

# Alameda <br> County <br> Health <br> Status <br> Report 2003 




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## Acknowledgements

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The Alameda County Health Status Report 2003 examines the health status of residents in Alameda County. This report also describes the Alameda County Public Health Department's (ACPHD) current programs and future plans to improve community health.

Assessment is a core function of public health. ${ }^{1}$ The purpose of this report is to share timely assessment information with partners, agencies, and community residents. This process informs our mission to "work in partnership with the community to ensure optimal health and wellbeing of all people." We believe that improving health and well-being calls for active participation from many groups, including government, businesses, non-profits and community residents. Public health agencies and their partners must be committed to a broad array of activities in order to change the conditions that lead to the improved health and well-being of our residents. ${ }^{2}$

This report presents a select group of indicators that address social and demographic characteristics, maternal and child health, leading causes of death, chronic diseases, injury and violence, and communicable diseases. Data sources include birth, mortality, hospitalization, cancer and communicable disease incidence. The race/ethnicity, sex, and age distribution of the population are examined for each indicator. Trends over time and geographic distribution are presented for select indicators. Current health status is compared to California rates and to Healthy People 2010 national objectives ${ }^{3}$ where appropriate.

## Health Disparities

The findings of this report demonstrate the persistence of large racial and ethnic health disparities in Alameda County. The National Institutes of Health define health disparities as "differences in the incidence, prevalence, mortality, and burden of diseases and other adverse health conditions that exist among specific populations." ${ }^{14}$

Health status and health disparities (also referred to as health inequities) are shaped by a wide range of factors in the social, economic, natural, built, and political environments. ${ }^{2}$ Many studies have linked race/ethnicity, income and education with health. Poor people and people of color are more likely than others to be burdened by substandard housing, poor schools, pollution and public policy decisions that contribute to health risks. ${ }^{5}$

Inequities in income and education level persist in Alameda County. Poverty has changed little during the past decade. Approximately $14 \%$ of Alameda County children under 18 live in poverty. While we know that safe, affordable housing is essential for good health, close to one-quarter of renters spent $50 \%$ or more of their income on rent. Unemployment is on the rise. Marked disparities exist in the four-year high school dropout rates among school districts in Alameda County, with the Oakland Unified School District dropout rate far exceeding rates in other districts.

As indicated in the summary table that follows,

African-Americans clearly bear a larger burden of disease and death than other racial/ethnic groups for almost all the indicators examined. They have the highest rates of infant mortality, low birth weight, unintentional injury death, homicide, assault, AIDS, chlamydia, asthma, diabetes, coronary heart disease, stroke, lung cancer, and prostate cancer, as well as the lowest rates of immunization. The indicators where groups other than African Americans fare worse are first trimester prenatal care, unintentional injury and self-inflicted injury hospitalizations, tuberculosis, and breast cancer incidence.

Although the Latino population has the highest teen birth rate and a high rate of diabetes, it has the lowest rate of stroke and breast cancer incidence. Asians, as a group, fare better than other racial/ethnic groups in almost all of the indicators examined with the exception of tuberculosis where they have the highest incidence rate by far. For the first time, we are able to monitor the health status of the Native Hawaiian/Other Pacific Islander population for select indicators; this group has the highest rate of death from all causes combined and the lowest rate of first trimester entry into prenatal care. The White population in Alameda County has the highest rate of breast cancer incidence, suicide, unintentional injury hospitalizations, and self-inflicted injury hospitalizations.

Sex disparities also exist in Alameda County. Males die at an earlier age and have significantly higher death rates and hospitalization rates than do females for almost all the indicators examined. Females have higher rates of hospitalization due to suicide attempts, as well as higher rates of chlamydia.

A table detailing the status of Alameda County residents by health indicator is presented at the end of the executive summary. This table is complemented by a list of key findings for each indicator examined.

## Commitment to a Healthier Community

The Alameda County Public Health Department is committed to reducing health disparities. In

2002, the ACPHD produced A Framework for Change: Reducing Health Disparities in Alameda County to guide our planning. ${ }^{6}$ This document summarizes literature and identifies the most promising strategies that Alameda County can pursue in eliminating health disparities. Recommendations are broad and focus on the following:

1) identifying and creating healthful public policy (policies related to education, affordable housing, economic development, transportation, labor, and child care that support population health);
2) improving neighborhood living conditions (food, safety and housing);
3) implementing population-level disease prevention and health promotion strategies;
4) strengthening the public health department's capacity for research and evaluation; and
5) strengthening community capacity for reducing health disparities.

To learn more about social, behavioral and environmental determinants of health, the ACPHD will conduct a countywide community health survey in 2003. This information is key for developing effective programs to reduce health disparities.

The ACPHD will continue to collaborate with other government agencies, non-profits, businesses, and community residents to improve health and well-being and to close the gap in health status. Based on the findings in this report and a growing understanding of the social determinants of health, the ACPHD has selected priority health issues and broader determinants of health.

Priority health issues include improving access to health insurance and health care; increasing immunization rates; and reducing violence, the incidence of sexually transmitted diseases, and prevalence of chronic diseases. To make Alameda County a healthier place to live, the ACPHD will also focus on key determinants of health, including nutrition, food access, physical activity, housing, and safety.

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Selected Indicators, Alameda County with Status Comparison to Healthy People 2010 Objectives

| Indicator |  |  | Healthy People | County |  | 더누눈 |  | $\frac{\stackrel{5}{0}}{\frac{5}{4}}$ |  | $\begin{aligned} & \text { 읃 } \\ & \text { " } \end{aligned}$ | $\frac{9}{5}$ |  |  | $\frac{10}{10}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 2010 Objective ${ }^{1}$ | Year | Rate ${ }^{1}$ |  |  |  |  |  |  |  |  |  |
|  | Infant Mortality |  | 4.5 or less/ 1,000 live births | 2000 | $\bullet 4.6$ | $\bullet 8.5$ | * | * | * | 4.0 | 3.7 | * | x | x |
|  | Low Birth Weight |  | 5.0\% or less of live births | 2000-01 | -6.9 | -12.4 | * | $\bullet 7.2$ | * | $\bullet 5.5$ | $\bullet 5.3$ | $\bullet 8.3$ | x | x |
|  | First Trimester Prenatal Care |  | 90\% or more of live births | 2000-01 | $\bullet 88.9$ | $\bullet 86.9$ | $\bullet 87.7$ | 90.3 | $\bullet 73.3$ | $\bullet 84.8$ | 93.6 | $\bullet 86.1$ | x | x |
|  | Teenage Births (Age 15-19) ${ }^{2}$ |  | X | 2000-01 | 36.3 | 63.8 | * | 12.7 | * | 73.8 | 13.8 | 18.2 | x | x |
|  | Childhood Immunization |  | 90\% of all children by age 2 | $2002$ <br> survey | $\bullet 73.6$ | $\bullet 55.0$ | * | $\bullet 86.7$ |  | -65.5 | $\bullet 78.7$ | x | X | x |
|  | Unintentional Injury | Death | 17.5 or less | 99-00 | -23.5 | -32.7 | * | -19.0 | * | -21.7 | -23.1 | * | 15.8 | $\bullet 31.8$ |
|  |  | Hospitalization | x | 98-00 | 439.8 | 431.4 | * |  | 1.8 | 305.0 | 499.8 | x | 400.8 | 459.3 |
| $\frac{ㅊ ㅡ ㄹ ~}{\text { 를 }}$ | Motor Vehicle Crash | Death | 9.2 or less | 99-00 | -7.3 | * | * | 9.2 | * | 9.2 | 6.6 | * | 4.3 | -10.6 |
|  |  | Hospitalization | x | 98-00 | 94.2 | 103.0 | * | 43.1 |  | 70.1 | 97.3 | x | 70.4 | 118.5 |
|  | Homicide/ <br> Assault | Death | 3.0 or less | 99-00 | $\bullet 7.2$ | $\bullet 34.1$ | * | * | * | * | * | * | * | $\bullet 11.8$ |
|  |  | Hospitalization | x | 98-00 | 45.7 | 130.5 | * | 9.8 |  | 40.8 | 23.4 | x | 14.1 | 77.2 |
|  | Suicide/Self- <br> Inflicted Injury | Death | 5.0 or less | 99-00 | $\bullet 7.8$ | * | * | * | * | * | $\bullet 9.7$ | * | 3.2 | -13.0 |
|  |  | Hospitalization | x | 98-00 | 29.5 | 27.4 | * | 15.6 |  | 20.9 | 35.7 | x | 36.1 | 23.2 |
|  | AIDS | Incidence | 1.0 or less | 99-01 | -15.4 | $\bullet 56.1$ | * | $\bullet 2.7$ |  | -12.8 | $\bullet 8.8$ | x | -6.6 | -24.5 |
|  | Chlamydia | Incidence ${ }^{3}$ | $x$ | 99-01 | 341.4 | x | $x$ | x |  | $x$ | x | $x$ | 517.7 | 147.4 |
|  | TB | Incidence ${ }^{3}$ | 1.0 or less | 99-01 | -16.4 | $\bullet 21.9$ | * | -43.2 |  | -12.3 | $\bullet 2.4$ | x | -13.9 | -19.0 |


