na	na	na	<5	6	na	na	na	16	157	10.2	5.5	14.9
Sunol	0	2	na	na	na	0	0	na	na	na	0	0	na	na	na	0	13	na	na	na
Union City	58	883	6.6	4.9	8.2	5	65	na	na	na	5	46	na	na	na	26	323	8.0	5.1	11.0
Remainder of Cty	6	118	na	na	na	0	7	na	na	na	0	4	na	na	na	5	89	na	na	na
North County	31	503	6.2	4.1	8.3	<5	94	na	na	na	0	8	na	na	na	80	1,741	4.6	3.6	5.6
Oakland Area	356	6,993	5.1	4.6	5.6	36	476	7.6	5.2	9.9	9	176	na	na	na	347	5,061	6.9	6.2	7.6
Central County	373	7,466	5.0	4.5	5.5	30	423	7.1	4.6	9.5	21	347	6.1	3.5	8.6	193	2,638	7.3	6.3	8.3
South County	210	3,493	6.0	5.2	6.8	16	251	6.4	3.4	9.4	9	137	na	na	na	153	2,454	6.2	5.3	7.2
Tri-Valley	141	1,687	8.4	7.0	9.7	11	178	6.2	2.6	9.7	0	18	na	na	na	257	3,558	7.2	6.4	8.1

Source: Alameda County Vital Statistics Files, 2006-08.

Prenatal Care

Prenatal care refers to pregnancy-related health care provided to a woman during pregnancy. It is recommended that a woman start receiving prenatal care in the first trimester (first three months) of her pregnancy.

The use of timely, high-quality prenatal care can help prevent poor birth outcomes by identifying treatable medical conditions, such as hypertension and sexually transmitted diseases, which may endanger the mother and/or fetus. Entry into prenatal care also provides an opportunity for education and intervention around diet and exercise, in addition to behavioral risks such as alcohol, tobacco, and other drug use. While prenatal care is important, it alone is not sufficient to ensure healthy birth outcomes. In the last decade, while first trimester prenatal care has increased in Alameda County and in the state, it has not been sufficient to improve low birth weight rates.

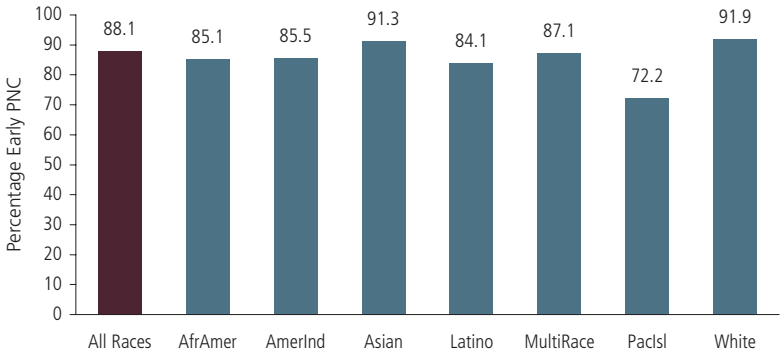
Risk factors for late entry into prenatal care include lack of culturally appropriate pregnancy testing sites, pregnancy at a young age, less than a high school education, and having had many children. Also, domestic violence, cultural beliefs, drug abuse, single parenthood, and poverty may prevent women from accessing timely prenatal care.[8]

Table 9.7: Prenatal Care Comparison

	HP2010[4]	Alameda County	California[10]	United States[10]
Early Prenatal Care (Percentage)	≥90.0	88.1	85.9	83.0

White and Asian women met the HP2010 of at least 90% of women receiving prenatal care in their first trimester of pregnancy (91.9% and 91.3% respectively). Pacific Islanders, Latinos, and African Americans all had lower early prenatal care rates than the county average of 88.1%.

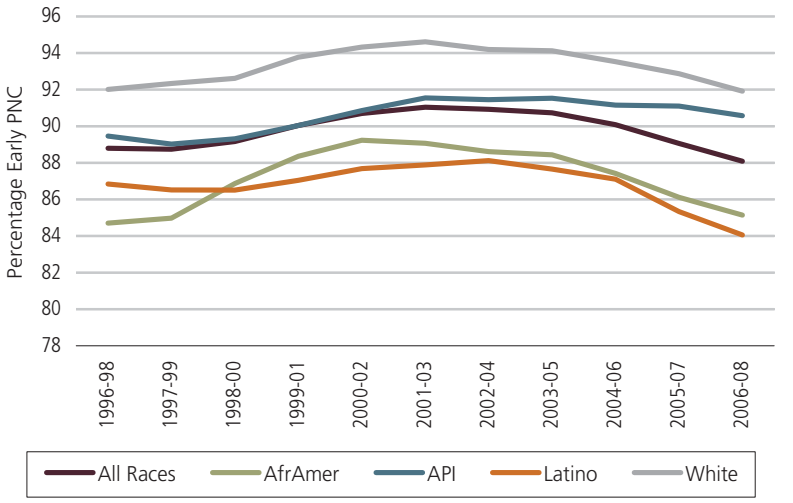
Figure 9.7: Early Prenatal Care by Race/Ethnicity



Source: Alameda County Vital Statistics Files, 2006-08.

For all racial/ethnic groups combined, the percentage of women receiving early prenatal care increased between 1996-98 and 2001-03. Since then the rate has declined for all racial/ethnic groups.

Figure 9.8: Early Prenatal Care Trend

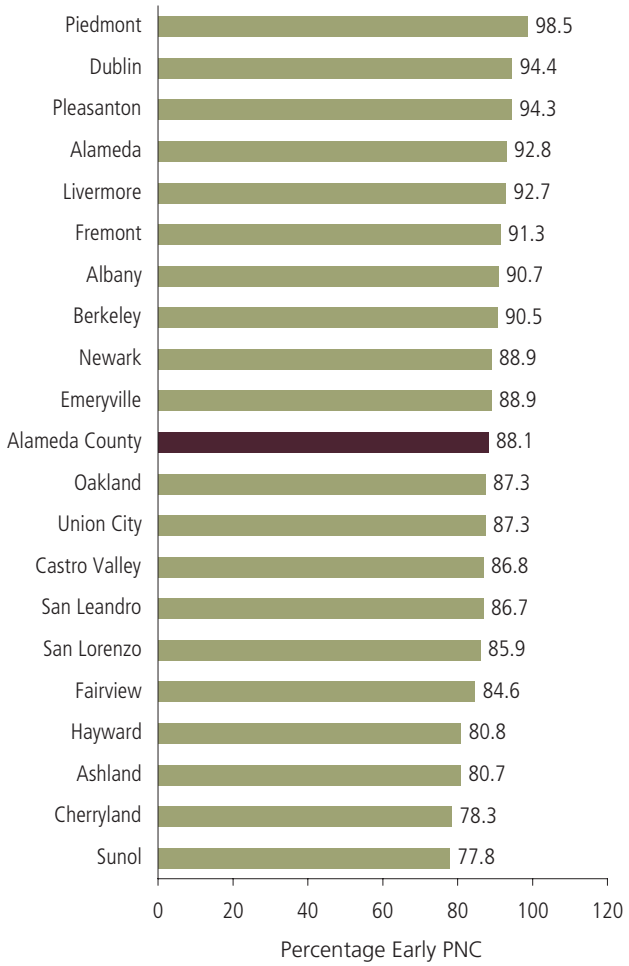


Source: Alameda County Vital Statistics Files, 1996-08.

In Alameda County, 88.1% of women received prenatal care in their first trimester of pregnancy between 2006 and 2008—just shy of the HP2010 objective of at least 90%.

Sunol had the lowest early prenatal care rate (77.8%), 20 percentage points lower than Piedmont with a rate of 98.5%. Other cities that met the HP2010 objective of 90% were Dublin, Pleasanton, Alameda, Livermore, Fremont, Albany, and Berkeley. Other cities with low rates were: Cherryland, Ashland, and Hayward.

Figure 9.9: Early Prenatal Care by City



Source: Alameda County Vital Statistics Files, 2006-08.

Table 9.8: Three-Year Early Prenatal Care by City, Region, and Race/Ethnicity

	All Races					AfrAmer					AmerInd					Asian				
	#	Births	%	LCL	UCL	#	Births	%	LCL	UCL	#	Births	%	LCL	UCL	#	Births	%	LCL	UCL
Alameda County	55,063	62,508	88.1	87.8	88.3	6,201	7,283	85.1	84.3	86.0	130	152	85.5	79.9	91.1	14,790	16,194	91.3	90.9	91.8
Alameda	2,275	2,451	92.8	91.8	93.8	161	183	88.0	83.3	92.7	8	9	na	na	na	780	836	93.3	91.6	95.0
Albany	666	734	90.7	88.6	92.8	18	21	85.7	70.7	100.7	<5	2	na	na	na	265	296	89.5	86.0	93.0
Ashland	1,007	1,248	80.7	78.5	82.9	195	242	80.6	75.6	85.6	<5	4	na	na	na	113	136	83.1	76.8	89.4
Berkeley	2,498	2,760	90.5	89.4	91.6	295	341	86.5	82.9	90.1	<5	1	na	na	na	376	412	91.3	88.5	94.0
Castro Valley	1,625	1,873	86.8	85.2	88.3	130	144	90.3	85.4	95.1	<5	4	na	na	na	348	383	90.9	88.0	93.7
Cherryland	649	829	78.3	75.5	81.1	60	72	83.3	74.7	91.9	<5	4	na	na	na	50	58	86.2	77.3	95.1
Dublin	1,997	2,116	94.4	93.4	95.4	61	66	92.4	86.0	98.8	<5	3	na	na	na	683	721	94.7	93.1	96.4
Emeryville	295	332	88.9	85.5	92.2	53	61	86.9	78.4	95.4	0	0	na	na	na	98	112	87.5	81.4	93.6
Fairview	323	382	84.6	80.9	88.2	67	71	94.4	89.0	99.7	0	0	na	na	na	57	65	87.7	79.7	95.7
Fremont	8,295	9,086	91.3	90.7	91.9	217	263	82.5	77.9	87.1	9	9	na	na	na	4,708	5,064	93.0	92.3	93.7
Hayward	5,762	7,131	80.8	79.9	81.7	637	773	82.4	79.7	85.1	12	16	75.0	53.8	96.2	1,165	1,327	87.8	86.0	89.6
Livermore	3,058	3,299	92.7	91.8	93.6	46	54	85.2	75.7	94.7	6	7	na	na	na	300	319	94.0	91.4	96.6
Newark	1,857	2,089	88.9	87.5	90.2	64	74	86.5	78.7	94.3	<5	1	na	na	na	558	609	91.6	89.4	93.8
Oakland	15,737	18,025	87.3	86.8	87.8	3,619	4,260	85.0	83.9	86.0	52	64	81.3	71.7	90.8	2,218	2,503	88.6	87.4	89.9
Piedmont	201	204	98.5	96.9	100.0	<5	4	na	na	na	<5	1	na	na	na	38	38	100.0	100.0	100.0
Pleasanton	1,995	2,116	94.3	93.3	95.3	34	36	94.4	87.0	101.9	<5	2	na	na	na	522	560	93.2	91.1	95.3
San Leandro	3,033	3,497	86.7	85.6	87.9	355	390	91.0	88.2	93.9	14	15	93.3	80.7	106.0	896	987	90.8	89.0	92.6
San Lorenzo	708	824	85.9	83.5	88.3	27	35	77.1	63.2	91.1	6	6	na	na	na	145	162	89.5	84.8	94.2
Sunol	14	18	77.8	58.6	97.0	0	0	na	na	na	0	0	na	na	na	<5	3	na	na	na
Union City	2,580	2,956	87.3	86.1	88.5	134	165	81.2	75.3	87.2	<5	3	na	na	na	1,327	1,456	91.1	89.7	92.6
Remainder of Cty	305	330	92.4	89.6	95.3	18	19	94.7	84.7	104.8	0	0	na	na	na	80	84	95.2	90.7	99.8
North County	3,164	3,494	90.6	89.6	91.5	313	362	86.5	82.9	90.0	<5	3	na	na	na	641	708	90.5	88.4	92.7
Oakland Area	18,508	21,012	88.1	87.6	88.5	3,837	4,508	85.1	84.1	86.2	61	74	82.4	73.8	91.1	3,134	3,489	89.8	88.8	90.8
Central County	13,107	15,784	83.0	82.5	83.6	1,471	1,727	85.2	83.5	86.9	43	49	87.8	78.6	96.9	2,774	3,118	89.0	87.9	90.1
South County	12,746	14,149	90.1	89.6	90.6	415	502	82.7	79.4	86.0	12	13	92.3	77.8	106.8	6,596	7,132	92.5	91.9	93.1
Tri-Valley	7,050	7,531	93.6	93.1	94.2	141	156	90.4	85.8	95.0	10	12	83.3	62.2	104.4	1,505	1,600	94.1	92.9	95.2

	Latino					Multirace					PacIsl					White				
	#	Births	%	LCL	UCL	#	Births	%	LCL	UCL	#	Births	%	LCL	UCL	#	Births	%	LCL	UCL
Alameda County	16,905	20,112	84.1	83.5	84.6	1,234	1,416	87.1	85.4	88.9	484	670	72.2	68.8	75.6	14,197	15,445	91.9	91.5	92.3
Alameda	238	254	93.7	90.7	96.7	84	92	91.3	85.5	97.1	15	17	88.2	72.9	103.6	948	1,015	93.4	91.9	94.9
Albany	59	67	88.1	80.3	95.8	15	16	93.8	81.9	105.6	<5	2	na	na	na	289	312	92.6	89.7	95.5
Ashland	539	674	80.0	76.9	83.0	24	25	96.0	88.3	103.7	20	28	71.4	54.7	88.2	105	129	81.4	74.7	88.1
Berkeley	379	430	88.1	85.1	91.2	70	78	89.7	83.0	96.5	<5	6	na	na	na	1,313	1,422	92.3	91.0	93.7
Castro Valley	393	482	81.5	78.1	85.0	58	66	87.9	80.0	95.8	11	17	64.7	42.0	87.4	654	747	87.6	85.2	89.9
Cherryland	426	561	75.9	72.4	79.5	10	10	100.0	100.0	100.0	10	12	83.3	62.2	104.4	84	105	80.0	72.3	87.7
Dublin	218	233	93.6	90.4	96.7	55	61	90.2	82.7	97.6	<5	3	na	na	na	867	915	94.8	93.3	96.2
Emeryville	31	32	96.9	90.8	102.9	7	9	na	na	na	0	0	na	na	na	103	115	89.6	84.0	95.2
Fairview	98	122	80.3	73.3	87.4	13	18	72.2	51.5	92.9	5	6	na	na	na	77	94	81.9	74.1	89.7
Fremont	1,438	1,639	87.7	86.1	89.3	133	150	88.7	83.6	93.7	32	52	61.5	48.3	74.8	1,603	1,744	91.9	90.6	93.2
Hayward	2,922	3,752	77.9	76.6	79.2	156	198	78.8	73.1	84.5	159	220	72.3	66.4	78.2	657	781	84.1	81.6	86.7
Livermore	998	1,101	90.6	88.9	92.4	56	67	83.6	74.7	92.5	6	7	na	na	na	1,517	1,607	94.4	93.3	95.5
Newark	830	953	87.1	85.0	89.2	31	34	91.2	81.6	100.7	29	37	78.4	65.1	91.6	313	345	90.7	87.7	93.8
Oakland	5,657	6,616	85.5	84.7	86.4	324	365	88.8	85.5	92.0	112	152	73.7	66.7	80.7	3,470	3,739	92.8	92.0	93.6
Piedmont	10	10	100.0	100.0	100.0	<5	2	na	na	na	0	0	na	na	na	143	146	97.9	95.6	100.2
Pleasanton	319	345	92.5	89.7	95.2	44	48	91.7	83.8	99.5	6	7	na	na	na	968	1,010	95.8	94.6	97.1
San Leandro	1,119	1,351	82.8	80.8	84.8	73	84	86.9	79.7	94.1	30	48	62.5	48.8	76.2	511	584	87.5	84.8	90.2
San Lorenzo	370	440	84.1	80.7	87.5	10	12	83.3	62.2	104.4	5	6	na	na	na	139	157	88.5	83.6	93.5
Sunol	<5	2	na	na	na	0	0	na	na	na	0	0	na	na	na	10	13	76.9	54.0	99.8
Union City	710	869	81.7	79.1	84.3	54	65	83.1	74.0	92.2	32	44	72.7	59.6	85.9	287	319	90.0	86.7	93.3
Remainder of Cty	104	118	88.1	82.3	94.0	6	7	na	na	na	<5	4	na	na	na	83	87	95.4	91.0	99.8
North County	438	497	88.1	85.3	91.0	85	94	90.4	84.5	96.4	5	8	na	na	na	1,602	1,734	92.4	91.1	93.6
Oakland Area	5,936	6,912	85.9	85.1	86.7	417	468	89.1	86.3	91.9	127	169	75.1	68.6	81.7	4,664	5,015	93.0	92.3	93.7
Central County	5,867	7,382	79.5	78.6	80.4	344	413	83.3	79.7	86.9	240	337	71.2	66.4	76.1	2,227	2,597	85.8	84.4	87.1
South County	2,979	3,463	86.0	84.9	87.2	218	249	87.6	83.4	91.7	93	133	69.9	62.1	77.7	2,213	2,421	91.4	90.3	92.5
Tri-Valley	1,535	1,679	91.4	90.1	92.8	155	176	88.1	83.3	92.9	14	17	82.4	64.2	100.5	3,352	3,532	94.9	94.2	95.6

Source: Alameda County Vital Statistics Files, 2006-08.

Teen Births

The teen birth rate is defined as the number of live births to mothers aged 15-19 years per 1,000 females 15-19 years in the population. The percentage of teen births is defined as the number of births to mothers aged 15-19 years per 1,000 live births. The number of teen births is not the same as the number of teen pregnancies. It is estimated that 50% of teen pregnancies end in birth, 36% in abortion, and 14% in miscarriage.[11] Thus, the teen pregnancy rate may be twice the teen birth rate.

Teen mothers typically have more difficulty completing their education, have fewer employment opportunities, and are more likely to require public assistance and to live in poverty than their peers. They also are at high risk for poor birth outcomes and for having another pregnancy while still in their teens. Infants born to teen mothers are at greater risk of child abuse, neglect, and behavioral and educational problems at later stages.

Adolescence is a time of increased vulnerability to social influences, which may seriously compromise the health of young people. This time is characterized by experimentation, risk taking, and an increased dependence on peers. Youth are at significant risk for unplanned pregnancies and sexually transmitted diseases.[12] Unintended pregnancies are serious and costly. With an unwanted pregnancy, a teenager is less likely to seek prenatal care in the first trimester, and is more likely to expose the fetus to harmful substances such as tobacco or alcohol.

Many factors increase the risk for teen pregnancy. Among the most important are poor access to birth control and health care in general, low income, lack of financial and emotional support, lack of education, lack of positive role models, unsatisfactory adult relationships, lack of after-school and community activities, substance abuse, and low self-esteem.[13]

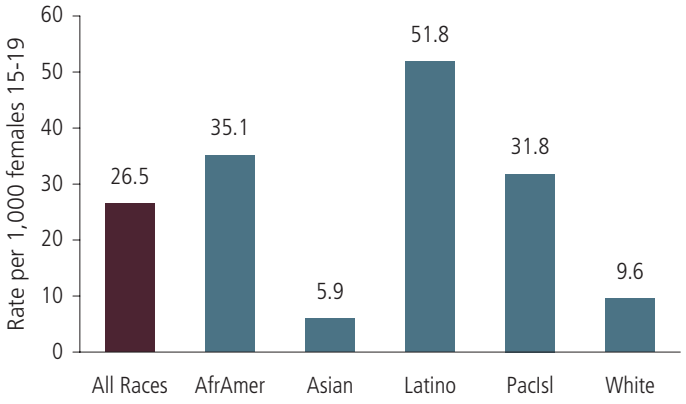
In the last ten years, California's teen birth rate has gone from one of the highest in the nation to below the national average. A decline in teen birth rates was seen in every state in the nation and for every racial and ethnic group for the last few decades until recently. Starting in 2006, teen birth rates have no longer consistently declined every year.

Table 9.9: Teen Birth Summary

	Alameda County	California[9]	United States[9]
Teen Birth Rate (Births per 1,000 Females 15-19 years)	26.5	35.2	41.5

Teen birth rates varied substantially by race/ethnicity. Latinos had the highest teen birth rate (51.8 per 1,000 females 15-19 years) followed by African Americans (35.1) and Pacific Islanders (31.8). The lowest rates were among Asians (5.9) and Whites (9.6)

Figure 9.10: Teen Births by Race/Ethnicity



Source: Alameda County Vital Statistics Files, 2006-08.

Between regions, teen birth rates for African Americans and for Latinos varied by two to three times. African Americans had the highest teen birth rate in South County while Latinos had the highest rates in the Oakland Area and Central County. Racial/ethnic composition drove the teen birth rates of the regions. That is, areas that had a high proportion of African American and Latinos tended to have high teen birth rates, while areas with a high proportion of Whites and Asians had low teen birth rates. The Oakland Area and Central County each had teen birth rates that were higher than the average.

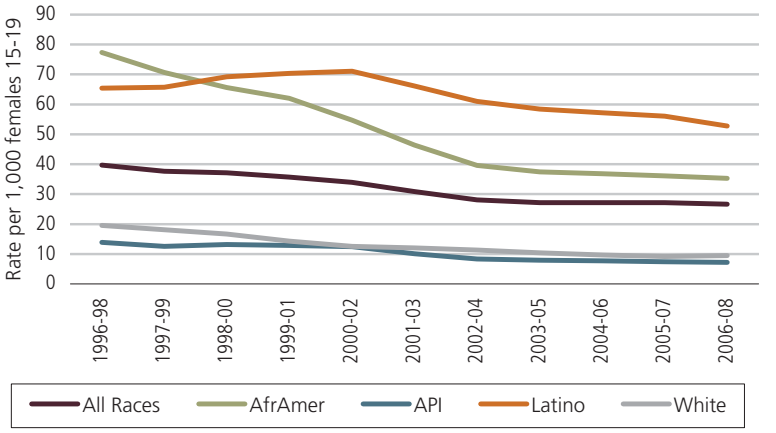
Table 9.10: Teen Births by Region by Race/Ethnicity

	All Races	AfrAmer	Asian	Latino	PacIsl	White
Alameda County	26.5	35.1	5.9	51.8	31.8	9.6
North County	7.6	44.8	na	21.7	na	na
Oakland Area	39.2	49.8	7.8	68.5	47.8	13.5
Central County	36.9	47.0	7.4	68.0	43.6	15.0
South County	19.3	67.6	4.0	49.8	na	9.6
Tri-Valley	12.3	23.6	na	50.6	na	5.2

Source: Alameda County Vital Statistics Files, 2006-08.

Teen birth rates, which have declined for decades, have now leveled off. Rates flattened out starting in 2002-04 among each racial/ethnic group. Historically, African American teens (ages 15-19 years) had higher teen birth rates than Latinos. For the first time in the late 1990s, African Americans had a lower teen birth rate than Latinos and the gap between the two groups widened in the past decade. Currently, Latinos are the only racial/ethnic group that experienced a significant decline in 2006-08.

Figure 9.11: Teen Births Trend

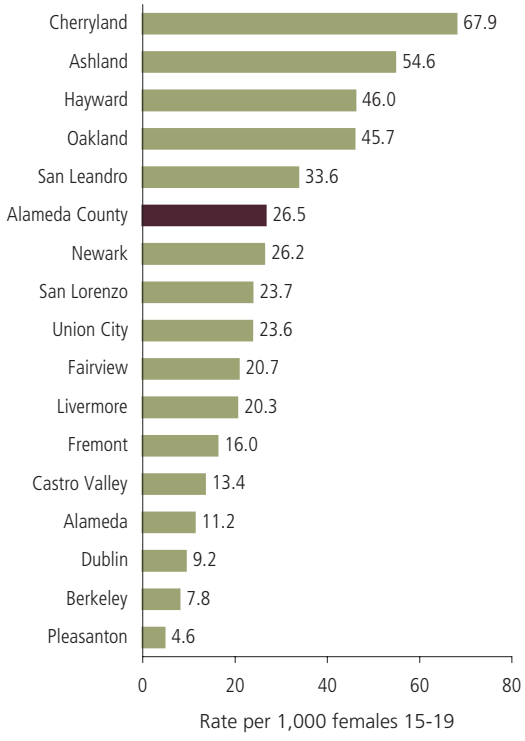


Source: Alameda County Vital Statistics Files, 1996-08.

Of all maternal, child, and adolescent health indicators in this chapter, teen births have the largest racial disparities. For the three most recent years of data, Latinas teens 15-19 years had rates 7.4 times higher than Asian/Pacific Islander teens. African American teens had rates 4.9 times higher than Asian/Pacific Islander teens.

In Alameda County, the teen birth rate was 26.5 per 1,000 females ages 15-19 years from 2006 through 2008. The rate ranged from a low of 4.6 in Pleasanton to a high of 67.9 in Cherryland, a nearly 15-fold difference. San Leandro, Oakland, Hayward, Ashland, and Cherryland all had teen births rates that were higher than the county average. Other cities with low teen birth rates were Berkeley, Dublin, and Castro Valley.

Figure 9.12: Teen Births by City



Source: Alameda County Vital Statistics Files, 2006-08.

Table 9.11: Three-Year Teen Births by City, Region, and Race/Ethnicity

	All Races					AfrAmer					Asian				
	#	Pop'n	Rate	LCL	UCL	#	Pop'n	Rate	LCL	UCL	#	Pop'n	Rate	LCL	UCL
Alameda County	4,011	50,415	26.5	25.7	27.3	993	9,419	35.1	33.0	37.3	180	10,117	5.9	5.1	6.8
Alameda	71	2,122	11.2	8.7	14.1	26	183	47.4	30.9	69.4	6	781	na	na	na
Albany	8	475	na	na	na	<5	18	na	na	na	0	132	na	na	na
Ashland	110	672	54.6	44.4	64.8	26	173	50.0	32.7	73.3	<5	94	na	na	na
Berkeley	86	3,659	7.8	6.3	9.7	48	347	46.2	34.0	61.2	0	1,209	na	na	na
Castro Valley	77	1,920	13.4	10.5	16.7	8	103	na	na	na	<5	360	na	na	na
Cherryland	82	403	67.9	54.0	84.3	11	48	76.4	38.1	136.7	<5	28	na	na	na
Dublin	35	1,269	9.2	6.4	12.8	<5	39	na	na	na	<5	160	na	na	na
Emeryville	7	117	na	na	na	<5	51	na	na	na	0	38	na	na	na
Fairview	21	338	20.7	12.8	31.6	<5	80	na	na	na	<5	44	na	na	na
Fremont	316	6,563	16.0	14.3	17.8	39	189	68.7	48.8	93.9	23	2,722	2.8	1.8	4.2
Hayward	659	4,777	46.0	42.5	49.5	86	568	50.5	40.4	62.3	30	1,044	9.6	6.5	13.7
Livermore	179	2,932	20.3	17.4	23.3	5	56	na	na	na	0	179	na	na	na
Newark	118	1,500	26.2	21.5	31.0	11	54	67.9	33.9	121.4	5	320	na	na	na
Oakland	1,727	12,584	45.7	43.6	47.9	639	4,229	50.4	46.5	54.3	69	2,244	10.2	8.0	13.0
Piedmont	<5	523	na	na	na	0	5	na	na	na	0	125	na	na	na
Pleasanton	36	2,599	4.6	3.2	6.4	<5	32	na	na	na	<5	352	na	na	na
San Leandro	224	2,222	33.6	29.2	38.0	44	288	51.0	37.0	68.4	13	640	6.8	3.6	11.6
San Lorenzo	55	775	23.7	17.8	30.8	<5	25	na	na	na	<5	141	na	na	na
Sunol	<5	41	na	na	na	0	0	na	na	na	0	2	na	na	na
Union City	181	2,555	23.6	20.2	27.0	34	171	66.4	46.0	92.8	22	1,125	6.5	4.1	9.9
Remainder of County	14	405	11.5	6.3	19.3	<5	27	na	na	na	0	60	na	na	na
North County	94	4,134	7.6	6.1	9.3	49	365	44.8	33.1	59.2	0	1,341	na	na	na
Oakland Area	1,806	15,347	39.2	37.4	41.0	668	4,467	49.8	46.1	53.6	75	3,189	7.8	6.2	9.8
Central County	1,228	11,106	36.9	34.8	38.9	181	1,285	47.0	40.1	53.8	52	2,352	7.4	5.5	9.7
South County	616	10,660	19.3	17.7	20.8	84	414	67.6	53.9	83.7	50	4,169	4.0	3.0	5.3
Tri-Valley	250	6,801	12.3	10.7	13.8	9	127	na	na	na	<5	691	na	na	na

	Latino					PacIsl					White				
	#	Pop'n	Rate	LCL	UCL	#	Pop'n	Rate	LCL	UCL	#	Pop'n	Rate	LCL	UCL
Alameda County	2,207	14,192	51.8	49.7	54.0	45	472	31.8	23.2	42.5	386	13,444	9.6	7.8	11.7
Alameda	15	245	20.4	11.4	33.6	<5	20	na	na	na	12	701	5.7	3.0	10.0
Albany	5	42	na	na	na	0	0	na	na	na	<5	237	na	na	na
Ashland	68	283	80.2	62.3	101.7	<5	7	na	na	na	9	83	na	na	na
Berkeley	27	451	20.0	13.2	29.1	0	4	na	na	na	6	1,394	na	na	na
Castro Valley	35	288	40.5	28.2	56.3	<5	16	na	na	na	24	1,019	7.8	5.0	11.7
Cherryland	58	235	82.2	62.4	106.2	0	6	na	na	na	6	70	na	na	na
Dublin	9	200	na	na	na	0	3	na	na	na	19	787	8.0	4.8	12.6
Emeryville	<5	13	na	na	na	0	0	na	na	na	0	11	na	na	na
Fairview	8	76	na	na	na	<5	3	na	na	na	5	113	na	na	na
Fremont	170	1,119	50.6	43.0	58.2	<5	35	na	na	na	65	2,031	10.7	8.2	13.6
Hayward	444	2,039	72.6	65.8	79.3	11	104	35.1	17.5	62.9	51	701	24.2	18.1	31.9
Livermore	120	538	74.3	61.0	87.6	<5	7	na	na	na	41	1,993	6.9	4.9	9.3
Newark	88	556	52.8	42.3	65.0	<5	19	na	na	na	6	449	na	na	na
Oakland	853	3,965	71.7	66.9	76.5	14	91	51.2	28.0	85.8	86	1,376	20.8	16.7	25.7
Piedmont	0	18	na	na	na	0	0	na	na	na	<5	354	na	na	na
Pleasanton	19	237	26.7	16.1	41.6	0	1	na	na	na	12	1,854	2.2	1.1	3.8
San Leandro	121	630	64.0	52.6	75.5	7	23	na	na	na	26	523	16.6	10.8	24.3
San Lorenzo	44	261	56.2	40.9	75.5	0	2	na	na	na	5	290	na	na	na
Sunol	<5	1	na	na	na	0	0	na	na	na	0	34	na	na	na
Union City	105	760	46.1	37.4	56.1	<5	30	na	na	na	10	298	14.0	6.7	25.7
Remainder of County	11	57	63.9	31.9	114.4	0	2	na	na	na	<5	238	na	na	na
North County	32	492	21.7	14.8	30.6	0	4	na	na	na	7	1,631	na	na	na
Oakland Area	872	4,241	68.5	64.0	73.1	16	112	47.8	27.3	77.6	99	2,442	13.5	11.0	16.5
Central County	778	3,811	68.0	63.3	72.8	21	161	43.6	27.0	66.7	126	2,800	15.0	12.4	17.6
South County	364	2,436	49.8	44.7	54.9	7	84	na	na	na	81	2,812	9.6	7.6	11.9
Tri-Valley	148	976	50.6	42.4	58.7	<5	11	na	na	na	72	4,635	5.2	4.1	6.5

Source: Alameda County Vital Statistics Files, 2006-08.
Note: Population is number of females 15-19 years; rates are per 1,000 females 15-19 years.

Childhood Immunization

Immunizations are given to children to protect them from serious infectious diseases. California requires that children be up to date on their shots before enrolling in licensed child-care programs, kindergarten, and seventh grade.

The reduction in incidence of infectious diseases is the most significant public health achievement of the past 100 years, and vaccination has played a key role in this progress. Immunization continues to be an important safeguard for child health. It is one of the safest and most effective preventive measures ever known. However, many infants do not start immunizations on time or complete the entire series.

Vaccines are the first line of defense against diseases such as polio, measles, pertussis and hepatitis. These biological substances cause the immune system to produce an immune response that is very similar to that produced by the natural infection, yet does not subject a person to "full blown" disease or complications. Vaccines not only protect the immunized individual, but the community as well. When immunization levels in a community are high, the few who cannot be vaccinated are protected because they are surrounded by immune people, thus their risk of exposure to disease is low. This phenomenon is called herd immunity.

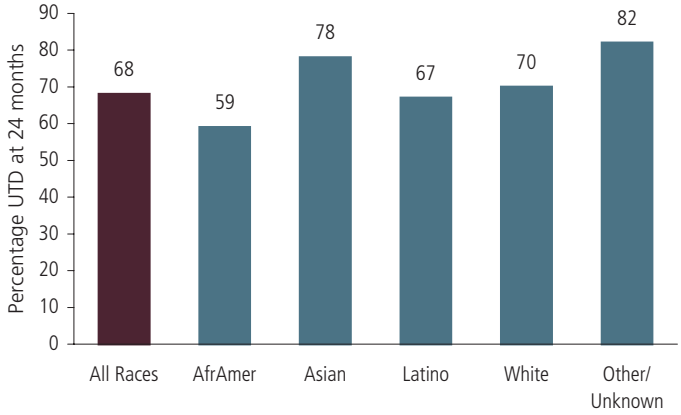
Each year, the California Department of Health Services conducts the Kindergarten Retrospective Survey. School immunization records of kindergarten students five years old are used to estimate the percentage of children who were up to date when they were two years old. Therefore, the 2009 survey estimates vaccination coverage for those children when they were two years old in 2006. The data source for this survey is school immunization records; for the National Immunization survey it is individual self-report by telephone. Thus, immunization rates estimated from the two surveys are not directly comparable. Estimates based on self-report tend to be higher than those based on objective measures.

Table 9.12: Summary of Immunization Indicators

	HP2010[4]	Alameda County	California[14]	United States[14]
Immunization (Percentage)	≥90	68	78	85

Alameda County falls short of the HP2010 objective of a 90% vaccination rate. Survey data in 2009 show that 68% of children were up to date (UTD) in their immunizations at 24 months. This varied from a low of 59% among African Americans to a high of 78% among Asians.

Figure 9.13: Childhood Immunization by Race



Source: 4:3:1 series, Alameda County Expanded Kindergarten Retrospective Study, 2009.

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Communicable Disease

Novel H1N1 Influenza 2009 (Swine Flu) Pandemic: A One-Year Report

The Novel H1N1 Influenza 2009 (Swine Flu) pandemic began in Mexico early in 2009. The first U.S. case was diagnosed in San Diego, California on April 15, 2009.[1-3] Alameda County reported its first case on April 30, 2009. In the ensuing year (May 2009 through April 2010), Alameda County reported 516 hospitalized and/or fatal cases of H1N1 illness. A total of 129 Alameda County residents were in a hospital intensive care unit (ICU). Thirty-three died of the illness.

Whereas seasonal flu typically has the greatest impact on the elderly, H1N1 2009 illness was most common among those between 19 and 64 years. Most illness in the elderly was relatively mild. The elderly may well have had some natural immunity to the virus given possible exposures during prior swine flu epidemics.[4]

In general, illness from Novel H1N1 has been mild, lasting about three days. However, certain groups of people were more likely than others to develop serious illness, including children under age five, pregnant women, and those with chronic medical conditions such as asthma, diabetes, heart disease or weakened immune systems.[2] Additionally, obese patients and those with neurodevelopmental disorders such as cerebral palsy have shown particular vulnerability to acute respiratory distress resulting from H1N1 infection. In 2009, an estimated 650,000 Alameda County residents were in one of these high risk groups.

To protect these vulnerable populations, many of whom receive regular care by a private provider, the Alameda County Public Health Department (ACPHD) directed the majority of H1N1 vaccine allocated by the California Department of Public Health (CDPH) to providers and community vaccinators. The remaining vaccine was distributed at mass vaccination clinics, which targeted residents identified at highest risk but who lacked direct access to a primary care provider or were uninsured.

During November and December 2009, ACPHD conducted 17 mass vaccination clinics countywide; approximately 25,000 doses of vaccine were administered at these clinics. To augment resource capacity for its mass vaccination effort, the department relied heavily on its partnerships with cities and fire agencies for operational support and medical volunteers, including emergency medical services (EMS) personnel, who were the first in the state to be granted consent from the California Emergency Medical Services Authority to administer the H1N1 vaccine.

In 2009, ACPHD expanded existing relationships, and built new relationships, with many community-based organizations and social service agencies that serve a segment of the vulnerable population by providing the H1N1 vaccine in conjunction with other core services, such as housing and nutrition assistance. The department continues to provide the H1N1 vaccine at county Women, Infants, and Children (WIC) clinics and through the childhood immunization program.

In anticipation of the 2009-10 flu season, ACPHD has initiated a robust assessment effort to measure vaccine coverage and identify those cultural barriers that shape the attitudes and beliefs of the county's key racial/ethnic populations, including African Americans, Latinos, and Asians. Information garnered from the exercise will be used to plan a cogent and culturally competent outreach strategy to improve vaccination rates countywide.

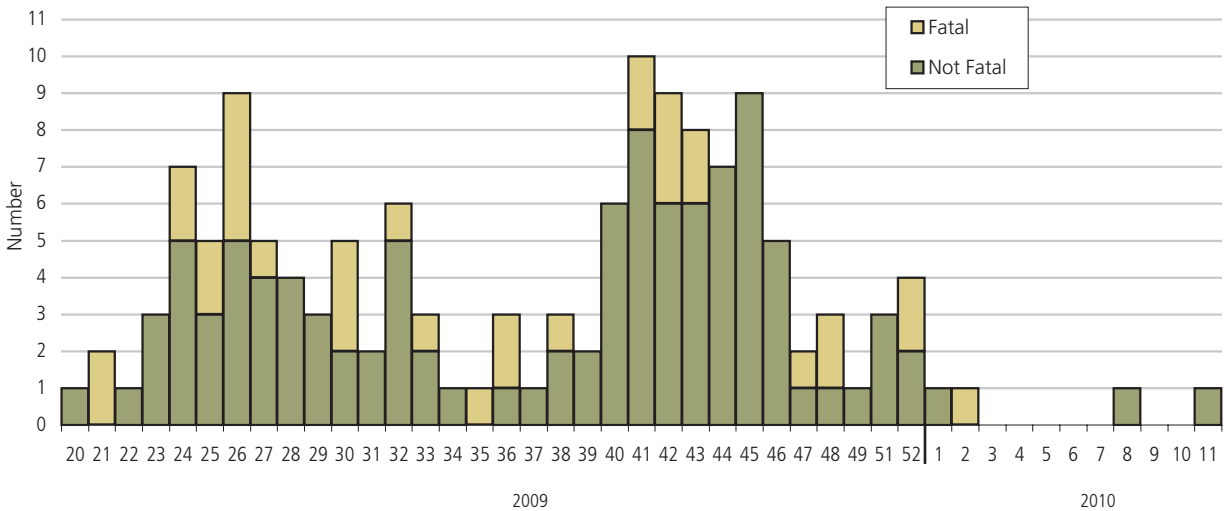
Surveillance efforts in California focused on severe H1N1 Influenza illness, defined as hospitalized ICU and fatal cases. Based on data collected between April 2009 and May 2010, the rate of severe H1N1 illness in Alameda County was 9.4 per 100,000, 74% higher than the California rate of 5.4 per 100,000. While surveillance efforts showed that Alameda County had a higher rate of severe illness than the state throughout the first year, ACPHD may have included some cases in its official case count that the California Department of Public Health (CDPH) did not. ACPHD included cases that tested positive by rapid flu test that never went on for confirmatory testing. ACPHD considered these cases H1N1 since all Influenza A illness during the season was H1N1. Alameda County's H1N1 Influenza mortality rate was 2.25 per 100,000, 50% higher than the California rate of 1.5. This difference, however, is not statistically significant.

Table 10.1: 2009 H1N1 Severe Cases (ICU and Fatal), April 2009 to May 2010

	Severe Cases		Deaths	
	#	Rate	#	Rate
California[5]	2,086	5.4	579	1.5
Alameda County	138	9.4	33	2.2

The first severe case of H1N1 in Alameda County occurred in late May 2009 and led to the first death on June 7, 2009, followed two days later by a second death. There were two waves of illness during the 2009 outbreak, the first during July and the second during October. Cases of severe illness declined in November and December, 2009. As of May 1, 2010, only four cases were reported to CDPH with onset in 2010, the latest case reported on March 30, 2010.

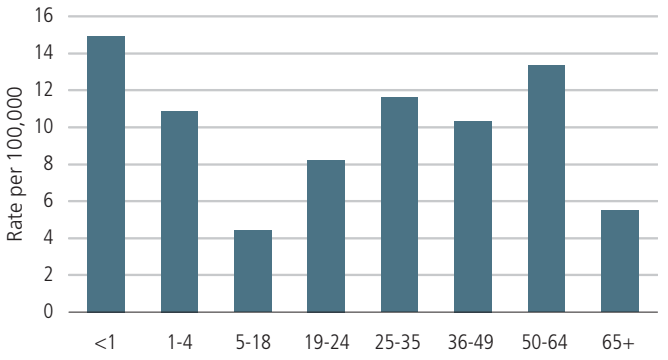
Figure 10.1: Alameda County H1N1 ICU and Fatal Cases, April 2009 to May 2010 by Week of Onset (n=138)



Source: ACPHD, Acute Communicable Disease Unit, April 2009-May 2010.
Note: Alameda County in this graph does not include cases in Berkeley.

The rate of severe illness was highest among infants (children under one year of age) and those 50-64 years. The infant rate was not reliable since it was based on only three cases. The lowest rates were found among youth 5-18 years and those 65 years or older. The average age of H1N1 cases with severe illness was 38.4 years, the median was 41 years, and the age range was from birth to 84 years. The high rates among infants and young children reflect ICU cases; there were very few deaths in the youngest age groups.

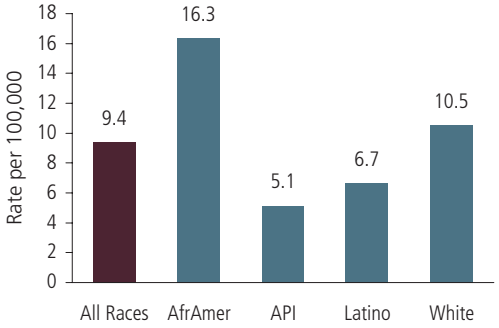
Figure 10.2: H1N1 ICU and Fatal Cases by Age Group



Source: ACPHD, Acute Communicable Disease Unit, April 2009-May 2010.

African Americans experienced the highest rate of severe illness (16.3 per 100,000), significantly higher than Asian/Pacific Islanders (5.1) and Latinos (6.7). The rate among Whites (10.5) was significantly higher than the Asian/Pacific Islander rate.

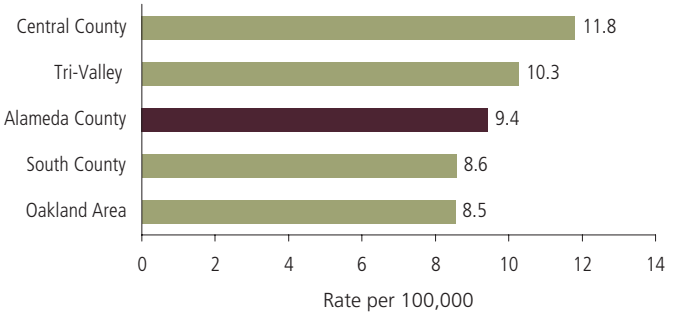
Figure 10.3: H1N1 ICU and Fatal Cases by Race/Ethnicity



Source: ACPHD, Acute Communicable Disease Unit, April 2009-May 2010.