| Indicator |  |  | Healthy People 2010 Objective ${ }^{1}$ | County |  | 甭突 |  | $\frac{\sqrt{0}}{4}$ |  | $\begin{aligned} & \text { 은 } \\ & \text { 圭 } \end{aligned}$ | $\frac{\text { N }}{\frac{1}{3}}$ |  |  | $\frac{0}{\sum_{n}^{n}}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Asthma （All ages） | Death | x | 99－00 | 2.5 | ＊ | ＊ | ＊ | ＊ | ＊ | ＊ | ＊ | ＊ | ＊ |
|  |  | Hospitalization | x | 98－00 | 189.5 | 458.1 | ＊ | 116.0 |  | 123.1 | 115.0 | x | 195.3 | 180.2 |
|  | $\begin{aligned} & \text { Childhood } \\ & \text { Asthma } \\ & \text { (0-14 years) } \end{aligned}$ | Hospitalization | x | 98－00 | 420.2 | 1072.7 | ＊ | 197.9 |  | 266.7 | 194.9 | x | 317.5 | 518.3 |
|  | Diabetes | Death | x | 99－00 | 22.8 | 49.3 | ＊ | 16.5 | ＊ | 34.6 | 16.7 | ＊ | 20.2 | 26.3 |
|  |  | Hospitalization | x | 98－00 | 1201.3 | 2249.1 | 509.7 | 847.1 |  | 1171.1 | 963.6 | x | 1204.3 | 1205.2 |
|  | Coronary Heart Disease | Death | 166.0 or less | 99－00 | －188．5 | －266．4 | ＊ | 99.1 | ＊ | 156.0 | $\bullet 199.7$ | ＊ | 156.0 | －230．0 |
|  |  | Hospitalization | x | 98－00 | 1522.8 | 1762.7 | 491.3 | 1011.2 |  | 1021.1 | 1614.9 | x | 1220.9 | 1913.3 |
|  | Stroke | Death | 48.0 or less | 99－00 | －70．5 | －103．9 | ＊ | －65．7 | ＊ | － 56.1 | －68．6 | ＊ | －67．6 | $\bullet 75.1$ |
|  |  | Hospitalization | x | 98－00 | 580.2 | 874.3 | ＊ | 439.7 |  | 324.0 | 560.0 | x | 553.5 | 617.2 |
|  | All Cancer | Death | 159.9 or less | 99－00 | －190．4 | －259．4 | ＊ | 132.9 | ＊ | 140.4 | $\bullet 213.0$ | ＊ | －167．7 | －228．3 |
|  | Lung Cancer | Death | 44.9 or less | 99－00 | －50．9 | －70．9 | ＊ | 31.1 | ＊ | 33.0 | － 59.0 | ＊ | 42.7 | －63．6 |
|  |  | Incidence | x | 97－99 | 62.0 | 74.4 | ＊ | 37.0 |  | 39.4 | 67.7 | x | 53.9 | 73.9 |
|  | Female <br> Breast Cancer | Death | 22.3 or less | 99－00 | －26．9 | －34．7 | ＊ | ＊ | ＊ | ＊ | －34．5 | ＊ | 26.9 | x |
|  |  | Incidence | x | 97－99 | 165.0 | 131.6 | ＊ | 119.6 |  | 108.4 | 186.6 | x | 165.0 | x |
|  | Prostate Cancer | Death | 28.8 or less | 99－00 | －30．2 | －73．6 | ＊ | ＊ | ＊ | ＊ | －27．4 | ＊ | $\times$ | 30.2 |
|  |  | Incidence | x | 97－99 | 152.1 | 188.8 | ＊ | 84.3 |  | 94.1 | 146.5 | x | x | 152.1 |
| －Has met HP objective－HP objective not met <br> x Data not available or applicable．＊Rate cannot be calculated due to small number． <br> －Unless otherwise stated，rates are per 100，000 population and are annual averages． Rates for injury and chronic diseases are age－adjusted to US 2000 standard population． <br> ${ }^{2}$ Rates are per 1,000 females aged 15 to 19 ．${ }^{3}$ Excludes City of Berkeley cases． |  |  |  |  |  | Note that Healthy People 2010 Objectives are not available for many indicators．Also，note that the rates for deaths and maternal child health indicators among Asian and Native Hawaiian and other Pacific Islanders are separated between these racial／ethnic groups，while the rates for hospitalization，cancer incidence and commu－ nicable disease indicators are grouped together because of data availability． Note that death rates by race／ethnicity are based on year 2000. |  |  |  |  |  |  |  |  |

## Summary of Key Findings

## Social/Demographic

- According to Census 2000, the Alameda County population is racially and ethnically diverse. No group comprises a majority.
- There has been little change in the poverty rate since 1989. Approximately $14 \%$ of children under 18 live in poverty.
- The unemployment rate in Alameda County has been increasing since 2000, reaching $6 \%$ in the first half of 2002.
- Marked disparities exist in the four-year high school dropout rates among school districts in Alameda County, ranging from $20 \%$ in Oakland Unified School District to $0 \%$ in Piedmont City Unified School District.


## Maternal, Child, and Adolescent Health

## Live Births

- The birth rate in Alameda County remained stable in 2001 at 15.2 births per 1000 population.
- Latinos and Native Hawaiian/Other Pacific Islanders had birth rates in 2000-2001 that were substantially higher than those among other race/ethnic groups.
- Over $7 \%$ of births were to mothers 19 years and under.


## Infant Mortality

- The infant mortality rate in Alameda County decreased significantly from 8.9 deaths per 1000 live births in 1990 to 4.6 in 2000. Such declines have been observed for all racial-ethnic groups.
- African Americans did not meet the Healthy People 2010 national objective of no more than 4.5 infant deaths per 1,000 live births. In fact, their infant death rate was 8.5 per 1,000
live births compared to 4.0 for Latinas and 3.7 for Whites.


## Low Birth Weight

- Overall, $6.9 \%$ of all births in Alameda County were low birth weight. This percentage exceeds the Healthy People 2010 national objective of no more than $5.0 \%$.
- African Americans and teenagers were more likely to have low birth weight babies when compared to other racial/ethnic and age groups.


## Prenatal Care

- Overall, $88.9 \%$ of pregnant women in Alameda County began prenatal care during the first trimester. This percentage is very close to the Healthy People 2010 national objective of 90.0\%.
- Rates of first trimester prenatal care have increased over time for all racial/ethnic groups. However, only $73 \%$ of Native Hawaiians/Other Pacific Islanders (a newly monitored racial group) entered prenatal care early.


## Births to Teens

- The average rate of birth to teens $15-19$ years of age in Alameda County was 36.3 per 1,000 females, a rate lower than the state average of 50.3 per 1,000.
- Teen birth rates among Latinas and African Americans were three to five times higher than teen birth rates among Asians, Whites and those of two or more races.


## Childhood Immunization

- According to California's annual Kindergarten Retrospective Survey, the percentage of kindergarteners fully up-to-date on immunizations by two years of age steadily improved from $60.0 \%$ in 1998 to $73.6 \%$ in 2002.
- African American and Latino children have the
lowest immunization rates compared to other racial/ethnic groups.


## Dental Caries

- As many as 44,500 children 2 to 8 years of age in Alameda County may have untreated tooth decay. The highest prevalence of untreated tooth decay is found among ethnic minorities.


## Death from All Causes \& Leading <br> Causes of Death

- The rate of death from all causes declined from 916.0 deaths per 100,000 in 1990 to 789.2 per 100,000 in 2000.
- Males had higher death rates in every age group than females.
- The three leading causes of death in Alameda County were diseases of the heart, cancer, and stroke. These accounted for $62 \%$ of all deaths.
- The three leading causes of premature death in Alameda County were cancer, diseases of the heart, and unintentional injuries. These accounted for $54 \%$ of all years of potential life lost annually.


## Chronic Diseases

## Asthma

- Asthma death rates among those 35-64 and 65 and over in Alameda County exceeded the Healthy People 2010 national objectives.
- The age-adjusted rate of asthma hospitalization among children under 15 years of age was 420.2 per 100,000 , more than twice the California rate of 195.5 .
- African American males under age 15 were hospitalized at a rate four times higher than Latino males and five times higher than White or Asian males.


## Diabetes

- The diabetes death rate in Alameda County
was 22.8 per 100,000 , higher than in neighboring counties or the state as a whole.
- Diabetes death rates increased from 1990 to 1995, and leveled off in the latter half of the decade. Rates of diabetes-related hospitalization increased significantly from 1995 to 1999 and leveled off in 2000.
- Rates of diabetes death were higher among African Americans and Latinos compared to other racial/ethnic groups. African American males and females had diabetes hospitalization rates that were twice the rates in other groups.
- Males died from diabetes at a higher rate than females. However, African American and Latino females were hospitalized for diabetesrelated illnesses at higher rates than their male counterparts.


## Coronary Heart Disease

- Alameda County's rate of death from coronary heart disease (CHD) was 188.5 per 100,000, a rate that exceeds the Healthy People 2010 national objective of no more than 166 deaths per 100,000.
- Rates of death from CHD declined during the 1990s while rates of hospitalization for related illnesses remained stable.
- Overall, males died from CHD at a rate nearly $50 \%$ higher than the female rate. The CHD death rate was substantially higher among African Americans than among other racial/ethnic groups.
- African Americans of both sexes were hospitalized for CHD at rates second only to White males.


## Stroke

- Alameda County's rate of death from stroke was 70.5 per 100,000 , a rate that exceeds California's rate as well as the Healthy People 2010 national objective of no more than 48 deaths per 100,000.
- Rates of death from stroke remained stable in the latter half of the 1990s. Rates of stroke death as well as hospitalization were higher among males than females.
- Compared to other racial/ethnic groups, African Americans were substantially more likely to die of stroke or be hospitalized for it.


## All Cancers

- Although the death rate from all cancers has declined over the past decade, Alameda County has not yet met the Healthy People 2010 national objective of no more than 159.9 per 100,000.
- Alameda County's death rate from all cancers was 190.4 per 100,000 , a rate higher than in neighboring counties and the state as a whole.
- The death rate for all cancers among males was $36 \%$ higher than the rate for females.
- African Americans had a significantly higher cancer death rate than Asians, Latinos, or Whites.


## Lung Cancer

- Although the lung cancer death rate has been declining since 1993, Alameda County, with a rate of 50.9 per 100,000 , has not met the Healthy People 2010 national objective of no more than 44.9 per 100,000 . Lung cancer incidence has been stable since 1996.
- The male lung cancer death rate was approximately $50 \%$ higher than the female rate. The male lung cancer incidence rate was $37 \%$ higher than the female rate.
- African Americans had significantly higher death and incidence rates of lung cancer compared to Whites, Asians, or Latinos.


## Female Breast Cancer

- Alameda County's female breast cancer death rate was 26.9 per 100,000 . This rate exceeds the Healthy people 2010 national objective of no more than 22.3 per 100,000 females.
- Breast cancer incidence rates have increased in Alameda County in the last decade, a pattern that can be explained in part by an increase in screening practices and diagnosis at earlier stages of the disease.
- White females had a significantly higher breast cancer incidence rate than African Americans, Asians, or Latinos.


## Prostate Cancer

- Alameda County has experienced a decline in the prostate cancer death rate since 1993. However, the County rate of 30.2 per 100,000 males exceeds the Healthy People 2010 national objective of no more than 28.8 per 100,000 males.
- African Americans had a prostate cancer death rate 2.7 times the rate for Whites. The incidence of prostate cancer was the highest among African Americans compared to other racial/ethnic groups.
- Prostate cancer incidence rates increased in the late 1990s, which is consistent with increases in screening practices and early diagnosis among older men in recent years.


## Injury

## Unintentional Injuries

- The death rate from unintentional injury in Alameda County was 23.5 per 100,000 , a rate that exceeds the Healthy People 2010 national objective of no more than 17.5 unintentional injury deaths per 100,000 people.
- The rate of unintentional injury death was substantially higher among African Americans compared to other racial/ethnic groups.
- Males were twice as likely to die from injuries as females. They were also more likely to be hospitalized for injuries.


## Motor Vehicle Crashes

- Alameda County has met the national Healthy People 2010 objective of no more than 9.2
motor vehicle crash deaths per 100,000 . The County's rate was 7.3 per 100,000.
- The death rate from motor vehicle crashes among Alameda County residents declined throughout the 1990s.
- The motor vehicle crash death rate was two times higher among males than females.
- African American males had the highest rates of hospitalization for motor vehicle crashes, followed by White and Latino males. Asians of both sexes had the lowest rates.


## Homicide

- Alameda County ranks 6th among California's 58 counties in deaths due to homicide. The County's homicide rate was 7.2 per 100,000 , a rate that exceeds the Healthy People 2010 national objective of no more than 3 homicide deaths per 100,000.
- The homicide rate declined throughout the 1990s and leveled off in 2000. While no data are shown, rates appeared to begin climbing again in 2001 and 2002.
- The male homicide rate was nearly five times higher than the female rate. The same is true of hospitalizations for assault.
- African Americans were ten times more likely to die as a result of a homicide than all other racial and ethnic groups combined. Nearly two-thirds of all homicide victims are African American.


## Suicide

- Alameda County's suicide rate is 7.8 per 100,000 , a rate that exceeds the Healthy People 2010 national objective of no more than 5 suicide deaths per 100,000.
- Over three-quarters of suicide victims were male. In contrast, the majority of those hospitalized for self-inflicted injury were female.