Central Alameda County had the highest rate of severe H1N1 illness (11.8 per 100,000); however, due to the relatively small number of cases, none of the differences between regions were statistically significant.

Figure 10.4: H1N1 ICU and Fatal Cases by Region

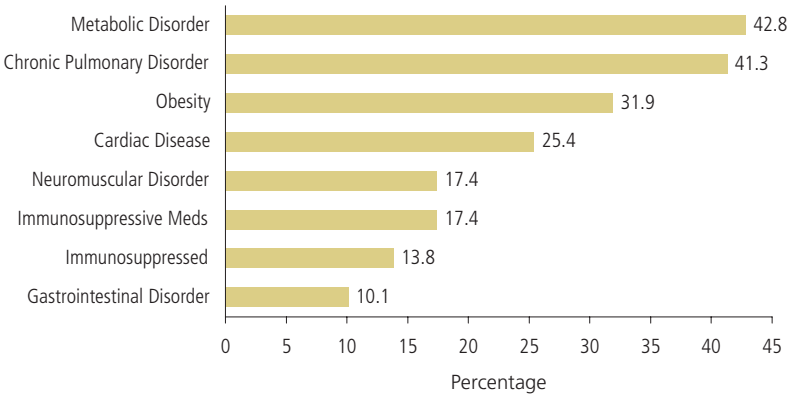


Source: ACPHD, Acute Communicable Disease Unit, April 2009-May 2010.
Note: Berkeley not included; Albany had no ICU or fatal cases.

People with certain chronic medical conditions appeared to be more vulnerable to severe H1N1 illness than those without such conditions. The most common health conditions reported for those with severe illness were 1) metabolic disorder such as diabetes, 2) chronic pulmonary disorder such as asthma, 3) obesity, and 4) heart disease. Ninety-one percent of severe cases had at least one chronic health condition, and 66% had two or more chronic conditions.

Thirteen individuals (9.4%) of the 138 ICU and fatal cases were not reported to have any chronic health conditions. These tended to be younger, with an average age of 20 years.

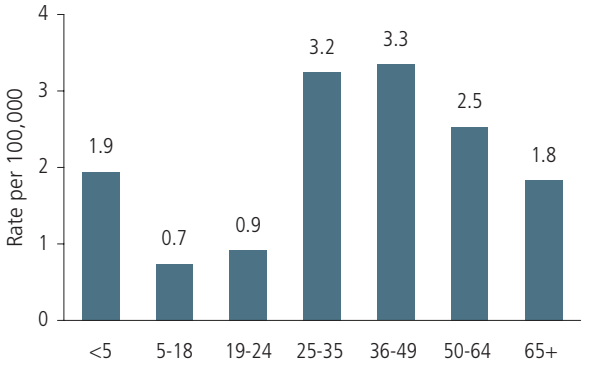
Figure 10.5: Percentage of ICU and Fatal Cases with Condition



Source: ACPHD, Acute Communicable Disease Unit, April 2009-May 2010.

A total of 33 Alameda County residents died from H1N1 Influenza between May 2009 and April 2010. A total of 33 Alameda County residents died from H1N1 Influenza between May, 2009 and April 2010. The highest mortality rates were among those 25-35 years and 36-49 years. Rates among youth under 25 years were based on very small number and are not reliable.

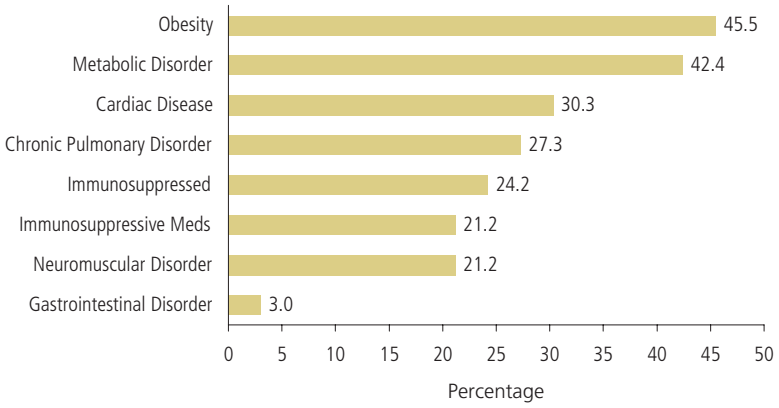
Figure 10.6: H1N1 Fatal Cases by Age Group



Source: ACPHD, Acute Communicable Disease Unit, April 2009-May 2010.

Among those who died from the illness, the most common underlying medical condition was obesity, which was present among nearly half of all fatal cases. Metabolic disorders were reported among 42.4% of fatal cases. Ninety-four percent of fatal cases had at least one underlying medical condition, and 79% had two or more. Only two fatal cases were reported to have no chronic medical conditions, both were under 35 years.

Figure 10.7: Percentage of Fatal Cases with Condition



Source: ACPHD, Acute Communicable Disease Unit, April 2009-May 2010.

Tuberculosis

Tuberculosis (TB) is a communicable disease caused by *Mycobacterium tuberculosis*, also referred to as tubercle bacilli and is transmitted through the air from person to person. Transmission can occur when people breathe in the bacteria while in close and prolonged contact with a person with infectious TB.

Once TB bacteria have been inhaled, that person can become infected with TB. In most cases, the body is able to fight the bacteria to stop it from growing, and the bacteria stays in the body without making the individual sick. This is referred to as latent TB infection (LTBI). For other individuals, TB infection can progress to TB disease when the immune system cannot fight off the TB bacteria. Those with TB disease usually feel sick, and may spread TB bacteria to others. TB is curable if a person is compliant with their treatment regimen. Individuals with active TB disease may have some or all of the following symptoms: cough, weight loss, fevers, fatigue, night sweats, or loss of appetite.

Drug-resistant strains of tuberculosis can occur when a person with TB disease does not take their medications as prescribed and the bacteria changes, becoming resistant. This is of concern because drug-resistant strains and multi-drug resistant (MDR) TB—particularly extensively drug-resistant (XDR) cases—are more difficult to treat and require longer treatment regimens.

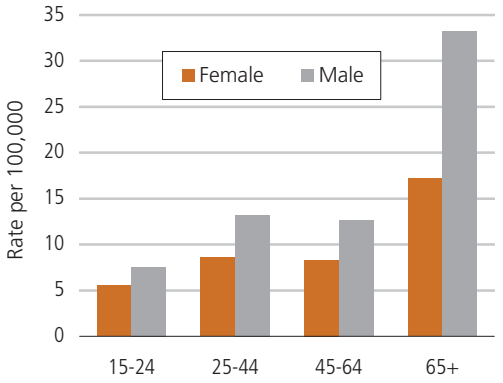
Approximately one-third of the world's population is infected with Mycobacterium tuberculosis, with more than nine million people becoming sick with TB disease and approximately two million people dying from TB annually.[1] In the United States, there are an estimated ten to 15 million Americans infected with LTBI, and about 10% of these are likely to develop active TB disease in their lifetime. In 2009, there were 2,472 TB cases reported in California, yielding a case rate of 6.4.[2] In 2009, the United States had a case rate of 3.8 per 100,000 with 11,540 cases of tuberculosis reported across the nation.[3] Although the TB case rate has decreased by more than half since the early 1990s, the U.S. rate still exceeds the Healthy People 2010 objective of 1.0 per 100,000.[4]

Table 10.2: Tuberculosis Comparison

	HP2010[4]	Alameda County	California[2]	United States[3]
TB Case Rate (per 100,000)	1.0	9.8	6.4	3.8

The rate of TB among males, (11.8) was 1.5 times the rate of females (7.8), and was greater at every age group. Generally, TB rates increased with advancing age. Males 65 years or older had the highest rate at 33.2 per 100,000.

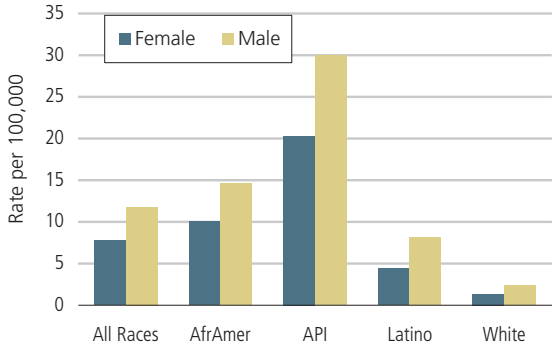
Figure 10.8: TB Cases by Gender and Age at Diagnosis



Source: Alameda County TIMS, 2007-09.

Asian/Pacific Islanders accounted for the largest proportion (60.0%) of TB cases. Female and male Asian/Pacific Islanders also had the highest gender-racial/ethnic rates (20.3 and 30.0 per 100,000 respectively), followed by African Americans and Latinos. Whites, of both genders, had the lowest rates.

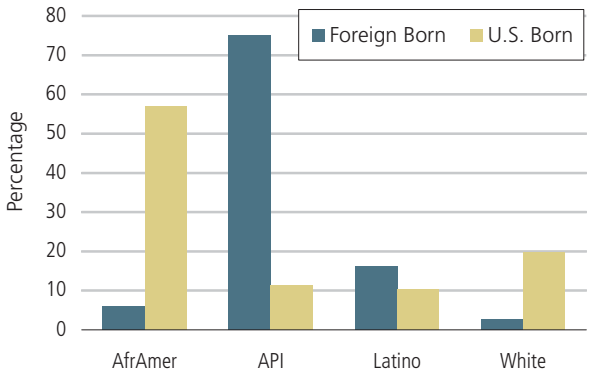
Figure 10.9: TB Cases by Race/Ethnicity and Gender



Source: Alameda County TIMS, 2007-09.

Foreign-born individuals comprise 76.4% of TB cases reported in Alameda County in 2007-09. Among the foreign-born TB cases, individuals from countries in Asia and the Pacific Islands accounted for majority of TB cases. In comparison, African Americans comprise the greatest percentage of the U.S.-born cases TB cases.

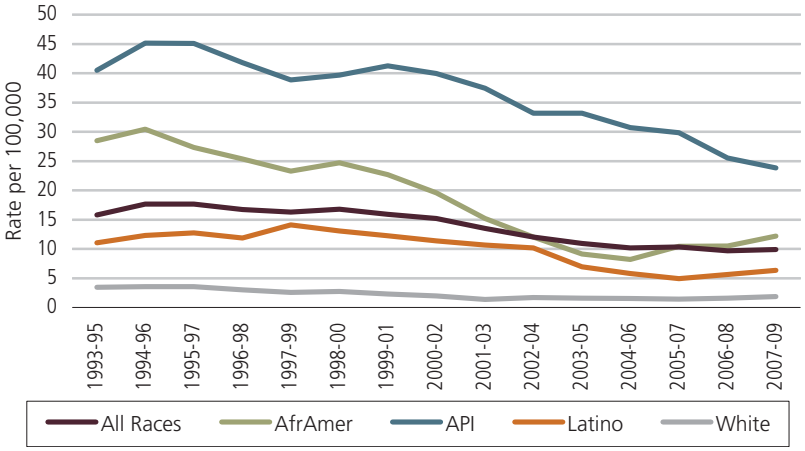
Figure 10.10: TB Cases by Place of Birth and Race/Ethnicity



Source: Alameda County TIMS, 2007-09.

The tuberculosis rates have been decreasing since the mid-1990s. Rates among Asian/Pacific Islanders were two to three times the rate of the all races. African Americans and Latinos have had decreasing rates until 2004-06, but have experienced increasing rates in the most recent years. Whites had the lowest rates overall.

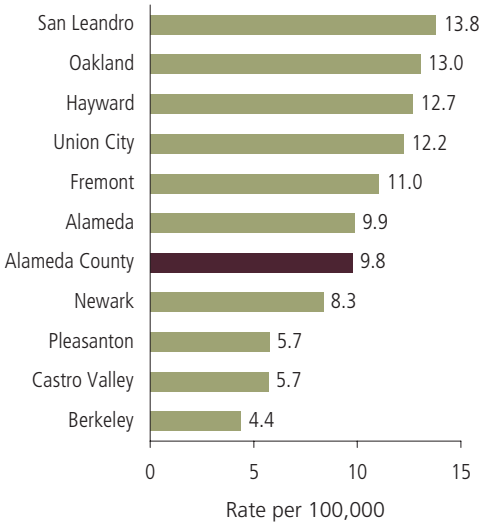
Figure 10.11: TB Cases Trend



Source: Alameda County TIMS, 1993-09.

The TB case rate ranged from a low of 4.4 in Berkeley to a high of 13.8 in San Leandro, a three-fold difference. The rate was also high in Oakland, Hayward and Union City. The city of Berkeley had the lowest rate (4.4 per 100,000), significantly lower than other cities. Several cities—Albany, Dublin, Emeryville, Livermore, Piedmont, and San Lorenzo—had numbers too small to calculate reliable rates.

Figure 10.12: TB Cases by City



Source: Alameda County TIMS, 2007-09.

Table 10.3: Three-Year TB Cases by City, Region, Gender, and Race/Ethnicity

	All				Female				Male				AfrAmer			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	453	9.8	8.2	11.3	184	7.8	5.8	9.7	269	11.8	9.4	14.2	82	12.2	9.7	15.1
Alameda	22	9.9	6.2	14.9	14	12.1	6.6	20.4	8	na	na	na	0	na	na	na
Albany	7	na	na	na	<5	na	na	na	5	na	na	na	0	na	na	na
Berkeley	14	4.4	2.4	7.3	5	na	na	na	9	na	na	na	<5	na	na	na
Castro Valley	10	5.7	2.7	10.5	<5	na	na	na	6	na	na	na	0	na	na	na
Dublin	5	na	na	na	<5	na	na	na	<5	na	na	na	<5	na	na	na
Emeryville	<5	na	na	na	<5	na	na	na	<5	na	na	na	<5	na	na	na
Fremont	71	11.0	8.6	13.9	30	9.4	6.3	13.4	41	12.6	9.1	17.2	<5	na	na	na
Hayward	57	12.7	9.6	16.4	24	10.6	6.8	15.8	33	14.7	10.1	20.7	5	na	na	na
Livermore	7	na	na	na	<5	na	na	na	5	na	na	na	0	na	na	na
Newark	11	8.3	4.2	14.9	6	na	na	na	5	na	na	na	<5	na	na	na
Oakland	165	13.0	9.6	16.5	56	8.6	6.5	11.2	109	17.7	11.9	23.4	60	16.4	12.5	21.1
Piedmont	<5	na	na	na	<5	na	na	na	<5	na	na	na	0	na	na	na
Pleasanton	12	5.7	3.0	10.0	6	na	na	na	6	na	na	na	0	na	na	na
San Leandro	34	13.8	9.5	19.3	13	10.3	5.5	17.5	21	17.5	10.8	26.8	<5	na	na	na
San Lorenzo	7	na	na	na	<5	na	na	na	<5	na	na	na	<5	na	na	na
Union City	27	12.2	8.0	17.8	13	11.7	6.3	20.1	14	12.7	6.9	21.3	<5	na	na	na
North County	21	5.7	3.5	8.7	7	na	na	na	14	7.7	4.2	12.9	<5	na	na	na
Oakland Area	191	12.3	9.3	15.3	72	9.0	7.1	11.4	119	15.7	10.8	20.6	61	15.8	12.1	20.4
Central County	108	10.0	6.7	13.3	44	8.1	5.9	10.8	64	12.0	9.3	15.4	10	8.8	4.2	16.2
South County	109	10.9	7.3	14.4	49	9.8	7.3	13.0	60	11.9	9.1	15.3	6	na	na	na
Tri-Valley	24	4.0	2.5	5.9	12	4.0	2.1	7.0	12	3.9	2.0	6.9	<5	na	na	na

	API				Latino				White			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	272	25.0	20.3	30.4	67	6.3	4.9	8.0	30	1.8	1.2	2.6
Alameda	15	21.0	11.7	34.6	<5	na	na	na	<5	na	na	na
Albany	5	na	na	na	<5	na	na	na	<5	na	na	na
Berkeley	5	na	na	na	<5	na	na	na	<5	na	na	na
Castro Valley	9	na	na	na	<5	na	na	na	0	na	na	na
Dublin	<5	na	na	na	<5	na	na	na	<5	na	na	na
Emeryville	<5	na	na	na	0	na	na	na	0	na	na	na
Fremont	64	21.1	16.2	26.9	<5	na	na	na	<5	na	na	na
Hayward	32	28.8	19.7	40.6	13	7.6	4.1	13.0	7	na	na	na
Livermore	<5	na	na	na	<5	na	na	na	<5	na	na	na
Newark	8	na	na	na	<5	na	na	na	0	na	na	na
Oakland	72	32.7	25.6	41.2	23	6.6	4.2	10.0	8	na	na	na
Piedmont	<5	na	na	na	0	na	na	na	<5	na	na	na
Pleasanton	11	30.7	15.3	54.9	0	na	na	na	<5	na	na	na
San Leandro	19	26.0	15.7	40.6	9	na	na	na	<5	na	na	na
San Lorenzo	<5	na	na	na	<5	na	na	na	0	na	na	na
Union City	22	20.2	12.7	30.7	<5	na	na	na	0	na	na	na
North County	10	13.2	6.3	24.3	<5	na	na	na	<5	na	na	na
Oakland Area	89	29.0	23.3	35.6	27	7.3	4.8	10.6	12	2.9	1.5	5.0
Central County	64	25.5	19.6	32.6	25	7.7	5.0	11.4	9	na	na	na
South County	94	20.9	16.9	25.6	7	na	na	na	<5	na	na	na
Tri-Valley	15	19.5	10.9	32.1	<5	na	na	na	<5	na	na	na

Source: Alameda County TIMS, 2007-09.

HIV/AIDS

Human immunodeficiency virus (HIV) is a virus that attacks the body's immune system. HIV can progressively weaken the immune system and thus the ability to protect itself from infection and disease. Acquired immune deficiency syndrome (AIDS) applies to the most advanced stages of HIV infection. HIV is spread from person to person through the exchange of bodily fluids, including blood, semen, vaginal secretions, and breast milk. While the most common forms of transmission are sexual contact with infected individuals and the sharing of contaminated needles or syringes, the virus can also be transmitted from HIV-infected women to their babies during pregnancy, delivery, or breast-feeding.

Men having sex with men (MSM) continues to be the predominant mode of exposure to HIV, accounting for the greatest number and percentage of cases. However, new infections due to heterosexual contact have been steadily increasing over the past decade. Injection drug use is also an important risk behavior.

HIV/AIDS is a severe, life-threatening condition that has reached epidemic proportions, affecting more than 60 million people worldwide since the onset of the HIV/AIDS epidemic 25 years ago. In the United States, it is estimated that over one million people nationwide are living with HIV/AIDS and that one in five cases were undiagnosed. CDC also estimated that over 56,000 new HIV infections each year.[1] In 2007, there were more than 14,000 deaths of persons with AIDS and the cumulative number of deaths of persons with AIDS in the United States exceeded 580,000.[2] The 2007, the AIDS case rate was 12.5 per 100,000 in the United States and 13.5 per 100,000 in California.[3] The AIDS case rate in Alameda County was 11.6 per 100,000 in 2008, lower than either the state or national rate. The number of new AIDS cases in Alameda County increased from one case in 1980 to 621 cases at the height of the epidemic in 1992, and decreased to 180 cases in 2008.[4]

The AIDS epidemic has changed over time, which has implications for prevention. Case rates peaked in the early 1990s and have dramatically declined since, representing the slowing progression of HIV infection to AIDS as well as improved behavioral risk reduction interventions. This slowing progression is largely attributable to antiretroviral drug therapies.

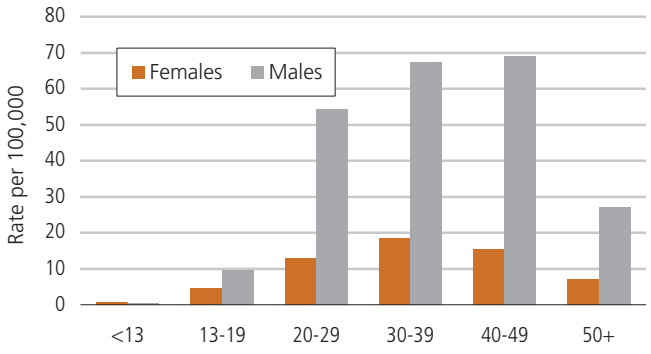
Table 10.4: AIDS Comparison

	HP2010[5]	Alameda County[4]	California[3]	United States[3]
AIDS Incidence (Rate per 100,000)	1.0	11.6	13.5	12.5

Confidential AIDS case reporting by name was implemented in California in 1983. In 2002, HIV reporting on a non-name basis was mandated in California; then HIV reporting by name was mandated in 2006. In the remainder of this section, Alameda County data on HIV cases is combined with AIDS case data and presented together as total HIV/AIDS counts and rates. Thus, the information that follows is not directly comparable to that cited above which refers only to AIDS cases. The combined HIV and AIDS case rate in Alameda County for the period 2006-2008 was 23.3 per 100,00 population.

For both females and males, the highest rates occurred among people 20 to 49 years at the time of their diagnosis. Males 40 to 49 years had the highest rate.

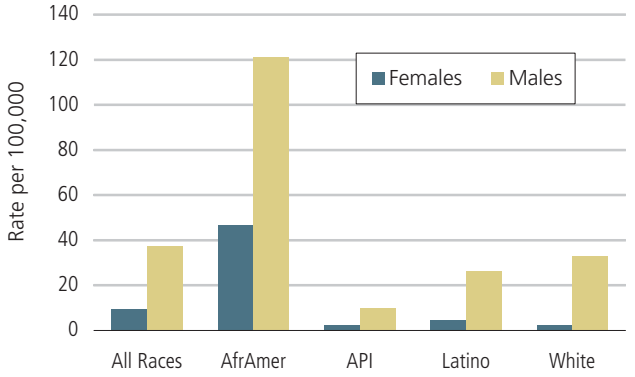
Figure 10.13: HIV/AIDS Rates by Gender and Age at Diagnosis



Source: Alameda County HARS, 2006-08.

For all racial/ethnic groups combined, the HIV/AIDS rate among males (37.5) was nearly four times the rate among females (9.7). African Americans were at greatest risk. The African American male rate (121.3) was three to 12 times greater than other male racial/ethnic groups and three times the county male rate. The rate among African American females (46.7) was ten to 20 times greater than other female groups and nearly five times the county rate for females.

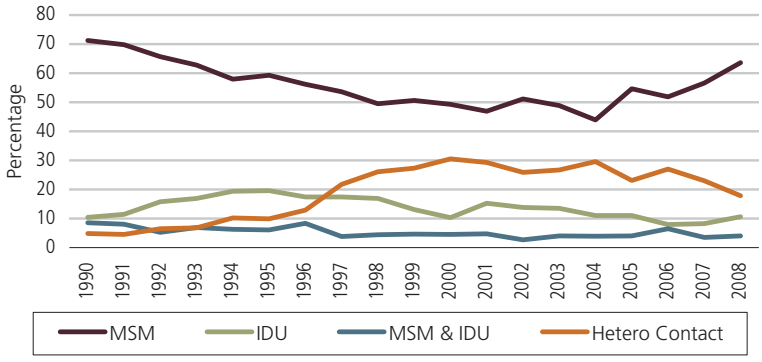
Figure 10.14: HIV/AIDS Rates by Race/Ethnicity and Gender



Source: Alameda County HARS, 2006-08.

Men who have sex with men (MSM) continued to be the predominant exposure mode of HIV/AIDS cases. While there was a decrease in the percentage of MSM cases to 2004, an increase has been observed in recent years. In 2008 over 60% of new cases were MSM. Heterosexual contact has been the second most frequent exposure mode since 1997. However, it has declined in recent years, along with injection drug use, as the proportion of MSM cases has risen.

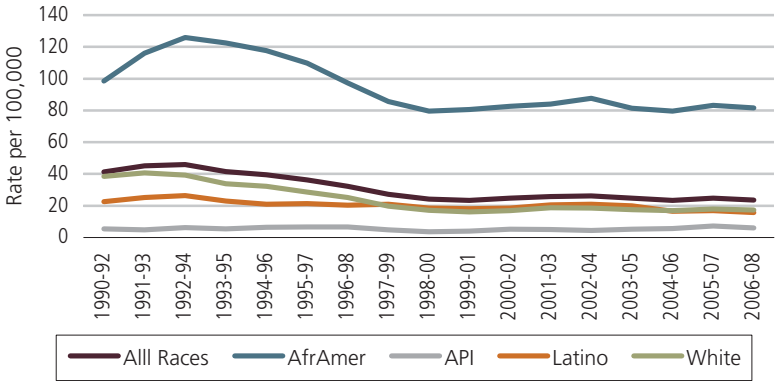
Figure 10.15: HIV/AIDS Cases Trend by Exposure Mode



Source: Alameda County HARS, 1990-08.

HIV/AIDS case rates declined from the peak of the epidemic in the early 1990s through the end of the decade. Since 2000, rates have stabilized. Rates among African Americans were at least four times the rate of the other race groups, and this gap has not narrowed over time. Rates were lowest among Asian/Pacific Islanders. The rate for Alameda County for 2006-08 was 23.3 per 100,000.

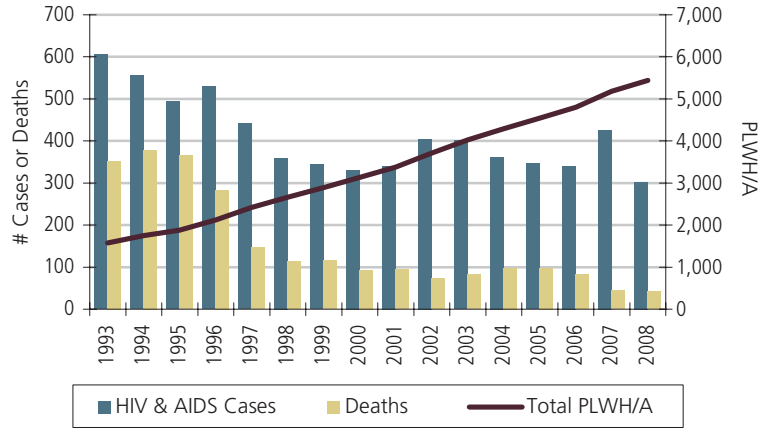
Figure 10.16: HIV/AIDS Rates Trend



Source: Alameda County HARS, 1990-08.

As a result of effective antiretroviral treatments, fewer individuals have progressed from HIV to AIDS and fewer deaths have occurred. The result has been more HIV positive individuals living longer with the disease.

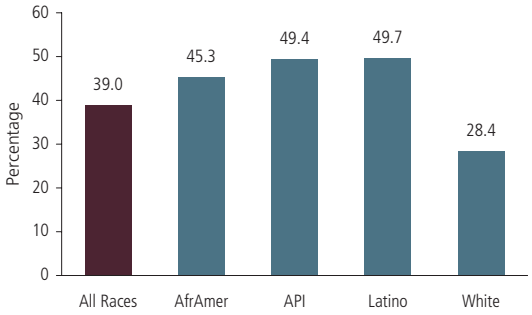
Figure 10.17: HIV/AIDS Cases, Deaths and Persons Living with HIV/AIDS



Source: Alameda County HARS, 1993-08.

Late-testers are HIV positive individuals who progressed to AIDS diagnosis within 12 months of their initial HIV diagnosis. These cases suggest missed opportunities to slow the progression to AIDS and to treat HIV. Thirty-nine percent of all cumulative AIDS cases were late testers. Nearly half of all individuals of color tested late.

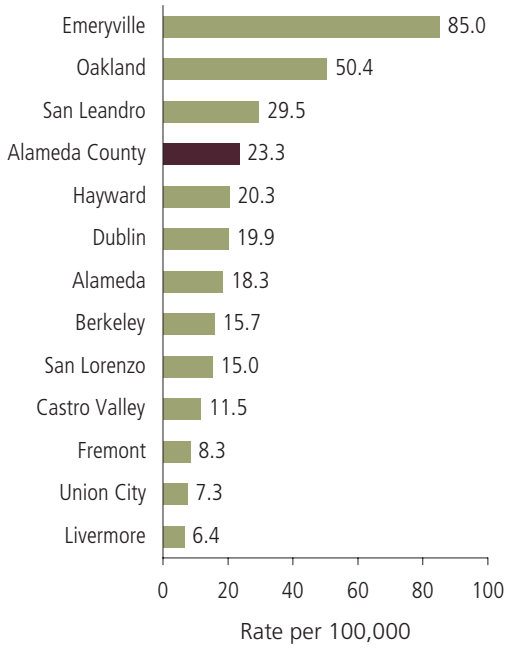
Figure 10.18: Percentage of Late-Testers among Cumulative AIDS Cases by Race/Ethnicity



Source: Alameda County HARS, 2006-08.

The HIV/AIDS case rate was significantly higher in Emeryville and Oakland than any other Alameda County city. There was a 13-fold difference between Livermore, with the lowest rate of 6.4 per 100,000 and Emeryville with a rate of 85.0. Rates are not presented for cities with fewer than 10 cases over the three year period.

Figure 10.19: HIV/AIDS Cases by City



Source: Alameda County HARS, 2006-08.

Table 10.5: Three-Year HIV/AIDS by City, Region, Gender, and Race/Ethnicity

	All				Female				Male				AfrAmer			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	1,069	23.3	20.9	25.7	226	9.7	7.5	11.9	843	37.5	33.1	41.8	544	81.6	69.7	93.4
Alameda	41	18.3	13.2	24.9	7	na	na	na	34	31.5	21.8	44.0	10	69.5	33.3	127.8
Albany	<5	na	na	na	0	na	na	na	<5	na	na	na	<5	na	na	na
Berkeley	50	15.7	11.6	20.7	7	na	na	na	43	27.3	19.8	36.8	16	48.6	27.8	79.0
Castro Valley	20	11.5	7.0	17.7	<5	na	na	na	18	21.2	12.5	33.4	<5	na	na	na
Dublin	27	19.9	13.1	29.0	5	na	na	na	22	31.0	19.4	46.9	8	na	na	na
Emeryville	24	85.0	54.4	126.4	5	na	na	na	19	134.4	80.9	209.9	13	282.3	150.3	482.8
Fremont	53	8.3	6.2	10.9	11	3.5	1.7	6.2	42	13.1	9.5	17.7	18	106.6	63.2	168.5
Hayward	90	20.3	16.3	24.9	21	9.4	5.8	14.4	69	31.2	24.3	39.5	34	71.3	49.4	99.6
Livermore	16	6.4	3.7	10.4	<5	na	na	na	14	11.2	6.2	18.9	<5	na	na	na
Newark	7	na	na	na	<5	na	na	na	5	na	na	na	<5	na	na	na
Oakland	629	50.4	43.5	57.2	138	21.5	15.3	27.7	491	81.0	68.6	93.4	390	103.9	86.0	121.8
Piedmont	<5	na	na	na	0	na	na	na	<5	na	na	na	<5	na	na	na
Pleasanton	7	na	na	na	0	na	na	na	7	na	na	na	<5	na	na	na
San Leandro	72	29.5	23.0	37.1	18	14.3	8.5	22.6	54	45.6	34.2	59.4	33	121.4	83.5	170.4
San Lorenzo	10	15.0	7.2	27.7	<5	na	na	na	8	na	na	na	<5	na	na	na
Union City	16	7.3	4.2	11.9	5	na	na	na	11	10.1	5.1	18.1	5	na	na	na
North County	54	14.7	11.0	19.2	7	na	na	na	47	26.0	19.1	34.6	18	52.2	30.9	82.5
Oakland Area	696	45.4	39.5	51.2	150	19.0	13.7	24.3	546	73.4	62.7	84.0	414	104.9	87.4	122.4
Central County	192	18.0	13.6	22.4	43	7.9	5.7	10.7	149	28.4	20.5	36.3	73	65.6	51.4	82.5
South County	76	7.7	6.1	9.6	18	3.7	2.2	5.8	58	11.7	8.9	15.1	26	77.9	50.9	114.2
Tri-Valley	50	8.5	6.3	11.2	7	na	na	na	43	14.5	10.5	19.5	12	70.6	1.4	139.9

	API				Latino				White			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	65	6.1	4.7	7.8	161	15.7	11.5	19.9	284	17.3	13.8	20.8
Alameda	<5	na	na	na	<5	na	na	na	24	22.7	14.6	33.8
Albany	0	na	na	na	0	na	na	na	<5	na	na	na
Berkeley	<5	na	na	na	13	38.1	20.3	65.2	17	9.7	5.7	15.6
Castro Valley	0	na	na	na	<5	na	na	na	14	13.7	7.5	23.0
Dublin	0	na	na	na	<5	na	na	na	17	21.1	12.3	33.8
Emeryville	5	na	na	na	<5	na	na	na	5	na	na	na
Fremont	10	3.4	1.6	6.3	6	na	na	na	19	9.1	5.5	14.3
Hayward	<5	na	na	na	28	16.8	11.2	24.3	23	23.3	14.8	34.9
Livermore	<5	na	na	na	0	na	na	na	12	6.8	3.5	11.9
Newark	<5	na	na	na	<5	na	na	na	<5	na	na	na
Oakland	28	13.2	8.8	19.1	78	23.7	18.7	29.6	123	44.1	30.6	57.7
Piedmont	0	na	na	na	0	na	na	na	<5	na	na	na
Pleasanton	0	na	na	na	<5	na	na	na	<5	na	na	na
San Leandro	5	na	na	na	14	25.4	13.9	42.6	19	23.7	14.3	37.0
San Lorenzo	<5	na	na	na	<5	na	na	na	<5	na	na	na
Union City	<5	na	na	na	6	na	na	na	<5	na	na	na
North County	<5	na	na	na	13	34.2	18.2	58.4	18	9.0	5.3	14.2
Oakland Area	36	12.2	8.5	16.9	82	23.2	18.5	28.8	153	36.4	26.4	46.5
Central County	11	4.6	2.3	8.2	48	15.3	11.3	20.3	58	16.7	12.7	21.6
South County	14	3.2	1.8	5.4	14	7.7	4.2	12.9	22	7.6	4.8	11.6
Tri-Valley	<5	na	na	na	<5	na	na	na	33	8.2	5.7	11.5

Source: Alameda County HARS, 2006-08.

This section covers three bacterial STDs that are nationally reportable: chlamydia, gonorrhea, and syphilis. Acquired through sexual contact, STDs are the most commonly reported infectious diseases in the United States Estimates are that 19 million new infections occur each year and that nearly half of these occur among people between 15 and 24 years.[1] Untreated STDs can cause serious health problems such as pelvic inflammatory disease (PID), which can cause damage to the fallopian tubes, the uterus and surrounding tissues, and lead to infertility. Additionally, infection with an STD has been shown to increase susceptibility to and transmission of HIV infection, the virus that causes AIDS.[1] African Americans bear the greatest burden of disease, particularly young African American women.[2] Chlamydia can be cured easily and its long-term consequences avoided by early detection and treatment with antibiotics.

Many individuals infected with STDs will show no symptoms of disease so they can often go undiagnosed, untreated, and unreported. Thus, the true incidence and prevalence of STD infection is difficult to monitor. Reporting of STDs, like many infectious diseases, is required of both laboratories and health care providers under Title 17 of the California Code of Regulations. Even cases of disease that are detected sometimes go unreported. Providers who do not routinely report cases should be targeted for outreach and education.

Chlamydia

Chlamydia is a sexually transmitted infection caused by the bacterium *Chlamydia trachomatis*.[3] It is the most commonly reported infectious disease in the United States. While chlamydia affects both males and females, females suffer the most severe consequences of untreated infection. Untreated chlamydia infection can result in pelvic inflammatory disease (PID), tubal pregnancy, and infertility.[1] Fifty percent of men and 75% of women infected with chlamydia will show no symptoms. The reported number of cases is thought to be less than half the actual number of new cases.[1]

There were over 1.2 million chlamydia cases reported to the Centers for Disease Control in the United States in 2008. The rate was 401.3 per 100,000.[2] This number represents an increase over the prior year, due in part to expanded screening, more complete reporting systems, and more sensitive tests.[2] The rate of reported chlamydia infections has been increasing steadily in California over the past decade. The rate in 2008 was 390.8 per 100,000.[4]

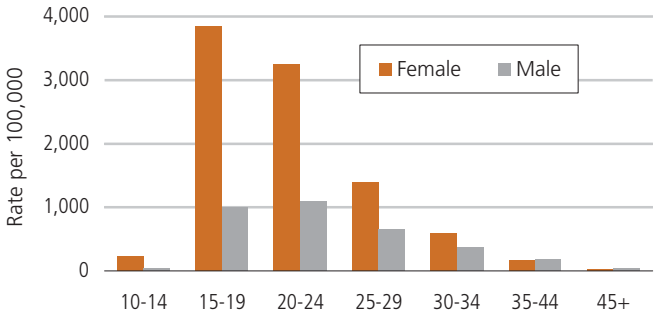
Table 10.6: Chlamydia Comparison

	Alameda County	California[4]	United States[2]
Chlamydia Incidence (Rate per 100,000)	448.5	390.8	401.3

In 2007-09, there were 20,823 reported chlamydia cases among Alameda County residents, or 448.5 per 100,000 population.

Chlamydia case rates were highest among females 15-19 years and 20-24 years in Alameda County (3,845 and 3,252 per 100,000 respectively). Rates among males 15-19 years and 20-24 years were less than one-third the female rates. Rates taper off after age 25 among both males and females.

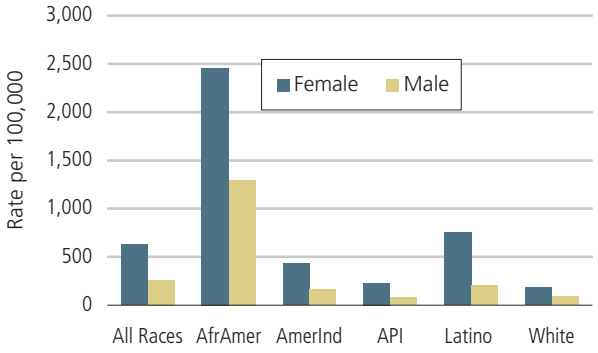
Figure 10.20: Chlamydia Case Rates by Age Group and Gender



Source: ACPHD through CDPH, 2007-09.

Chlamydia case rates among both male and female African Americans were higher than those in other racial/ethnic groups. The highest rate was found among African American females (2,456 per 100,000). This rate was three to thirteen times those in other groups and nearly four times the county rate.

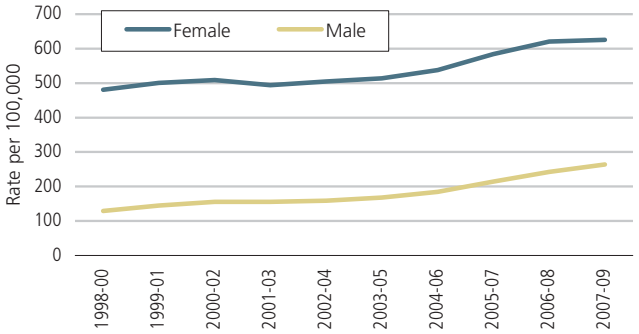
Figure 10.21: Chlamydia Case Rates by Race/Ethnicity



Source: ACPHD through CDPH, 2007-09.

From 1998 to 2009, chlamydia rates for both males and females increased. The male rate increased more than the female rate, by 8% per year on average compared to 3% for females. Females consistently had higher rates of chlamydia than males by a factor of two or three times, in part due to the routine screening of females in clinical settings. The ratio of the female to male rate decreased steadily from 3.7 in 1998-00 to 2.4 in 2007-09.

Figure 10.22: Chlamydia Case Rate Trend

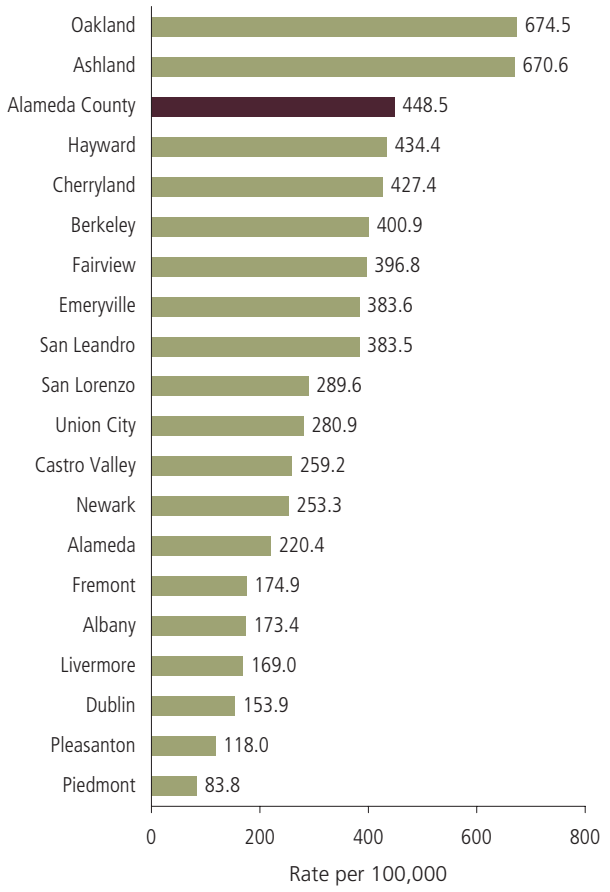


Source: ACPHD through CDPH, 1998-09.

The highest rates of reported chlamydia in Alameda County were found in Oakland and Ashland, where rates were 50% higher than the county rate of 448.5 per 100,000. Oakland cases account for 41% of cases in the county (even though Oakland is just 27% of the population); thus the county rate is heavily influenced by the Oakland rate. Piedmont had the lowest rate (just one-eighth the Oakland rate) followed by Pleasanton and Dublin.

It should be noted that rates are not only a reflection of the true burden of disease, but also of provider screening and reporting practices. If providers in some areas are less likely to conform to legally mandated reporting requirements than those in other areas, then rates will be artificially low and not an accurate reflection of disease occurrence. However, most testing laboratories routinely send positive results to the Alameda County Public Health Department, thereby at least partially mitigating the potential for underreporting by providers.

Figure 10.23: Chlamydia Case Rates by City



Source: ACPHD through CDPH, 2007-09.

Gonorrhea

Gonorrhea is a sexually transmitted infection caused by the bacterium *Neisseria gonorrhoeae*.[3] It is the second most commonly reported infectious disease in the United States after chlamydia. A total of 336,742 infections were reported in the United States in 2008, for a rate of 111.6 per 100,000.[2] Like chlamydia, gonorrhea infections are underreported; estimates are that the actual number of infections are twice the number of reported infections.[2] Gonorrhea rates have changed little in the United States over the past decade.[2] However, in California, rates have been declining since 2005. In 2008, the California rate was 66.7 per 100,000.[4]

Resistance of *N. gonorrhoeae* to the fluoroquinolone class of antimicrobials has increased sharply in the United States since 1999.[5] Fluoroquinolone resistance was found to increase in California from 1.1% of isolates in 2000 to 25.4% in 2005. In April 2007, CDC issued new guidelines recommending that this class of drugs no longer be used to treat gonorrhea in the United States. Presently, this change leaves only one class of antibiotics available for treatment, the cephalosporins (for example, ceftriaxone, cefixime).[5]

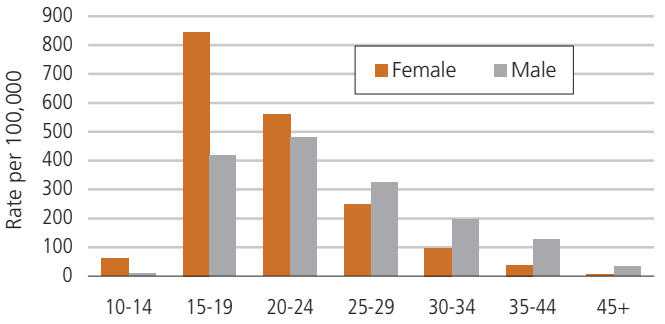
Table 10.7: Gonorrhea Comparison

	Alameda County	California[4]	United States[2]
Gonorrhea Incidence (Rate per 100,000)	127.6	66.7	111.6

From 2007-09, there were 5,927 reported gonorrhea cases among Alameda County residents, or 127.6 per 100,000 population.