## Communicable Diseases

## AIDS

- In 2001, Alameda County reported 191 new

AIDS cases, the lowest case count since 1985. AIDS mortality in Alameda County decreased to 71 deaths in 2001.

- The distribution of AIDS by race/ethnicity has shifted from affecting mostly Whites in the early part of the epidemic, to Latinos and African Americans more recently. In 2001, the case rate among African Americans was eight times that of Whites and nearly four times that of Latinos.
- Exposure to HIV by heterosexual contact has increased markedly over the past five years and accounted for about one-third of cases in 2001. Men-who-have-sex-with-men (MSM) continues to be the predominant exposure mode for HIV infection.


## Chlamydia

- There were 4,675 cases of chlamydia in Alameda County in 2001. Chlamydia accounts for over $75 \%$ of the reported sexually transmitted diseases each year.
- The highest rates of chlamydia are seen among adolescents, young adults, and African Americans.
- Over three quarters of the reported chlamydia cases in Alameda County were female. This is largely attributed to expanded screening efforts targeting women.


## Tuberculosis

- The case rate in Alameda County was 16.4 per 100,000 residents, the third highest case rate among California's 58 counties. Alameda County reported 196 cases of tuberculosis in 2001.
- The majority of Alameda County's tuberculosis cases have occurred among ethnic minorities. The Asian/Pacific Islander community has been disproportionately affected by TB.
- Over $80 \%$ of new TB cases were among individuals born outside the United States.
- Over $85 \%$ of new TB cases were among adults aged 25 years and older, with the greatest number being in the 25-44 age group.


## Report Overview

## Structure of Report

The Alameda County Health Status Report 2003 presents the health status of the residents of Alameda County. It includes six main sections:

1. Social/demographic profile
2. Maternal, child, and adolescent health
3. Death from all causes and leading causes of death
4. Chronic diseases
5. Injury
6. Communicable diseases.

Each section contains several health indicators. For each indicator, we include:

Indicator definition - What is it?
A brief background - Why is it important?
Health data - What is Alameda County's status?
Program activities - What are we doing?
Recommendations for future action -
What else do we need to do?
In addition to the core health indicators examined previously in the Alameda County Health Status Report, 2000, the current report includes several new measures of illness or morbidity: hospitalization for asthma, diabetes, coronary heart disease, stroke, unintentional injury, motor vehicle crash, assault, and self-inflicted harm. Also new are cancer incidence data for lung, breast and prostate cancer.

## Important Changes In This Report

There are four major changes in this report that make it different from, and therefore not comparable to, the previous Alameda County Health Status Report (2000):

1. Change in disease classification system. Cause of death data has been coded using the International Classification of Diseases, 10th Revision (ICD-10). ${ }^{1}$ Every decade or two, the

World Health Organization revises the international disease classification system. The current system was implemented for recording cause of death in 1999. Hospitals in California continue to use ICD-9 codes. ${ }^{2}$
2. New categories of race introduced in Census 2000. The Census 2000 form allowed for people to identify with more than one racial group and separated Native Hawaiians/Other Pacific Islanders (NHOPI) from Asians and placed them into their own group. These changes allow for representation of our increasingly diverse population. However, in the presentation of health information, the new, smaller groups (NHOPI and those of two or more races) may not have a sufficient number of events (i.e., <20) on which to base rates. In addition, the old racial groups may no longer be comparable to the new racial groups.
3. Change in standard population. Age-adjusted rates presented in this report are based on the 2000 projected United States population, ${ }^{3}$ also referred to as the 2000 standard population. This standard reflects an estimate of the age structure of the U.S. population in 2000 . Use of ageadjusted rates in disease reporting allows us to express the burden of disease in different groups, racial groups for instance, in units that are comparable even though the age composition of the groups may differ. The 2000 standard population is older than the previous 1940 standard. Thus rates of disease, especially the chronic diseases like cancer and heart disease, will be higher using this new standard.
4. New National Health Objectives. In 2000, The Department of Health and Human Services issued Healthy People 2010, ${ }^{4}$ a comprehensive set of 467 health objectives in 28 focus areas. This expanded and updated set of health objectives is based on targets that reflect 1) progress made toward the Year 2000 health objectives and 2) the age structure of the U.S. population in the year 2000. The new targets are based on the 2000 projected U.S. population. The Healthy People 2000 national objectives were based on the 1940 standard population.

Taken together, these four changes alter counts of the major causes of death, the racial groups that
we consider when looking at rates of mortality and morbidity, the standard population we use to compare them, and the national targets toward which we aim. Therefore, this lack of comparability over time means that we must start with a new baseline of health measures. Rates and trends we monitored previously alerted us to health disparities we need to address. However, it would be misleading to draw direct comparisons with data that the Alameda County Public Health Department has presented in the past.

## Using the Report

Age-adjusted rates are used to report chronic disease and injury mortality and morbidity. Crude, or unadjusted rates, are used to report communicable diseases. For reporting maternal and child health indicators, age-specific rates, as well as rates based on number of live births, are used.

Most sections open with a bar chart showing the Alameda County rate compared to rates in neighboring counties and the state. For the most part, these rates are taken from the California Department of Health Services publication, County Health Status Profiles, 2002.5 Due to small differences in counts and choice of population denominator, they may not correspond directly to the overall Alameda County rate presented in the summary indicator table or the tabular appendices. Such discrepancies are unavoidable and do not affect the conclusions that might be drawn from the data.

Throughout the report, the term Latino is used to describe people of Hispanic or Latino origin. All data (case/numerator and population/denominator) is processed so that Hispanic or Latino origin is classified as such, regardless of race. Also in this report, the term American Indian is used inclusively to refer to Native Americans and

Alaska Natives and the term African American is used to refer to those who are black or African American.

Included at the back of the report are two appendices, the Technical Appendix and the Tabular Appendix. The Technical Appendix documents data sources, limitations, definitions, and some statistical terms. The Tabular Appendix includes a set of tables for most of the data shown graphically in the report. The tables include counts (usually average annual number of events), rates, and $95 \%$ confidence intervals. Tables are not included for State-level data or for Census data.

## References

1. World Health Organization. International Statistical Classification of Diseases and Related Health Problems, Tenth Revision. Geneva: World Health Organziation. 1992.
2. World Health Organization. Manual of the International Statistical Classification of Diseases, Injuries and Causes of Death, Ninth Revision: Volume 1. Geneva: World Health Organziation. 1977.
3. Klein RJ, Schoenborn CA. Age adjustment using the 2000 projected U.S. population. Healthy People Statistical Notes, no. 20. Hyattsville, Maryland: National Center for Health Statistics. January 2001.
4. U.S. Department of Health and Human Services. Healthy People 2010. 2nd ed. With Understanding and Improving Health and Objectives for Improving Health. 2 vols. Washington, DC: U.S. Government Printing Office, November 2000.
5. California Department of Health Services. County Health Status Profiles, 2002.


## Age

Age is perhaps the most powerful predictor of the kinds of future health challenges that a community faces and must be considered when allocating scarce resources. While all age groups need access to affordable and appropriate primary care, different age groups have specific needs based upon their stage in the life course.

- Infants need to be given the healthiest start possible, beginning with prenatal care of their mothers. They need to be protected as much as possible from premature birth, low birth weight, sudden infant death, infectious diseases, and injuries.
- Children need adequate, up-to-date immunizations and good preventive medical and dental care. They need to be protected from motor
vehicle-related injuries, poisoning, burns, abuse, and infectious diseases.
- Teens and young adults need access to information about maintaining good physical and mental health—avoiding tobacco, alcohol, and drug use, developing healthy eating habits, preventing sexually transmitted diseases and unwanted pregnancy, and avoiding automobile and firearm-related injuries.
- Working age adults need regular screenings for treatable conditions. In addition, women of childbearing age need access to affordable, culturally appropriate reproductive care.
- Seniors over 65 years of age need prevention education and care for chronic diseases, injuries, and depression. Additional focus should be on affordable prescription medications and maintaining quality of life.

The most notable changes in the population between 1990 and 2000 were in the age groups $25-34$ and 45-54. The percentage of the population in the 45-54 age group increased dramatically, while the percentage in the 25-34 age group decreased. ${ }^{1}$ This pattern is similar to that at the state and national levels and reflects the aging of the postWorld War II generation.

## Sex by Age

The numbers of males and females in the population are similar, except that in the older age groups females outnumber males.

## Race and Ethnicity

Alameda County is one of the most racially and ethnically diverse regions in the nation. Because racial and ethnic groups experience disparities in disease, disability, and utilization of health care services, the racial/ethnic composition of the population is an important consideration in health planning.

This chart shows how racially diverse Alameda County has become. No group comprises a majority. Alameda County has a greater proportion of African Americans and Asians, and fewer Latinos and Whites, when compared to California.

Figure 1A. 1
Population by Age Group
Alameda County, 1990 and 2000 Census


1990 Population: 1,279,182
2000 Population: 1,443,741

## Figure 1A. 2

Population (in Thousands) by Age and Sex Alameda County, Census 2000


Figure 1B. 1
Population by Race/Ethnicity Alameda County, Census 2000


Total Population $=1,443,741$

## Figure 1B. 2

Alameda County Population by Race/Ethnicity
Percent in Each Group, 1990 and 2000

|  | 1990 | 2000 |
| :--- | ---: | ---: |
| White | 53.2 | 40.9 |
| Asian | 14.4 | 20.3 |
| Hispanic/Latino | 14.2 | 19.0 |
| Black/African American | 17.4 | 14.6 |
| American Indian/Alaska Native | 0.5 | 0.4 |
| Native Hawaiian/Other Pacific Islander | -- | 0.6 |
| Some Other Race | 0.2 | 0.3 |
| Two or More Races | -- | 3.9 |

## Figure 1C. 1

Language Spoken at Home
Alameda County, Census 2000


For the 2000 Census, the U.S. Census Bureau introduced changes in the question on race. The question on race was revised so that respondents could choose more than one race. In addition, Hawaiians and other Pacific Islanders were separated from the Asian race category and placed in a new category called 'Native Hawaiian or Other Pacific Islander.' As a result of these changes, a direct comparison to prior census years is not possible.

However, a few general shifts are notable: there was a substantial decrease in the White population and a smaller decrease in the African American population. There were increases in the Asian and Latino populations. Some of the change may be explained by the new multiple race category rather than true demographic shifts. Nearly four percent of the non-Hispanic population in 2000 identified themselves as belonging to two or more racial groups.

## Languages Spoken

Alameda County residents speak a variety of languages at home. English is the most common household language in Alameda County, spoken in $63.7 \%$ of households. Asian/Pacific Island languages are spoken in $14.5 \%$ of households, and Spanish is spoken in $12.8 \%$ of households. Other Indo-European languages are spoken in $7.7 \%$ of households, and various other languages are spoken in remaining households.

## Income

Lower income is associated with a variety of poor health outcomes. For instance, people with lower income have a higher risk of mortality at all ages as well as higher rates of some chronic and infectious diseases.

Many poor people live in unhealthy environments where they are exposed to indoor air pollutants, such as mold and dust, and outdoor air pollutants, such as auto emissions from nearby freeways and other chemical emissions from nearby industry. These environmental conditions,
combined with limited access to medical and preventive health services, place many low income Alameda County residents at increased risk of chronic diseases, including heart disease, diabetes and asthma.

In 1999, median household income in Alameda County was $\$ 55,946$, compared to $\$ 47,493$ in California. Nearly $45 \%$ Alameda County households earned $\$ 50,000$ per year or less. Twenty-one percent earned under $\$ 25,000$ per year, and roughly the same number earned over $\$ 100,000$ per year.

## Poverty

The poverty threshold is defined by the U.S. Census and varies by family size and composition. In 1999, a family of four was said to be living in poverty if they earned less than $\$ 17,029$ in a year. These guidelines, however, do not vary geographically and thus do not take into account the higher cost of living in Alameda County, nor do they take into account expenses such as health care and child care. Thus, official poverty estimates understate the real proportion of the population living in poverty.

Other organizations have generated more realistic estimates of the minimum earnings a family would need in Alameda County. These estimates range from $\$ 44,000$ to $\$ 65,000$, amounts that are 2.6 to 3.8 times the poverty level for a family of four. ${ }^{3}$

Overall, poverty rates in Alameda County (as defined by the U.S. Census Bureau) are consistently lower than those in California. In addition, the proportion of children under 18 years of age living in poverty is consistently higher than that among the population 18 years of age and older, in both Alameda County and California as a whole.

In Alameda County, there was little change in poverty from 1989 to 1999. The proportion of children under 18 living in poverty decreased slightly from $15.4 \%$ in 1989 to $13.8 \%$ in 1999. In comparison, the proportion of those 18 and over living in poverty rose slightly from $9.1 \%$ in 1989 to $10.1 \%$ in 1999 .


The map on the following page shows poverty levels for children under 18 years of age by census tract in Alameda County. The highest poverty levels--greater than $40 \%$ of children living in poverty--are concentrated in West Oakland, East Oakland, and parts of Berkeley.


Figure 1D. 2
Percent of Children and Adults Living in Poverty Alameda County and California, 1989 and 1999



## Housing

The Bay Area economic boom of the 1990s brought with it skyrocketing home prices and rental rates, making it more difficult for those on the lower end of the socioeconomic spectrum to make ends meet.

Access to quality housing that is safe and affordable is essential for achieving positive health outcomes. As people spend more of their income on housing costs, less money is available for health care, childcare, and other necessities for good health.

According to Census 2000, $45 \%$ of all occupied housing units in the county were renter-occupied, and $55 \%$ were owner-occupied. Alameda County had a rental vacancy rate of $2.5 \%$ and a homeowner vacancy rate of $0.7 \%$.

The median home price in Alameda County rose from $\$ 355,000$ in December 2000 to $\$ 364,000$ in December 2001. ${ }^{3}$ In comparison, the median home price in California was $\$ 283,136$ in August of 2001. ${ }^{4}$

In 1999 , nearly $21 \%$ of renters spent $50 \%$ or more of their income on rent. ${ }^{1}$

## Unemployment

The unemployment rate is one traditional measure of the economic health of a community. In order to be officially classified as unemployed, a person must be available for work and must have actually searched for work within the previous four weeks. Those who are no longer actively searching for employment are not included in this statistic. Therefore, unemployment statistics may underrepresent the actual percentage of the population that is unemployed.

The unemployment rate in Alameda County is consistently lower than in California. Following a peak of $6.6 \%$ in 1993, unemployment in Alameda County declined to a low of $3 \%$ in 2000 and began to climb again in 2001. According to the California Employment Development Department, monthly unemployment rates for the first half of 2002 in Alameda County have exceeded $6 \%{ }^{5}$

Figure 1F. 1
Educational Attainment Among Adults Aged 25 \& Older
Alameda County, Census 2000


Figure 1F. 2
Four-Year Dropout Rate by District, Grades 9-12 Alameda County Public High Schools, 2000-2001 Academic Year


## Education

Educational statistics can tell us a great deal about the community's future. For example, individuals who do not graduate from high school are less employable, more likely to have lower earned incomes, and more likely to become dependent upon public support. In addition, persons with less than a high school education are more likely to engage in risky health behaviors, and to have overall poorer health outcomes.