The gonorrhea infection rate was highest among females 15-19 years in Alameda County (846.1 per 100,000), followed by females 20-24 years (559.1), and it was higher than males in both age groups. In subsequent age groups male rates exceeded female rates, by a factor of two to four times. This may indicate that in some sexual networks older men are having sex with younger women. In addition it suggests between disease and sexual risk-taking among men who have sex with men (MSM).

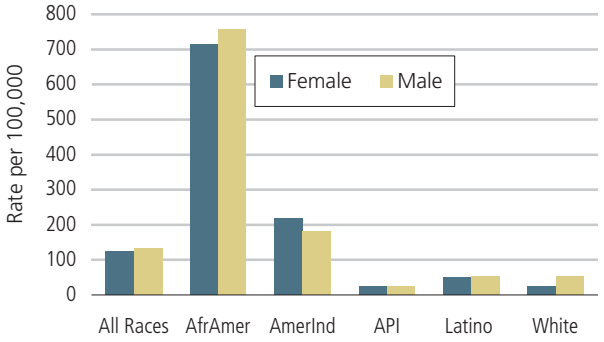
Figure 10.24: Gonorrhea Case Rates by Age Group and Gender



Source: ACPHD through CDPH, 2007-09.

Despite gender differences by age, overall gonorrhea case rates were similar among males and females of the same racial/ethnic groups. The rate among African Americans of over 700 per 100,000 was more than three times higher than American Indians, who had the second highest rate and more than five times the Alameda County rate of 127.6 per 100,000.

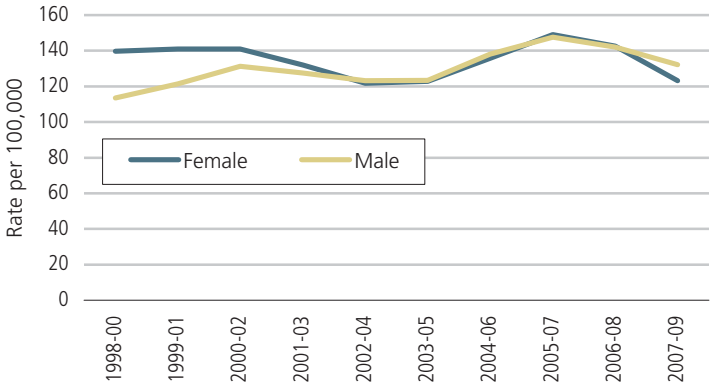
Figure 10.25: Gonorrhea Case Rates by Race/Ethnicity



Source: ACPHD through CDPH, 2007-09.

Male and female gonorrhea rates were essentially the same between 2001-03 and 2006-08. The rate for both genders increased significantly from 2003-05 to 2005-07. Since then, rates have declined. The reason for the recent decline is unclear but could be due to changes in access to care.

Figure 10.26: Gonorrhea Case Rate Trend

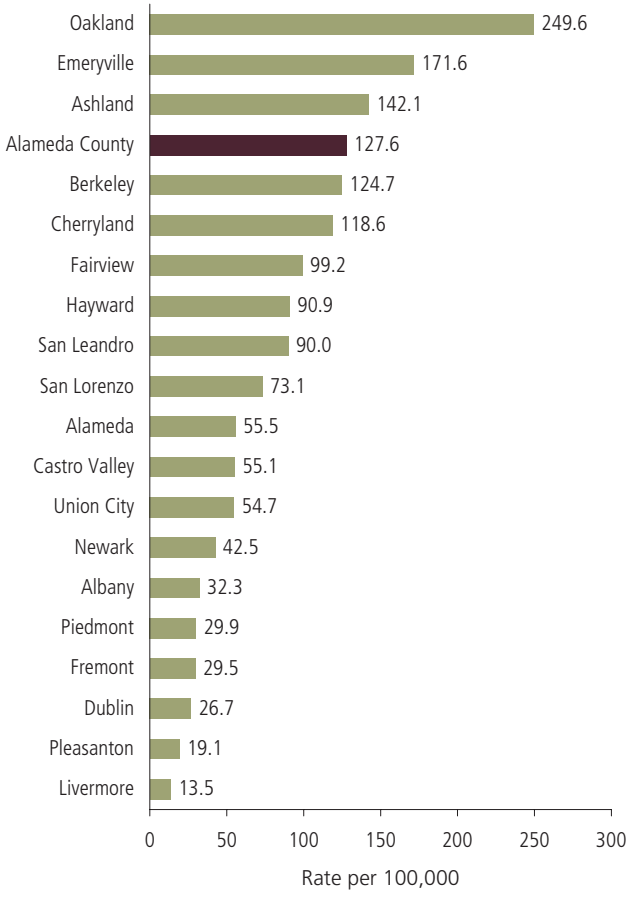


Source: ACPHD through CDPH, 1998-09

The highest rate of gonorrhea infection in Alameda County was found in Oakland (249.6 per 100,000), where the rate was nearly twice the countywide rate of 127.6. Rates in Emeryville and Ashland also were above the county rate. Similar to chlamydia cases, Oakland cases account for 53% of the gonorrhea cases in Alameda County, substantially impacting the county rate.

The lowest rates were found in the Tri-Valley cities of Livermore, Pleasanton, and Dublin, where, overall the rate was a fraction of the Oakland rate.

Figure 10.27: Gonorrhea Case Rates by City



Source: ACPHD through CDPH, 2007-09

Syphilis

Syphilis is caused by infection with *Treponema pallidum*, a spirochete.[3] Left untreated, syphilis can lead to serious problems that include brain, heart and other organ damage, and even death. Infection in the womb results in congenital syphilis of the fetus or newborn, leading in some cases to death, physical deformity, or brain damage. As with other STDs, syphilis infection makes it easier to become infected with HIV.[1]

Rates of primary and secondary syphilis infection are tracked closely because these are the stages when the disease is most infectious. Nationally, the rate of primary and secondary (P&S) syphilis infection began climbing in 2001 after declining throughout the 1990s. The California rate began climbing in 1999 and was 5.7 per 100,000 in 2008.[4] In the United States there were 13,500 reported cases in 2008, for a rate of 4.5 per 100,000.[2] Most of the increase in cases has been among males, particularly men who have sex with men (MSM).

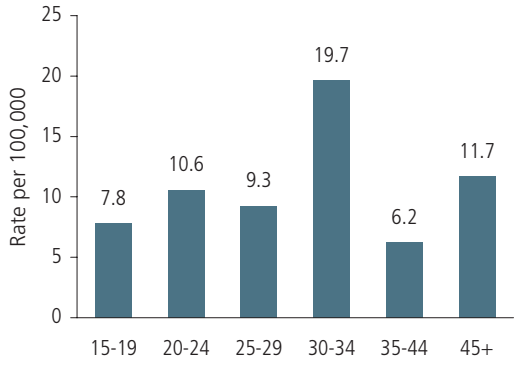
Table 10.8: Syphilis Comparison

	Alameda County	California[4]	United States[2]
Primary & Secondary Syphilis Incidence (Rate per 100,000)	4.5	5.7	4.5

In 2007-09, there were 207 primary and secondary syphilis cases reported in Alameda County. The vast majority of cases, 93%, were male, and 84% of these were men who have sex with men (MSM).

The rate of primary and secondary syphilis was highest those 30-34 years (19.7 per 100,000), and lowest among those 35-44 years (6.2). Due to the relatively small number of cases, this pattern changes from year to year.

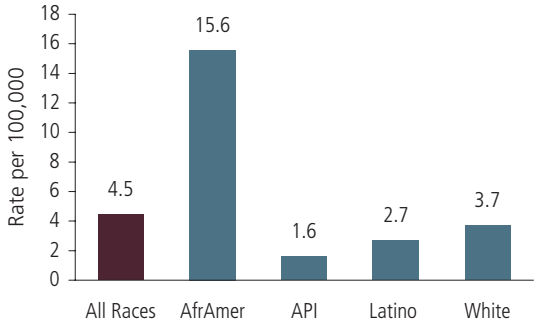
Figure 10.28: P&S Syphilis Case Rates by Age Group



Source: ACPHD through CDPH, 2007-09.

The syphilis case rate among African Americans was 15.6 per 100,000, four to ten times higher than other racial/ethnic groups and three times the county rate of 4.5 per 100,000. A higher percentage of African American cases were female (15%) compared to zero percent for Asian/Pacific Islanders and Whites and 4% for Latinos.

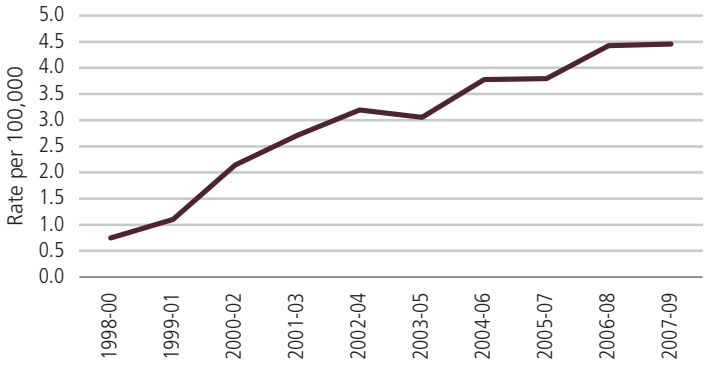
Figure 10.29: P&S Syphilis Case Rates by Race/Ethnicity



Source: ACPHD through CDPH, 2007-09.

The rate of primary and secondary syphilis increased significantly over the entire period from 1998 to 2009. The rate increased by an average of 56% per year until 2002-04 and then slowed to about 8% per year subsequently. The increase in rates is attributable to an increase in male rates.

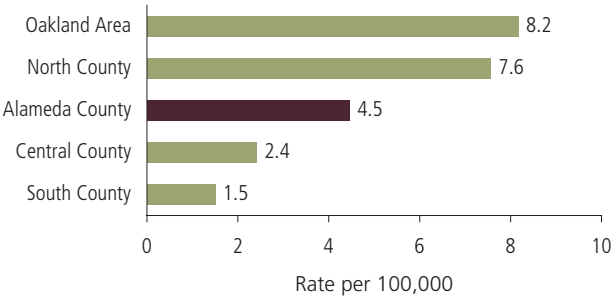
Figure 10.30: P&S Syphilis Case Rate Trend



Source: ACPHD through CDPH, 1998-09.

The rate of primary and secondary syphilis was highest in the Oakland and North county regions, about four to five times the rates in the Central and South County regions. The Tri-Valley region had only seven cases over the three-year period, yielding a very low but unreliable rate.

Figure 10.31: P&S Syphilis Case Rates by Region



Source: ACPHD through CDPH, 2007-09.

Table 10.9: Three-Year Chlamydia by City, Region, Gender, and Race/Ethnicity

	All				Female				Male				AfrAmer			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	20,835	448.5	442.4	454.6	14,812	630.6	620.4	640.7	6,011	261.7	255.1	268.4	11,230	1,922.0	1,886.5	1,957.6
Alameda	492	220.4	200.9	239.9	324	281.2	250.5	311.8	168	155.6	132.0	179.1	200	1,362.5	1,173.5	1,551.4
Albany	86	173.4	138.7	214.2	57	217.8	164.9	282.2	29	123.8	82.9	177.9	<5	na	na	na
Ashland	434	670.6	607.5	733.7	336	1,024.5	915.0	1,134.1	98	307.0	249.2	374.1	254	1,818.0	1,594.5	2,041.4
Berkeley	1,286	400.9	379.0	422.8	798	492.5	458.3	526.6	487	306.8	279.5	334.0	707	2,284.7	2,116.2	2,453.1
Castro Valley	456	259.2	235.4	283.0	334	371.2	331.4	411.0	121	140.8	115.7	165.8	181	1,770.1	1,512.4	2,027.8
Cherryland	191	427.4	366.8	488.0	132	605.6	502.3	708.9	59	257.7	196.2	332.4	72	1,441.6	1,128.0	1,815.4
Dublin	219	153.9	133.5	174.3	162	239.2	202.3	276.0	57	76.5	57.9	99.1	54	525.1	394.4	685.1
Emeryville	114	383.6	313.2	454.0	59	398.0	302.9	513.3	55	369.2	278.2	480.6	49	1,049.5	773.8	1,391.5
Fairview	116	396.8	324.6	469.0	91	618.9	498.3	759.9	25	172.1	111.4	254.0	47	799.2	585.1	1,066.1
Fremont	1,126	174.9	164.7	185.1	831	260.1	242.5	277.8	295	91.0	80.6	101.4	282	1,691.2	1,493.7	1,888.6
Hayward	1,955	434.4	415.1	453.6	1,482	656.2	622.8	689.6	471	210.0	191.1	229.0	817	1,702.8	1,586.0	1,819.6
Livermore	426	169.0	153.0	185.1	327	259.7	231.5	287.8	99	78.5	63.8	95.6	50	1,180.4	873.3	1,560.6
Newark	334	253.3	226.1	280.5	240	367.7	321.2	414.2	94	141.2	114.1	172.8	84	1,800.6	1,434.2	2,232.1
Oakland	8,548	674.5	660.2	688.8	5,936	912.2	889.0	935.4	2,607	422.8	406.6	439.1	5,933	1,624.1	1,582.7	1,665.4
Piedmont	28	83.8	55.7	121.2	22	127.9	80.2	193.7	6	na	na	na	<5	na	na	na
Pleasanton	247	118.0	103.3	132.7	172	162.1	137.9	186.3	75	72.7	57.2	91.1	17	621.0	361.7	994.2
San Leandro	946	383.5	359.1	407.9	691	545.1	504.5	585.7	255	212.6	186.5	238.7	408	1,455.9	1,314.7	1,597.1
San Lorenzo	194	289.6	248.9	330.4	149	435.2	365.4	505.1	45	137.4	100.2	183.8	48	1,996.7	1,467.1	2,655.1
Sunol	<5	na	na	na	<5	na	na	na	0	na	na	na	0	na	na	na
Union City	621	280.9	258.8	303.0	463	418.2	380.1	456.3	158	143.2	120.9	165.5	219	1,969.1	1,708.5	2,229.7
North County	1,372	370.4	350.8	390.0	855	454.3	423.8	484.7	516	283.3	258.8	307.7	727	2,240.3	2,077.5	2,403.2
Oakland Area	9,182	591.0	578.9	603.1	6,341	794.6	775.0	814.2	2,836	375.3	361.5	389.1	6,222	1,616.2	1,576.0	1,656.4
Central County	4,292	398.0	386.1	409.9	3,215	588.7	568.4	609.1	1,074	201.8	189.7	213.9	1,832	1,614.0	1,540.1	1,687.9
South County	2,083	208.1	199.2	217.0	1,536	308.7	293.3	324.2	547	108.7	99.5	117.8	579	1,784.6	1,639.2	1,929.9
Tri-Valley	892	147.8	138.1	157.5	661	220.5	203.7	237.3	231	76.0	66.2	85.8	123	709.5	584.1	834.9

	AmerInd				API				Latino				White			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	43	288.1	207.6	389.4	1,801	154.6	147.5	161.7	4,666	463.3	450.0	476.6	2,315	139.3	133.6	145.0
Alameda	0	na	na	na	80	111.8	88.5	139.3	57	269.2	203.3	349.6	126	123.6	102.0	145.1
Albany	0	na	na	na	29	189.1	125.6	273.3	19	474.5	285.7	741.1	29	110.3	73.3	159.5
Ashland	<5	na	na	na	27	228.0	150.3	331.8	105	445.3	360.2	530.5	25	210.4	136.2	310.6
Berkeley	<5	na	na	na	82	135.6	107.7	168.5	236	674.7	588.7	760.7	211	120.4	104.2	136.6
Castro Valley	0	na	na	na	56	171.8	129.4	223.6	88	358.0	286.8	441.6	119	119.7	98.2	141.1
Cherryland	0	na	na	na	14	274.0	145.9	468.6	79	367.8	290.7	459.0	18	160.2	95.0	253.2
Dublin	0	na	na	na	24	111.5	70.7	167.3	43	206.3	149.3	277.9	85	101.9	81.3	126.1
Emeryville	0	na	na	na	29	295.8	196.6	427.5	12	500.2	258.5	873.8	18	161.2	95.5	254.8
Fairview	<5	na	na	na	<5	na	na	na	26	469.4	303.7	692.9	28	223.5	147.3	325.2
Fremont	<5	na	na	na	229	75.3	65.6	85.1	292	330.3	292.4	368.2	236	116.9	102.0	131.9
Hayward	7	na	na	na	190	170.7	146.4	194.9	662	388.4	358.8	418.0	169	176.4	149.8	203.0
Livermore	0	na	na	na	17	83.2	47.6	135.1	151	359.2	301.9	416.5	199	113.5	97.7	129.3
Newark	<5	na	na	na	47	129.0	94.8	171.5	121	291.3	239.4	343.1	59	142.8	108.4	184.6
Oakland	15	345.4	193.3	569.7	482	219.0	199.5	238.6	1,492	430.7	408.8	452.5	430	152.9	138.5	167.4
Piedmont	0	na	na	na	6	na	na	na	0	na	na	na	14	57.1	31.2	95.8
Pleasanton	0	na	na	na	<5	na	na	na	77	432.5	341.3	540.6	135	93.0	77.3	108.8
San Leandro	<5	na	na	na	125	171.6	141.6	201.6	249	434.9	380.9	488.9	114	148.3	121.1	175.6
San Lorenzo	0	na	na	na	13	98.3	52.3	168.1	74	366.1	287.5	459.7	53	194.6	145.8	254.6
Sunol	0	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Union City	0	na	na	na	116	107.2	87.7	126.6	210	363.4	314.2	412.6	41	127.5	91.1	173.6
North County	<5	na	na	na	102	134.5	108.3	160.6	254	650.8	570.8	730.8	235	116.3	101.4	131.2
Oakland Area	15	271.5	151.9	447.7	581	188.9	173.5	204.3	1,570	423.2	402.2	444.1	562	134.1	123.0	145.2
Central County	14	378.1	206.7	634.4	424	168.9	152.8	185.0	1,295	400.8	379.0	422.7	514	152.9	139.7	166.2
South County	<5	na	na	na	392	87.2	78.6	95.9	621	330.2	304.2	356.2	344	123.8	110.7	136.9
Tri-Valley	0	na	na	na	46	59.8	43.8	79.8	272	336.6	296.7	376.6	415	103.1	93.2	113.0

Source: ACPHD through CDPH, 2007-09.

Table 10.10: Three-Year Gonorrhea by City, Region, Gender, and Race/Ethnicity

	All				Female				Male				AfrAmer			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	5,929	127.6	124.4	130.9	2,917	124.2	119.7	128.7	3,010	131.1	126.4	135.8	4,287	733.7	711.8	755.7
Alameda	124	55.5	45.8	65.3	53	46.0	34.5	60.2	71	65.7	51.3	82.9	62	422.9	324.2	542.1
Albany	16	32.3	18.4	52.4	<5	na	na	na	14	59.8	32.7	100.3	6	na	na	na
Ashland	92	142.1	114.6	174.3	62	189.0	144.9	242.3	30	94.0	63.4	134.1	76	543.9	428.5	680.7
Berkeley	400	124.7	112.5	136.9	159	98.1	82.9	113.4	240	151.2	132.1	170.3	236	763.0	665.7	860.4
Castro Valley	97	55.1	44.7	67.3	53	58.9	44.1	77.0	44	51.2	37.2	68.7	55	539.1	406.1	701.7
Cherryland	53	118.6	88.8	155.1	25	114.7	74.2	169.3	28	122.3	81.3	176.8	42	831.5	596.7	1,128.0
Dublin	38	26.7	18.9	36.7	17	25.1	14.6	40.2	21	28.2	17.4	43.1	10	96.9	46.4	178.1
Emeryville	51	171.6	127.8	225.6	17	114.7	66.8	183.6	34	228.3	158.1	319.0	27	589.9	388.8	858.3
Fairview	29	99.2	66.4	142.5	12	81.6	42.2	142.6	17	117.0	68.2	187.4	22	381.4	239.0	577.4
Fremont	190	29.5	25.3	33.7	92	28.8	23.2	35.3	98	30.2	24.5	36.8	90	537.9	432.0	662.0
Hayward	409	90.9	82.1	99.7	219	97.0	84.1	109.8	190	84.7	72.7	96.8	227	473.8	412.2	535.4
Livermore	34	13.5	9.3	18.9	18	14.3	8.5	22.6	16	12.7	7.3	20.6	15	353.8	193.4	593.6
Newark	56	42.5	32.1	55.2	25	38.3	24.8	56.5	31	46.6	31.6	66.1	21	456.9	282.8	698.5
Oakland	3,163	249.6	240.9	258.3	1,565	240.5	228.6	252.4	1,597	259.0	246.3	271.7	2,602	712.4	685.0	739.7
Piedmont	10	29.9	14.4	55.1	<5	na	na	na	8	na	na	na	<5	na	na	na
Pleasanton	40	19.1	13.7	26.0	20	18.8	11.5	29.1	20	19.4	11.8	29.9	15	517.2	282.7	867.7
San Leandro	222	90.0	78.2	101.8	103	81.3	65.6	96.9	119	99.2	81.4	117.1	139	497.1	414.5	579.6
San Lorenzo	49	73.1	54.1	96.7	29	84.7	56.7	121.7	20	61.1	37.3	94.3	27	1,143.1	753.3	1,663.2
Sunol	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na
Union City	121	54.7	45.0	64.5	81	73.2	58.1	90.9	40	36.2	25.9	49.4	73	651.9	510.1	821.0
North County	416	112.3	101.5	123.1	161	85.5	72.3	98.8	254	139.4	122.3	156.6	244	751.6	657.3	845.9
Oakland Area	3,348	215.5	208.2	222.8	1,637	205.1	195.2	215.1	1,710	226.3	215.6	237.0	2,699	701.1	674.6	727.5
Central County	951	88.2	82.6	93.8	503	92.1	84.1	100.2	448	84.2	76.4	92.0	588	517.8	475.9	559.7
South County	367	36.7	32.9	40.4	198	39.8	34.3	45.3	169	33.6	28.5	38.6	182	560.7	479.2	642.2
Tri-Valley	112	18.6	15.1	22.0	55	18.3	13.8	23.9	57	18.8	14.2	24.3	39	226.6	161.1	309.8

	AmerInd				API				Latino				White			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	29	199.2	133.4	286.1	274	23.5	20.8	26.3	519	51.5	47.1	56.0	644	38.8	35.8	41.8
Alameda	0	na	na	na	18	25.8	15.3	40.8	8	na	na	na	25	24.6	15.9	36.3
Albany	0	na	na	na	<5	na	na	na	0	na	na	na	6	na	na	na
Ashland	0	na	na	na	0	na	na	na	5	na	na	na	9	na	na	na
Berkeley	<5	na	na	na	21	35.3	21.8	53.9	41	117.0	83.6	159.4	93	53.2	42.9	65.2
Castro Valley	<5	na	na	na	0	na	na	na	10	41.0	19.7	75.4	27	26.8	17.5	39.3
Cherryland	0	na	na	na	0	na	na	na	8	na	na	na	<5	na	na	na
Dublin	0	na	na	na	8	na	na	na	0	na	na	na	16	19.3	11.0	31.3
Emeryville	<5	na	na	na	10	na	na	na	<5	na	na	na	8	na	na	na
Fairview	0	na	na	na	0	na	na	na	0	na	na	na	<5	na	na	na
Fremont	<5	na	na	na	24	8.0	5.1	11.9	21	24.1	14.9	36.8	41	20.4	14.6	27.6
Hayward	<5	na	na	na	24	21.9	14.0	32.6	78	45.7	36.0	57.1	44	45.6	33.0	61.5
Livermore	0	na	na	na	0	na	na	na	6	na	na	na	11	6.1	2.9	11.2
Newark	<5	na	na	na	<5	na	na	na	18	43.7	25.9	69.0	11	25.7	12.3	47.2
Oakland	13	294.7	152.3	514.8	100	45.4	36.9	55.3	200	57.7	49.7	65.7	189	67.1	57.5	76.7
Piedmont	0	na	na	na	0	na	na	na	0	na	na	na	5	na	na	na
Pleasanton	0	na	na	na	<5	na	na	na	<5	na	na	na	22	15.1	9.3	23.0
San Leandro	0	na	na	na	17	22.6	12.9	36.7	24	41.7	26.4	62.5	37	47.8	33.4	66.1
San Lorenzo	0	na	na	na	<5	na	na	na	14	67.2	35.8	114.9	5	na	na	na
Sunol	0	na	na	na	0	na	na	na	0	na	na	na	0	na	na	na
Union City	0	na	na	na	10	9.5	4.6	17.6	19	33.0	19.8	51.5	12	37.8	19.6	66.1
North County	<5	na	na	na	23	30.9	19.6	46.4	42	107.0	76.8	145.1	99	48.9	39.7	59.6
Oakland Area	15	258.0	141.0	432.8	126	41.1	33.9	48.2	212	57.1	49.4	64.8	225	53.7	46.7	60.7
Central County	5	na	na	na	43	17.3	12.5	23.3	139	43.1	35.9	50.2	127	37.8	31.2	44.3
South County	<5	na	na	na	38	8.5	6.0	11.6	59	31.1	23.6	40.2	65	23.3	18.0	29.8
Tri-Valley	0	na	na	na	10	na	na	na	8	na	na	na	49	12.2	9.0	16.1

Source: ACPHD through CDPH, 2007-09.

Table 10.11: Three-Year Primary and Secondary Syphilis by Region, Gender, and Race/Ethnicity

	All				Female				Male				AfrAmer			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	207	4.5	3.8	5.1	15	0.6	0.4	1.1	192	8.4	7.2	9.5	91	15.6	12.5	19.1
North County	28	7.6	5.0	10.9	0	na	na	na	28	15.4	10.2	22.2	10	30.8	14.8	56.7
Oakland Area	127	8.2	6.8	9.6	11	1.4	0.7	2.5	116	15.4	12.6	18.1	70	18.3	14.3	23.1
Central County	26	2.4	1.6	3.5	<5	na	na	na	24	4.5	2.9	6.7	11	9.7	4.8	17.3
South County	15	1.5	0.8	2.5	<5	na	na	na	14	2.8	1.5	4.7	0	na	na	na
Tri-Valley	7	na	na	na	<5	na	na	na	6	na	na	na	0	na	na	na

	AmerInd				API				Latino				White			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Alameda County	<5	na	na	na	19	1.6	1.0	2.6	27	2.7	1.8	3.9	62	3.7	2.8	4.8
North County	0	na	na	na	<5	na	na	na	<5	na	na	na	13	6.4	3.4	11.0
Oakland Area	<5	na	na	na	<5	na	na	na	14	3.7	2.0	6.4	34	8.2	5.6	11.4
Central County	<5	na	na	na	<5	na	na	na	5	na	na	na	6	na	na	na
South County	0	na	na	na	7	na	na	na	<5	na	na	na	<5	na	na	na
Tri-Valley	0	na	na	na	<5	na	na	na	0	na	na	na	<5	na	na	na

Source: ACPHD through CDPH, 2007-09.

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Access to and Utilization of Health Care

Access to Health Care

There are several measures of access to health care. Commonly used measures are health insurance coverage, usual source of care, delays in care, and barriers to health care.[1] Health insurance coverage improves access and quality of medical care and contributes to overall health. In the United States, the percentage of uninsured persons in 2009 was 15.3% (46.0 million) for persons of all ages, 17.4% (45.7 million) for those under 65 years, 21.0% (39.7 million) for those 18-64 years, and 8.2% (6.1 million) for children under 18 years. These estimates show that there has been an increase since 2008 when 43.6 million persons under 65 years were uninsured, of which 37.1 million (19.7%) were adults 18 to 64 years and 6.6 million (8.9%) were children under 18 years. Based on 2009 data, a total of 58.4 million (19.4%) persons of all ages were uninsured for at least part of the year in the United States. Adults 18-64 years were almost twice as likely to experience this lack of coverage (25.5%) as children (13.0%).[2] While the number of uninsured Americans has been growing, characteristics of the uninsured, and the social and economic factors that place a person at risk of being uninsured, have not changed substantially over time. Low- and moderate-income persons are the most likely to be uninsured—twice as likely as the national average. Almost two-thirds of those who did not attend college are uninsured. Additionally, people of color and non-citizens are more likely to be uninsured than Whites or citizens.[3] In California, similar disparities by race/ethnicity, citizenship and immigration status pervade health insurance coverage.[4] From 2007 to 2009 there was a sharp increase from 19.5% to 24.3% in the percentage of non-elderly adults who were uninsured all or part of the year.[5]

Most adults in the United States have a usual source of care which they use for much of their health care. Regardless of health status, people benefit from having a usual source of health care even if they are uninsured. Not having a usual source of care is linked with race/ethnicity, health insurance status, and family income. Those who have a usual source of care are more likely to receive preventive care, to have access to and utilize medical care, not delay seeking care, receive continuous care, and have lower rates of hospitalization and lower health care costs.[6] Persons who have a usual source of care may also have better control of chronic medical conditions such as hypertension. Despite such benefits, many adults in the United States do not have a usual source of care. Those who lack a usual source of care do so for a number of reasons which include cost or other access barriers, or preference (that is, placing little value on having a usual source of care). Studies have shown that younger adults, Latinos, African Americans, and men are less likely than older adults, Whites, and women to have a usual source of care. Additionally, studies have shown that persons reporting excellent health and those without health insurance are less likely to have a usual source of care.[7]

Being uninsured and not having a usual source of care can severely limit access to health care. Uninsured adults and those who lack a usual source of care are far more likely to delay or forgo health care and less able to afford prescription drugs or follow through with treatment recommendations—all of which have adverse health consequences.[3,6]

Like health insurance, dental insurance is also important. Dental coverage directly affects a person's ability to obtain care because it reduces or removes financial barriers to services. However, unlike health insurance, there is a much smaller risk of catastrophic financial loss in the absence of dental insurance. Dental insurance is often more limited in scope and availability than health insurance. People without dental insurance typically seek dental care less often and may suffer poor dental health as consequence. In the United States, the extent of dental insurance coverage is substantially lower than that for health insurance.[8]

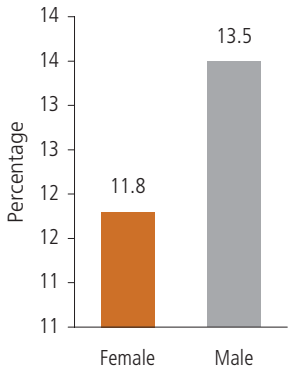
Table 11.1: Access to Health Care Comparison

	HP2010[9]	Alameda County	California[10]
Uninsured (Percentage)	100.0	12.6	18.7
Have a Usual Source of Care (Percentage)	≤96.0	10.3	12.2

Profile of the Uninsured

This section describes characteristics of uninsured non-elderly adults, i.e., those 18-64 years. Among non-elderly adults, men are more likely to be uninsured than females (13.5% versus 11.8%).

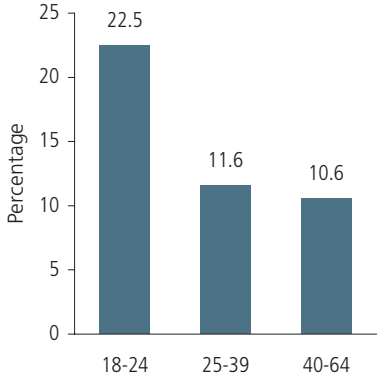
Figure 11.1: Uninsured Non-Elderly Adults by Gender



Source: California Health Interview Survey, 2005 & 2007.

Young adults 18-24 years are over twice as likely to lack health insurance compared to adults 40-64 years (22.5% versus 10.6%).

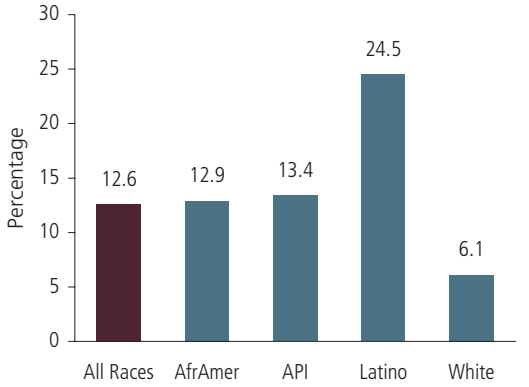
Figure 11.2: Uninsured Non-Elderly Adults by Age Group



Source: California Health Interview Survey, 2005 & 2007.

In Alameda County, an estimated 12.6% of non-elderly adults were uninsured in 2005-07. Among non-elderly adults, almost one in four Latinos (24.5%) were uninsured, four times the percentage for Whites (6.1%). Asian/Pacific Islanders and African Americans were uninsured at twice the rate of Whites (13.4% and 12.9% respectively).

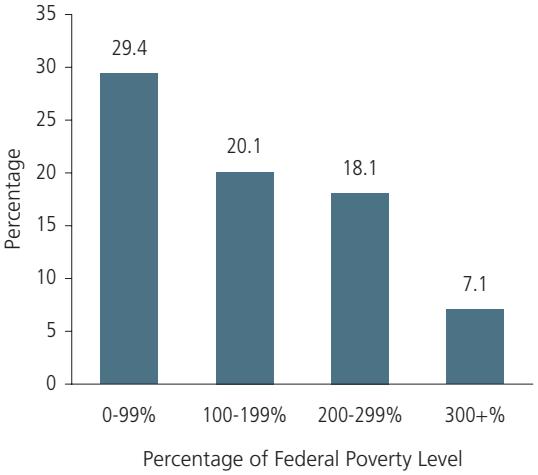
Figure 11.3: Uninsured Non-Elderly Adults by Race/Ethnicity



Source: California Health Interview Survey, 2005 & 2007.

Low-income adults were over four times as likely to be uninsured as high-income adults (29.4% and 7.1% respectively).

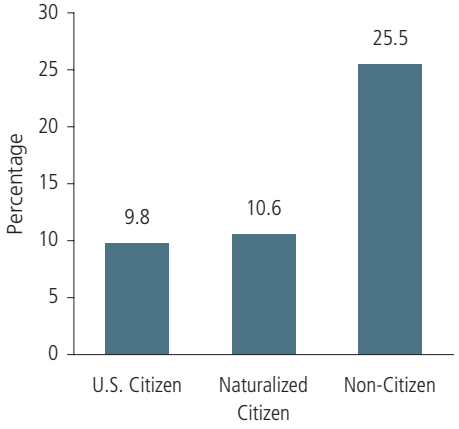
Figure 11.4: Uninsured Non-Elderly Adults by Poverty Level



Source: California Health Interview Survey, 2005 & 2007.

Immigrants who are non-citizens are over twice as likely to be uninsured as naturalized or U.S.-born citizens. One in four non-citizens are uninsured compared to one in ten U.S.-born citizens. (25.5% versus 9.8%). Among naturalized citizens the uninsured rate was 10.6%.

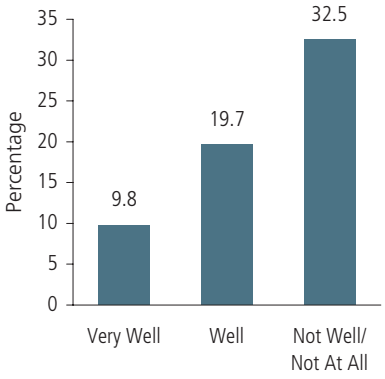
Figure 11.5: Uninsured Non-Elderly Adults by Immigration Status



Source: California Health Interview Survey, 2005 & 2007.

Among non-elderly adults who speak a language other than English at home, insurance coverage varies by the ability to speak English. The uninsured comprise nearly one in three adults who do not speak English well or do not speak it at all (32.5%). In contrast, those who speak English very well comprise a much smaller proportion—about one in ten (9.8%) of the uninsured.

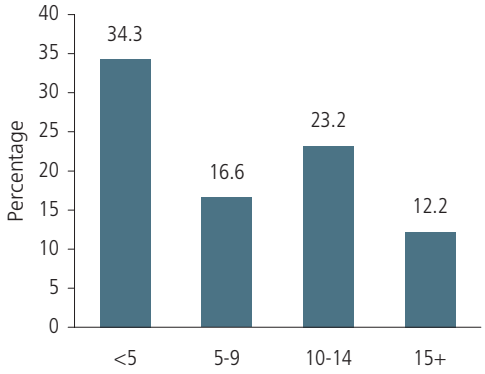
Figure 11.6: Uninsured Non-Elderly Adults by English Proficiency



Source: California Health Interview Survey, 2005 & 2007.

Over one in three (34.3%) recent immigrants —those who have lived in the United States less than five years—do not have health insurance. In contrast, just over one in ten (12.2%) of immigrants who have lived in the United States for 15 years or more are uninsured.

Figure 11.7: Uninsured Non-Elderly Adults by Years in the United States



Source: California Health Interview Survey, 2005 & 2007.

Single or never-married adults have significantly higher rates of uninsurance than those who are married (18.7% and 8.4% respectively). Families consisting of a single adult with no children are significantly more likely to be uninsured than families consisting of married couples with children (17.8% and 9.1% respectively).

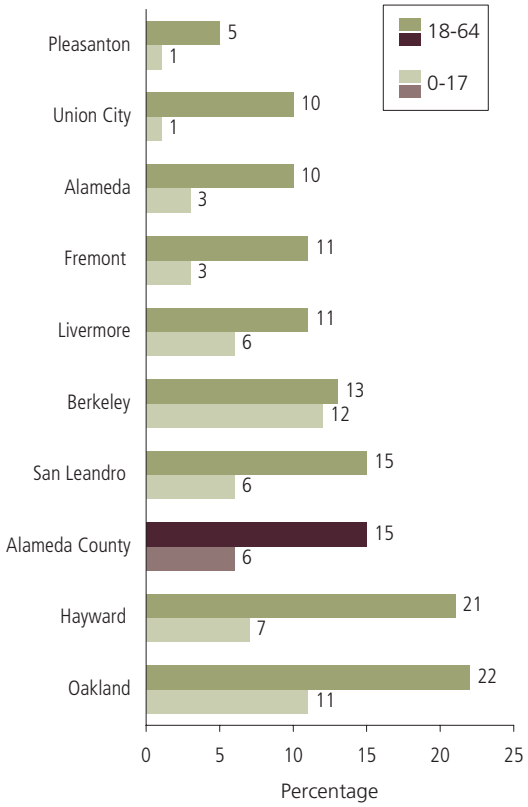
Table 11.2: Uninsured Non-Elderly Adults by Marital Status and Family type

		%	LCL	UCL
Martial Status	Married	8.4	6.4	10.5
	Live with Partner	15.1	8.3	21.8
	Separated/Divorced/Widowed	16.6	10.1	23
	Single/Never Married	18.7	13.1	24.3
Family Type	Single, No Children	17.8	13.5	22.2
	Married, No Children	9.2	5.8	12.7
	Married, With Children	9.1	6.5	11.7
	Single, With Children	10.9	5.3	16.5

Source: California Health Interview Survey, 2005 & 2007.

In Alameda County, an estimated 12% of residents did not have health insurance in 2008. Oakland and Hayward stood out as the cities with the highest percentage of uninsured—one in five residents. Non-elderly adults (18-64 years) were 2.5 times as likely to be uninsured as children (15% and 6% respectively). Berkeley had the highest proportion of uninsured children (12%); Pleasanton and Union City had the lowest (1%). Pleasanton had the lowest rate of uninsurance among non-elderly adults of all cities for which data are available (5%).

Figure 11.8: Uninsured by Age Group and City

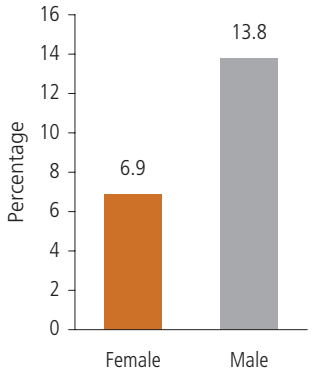


Source: American Community Survey, 2008.

Usual Source of Care

Males are significantly more likely to lack a usual source of care than females (13.9% versus 6.9% respectively).

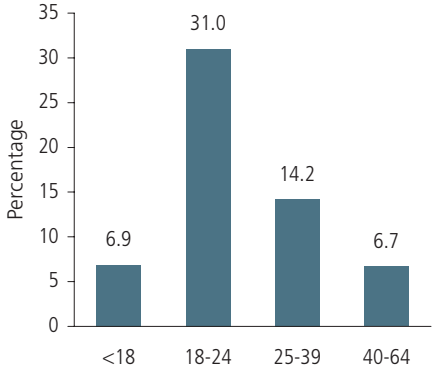
Figure 11.9: No Usual Source of Care by Gender



Source: California Health Interview Survey, 2005.

Young adults 18-24 years are over four times as likely to lack a usual source of care as adults age 40-64 years (31.0% versus 6.7% respectively). Among children, the percentage who lacked a usual source of care was similar to that for young adults—6.9%.

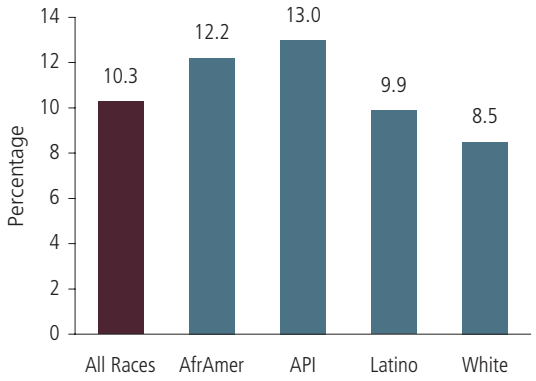
Figure 11.10: No Usual Source of Care by Age Group



Source: California Health Interview Survey, 2005..

In the county, one in ten adults (10.3%) did not have a usual source of care. Whites were least likely to lack a usual source of care of all racial/ethnic groups; Asian/Pacific Islanders were most likely to lack a usual source of care (8.5% versus 13.0%).

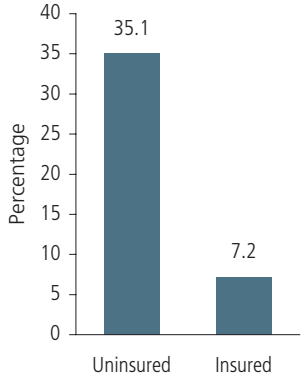
Figure 11.11: No Usual Source of Care by Race/Ethnicity



Source: California Health Interview Survey, 2005.

The uninsured were almost five times as likely to lack a usual source of care as the insured (35.1% versus 7.2% respectively).

Figure 11.12: No Usual Source of Care by Insurance Status

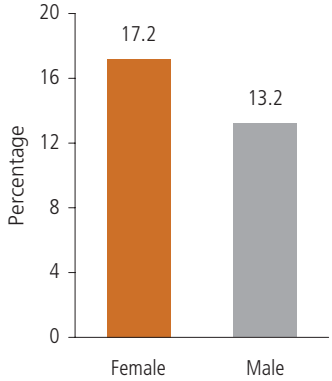


Source: California Health Interview Survey, 2005.

Delay in Getting Medical Care

Women are more likely to delay or not receive needed medical care than men (17.2% versus 13.2%).

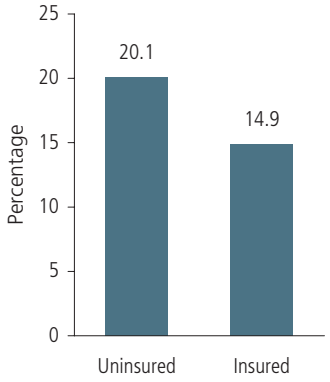
Figure 11.13: Delayed or Did Not Get Needed Care by Gender



Source: California Health Interview Survey, 2007.

The uninsured are much more likely to delay or not get needed medical care than those with health insurance (20.1% versus 14.9%).