Among adults aged 25 years and older in Alameda County, $17.6 \%$ have not completed high school. Nearly $42 \%$ have some kind of college degree (AA, Bachelors or advanced). In comparison, $18.8 \%$ of Californians 25 years of age and older have not completed high school, and $27.4 \%$ have some kind of college degree.

## Public High School Dropout Rates by District

The California Department of Education publishes an estimated four-year dropout rate called a 'derived' dropout rate. ${ }^{6}$ This rate is an estimate of the percent of students who would drop out in a four year period (grades 9-12) based on data from a single year. It takes into account the number in each grade level who dropped out in a single year, for instance, the 2000-2001 school year. In contrast, an actual four-year dropout rate would require following individual students through all four high school years.

The high school dropout rate was lower in Alameda County during the 2000-2001 academic year than in California as a whole ( $8 \%$ compared to $11 \%$ ). While most districts had very low dropout rates, three districtsBerkeley, Oakland, and Newark Unified School Districts-had rates exceeding the county total.

The Oakland Unified School District is a large district with $20 \%$ of the county's public school students and a high school dropout rate that is nearly double the state rate ( $19.7 \%$ versus $11 \%$ ). Therefore, it has a large influence on the total county dropout rate. Without Oakland Unified, Alameda County's four-year derived dropout rate would be 1.1\%.

## References and Notes

1. U.S. Census Bureau. American Factfinder: (http://factfinder.census.gov/servlet/BasicFactsSe rvlet), 2002.

Most information presented in this section is found in Census 2000, Summary File 1 or Summary File 3. Where appropriate, comparable information was obtained from American Factfinder for the 1990 Census.
2. Sources of cost of living guidelines:
a) Equal Rights Advocates (http://www.equalrights.org/welfare/ssavg.htm);
b) Economic Policy Institute (http://www.epinet.org/datazone);
c) The California Budget Project (http://www.cbp.org/1999/9910mem.htm).
3. State of California Department of Finance, Financial and Economic Data, California County Profiles, (http://www.dof.ca.gov/HTML/FS_DATA/profiles/pf_home.htm), December 2002.
4. California Association of Realtors, Economics, Market Trends, (http://www.car.org), December 2002.
5. State of California, Employment Development Department, Labor Market Information (http://www.edd.ca.gov/employer.htm), July 2002.
6. California Department of Education, Educational Demographics Unit, (http://data1.cde.ca.gov/dataquest/); November 2002.

## Notes on definition of dropouts and calcula-

 tion of rates from CDE website:Four-Year Derived Rate Formula: (1-((1-(drop gr $9 /$ enroll gr 9$))^{*}(1-($ drop gr 10/enroll gr 10) $) *$ (1(drop gr 11/enroll gr 11))*(1-(drop gr 12/enroll gr 12))))* 100

The 4 -year derived dropout rate is an estimate of the percent of students who would drop out in a four year period based on data collected for a single year. To create an actual 4 -year rate we would need to collect individual student data and be able to track such data over time.

The California Department of Education defines a high school dropout as a person who meets the following criteria:

- was formerly enrolled in grades $7,8,9,10,11$, or 12
- has left school for 45 consecutive school days and has not enrolled in another public or private educational institution or school program
- has not re-enrolled in the school
- has not received a high school diploma or its equivalent
- was under twenty-one years of age
- was formerly enrolled in a school or program leading to a high school diploma or its equivalent

This includes students who have moved out of the district, out of state, or out of the United States and are not known to be in an educational program leading toward a high school diploma or its equivalent.

Districts are also responsible for determining the status of their "no-show" students. "No-shows" are students who completed a grade, but did not begin attending the next grade the following year.


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. Maternal and child health ( MCH ) indicators include those that affect pregnant and postpartum women, as well as the health and survival of their infants and children. This section covers key MCH indicators: infant mortality, low birth weight, prenatal care, births to teenagers, immunizations, and dental health.

## Characteristics of Live Births

The average number of live births in Alameda County was 22,080 per year from 2000 to 2001. The birth rate has stabilized since 1995 at approximately 15.2 live births per 1,000 people in 2001 .

During the period 2000 to 2001, nearly $60 \%$ of all
births occurred among Whites and Latinos (29.0\% and $28.7 \%$, respectively), followed by Asians (24.5\%), and African Americans (14.2\%). A small remainder was to American Indians, Native Hawaiians/Other Pacific Islanders, those who identified themselves with two or more races, and others.

The highest birth rates were among Native Hawaiian/Other Pacific Islanders and Latinos (24.2 and 23.1 per 1,000 people, respectively). Mothers of two or more races had the lowest birth rate of all groups ( 6.3 per 1,000 ).

A majority of the births (73.2\%) were to mothers 20 to 34 years of age. Over $7 \%$ of the births were to teenage mothers (19 and under), and 19.3\% were to those 35 years and older.

In 2000, nearly half the births in Alameda County (47.8\%) were to foreign-born mothers. Almost $81 \%$ of those giving birth had a high school degree. One out of four births was funded by Medi-Cal.

## Figure 2A. 1

Select Characteristics of Live Births to Alameda County Residents 2000-2001 Average Number of Births=22,080

|  | Births | $\%$ | Birth Rate |
| :--- | ---: | ---: | ---: |
| Birth Rate by Year |  |  |  |
| 1990 | 23,315 | - | 18.1 |
| 1995 | 20,441 | - | 15.2 |
| 2000 | 22,164 | - | 15.4 |
| 2001 | 21,995 | - | 15.2 |
| Race/Ethnicity of Mother |  |  |  |
| African American | 3,142 | $14.2 \%$ | 14.9 |
| American Indian | 57 | $0.3 \%$ | 10.7 |
| Asian | 5,401 | $24.5 \%$ | 18.5 |
| Latina | 6,335 | $28.7 \%$ | 23.1 |
| Native Hawaiian \& Other Pacific Islander | 205 | $0.9 \%$ | 24.2 |
| White | 6,407 | $29.0 \%$ | 10.8 |
| Two or more Races | 357 | $1.6 \%$ | 6.3 |
| Other/ Unknown/ Withheld | 177 | $0.8 \%$ | 37.9 |
| Age of Mother (years) |  |  |  |
| 19 and under | 1,662 | $7.5 \%$ | - |
| $20-34$ | 16,166 | $73.2 \%$ | - |
| 35 and older | 4,252 | $19.3 \%$ | - |
| Mother $\geq 12$ yrs education | 17,446 | $80.9 \%$ | - |
| Medi-Cal Delivery | 5,671 | $25.7 \%$ | - |

*Birth rates are births per 1,000 population.


## Infant Mortality

## What is it?

Infant mortality is 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.

## Why is it important?

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.

Nationally, the infant mortality rate has declined steadily over the last decade, from 9.2 per 1000 live births in 1990 to 6.9 in 2000. ${ }^{1}$ About half of all infant deaths are attributable to four causes: birth defects, disorders related to pre-term births and low birth weight, sudden infant death syndrome (SIDS), and maternal complications of pregnancy. ${ }^{2}$

Higher rates of infant mortality are associated with: young age of mother ( $<17$ years), older age of mother (>43 years), substance abuse by mother, pre-term birth, low birth weight, exposure to second hand smoke, inadequate prenatal care, infections and other complications during pregnancy. ${ }^{3}$

## What is Alameda County's Status?

The infant mortality rate in Alameda County in 2000 was 4.6 per 1,000 live births. This rate is only slightly higher than the new Healthy People 2010 national objective of no more than 4.5 infant deaths per 1,000 live births.
Alameda County's infant mortality rate is lower than California's and similar to those in neighboring counties. ${ }^{4}$

The infant mortality rate in Alameda County has declined significantly in the last decade, from 8.9 deaths per 1,000 live births in 1990 to 4.6 in 2000. A similar trend has been seen in every racial/ethnic group, as it has in the state as a whole.

Figure 2B. 1
Infant Mortality Rate
Selected Counties and California, 2000


## Figure 2B. 2

Infant Mortality Rate
Alameda County and California, 1990-2000


Figure 2B. 3
Infant Deaths by Race/Ethnicity Alameda County, 2000



In 2000, 103 Alameda County infants died before their first birthday. Nearly two-thirds of these deaths (66) occurred during the neonatal period, the first 27 days of life. The remaining one-third occurred during the postneonatal period, from 28 days to one year after birth.

Of the infants who died, $26.2 \%$ were African American, $24.3 \%$ Latino, $23.3 \%$ White, $15.5 \%$ Asian, and $2.9 \%$ Native Hawaiian and Other Pacific Islander. Nearly $7 \%$ of the infants were identified as two or more races.

On average, during the years 1999 and 2000, nearly half of all infant deaths were attributable to four causes: $24.5 \%$ were related to birth defects, $10.4 \%$ for each of low birth weight and SIDS, and $4.2 \%$ for respiratory distress syndrome.


## Low Birth Weight

## What is it?

Infants weighing less than 2,500 grams ( 5 lbs 8 oz) at birth are considered low birth weight (LBW).

## Why is it important?

Achieving a healthy weight is crucial for a newborn's survival. Low birth weight is the most com-
mon 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, low birth weight infants who survive their first year are at greater risk of long-term physical and developmental complications than are infants of normal birth weight.

Many factors increase the risk of low weight at birth. Most important among these 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 pregnancyassociated hypertension. ${ }^{3,5}$

## Figure 2C. 1

Percent Low Birth Weight
Selected Counties and California, 1998-2000 Average


## Figure 2C. 2

Percent Low Birth Weight
Alameda County and California, 1990-2001


## Figure 2C. 3

Percent Low Birth Weight by Race/Ethnicity
Alameda County, 2000-2001 Average


## What is Alameda County's Status?

Based on a three-year average, 1998-2000, the rate of low birth weight in Alameda County was $6.8 \%$, one of the highest rates among California's 58 counties. ${ }^{7}$ This rate exceeds the Healthy People 2010 national objective of no more than $5 \%{ }^{3}$

More recent data (2000-2001) show that an average of $6.9 \%(1,525)$ of the 22,080 live births in the county were low birth weight. Of the low birth weight births, 276 ( $18 \%$ ) were very low birth weight ( $<1,500$ grams).

During the 1990s, the proportion of low birth weight births remained relatively stable in Alameda County at approximately $7 \%$, a rate consistently higher than the state rate of approximately $6 \%$.

African Americans had the highest percentage of low birth weight births from 2000 to 2001 (12.4\%), followed by those of two or more races (8.3\%), Asian (7.2\%), Latino (5.5\%) and White (5.3\%).

As a group, teen mothers 19 years of age and under had the highest percentage of low birth weight births (9.4\%), followed by mothers 35 years of age and older (7.9\%.)

## Figure 2C. 4

Percent Low Birth Weight by Age of Mother Alameda County, 2000-2001 Average



## Prenatal care

## What is it?

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 3 months) of her pregnancy.

## Why is it important?

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.

Risk factors for late entry into prenatal care include lack of culturally appropriate pregnancy testing sites, teenage pregnancy, less than a high school education, and a large number of children. Domestic violence, cultural beliefs, drug abuse, single parenthood, and poverty may also prevent women from receiving timely prenatal care. ${ }^{6}$

## What is Alameda County's Status?

For the period 1998 to 2000 , an average of $89.0 \%$ of the pregnant women in Alameda County began prenatal care during the first trimester. ${ }^{3}$ This percentage is higher than California's rate of $83.5 \%$, and it is very close to the Healthy People 2010 national objective of at least $90.0 \%$. Both Alameda and Contra Costa Counties rank second in the state for the highest percentage of pregnant women who enter prenatal care in the first trimester.?

Since 1990, there has been a gradual upward trend in Alameda County toward early entry into prenatal care. The proportion of pregnant women entering prenatal care in the first trimester increased from $82.0 \%$ in 1990 to $89.2 \%$ in 2001. A similar pattern is evident at the state level.

Between 1990 and 2001, the percentage of women who entered prenatal care in the first trimester increased among all racial and ethnic groups in the county. The increase was greatest among African American and Latina women.

For the period 2000 to 2001, Whites had the highest rate of early prenatal care ( $93.6 \%$ ), followed by Asians ( $90.3 \%$ ). Both groups met the the Healthy People 2010 national objective of at least $90 \%$. Native Hawaiians and Other Pacific Islanders had the lowest rate of early entry into prenatal care ( $73.3 \%$ ).

Women 35 years of age and older were most likely to start prenatal care during the first trimester $(92.6 \%)$, whereas teenagers aged 19 and under were least likely ( $76.4 \%$ ) to obtain timely prenatal care.

## Figure 2D. 1

First Trimester Entry into Prenatal Care Selected Counties and California, 1998-2000 Average


Figure 2D. 2
First Trimester Entry into Prenatal Care Alameda County, 1990-2001


Figure 2D. 3
First Trimester Entry into Prenatal Care by Race/Ethnicity Alameda County, 2000-2001 Average


[^0]

## Births to Teens

## What is it?

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 of age in the population. The percentage of teen births is defined as the number of births to mothers aged 15-19 years per 100 live births.

The number of teen births is not the same as the number of teen pregnancies. It is estimated that $51 \%$ of teen pregnancies end in birth, $35 \%$ in abortion and $14 \%$ in miscarriage. ${ }^{8}$ Thus the teen pregnancy rate may be twice the teen birth rate.

## Why is it important?

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. ${ }^{9}$ 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.

Nationally, the birth rate for U.S. teenagers declined steadily throughout the 1990s, from 62.1 births per 1000 females $15-19$ years in 1991 to 48.5 in 2000. In fact, the decline in teen birth rates during the last decade was seen in every state in the nation. ${ }^{5}$

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/positive role models, unsatisfactory adult relationships, lack of after school and community activities, substance abuse, and low self-esteem. ${ }^{8}$

## What is Alameda County's status?

From 1998 to 2000, the average rate of birth to teens 1519 years of age in Alameda County was 37.7 per 1,000 females, higher than in neighboring counties but lower than the state rate of 50.3 per 1,000 females $15-19$ years. ${ }^{7}$

Reflecting state and national trends, the teen birth rate among 15 to 19 year-olds in Alameda County declined steadily during the years 1990 to 2001, from 55.7 to 34.5 births per 1,000 females in that age group.

Latinas 15-19 years of age had the highest teen birth rate in Alameda County ( 73.8 per 1,000 ) followed by African Americans (63.8). Birth rates in both these groups were three to five times higher than teen birth rates among Asians, Whites, and those of two or more races.

## Figure 2E. 1

Birth Rates for Teenage Females 15-19 Years of Age Selected Counties and California, 1998-2000 Average


## Figure 2E. 2

Birth Rates for Teenage Females 15-19 Years of Age Alameda County, 1990-2001


Figure 2E. 3
Birth Rates for Teenage Females 15-19 Years of Age by Race/Ethnicity, Alameda County, 2000-2001 Average



## Childhood Immunization

## What is it?

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 7th grade.