Figure 11.14: Delayed or Did Not Get Needed Care by Insurance Status

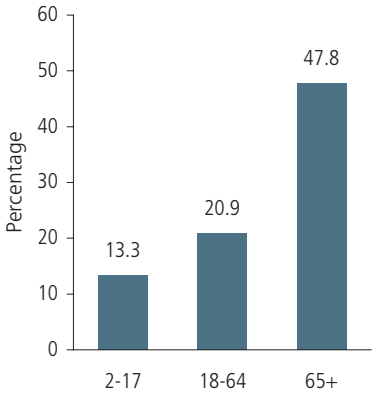


Source: California Health Interview Survey, 2007.

Dental Insurance

In the county, almost half (47.8%) of seniors 65 years or older did not have dental insurance in 2007. In contrast, about one in five adults 18-64 years (20.9%) and just over one in ten children (13.3%) lacked dental insurance.

Figure 11.15: Lack of Dental Insurance by Age Group



Source: California Health Interview Survey, 2007.

Table 11.3: Uninsured by Selected Characteristics, Adults 18-64 Years

		%	LCL	UCL
Alameda County		12.6	10.5	14.7
California		18.7	18.1	19.2
Gender	Female	11.8	9.1	14.5
	Male	13.5	10.3	16.7
Age Group	18-24	22.5	14	31
	25-39	11.6	8.3	15
	40-64	10.6	8.3	12.9
Race/Ethnicity	AfrAmer	12.9	6.9	19
	API	13.4	8.9	17.9
	Latino	24.5	18.3	30.6
	White	6.1	4	8.3
Poverty Level	0-99%	29.4	20.8	37.9
	100-199%	20.1	13.9	26.2
	200-299%	18.1	11	25.2
	300+%	7.1	5	9.2
Immigration Status	U.S. Citizen	9.8	7.3	12.4
	Naturalized Citizen	10.6	6.5	14.6
	Non-Citizen	25.5	18.6	32.3

Source: California Health Interview Survey, 2005 & 2007.

Table 11.4: Number and Percentage of Uninsured, by Geographic Area

Area	#	%	% 0-17 years	% 18-64 years
Alameda County	171,430	12%	6%	15%
California	6,430,486	18%	11%	23%
Alameda	5,847	8%	3%	10%
Berkeley	12,724	12%	12%	13%
Fremont	16,431	8%	3%	11%
Hayward	22,289	16%	7%	21%
Livermore	7,325	9%	6%	11%
Oakland	63,582	17%	11%	22%
Pleasanton	2,667	4%	1%	5%
San Leandro	9,659	11%	6%	15%
Union City	4,287	7%	1%	10%

Source: U.S. Census Bureau, American Community Survey, 2008.

Table 11.5: Uninsured by Language and Immigration Characteristics, Adults 18-64 Years

		%	LCL	UCL
English Proficiency[1]	All	18.5	14.6	22.4
	Very Well	9.8	4.9	14.6
	Well	19.7	12.2	27.2
	Not Well/Not At All	32.5	23.4	41.6
Years in the U.S.[2]	All	17.5	13.6	21.3
	<5	34.3	18.3	50.4
	5-9	16.6	9.3	23.8
	10-14	23.2	12.5	33.9
	15+	12.2	7.9	16.4

Source: California Health Interview Survey, 2005 & 2007.
Notes: 1) Adults who speak a non-English language at home, 2) Those born outside the U.S.

Table 11.6: No Usual Source of Care by Selected Characteristics

		%	LCL	UCL
Alameda County		10.3	7.9	12.7
California		12.2	11.7	12.6
Gender	Female	6.9	4.3	9.5
	Male	13.8	9.9	17.8
Age Group	<18	6.9	3.5	10.3
	18-24	31	16.3	45.6
	25-39	14.2	8.7	19.7
	40-64	6.7	4.1	9.3
	65+	2.0 *	0.2	3.9
Race/Ethnicity	AfrAmer	12.2	5.9	18.5
	API	13.0	6.7	19.4
	Latino	9.9	5.3	14.5
	White	8.5	5.3	11.7
Poverty Level	0-99%	18.0	10.8	25.2
	100-199%	13.3 *	4.9	21.7
	200-299%	5.6 *	1.0	10.2
	300+%	8.9	6.1	11.7
Insurance Status	Uninsured	35.1	24	46.3
	Insured	7.2	5.0	9.3

Source: California Health Interview Survey 2005.
Note: *=Rate unreliable.

Table 11.7: Delayed or Did Not Get Needed Care by Selected Characteristics, All Ages

		%	LCL	UCL
Alameda County		15.2	12.8	17.7
California		13.4	12.9	13.9
Gender	Female	17.2	13.9	20.5
	Male	13.2	9.6	16.8
Race/Ethnicity	AfrAmer	19.1	9.1	29.0
	API	11.3	6.7	15.8
	Latino	11.5	6.8	16.2
	White	19.1	15.6	22.5
Poverty Level	0-99%	18.9	9.8	27.9
	100-199%	12.0	6.1	17.9
	200-299%	17.1	9.5	24.7
	300+%	14.8	12.0	17.6
Insurance Status	Uninsured	20.1	11.9	28.4
	Insured	14.9	12.4	17.4

Source: California Health Interview Survey 2007.

Table 11.8: Lack of Dental Insurance Past Year by Selected Characteristics

		%		LCL	UCL
Alameda County		24.6		21.2	28.0
California		33.7		32.9	34.5
Gender	Male	26.6		20.9	32.3
	Female	22.7		18.8	26.6
Age Group	2-17	13.3		9.1	17.4
	18-64	20.9		17.2	24.6
	65+	47.8		40.3	55.3
Race/Ethnicity	AfrAmer	20.8	*	8.5	33.0
	API	23.2		15.9	30.4
	White	25.5		21.5	29.5
	Latino	28.3		18.6	38.0

Source: California Health Interview Survey, 2007.
Notes: *=Rate unreliable. Data is for adults 18-64 years except where broken down by age group.

Use of Prevention Services: Cancer Screening

Regular screening examinations by a health care professional can result in the detection and removal of precancerous growths, as well as the diagnosis of cancers at an early stage, when they are most treatable. Cancers that can be prevented by removal of precancerous tissue include cancers of the cervix, colon, and rectum. Cancers that can be diagnosed early through screening include cancers of the breast, colon, rectum, cervix, prostate, oral cavity, and skin. For cancers of the breast, colon, rectum, and cervix, early detection has been proven to reduce mortality. A heightened awareness of breast changes or skin changes may also result in detection of these tumors at earlier stages. Cancers that can be prevented or detected earlier by screening account for at least half of all new cancer cases.[1] Participation in cancer screening varies by race/ethnicity, socioeconomic status, and health insurance status. Differences in screening rates are largely explained by a complex set of economic or cultural factors as well as by access to health care.[2,3]

The American Cancer Society (ACS) collaborated with several organizations to release updated colorectal cancer screening guidelines in March 2008. These joint guidelines emphasize cancer prevention and draw a distinction between colorectal screening tests that primarily detect cancer and those that can detect both cancer and precancerous polyps. The ACS recommends that, beginning at 50 years, men and women who are at average risk for developing colorectal cancer should begin screening using at least one of the testing schedules for screening tests. The widely used tests for screening of colorectal cancer are sigmoidoscopy, colonoscopy (which can find polyps and cancer), and the fecal occult blood test (FOBT), which can mainly find cancer. Sigmoidoscopy—recommended every five years—is a specific test in which a tube with a light at the end of it is used to examine the lower rectum. Colonoscopy—recommended every ten years—is a similar test used to examine the full length of the colon. The FOBT—recommended annually—is a non-invasive way to detect presence of blood in the stool. It can be done using a home test kit. Screening tests can identify early signs of cancer or blood in the stool, which can be a sign of colon cancer. Screening can result in the detection and removal of colorectal polyps before they become cancerous, as well as the detection of cancer that is at an early stage. Thus, colorectal cancer screening reduces mortality both by decreasing the incidence of cancer and by detecting cancers at early, more treatable stages.[1]

The ACS recommends that women have annual mammograms starting at 40 years. Mammography can detect breast cancer at an early stage, when treatment is more effective and a cure is more likely. Women with increased risk (for example, family history, genetic tendency, past breast cancer) should talk to their doctors about benefits and risks of starting mammography screening earlier or having additional tests according to these guidelines. Numerous studies have shown that early detection saves lives and increases treatment options. Steady declines in breast cancer mortality among women since 1990 have been attributed to a combination of early detection and improvements in treatment. On average, mammography will detect about 80% to 90% of breast cancers in women without symptoms. All suspicious abnormalities should be biopsied for a definitive diagnosis. ACS recommends that concerted efforts should be made to improve access to health care and to encourage all women 40 years or older to receive regular mammograms.[1]

The Pap smear test is the most widely used cervical cancer screening method. The ACS recommends that all women 18 and older should begin cervical cancer screening with the Pap smear test about three years after they become sexually active, but no later than when they are 21. The Pap test is a simple procedure in which a small sample of cells is collected from the cervix and examined under a microscope. Pap tests are effective, but not perfect: sometimes results are reported as normal when abnormal cells are present (false negative), and sometimes test results are abnormal when no abnormal cells are present (false positive). Most cervical precancers develop slowly, so nearly all cases can be prevented if a woman is screened regularly. Screening can prevent cervical cancer by detecting precancerous lesions. In addition, cervical cancer screening can detect cancer early, when treatment is most successful.[1]

Screening for prostate cancer using the prostate-specific antigen (PSA) test can detect prostate cancer years earlier than it would be detected by a digital rectal exam (DRE) or the development of symptoms.[1,5] PSA screening has several limitations. Many men who do not have prostate cancer will screen positive and require a biopsy for diagnosis, and some men with prostate cancer do not have elevated PSA levels. In addition, because many prostate cancers grow so slowly that they may never threaten a patient's life, there is a danger of overtreatment and significant side effects of treatment.[1] The most recent ACS guidelines recommend that men who are not experiencing symptoms and who have at least a ten-year life expectancy make an informed decision with their health care provider about whether to be screened for prostate cancer after receiving information about the uncertainties, risks, and potential benefits associated with prostate cancer screening. The recommended age for PSA screening is 50 years for most groups of men, but varies based on family history and race/ethnicity. According to the guidelines, men who have less than a ten-year life expectancy based on age and health status and who are not experiencing symptoms should not be offered prostate cancer screening.[4] Evidence that prostate cancer screening may be associated with a reduction in the risk of dying from prostate cancer is conflicting. For men whose prostate cancer is detected by screening, it is currently not possible to predict which men are likely to benefit from treatment. ACS guidelines recommend that health care providers should consider an individualized risk assessment that incorporates other risk factors for prostate cancer in using the PSA test. Factors that increase the risk of prostate cancer include African American race, family history of prostate cancer, increasing age, and an abnormal DRE. A prior negative biopsy lowers risk.[1,4]

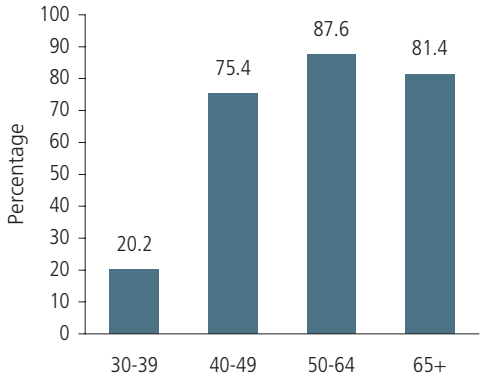
Table 11.9: Use of Prevention Services Comparison

	HP2010[6]	Alameda County	California[7]	United States[8]
Mammography (Percentage)	≤70	65.9	63.6	76.0
Pap Smear Test (Percentage)	≤90	82.3	84.1	82.8
Colorectal Cancer Screening (Percentage)	≤50	76.5	74.5	63.0

Mammography

Mammography screening rates were the highest (87.6%) among post-menopausal women 50-64 years compared to other age groups. Over three-fourths (75.4%) of women 40-49 years and eight of ten (81.4%) women 65 years or older had received a mammogram in 2007. In contrast, only one in five (20.2%) women 30-39 years had received one.

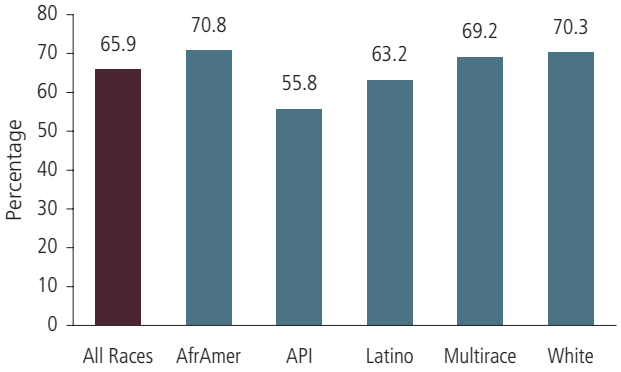
Figure 11.16: Mammogram in the Last Two Years by Age Group



Source: California Health Interview Survey, 2007.

In the county, two-thirds of women 40 years or older (65.9%) had received a mammogram. Just over half (55.8%) of Asian/Pacific Islanders had received mammography screening in the last two years—the lowest rate among all racial/ethnic groups. In comparison White and African American women were much more likely to have a mammogram—70.3% and 70.8% respectively.

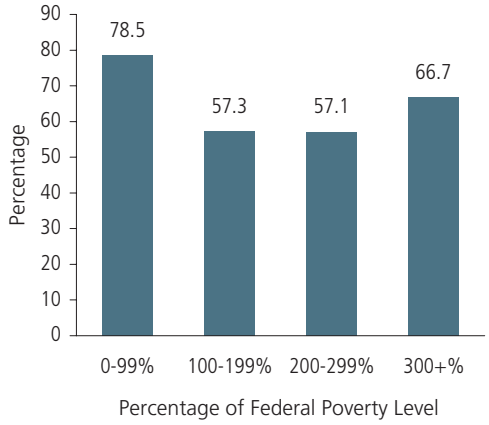
Figure 11.17: Mammogram in the Last Two Years by Race/Ethnicity



Source: California Health Interview Survey, 2007.

As a result of targeted screening programs for low-income women, mammography screening rates are the highest (78.5%) among women living in poverty compared to other income groups. In contrast, two-thirds (66.7%) of high-income women had received a mammogram. Middle-income women had comparable mammography screening rates. (57.3% and 57.1%).

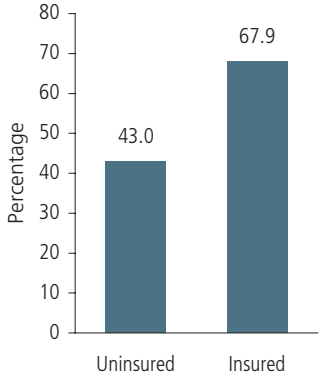
Figure 11.18: Mammogram in the Last Two Years by Poverty Level



Source: California Health Interview Survey, 2007.

Having health insurance provides better access to prevention services such as mammography screening. Two-thirds (67.9%) of insured women received a mammogram, compared to only about four in ten (43.0%) uninsured women.

Figure 11.19: Mammogram in the Last Two Years by Insurance Status

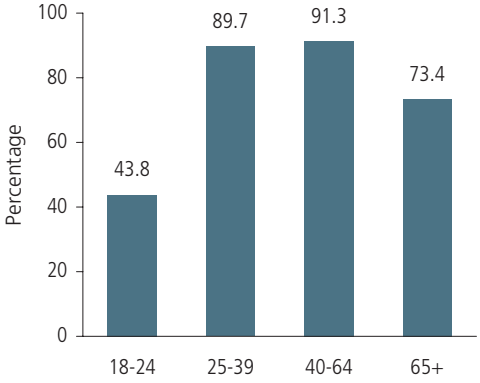


Source: California Health Interview Survey, 2007.

Pap Smear Test

Women 18-24 years were least likely to have a Pap smear test (43.8%) in the last three years compared to older women. Women 25-39 years and 40-64 years (89.7% and 91.3% respectively) were significantly more likely to have a Pap test than younger or older women. Almost three-fourths of women 65 years or older had a Pap smear test (73.4%).

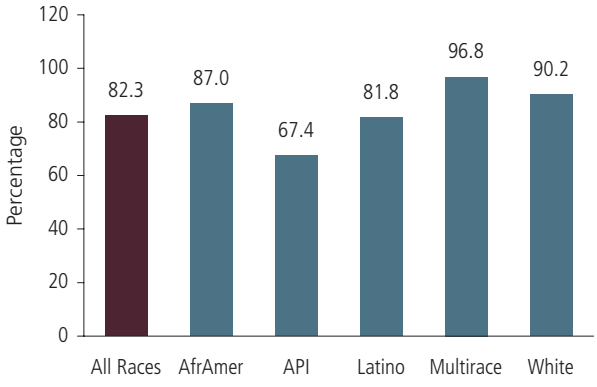
Figure 11.20: Had a Pap Smear in the Last Three Years by Age Group



Source: California Health Interview Survey, 2007.

In the county, over eight in ten women 18 years or older (82.3%) had been screened with the Pap smear test. White and multiracial women were most likely to be screened (90.2% and 96.8% respectively). Asian/Pacific Islander women were significantly less likely to have the Pap test than these groups (67.4%). Among African American and Latino women, 87.0% and 81.8% respectively had been screened with a Pap test.

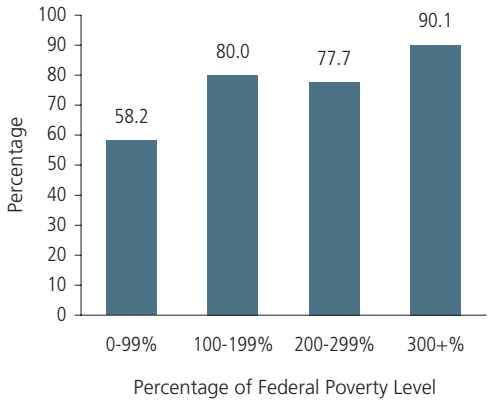
Figure 11.21: Had a Pap Smear in the Last Three Years by Race/Ethnicity



Source: California Health Interview Survey, 2007.

High income women were significantly more likely to be screened with a Pap smear test than low-income women (90.1% and 58.2% respectively). Among middle-income women, about eight in ten (80.0% and 77.7%) had been screened with the Pap test.

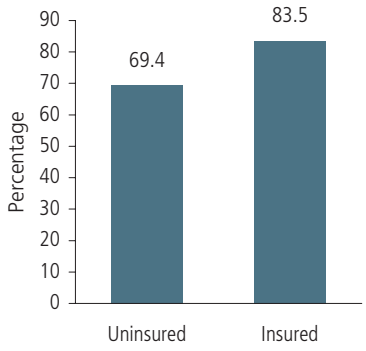
Figure 11.22: Had a Pap Smear in the Last Three Years by Poverty Level



Source: California Health Interview Survey, 2007.

Insured women were more likely to have a Pap test than uninsured women (83.5% and 69.4% respectively).

Figure 11.23: Had a Pap Smear in the Last Three Years by Insurance Status

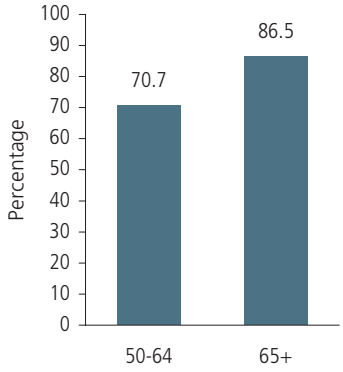


Source: California Health Interview Survey, 2007.

Colorectal Cancer Screening

Seniors 65 years or older are more likely to be screened for colorectal cancer than non-elderly adults 50 to 64 years (86.5% and 70.7%).

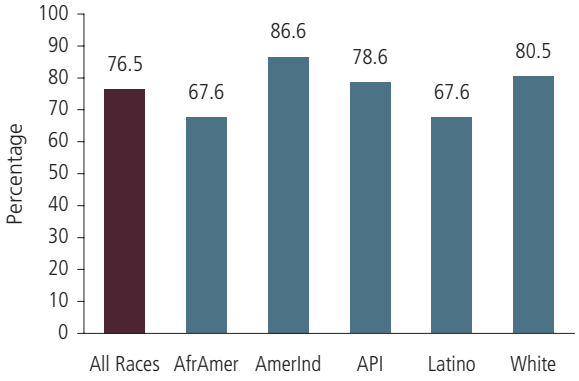
Figure 11.24: Ever Had Colorectal Cancer Screening by Age Group



Source: California Health Interview Survey, 2007.

In Alameda County, over three-fourths (76.5%) of adults 50 years or older had been screened for colorectal cancer. American Indian/Alaskan Native and White adults had the highest rates of colorectal cancer screening (86.6% and 80.5%). African Americans and Latinos had the lowest colorectal cancer screening rates (67.6%).

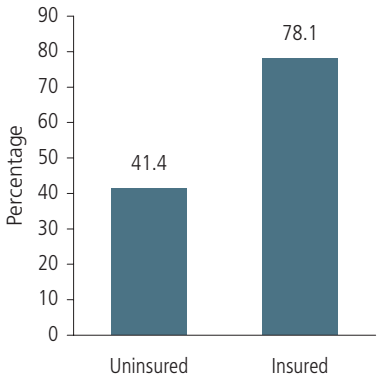
Figure 11.25: Ever Had Colorectal Cancer Screening by Race/Ethnicity



Source: California Health Interview Survey, 2007.

Having health insurance significantly increases the likelihood of having colorectal cancer screening. Among insured adults, 78.1% had been screened for colorectal cancer, compared to only 41.4% of the uninsured.

Figure 11.26: Ever Had Colorectal Cancer Screening by Insurance Status

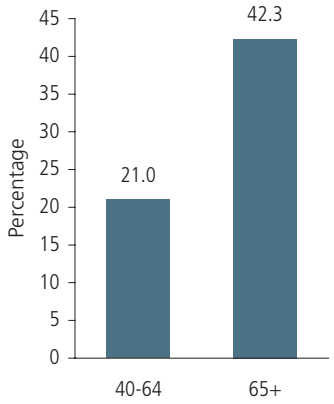


Source: California Health Interview Survey, 2007.

PSA Test

Men 65 years or older were twice as likely to have a PSA test to screen for prostate cancer than non-elderly men 40 to 64 years (42.3% and 21.0% respectively).

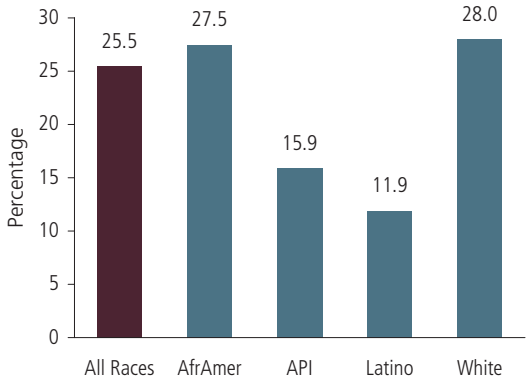
Figure 11.27: Had a PSA Test in the Past Year by Age Group



Source: California Health Interview Survey, 2005.

In Alameda County, one in four (25.5%) of men 40 years or older had been screened with a PSA test. African American and White men had significantly higher rates of PSA screening (27.5% and 28.0% respectively) than Asian/Pacific Islander and Latino men (15.9% and 11.9% respectively).

Figure 11.28: Had a PSA Test in the Past Year by Race/Ethnicity



Source: California Health Interview Survey, 2003 & 2005.

Table 11.10: Had a Mammogram in the Last Two Years, Women 30 Years or Older

		%	LCL	UCL
Alameda County		65.9	61.1	70.8
California		63.6	62.6	64.7
Age Group	30-39	20.2	8.8	31.6
	40-49	75.4	67.1	83.7
	50-64	87.6	83.0	92.2
	65+	81.4	75.0	87.7
Race/Ethnicity	AfrAmer	70.8	57.7	83.8
	API	55.8	44.4	67.2
	Latino	63.2	49.9	76.6
	Multirace	69.2	46.4	92.0
	White	70.3	64.2	76.4
Poverty Level	0-99%	78.5	66.8	90.1
	100-199%	57.3	43.7	70.9
	200-299%	57.1	44.1	70.2
	300+%	66.7	60.8	72.5
Insurance Status	Uninsured	43.0	21.5	64.6
	Insured	67.9	62.9	72.9

Source: California Health Interview Survey, 2007.

Table 11.11: Pap Smear in the Last Three Years, Women 18 Years or Older

		%	LCL	UCL
Alameda County		82.3	77.6	87.0
California		84.1	83.1	85.0
Age Group	18-24	43.8	23.3	64.3
	25-39	89.7	82.6	96.8
	40-64	91.3	86.8	95.9
	65+	73.4	62.0	84.9
Race/Ethnicity	AfrAmer	87.0	72.5	100.0
	API	67.4	55.1	79.8
	Latino	81.8	70.6	93.1
	Multirace	96.8	92.0	100.0
	White	90.2	85.5	94.9
Poverty Level	0-99%	58.2	40.6	75.8
	100-199%	80.0	65.4	94.6
	200-299%	77.7	68.4	86.9
	300+%	90.1	85.1	95.1
Insurance Status	Uninsured	69.4	49.9	88.9
	Insured	83.5	78.7	88.3

Source: California Health Interview Survey, 2007.

Table 11.12: Ever Had Colorectal Cancer Screening, Adults 50 Years or Older

		%	LCL	UCL
Alameda County		76.5	71.8	81.2
California		74.5	73.6	75.4
Gender	Female	76.6	71.4	81.8
	Male	76.4	68.6	84.2
Age Group	50-64	70.7	64.0	77.5
	65+	86.5	81.7	91.3
Race/Ethnicity	AfrAmer	67.6	42.0	93.2
	AmerInd	86.6	67.2	100.0
	API	78.6	68.8	88.3
	Latino	67.6	53.2	82.0
	White	80.5	76.1	84.9
Poverty Level	0-99%	67.9	52.5	83.3
	100-199%	78.4	67.6	89.2
	200-299%	68.6	49.1	88.0
	300+%	79.6	74.5	84.6
Insurance Status	Uninsured	41.4	19.5	63.4
	Insured	78.1	73.3	83.0

Source: California Health Interview Survey, 2007.

Table 11.13: Had a PSA Test in the Past Year, Men 40 years or Older

		%	LCL	UCL
Alameda County		25.5	20.7	30.3
California		32.4	31.3	33.6
Age Group	40-64	21.0	15.8	26.2
	65+	42.3	30.2	54.4
Race/Ethnicity	AfrAmer	27.5	19.0	36.0
	API	15.9	9.1	22.7
	Latino	11.9	5.7	18.1
	White	28.0	23.9	32.1
Poverty Level	0-99%	13.7 *	5.3	22.1
	100-199%	17.4	9.2	25.6
	200-299%	23.8	15.5	32.1
	300+%	26.1	22.4	29.7

Source: California Health Interview Survey (CHIS) 2005, except for Race/Ethnicity and Poverty Level CHIS, 2003 and 2005
Note: *=Rate unreliable.

Type of Insurance and Payer Source for Health Care

The major types of insurance coverage reflect how health insurance is obtained and funded. Employment-based health insurance is obtained as a health benefit through employers; it accounts for the majority of persons with health insurance. Private insurance purchased in the non-group market covers a relatively small percentage of the population. Public health insurance coverage accounts for the rest of the insured population. Medicaid is a public program which provides coverage to some, but not all, low-income families and people with disabilities. Medicare is the federal public program for the elderly 65 years or older. The Children's Health Insurance Program (CHIP) supplements Medicaid coverage of children.[1] In recent years there has been an erosion of employment-based health insurance in the United States and in California; the decline in coverage has not been fully offset by increases in public programs.[2,3] In 2009, the gaps in private and public insurance systems left 19.4% of Americans without health insurance during part or all of the year.[3]

In this section, payer source is used to describe the entity or organization bearing the cost burden of emergency department and inpatient visits for health care services. The information on payment source in both the patient discharge data and the emergency department data comes from the California Office of Statewide Health Planning and Development (OSHPD).[4,5] Hospitals are required to report this and other patient information to OSHPD on a quarterly basis. This is an administrative database and has limitations for use in research (see Technical Appendix). The information on source of payment in OSHPD data refers specifically to the "type of entity or organization expected to pay the greatest share of the patient's bill." The payment source categories for health services may broadly reflect the type of insurance coverage among Alameda County residents.

In Alameda County about six in ten residents have employment-based health insurance (61.6%) . Medicaid provides coverage for 9.5%, Medicare covers 7.3%, and both Medicaid and Medicare cover 4.0% of residents. Healthy Families or the Children's Health Insurance Program cover 1.3% and other public programs cover 1.4% of residents. Those who purchase private insurance comprise 5.9% of county residents.

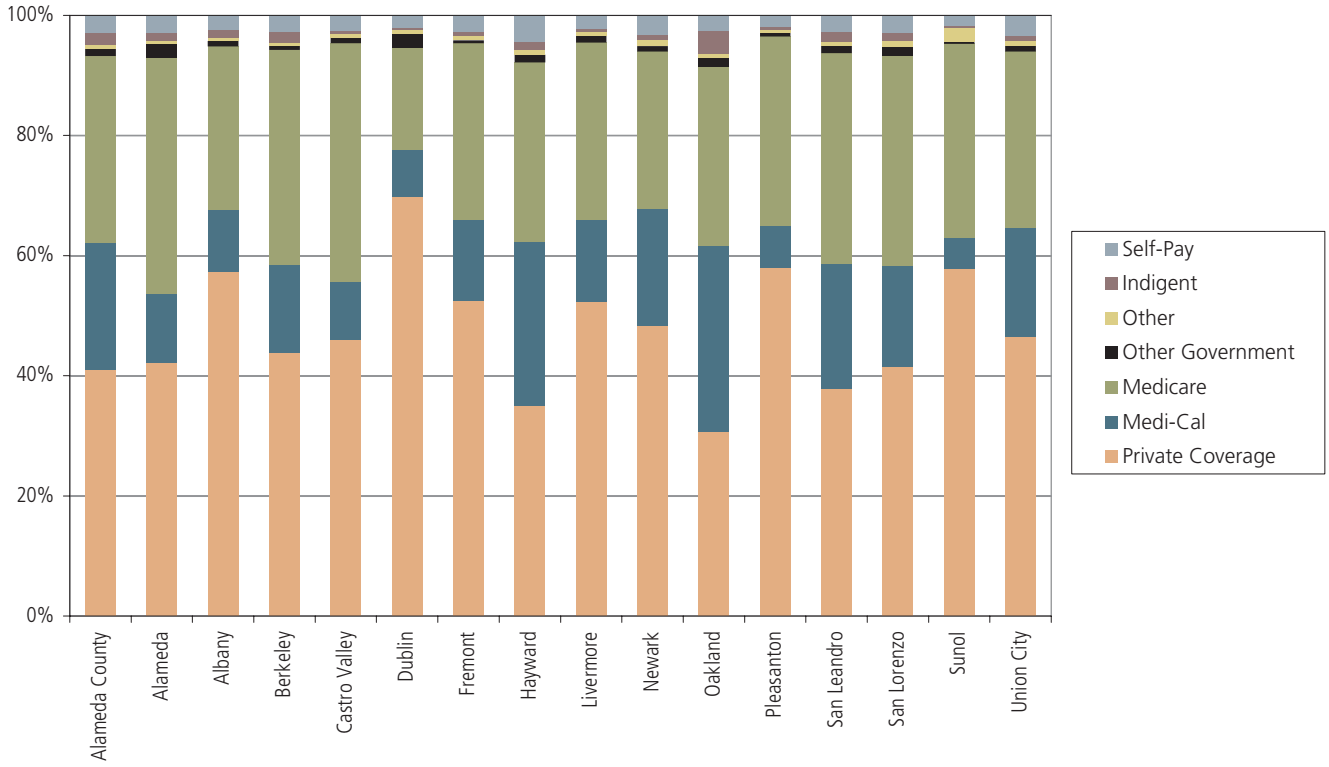
Table 11.14: Type of Health Insurance Coverage, All Ages

Type	%	LCL	UCL
Uninsured	9.0	7.5	10.4
Medicare & Medicaid	4.0	2.9	5.1
Medicare	7.3	6.5	8.2
Medicaid	9.5	7.9	11.1
Healthy Families/CHIP	1.3	0.7	2.0
Employment-Based	61.6	59.2	63.9
Privately Purchased	5.9	4.8	7.0
Other Public	1.4	0.8	2.1

Source: California Health Interview Survey, 2005 & 2007.
Note: CHIS estimates of uninsured are not directly comparable to those from the American Community Survey.

Data from inpatient hospitalizations for the 2006-08 period show that between 31% and 70% of inpatient hospital visits were covered by private insurance. The lowest levels of private coverage (less than 40%) were found in Oakland, Hayward, and San Leandro, and the highest levels (more than 55%) were found in Dublin, Pleasanton, Sunol, and Albany. The proportion of inpatient visits paid by Medicare ranged from 17% in Dublin to 40% in Castro Valley and was most likely driven by the age structure of the local population (that is, a greater number of elderly residents in these areas). The proportion of inpatient visits paid by Medi-Cal ranged from 5% in Sunol to 31% in Oakland. Visits covered by indigent care were consistently 0% to 2%, with the exception of Oakland, which was 4%. Inpatient visits classified as self-pay ranged from 1.7% in Sunol to 4.5% in Hayward.

Figure 11.29: Inpatient Hospital Visits: Payer Source by City



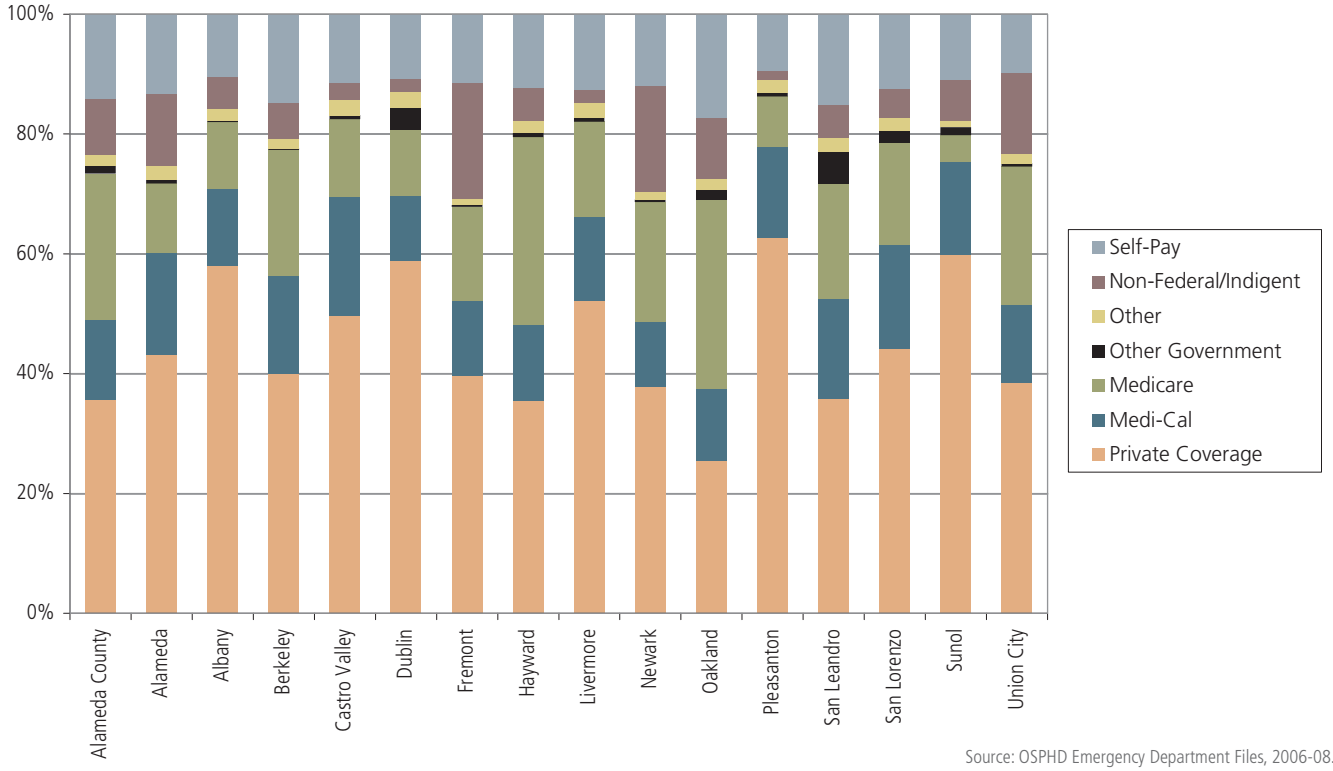
Source: OSHPD Patient Discharge Data, 2006-08.

In comparison to inpatient visits, payment for emergency department (ED) visits was more likely to be self-pay and indigent. The proportion that were self-pay ranged from 9% in Pleasanton to 17% in Oakland; the indigent payment source ranged from 2% in Dublin, Pleasanton and Livermore to 19% in Fremont.

The proportion of ED visits paid by private coverage was similar to coverage for inpatient visits for most cities, ranging from a low of 25.4% in Oakland to a high of 62.7% in Pleasanton. Exceptions appear to be Dublin, Fremont, Newark, and Union City, where private coverage for ED visits was substantially lower than that for inpatient visits. The range for Medicare was from 8.4% if Pleasanton to 31.7% in Oakland.

The proportion of ED visits paid by Medi-Cal ranged from a low of 11% in Newark to a high of 20% in Castro Valley. When ED visits are compared to inpatient visits, the proportion of Medi-Cal-paid ED visits was substantially higher than inpatient visits in Castro Valley, Pleasanton, and Sunol. This may indicate that Medi-Cal clients have limited access to primary care providers in wealthier areas and resort to ED use when care can no longer be delayed.

Figure 11.30: Emergency Department Visits: Payer Source by City



Source: OSPHD Emergency Department Files, 2006-08.
Note: Data on emergency department visits reflect patients who were treated and released or transferred to another facility. Those who were admitted to the same hospital as an inpatient are not reflected here.

Table 11.15: Number of Inpatient Hospital Visits by Payer Source and City

	Private Coverage	Medicare	Medi-Cal	Indigent	Other Government	Other	Self-Pay	Total
Alameda County	190,661	144,632	99,313	8,703	5,878	3,207	13,695	466,089
Alameda	9,531	8,884	2,574	266	522	134	670	22,581
Albany	2,463	1,169	440	57	41	20	105	4,295
Berkeley	12,087	9,844	4,021	488	190	144	755	27,529
Castro Valley	7,830	6,766	1,670	112	146	101	427	17,052
Dublin	7,049	1,711	784	37	249	51	212	10,093
Fremont	29,392	16,455	7,552	333	292	437	1,547	56,008
Hayward	22,652	19,343	17,629	829	845	508	2,900	64,706
Livermore	12,356	6,963	3,188	101	256	182	522	23,568
Newark	6,097	3,302	2,470	95	115	130	419	12,628
Oakland	44,755	43,325	45,222	5,428	2,349	906	3,909	145,894
Pleasanton	9,803	5,315	1,186	67	109	101	321	16,902
San Leandro	13,446	12,452	7,436	577	437	251	975	35,574
San Lorenzo	3,671	3,096	1,483	119	140	82	254	8,845
Sunol	170	95	15	1	1	7	5	294
Union City	9,359	5,912	3,643	193	186	153	674	20,120

Source: OSHPD Patient Discharge Data, 2006-08.

Table 11.16: Percentage of Inpatient Hospital Visits by Payer Source and City

	Private Coverage	Medicare	Medi-Cal	Indigent	Other Government	Other	Self-Pay	Total
Alameda County	40.9%	31.0%	21.3%	1.9%	1.3%	0.7%	2.9%	100.0%
Alameda	42.2%	39.3%	11.4%	1.2%	2.3%	0.6%	3.0%	100.0%
Albany	57.3%	27.2%	10.2%	1.3%	1.0%	0.5%	2.4%	100.0%
Berkeley	43.9%	35.8%	14.6%	1.8%	0.7%	0.5%	2.7%	100.0%
Castro Valley	45.9%	39.7%	9.8%	0.7%	0.9%	0.6%	2.5%	100.0%
Dublin	69.8%	17.0%	7.8%	0.4%	2.5%	0.5%	2.1%	100.0%
Fremont	52.5%	29.4%	13.5%	0.6%	0.5%	0.8%	2.8%	100.0%
Hayward	35.0%	29.9%	27.2%	1.3%	1.3%	0.8%	4.5%	100.0%
Livermore	52.4%	29.5%	13.5%	0.4%	1.1%	0.8%	2.2%	100.0%
Newark	48.3%	26.1%	19.6%	0.8%	0.9%	1.0%	3.3%	100.0%
Oakland	30.7%	29.7%	31.0%	3.7%	1.6%	0.6%	2.7%	100.0%
Pleasanton	58.0%	31.4%	7.0%	0.4%	0.6%	0.6%	1.9%	100.0%
San Leandro	37.8%	35.0%	20.9%	1.6%	1.2%	0.7%	2.7%	100.0%
San Lorenzo	41.5%	35.0%	16.8%	1.3%	1.6%	0.9%	2.9%	100.0%
Sunol	57.8%	32.3%	5.1%	0.3%	0.3%	2.4%	1.7%	100.0%
Union City	46.5%	29.4%	18.1%	1.0%	0.9%	0.8%	3.3%	100.0%

Source: OSHPD Patient Discharge Data, 2006-08.

Table 11.17: Number of Emergency Department Visits by Payer Source and City

	Private Coverage	Medicare	Medi-Cal	Non-Federal/ Indigent	Other Government	Other	Self-Pay	Total
Alameda County	403,837	276,180	152,946	104,913	15,370	21,019	160,942	1,135,207
Alameda	22,472	6,046	8,816	6,260	352	1,153	6,925	52,024
Albany	4,432	848	983	404	21	152	800	7,640
Berkeley	26,972	14,146	10,916	4,073	194	1,078	9,914	67,293
Castro Valley	17,679	4,619	7,123	1,028	242	904	4,078	35,673
Dublin	11,546	2,159	2,106	420	746	514	2,114	19,605
Fremont	45,666	17,969	14,473	22,280	356	1,230	13,166	115,140
Hayward	61,617	54,452	22,085	9,648	1,192	3,490	21,293	173,777
Livermore	20,599	6,244	5,530	890	267	975	4,958	39,463
Newark	10,994	5,801	3,194	5,164	117	368	3,475	29,113
Oakland	105,769	131,740	49,827	42,723	6,767	7,422	71,888	416,136
Pleasanton	20,734	2,780	5,014	514	207	694	3,115	33,058
San Leandro	29,610	15,939	13,735	4,637	4,299	1,895	12,454	82,569
San Lorenzo	8,567	3,330	3,376	949	368	433	2,411	19,434
Sunol	400	30	103	46	9	7	73	668
Union City	16,780	10,077	5,665	5,877	233	704	4,278	43,614

Source: OSPHD Emergency Department Filess, 2006-08.

Table 11.18: Percentage of Emergency Department Visits by Payer Source and City

	Private Coverage	Medicare	Medi-Cal	Non-Federal/ Indigent	Other Government	Other	Self-Pay	Total
Alameda County	35.6%	24.3%	13.5%	9.2%	1.4%	1.9%	14.2%	100.0%
Alameda	43.2%	11.6%	16.9%	12.0%	0.7%	2.2%	13.3%	100.0%
Albany	58.0%	11.1%	12.9%	5.3%	0.3%	2.0%	10.5%	100.0%
Berkeley	40.1%	21.0%	16.2%	6.1%	0.3%	1.6%	14.7%	100.0%
Castro Valley	49.6%	12.9%	20.0%	2.9%	0.7%	2.5%	11.4%	100.0%
Dublin	58.9%	11.0%	10.7%	2.1%	3.8%	2.6%	10.8%	100.0%
Fremont	39.7%	15.6%	12.6%	19.4%	0.3%	1.1%	11.4%	100.0%
Hayward	35.5%	31.3%	12.7%	5.6%	0.7%	2.0%	12.3%	100.0%
Livermore	52.2%	15.8%	14.0%	2.3%	0.7%	2.5%	12.6%	100.0%
Newark	37.8%	19.9%	11.0%	17.7%	0.4%	1.3%	11.9%	100.0%
Oakland	25.4%	31.7%	12.0%	10.3%	1.6%	1.8%	17.3%	100.0%
Pleasanton	62.7%	8.4%	15.2%	1.6%	0.6%	2.1%	9.4%	100.0%
San Leandro	35.9%	19.3%	16.6%	5.6%	5.2%	2.3%	15.1%	100.0%
San Lorenzo	44.1%	17.1%	17.4%	4.9%	1.9%	2.2%	12.4%	100.0%
Sunol	59.9%	4.5%	15.4%	6.9%	1.3%	1.0%	10.9%	100.0%
Union City	38.5%	23.1%	13.0%	13.5%	0.5%	1.6%	9.8%	100.0%

Source: OSPHD Emergency Department Files, 2006-08.

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Appendix A: Technical Notes

Methods

Calculating and Interpreting Rates

Age Adjustment All age-adjusted rates in this report are adjusted by the direct method to the 2000 U.S. Standard Population. In general, the number of deaths or disease for specific causes of mortality or morbidity in a community is affected by the size and age composition of the population. Because the risk of death or disease is primarily a function of age, simply calculating a crude rate (the number of events/population) can lead to misleading conclusions when comparing different subpopulations. This is because populations with a large component of elderly people tend to have higher death and disease rates simply because the risk is determined mostly by age. To nullify the effect of differences in the age composition of populations, death and disease rates are age-adjusted. Age-adjusted death and disease rates form a better basis for making comparisons across populations.

Variability of Rates All vital statistics, including death and disease rates, are subject to random variation. The smaller the number of events, the greater the degree of random variation. In order to protect against providing misleading information based on statistically unreliable rates, the National Center for Health Statistics (NCHS) recommends presenting only rates based on 20 or more events.[1] For select indicators in this report, this standard has been relaxed to a requisite ten or more events for most rates, a standard recently adopted by the Family Health Outcomes Project of the University of California, San Francisco.[2]

Confidence Interval A good measure of the reliability of a rate is the confidence interval (CI) around the rate estimate. A confidence interval defines the range of rates that would be determined by repeated sampling of the same phenomenon. By statistical convention, a 95% confidence interval is considered a useful measure of the range of accuracy of an estimate. This means that with repeated sampling, one would obtain a rate within the confidence interval 95% of the time. These calculations normally use the binomial distribution. Based on recommendations of the National Center for Health Statistics (NCHS) regarding the calculation of rates and confidence intervals, the standard error of any rate based on fewer than 100 events is based on the Poisson distribution.[1] The Poisson distribution is similar to the binomial distribution but is characterized by very small numbers of events occurring in a large number of trials.[3]

Life Expectancy

Life expectancy at birth is calculated using abridged life tables with five-year or ten-year age intervals. The abridged method is used because it is a shortcut method, and because preparing a complete life table would not be suitable because data are sparsely distributed by single years of age.

Analysis of Trends

For this report, three-year rolling averages were used to examine time trends. This method involves grouping three years of data sequentially (for example, 2000-02, 2001-03, 2002-04), creating overlapping time periods. The effect of this method is to smooth out yearly fluctuations in the data and detect longer-term patterns of increase or decline. To test for significance of trends, Joinpoint Regression Program for Windows (v3.0) software was used.[12] This software is available through the National Cancer Institute. The method uses regression techniques to fit a model with one or more line segments on a logarithmic scale. Statistics obtained from the models were the average annual percent change (APC) for each line segment and 95% confidence intervals around the APC. Joinpoints (the years at which the slope of a line segment changes) are also provided.

Using Prevalence Estimates and Confidence Intervals

In this report, data from the California Health Interview Survey (CHIS) provides information on behavioral risk factors; chronic disease; mental health and alcohol use; and access to and utilization of health care.

CHIS findings are presented in tables as percentage of the population with a given condition (shown in the column marked "%") and confidence intervals (shown as "95% CI"). CHIS estimates are based on a random sample of the population, and have a certain level of error. One way of describing this error is by variance of estimates. Coefficient of variation (CV)—the standard error of an estimate divided by the mean—is one measure of variance. If the CV of an estimate is equal to or greater than 30% it is considered unreliable (i.e., unstable). Confidence intervals are derived from the variance of an estimate. The width of the confidence interval—i.e., the difference between the lower and upper limits—varies with the sample size and variance. In general, the smaller the sample size, the higher the variance, and the wider the confidence interval of an estimate. In this report, unstable estimates are indicated by "*" in tables. This occurs most often with smaller subgroups that do no have sufficient numbers for a stable estimate.

The confidence interval uses the margin of error (related to variance as discussed above) to describe an upper and lower limit of an estimate. In this report 95% confidence intervals are presented. This means that there is a 95% chance that the true value of an estimate is within this interval. Confidence intervals provide an easy way to determine if differences among groups are statistically significant. If the confidence intervals of two different estimates (i.e., the percentages) do not overlap, it can be concluded that the difference is statistically significant and not due to chance. However, if the intervals overlap or share a boundary, the difference between the two estimates (percents) is assumed not to be statistically significant. This is a conservative approach used to describe the significance of difference between groups and has been applied to other analyses of CHIS data.[4]

Data Sources

Demographic and Socioeconomic U.S. Bureau of the Census, 2000 Census, American Community Survey; California Department of Education, Dataquest and Ed-Data; California Department of Finance; California Employment Development Department; California Department of Justice.

Population Estimates The population estimates for Alameda County are from California Department of Finance (DOF) estimates and Claritas estimates. Since most data are for 2006 to 2008, they have a midpoint of July 1, 2007.

Age, sex, and race distributions are from Claritas, but the total population is adjusted using the DOF benchmarks. For the years prior to 2000, the age and sex distributions are assumed to change linearly from Census 1990 to Census 2000, with the total number of persons taken from DOF estimates.[5,6]

American Community Survey (ACS) A nationwide survey designed to provide communities a fresh look at how they are changing. It is a critical element in the Census Bureau's reengineered decennial census program. It regularly gathers information previously contained only in the long form of the decennial census. The ACS collects and produces population and housing information every year instead of every ten years.

Births Alameda County Public Health Department vital statistics files obtained from the Alameda County Department of Public Health Automated Vital Statistics System (AVSS).

Deaths Electronic Death Reporting System (EDRS), California Department of Public Health. Prior to 2005: Alameda County Public Health Department Vital Statistics Files from the Automated Vital Statistics System (AVSS) and the State of California Statistical Master Death file.

Emergency Department (ED) Data Hospital emergency department data collected by the California Office of Statewide Health Planning and Development (OSHPD). Data on emergency department visits reflect patients who were treated and released or transferred to another facility. Those who were admitted to the same hospital as an inpatient are not reflected here; they are reflected in the patient discharge data.

Patient Discharge Data Hospital inpatient discharge data collected by the California Office of Statewide Health Planning and Development (OSHPD).

California Health Interview Survey (CHIS) A biennial statewide survey conducted by the UCLA Center for Health Policy Research in collaboration with the California Department of Public Health, the California Department of Health Care Services, and the Public Health Institute. It is a key source of information on chronic disease prevalence, health-related behaviors, preventive health services, access to health care (including health insurance coverage).

Cancer Incidence California Cancer Registry (CCR) data provided by the Cancer Prevention Institute of California (CPIC) is the source of data on new cases of cancer. This data source has reports of cases diagnosed by site, as well as a range of clinical characteristics such as extent of disease and stage.

Tuberculosis Alameda County Public Health Department Tuberculosis Information Management System (TIMS).

HIV/AIDS Alameda County Public Health Department HIV/AIDS Reporting System (HARS).

Sexually Transmitted Diseases (STDs) Chlamydia, gonorrhea, and syphilis data from Alameda County STD surveillance system through STD Control Branch, California Department of Public Health.

H1N1 Novel Influenza (Swine Flu) Alameda County Public Health Department Communicable Disease Surveillance System (CDSS) and the Acute Communicable Disease Unit of the Division of Communicable Disease Control and Prevention (DCDCP).

Limitations of Data and Other Data Issues

Patient Discharge and Emergency Department (ED) Data Because persons with multiple hospitalizations or ED visits during the year can be counted more than once, rates reflect the number of visits, not the number of individuals making the visits. Changes in rates of hospitalization may reflect changes in hospital admission practices or the diagnostic coding of illnesses, or be reflective of true changes in the patterns of disease. The data capture those illnesses or injuries serious enough to get people to the ED or admitted to the hospital and do not represent the prevalence of a given disease or condition in the population. Race and ethnicity data are missing for many cases. Consequently, race is not recorded in about 18% or more of records.[6] There are a large number of cases of 'unknown' and 'other' race which are not included in rate calculations, resulting in an overestimation of rates for some racial groups and an underestimation for others.

Births Information on the newborn is taken from the birth certificate. The race/ethnicity on the birth certificate is reported by self-identification according to the race and ethnicity of the mother.

Deaths The race and ethnicity of the decedent is from the death certificate as reported by family members to the funeral director. However, birth and census population data use the self-reported race of the respondent. Because of the combined effect of numerator and denominator biases, it has been estimated that mortality rates are overestimated by about 1% among Whites and 5% among African Americans. They are underestimated by approximately 21% for American Indian/Alaska Natives, 11% for Asian/Pacific Islanders, and 2% for Latinos.[7]

Change of International Classification of Disease Mortality data for specific causes of death in this report are classified and coded according to the World Health Organization's (WHO) tenth revision of the International Classification of Diseases (ICD-10) implemented in the United States in 1999.[9] However, the mortality trend data for 1990 to 1998, and hospital discharge data are based on the ninth revision of the International Classification of Diseases (ICD-9). Since the beginning of the century, the International Classification of Disease for mortality has been modified about once every ten years, except for the 20-year interval between the last two revisions. ICD-10 differs from ICD-9 in many respects: 1) ICD-10 is far more detailed than ICD-9, about 8,000 categories compared with 4,000 categories, mainly to provide more clinical detail for morbidity applications; 2) ICD-10 uses four-digit alphanumeric codes compared with four-digit numeric codes in ICD-9; 3) three additional chapters have been added, some chapters rearranged, cause of death titles have been changed, and conditions have been regrouped; 4) some coding rules have been changed.[10] Introducing this tenth revision of International Classification of Disease creates discontinuities in time series and trends. This means the Healthy People 2010 objectives may not be strictly comparable with the tracking data for 1999 and subsequent years whose baseline data were 1997 and 1998.[10]

Multiple Race Coding The data on race in Census 2000 are not directly comparable to those collected in previous censuses. The October 1997 revised standards issued by the U.S. Office of Management and Budget (OMB) led to changes in the question on race for Census 2000. In Census 2000, respondents were allowed to select more than one category for race. Also, the "Asian and Pacific Islander" category was separated into two categories, "Asian" and "Native Hawaiian and Other Pacific Islander."

Leading Causes of Death Causes are ranked according to the number of deaths because it most accurately reflects

the frequency of cause-specific mortality. In this report, leading causes of death were derived from the recommended list of 50 rankable causes from the 113 selected causes of death developed for use with ICD-10.[10] Leading causes of infant mortality were derived from a separate ranking procedure using the recommended list of 71 rankable causes from the 130 selected causes of infant death developed in accordance with ICD-10. Ranking leading causes of death is a tool for illustrating the relative burden of cause-specific mortality. However, the rankings do not necessarily indicate those causes of death of greatest public health importance. Some causes of death of public health importance, such as lung cancer and motor vehicle crashes are excluded from the ranking procedure and included in broader rankable categories, namely, all cancer and unintentional injuries, respectively. If they were included separately, both causes would rank among the ten leading causes of death.[11]

Sexually Transmitted Diseases (STDs) The incidence of STDs depends on levels of screening. Since testing for STDs is not comprehensive or uniform throughout the jurisdiction, and since many STD infections are asymptomatic, the actual incidence of STDs is greater than that which is reported. In addition, STD data derive largely from laboratory reports which do not contain information on the race/ethnicity of the individual. Hence, the data is incomplete and conclusions about the distribution of STDs by race/ethnicity cannot be firmly drawn. Based on research done by California Department of Public Health STD Control Branch staff, it is believed that STD cases with unknown race/ethnicity have a similar racial and ethnic distribution as those with known race/ethnicity.

Case Definitions

Maternal and Child Health

Infant Mortality Number of deaths to children less than one year old per 1,000 live births.

Low Birth Weight The percentage of live births weighing less than 2,500 grams.

Early Prenatal Care Care received during the first trimester (before 12 weeks) of pregnancy.

Teen Birth Births to teenage mothers (15 to 19 years).

Mortality

Cause of Death	ICD–10 Codes	Cause of Death	ICD–10 Codes
Diabetes	E10–E14	Motor Vehicle Crash	V02-V04, V09.0, V09.2, V12-V14, V19.0-V19.2, V19.4-V19.6, V20-V79, V80.3-V80.5, V81.0-V81.1, V82.0-V82.1, V83-V86, V87.0-V87.8, V88.0-V88.8, V89.0, V89.2
Coronary heart disease	I11; I20–I25		
Stroke	I60 – I69		
All cancer	C00–C97		
Lung cancer	C33–C34		
Colorectal cancer	C18–C21		
Female breast cancer	C50	Unintentional injury	V01–X59; Y85–Y86
Prostate cancer	C61	Suicide	X60-X84, Y87.0
Asthma	J45-J46	Homicide	X85–Y09; Y87.1

Emergency Department Visits

Diagnosis	ICD–9 Codes	Code Positions
Asthma	493.00–493.99	Primary Dx
Mental Disorders	290.00 thru 319.99	Primary Dx
Unintentional injury	E800-E949	Primary E-code through E-code4, with some exclusions
Assault	E960-E969	Primary E-code through E-code4, with some exclusions

Hospitalization

Diagnosis	ICD–9 Codes	Code Positions
Asthma	493.00–493.99	Primary Dx
Coronary heart disease	402.00–402.99; 410.00–414.99; 429.2	Primary Dx-Dx4
Stroke	430.00–438.99	Primary Dx-Dx4
Unintentional injury	E800-E949	Primary E-code
Assault	E960-E969	Primary E-code

Cancer Incidence

A cancer case is defined in this report as a primary malignant tumor, one originating in a particular organ or anatomic site rather than having spread from another location. Surveillance Epidemiology and End Results (SEER) site codes in the California Cancer Registry were used to define and select cases by site for this report.[12]

Site	SEER Site Code
Breast	26000
Prostate	28010
Colorectal	21041-21049; 21051-21052
Lung	22030

Communicable Disease

AIDS The Centers for Disease Control and Prevention expanded the AIDS surveillance case definition in 1993 to include all HIV-infected persons with a CD4+ T-lymphocyte count of less than 200 cells/uL or with one of the AIDS-defining clinical conditions.

Chlamydia A case that is laboratory confirmed by isolation of C. trachomatis by culture.

Gonorrhea A case that is laboratory confirmed by isolation of Neisseria gonorrhea by culture.

Primary and Secondary Syphilis Primary syphilis is either a demonstration of *Treponema pallidum* in clinical specimen by darkfield, fluorescent antibody or equivalent microscopic methods, or a reactive serologic test for syphilis. Secondary is an identification of *T. pallidum* from a lesion compatible with secondary syphilis, or a compatible clinical picture with laboratory confirmation by either: 1) Reactive non-treponemal test (>1:4) with no prior diagnosis of syphilis; or 2) Four-fold or greater increase in non-treponemal test titer compared with most recent test for individuals with prior history of syphilis

Tuberculosis (TB) Positive cultures for *M. tuberculosis* confirm the diagnosis of TB. However, TB may also be diagnosed by the medical provider on the basis of clinical signs and symptoms in the absence of positive cultures.

Novel H1N1 Influenza (Swine Flu) 2009 A probable case of 2009 H1N1 influenza is a person with a syndrome clinically compatible with influenza who has a PCR test that is positive for influenza A and unsubtypeable for A/H1 or A/H3. A confirmed case of 2009 H1N1 influenza is a person with a syndrome clinically compatible with influenza who has laboratory confirmed 2009 H1N1 influenza by one or both of the two following tests: real-time RT-PCR or viral culture.

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Appendix B: Data Tables

Table B.1: Demographic, Social, and Economic Indicators, Census 2000

		Alameda County	Alameda	Albany	Ashland	Berkeley	Castro Valley	Cherry-land	Dublin	Emeryville
Number of People		1,443,741	72,259	16,444	20,793	102,743	57,292	13,837	29,973	6,882
Age	Median Age	34.5	38.3	36.3	30.9	32.5	39.4	31.6	34.3	35.2
	% <18 years	24.6	21.5	22.9	28.5	14.1	23.7	27.0	21.0	11.4
	% 65+ years	10.2	13.3	11.1	9.1	10.2	14.7	9.5	4.6	9.8
Education	% HS or Better	82.4	88.4	93.8	72.8	92.2	89.0	66.7	86.3	89.7
	% Bach or Better	34.9	42.2	64.0	14.1	64.3	30.6	9.2	32.9	53.5
Language	% HH Linguistically Isolated	8.7	7.4	8.0	10.6	4.3	3.9	12.8	3.1	6.1
	% Persons Speak English Not Well or Not At All	8.5	5.9	5.8	10.3	2.9	3.5	15.0	2.3	3.8
% Families with Children with Single Mothers		20.4	19.9	22.3	33.1	23.7	16.4	20.1	14.8	26.2
Average Household Size (# persons)		2.71	2.35	2.34	2.83	2.16	2.58	2.87	2.65	1.71
Median Household Income ($)		55,946	56,285	54,919	40,811	44,485	64,874	42,880	77,283	45,359
% Owner-Occupied Households		54.7	47.9	50.7	36.0	42.7	69.6	32.5	64.9	36.8
Median Rent as % Household Income		26.8	25.0	26.1	26.2	30.6	25.7	26.8	24.8	29.3
% Persons in Poverty	Total	11.0	8.2	7.9	14.3	20.0	4.5	12.3	2.9	13.2
	<18 years	13.8	11.5	8.3	20.2	14.2	4.6	14.2	3.5	7.7
	18-64 years	10.4	7.6	7.8	12.0	22.8	4.5	11.5	2.7	14.4
	65+ years	8.1	6.1	8.2	11.1	7.9	4.5	12.1	3.2	8.0
% Unemployed		5.5	4.3	2.1	6.1	5.5	3.2	9.0	3.1	4.0

		Fairview	Fremont	Hayward	Livermore	Newark	Oakland	Piedmont	Pleasanton	San Leandro
Number of People		9,470	203,413	140,030	73,345	42,471	399,484	10,952	63,654	79,452
Age	Median Age	39.0	34.5	31.9	35.0	33.1	33.3	43.7	36.9	37.7
	% <18 years	24.1	25.8	26.8	28.1	27.3	25.0	30.3	28.2	22.2
	% 65+ years	11.8	8.3	10.2	7.5	7.8	10.5	13.5	7.6	16.0
Education	% HS or Better	89.6	88.4	75.1	89.6	79.2	73.9	98.1	94.2	80.9
	% Bach or Better	32.3	43.2	19.9	31.6	24.2	30.9	77.8	47.3	23.3
Language	% HH Linguistically Isolated	3.3	10.4	11.2	2.8	10.1	11.5	1.2	2.9	9.0
	% Persons Speak English Not Well or Not At All	1.3	7.4	11.4	3.8	9.5	13.0	1.6	2.0	9.0
% Families with Children with Single Mothers		14.7	10.3	19.6	14.7	15.0	33.7	11.6	10.4	20.1
Average Household Size (# persons)		2.84	2.96	3.08	2.80	3.26	2.60	2.88	2.72	2.57
Median Household Income ($)		76,647	76,579	51,177	75,322	69,350	40,055	134,270	90,859	51,081
% Owner-Occupied Households		83.1	64.5	53.3	72.1	70.7	41.4	90.7	73.4	60.7
Median Rent as % Household Income		27.7	24.8	27.0	26.4	24.9	27.6	24.9	24.5	26.1
% Persons in Poverty	Total	6.4	5.4	10.0	5.3	5.5	19.4	2.0	2.6	6.4
	<18 years	4.5	6.2	12.2	7.4	5.9	28.2	2.6	2.7	8.0
	18-64 years	7.3	5.0	9.5	4.9	5.1	17.0	1.8	2.4	5.8
	65+ years	5.0	6.2	7.2	1.5	6.9	13.1	1.6	3.8	6.5
% Unemployed		3.8	3.9	6.3	3.4	5.0	8.3	2.7	2.6	5.2

Source: Census 2000.

Table B.1: Demographic, Social, and Economic Indicators, Census 2000 (continued)

		San Lorenzo	Sunol	Union City	Remainder of County	North County	Oakland Area	Central County	South County	Tri-Valley
Number of People		21,898	1,332	66,869	11,148	119,187	489,577	342,772	314,085	166,972
Age	Median Age	37.7	41.3	32.8	na	na	na	na	na	na
	% <18 years	25.2	22.7	27.8	26.5	15.3	24.4	25.1	26.4	26.9
	% 65+ years	16.0	10.7	8.1	9.0	10.3	10.9	12.6	8.2	7.0
Education	% HS or Better	81.2	95.1	80.5	85.7	92.5	77.0	79.3	85.6	90.7
	% Bach or Better	15.0	35.4	29.5	34.7	64.2	34.1	21.9	37.9	37.8
Language	% HH Linguistically Isolated	6.7	0.0	12.8	4.9	4.8	10.5	8.8	10.8	2.9
	% Persons Speak English Not Well or Not At All	6.9	0.0	10.4	5.5	3.3	11.6	9.0	8.3	2.8
% Families with Children with Single Mothers		12.1	12.2	11.7	12.9	23.4	30.8	19.5	11.2	13.0
Average Household Size (# persons)		2.92	2.76	3.57	2.89	2.18	2.55	2.82	3.11	2.74
Median Household Income ($)		56,170	88,353	71,926	na	na	na	na	na	na
% Owner-Occupied Households		79.3	69.9	71.2	66.4	43.8	43.4	58.7	66.6	71.5
Median Rent as % Household Income		27.1	25.7	25.3						
% Persons in Poverty	Total	5.4	1.4	6.5	8.6	18.2	17.3	8.2	5.6	3.9
	<18 years	6.9	2.0	7.3	12.4	13.0	25.2	10.3	6.4	4.9
	18-64 years	5.1	1.4	6.2	7.4	20.8	15.3	7.7	5.2	3.5
	65+ years	4.2	0.0	6.5	5.8	8.0	11.5	6.5	6.3	2.7
% Unemployed		3.8	4.9	5.1	3.8	5.1	7.5	5.4	4.3	3.0

Source: Census 2000.

Table B.2: Demographic Indicators and Disability, Census 2000

	Alameda County		Alameda		Albany		Ashland		Berkeley		Castro Valley		Cherryland	
Total	1,443,741		72,259		16,444		20,793		102,743		57,292		13,837	
Male	709,300	49.1%	34,689	48.0%	7,669	46.6%	10,171	48.9%	50,456	49.1%	27,844	48.6%	7,088	51.2%
Female	734,441	50.9%	37,570	52.0%	8,775	53.4%	10,622	51.1%	52,287	50.9%	29,448	51.4%	6,749	48.8%
Age														
Under 5 years	98,378	6.8%	4,057	5.6%	988	6.0%	1,832	8.8%	4,109	4.0%	3,266	5.7%	1,237	8.9%
5 to 9 years	104,648	7.2%	4,499	6.2%	1,025	6.2%	1,910	9.2%	4,032	3.9%	3,722	6.5%	1,076	7.8%
10 to 14 years	96,769	6.7%	4,459	6.2%	1,120	6.8%	1,440	6.9%	3,974	3.9%	4,011	7.0%	924	6.7%
15 to 19 years	92,448	6.4%	3,965	5.5%	924	5.6%	1,247	6.0%	7,978	7.8%	3,870	6.8%	843	6.1%
20 to 24 years	100,745	7.0%	3,648	5.0%	864	5.3%	1,576	7.6%	16,579	16.1%	2,616	4.6%	1,098	7.9%
25 to 29 years	116,926	8.1%	5,107	7.1%	1,326	8.1%	1,996	9.6%	10,127	9.9%	3,156	5.5%	1,337	9.7%
30 to 34 years	124,147	8.6%	5,970	8.3%	1,547	9.4%	1,964	9.4%	8,233	8.0%	3,814	6.7%	1,305	9.4%
35 to 39 years	128,426	8.9%	6,546	9.1%	1,437	8.7%	1,775	8.5%	7,359	7.2%	4,791	8.4%	1,203	8.7%
40 to 44 years	120,280	8.3%	6,623	9.2%	1,437	8.7%	1,556	7.5%	6,951	6.8%	5,340	9.3%	1,077	7.8%
45 to 49 years	106,589	7.4%	6,045	8.4%	1,383	8.4%	1,312	6.3%	7,032	6.8%	4,918	8.6%	837	6.0%
50 to 54 years	93,929	6.5%	5,365	7.4%	1,370	8.3%	1,045	5.0%	7,293	7.1%	4,375	7.6%	685	5.0%
55 to 59 years	65,207	4.5%	3,684	5.1%	756	4.6%	688	3.3%	5,197	5.1%	2,856	5.0%	502	3.6%
60 to 64 years	47,658	3.3%	2,686	3.7%	448	2.7%	557	2.7%	3,395	3.3%	2,162	3.8%	400	2.9%
65 to 69 years	39,419	2.7%	2,357	3.3%	441	2.7%	469	2.3%	2,566	2.5%	1,842	3.2%	294	2.1%
70 to 74 years	36,280	2.5%	2,355	3.3%	412	2.5%	435	2.1%	2,427	2.4%	1,898	3.3%	281	2.0%
75 to 79 years	31,885	2.2%	2,096	2.9%	386	2.3%	443	2.1%	2,372	2.3%	2,045	3.6%	298	2.2%
80 to 84 years	21,184	1.5%	1,473	2.0%	289	1.8%	262	1.3%	1,597	1.6%	1,359	2.4%	216	1.6%
85 years and over	18,823	1.3%	1,324	1.8%	291	1.8%	286	1.4%	1,522	1.5%	1,251	2.2%	224	1.6%
Race/Ethnicity														
Latino	273,910	19.0%	6,725	9.3%	1,312	8.0%	6,753	32.5%	10,001	9.7%	6,984	12.2%	5,774	41.7%
White	591,095	40.9%	37,921	52.5%	9,461	57.5%	5,583	26.9%	56,691	55.2%	36,992	64.6%	4,933	35.7%
AfrAmer	211,124	14.6%	4,350	6.0%	644	3.9%	4,067	19.6%	13,707	13.3%	2868	5.0%	1,309	9.5%
American Indian	5,306	0.4%	365	0.5%	53	0.3%	158	0.8%	293	0.3%	205	0.4%	62	0.4%
Asian	292,673	20.3%	18,757	26.0%	4,094	24.9%	3,040	14.6%	16,740	16.3%	7649	13.4%	1,111	8.0%
Pacific Islander	8,458	0.6%	407	0.6%	20	0.1%	231	1.1%	121	0.1%	240	0.4%	162	1.2%
Some other race	4,676	0.3%	235	0.3%	80	0.5%	54	0.3%	598	0.6%	154	0.3%	28	0.2%
Multirace	56,499	3.9%	3,499	4.8%	780	4.7%	907	4.4%	4,592	4.5%	2,200	3.8%	458	3.3%
Disability														
Persons 5- years	312,905	100.0%	13,219	100.0%	3,167	100.0%	4,890	100.0%	20,201	100.0%	12,087	100.0%	3,004	100.0%
One type disability	15,607	5.0%	633	4.8%	139	4.4%	275	5.6%	969	4.8%	524	4.3%	153	5.1%
Sensory	1,459	0.5%	45	0.3%	25	0.8%	0	0.0%	119	0.6%	53	0.4%	8	0.3%
Physical	1,112	0.4%	46	0.3%	5	0.2%	86	1.8%	122	0.6%	30	0.2%	0	0.0%
Mental	7,039	2.2%	341	2.6%	67	2.1%	141	2.9%	461	2.3%	267	2.2%	76	2.5%
Self-care	634	0.2%	33	0.2%	0	0.0%	25	0.5%	9	0.0%	16	0.1%	15	0.5%
Two+ types	6,692	2.1%	265	2.0%	41	1.3%	154	3.1%	375	1.9%	140	1.2%	37	1.2%
Includes self-care	5,438	1.7%	173	1.3%	34	1.1%	91	1.9%	279	1.4%	124	1.0%	31	1.0%
No disability	290,606	92.9%	12,321	93.2%	2,987	94.3%	4,461	91.2%	18,857	93.3%	11,423	94.5%	2,814	93.7%
Persons 21-64 yrs	876,793	100.0%	44,663	100.0%	10,430	100.0%	12,122	100.0%	68,079	100.0%	32,968	100.0%	8,216	100.0%
One type disability	85,010	9.7%	3,903	8.7%	689	6.6%	1,069	8.8%	4,786	7.0%	3,054	9.3%	821	10.0%
Sensory	7,650	0.9%	450	1.0%	60	0.6%	158	1.3%	573	0.8%	322	1.0%	102	1.2%
Physical	15,931	1.8%	801	1.8%	112	1.1%	271	2.2%	1,057	1.6%	568	1.7%	115	1.4%
Mental	6,788	0.8%	347	0.8%	94	0.9%	71	0.6%	662	1.0%	224	0.7%	36	0.4%
Self-care	349	0.0%	32	0.1%	0	0.0%	0	0.0%	20	0.0%	22	0.1%	10	0.1%
Two+ types	79,354	9.1%	3,412	7.6%	546	5.2%	1,622	13.4%	4,426	6.5%	2,046	6.2%	1,159	14.1%
Includes self-care	14,550	1.7%	621	1.4%	74	0.7%	326	2.7%	1,034	1.5%	319	1.0%	262	3.2%
No disability	712,429	81.3%	37,348	83.6%	9,195	88.2%	9,431	77.8%	58,867	86.5%	27,868	84.5%	6,236	75.9%
Persons 65+ yrs	142,773	100.0%	9,156	100.0%	1,820	100.0%	1,772	100.0%	10,366	100.0%	7,891	100.0%	1,190	100.0%
One type disability	28,369	19.9%	1,955	21.4%	323	17.7%	497	28.0%	1,685	16.3%	1,488	18.9%	208	17.5%
Sensory	5,002	3.5%	274	3.0%	83	4.6%	37	2.1%	280	2.7%	389	4.9%	17	1.4%
Physical	12,921	9.1%	970	10.6%	131	7.2%	214	12.1%	839	8.1%	610	7.7%	99	8.3%
Mental	1,762	1.2%	122	1.3%	11	0.6%	50	2.8%	164	1.6%	86	1.1%	15	1.3%
Self-care	256	0.2%	5	0.1%	0	0.0%	0	0.0%	38	0.4%	13	0.2%	0	0.0%
Two+ types	33,526	23.5%	1,958	21.4%	316	17.4%	434	24.5%	2,506	24.2%	1,458	18.5%	408	34.3%
Includes self-care	15,016	10.5%	936	10.2%	119	6.5%	210	11.9%	1,299	12.5%	622	7.9%	186	15.6%
No disability	80,878	56.6%	5,243	57.3%	1,181	64.9%	841	47.5%	6,175	59.6%	4,945	62.7%	574	48.2%

Source: Census 2000.

Table B.2: Demographic Indicators and Disability, Census 2000 (continued)

	Dublin		Emeryville		Fairview		Fremont		Hayward		Livermore		Newark	
Total	29,973		6,882		9,470		203,413		140,030		73,345		42,471	
Male	15,782	52.7%	3,444	50.0%	4,690	49.5%	102,273	50.3%	69,490	49.6%	36,664	50.0%	21,386	50.4%
Female	14,191	47.3%	3,438	50.0%	4,780	50.5%	101,140	49.7%	70,540	50.4%	36,681	50.0%	21,085	49.6%
Age														
Under 5 years	1,758	5.9%	257	3.7%	531	5.6%	15,137	7.4%	11,011	7.9%	5,650	7.7%	3,062	7.2%
5 to 9 years	1,844	6.2%	234	3.4%	653	6.9%	15,271	7.5%	11,215	8.0%	6,227	8.5%	3,312	7.8%
10 to 14 years	1,780	5.9%	192	2.8%	692	7.3%	14,005	6.9%	9,737	7.0%	5,728	7.8%	3,319	7.8%
15 to 19 years	1,673	5.6%	210	3.1%	637	6.7%	12,547	6.2%	9,542	6.8%	4,667	6.4%	3,105	7.3%
20 to 24 years	2,024	6.8%	810	11.8%	444	4.7%	11,189	5.5%	11,209	8.0%	3,593	4.9%	2,795	6.6%
25 to 29 years	3,010	10.0%	918	13.3%	478	5.0%	16,496	8.1%	12,557	9.0%	4,494	6.1%	3,254	7.7%
30 to 34 years	3,400	11.3%	797	11.6%	679	7.2%	18,778	9.2%	11,995	8.6%	6,374	8.7%	3,757	8.8%
35 to 39 years	3,655	12.2%	653	9.5%	783	8.3%	20,608	10.1%	11,937	8.5%	7,868	10.7%	3,997	9.4%
40 to 44 years	3,168	10.6%	539	7.8%	912	9.6%	18,970	9.3%	10,242	7.3%	7,010	9.6%	3,559	8.4%
45 to 49 years	2,328	7.8%	481	7.0%	829	8.8%	15,325	7.5%	9,056	6.5%	5,489	7.5%	2,866	6.7%
50 to 54 years	1,939	6.5%	497	7.2%	806	8.5%	12,534	6.2%	7,596	5.4%	4,811	6.6%	2,576	6.1%
55 to 59 years	1,238	4.1%	372	5.4%	535	5.6%	8,804	4.3%	5,337	3.8%	3,615	4.9%	1,980	4.7%
60 to 64 years	775	2.6%	251	3.6%	376	4.0%	6,782	3.3%	4,369	3.1%	2,303	3.1%	1,565	3.7%
65 to 69 years	539	1.8%	209	3.0%	321	3.4%	5,532	2.7%	3,655	2.6%	1,772	2.4%	1,188	2.8%
70 to 74 years	384	1.3%	177	2.6%	319	3.4%	4,401	2.2%	3,671	2.6%	1,384	1.9%	883	2.1%
75 to 79 years	217	0.7%	132	1.9%	254	2.7%	3,319	1.6%	3,161	2.3%	1,089	1.5%	684	1.6%
80 to 84 years	151	0.5%	84	1.2%	127	1.3%	2,075	1.0%	1,994	1.4%	709	1.0%	329	0.8%
85 years and over	90	0.3%	69	1.0%	94	1.0%	1,640	0.8%	1,746	1.2%	562	0.8%	240	0.6%
Race/Ethnicity														
Latino	4,059	13.5%	616	9.0%	1,433	15.1%	27,409	13.5%	47,850	34.2%	10,541	14.4%	12,145	28.6%
White	18,669	62.3%	2,861	41.6%	4,621	48.8%	84,149	41.4%	40,896	29.2%	54,587	74.4%	17,103	40.3%
AfrAmer	2,995	10.0%	1,304	18.9%	1,901	20.1%	6,084	3.0%	14,846	10.6%	1,094	1.5%	1,639	3.9%
American Indian	156	0.5%	22	0.3%	29	0.3%	656	0.3%	570	0.4%	315	0.4%	148	0.3%
Asian	3,050	10.2%	1,749	25.4%	949	10.0%	74,773	36.8%	26,189	18.7%	4,171	5.7%	8,951	21.1%
Pacific Islander	85	0.3%	17	0.2%	60	0.6%	736	0.4%	2,511	1.8%	189	0.3%	378	0.9%
Some other race	61	0.2%	29	0.4%	34	0.4%	553	0.3%	692	0.5%	185	0.3%	128	0.3%
Multirace	898	3.0%	284	4.1%	443	4.7%	9,053	4.5%	6,476	4.6%	2,263	3.1%	1,979	4.7%
Disability														
Persons 5- years	5,091	100.0%	763	100.0%	2,217	100.0%	43,455	100.0%	32,452	100.0%	17,567	100.0%	10,584	100.0%
One type disability	238	4.7%	67	8.8%	83	3.7%	1,880	4.3%	1,801	5.5%	640	3.6%	529	5.0%
Sensory	0	0.0%	0	0.0%	0	0.0%	309	0.7%	170	0.5%	49	0.3%	59	0.6%
Physical	6	0.1%	0	0.0%	0	0.0%	124	0.3%	89	0.3%	49	0.3%	14	0.1%
Mental	157	3.1%	29	3.8%	55	2.5%	909	2.1%	586	1.8%	356	2.0%	280	2.6%
Self-care	0	0.0%	0	0.0%	0	0.0%	105	0.2%	142	0.4%	0	0.0%	18	0.2%
Two+ types	120	2.4%	30	3.9%	29	1.3%	772	1.8%	1,035	3.2%	256	1.5%	185	1.7%
Includes self-care	95	1.9%	30	3.9%	24	1.1%	654	1.5%	883	2.7%	238	1.4%	154	1.5%
No disability	4,733	93.0%	666	87.3%	2,105	94.9%	40,803	93.9%	29,616	91.3%	16,671	94.9%	9,870	93.3%
Persons 21-64 yrs	16,471	100.0%	5,282	100.0%	5,795	100.0%	127,583	100.0%	82,194	100.0%	44,835	100.0%	25,561	100.0%
One type disability	1,142	6.9%	602	11.4%	567	9.8%	9,125	7.2%	9,698	11.8%	3,613	8.1%	2,382	9.3%
Sensory	156	0.9%	46	0.9%	63	1.1%	1,002	0.8%	691	0.8%	368	0.8%	272	1.1%
Physical	207	1.3%	116	2.2%	104	1.8%	1,699	1.3%	1,684	2.0%	726	1.6%	382	1.5%
Mental	57	0.3%	31	0.6%	6	0.1%	789	0.6%	543	0.7%	413	0.9%	140	0.5%
Self-care	11	0.1%	0	0.0%	0	0.0%	27	0.0%	78	0.1%	5	0.0%	17	0.1%
Two+ types	881	5.3%	427	8.1%	447	7.7%	8,326	6.5%	10,525	12.8%	2,756	6.1%	2,208	8.6%
Includes self-care	159	1.0%	146	2.8%	92	1.6%	1,334	1.0%	1,574	1.9%	545	1.2%	309	1.2%
No disability	14,448	87.7%	4,253	80.5%	4,781	82.5%	110,132	86.3%	61,971	75.4%	38,466	85.8%	20,971	82.0%
Persons 65+ yrs	1,424	100.0%	601	100.0%	895	100.0%	16,539	100.0%	13,503	100.0%	5,280	100.0%	3,391	100.0%
One type disability	302	21.2%	102	17.0%	190	21.2%	3,143	19.0%	2,995	22.2%	938	17.8%	686	20.2%
Sensory	39	2.7%	11	1.8%	36	4.0%	545	3.3%	461	3.4%	203	3.8%	87	2.6%
Physical	174	12.2%	74	12.3%	124	13.9%	1,510	9.1%	1,229	9.1%	533	10.1%	331	9.8%
Mental	20	1.4%	11	1.8%	0	0.0%	158	1.0%	155	1.1%	43	0.8%	58	1.7%
Self-care	0	0.0%	0	0.0%	0	0.0%	29	0.2%	12	0.1%	11	0.2%	5	0.1%
Two+ types	243	17.1%	152	25.3%	190	21.2%	3,469	21.0%	3,197	23.7%	959	18.2%	707	20.8%
Includes self-care	79	5.5%	74	12.3%	57	6.4%	1,362	8.2%	1,383	10.2%	373	7.1%	317	9.3%
No disability	879	61.7%	347	57.7%	515	57.5%	9,927	60.0%	7,311	54.1%	3,383	64.1%	1,998	58.9%

Source: Census 2000.

Table B.2: Demographic Indicators and Disability, Census 2000 (continued)

	Oakland		Piedmont		Pleasanton		San Leandro		San Lorenzo		Sunol		Union City	
Total	399,484		10,952		63,654		79,452		21,898		1,332		66,869	
Male	192,757	48.3%	5,270	48.1%	31,270	49.1%	38,300	48.2%	10,610	48.5%	686	51.5%	33,248	49.7%
Female	206,727	51.7%	5,682	51.9%	32,384	50.9%	41,152	51.8%	11,288	51.5%	646	48.5%	33,621	50.3%
Age														
Under 5 years	28,292	7.1%	582	5.3%	4,359	6.8%	5,032	6.3%	1,336	6.1%	63	4.7%	4,870	7.3%
5 to 9 years	30,134	7.5%	881	8.0%	5,369	8.4%	5,274	6.6%	1,607	7.3%	91	6.8%	5,399	8.1%
10 to 14 years	26,502	6.6%	1,144	10.4%	5,438	8.5%	4,661	5.9%	1,658	7.6%	98	7.4%	5,161	7.7%
15 to 19 years	24,664	6.2%	911	8.3%	4,014	6.3%	4,397	5.5%	1,476	6.7%	79	5.9%	5,084	7.6%
20 to 24 years	28,958	7.2%	206	1.9%	2,274	3.6%	4,504	5.7%	1,176	5.4%	80	6.0%	4,611	6.9%
25 to 29 years	36,427	9.1%	199	1.8%	3,277	5.1%	5,655	7.1%	1,206	5.5%	60	4.5%	5,098	7.6%
30 to 34 years	35,888	9.0%	326	3.0%	4,711	7.4%	6,421	8.1%	1,527	7.0%	70	5.3%	5,574	8.3%
35 to 39 years	33,110	8.3%	568	5.2%	6,575	10.3%	6,854	8.6%	1,825	8.3%	94	7.1%	5,684	8.5%
40 to 44 years	30,200	7.6%	934	8.5%	6,676	10.5%	6,480	8.2%	1,911	8.7%	116	8.7%	5,518	8.3%
45 to 49 years	28,512	7.1%	1,220	11.1%	5,743	9.0%	5,683	7.2%	1,614	7.4%	142	10.7%	4,874	7.3%
50 to 54 years	25,353	6.3%	1,257	11.5%	4,744	7.5%	5,174	6.5%	1,362	6.2%	123	9.2%	4,340	6.5%
55 to 59 years	17,188	4.3%	765	7.0%	3,511	5.5%	3,627	4.6%	913	4.2%	106	8.0%	2,944	4.4%
60 to 64 years	12,468	3.1%	478	4.4%	2,125	3.3%	3,002	3.8%	783	3.6%	68	5.1%	2,276	3.4%
65 to 69 years	10,552	2.6%	415	3.8%	1,521	2.4%	2,840	3.6%	796	3.6%	57	4.3%	1,730	2.6%
70 to 74 years	10,110	2.5%	344	3.1%	1,202	1.9%	3,005	3.8%	947	4.3%	26	2.0%	1,368	2.0%
75 to 79 years	8,886	2.2%	322	2.9%	941	1.5%	2,970	3.7%	923	4.2%	30	2.3%	1,124	1.7%
80 to 84 years	6,259	1.6%	204	1.9%	619	1.0%	2,126	2.7%	524	2.4%	18	1.4%	645	1.0%
85 years and over	5,981	1.5%	196	1.8%	555	0.9%	1,747	2.2%	314	1.4%	11	0.8%	569	0.9%
Race/Ethnicity														
Latino	87,467	21.9%	325	3.0%	5,011	7.9%	15,939	20.1%	5,398	24.7%	116	8.7%	16,020	24.0%
White	93,953	23.5%	8,408	76.8%	48,253	75.8%	33,646	42.3%	11,475	52.4%	1,077	80.9%	13,610	20.4%
AfrAmer	140,139	35.1%	134	1.2%	845	1.3%	7,622	9.6%	584	2.7%	0	0.0%	4,321	6.5%
American Indian	1,471	0.4%	9	0.1%	147	0.2%	360	0.5%	102	0.5%	13	1.0%	132	0.2%
Asian	60,393	15.1%	1,728	15.8%	7,387	11.6%	18,064	22.7%	3,331	15.2%	64	4.8%	28,780	43.0%
Pacific Islander	1,866	0.5%	4	0.0%	74	0.1%	627	0.8%	90	0.4%	3	0.2%	577	0.9%
Some other race	1,229	0.3%	31	0.3%	143	0.2%	175	0.2%	46	0.2%	0	0.0%	203	0.3%
Multirace	12,966	3.2%	313	2.9%	1,794	2.8%	3,019	3.8%	872	4.0%	59	4.4%	3,226	4.8%
Disability														
Persons 5- years	87,050	100.0%	2,957	100.0%	15,126	100.0%	15,210	100.0%	4,988	100.0%	344	100.0%	16,224	100.0%
One type disability	5,170	5.9%	67	2.3%	682	4.5%	720	4.7%	236	4.7%	41	11.9%	584	3.6%
Sensory	458	0.5%	12	0.4%	25	0.2%	40	0.3%	15	0.3%	0	0.0%	72	0.4%
Physical	375	0.4%	0	0.0%	47	0.3%	54	0.4%	13	0.3%	0	0.0%	35	0.2%
Mental	1,940	2.2%	55	1.9%	513	3.4%	378	2.5%	127	2.5%	41	11.9%	190	1.2%
Self-care	201	0.2%	0	0.0%	0	0.0%	45	0.3%	5	0.1%	0	0.0%	14	0.1%
Two+ types	2,223	2.6%	0	0.0%	158	1.0%	369	2.4%	109	2.2%	0	0.0%	363	2.2%
Includes self-care	1,777	2.0%	0	0.0%	133	0.9%	286	1.9%	81	1.6%	0	0.0%	320	2.0%
No disability	79,657	91.5%	2,890	97.7%	14,286	94.4%	14,121	92.8%	4,643	93.1%	303	88.1%	15,277	94.2%
Persons 21-64 yrs	241,004	100.0%	5,903	100.0%	39,332	100.0%	46,510	100.0%	12,028	100.0%	834	100.0%	40,074	100.0%
One type disability	28,860	12.0%	273	4.6%	2,702	6.9%	5,443	11.7%	1,316	10.9%	118	14.1%	4,243	10.6%
Sensory	1,929	0.8%	31	0.5%	333	0.8%	466	1.0%	147	1.2%	7	0.8%	414	1.0%
Physical	5,387	2.2%	18	0.3%	512	1.3%	1,242	2.7%	235	2.0%	9	1.1%	563	1.4%
Mental	2,501	1.0%	47	0.8%	139	0.4%	360	0.8%	85	0.7%	0	0.0%	187	0.5%
Self-care	79	0.0%	0	0.0%	0	0.0%	32	0.1%	0	0.0%	0	0.0%	16	0.0%
Two+ types	28,049	11.6%	159	2.7%	1,264	3.2%	4,851	10.4%	1,189	9.9%	25	3.0%	4,397	11.0%
Includes self-care	5,745	2.4%	19	0.3%	234	0.6%	774	1.7%	166	1.4%	0	0.0%	699	1.7%
No disability	184,095	76.4%	5,471	92.7%	35,366	89.9%	36,216	77.9%	9,523	79.2%	691	82.9%	31,434	78.4%
Persons 65+ yrs	40,715	100.0%	1,515	100.0%	4,576	100.0%	12,136	100.0%	3,584	100.0%	123	100.0%	5,333	100.0%
One type disability	8,394	20.6%	267	17.6%	868	19.0%	2,349	19.4%	790	22.0%	19	15.4%	994	18.6%
Sensory	1,268	3.1%	76	5.0%	189	4.1%	627	5.2%	153	4.3%	8	6.5%	165	3.1%
Physical	3,610	8.9%	120	7.9%	508	11.1%	910	7.5%	405	11.3%	11	8.9%	449	8.4%
Mental	636	1.6%	13	0.9%	42	0.9%	80	0.7%	45	1.3%	0	0.0%	53	1.0%
Self-care	117	0.3%	0	0.0%	0	0.0%	16	0.1%	0	0.0%	0	0.0%	10	0.2%
Two+ types	11,756	28.9%	175	11.6%	764	16.7%	2,567	21.2%	772	21.5%	30	24.4%	1,295	24.3%
Includes self-care	5,673	13.9%	60	4.0%	282	6.2%	1,000	8.2%	245	6.8%	13	10.6%	660	12.4%
No disability	20,565	50.5%	1,073	70.8%	2,944	64.3%	7,220	59.5%	2,022	56.4%	74	60.2%	3,044	57.1%

Source: Census 2000.

Table B.2: Demographic Indicators and Disability, Census 2000 (continued)

	Remainder of County		North County		Oakland Area		Central County		South County		Tri-Valley	
Total	11,148		119,187		489,577		342,772		314,085		166,972	
Male	5,513	49.5%	58,125	48.8%	236,160	48.2%	168,193	49.1%	157,593	50.2%	83,716	50.1%
Female	5,635	50.5%	61,062	51.2%	253,417	51.8%	174,579	50.9%	156,492	49.8%	83,256	49.9%
Age												
Under 5 years	949	8.5%	5,097	4.3%	33,188	6.8%	24,245	7.1%	23,132	7.4%	11,767	7.0%
5 to 9 years	873	7.8%	5,057	4.2%	35,748	7.3%	25,457	7.4%	24,073	7.7%	13,440	8.0%
10 to 14 years	726	6.5%	5,094	4.3%	32,297	6.6%	23,123	6.7%	22,583	7.2%	12,946	7.8%
15 to 19 years	615	5.5%	8,902	7.5%	29,750	6.1%	22,012	6.4%	20,815	6.6%	10,354	6.2%
20 to 24 years	491	4.4%	17,443	14.6%	33,622	6.9%	22,623	6.6%	18,675	5.9%	7,891	4.7%
25 to 29 years	748	6.7%	11,453	9.6%	42,651	8.7%	26,385	7.7%	24,908	7.9%	10,781	6.5%
30 to 34 years	1,017	9.1%	9,780	8.2%	42,981	8.8%	27,705	8.1%	28,179	9.0%	14,485	8.7%
35 to 39 years	1,104	9.9%	8,796	7.4%	40,877	8.3%	29,168	8.5%	30,383	9.7%	18,098	10.8%
40 to 44 years	1,061	9.5%	8,388	7.0%	38,296	7.8%	27,518	8.0%	28,163	9.0%	16,854	10.1%
45 to 49 years	900	8.1%	8,415	7.1%	36,258	7.4%	24,249	7.1%	23,207	7.4%	13,560	8.1%
50 to 54 years	684	6.1%	8,663	7.3%	32,472	6.6%	21,043	6.1%	19,573	6.2%	11,494	6.9%
55 to 59 years	589	5.3%	5,953	5.0%	22,009	4.5%	14,458	4.2%	13,834	4.4%	8,364	5.0%
60 to 64 years	389	3.5%	3,843	3.2%	15,883	3.2%	11,649	3.4%	10,691	3.4%	5,203	3.1%
65 to 69 years	323	2.9%	3,007	2.5%	13,533	2.8%	10,217	3.0%	8,507	2.7%	3,832	2.3%
70 to 74 years	251	2.3%	2,839	2.4%	12,986	2.7%	10,556	3.1%	6,678	2.1%	2,970	1.8%
75 to 79 years	193	1.7%	2,758	2.3%	11,436	2.3%	10,094	2.9%	5,157	1.6%	2,247	1.3%
80 to 84 years	124	1.1%	1,886	1.6%	8,020	1.6%	6,608	1.9%	3,067	1.0%	1,479	0.9%
85 years and over	111	1.0%	1,813	1.5%	7,570	1.5%	5,662	1.7%	2,460	0.8%	1,207	0.7%
Race/Ethnicity												
Latino	2,032	18.2%	11,313	9.5%	95,133	19.4%	90,131	26.3%	55,690	17.7%	19,611	11.7%
White	6,206	55.7%	66,152	55.5%	143,143	29.2%	138,146	40.3%	115,939	36.9%	121,509	72.8%
AfrAmer	671	6.0%	14,351	12.0%	145,927	29.8%	33,197	9.7%	12,044	3.8%	4,934	3.0%
American Indian	40	0.4%	346	0.3%	1,867	0.4%	1,486	0.4%	949	0.3%	618	0.4%
Asian	1,703	15.3%	20,834	17.5%	82,627	16.9%	60,333	17.6%	112,568	35.8%	14,608	8.7%
Pacific Islander	60	0.5%	141	0.1%	2,294	0.5%	3,921	1.1%	1,694	0.5%	348	0.2%
Some other race	18	0.2%	678	0.6%	1,524	0.3%	1,183	0.3%	884	0.3%	389	0.2%
Multirace	418	3.7%	5,372	4.5%	17,062	3.5%	14,375	4.2%	14,317	4.6%	4,955	3.0%
Disability												
Persons 5- years	2,309	100.0%	23,368	100.0%	103,989	100.0%	74,848	100.0%	70,607	100.0%	37,784	100.0%
One type disability	176	7.6%	1,108	4.7%	5,937	5.7%	3,792	5.1%	3,034	4.3%	1,560	4.1%
Sensory	0	0.0%	144	0.6%	515	0.5%	286	0.4%	440	0.6%	74	0.2%
Physical	17	0.7%	127	0.5%	421	0.4%	272	0.4%	173	0.2%	102	0.3%
Mental	70	3.0%	528	2.3%	2,365	2.3%	1,630	2.2%	1,420	2.0%	1,026	2.7%
Self-care	6	0.3%	9	0.0%	234	0.2%	248	0.3%	137	0.2%	0	0.0%
Two+ types	31	1.3%	416	1.8%	2,518	2.4%	1,873	2.5%	1,320	1.9%	534	1.4%
Includes self-care	31	1.3%	313	1.3%	1,980	1.9%	1,520	2.0%	1,128	1.6%	466	1.2%
No disability	2,102	91.0%	21,844	93.5%	95,534	91.9%	69,183	92.4%	66,253	93.8%	35,690	94.5%
Persons 21-64 yrs	6,909	100.0%	78,509	100.0%	296,852	100.0%	199,833	100.0%	194,052	100.0%	100,638	100.0%
One type disability	604	8.7%	5,475	7.0%	33,638	11.3%	21,968	11.0%	15,868	8.2%	7,457	7.4%
Sensory	60	0.9%	633	0.8%	2,456	0.8%	1,949	1.0%	1,695	0.9%	857	0.9%
Physical	123	1.8%	1,169	1.5%	6,322	2.1%	4,219	2.1%	2,653	1.4%	1,445	1.4%
Mental	56	0.8%	756	1.0%	2,926	1.0%	1,325	0.7%	1,116	0.6%	609	0.6%
Self-care	0	0.0%	20	0.0%	111	0.0%	142	0.1%	60	0.0%	16	0.0%
Two+ types	639	9.2%	4,972	6.3%	32,047	10.8%	21,839	10.9%	14,956	7.7%	4,901	4.9%
Includes self-care	118	1.7%	1,108	1.4%	6,531	2.2%	3,513	1.8%	2,342	1.2%	938	0.9%
No disability	5,666	82.0%	68,062	86.7%	231,167	77.9%	156,026	78.1%	163,228	84.1%	88,280	87.7%
Persons 65+ yrs	963	100.0%	12,186	100.0%	51,987	100.0%	40,971	100.0%	25,386	100.0%	11,280	100.0%
One type disability	176	18.3%	2,008	16.5%	10,718	20.6%	8,517	20.8%	4,842	19.1%	2,108	18.7%
Sensory	54	5.6%	363	3.0%	1,629	3.1%	1,720	4.2%	805	3.2%	431	3.8%
Physical	70	7.3%	970	8.0%	4,774	9.2%	3,591	8.8%	2,301	9.1%	1,215	10.8%
Mental	0	0.0%	175	1.4%	782	1.5%	431	1.1%	269	1.1%	105	0.9%
Self-care	0	0.0%	38	0.3%	122	0.2%	41	0.1%	44	0.2%	11	0.1%
Two+ types	170	17.7%	2,822	23.2%	14,041	27.0%	9,026	22.0%	5,501	21.7%	1,966	17.4%
Includes self-care	66	6.9%	1,418	11.6%	6,743	13.0%	3,703	9.0%	2,352	9.3%	734	6.5%
No disability	617	64.1%	7,356	60.4%	27,228	52.4%	23,428	57.2%	15,043	59.3%	7,206	63.9%

Source: Census 2000.

Table B.3: Mortality by Race/Ethnicity, Three-Year Rolling Average, 1990-2008

		All Races				AfrAmer				Asian/API				Latino				White			
	Period	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
All-Cause	1990-92	28,769	939.7	928.6	950.7	6,151	1,253.3	1,220.7	1,285.9	1,933	633.4	602.1	664.6	1,857	684.5	650.1	718.9	18,699	943.4	929.8	956.9
	1991-93	29,035	928.0	917.2	938.8	6,270	1,263.8	1,231.5	1,296.2	2,093	636.6	606.6	666.6	1,821	635.4	603.2	667.7	18,682	932.2	918.8	945.6
	1992-94	28,965	912.4	901.8	923.0	6,411	1,283.6	1,251.3	1,316.0	2,263	638.8	609.9	667.7	1,731	580.9	550.7	611.1	18,404	915.1	901.8	928.3
	1993-95	29,309	915.8	905.3	926.4	6,460	1,295.2	1,262.8	1,327.6	2,351	630.4	602.6	658.3	1,895	629.0	597.8	660.2	18,481	922.0	908.6	935.3
	1994-96	29,133	904.4	893.9	914.9	6,387	1,277.8	1,245.8	1,309.9	2,447	614.3	587.8	640.7	1,980	651.7	620.1	683.3	18,234	915.0	901.6	928.3
	1995-97	28,982	891.4	881.1	901.7	6,339	1,268.6	1,236.7	1,300.4	2,573	607.6	582.3	632.9	2,013	658.4	626.8	690.1	17,958	904.3	891.0	917.5
	1996-98	28,903	870.7	860.6	880.8	6,223	1,234.2	1,203.1	1,265.4	2,742	595.0	571.1	618.9	1,944	630.1	599.5	660.8	17,910	891.5	878.4	904.6
	1997-99	29,087	861.6	851.7	871.6	6,206	1,222.8	1,191.9	1,253.7	2,910	583.6	561.0	606.3	1,988	636.2	605.6	666.7	17,895	887.6	874.6	900.7
	1998-00	29,350	830.9	821.3	840.4	6,170	1,184.3	1,154.4	1,214.2	3,018	532.4	512.4	552.4	2,131	652.8	622.7	682.8	17,910	861.3	848.6	874.0
	1999-01	29,226	778.0	769.0	786.9	6,094	1,122.9	1,094.5	1,151.3	3,024	495.9	477.6	514.2	2,203	614.2	586.5	642.0	17,588	808.1	796.1	820.2
	2000-02	28,907	751.1	742.4	759.8	6,150	1,114.8	1,086.7	1,142.9	3,125	479.9	462.6	497.2	2,224	594.0	567.3	620.6	17,050	775.4	763.6	787.2
	2001-03	28,784	731.8	723.3	740.3	6,133	1,093.1	1,065.5	1,120.7	3,270	474.2	457.6	490.8	2,275	573.9	548.4	599.4	16,751	757.7	746.1	769.4
	2002-04	28,313	706.2	697.9	714.4	6,080	1,068.9	1,041.7	1,096.0	3,263	446.8	431.1	462.4	2,414	575.4	550.6	600.3	16,172	731.4	719.9	742.8
	2003-05	28,141	687.9	679.8	696.0	5,914	1,023.2	996.8	1,049.6	3,308	427.8	413.0	442.5	2,552	578.6	554.3	602.9	15,944	718.8	707.4	730.1
	2004-06	27,751	663.1	655.3	671.0	5,898	999.1	973.2	1,024.9	3,415	418.9	404.7	433.1	2,611	567.1	543.6	590.6	15,348	689.9	678.7	701.1
	2005-07	27,906	650.7	643.0	658.4	5,929	983.5	958.1	1,009.0	3,560	413.2	399.6	426.9	2,644	547.1	524.7	569.6	15,268	681.0	669.8	692.1
	2006-08	27,728	629.8	622.3	637.4	5,906	962.2	937.2	987.2	3,735	411.5	398.2	424.8	2,598	515.2	493.9	536.5	14,985	663.0	652.0	674.0
CHD	1990-92	7,107	246.3	240.5	252.0	1,276	294.1	277.6	310.7	451	164.5	148.0	181.0	357	164.2	146.4	182.1	5,005	255.4	248.3	262.5
	1991-93	6,970	236.0	230.5	241.6	1,281	291.2	274.9	307.4	433	147.6	132.6	162.7	337	148.4	132.0	164.9	4,895	245.8	238.9	252.7
	1992-94	6,959	231.5	226.0	237.0	1,312	295.0	278.8	311.2	462	146.1	131.8	160.4	318	134.4	119.0	149.7	4,846	241.4	234.6	248.2
	1993-95	7,031	231.8	226.4	237.2	1,311	294.5	278.3	310.6	479	144.8	130.9	158.7	351	148.6	132.5	164.7	4,871	242.7	235.8	249.5
	1994-96	7,026	229.0	223.6	234.3	1,280	283.8	268.1	299.6	524	150.1	136.5	163.8	381	158.7	142.1	175.2	4,823	241.0	234.2	247.8
	1995-97	6,929	222.7	217.5	228.0	1,294	284.2	268.6	299.9	542	145.3	132.4	158.3	386	161.6	144.9	178.2	4,688	234.4	227.6	241.1
	1996-98	6,908	216.3	211.2	221.4	1,337	286.3	270.9	301.8	561	136.3	124.4	148.2	404	165.8	149.1	182.5	4,591	226.3	219.8	232.9
	1997-99	6,874	211.1	206.1	216.1	1,361	287.8	272.4	303.2	606	133.4	122.2	144.6	404	162.7	146.3	179.1	4,489	220.5	214.1	227.0
	1998-00	6,924	201.6	196.9	206.4	1,375	279.0	264.2	293.8	623	119.3	109.6	129.1	437	164.2	148.3	180.0	4,469	211.7	205.5	217.9
	1999-01	6,714	182.6	178.2	187.0	1,324	254.4	240.7	268.2	604	106.7	98.0	115.5	398	135.5	121.8	149.2	4,320	193.8	188.0	199.6
	2000-02	6,466	171.5	167.3	175.7	1,327	250.3	236.7	263.8	626	103.0	94.8	111.3	396	129.0	115.9	142.1	4,048	179.3	173.7	184.9
	2001-03	6,099	157.8	153.8	161.8	1,246	230.0	217.1	242.9	654	101.2	93.3	109.1	370	113.2	101.3	125.2	3,765	165.3	160.0	170.7
	2002-04	5,820	147.4	143.6	151.2	1,184	215.2	202.8	227.5	629	92.1	84.8	99.3	384	112.1	100.5	123.6	3,565	156.2	151.0	161.4
	2003-05	5,578	137.9	134.3	141.6	1,111	198.3	186.6	210.1	606	82.7	76.0	89.3	378	104.0	93.2	114.8	3,409	148.4	143.3	153.4
	2004-06	5,474	131.9	128.4	135.5	1,103	192.4	180.9	203.8	635	81.3	74.9	87.7	391	102.1	91.7	112.6	3,263	140.8	135.9	145.7
	2005-07	5,299	124.1	120.8	127.5	1,096	186.1	174.9	197.3	655	78.4	72.3	84.4	387	94.7	84.9	104.4	3,068	130.8	126.0	135.5
	2006-08	5,077	115.3	112.0	118.5	1,046	172.3	161.6	182.9	674	75.9	70.2	81.7	351	81.8	72.9	90.6	2,917	123.1	118.5	127.8
Stroke	1990-92	2,270	79.9	76.6	83.2	442	102.4	92.6	112.2	195	75.1	63.7	86.4	136	61.9	51.0	72.8	1,488	76.5	72.6	80.4
	1991-93	2,293	78.3	75.1	81.5	463	104.8	95.0	114.5	223	74.9	64.3	85.5	136	59.9	49.4	70.5	1,462	73.6	69.9	77.4
	1992-94	2,264	75.8	72.6	78.9	446	99.9	90.5	109.4	229	73.2	63.0	83.3	126	53.6	43.8	63.4	1,455	72.4	68.7	76.1
	1993-95	2,258	74.4	71.3	77.5	439	97.9	88.6	107.3	242	71.4	61.7	81.0	137	56.4	46.5	66.3	1,435	71.2	67.5	74.9
	1994-96	2,255	73.4	70.4	76.5	448	98.6	89.4	107.9	264	74.3	64.8	83.9	144	57.9	47.9	67.8	1,394	69.3	65.7	72.9
	1995-97	2,300	73.9	70.8	76.9	476	104.4	94.9	113.8	310	79.6	70.2	89.0	141	55.1	45.5	64.7	1,368	68.0	64.4	71.6
	1996-98	2,329	73.1	70.1	76.0	497	106.8	97.4	116.3	332	80.3	71.2	89.4	143	55.2	45.6	64.7	1,352	66.4	62.9	70.0
	1997-99	2,417	74.7	71.7	77.7	499	106.7	97.3	116.2	341	76.8	68.3	85.4	142	54.4	45.0	63.8	1,433	70.0	66.3	73.6
	1998-00	2,500	73.1	70.2	76.0	514	104.7	95.6	113.8	334	66.3	58.9	73.6	161	59.6	50.0	69.1	1,482	69.4	65.9	73.0
	1999-01	2,542	69.3	66.6	72.0	503	97.3	88.7	105.8	340	60.6	53.9	67.2	173	58.2	49.3	67.2	1,500	66.1	62.7	69.4
	2000-02	2,456	65.3	62.7	67.9	505	96.1	87.7	104.5	341	56.2	50.1	62.3	170	54.2	45.8	62.7	1,411	61.7	58.4	64.9
	2001-03	2,402	62.2	59.7	64.7	498	93.2	85.0	101.4	350	53.5	47.8	59.2	173	51.9	43.8	59.9	1,355	58.5	55.4	61.7
	2002-04	2,225	56.3	54.0	58.7	511	94.1	85.9	102.3	331	48.0	42.7	53.2	158	44.7	37.5	52.0	1,202	51.8	48.8	54.8
	2003-05	2,119	52.4	50.2	54.7	483	87.2	79.4	95.1	324	44.1	39.3	49.0	163	43.9	36.9	50.9	1,128	48.4	45.5	51.3
	2004-06	1,918	46.2	44.1	48.3	432	76.0	68.7	83.2	315	40.2	35.8	44.7	154	40.2	33.6	46.8	992	42.3	39.6	44.9
	2005-07	1,854	43.2	41.2	45.2	387	66.2	59.5	72.9	325	38.6	34.4	42.8	155	38.0	31.8	44.2	963	40.3	37.6	42.9
	2006-08	1,794	40.7	38.8	42.7	385	64.4	57.9	71.0	336	37.6	33.6	41.6	149	34.4	28.7	40.2	902	37.4	34.9	39.9

Source: Alameda County Vital Statistics Files, 1990-08.
Notes: API until the 1998-00 period; Asian thereafter.

Table B.3: Mortality by Race/Ethnicity, Three-Year Rolling Average, 1990-2008 (continued)

		All Races				AfrAmer				Asian/API				Latino				White			
	Period	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Diabetes	1990-92	490	15.8	14.4	17.3	149	31.1	26.0	36.2	41	14.5	10.4	19.7	58	25.2	19.1	32.6	239	11.9	10.4	13.4
	1991-93	526	16.7	15.3	18.1	163	33.8	28.5	39.1	47	14.9	11.0	19.9	56	21.7	16.4	28.2	257	12.7	11.1	14.3
	1992-94	570	18.0	16.5	19.5	174	36.0	30.6	41.4	63	18.7	14.3	23.9	57	21.9	16.6	28.3	273	13.6	12.0	15.2
	1993-95	665	20.9	19.3	22.5	191	39.8	34.1	45.6	88	24.0	19.2	29.6	60	22.4	17.1	28.8	322	16.1	14.4	17.9
	1994-96	744	23.2	21.5	24.9	221	45.8	39.7	51.9	90	22.8	18.4	28.1	72	25.9	20.2	32.6	358	18.1	16.2	19.9
	1995-97	780	24.0	22.3	25.7	220	45.2	39.1	51.2	104	25.0	19.9	30.2	73	24.9	19.5	31.3	378	19.1	17.2	21.0
	1996-98	770	23.1	21.5	24.7	242	48.4	42.2	54.5	90	20.1	16.1	24.7	71	23.3	18.2	29.4	365	18.3	16.5	20.2
	1997-99	788	23.3	21.6	24.9	233	46.3	40.3	52.3	107	22.1	17.7	26.6	81	26.6	21.1	33.1	363	18.3	16.4	20.1
	1998-00	811	23.1	21.5	24.7	251	49.2	43.0	55.3	101	18.4	14.7	22.1	98	30.9	25.1	37.7	356	17.5	15.7	19.4
	1999-01	843	22.7	21.1	24.2	250	46.9	41.0	52.7	106	17.6	14.2	21.1	107	31.8	25.6	38.1	370	17.5	15.7	19.3
	2000-02	835	21.9	20.4	23.4	254	46.8	41.0	52.6	108	16.8	13.6	20.0	103	29.4	23.5	35.3	353	16.4	14.7	18.1
	2001-03	868	22.3	20.8	23.8	247	44.6	39.0	50.2	118	17.7	14.4	20.9	110	31.1	25.1	37.1	371	17.1	15.3	18.8
	2002-04	861	21.7	20.2	23.2	258	45.6	40.0	51.3	117	17.0	13.9	20.2	122	32.2	26.3	38.1	339	15.7	14.0	17.4
	2003-05	891	22.1	20.6	23.5	254	43.9	38.4	49.3	123	16.7	13.7	19.7	133	34.7	28.6	40.8	359	16.5	14.8	18.3
	2004-06	876	21.3	19.9	22.8	254	43.1	37.7	48.5	130	16.3	13.5	19.1	128	31.3	25.7	36.9	338	15.7	14.0	17.4
	2005-07	896	21.5	20.0	22.9	250	41.9	36.6	47.1	138	16.2	13.5	19.0	118	27.8	22.6	32.9	360	16.7	14.9	18.4
	2006-08	917	21.4	20.0	22.8	242	40.2	35.0	45.3	148	16.3	13.7	19.0	127	27.6	22.7	32.6	370	17.3	15.4	19.1
All Cancers Combined	1990-92	6,850	221.5	216.2	226.8	1,384	290.1	274.6	305.7	497	148.0	133.8	162.2	389	152.6	136.6	168.6	4,550	228.4	221.7	235.0
	1991-93	6,945	221.2	216.0	226.5	1,377	287.2	271.8	302.6	577	163.1	148.6	177.5	379	145.0	129.6	160.3	4,578	228.8	222.1	235.4
	1992-94	6,873	216.6	211.5	221.8	1,389	288.6	273.2	304.0	612	158.4	144.9	172.0	370	136.8	122.1	151.4	4,470	223.8	217.2	230.3
	1993-95	6,870	215.4	210.3	220.5	1,405	292.7	277.2	308.2	627	153.5	140.6	166.4	383	137.6	123.0	152.1	4,440	224.2	217.6	230.8
	1994-96	6,772	211.1	206.1	216.2	1,415	293.1	277.7	308.6	636	145.4	133.3	157.5	401	140.5	126.0	155.0	4,310	219.4	212.8	225.9
	1995-97	6,734	207.7	202.8	212.7	1,419	292.3	277.0	307.7	666	144.8	133.1	156.5	431	148.0	133.2	162.8	4,205	215.3	208.7	221.8
	1996-98	6,651	199.9	195.1	204.8	1,375	277.7	262.9	292.5	728	142.4	131.4	153.4	410	138.4	124.3	152.6	4,123	208.6	202.3	215.0
	1997-99	6,732	197.8	193.1	202.6	1,411	280.7	265.9	295.5	781	139.5	129.2	149.9	426	138.4	124.5	152.3	4,096	206.1	199.8	212.4
	1998-00	6,921	195.6	191.0	200.2	1,392	269.3	255.1	283.6	833	133.5	124.0	143.0	446	137.4	124.0	150.8	4,232	208.5	202.2	214.8
	1999-01	7,018	187.6	183.2	192.0	1,399	259.8	246.1	273.5	854	129.1	120.2	138.0	456	129.7	117.2	142.2	4,251	202.0	195.9	208.1
	2000-02	6,928	181.0	176.7	185.2	1,386	252.9	239.5	266.3	842	119.7	111.4	128.0	452	125.1	113.0	137.1	4,180	197.0	190.9	203.0
	2001-03	6,835	175.1	170.9	179.3	1,395	250.3	237.0	263.5	874	117.9	110.0	125.9	466	122.1	110.5	133.7	4,025	189.1	183.2	195.0
	2002-04	6,721	169.4	165.4	173.5	1,369	243.9	230.9	257.0	898	114.9	107.3	122.6	515	125.3	114.0	136.7	3,865	181.7	175.9	187.6
	2003-05	6,657	165.2	161.2	169.2	1,327	233.0	220.3	245.7	919	113.0	105.6	120.4	542	125.8	114.7	136.9	3,783	178.0	172.2	183.8
	2004-06	6,508	158.6	154.7	162.5	1,291	222.3	210.0	234.6	945	111.4	104.2	118.6	563	126.0	115.1	136.9	3,613	170.2	164.6	175.9
	2005-07	6,477	154.8	151.0	158.6	1,320	221.5	209.3	233.6	970	109.6	102.6	116.5	564	123.1	112.5	133.7	3,524	165.9	160.3	171.6
	2006-08	6,434	150.0	146.3	153.8	1,299	213.5	201.7	225.4	1,035	111.4	104.6	118.3	573	119.9	109.6	130.2	3,428	159.6	154.2	165.1
Lung Cancer	1990-92	1,835	58.4	55.7	61.1	391	80.3	72.2	88.4	105	30.6	24.4	36.9	71	27.4	21.4	34.6	1,259	62.8	59.3	66.3
	1991-93	1,911	60.2	57.5	62.9	398	81.3	73.2	89.4	136	39.0	32.0	46.0	64	23.5	18.1	30.0	1,305	65.2	61.6	68.7
	1992-94	1,879	58.7	56.1	61.4	385	78.4	70.4	86.3	146	37.8	31.3	44.3	69	25.8	20.1	32.6	1,273	63.9	60.3	67.4
	1993-95	1,929	60.4	57.7	63.1	394	81.0	73.0	89.1	158	40.9	34.1	47.8	79	29.1	23.0	36.2	1,296	65.9	62.3	69.5
	1994-96	1,849	57.8	55.1	60.4	391	80.7	72.6	88.7	137	33.0	27.1	38.9	84	30.4	24.2	37.6	1,234	63.3	59.7	66.8
	1995-97	1,837	57.0	54.4	59.6	387	79.5	71.5	87.4	140	31.4	25.9	36.9	82	29.8	23.7	37.0	1,224	63.2	59.6	66.7
	1996-98	1,753	53.1	50.6	55.6	374	75.4	67.7	83.0	151	29.5	24.6	34.5	75	27.7	21.8	34.7	1,149	58.7	55.3	62.1
	1997-99	1,756	52.0	49.6	54.4	379	75.2	67.5	82.8	158	28.4	23.7	33.0	83	29.9	23.8	37.1	1,131	57.5	54.1	60.8
	1998-00	1,807	51.7	49.3	54.1	385	74.4	66.9	81.9	173	28.4	24.1	32.8	97	32.3	26.2	39.4	1,147	57.4	54.1	60.8
	1999-01	1,879	50.9	48.6	53.3	396	73.4	66.1	80.7	185	29.0	24.7	33.2	98	29.4	23.9	35.9	1,186	57.4	54.1	60.7
	2000-02	1,841	48.8	46.6	51.0	409	74.5	67.2	81.8	201	29.5	25.4	33.6	83	24.2	19.3	30.0	1,133	54.3	51.2	57.5
	2001-03	1,785	46.5	44.3	48.6	409	73.7	66.5	80.9	217	30.1	26.1	34.2	79	21.9	17.4	27.3	1,063	50.8	47.7	53.9
	2002-04	1,676	43.0	41.0	45.1	378	67.5	60.6	74.4	207	27.3	23.5	31.1	81	21.2	16.8	26.3	992	47.6	44.6	50.6
	2003-05	1,655	41.8	39.8	43.8	363	63.4	56.8	70.0	205	26.1	22.5	29.7	102	25.6	20.4	30.7	955	46.1	43.1	49.0
	2004-06	1,598	39.6	37.7	41.6	357	61.2	54.8	67.7	209	25.4	21.9	28.8	106	25.4	20.4	30.3	898	43.3	40.5	46.2
	2005-07	1,550	37.7	35.8	39.6	354	59.8	53.5	66.2	222	25.6	22.2	29.0	104	24.0	19.2	28.7	839	40.3	37.5	43.1
	2006-08	1,496	35.6	33.7	37.4	331	55.3	49.3	61.4	241	26.4	23.0	29.7	101	21.8	17.4	26.2	799	37.7	35.0	40.4

Source: Alameda County Vital Statistics Files, 1990-08.
Notes: API until the 1998-00 period; Asian thereafter.

Table B.3: Mortality by Race/Ethnicity, Three-Year Rolling Average, 1990-2008 (continued)

		All Races				AfrAmer				Asian/API				Latino				White			
	Period	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Colorectal Cancer	1990-92	729	24.2	22.5	26.0	127	27.4	22.6	32.3	57	17.9	13.6	23.2	48	20.0	14.8	26.6	493	24.9	22.7	27.1
	1991-93	720	23.5	21.8	25.2	138	29.5	24.5	34.5	63	19.4	14.9	24.8	40	16.9	12.1	23.0	475	23.8	21.7	26.0
	1992-94	734	23.5	21.8	25.3	155	33.2	27.9	38.5	69	18.3	14.2	23.2	37	15.3	10.8	21.1	470	23.6	21.5	25.8
	1993-95	698	22.1	20.5	23.8	161	34.3	28.9	39.7	55	13.5	10.2	17.6	40	14.7	10.5	20.0	442	22.3	20.3	24.4
	1994-96	727	22.9	21.3	24.6	160	34.3	28.9	39.7	64	14.3	11.0	18.3	44	15.9	11.5	21.3	459	23.4	21.3	25.5
	1995-97	697	21.8	20.2	23.4	149	31.5	26.4	36.6	64	13.6	10.5	17.4	48	16.9	12.4	22.4	435	22.2	20.1	24.3
	1996-98	715	21.9	20.3	23.5	150	31.1	26.1	36.1	69	14.0	10.9	17.8	52	19.1	14.3	25.1	443	22.3	20.3	24.4
	1997-99	661	19.8	18.3	21.3	148	29.9	25.0	34.8	56	10.6	8.0	13.7	48	16.6	12.3	22.1	408	20.4	18.4	22.4
	1998-00	673	19.4	17.9	20.8	138	27.1	22.5	31.6	68	11.9	9.2	15.1	47	15.2	11.2	20.2	419	20.5	18.5	22.4
	1999-01	666	18.0	16.6	19.4	125	23.4	19.3	27.6	76	12.3	9.7	15.4	42	11.9	8.6	16.1	416	19.5	17.6	21.4
	2000-02	696	18.3	16.9	19.6	128	23.5	19.4	27.6	101	15.0	12.0	18.0	45	12.4	9.0	16.6	415	19.2	17.3	21.1
	2001-03	684	17.5	16.2	18.9	139	25.1	20.9	29.3	104	14.6	11.8	17.5	41	10.8	7.8	14.7	395	18.2	16.4	20.1
	2002-04	699	17.7	16.4	19.0	141	25.4	21.2	29.6	114	15.1	12.3	17.9	45	11.7	8.5	15.6	393	18.2	16.4	20.0
	2003-05	672	16.8	15.5	18.0	135	24.4	20.2	28.5	104	13.2	10.6	15.8	49	12.0	8.8	15.8	377	17.5	15.7	19.3
	2004-06	664	16.3	15.1	17.6	125	22.3	18.4	26.3	97	11.6	9.4	14.2	63	15.0	11.5	19.2	371	17.3	15.5	19.1
	2005-07	653	15.7	14.5	16.9	131	22.7	18.8	26.7	87	9.9	7.9	12.2	74	16.9	13.3	21.2	356	16.6	14.9	18.4
	2006-08	668	15.6	14.4	16.8	140	23.6	19.6	27.6	93	10.2	8.2	12.5	84	18.6	14.8	23.0	347	15.9	14.1	17.6
Female Breast Cancer	1990-92	585	33.2	30.5	35.9	100	35.8	28.7	42.9	43	21.0	15.2	28.3	29	18.6	12.5	26.8	411	36.8	33.2	40.4
	1991-93	574	32.0	29.4	34.6	99	35.1	28.5	42.7	39	16.8	11.9	22.9	32	20.2	13.8	28.5	401	35.6	32.1	39.1
	1992-94	558	30.5	27.9	33.0	105	36.6	29.5	43.6	43	15.8	11.4	21.2	26	15.9	10.4	23.3	380	33.6	30.1	37.0
	1993-95	538	29.1	26.6	31.6	106	36.3	29.3	43.3	40	14.2	10.1	19.3	24	14.6	9.4	21.7	365	32.8	29.4	36.2
	1994-96	538	28.8	26.4	31.3	108	36.9	29.9	43.9	38	13.0	9.2	17.8	27	14.4	9.5	21.0	362	32.6	29.2	36.0
	1995-97	536	28.4	26.0	30.9	105	35.5	28.7	42.3	40	13.1	9.3	17.8	38	19.5	13.8	26.8	351	31.7	28.4	35.1
	1996-98	562	28.9	26.5	31.3	125	41.4	34.1	48.7	48	14.2	10.5	18.9	38	18.4	13.0	25.3	349	31.1	27.8	34.4
	1997-99	553	27.6	25.3	29.9	126	40.4	33.3	47.5	57	15.3	11.6	19.8	36	17.7	12.4	24.5	334	29.7	26.5	32.9
	1998-00	580	27.8	25.5	30.1	124	38.5	31.7	45.4	56	13.2	9.9	17.2	39	19.1	13.5	26.0	361	31.7	28.3	35.0
	1999-01	567	25.9	23.7	28.0	106	31.8	25.7	37.9	58	13.9	10.5	18.0	36	16.7	11.7	23.1	360	30.7	27.5	34.0
	2000-02	567	25.3	23.2	27.4	122	35.8	29.5	42.2	57	13.1	9.9	17.0	40	18.2	13.0	24.8	336	28.5	25.4	31.6
	2001-03	549	24.2	22.2	26.2	116	33.6	27.5	39.8	59	13.1	10.0	16.9	36	15.9	11.2	22.0	326	27.6	24.5	30.6
	2002-04	540	23.4	21.4	25.4	112	32.3	26.2	38.3	64	13.4	10.3	17.1	41	16.2	11.6	21.9	313	26.3	23.3	29.3
	2003-05	535	22.9	20.9	24.8	98	27.5	22.4	33.6	62	12.5	9.6	16.0	35	13.0	9.1	18.1	334	28.2	25.1	31.3
	2004-06	526	22.1	20.2	24.0	98	27.6	22.4	33.7	64	12.4	9.6	15.9	39	13.9	9.9	19.0	318	26.5	23.5	29.4
	2005-07	545	22.4	20.5	24.3	113	30.9	25.2	36.7	69	13.1	10.2	16.6	43	15.8	11.4	21.3	312	26.0	23.0	29.0
	2006-08	525	21.0	19.2	22.8	104	28.1	22.6	33.6	78	14.1	11.1	17.6	44	15.4	11.2	20.7	289	23.6	20.8	26.4
Prostate Cancer	1990-92	459	43.0	38.9	47.1	140	85.1	70.3	99.8	23	23.0	14.6	34.5	19	23.7	14.3	37.1	277	39.7	34.9	44.5
	1991-93	504	45.8	41.7	49.9	143	85.3	70.8	99.8	26	23.8	15.5	34.8	24	27.6	17.7	41.0	309	43.1	38.2	48.1
	1992-94	485	43.1	39.1	47.0	138	83.1	68.7	97.4	23	19.0	12.1	28.6	25	29.0	18.8	42.9	297	40.5	35.8	45.2
	1993-95	465	40.6	36.8	44.3	138	84.2	69.7	98.7	19	13.4	8.1	21.0	27	31.1	20.5	45.3	279	37.6	33.1	42.0
	1994-96	445	38.8	35.1	42.4	141	84.4	70.0	98.7	16	10.5	6.0	17.0	25	29.4	19.0	43.4	263	36.1	31.7	40.5
	1995-97	468	40.4	36.7	44.1	150	90.7	75.8	105.6	28	17.2	11.4	24.8	26	30.5	19.9	44.7	264	36.2	31.8	40.6
	1996-98	458	39.2	35.5	42.8	130	78.0	64.2	91.8	34	20.4	14.1	28.5	27	30.6	20.1	44.5	267	36.7	32.2	41.1
	1997-99	437	37.1	33.5	40.6	118	71.5	58.2	84.8	30	17.7	12.0	25.3	26	29.6	19.4	43.4	263	36.1	31.7	40.5
	1998-00	412	33.3	30.0	36.5	111	64.8	52.4	77.2	26	14.3	9.3	20.9	24	25.3	16.2	37.6	251	33.3	29.1	37.4
	1999-01	412	30.2	27.3	33.2	119	64.8	53.0	76.7	28	13.5	8.9	19.5	22	20.0	12.5	30.3	242	29.6	25.8	33.3
	2000-02	411	29.1	26.3	32.0	117	63.0	51.3	74.6	28	12.2	8.1	17.6	22	18.8	11.8	28.5	242	29.0	25.3	32.7
	2001-03	432	29.7	26.8	32.5	124	66.4	54.5	78.4	28	11.5	7.6	16.6	25	20.3	13.1	29.9	251	29.4	25.8	33.1
	2002-04	403	27.1	24.5	29.8	125	66.8	54.9	78.8	25	9.9	6.4	14.6	20	15.1	9.2	23.3	229	26.5	23.1	30.0
	2003-05	390	25.7	23.1	28.3	118	61.6	50.3	73.0	29	10.5	7.0	15.0	25	17.6	11.4	26.1	215	24.6	21.3	28.0
	2004-06	338	21.7	19.4	24.1	94	48.0	38.8	58.8	30	9.8	6.6	14.0	19	12.5	7.6	19.6	194	22.1	19.0	25.3
	2005-07	345	21.3	19.1	23.6	93	44.8	36.2	54.9	32	9.7	6.7	13.7	21	13.4	8.3	20.5	197	22.2	19.1	25.4
	2006-08	354	21.2	19.0	23.5	112	52.1	42.2	62.1	30	8.7	5.9	12.4	26	17.6	11.5	25.8	182	20.7	17.6	23.7

Source: Alameda County Vital Statistics Files, 1990-08.
Notes: API until the 1998-00 period; Asian thereafter.

Table B.3: Mortality by Race/Ethnicity, Three-Year Rolling Average, 1990-2008 (continued)

		All Races				AfrAmer				Asian/API				Latino				White			
	Period	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Unintentional Injury	1990-92	1,059	29.1	27.3	30.9	254	41.6	36.2	47.0	81	19.7	15.6	24.5	131	24.8	19.9	29.7	582	28.3	26.0	30.7
	1991-93	1,033	27.3	25.6	29.1	271	43.0	37.6	48.3	72	15.7	12.3	19.8	129	23.0	18.4	27.6	548	26.5	24.3	28.8
	1992-94	1,004	26.3	24.6	28.0	278	44.7	39.2	50.1	85	16.9	13.5	20.9	127	24.5	19.4	29.5	504	24.4	22.2	26.5
	1993-95	1,048	27.3	25.6	29.0	299	48.1	42.5	53.8	98	18.3	14.8	22.3	133	25.4	20.3	30.6	507	25.0	22.8	27.2
	1994-96	1,068	28.1	26.4	29.8	288	46.7	41.2	52.2	105	18.8	14.7	22.9	145	26.7	21.6	31.9	520	26.2	23.9	28.4
	1995-97	1,020	26.6	24.9	28.3	280	45.3	39.9	50.8	113	20.1	15.9	24.3	131	23.8	19.0	28.7	484	24.7	22.5	26.9
	1996-98	979	25.1	23.5	26.7	256	41.8	36.6	47.0	99	17.0	13.8	20.7	127	22.5	17.8	27.1	489	24.7	22.5	26.9
	1997-99	973	24.6	23.0	26.1	261	42.4	37.2	47.7	95	14.6	11.8	17.8	125	21.7	17.3	26.1	482	24.5	22.3	26.7
	1998-00	991	24.5	22.9	26.0	241	38.8	33.9	43.8	103	13.9	11.0	16.8	136	22.1	17.8	26.4	499	24.9	22.7	27.1
	1999-01	989	23.5	22.1	25.0	225	35.9	31.2	40.6	118	15.9	12.9	18.9	146	22.3	18.1	26.5	475	23.3	21.2	25.5
	2000-02	1,007	23.5	22.0	25.0	225	35.3	30.7	40.0	140	17.9	14.8	21.0	153	23.1	18.9	27.4	466	22.7	20.6	24.8
	2001-03	1,043	24.1	22.6	25.6	239	37.6	32.8	42.4	143	18.2	15.2	21.3	160	23.0	18.8	27.1	480	23.6	21.5	25.8
	2002-04	1,078	24.6	23.1	26.0	262	40.6	35.7	45.6	137	16.6	13.8	19.4	177	23.7	19.7	27.7	481	23.7	21.5	25.9
	2003-05	1,150	25.9	24.4	27.4	280	43.1	38.0	48.2	147	17.2	14.4	20.0	189	23.1	19.4	26.8	506	24.8	22.6	27.0
	2004-06	1,217	26.9	25.4	28.5	311	47.1	41.8	52.3	136	15.1	12.5	17.7	214	25.3	21.6	29.1	518	25.7	23.4	28.0
	2005-07	1,299	28.3	26.7	29.8	317	47.3	42.1	52.6	141	15.2	12.7	17.8	219	26.6	22.7	30.5	584	29.1	26.6	31.5
	2006-08	1,259	26.9	25.4	28.4	289	42.5	37.5	47.5	132	13.7	11.3	16.1	217	26.0	22.1	29.8	583	29.8	27.3	32.4
Motor Vehicle Crashes	1990-92	416	10.7	9.7	11.8	85	13.4	10.7	16.6	59	10.0	7.6	13.0	65	11.3	8.7	14.4	217	10.6	9.1	12.0
	1991-93	381	9.6	8.6	10.6	84	12.8	10.2	15.8	55	9.3	7.0	12.1	60	10.1	7.7	13.0	191	9.4	8.0	10.7
	1992-94	352	8.9	7.9	9.8	89	13.4	10.8	16.5	46	8.4	6.1	11.1	55	9.6	7.3	12.5	158	7.8	6.6	9.0
	1993-95	354	8.8	7.9	9.8	92	13.5	10.9	16.6	53	8.8	6.6	11.5	55	9.2	6.9	11.9	149	7.5	6.2	8.7
	1994-96	348	8.8	7.9	9.8	86	12.9	10.3	15.9	51	8.0	6.0	10.5	56	8.7	6.6	11.3	152	7.8	6.5	9.0
	1995-97	333	8.4	7.5	9.3	80	12.4	9.8	15.4	52	7.5	5.6	9.8	43	7.0	5.0	9.4	153	8.0	6.7	9.2
	1996-98	311	7.8	6.9	8.6	76	11.8	9.3	14.8	42	6.0	4.3	8.1	40	6.8	4.8	9.2	150	7.8	6.6	9.1
	1997-99	298	7.3	6.4	8.1	77	12.2	9.6	15.2	37	4.5	3.2	6.3	40	7.0	5.0	9.5	141	7.5	6.2	8.7
	1998-00	314	7.5	6.7	8.4	69	10.7	8.3	13.6	47	5.5	4.0	7.3	57	8.6	6.5	11.1	137	7.2	6.0	8.4
	1999-01	316	7.4	6.5	8.2	64	10.2	7.9	13.1	54	6.4	4.8	8.3	63	8.4	6.4	10.7	124	6.4	5.3	7.6
	2000-02	337	7.7	6.9	8.6	63	10.0	7.7	12.8	75	8.6	6.8	10.8	71	9.1	7.1	11.5	116	6.1	5.0	7.3
	2001-03	333	7.6	6.8	8.4	66	10.4	8.0	13.2	72	8.6	6.7	10.8	71	9.0	7.0	11.3	116	6.2	5.1	7.4
	2002-04	350	7.9	7.1	8.7	78	11.9	9.4	14.8	67	7.8	6.0	9.9	86	10.4	8.3	12.8	112	6.2	5.0	7.4
	2003-05	362	8.1	7.3	9.0	76	11.4	9.0	14.2	71	8.1	6.3	10.2	90	10.2	8.2	12.5	114	6.1	5.0	7.3
	2004-06	364	8.1	7.2	8.9	87	12.9	10.4	16.0	60	6.5	5.0	8.4	93	10.0	8.0	12.2	105	6.0	4.8	7.2
	2005-07	350	7.7	6.9	8.5	73	11.0	8.6	13.8	59	6.2	4.7	8.0	86	9.1	7.3	11.2	114	6.6	5.3	7.8
	2006-08	319	6.9	6.2	7.7	68	10.2	7.9	12.9	37	3.8	2.7	5.2	84	8.4	6.7	10.4	115	6.9	5.6	8.2
Homicide	1990-92	613	14.6	13.4	15.8	405	56.4	50.8	62.1	25	3.8	2.4	5.6	73	11.1	8.7	14.0	108	5.1	4.1	6.1
	1991-93	591	13.9	12.7	15.0	387	54.4	48.8	59.9	27	3.5	2.3	5.0	73	10.1	7.9	12.7	97	4.7	3.8	5.7
	1992-94	574	13.3	12.2	14.5	385	53.8	48.3	59.2	30	4.3	2.9	6.1	62	7.9	6.0	10.1	89	4.5	3.6	5.5
	1993-95	546	12.6	11.5	13.7	372	52.5	47.1	58.0	31	4.3	2.9	6.1	62	8.7	6.6	11.1	73	3.7	2.9	4.6
	1994-96	528	12.2	11.2	13.3	345	49.7	44.4	55.0	30	4.1	2.8	5.9	72	10.4	8.1	13.1	78	4.0	3.2	5.0
	1995-97	494	11.4	10.4	12.5	303	44.6	39.5	49.7	30	3.5	2.4	5.0	78	10.8	8.5	13.4	79	4.1	3.3	5.1
	1996-98	418	9.6	8.6	10.5	242	35.6	31.1	40.1	32	3.6	2.4	5.0	64	8.0	6.1	10.2	75	3.9	3.1	4.9
	1997-99	366	8.3	7.4	9.1	214	31.6	27.3	35.8	27	2.8	1.9	4.1	51	5.5	4.1	7.3	67	3.5	2.7	4.4
	1998-00	327	7.3	6.5	8.1	198	29.0	24.9	33.1	28	2.7	1.8	3.9	36	4.0	2.8	5.5	55	2.9	2.2	3.8
	1999-01	320	7.0	6.2	7.8	207	31.2	27.0	35.5	22	2.3	1.4	3.4	40	4.3	3.0	5.8	42	2.2	1.6	3.0
	2000-02	368	8.0	7.2	8.8	245	36.6	32.0	41.2	29	3.0	2.0	4.3	41	4.5	3.2	6.1	41	2.2	1.5	2.9
	2001-03	386	8.4	7.5	9.2	254	38.0	33.3	42.6	28	2.8	1.9	4.1	56	5.7	4.3	7.4	38	2.1	1.5	2.8
	2002-04	394	8.6	7.7	9.4	251	37.4	32.8	42.0	26	2.5	1.7	3.7	64	6.3	4.8	8.0	42	2.3	1.6	3.1
	2003-05	375	8.2	7.4	9.0	232	34.4	29.9	38.8	20	1.9	1.2	3.0	77	7.1	5.6	8.9	34	1.9	1.3	2.7
	2004-06	414	9.1	8.2	10.0	256	37.6	32.9	42.2	19	1.9	1.1	2.9	86	7.6	6.1	9.4	40	2.3	1.7	3.2
	2005-07	457	10.0	9.1	11.0	269	39.4	34.7	44.1	26	2.6	1.7	3.8	104	8.9	7.2	10.7	36	2.2	1.5	3.1
	2006-08	491	10.7	9.7	11.6	303	43.8	38.8	48.7	22	2.2	1.4	3.3	107	9.1	7.3	10.9	40	2.5	1.8	3.4

Source: Alameda County Vital Statistics Files, 1990-08.
Notes: API until the 1998-00 period; Asian thereafter.

Table B.3: Mortality by Race/Ethnicity, Three-Year Rolling Average, 1990-2008 (continued)

		All Races				AfrAmer				Asian/API				Latino				White			
	Period	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Suicide	1990-92	411	11.0	9.9	12.0	43	6.3	4.5	8.5	29	5.0	3.3	7.2	24	4.8	3.1	7.2	310	14.8	13.2	16.5
	1991-93	415	11.0	9.9	12.1	41	6.3	4.5	8.5	29	4.8	3.2	6.8	24	4.4	2.8	6.5	318	15.4	13.7	17.2
	1992-94	416	10.9	9.8	12.0	40	5.9	4.2	8.1	35	5.6	3.9	7.8	26	4.7	3.1	6.9	313	15.3	13.6	17.0
	1993-95	432	11.2	10.2	12.3	43	6.5	4.7	8.8	39	6.2	4.4	8.4	28	4.7	3.1	6.7	317	15.6	13.9	17.4
	1994-96	420	10.8	9.8	11.9	44	6.7	4.9	9.1	41	6.0	4.3	8.1	26	3.9	2.5	5.7	304	15.2	13.4	16.9
	1995-97	425	10.8	9.8	11.9	46	6.9	5.1	9.3	41	5.6	4.0	7.6	28	3.8	2.5	5.5	303	15.3	13.5	17.0
	1996-98	410	10.3	9.3	11.3	45	7.0	5.1	9.4	47	6.1	4.5	8.1	31	4.1	2.8	5.8	285	14.4	12.7	16.0
	1997-99	395	9.8	8.8	10.7	41	6.4	4.6	8.7	48	5.7	4.2	7.6	28	3.9	2.6	5.6	275	13.9	12.3	15.6
	1998-00	358	8.7	7.8	9.6	37	5.8	4.1	8.0	54	5.8	4.3	7.6	28	4.5	3.0	6.5	237	11.9	10.4	13.4
	1999-01	327	7.7	6.8	8.5	32	5.1	3.5	7.2	44	4.9	3.5	6.5	25	4.0	2.6	6.0	219	10.8	9.3	12.2
	2000-02	347	8.0	7.2	8.9	34	5.3	3.7	7.5	47	5.2	3.8	6.9	31	4.6	3.2	6.6	231	11.3	9.8	12.8
	2001-03	356	8.2	7.3	9.0	35	5.5	3.8	7.6	39	4.2	3.0	5.7	36	4.9	3.5	6.8	241	11.9	10.4	13.5
	2002-04	379	8.5	7.6	9.4	37	5.6	3.9	7.7	48	4.9	3.6	6.4	48	6.2	4.5	8.2	240	12.2	10.6	13.7
	2003-05	345	7.6	6.8	8.5	35	5.3	3.7	7.4	46	4.6	3.3	6.1	43	5.2	3.8	7.0	210	10.5	9.1	12.0
	2004-06	323	7.1	6.3	7.9	32	4.8	3.3	6.8	44	4.3	3.1	5.8	37	4.6	3.2	6.4	195	9.8	8.4	11.2
	2005-07	333	7.2	6.4	8.0	33	4.9	3.4	6.9	42	4.1	3.0	5.5	32	4.0	2.8	5.7	208	10.6	9.1	12.1
	2006-08	362	7.7	6.9	8.5	31	4.5	3.1	6.4	53	5.2	3.9	6.7	34	4.6	3.2	6.4	228	11.8	10.2	13.4

Source: Alameda County Vital Statistics Files, 1990-08
Notes: API until the 1998-00 period; Asian thereafter.

Table B.4: Three-Year Mortality by Gender and Race/Ethnicity

		Both Sexes				Female				Male			
		#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
All-Cause	All Races	27,728	629.8	622.2	637.3	14,050	539.4	530.3	548.5	13,678	742.3	729.6	755.0
	AfrAmer	5,906	962.1	937.1	987.1	2,911	787.9	758.8	817.0	2,995	1,198.8	1,153.9	1,243.7
	AmerInd	73	423.6	332.1	532.7	33	335.8	231.1	471.5	40	523.7	374.1	713.1
	Asian	3,735	411.6	398.4	424.9	1,857	355.2	339.0	371.4	1,878	485.6	463.3	507.9
	Latino	2,598	514.9	493.6	536.2	1,123	414.7	389.6	439.8	1,475	645.5	607.4	683.5
	Multirace	216	247.2	211.3	283.2	106	219.1	174.1	264.0	110	281.5	223.1	340.0
	PacIsl	192	1,070.7	891.8	1,249.7	89	924.2	742.2	1,137.3	103	1,257.9	942.3	1,573.4
	White	14,985	663.0	652.0	674.0	7,920	577.9	564.3	591.4	7,065	767.4	749.1	785.6
CHD	All Races	5,077	115.3	112.0	118.5	2,464	90.8	87.1	94.4	2,613	147.2	141.5	153.0
	AfrAmer	1,046	172.3	161.6	182.9	525	138.7	126.7	150.8	521	220.4	200.7	240.1
	AmerInd	15	98.6	55.2	162.7	7	na	na	na	8	na	na	na
	Asian	674	75.9	70.2	81.7	307	58.9	52.3	65.4	367	97.8	87.6	107.9
	Latino	351	81.8	72.9	90.6	144	59.3	49.6	69.1	207	114.1	97.1	131.2
	Multirace	26	35.5	23.2	52.0	7	na	na	na	19	61.9	37.3	96.7
	PacIsl	46	256.0	187.4	341.5	17	180.3	105.0	288.7	29	336.0	225.0	482.5
	White	2,917	123.1	118.5	127.8	1,455	96.6	91.4	101.9	1,462	157.0	148.8	165.2
Stroke	All Races	1,794	40.7	38.8	42.7	1,074	39.8	37.4	42.2	720	41.3	38.3	44.4
	AfrAmer	385	64.4	57.9	71.0	221	58.7	50.8	66.5	164	72.5	61.0	84.0
	AmerInd	0	na	na	na	0	na	na	na	0	na	na	na
	Asian	336	37.6	33.6	41.6	202	38.7	33.3	44.0	134	35.4	29.3	41.4
	Latino	149	34.4	28.7	40.2	87	34.2	27.4	42.2	62	35.2	27.0	45.1
	Multirace	6	na	na	na	<5	na	na	na	<5	na	na	na
	PacIsl	15	115.6	64.7	190.7	8	na	na	na	7	na	na	na
	White	902	37.4	34.9	39.9	553	36.5	33.3	39.7	349	38.0	34.0	42.1

Source: Alameda County Vital Statistics Files, 2006-08.

Table B.4: Three-Year Mortality by Gender and Race/Ethnicity (continued)

		Both Sexes				Female				Male			
		#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Diabetes	All Races	917	21.4	20.0	22.8	462	18.9	17.1	20.6	455	24.6	22.3	27.0
	AfrAmer	242	40.2	35.0	45.3	125	34.4	28.3	40.5	117	48.4	39.3	57.6
	AmerInd	5	na	na	na	<5	na	na	na	<5	na	na	na
	Asian	148	16.3	13.7	19.0	77	14.9	11.8	18.7	71	18.1	14.1	22.8
	Latino	127	27.6	22.7	32.6	65	25.7	19.9	32.8	62	28.9	22.2	37.1
	Multirace	8	na	na	na	<5	na	na	na	5	na	na	na
	PacIsl	15	83.2	46.6	137.2	7	na	na	na	8	na	na	na
	White	370	17.3	15.4	19.1	183	14.9	12.7	17.2	187	20.4	17.4	23.4
All Cancers Combined	All Races	6,434	150.0	146.3	153.8	3,242	132.2	127.6	136.8	3,192	176.2	169.9	182.4
	AfrAmer	1,299	213.5	201.7	225.4	667	182.1	168.0	196.1	632	268.2	246.4	289.9
	AmerInd	14	78.0	42.6	130.9	7	na	na	na	7	na	na	na
	Asian	1,035	111.4	104.6	118.3	495	94.0	85.7	102.3	540	135.4	123.8	147.1
	Latino	573	119.9	109.6	130.2	261	96.3	84.2	108.3	312	153.2	134.8	171.7
	Multirace	49	66.4	49.2	87.8	32	75.0	51.3	105.9	17	55.4	32.3	88.7
	PacIsl	33	186.0	128.0	261.2	21	183.2	113.4	280.1	12	204.7	105.8	357.6
	White	3,428	159.6	154.2	165.1	1,758	144.9	137.8	151.9	1,670	181.3	172.4	190.2
Lung Cancer	All Races	1,496	35.6	33.7	37.4	717	29.8	27.6	32.0	779	43.9	40.7	47.0
	AfrAmer	331	55.3	49.3	61.4	153	42.1	35.4	48.9	178	75.5	64.0	87.0
	AmerInd	<5	na	na	na	<5	na	na	na	<5	na	na	na
	Asian	241	26.4	23.0	29.7	95	18.2	14.7	22.3	146	37.6	31.4	43.8
	Latino	101	21.8	17.4	26.2	38	14.2	10.1	19.5	63	32.2	24.7	41.2
	Multirace	12	15.8	8.1	27.5	8	na	na	na	<5	na	na	na
	PacIsl	8	na	na	na	5	na	na	na	<5	na	na	na
	White	799	37.7	35.0	40.4	416	34.9	31.4	38.4	383	42.1	37.8	46.4
Colorectal Cancer	All Races	668	15.6	14.4	16.8	334	13.2	11.8	14.7	334	18.7	16.7	20.8
	AfrAmer	140	23.6	19.6	27.6	71	19.3	15.1	24.3	69	30.3	23.6	38.4
	AmerInd	<5	na	na	na	<5	na	na	na	0	na	na	na
	Asian	93	10.2	8.2	12.5	44	8.4	6.1	11.3	49	12.5	9.2	16.5
	Latino	84	18.6	14.8	23.0	33	12.5	8.6	17.5	51	27.8	20.7	36.6
	Multirace	0	na	na	na	0	na	na	na	0	na	na	na
	PacIsl	<5	na	na	na	0	na	na	na	<5	na	na	na
	White	347	15.9	14.1	17.6	185	14.1	12.0	16.3	162	17.7	14.9	20.5
Female Breast Cancer	All Races					525	21.0	19.2	22.8				
	AfrAmer					104	28.1	22.6	33.6				
	AmerInd					<5	na	na	na				
	Asian					78	14.1	11.1	17.6				
	Latino					44	15.4	11.2	20.7				
	Multirace					<5	na	na	na				
	PacIsl					<5	na	na	na				
	White					289	23.6	20.8	26.4				
Prostate Cancer	All Races									354	21.2	19.0	23.5
	AfrAmer									112	52.1	42.2	62.1
	AmerInd									<5	na	na	na
	Asian									30	8.7	5.9	12.4
	Latino									26	17.6	11.5	25.8
	Multirace									<5	na	na	na
	PacIsl									<5	na	na	na
	White									182	20.7	17.6	23.7

Source: Alameda County Vital Statistics Files, 2006-08.

Table B.4: Three-Year Mortality by Gender and Race/Ethnicity (continued)

		Both Sexes				Female				Male			
		#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Unintentional Injury	All Races	1,259	26.9	25.4	28.4	426	17.0	15.3	18.6	833	37.8	35.2	40.4
	AfrAmer	289	42.5	37.5	47.5	109	29.8	24.2	35.5	180	57.9	49.2	66.5
	AmerInd	6	na	na	na	<5	na	na	na	<5	na	na	na
	Asian	132	13.7	11.3	16.1	46	9.0	6.6	12.0	86	19.6	15.7	24.2
	Latino	217	26.0	22.1	29.8	47	12.8	9.4	17.1	170	39.4	32.4	46.5
	Multirace	17	15.4	9.0	24.6	7	na	na	na	10	18.3	8.8	33.7
	PacIsl	12	36.9	19.1	64.5	<5	na	na	na	9	na	na	na
	White	583	29.8	27.3	32.4	209	18.5	15.8	21.1	374	41.7	37.4	46.1
Motor Vehicle Crashes	All Races	319	6.9	6.2	7.7	95	4.0	3.3	4.9	224	9.9	8.6	11.2
	AfrAmer	68	10.2	7.9	12.9	22	6.6	4.1	10.0	46	14.4	10.5	19.2
	AmerInd	<5	na	na	na	0	na	na	na	<5	na	na	na
	Asian	37	3.8	2.7	5.2	14	2.8	1.5	4.6	23	4.9	3.1	7.3
	Latino	84	8.4	6.7	10.4	19	4.4	2.7	6.9	65	11.8	9.1	15.1
	Multirace	6	na	na	na	<5	na	na	na	<5	na	na	na
	PacIsl	6	na	na	na	<5	na	na	na	5	na	na	na
	White	115	6.9	5.6	8.2	35	3.7	2.6	5.2	80	10.1	8.0	12.6
Homicide	All Races	491	10.7	9.7	11.6	73	3.1	2.4	3.9	418	18.2	16.4	19.9
	AfrAmer	303	43.8	38.8	48.7	42	11.2	8.1	15.2	261	79.2	69.5	88.9
	AmerInd	<5	na	na	na	0	na	na	na	<5	na	na	na
	Asian	22	2.2	1.4	3.3	8	na	na	na	14	2.9	1.6	4.8
	Latino	107	9.1	7.3	10.9	11	1.9	0.9	3.3	96	15.9	12.9	19.4
	Multirace	9	na	na	na	<5	na	na	na	7	na	na	na
	PacIsl	6	na	na	na	<5	na	na	na	5	na	na	na
	White	40	2.5	1.8	3.4	9	na	na	na	31	4.0	2.7	5.6
Suicide	All Races	362	7.7	6.9	8.5	93	3.8	3.1	4.6	269	12.1	10.6	13.6
	AfrAmer	31	4.5	3.1	6.4	<5	na	na	na	27	8.5	5.6	12.3
	AmerInd	<5	na	na	na	0	na	na	na	<5	na	na	na
	Asian	53	5.2	3.9	6.7	17	3.1	1.8	5.0	36	7.5	5.2	10.3
	Latino	34	4.6	3.2	6.4	10	2.7	1.3	4.9	24	7.1	4.6	10.6
	Multirace	9	na	na	na	<5	na	na	na	6	na	na	na
	PacIsl	6	na	na	na	<5	na	na	na	5	na	na	na
	White	228	11.8	10.2	13.4	58	5.8	4.4	7.5	170	18.2	15.4	21.1

Source: Alameda County Vital Statistics Files, 2006-08.

Table B.5: Hospitalization by Race/Ethnicity, Three-Year Rolling Average, 1995-2008

		All Races				AfrAmer				API				Latino				White			
	Period	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Asthma	1995-97	7,107	179.6	175.3	183.8	3,153	458.2	441.8	474.5	739	106.2	98.0	114.5	827	118.2	108.5	127.8	2,035	114.6	109.5	119.6
	1996-98	7,375	184.2	179.9	188.4	3,328	484.5	467.8	501.3	789	109.6	101.4	117.7	844	117.9	108.4	127.5	2,015	112.7	107.7	117.7
	1997-99	7,879	194.4	190.0	198.7	3,492	508.2	491.1	525.4	869	115.5	107.3	123.6	962	131.6	121.6	141.6	2,098	119.0	113.8	124.2
	1998-00	7,824	190.3	186.0	194.5	3,364	489.8	473.1	506.6	863	108.3	100.7	115.9	995	130.6	120.9	140.3	2,102	120.8	115.5	126.1
	1999-01	7,440	177.1	173.0	181.1	3,109	478.8	461.9	495.7	814	102.5	95.3	109.8	1,022	127.4	118.2	136.6	2,009	116.8	111.5	122.1
	2000-02	6,895	160.5	156.7	164.3	2,828	432.5	416.5	448.5	764	92.5	85.8	99.3	992	115.0	106.6	123.4	1,829	105.8	100.8	110.9
	2001-03	6,871	158.3	154.5	162.0	2,758	423.6	407.7	439.5	772	90.0	83.5	96.5	1,047	118.3	109.9	126.7	1,825	106.1	101.1	111.2
	2002-04	6,695	153.4	149.7	157.1	2,616	406.2	390.6	421.9	801	91.4	85.0	97.9	1,033	114.3	106.0	122.5	1,797	105.0	99.9	110.0
	2003-05	6,792	155.1	151.4	158.9	2,622	409.9	394.1	425.7	814	90.5	84.2	96.8	1,029	116.0	107.6	124.3	1,874	110.5	105.2	115.7
	2004-06	6,578	149.8	146.2	153.5	2,473	390.4	374.8	405.9	806	86.9	80.8	92.9	973	109.5	101.5	117.6	1,858	110.3	105.0	115.6
	2005-07	6,650	150.4	146.8	154.1	2,523	399.7	383.9	415.5	800	83.5	77.7	89.4	970	105.4	97.7	113.0	1,843	110.1	104.8	115.4
	2006-08	6,534	145.8	142.3	149.4	2,453	387.7	372.1	403.3	809	82.3	76.5	88.0	991	106.3	98.6	114.0	1,785	104.4	99.3	109.6
Childhood Asthma	1995-97	1,940	623.3	595.5	651.0	894	1,496.1	1,398.0	1,594.1	227	345.4	300.4	390.3	336	433.6	387.2	479.9	352	332.3	297.6	367.0
	1996-98	1,892	611.5	584.0	639.1	880	1,536.3	1,434.8	1,637.8	221	324.6	281.8	367.4	319	393.7	350.5	436.9	327	325.3	290.0	360.6
	1997-99	2,024	664.5	635.6	693.5	896	1,644.9	1,537.2	1,752.6	226	323.0	280.9	365.1	357	431.5	386.7	476.3	347	366.3	327.8	404.9
	1998-00	2,093	698.7	668.7	728.6	874	1,693.6	1,581.3	1,805.9	231	323.9	282.1	365.6	390	459.9	414.3	505.6	352	395.6	354.3	436.9
	1999-01	2,103	709.9	679.6	740.2	825	1,888.4	1,759.5	2,017.3	219	350.8	304.4	397.3	431	495.8	449.0	542.6	359	421.8	378.1	465.4
	2000-02	2,087	685.9	656.5	715.4	806	1,879.1	1,749.4	2,008.9	219	338.7	293.8	383.6	467	522.0	474.7	569.4	346	403.6	361.1	446.2
	2001-03	2,049	662.8	634.1	691.5	729	1,728.8	1,603.3	1,854.3	239	357.6	312.2	402.9	500	545.8	497.9	593.6	341	404.9	361.9	447.9
	2002-04	1,937	617.7	590.2	645.2	639	1,570.4	1,448.6	1,692.1	256	369.2	324.0	414.5	495	526.4	480.0	572.8	326	393.9	351.1	436.7
	2003-05	1,791	563.5	537.4	589.6	536	1,362.8	1,247.4	1,478.2	245	341.3	298.6	384.1	454	474.3	430.7	517.9	334	409.3	365.4	453.2
	2004-06	1,654	519.1	494.1	544.1	506	1,340.4	1,223.6	1,457.2	219	297.9	258.4	337.3	397	409.3	369.1	449.6	299	378.5	335.6	421.4
	2005-07	1,669	529.0	503.6	554.4	510	1,416.5	1,293.5	1,539.4	227	311.5	271.0	352.0	397	404.5	364.7	444.3	275	358.7	316.3	401.1
	2006-08	1,614	511.0	486.1	536.0	482	1,387.0	1,263.2	1,510.8	226	311.6	271.0	352.3	407	406.5	367.0	446.0	230	305.4	266.0	344.9
CHD	1995-97	52,357	1,620.1	1,606.2	1,634.0	9,572	1,964.0	1,924.3	2,003.6	4,828	1,055.7	1,024.3	1,087.2	3,219	1,140.8	1,099.7	1,181.9	32,911	1,678.5	1,660.3	1,696.7
	1996-98	54,234	1,638.9	1,625.1	1,652.8	9,827	1,976.5	1,937.1	2,015.9	5,362	1,081.9	1,051.4	1,112.4	3,477	1,202.4	1,160.8	1,244.1	33,617	1,696.7	1,678.5	1,714.9
	1997-99	55,399	1,638.8	1,625.1	1,652.5	10,023	1,982.3	1,943.2	2,021.4	5,767	1,072.0	1,043.0	1,101.0	4,104	1,391.6	1,347.1	1,436.0	33,562	1,682.8	1,664.7	1,700.8
	1998-00	55,461	1,576.6	1,563.5	1,589.8	9,900	1,905.4	1,867.6	1,943.2	5,941	992.1	965.9	1,018.2	4,327	1,387.7	1,344.7	1,430.8	33,330	1,635.9	1,618.3	1,653.5
	1999-01	53,790	1,444.7	1,432.5	1,457.0	9,415	1,744.5	1,709.1	1,780.0	6,085	928.7	904.8	952.6	4,304	1,273.8	1,234.3	1,313.2	31,866	1,506.7	1,490.1	1,523.4
	2000-02	51,868	1,359.0	1,347.3	1,370.8	8,910	1,620.3	1,586.4	1,654.2	6,221	894.8	872.1	917.5	3,929	1,106.8	1,071.0	1,142.7	30,252	1,414.0	1,397.9	1,430.0
	2001-03	49,966	1,281.8	1,270.5	1,293.1	8,268	1,475.1	1,443.0	1,507.2	6,393	869.6	847.9	891.3	3,881	1,036.5	1,002.7	1,070.3	28,406	1,322.3	1,306.7	1,337.8
	2002-04	48,968	1,233.8	1,222.8	1,244.8	8,122	1,421.9	1,390.6	1,453.1	6,585	852.6	831.7	873.5	3,867	985.5	953.2	1,017.7	27,271	1,271.2	1,255.9	1,286.5
	2003-05	47,256	1,168.1	1,157.5	1,178.7	7,870	1,350.7	1,320.4	1,380.9	6,638	817.1	797.2	837.0	3,812	914.3	884.1	944.5	25,860	1,207.2	1,192.2	1,222.1
	2004-06	45,427	1,100.3	1,090.1	1,110.5	7,691	1,285.3	1,256.1	1,314.5	6,591	770.6	751.9	789.4	3,739	847.4	819.0	875.7	24,442	1,142.6	1,128.0	1,157.2
	2005-07	42,721	1,012.0	1,002.3	1,021.7	7,329	1,196.6	1,168.7	1,224.6	6,443	716.2	698.6	733.9	3,659	781.0	754.6	807.5	22,502	1,046.8	1,032.8	1,060.8
	2006-08	40,011	924.6	915.4	933.9	6,890	1,098.6	1,072.1	1,125.1	6,320	668.5	651.9	685.1	3,497	710.9	686.2	735.6	20,734	958.2	944.8	971.5

Source: OSHPD Patient Discharge Data, 1995-08.

Table B.5: Hospitalization by Race/Ethnicity, Three-Year Rolling Average, 1995-2008 (continued)

		All Races				AfrAmer				API				Latino				White			
	Period	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Stroke	1995-97	19,447	606.7	598.1	615.3	4,417	913.2	886.0	940.4	2,205	494.0	472.2	515.9	1,104	389.7	365.3	414.0	11,176	566.8	556.3	577.3
	1996-98	20,330	619.4	610.9	628.0	4,647	946.3	918.8	973.7	2,382	498.9	477.7	520.1	1,176	408.1	383.5	432.7	11,500	576.6	566.0	587.2
	1997-99	20,784	619.8	611.3	628.3	4,771	954.1	926.7	981.4	2,517	487.3	467.3	507.4	1,296	437.9	412.6	463.1	11,530	574.8	564.3	585.3
	1998-00	21,193	605.5	597.3	613.7	4,918	954.4	927.5	981.3	2,565	445.0	427.0	463.0	1,407	451.3	426.5	476.1	11,604	565.1	554.8	575.5
	1999-01	20,429	549.2	541.6	556.8	4,830	896.9	871.4	922.3	2,565	404.4	388.3	420.5	1,416	417.5	394.7	440.3	10,958	512.6	502.9	522.3
	2000-02	19,825	520.2	512.9	527.5	4,764	868.4	843.5	893.3	2,584	383.4	368.2	398.5	1,388	390.1	368.7	411.6	10,441	484.6	475.2	493.9
	2001-03	19,002	487.4	480.5	494.4	4,676	837.6	813.4	861.9	2,712	377.5	363.1	392.0	1,404	367.1	346.9	387.3	9,566	442.6	433.6	451.6
	2002-04	18,595	468.0	461.2	474.7	4,619	812.0	788.3	835.6	2,809	369.3	355.4	383.1	1,431	350.5	331.4	369.7	9,091	420.9	412.1	429.7
	2003-05	18,044	444.6	438.0	451.1	4,415	758.2	735.6	780.9	2,814	348.9	335.9	362.0	1,456	334.3	316.1	352.4	8,687	403.5	394.9	412.1
	2004-06	17,456	420.6	414.3	426.9	4,249	707.9	686.3	729.5	2,767	324.0	311.8	336.2	1,402	304.2	287.3	321.0	8,335	388.0	379.5	396.5
	2005-07	17,366	409.9	403.7	416.1	4,195	685.7	664.6	706.8	2,776	309.1	297.5	320.7	1,495	304.3	287.9	320.7	8,173	380.2	371.8	388.7
	2006-08	18,725	432.2	425.9	438.4	4,734	761.7	739.6	783.9	3,101	330.0	318.3	341.7	1,635	320.9	304.4	337.4	8,495	392.9	384.3	401.5

Source: OSHPD Patient Discharge Data, 1995-08.

Table B.6: Three-Year Hospital Inpatient Visits by Gender and Race/Ethnicity

		Both Sexes				Female				Male			
		#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Stroke	All Races	18,725	432.2	425.9	438.4	9,939	401.2	393.2	409.2	8,785	471.5	461.4	481.6
	AfrAmer	4,734	761.7	739.6	783.9	2,747	747.6	719.2	776.0	1,987	779.7	743.8	815.5
	AmerInd	33	173.9	119.7	244.2	18	180.0	106.7	284.4	15	169.6	94.9	279.7
	API	3,101	330.0	318.3	341.7	1,579	296.9	282.2	311.6	1,522	373.0	353.9	392.1
	Latino	1,635	320.9	304.4	337.4	796	287.2	266.5	307.9	839	361.9	334.7	389.2
	White	8,495	392.9	384.3	401.5	4,455	356.3	345.3	367.3	4,039	438.3	424.4	452.1
CHD	All Races	40,011	924.6	915.4	933.9	17,626	718.3	707.5	729.0	22,384	1,184.1	1,168.2	1,200.1
	AfrAmer	6,890	1,098.6	1,072.1	1,125.1	3,713	1,008.4	975.4	1,041.3	3,177	1,228.2	1,183.6	1,272.9
	AmerInd	67	364.7	282.7	463.2	37	356.1	250.8	490.9	30	401.7	271.0	573.4
	API	6,320	668.5	651.9	685.1	2,686	510.4	491.0	529.8	3,633	861.7	833.1	890.3
	Latino	3,497	710.9	686.2	735.6	1,615	610.7	580.2	641.2	1,882	834.6	793.3	875.9
	White	20,734	958.2	944.8	971.5	8,675	693.9	678.7	709.1	12,059	1,281.0	1,257.6	1,304.4
Asthma	All Races	6,534	145.8	142.3	149.4	3,832	162.4	157.2	167.6	2,702	125.8	121.0	130.6
	AfrAmer	2,453	387.7	372.1	403.3	1,524	434.0	411.8	456.3	929	322.7	301.5	343.9
	AmerInd	11	55.9	27.9	100.1	5	na	na	na	6	na	na	na
	API	809	82.3	76.5	88.0	409	77.7	70.1	85.2	400	86.4	77.7	95.1
	Latino	991	106.3	98.6	114.0	514	119.4	108.0	130.9	477	90.8	80.8	100.9
	White	1,785	104.4	99.3	109.6	1,168	121.8	114.3	129.3	617	84.5	77.6	91.5
Childhood Asthma (<5 Years)	All Races	1,614	511.0	486.1	536.0	584	377.3	346.7	407.9	1,030	639.7	600.6	678.7
	AfrAmer	482	1,387.0	1,263.2	1,510.8	198	1,151.5	991.1	1,311.9	284	1,617.6	1,429.5	1,805.8
	AmerInd	0	na	na	na	0	na	na	na	0	na	na	na
	API	226	311.6	271.0	352.3	71	200.9	156.9	253.4	155	416.9	351.3	482.6
	Latino	407	406.5	367.0	446.0	143	290.7	243.1	338.4	264	518.2	455.7	580.8
	White	230	305.4	266.0	344.9	76	206.8	162.9	258.9	154	399.4	336.3	462.5

Source: OSHPD Patient Discharge Data, 2006-08.

Table B.7: Three-Year Emergency Department Visits by Gender and Race/Ethnicity

		Both Sexes				Female				Male			
		#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Mental Disorders	All Races	43,264	925.1	916.3	933.8	21,178	896.5	884.4	908.7	22,084	953.2	940.5	965.9
	AfrAmer	10,672	1,533.3	1,504.0	1,562.7	5,481	1,487.9	1,448.2	1,527.6	5,191	1,588.6	1,544.9	1,632.4
	AmerInd	114	512.2	416.9	607.5	52	440.6	329.0	577.7	62	597.1	457.8	765.4
	Asian	2,248	218.6	209.5	227.7	1,241	235.5	222.3	248.8	1,007	199.8	187.4	212.3
	Latino	6,521	670.5	653.0	687.9	2,872	600.6	577.4	623.8	3,649	737.3	711.1	763.6
	PacIsl	130	341.3	272.9	409.8	75	353.4	278.0	443.0	55	338.2	254.8	440.2
	White	19,365	1,156.1	1,139.2	1,173.1	9,346	1,116.1	1,092.4	1,139.9	10,018	1,194.8	1,170.6	1,219.0
Assault	All Races	15,089	328.6	323.4	333.9	5,567	243.0	236.5	249.4	9,520	414.3	405.9	422.6
	AfrAmer	6,019	864.1	842.1	886.0	2,684	743.4	715.1	771.7	3,335	1,004.1	969.7	1,038.4
	AmerInd	46	212.4	155.5	283.3	21	186.2	115.3	284.6	25	244.5	158.3	361.0
	Asian	898	88.8	83.0	94.7	289	54.8	48.4	61.1	609	123.5	113.6	133.4
	Latino	2,834	254.2	244.5	263.8	789	144.1	133.8	154.3	2,045	360.7	344.0	377.3
	PacIsl	37	84.4	59.4	116.3	12	48.1	24.8	84.0	25	121.6	78.7	179.5
	White	3,882	260.6	252.1	269.0	1,281	172.5	162.7	182.3	2,601	346.8	333.1	360.5
Unintentional Injury	All Races	172,830	3,799.8	3,781.8	3,817.9	81,010	3,474.0	3,449.9	3,498.1	91,817	4,092.4	4,065.7	4,119.1
	AfrAmer	37,149	5,594.4	5,536.8	5,651.9	18,867	5,381.2	5,303.5	5,459.0	18,281	5,775.8	5,690.9	5,860.7
	AmerInd	437	2,648.0	2,343.4	2,952.7	216	2,296.2	1,926.4	2,666.0	221	3,029.9	2,534.7	3,525.1
	Asian	13,450	1,346.3	1,323.4	1,369.2	6,624	1,277.5	1,246.5	1,308.5	6,826	1,395.9	1,362.4	1,429.4
	Latino	28,219	2,677.5	2,643.4	2,711.6	11,363	2,289.3	2,244.0	2,334.7	16,855	3,014.0	2,963.5	3,064.4
	PacIsl	551	1,658.7	1,492.6	1,824.8	280	1,690.2	1,460.7	1,919.7	271	1,585.5	1,353.4	1,817.6
	White	76,315	5,076.6	5,038.7	5,114.6	36,260	4,562.4	4,512.0	4,612.7	40,055	5,550.1	5,493.5	5,606.6
Asthma	All Races	23,006	505.2	498.7	511.8	12,244	528.8	519.4	538.2	10,761	478.0	468.9	487.1
	AfrAmer	9,421	1,452.2	1,422.5	1,482.0	5,205	1,507.3	1,465.6	1,548.9	4,215	1,374.0	1,331.9	1,416.0
	AmerInd	53	268.5	201.2	351.3	32	298.5	204.2	421.4	21	231.1	143.1	353.3
	Asian	1,405	141.0	133.6	148.4	657	126.4	116.7	136.2	748	153.9	142.8	165.1
	Latino	3,980	350.4	338.6	362.1	1,885	356.1	339.1	373.1	2,095	343.1	327.1	359.1
	PacIsl	123	349.1	281.9	416.3	58	292.8	222.4	378.6	65	415.9	321.0	530.1
	White	5,559	381.7	371.1	392.2	3,127	402.6	387.7	417.6	2,432	358.3	343.5	373.1
Childhood Asthma (<5 Years)	All Races	4,507	1,427.1	1,385.4	1,468.7	1,635	1,056.2	1,005.0	1,107.4	2,872	1,783.6	1,718.4	1,848.8
	AfrAmer	1,587	4,566.8	4,342.1	4,791.5	646	3,757.1	3,467.3	4,046.8	941	5,359.8	5,017.3	5,702.2
	AmerInd	<5	na	na	na	<5	na	na	na	<5	na	na	na
	Asian	321	458.4	408.3	508.5	74	217.2	170.5	272.7	247	687.0	601.3	772.6
	Latino	1,254	1,252.4	1,183.0	1,321.7	446	906.7	822.5	990.8	808	1,586.1	1,476.8	1,695.5
	PacIsl	25	1,002.7	648.9	1,480.2	6	na	na	na	19	1,557.2	937.5	2,431.7
	White	669	888.4	821.1	955.7	199	541.5	466.3	616.8	470	1,219.0	1,108.8	1,329.3

Source: OSPHD Emergency Department Files, 2006-08.

Table B.8: Cancer Incidence by Race/Ethnicity, Three-Year Rolling Average, 1990-2007

		All Races				AfrAmer				API				Latino				White			
	Period	#	Rate	UCL	LCL	#	Rate	UCL	LCL	#	Rate	UCL	LCL	#	Rate	UCL	LCL	#	Rate	UCL	LCL
All Cancers Combined	1990-92	18,344	560.8	552.5	569.0	3,023	601.5	579.5	623.5	1,506	385.3	364.2	406.5	1,907	631.3	600.5	662.1	11,593	571.6	561.2	582.1
	1991-93	18,522	558.8	550.7	567.0	3,093	610.7	588.7	632.7	1,608	389.8	369.1	410.5	1,971	638.4	607.9	668.8	11,450	565.3	554.9	575.7
	1992-94	18,548	554.8	546.8	562.9	3,129	614.8	592.8	636.7	1,698	384.9	365.1	404.7	1,915	605.4	576.1	634.8	11,294	561.0	550.6	571.3
	1993-95	18,540	551.4	543.4	559.4	3,062	602.9	581.2	624.6	1,763	375.6	356.7	394.5	2,014	617.1	587.7	646.5	11,055	555.4	545.0	565.8
	1994-96	18,228	540.6	532.7	548.5	2,981	589.1	567.7	610.6	1,812	361.0	343.2	378.8	1,971	598.4	569.7	627.1	10,831	549.8	539.4	560.2
	1995-97	17,828	526.2	518.5	534.0	2,874	570.0	548.9	591.1	1,855	349.7	332.8	366.7	1,919	581.8	553.7	609.9	10,644	544.3	533.9	554.6
	1996-98	17,425	504.7	497.1	512.2	2,757	540.2	519.9	560.6	1,969	342.5	326.4	358.5	1,802	546.6	519.7	573.6	10,497	532.3	522.1	542.5
	1997-99	17,969	509.2	501.7	516.7	2,815	543.1	522.9	563.4	2,130	346.0	330.5	361.6	1,852	549.8	522.9	576.6	10,720	540.5	530.2	550.8
	1998-00	18,460	505.4	498.0	512.7	2,828	530.1	510.4	549.9	2,330	342.4	327.9	356.9	1,962	550.3	524.3	576.3	10,780	535.6	525.5	545.8
	1999-01	18,825	489.5	482.5	496.6	2,903	525.1	505.9	544.4	2,497	343.1	329.3	357.0	2,041	524.9	500.7	549.2	10,836	522.2	512.3	532.1
	2000-02	19,094	483.7	476.8	490.6	2,917	517.1	498.1	536.0	2,704	350.3	336.8	363.8	2,175	527.5	503.8	551.1	10,834	515.2	505.4	525.0
	2001-03	19,032	472.6	465.8	479.4	2,911	506.6	488.0	525.1	2,803	347.7	334.6	360.8	2,196	502.0	479.5	524.4	10,689	506.7	497.0	516.5
	2002-04	19,054	465.1	458.4	471.8	2,937	504.1	485.6	522.5	2,957	350.9	338.1	363.8	2,285	494.2	472.5	515.9	10,420	494.6	485.0	504.3
	2003-05	18,872	453.1	446.5	459.6	2,940	497.5	479.3	515.8	2,967	336.8	324.5	349.1	2,298	474.8	454.0	495.6	10,105	481.0	471.5	490.6
	2004-06	19,073	448.9	442.5	455.4	2,956	490.4	472.4	508.3	3,089	336.2	324.2	348.2	2,454	485.9	465.4	506.5	9,948	474.8	465.3	484.4
	2005-07	19,107	440.4	434.1	446.7	2,868	464.3	447.0	481.6	3,145	328.1	316.5	339.7	2,456	462.1	442.5	481.6	9,942	474.5	464.9	484.0
Lung Cancer	1990-92	2,379	75.2	72.1	78.2	505	101.9	92.9	110.9	161	47.5	39.6	55.4	201	73.9	63.3	84.5	1,506	75.4	71.5	79.2
	1991-93	2,346	73.5	70.5	76.5	495	100.6	91.6	109.6	186	51.2	43.3	59.0	209	75.1	64.5	85.6	1,448	72.5	68.8	76.3
	1992-94	2,337	72.7	69.7	75.6	499	101.0	92.1	110.0	197	50.5	43.0	57.9	197	69.7	59.6	79.9	1,434	72.1	68.4	75.9
	1993-95	2,351	73.2	70.2	76.1	486	98.7	89.9	107.6	201	48.3	41.2	55.4	195	70.5	60.3	80.8	1,463	74.4	70.5	78.2
	1994-96	2,304	71.4	68.4	74.3	470	95.8	87.1	104.5	198	43.3	36.9	49.7	206	73.7	63.3	84.1	1,425	73.0	69.2	76.8
	1995-97	2,294	70.6	67.7	73.5	448	91.0	82.5	99.4	206	43.1	36.9	49.3	205	71.3	61.2	81.4	1,432	74.1	70.2	77.9
	1996-98	2,197	65.9	63.2	68.7	447	89.6	81.3	98.0	204	39.1	33.5	44.7	197	66.4	56.8	76.1	1,342	68.9	65.2	72.6
	1997-99	2,227	65.4	62.7	68.2	440	86.6	78.5	94.8	213	38.8	33.3	44.3	192	62.9	53.7	72.2	1,375	70.1	66.4	73.8
	1998-00	2,315	65.8	63.1	68.4	466	89.1	80.9	97.2	242	39.4	34.3	44.5	193	61.3	52.3	70.2	1,388	69.6	66.0	73.3
	1999-01	2,290	61.8	59.3	64.3	426	78.3	70.9	85.8	267	40.3	35.4	45.3	197	57.1	48.8	65.3	1,360	65.9	62.4	69.4
	2000-02	2,276	60.0	57.5	62.5	474	85.9	78.1	93.6	291	41.1	36.3	45.9	197	55.2	47.2	63.1	1,272	61.0	57.6	64.4
	2001-03	2,221	57.5	55.1	59.9	464	83.3	75.7	91.0	309	40.8	36.2	45.5	195	52.8	45.2	60.5	1,221	58.8	55.4	62.1
	2002-04	2,192	55.9	53.6	58.3	462	82.0	74.5	89.6	320	40.4	35.9	44.9	204	52.6	45.1	60.0	1,184	57.0	53.7	60.3
	2003-05	2,130	53.6	51.3	55.9	421	73.4	66.3	80.5	323	39.1	34.8	43.4	217	53.9	46.5	61.3	1,142	55.2	52.0	58.5
	2004-06	2,025	50.0	47.8	52.2	406	69.7	62.8	76.6	336	39.3	35.1	43.5	214	49.6	42.7	56.4	1,037	50.0	46.9	53.1
	2005-07	1,985	48.0	45.9	50.2	403	68.4	61.6	75.2	357	39.5	35.4	43.7	208	46.0	39.5	52.4	980	47.2	44.2	50.3
Colorectal Cancer	1990-92	1,992	64.6	61.7	67.5	349	74.6	66.6	82.6	181	49.6	41.8	57.4	195	78.3	66.8	89.7	1,258	63.1	59.6	66.6
	1991-93	1,958	62.7	59.9	65.5	350	74.0	66.2	81.9	184	50.8	42.9	58.7	190	74.0	63.1	84.9	1,220	61.0	57.6	64.4
	1992-94	1,894	60.0	57.3	62.7	349	73.0	65.2	80.7	180	44.7	37.7	51.8	180	68.1	57.7	78.4	1,166	58.4	55.0	61.7
	1993-95	1,796	56.6	54.0	59.2	331	69.6	62.0	77.2	185	44.3	37.4	51.1	172	63.8	53.8	73.7	1,090	55.1	51.8	58.4
	1994-96	1,758	54.9	52.4	57.5	325	68.3	60.8	75.8	194	42.0	35.8	48.3	184	65.3	55.5	75.2	1,039	53.0	49.8	56.3
	1995-97	1,777	54.9	52.4	57.5	314	65.7	58.3	73.0	203	42.2	36.1	48.3	190	65.9	56.1	75.7	1,056	54.1	50.8	57.4
	1996-98	1,889	56.9	54.3	59.5	298	61.3	54.3	68.3	224	41.9	36.1	47.7	206	70.5	60.4	80.6	1,148	58.0	54.6	61.4
	1997-99	1,979	58.1	55.6	60.7	315	63.6	56.5	70.7	251	43.8	38.1	49.5	222	75.5	65.1	86.0	1,165	58.4	55.0	61.7
	1998-00	2,001	56.3	53.9	58.8	303	59.0	52.3	65.7	292	45.6	40.2	51.1	224	71.8	62.0	81.6	1,141	56.0	52.7	59.2
	1999-01	1,967	52.3	50.0	54.6	313	58.1	51.6	64.5	329	48.7	43.3	54.2	227	66.6	57.5	75.6	1,045	49.4	46.4	52.4
	2000-02	1,929	50.0	47.8	52.2	286	51.9	45.8	58.0	353	48.8	43.6	54.0	223	61.7	53.2	70.1	1,026	47.9	44.9	50.8
	2001-03	1,895	48.3	46.1	50.4	279	49.4	43.6	55.3	341	45.3	40.4	50.2	233	60.8	52.6	69.0	1,007	47.0	44.1	49.9
	2002-04	1,860	46.5	44.3	48.6	291	51.2	45.2	57.1	325	40.9	36.4	45.4	237	57.9	50.2	65.7	965	45.3	42.4	48.2
	2003-05	1,795	44.2	42.1	46.2	296	52.4	46.4	58.4	304	36.5	32.4	40.7	236	55.1	47.8	62.4	905	42.7	39.8	45.5
	2004-06	1,808	43.7	41.7	45.8	326	56.9	50.6	63.1	320	36.4	32.3	40.4	247	55.4	48.2	62.6	866	40.9	38.1	43.7
	2005-07	1,840	43.7	41.6	45.7	239	40.7	35.4	45.9	330	35.6	31.7	39.5	310	68.1	60.2	76.0	921	43.4	40.5	46.3

Source: Cancer Prevention Institute of California, 1990-07.

Table B.8: Cancer Incidence by Race/Ethnicity, Three-Year Rolling Average (continued)

		All Races				AfrAmer				API				Latino				White			
	Period	#	Rate	UCL	LCL	#	Rate	UCL	LCL	#	Rate	UCL	LCL	#	Rate	UCL	LCL	#	Rate	UCL	LCL
Female Breast Cancer	1990-92	2,774	156.0	150.2	161.9	390	137.2	123.3	151.0	250	107.3	93.4	121.2	272	167.1	146.7	187.5	1,840	168.8	161.0	176.6
	1991-93	2,721	150.2	144.5	155.8	393	135.5	121.9	149.1	245	100.5	87.4	113.7	282	167.2	147.1	187.4	1,778	162.3	154.7	169.9
	1992-94	2,770	151.2	145.6	156.9	410	140.0	126.3	153.6	262	100.7	88.0	113.5	261	152.4	133.3	171.4	1,816	166.6	158.9	174.3
	1993-95	2,831	153.4	147.7	159.0	402	137.4	123.9	150.9	275	98.4	86.2	110.6	285	159.7	140.5	178.8	1,845	170.8	162.9	178.6
	1994-96	2,978	159.9	154.1	165.7	402	136.8	123.4	150.3	326	108.0	95.9	120.2	296	162.6	143.4	181.7	1,921	179.6	171.5	187.7
	1995-97	3,116	164.8	159.0	170.6	417	141.4	127.8	155.0	354	108.7	97.0	120.4	303	161.8	142.9	180.6	2,007	188.4	180.1	196.7
	1996-98	3,227	165.5	159.8	171.3	438	143.9	130.3	157.4	386	108.3	97.2	119.4	304	157.0	138.7	175.2	2,040	189.8	181.5	198.1
	1997-99	3,426	171.3	165.6	177.1	473	152.1	138.3	165.9	428	112.6	101.6	123.5	326	163.6	145.3	182.0	2,105	194.3	185.9	202.7
	1998-00	3,483	168.8	163.2	174.5	468	146.3	133.0	159.6	461	112.2	101.7	122.6	365	174.4	155.9	192.9	2,067	188.6	180.4	196.8
	1999-01	3,494	161.9	156.5	167.3	477	145.4	132.3	158.5	511	118.7	108.2	129.1	376	165.7	148.4	183.1	2,020	179.8	171.9	187.7
	2000-02	3,515	158.6	153.3	163.8	482	143.8	130.8	156.7	533	117.5	107.4	127.6	399	165.4	148.6	182.2	2,024	176.8	169.0	184.6
	2001-03	3,429	151.7	146.6	156.8	470	137.9	125.4	150.5	547	115.3	105.5	125.0	384	148.8	133.3	164.2	1,972	172.1	164.4	179.8
	2002-04	3,429	149.0	144.0	154.1	512	147.5	134.6	160.3	593	119.5	109.9	129.2	387	142.6	127.8	157.3	1,888	165.1	157.5	172.6
	2003-05	3,311	141.6	136.8	146.5	511	145.1	132.4	157.8	593	115.1	105.8	124.4	364	128.5	114.8	142.3	1,782	157.1	149.7	164.5
	2004-06	3,464	145.5	140.7	150.4	528	145.0	132.5	157.5	644	121.3	111.9	130.7	419	140.4	126.3	154.4	1,801	159.8	152.3	167.3
	2005-07	3,607	148.8	143.9	153.7	491	131.8	120.0	143.6	685	124.5	115.1	133.9	450	142.1	128.4	155.8	1,910	170.6	162.8	178.4
Prostate Cancer	1990-92	2,277	183.0	175.2	190.7	457	246.0	222.5	269.6	129	96.6	78.7	114.5	176	172.3	145.2	199.5	1,488	184.0	174.5	193.6
	1991-93	2,569	199.5	191.6	207.5	510	266.0	242.2	289.9	148	98.5	81.7	115.3	224	204.1	175.7	232.5	1,643	199.5	189.7	209.3
	1992-94	2,592	197.5	189.7	205.3	525	269.8	246.1	293.5	188	112.9	95.9	129.9	225	199.0	171.4	226.6	1,591	192.3	182.7	201.9
	1993-95	2,454	184.0	176.6	191.4	526	272.1	248.3	295.9	201	110.9	94.7	127.0	236	207.9	179.7	236.1	1,422	171.2	162.2	180.2
	1994-96	2,301	171.6	164.4	178.7	519	268.6	245.0	292.3	194	102.1	87.0	117.2	225	198.2	170.6	225.8	1,288	156.7	148.0	165.3
	1995-97	2,175	160.6	153.7	167.4	490	253.0	230.1	275.8	186	91.4	77.6	105.2	228	198.5	171.2	225.9	1,192	145.5	137.2	153.8
	1996-98	2,222	159.8	153.0	166.5	460	233.3	211.5	255.1	192	89.4	76.1	102.7	230	190.1	164.0	216.2	1,232	148.9	140.5	157.2
	1997-99	2,360	165.8	159.0	172.6	463	230.4	208.9	251.9	216	92.7	79.7	105.8	228	183.0	157.7	208.3	1,323	158.4	149.8	167.0
	1998-00	2,552	170.6	163.9	177.3	490	232.5	211.5	253.6	248	95.2	82.8	107.5	252	183.6	159.7	207.5	1,412	164.9	156.2	173.6
	1999-01	2,676	167.1	160.6	173.5	531	237.0	216.5	257.5	284	97.9	86.2	109.5	253	171.1	149.0	193.2	1,485	164.3	155.9	172.8
	2000-02	2,744	164.7	158.5	171.0	521	227.0	207.1	247.0	325	105.5	93.8	117.2	288	181.3	159.3	203.4	1,516	162.8	154.5	171.1
	2001-03	2,722	158.8	152.7	164.9	507	215.3	196.0	234.5	339	105.4	93.9	116.8	270	162.0	141.5	182.5	1,513	160.0	151.8	168.2
	2002-04	2,714	154.4	148.4	160.3	499	209.5	190.6	228.5	351	103.6	92.6	114.7	281	158.3	138.5	178.1	1,469	153.8	145.8	161.9
	2003-05	2,581	143.8	138.2	149.5	464	191.1	173.2	209.1	327	90.9	80.9	100.9	285	153.2	134.4	172.1	1,351	140.7	133.1	148.4
	2004-06	2,687	145.9	140.2	151.5	461	187.3	169.6	205.0	320	84.8	75.3	94.2	334	170.6	151.2	190.0	1,376	141.8	134.1	149.5
	2005-07	2,759	145.5	139.9	151.0	460	180.4	163.3	197.5	314	79.2	70.3	88.0	354	171.5	152.6	190.4	1,385	141.2	133.5	148.8

Source: Cancer Prevention Institute of California, 1990-07.

Table B.9: Three-Year Cancer Incidence by Gender and Race/Ethnicity

		Both Sexes				Female				Male			
		#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
All Cancer Combined	All Races	19,107	440.4	434.1	446.7	10,098	420.9	412.6	429.2	9,003	474.0	463.9	484.0
	AfrAmer	2,868	464.3	447.0	481.6	1,504	414.7	393.5	435.9	1,363	542.8	512.9	572.8
	API	3,145	328.1	316.5	339.7	1,794	335.7	320.1	351.3	1,350	327.3	309.5	345.1
	Hispanic	2,456	462.1	442.5	481.6	1,311	435.6	410.9	460.4	1,144	513.2	480.4	546.0
	White	9,942	474.5	464.9	484.0	5,235	463.6	450.6	476.5	4,704	497.1	482.6	511.7
Lung Cancer	All Races	1,985	48.0	45.9	50.2	1,003	43.1	40.4	45.8	982	55.0	51.5	58.6
	AfrAmer	403	68.4	61.6	75.2	203	57.7	49.6	65.7	200	84.1	72.0	96.1
	API	357	39.5	35.4	43.7	157	30.7	25.9	35.6	200	51.2	43.9	58.4
	Hispanic	208	46.0	39.5	52.4	108	42.8	34.6	51.0	100	51.7	40.8	62.7
	White	980	47.2	44.2	50.3	515	45.0	41.1	49.0	465	50.8	46.0	55.5
Colorectal Cancer	All Races	1,840	43.7	41.6	45.7	955	39.9	37.4	42.5	885	48.3	45.1	51.6
	AfrAmer	310	52.8	46.9	58.8	163	45.9	38.7	53.0	147	64.2	53.5	75.0
	API	330	35.6	31.7	39.5	167	32.2	27.3	37.1	163	40.2	33.9	46.6
	Hispanic	239	51.6	44.7	58.4	115	43.6	35.4	51.8	124	63.8	51.7	75.9
	White	921	43.4	40.5	46.3	490	40.6	36.9	44.4	431	45.9	41.5	50.4
Female Breast Cancer	All Races					3,607	148.8	143.9	153.7				
	AfrAmer					491	131.8	120.0	143.6				
	API					685	124.5	115.1	133.9				
	Hispanic					450	142.1	128.4	155.8				
	White					1,910	170.6	162.8	178.4				
Prostate Cancer	All Races									2,759	145.5	139.9	151.0
	AfrAmer									460	180.4	163.3	197.5
	API									314	79.2	70.3	88.0
	Hispanic									354	171.5	152.6	190.4
	White									1,385	141.2	133.5	148.8

Source: Cancer Prevention Institute of California, 2005-07.

Table B.10: Low Birth Weight and Early Prenatal Care by Race/Ethnicity, Three-Year Rolling Average, 1990-2008

		All Races				AfrAmer				AmerInd				API				Latino				White			
	Period	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	Births	Rate	LCL	UCL
Low Birth Weight	1990-92	4,837	7.0	6.8	7.2	1,968	13.6	13.0	14.1	18	6.0	3.3	8.7	699	6.1	5.7	6.6	675	4.9	4.6	5.3	27,945	5.0	4.7	5.2
	1991-93	4,775	7.1	6.9	7.2	1,948	13.8	13.2	14.4	16	5.2	2.7	7.7	698	5.9	5.5	6.3	732	5.1	4.7	5.4	26,302	5.0	4.8	5.3
	1992-94	4,710	7.1	6.9	7.3	1,849	13.6	13.1	14.2	20	6.2	3.6	8.8	769	6.2	5.8	6.6	785	5.4	5.0	5.7	24,900	5.1	4.9	5.4
	1993-95	4,508	7.1	6.9	7.3	1,689	13.3	12.7	13.9	27	8.3	5.3	11.3	783	6.2	5.8	6.6	798	5.4	5.1	5.8	23,299	5.1	4.9	5.4
	1994-96	4,462	7.1	6.9	7.3	1,541	12.9	12.3	13.5	23	7.0	4.2	9.7	877	6.8	6.4	7.2	806	5.4	5.0	5.7	22,080	5.4	5.1	5.7
	1995-97	4,301	7.0	6.8	7.2	1,454	12.8	12.2	13.4	21	6.3	3.7	8.9	858	6.6	6.1	7.0	839	5.4	5.0	5.8	20,839	5.2	4.9	5.5
	1996-98	4,381	7.0	6.8	7.2	1,380	12.8	12.1	13.4	17	5.0	2.7	7.3	877	6.5	6.0	6.9	912	5.6	5.2	5.9	20,219	5.4	5.1	5.7
	1997-98	4,280	6.9	6.7	7.1	1,285	12.3	11.7	12.9	16	4.9	2.5	7.2	866	6.2	5.8	6.6	929	5.5	5.2	5.9	19,612	5.6	5.2	5.9
	1998-00	4,328	6.8	6.6	7.0	1,183	11.9	11.3	12.5	13	4.8	2.2	7.3	988	6.6	6.2	7.0	957	5.4	5.1	5.7	19,518	5.6	5.2	5.9
	1999-01	4,388	6.8	6.6	7.0	1,144	11.9	11.2	12.5	10	4.7	1.8	7.5	1,100	6.9	6.5	7.3	984	5.3	5.0	5.7	19,218	5.5	5.2	5.8
	2000-02	4,494	6.8	6.6	7.0	1,112	12.2	11.5	12.9	10	6.1	2.4	9.7	1,228	7.2	6.8	7.6	1,024	5.4	5.0	5.7	18,675	5.4	5.0	5.7
	2001-03	4,566	7.0	6.8	7.2	1,064	12.4	11.7	13.1	12	6.3	2.8	9.7	1,223	7.1	6.7	7.5	1,054	5.5	5.2	5.8	18,015	5.9	5.6	6.3
	2002-04	4,428	6.9	6.7	7.1	949	12.0	11.2	12.7	11	6.1	2.6	9.6	1,257	7.3	6.9	7.7	1,011	5.3	4.9	5.6	17,289	6.0	5.7	6.4
	2003-04	4,497	7.1	6.9	7.3	923	12.3	11.5	13.0	11	6.4	2.8	10.1	1,244	7.3	6.9	7.7	1,066	5.5	5.2	5.8	16,877	6.4	6.0	6.8
	2004-05	4,504	7.2	7.0	7.4	877	11.9	11.1	12.6	9	na	na	na	1,235	7.4	7.0	7.8	1,091	5.5	5.2	5.8	16,340	6.8	6.4	7.2
	2005-06	4,579	7.2	7.0	7.4	907	12.2	11.5	13.0	8	na	na	na	1,244	7.4	7.0	7.8	1,154	5.7	5.3	6.0	16,005	6.6	6.2	7.0
	2006-08	4,548	7.2	7.0	7.4	883	11.9	11.1	12.6	9	na	na	na	1,250	7.4	7.0	7.8	1,123	5.5	5.2	5.8	15,600	6.7	6.3	7.1
Early Prenatal Care	1990-92	57,368	84.0	83.7	84.3	10,633	74.3	73.6	75.1	238	81.0	76.5	85.4	9,691	86.2	85.5	86.8	10,792	80.3	79.6	80.9	27,813	90.3	90.0	90.7
	1991-93	56,747	85.2	84.9	85.4	10,569	76.2	75.5	76.9	237	79.5	74.9	84.1	10,081	86.9	86.3	87.5	11,577	82.4	81.8	83.0	26,126	90.9	90.6	91.3
	1992-94	55,879	86.0	85.7	86.3	10,374	77.9	77.1	78.6	249	78.5	74.0	83.1	10,661	87.3	86.8	87.9	11,911	83.6	83.0	84.2	24,741	91.2	90.9	91.6
	1993-95	54,449	86.7	86.5	87.0	9,993	80.0	79.3	80.7	248	77.5	72.9	82.1	10,878	88.0	87.4	88.6	12,066	84.3	83.8	84.9	23,139	91.2	90.8	91.6
	1994-96	53,931	87.6	87.3	87.8	9,682	82.6	81.9	83.3	258	79.1	74.7	83.6	11,251	88.7	88.2	89.3	12,538	85.4	84.9	86.0	21,867	91.1	90.7	91.5
	1995-97	53,855	88.5	88.2	88.8	9,374	83.9	83.2	84.6	267	81.2	76.9	85.4	11,540	89.4	88.9	89.9	13,181	86.5	86.0	87.1	20,602	91.9	91.5	92.2
	1996-98	54,366	88.8	88.5	89.0	8,973	84.7	84.0	85.4	271	81.6	77.5	85.8	11,993	89.5	88.9	90.0	13,849	86.8	86.3	87.4	19,972	92.0	91.6	92.4
	1997-99	54,294	88.7	88.5	89.0	8,708	85.0	84.3	85.7	266	82.6	78.5	86.7	12,300	89.0	88.5	89.5	14,238	86.5	86.0	87.0	19,462	92.3	92.0	92.7
	1998-00	55,682	89.2	88.9	89.4	8,422	86.9	86.2	87.5	223	83.5	79.1	88.0	13,296	89.3	88.8	89.8	14,916	86.5	86.0	87.0	19,365	92.6	92.3	93.0
	1999-01	57,130	90.0	89.8	90.3	8,280	88.4	87.7	89.0	181	85.4	80.6	90.1	14,255	90.0	89.6	90.5	15,575	87.0	86.5	87.5	19,060	93.8	93.4	94.1
	2000-02	58,552	90.7	90.5	90.9	7,908	89.2	88.6	89.9	144	87.8	82.8	92.8	15,363	90.9	90.4	91.3	16,198	87.7	87.2	88.2	18,492	94.3	94.0	94.7
	2001-03	58,311	91.0	90.8	91.3	7,445	89.1	88.4	89.7	161	86.1	81.1	91.1	15,592	91.5	91.1	92.0	16,392	87.9	87.4	88.4	17,853	94.6	94.3	94.9
	2002-04	57,391	90.9	90.7	91.2	6,880	88.6	87.9	89.3	156	88.6	83.9	93.3	15,671	91.5	91.0	91.9	16,512	88.1	87.7	88.6	17,148	94.2	93.8	94.5
	2003-05	56,732	90.7	90.5	91.0	6,531	88.4	87.7	89.2	143	86.1	80.9	91.4	15,437	91.5	91.1	92.0	16,755	87.7	87.2	88.1	16,756	94.1	93.8	94.5
	2004-06	56,018	90.1	89.9	90.3	6,365	87.4	86.7	88.2	133	86.4	80.9	91.8	15,185	91.2	90.7	91.6	17,068	87.1	86.6	87.6	16,233	93.5	93.1	93.9
	2005-07	55,837	89.1	88.8	89.3	6,289	86.1	85.3	86.9	120	82.2	76.0	88.4	15,276	91.1	90.7	91.5	17,241	85.3	84.9	85.8	15,874	92.9	92.5	93.3
	2006-08	55,063	88.1	87.8	88.3	6,201	85.1	84.3	86.0	130	85.5	79.9	91.1	15,274	90.6	90.1	91.0	16,905	84.1	83.5	84.6	15,445	91.9	91.5	92.3

Source: Alameda County Vital Statistics Files, 1990-08.

Table B.11: Infant Mortality and Teen Birth by Race/Ethnicity, Three-Year Rolling Average, 1990-2008

		All Races				AfrAmer				API				Latino				White			
	Period	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Infant Mortality	1990-92	548	7.9	7.3	8.6	202	13.9	12.0	15.8	55	4.8	3.6	6.3	87	6.3	5.1	7.8	195	7.0	6.0	8.0
	1991-93	482	7.1	6.5	7.8	177	12.5	10.7	14.4	52	4.4	3.3	5.8	89	6.2	4.9	7.6	152	5.8	4.9	6.7
	1992-94	443	6.7	6.1	7.3	169	12.5	10.6	14.3	61	4.9	3.8	6.3	72	4.9	3.8	6.2	131	5.3	4.4	6.2
	1993-95	392	6.1	5.5	6.8	155	12.2	10.3	14.1	52	4.1	3.1	5.4	67	4.6	3.5	5.8	112	4.8	3.9	5.7
	1994-96	374	6.0	5.4	6.6	144	12.1	10.1	14.0	64	5.0	3.8	6.3	63	4.2	3.2	5.4	103	4.7	3.8	5.6
	1995-97	362	5.9	5.2	6.5	142	12.5	10.4	14.5	51	3.9	2.9	5.1	69	4.4	3.5	5.6	100	4.8	3.9	5.7
	1996-98	354	5.7	5.1	6.3	137	12.7	10.6	14.8	55	4.0	3.0	5.3	67	4.1	3.2	5.2	95	4.7	3.8	5.7
	1997-99	341	5.5	4.9	6.1	128	12.2	10.1	14.4	49	3.5	2.6	4.6	70	4.2	3.2	5.3	94	4.8	3.9	5.9
	1998-00	317	5.0	4.4	5.5	109	11.0	8.9	13.0	55	3.7	2.8	4.8	70	4.0	3.1	5.0	76	3.9	3.1	4.9
	1999-01	342	5.3	4.7	5.9	113	11.7	9.6	13.9	62	3.9	3.0	5.0	84	4.6	3.6	5.7	73	3.8	3.0	4.8
	2000-02	323	4.9	4.4	5.4	97	10.6	8.6	13.0	57	3.3	2.5	4.3	83	4.3	3.5	5.4	71	3.8	3.0	4.8
	2001-03	319	4.9	4.4	5.4	100	11.7	9.4	13.9	61	3.5	2.7	4.6	83	4.3	3.4	5.3	65	3.6	2.8	4.6
	2002-04	296	4.6	4.1	5.1	74	9.3	7.3	11.7	62	3.6	2.8	4.6	88	4.6	3.7	5.6	59	3.4	2.6	4.4
	2003-05	312	4.9	4.4	5.5	77	10.2	8.1	12.8	71	4.2	3.3	5.3	99	5.1	4.1	6.2	56	3.3	2.5	4.3
	2004-06	305	4.9	4.3	5.4	80	10.8	8.6	13.5	59	3.5	2.7	4.6	100	5.0	4.1	6.0	55	3.4	2.5	4.4
	2005-07	301	4.8	4.2	5.3	89	12.0	9.6	14.8	51	3.1	2.3	4.0	94	4.6	3.7	5.6	54	3.4	2.5	4.4
	2006-08	284	4.5	4.0	5.0	87	11.7	9.4	14.4	41	2.4	1.8	3.3	85	4.2	3.3	5.2	56	3.6	2.7	4.7
Teen Birth	1990-92	6,563	53.4	52.1	54.7	2,817	114.6	110.4	118.8	419	18.0	16.3	19.7	1,816	73.8	70.4	77.2	1,345	27.2	25.7	28.6
	1991-93	6,439	51.8	50.5	53.1	2,674	110.3	106.2	114.5	464	18.7	17.0	20.4	1,967	75.5	72.2	78.9	1,226	25.4	24.0	26.8
	1992-94	6,174	48.6	47.4	49.8	2,520	104.7	100.6	108.8	491	18.5	16.8	20.1	1,975	71.5	68.3	74.7	1,136	23.8	22.4	25.2
	1993-95	5,930	45.8	44.6	46.9	2,292	96.0	92.1	99.9	478	16.9	15.3	18.4	2,022	69.8	66.7	72.8	1,077	22.9	21.5	24.2
	1994-96	5,709	43.3	42.2	44.5	2,139	90.5	86.6	94.3	461	15.3	13.9	16.6	2,017	67.0	64.1	69.9	1,021	22.0	20.6	23.3
	1995-97	5,573	41.7	40.6	42.8	1,993	84.9	81.2	88.6	449	14.0	12.7	15.3	2,070	66.6	63.7	69.4	961	21.0	19.7	22.4
	1996-98	5,361	39.7	38.6	40.7	1,815	77.4	73.8	80.9	466	13.9	12.6	15.2	2,076	65.4	62.6	68.2	877	19.5	18.2	20.8
	1997-99	5,128	37.7	36.7	38.7	1,672	70.7	67.3	74.1	433	12.6	11.4	13.8	2,099	65.7	62.9	68.5	806	18.1	16.9	19.4
	1998-00	5,043	37.1	36.1	38.1	1,536	65.6	62.3	68.9	438	13.2	11.9	14.4	2,200	69.2	66.3	72.1	740	16.7	15.5	17.9
	1999-01	4,860	35.7	34.7	36.7	1,449	62.0	58.8	65.2	404	12.9	11.6	14.1	2,234	70.4	67.4	73.3	639	14.3	13.2	15.5
	2000-02	4,634	34.0	33.0	35.0	1,277	54.7	51.7	57.7	367	12.4	11.2	13.7	2,277	71.1	68.1	74.0	564	12.6	11.5	13.6
	2001-03	4,248	30.9	30.0	31.8	1,110	46.4	43.7	49.1	294	10.1	9.0	11.3	2,169	66.1	63.4	68.9	540	12.0	11.0	13.0
	2002-04	3,904	28.1	27.2	28.9	969	39.6	37.1	42.0	243	8.4	7.3	9.4	2,071	61.0	58.4	63.6	503	11.3	10.3	12.3
	2003-05	3,840	27.2	26.3	28.1	947	37.5	35.1	39.9	233	7.9	6.9	9.0	2,075	58.4	55.9	60.9	454	10.4	9.4	11.4
	2004-06	3,911	27.2	26.3	28.0	965	36.8	34.5	39.2	231	7.7	6.7	8.7	2,147	57.2	54.8	59.6	414	9.7	8.8	10.6
	2005-07	4,010	27.2	26.4	28.0	982	36.1	33.8	38.3	229	7.4	6.5	8.4	2,239	56.1	53.8	58.4	381	9.2	8.3	10.1
	2006-08	4,011	26.6	25.8	27.5	993	35.3	33.1	37.5	225	7.2	6.2	8.1	2,207	52.8	50.6	55.0	386	9.4	8.5	10.4

Source: Alameda County Vital Statistics Files, 1990-08.

Table B.12: Tuberculosis by Race/Ethnicity, Three-Year Rolling Average, 1993-2009

	All Races				AfrAmer				API				Latino				White			
Period	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
1993-95	630	15.8	13.6	17.9	188	28.5	21.4	35.5	295	40.5	32.5	48.5	72	11.0	8.6	13.9	66	3.4	2.7	4.4
1994-96	707	17.7	15.4	19.9	199	30.4	23.1	37.7	345	45.2	36.9	53.4	83	12.3	9.8	15.2	67	3.6	2.8	4.5
1995-97	712	17.6	15.4	19.9	178	27.3	20.4	34.3	362	45.1	37.1	53.1	89	12.7	10.2	15.7	66	3.6	2.8	4.5
1996-98	690	16.7	14.5	18.9	167	25.4	18.7	32.0	357	41.8	34.3	49.3	87	11.9	9.5	14.6	55	3.0	2.2	3.9
1997-99	684	16.3	14.2	18.4	154	23.3	16.9	29.6	350	38.8	31.8	45.9	108	14.1	9.5	18.7	47	2.6	1.9	3.4
1998-00	716	16.8	14.6	18.9	164	24.7	18.1	31.2	376	39.7	32.7	46.6	104	13.1	8.7	17.4	50	2.8	2.0	3.6
1999-01	694	15.9	13.9	18.0	146	22.7	16.3	29.0	384	41.3	34.1	48.4	102	12.2	8.1	16.4	42	2.3	1.7	3.1
2000-02	663	15.2	13.2	17.2	128	19.6	13.7	25.4	381	39.9	33.0	46.9	98	11.4	9.2	13.8	36	2.0	1.4	2.7
2001-03	597	13.5	11.6	15.3	100	15.2	10.0	20.4	364	37.4	30.8	44.1	95	10.7	8.6	13.0	24	1.3	0.9	2.0
2002-04	536	12.0	10.2	13.8	79	12.0	9.5	15.0	328	33.2	27.0	39.4	93	10.2	8.2	12.4	30	1.7	1.2	2.4
2003-05	490	10.9	9.3	12.6	60	9.1	7.0	11.7	333	33.2	27.0	39.3	65	6.9	5.3	8.8	27	1.6	1.0	2.3
2004-06	457	10.2	8.6	11.8	54	8.2	6.2	10.7	313	30.7	24.8	36.6	56	5.8	4.4	7.5	26	1.5	1.0	2.3
2005-07	465	10.3	8.7	12.0	69	10.4	8.1	13.2	310	29.8	24.1	35.6	49	4.9	3.6	6.5	24	1.4	0.9	2.2
2006-08	439	9.7	8.1	11.2	70	10.5	8.2	13.3	271	25.5	20.2	30.8	58	5.6	4.3	7.3	26	1.6	1.0	2.3
2007-09	453	9.9	8.3	11.5	82	12.2	9.7	15.1	259	23.8	18.8	28.8	67	6.3	4.9	8.0	30	1.8	1.2	2.6

Source: Alameda County TIMS, 1993-09.

Table B.13: Three-Year Tuberculosis by Gender and Race/Ethnicity

	Both Sexes				Female				Male			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
All Races	453	9.8	8.2	11.3	184	7.8	5.8	9.7	269	11.8	9.4	14.2
AfrAmer	82	12.2	9.7	15.1	36	10.0	7.0	13.9	46	14.6	10.7	19.5
AmerInd	<5	na	na	na	<5	na	na	na	0	na	na	na
API	272	25.0	20.3	30.4	113	20.3	13.8	26.7	159	30.0	21.9	38.1
Latino	67	6.3	4.9	8.0	23	4.4	2.8	6.6	44	8.1	5.9	10.9
White	30	1.8	1.2	2.6	11	1.3	0.7	2.4	19	2.4	1.4	3.7

Source: Alameda County TIMS, 2007-09.

Table B.14: HIV/AIDS Incidence by Race/Ethnicity, Three-Year Rolling Average, 1990-2008

	All Races				AfrAmer				API				Latino				White			
Period	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
1990-92	1,601	41.3	37.8	44.8	657	98.5	85.4	111.5	33	5.4	3.7	7.6	130	22.5	15.8	29.2	772	38.5	33.8	43.2
1991-93	1,775	45.1	41.5	48.7	775	116.0	101.9	130.2	32	4.9	3.4	6.9	153	25.3	18.3	32.2	808	40.7	35.8	45.6
1992-94	1,822	45.9	42.2	49.5	838	125.9	111.1	140.7	43	6.2	4.5	8.4	167	26.5	19.5	33.4	767	39.2	34.4	44.0
1993-95	1,655	41.5	38.0	44.9	809	122.5	107.9	137.1	40	5.5	3.9	7.5	150	22.9	16.6	29.3	651	33.9	29.4	38.5
1994-96	1,579	39.4	36.1	42.8	770	117.7	103.3	132.1	49	6.4	4.7	8.5	141	20.9	14.9	26.9	604	32.2	27.7	36.6
1995-97	1,465	36.3	33.1	39.5	715	109.8	95.8	123.7	53	6.6	4.9	8.6	149	21.3	15.4	27.2	529	28.6	24.4	32.9
1996-98	1,331	32.2	29.2	35.2	640	97.2	84.2	110.3	57	6.7	5.1	8.6	149	20.3	14.7	25.9	464	25.1	21.2	29.1
1997-99	1,146	27.3	24.5	30.0	566	85.5	73.3	97.7	43	4.8	3.5	6.4	160	20.9	15.3	26.5	362	19.8	16.2	23.3
1998-00	1,035	24.2	21.7	26.8	528	79.5	67.7	91.2	35	3.7	2.6	5.1	147	18.5	13.3	23.6	310	17.1	13.8	20.4
1999-01	1,016	23.3	20.8	25.8	519	80.5	68.5	92.6	37	4.0	2.8	5.5	151	18.1	13.1	23.1	292	16.1	12.9	19.3
2000-02	1,077	24.7	22.1	27.3	540	82.5	70.5	94.6	49	5.1	3.8	6.8	160	18.5	13.6	23.5	307	16.9	13.6	20.2
2001-03	1,147	25.9	23.3	28.5	552	84.0	71.8	96.1	49	5.0	3.7	6.7	183	20.5	15.4	25.7	336	18.8	15.3	22.3
2002-04	1,168	26.2	23.6	28.8	576	87.6	75.2	100.0	43	4.3	3.1	5.9	191	20.9	15.7	26.0	325	18.5	15.0	22.0
2003-05	1,109	24.8	22.2	27.3	535	81.3	69.4	93.2	52	5.2	3.9	6.8	187	19.9	15.0	24.8	302	17.5	14.1	21.0
2004-06	1,049	23.4	20.9	25.8	524	79.6	67.8	91.4	57	5.6	4.2	7.2	160	16.6	12.1	21.0	284	16.8	13.4	20.2
2005-07	1,113	24.7	22.2	27.2	551	83.3	71.2	95.3	76	7.3	5.8	9.2	169	17.0	12.6	21.4	297	17.9	14.4	21.4
2006-08	1,069	23.6	21.1	26.0	544	81.6	69.7	93.4	65	6.1	4.7	7.8	161	15.7	11.5	19.9	284	17.3	13.8	20.8

Source: Alameda County HARS, 1990-08.

Table B.15: Three-Year HIV/AIDS by Gender and Race/Ethnicity

	Both Sexes				Female				Male			
	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
All Races	1,069	23.3	20.9	25.7	226	9.7	7.5	11.9	843	37.5	33.1	41.8
AfrAmer	544	81.6	69.7	93.4	166	46.7	34.4	59.0	378	121.3	100.1	142.4
AmerInd	<5	na	na	na	0	na	na	na	<5	na	na	na
API	65	6.1	4.7	7.8	14	2.6	1.4	4.3	51	9.8	7.3	12.9
Latino	161	15.7	11.5	19.9	24	4.8	3.1	7.1	137	26.1	18.6	33.7
White	284	17.3	13.8	20.8	20	2.4	1.5	3.7	264	32.8	25.9	39.7

Source: Alameda County HARS, 2006-08

Table B.16: Reportable Bacterial Sexually Transmitted Diseases, Three-Year Rolling Average, 1998-2009

		Total				Female				Male			
	Period	#	Rate	LCL	UCL	#	Rate	LCL	UCL	#	Rate	LCL	UCL
Chlamydia	1998-00	4,455	313.0	303.8	322.2	3,482	480.7	464.8	496.7	904	129.4	120.9	137.8
	1999-01	4,813	331.2	321.9	340.6	3,702	500.8	484.6	516.9	1,032	144.6	135.8	153.4
	2000-02	4,987	337.6	328.2	347.0	3,821	508.7	492.6	524.9	1,129	155.5	146.4	164.6
	2001-03	4,894	329.0	319.8	338.2	3,737	494.0	478.2	509.8	1,135	155.3	146.2	164.3
	2002-04	5,008	335.6	326.3	344.9	3,833	504.9	488.9	520.9	1,165	158.9	149.8	168.0
	2003-05	5,151	344.2	334.8	353.6	3,915	513.9	497.8	530.0	1,231	167.6	158.2	176.9
	2004-06	5,474	364.7	355.1	374.4	4,110	537.9	521.5	554.4	1,358	184.3	174.5	194.1
	2005-07	6,093	403.0	392.8	413.1	4,497	584.1	567.0	601.1	1,592	214.5	203.9	225.0
	2006-08	6,656	435.4	424.9	445.8	4,830	620.4	602.9	637.9	1,820	242.6	231.4	253.7
	2007-09	6,945	448.5	438.0	459.0	4,937	625.9	608.4	643.4	2,004	263.8	252.2	275.3
Gonorrhea	1998-00	1,843	129.5	123.6	135.4	1,012	139.8	131.2	148.4	793	113.5	105.6	121.4
	1999-01	1,950	134.2	128.3	140.2	1,042	140.9	132.4	149.5	866	121.3	113.3	129.4
	2000-02	2,030	137.4	131.4	143.4	1,059	141.0	132.5	149.5	954	131.3	123.0	139.6
	2001-03	1,941	130.5	124.7	136.3	999	132.0	123.8	140.2	932	127.5	119.3	135.7
	2002-04	1,831	122.7	117.1	128.3	924	121.7	113.8	129.5	902	123.1	115.1	131.1
	2003-05	1,846	123.3	117.7	129.0	936	122.9	115.0	130.8	907	123.4	115.3	131.4
	2004-06	2,059	137.2	131.3	143.1	1,037	135.7	127.4	143.9	1,018	138.1	129.7	146.6
	2005-07	2,248	148.7	142.5	154.8	1,148	149.1	140.5	157.7	1,096	147.6	138.9	156.4
	2006-08	2,179	142.6	136.6	148.5	1,111	142.7	134.3	151.1	1,066	142.1	133.5	150.6
	2007-09	1,976	127.6	122.0	133.3	972	123.3	115.5	131.0	1,003	132.1	123.9	140.3
Primary and Secondary Syphilis	1998-00	11	0.7	0.4	1.4	<5	na	na	na	7	na	na	na
	1999-01	16	1.1	0.6	1.8	<5	na	na	na	14	1.9	1.0	3.3
	2000-02	32	2.1	1.5	3.0	<5	na	na	na	30	4.2	2.8	6.0
	2001-03	40	2.7	1.9	3.7	<5	na	na	na	40	5.5	3.9	7.4
	2002-04	48	3.2	2.3	4.2	0	na	na	na	48	6.5	4.8	8.6
	2003-05	46	3.1	2.2	4.1	<5	na	na	na	44	6.0	4.4	8.1
	2004-06	57	3.8	2.9	4.9	<5	na	na	na	54	7.4	5.5	9.6
	2005-07	57	3.8	2.9	4.9	<5	na	na	na	54	7.3	5.5	9.5
	2006-08	68	4.4	3.4	5.6	<5	na	na	na	64	8.5	6.6	10.9
	2007-09	69	4.5	3.5	5.6	5	na	na	na	64	8.4	6.5	10.8

Source: ACPHD through CDPH, 1998-09.

Alameda County Public Health Department
1000 Broadway, Suite 500
Oakland, California 94607
(510) 267-8020
www.acphd.org