## Why is it important?

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 safe guard 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 dis-
eases 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 berd immunity.
Each year, the Immunization Branch of the State Department of Health Services conducts a survey of kindergartens within each county throughout the state. This survey is called the Kindergarten Retrospective Survey. It uses immunization records of kindergarten students at age five to estimate the percent of children who were up-todate when they were two years old. Therefore, the 2002 retrospective survey of kindergarten students at age five is in fact estimating the immunization levels among two-year olds in 1999.

## What is Alameda County's status?

According to estimates from the 2002 Kindergarten Retrospective Survey, $73.6 \%$ of Alameda County children were fully up-to-date on their immunizations by two years of age. This is similar to the statewide immunization rate of $72.2 \%$, but is significantly below the Healthy People 2010 national objective of at least $90 \% .^{3}$ The immunization rate in the larger Bay Area is estimated to be $79.1 \%$

During the period 1998 to 2002, the percentage of kindergarteners fully up-to-date on immunizations at age two improved from $60.0 \%$ in 1998 to $73.6 \%$ in 2002.

The percentage of fully immunized kindergarteners varied across racial/ethnic groups. The 2002 Kindergarten Retrospective Survey showed that African American children had the lowest rates of immunization (55.0\%), followed by Latino children (65.5\%), White children (78.7\%), and Asian/Pacific Islanders children (86.7\%). None of the groups have met the Healthy People 2010 national objective of at least $90 \%$.

## Figure 2F. 1

Percent of Kindergarteners with Up-to-Date Immunizations at 2nd Birthday

Alameda County, 1998-2002


## Figure 2F. 2

Percent of Kindergarteners with Up-to-Date Immunizations by Race/Ethnicity, Alameda County, 2002



## Dental Caries

## What is it?

Dental caries, or tooth decay, is the most common of all chronic and infectious diseases. It is caused by the bacteria, Streptococcus mutans. Foods such as refined carbohydrates or simple sugars can produce acidic plaque that feeds the bacteria and, over time, causes tooth decay.

Early Childhood Caries (ECC) (also called Baby Bottle Tooth Decay) is a rapidly developing form of dental cavities affecting the baby teeth as soon as they erupt at $6-12$ months of age. ECC is caused by frequent and prolonged exposure to milk, formula, juices or other sweet drinks in bottles.

Pit and Fissure Decay is the most common type of dental caries among school age children 5-17 years of age, accounting for $80 \%$ of all tooth decay in this age group. Pit and Fissure Decay primarily affects the chewing surfaces of molar teeth.

## Why is it important?

Dental caries, both treated and untreated, is a pervasive public health problem affecting the quality of life for young children and others not able to care for themselves. Its impact can be measured in both human and economic terms: unnecessary pain and suffering, absence from school and work, difficulty speaking and chewing, and diminished self-esteem. It has even resulted in failure to thrive in the very young. In more extreme cases treatment is traumatic and costly. Dental caries has its greatest impact on
the very young, the elderly, the poor, minorities, and others who experience geographic, linguistic, or cultural barriers to accessing care.

The most recent figures available on the oral health of California's children come from the California Oral Health Needs Assessment of Children conducted in 1993-1994. ${ }^{10}$ There has never been a similar assessment in Alameda County, so we rely on state-level figures.

The California Oral Health Needs Assessment estimated that $27 \%$ of California preschoolers in urban areas with fluoridated water supplies (the type most common in Alameda County) have untreated tooth decay. The estimate jumps to 44\% among preschool children from low income families. Among children 6-8 years of age, 36\% may have untreated tooth decay. These levels of untreated tooth decay are substantially higher than those seen nationally. ${ }^{3}$

Dental caries is almost entirely preventable. Key strategies for the primary prevention of dental caries include fluoridated water (or fluoride supplements where community water is not fluoridated) and dental sealants. Community water fluoridation is the most cost effective means of delivering fluoride ion to our teeth. Topical fluoride may be applied directly to teeth by a dental professional, or it may be self-applied through the use of toothpaste with fluoride. Dental sealants, which are applied by dental professionals, prevent Pit and Fissure Decay and are best applied as soon as molars erupt into the mouth at ages 6-8 and 12-14 years.

Individuals can prevent tooth decay by reducing the amount and type of foods that cause tooth decay and by thorough cleaning with a toothbrush and dental floss. Tooth decay among infants and young children can be prevented by encouraging healthy parental feeding practices.

## What is Alameda County's status?

To estimate the number of children in Alameda County with untreated tooth decay, we used the percentages of untreated tooth decay found by the California Oral Health Needs Assessment among children in urban areas with fluoridated water supplies. ${ }^{10}$

Latino and African American children from 2-5 years of age had the highest levels of untreated tooth decay in California ( $44.0 \%$ and $42.5 \%$, respectively), followed by Asians (22.9\%) and Whites (5.7\%). For all races combined, $26.7 \%$ had untreated tooth decay. This figure is higher than the national estimate of $16.0 \%$ and three times higher than the Healthy People 2010 national target of no more than $9 \%$ of preschoolers with untreated tooth decay.b

For school children 6-8 years of age, Asians had the highest levels of untreated tooth decay ( $55.5 \%$ ), followed by Latinos ( $49.3 \%$ ), African Americans ( $40.0 \%$ ), and Whites (21.2\%). For all races combined, $36.6 \%$ had untreated tooth decay. This figure is well above both the national estimate of $29.0 \%$ and the Healthy People 2010 national target of no more than $21 \%$ of children ages $6-8$ with untreated tooth decay. ${ }^{\text {b }}$

Based on these percentages approximately 21,500 children ages 2-5 in Alameda County have untreated tooth decay, and 23,000 children ages $6-8$ have untreated tooth decay. In total, 44,500 children between 2 and 8 years of age are estimated to have untreated tooth decay in Alameda County. The true numbers may well be higher since one area of the county has a water supply that is not fluoridated. The magnitude of these numbers clearly suggests the need for an oral health needs assessment of Alameda County children in order to verify the level of need and address the gaps in dental health care.

Figure 2G. 1
Percent of Preschool Children with Untreated Tooth Decay Urban, Fluoridated Areas, California, 1993-1994


Figure 2G. 2
Percent of Children Ages 6-8 with Untreated Tooth Decay Urban, Fluoridated Areas, California, 1993-1994


## What are we doing?

## Maternal, Child, and Adolescent Health

The Maternal, Child, and Adolescent Health (MCAH) Program in the Family Health Services Division, Alameda County Public Health Department (ACPHD), provides a coordinated local effort to improve outreach and case finding activities for pregnant women and children including early and continuous perinatal, infant, and child care. The Program works to ensure the best possible start in life for infants and children in Alameda County. It does this through a variety of activities aimed at increasing prenatal care and preventing low birth weight, infant death and teen pregnancy:

- The Improving Pregnancy Outcomes Program (IPOP) offers case management services for eligible pregnant and parenting women to reduce infant mortality and improve pregnancy outcomes. The Black Infant Health (BIH) Program targets the African American community in its efforts to reduce premature birth and infant mortality through improving access to a comprehensive set of services for at-risk women and their children up to two years of age. The BIH program also works with local prenatal care providers to make education and resource materials available to those they serve regarding the need for adequate prenatal care, healthy lifestyle choices, and signs and symptoms of pre-term labor.
- The MCAH Program offers culturally appropriate perinatal outreach and education for women, infants and families through a multicultural Health Information Team. The aim is to encourage early entry into prenatal care and substance use cessation in addition to other healthy behaviors. The Program also provides referrals to the Women, Infants and Children (WIC) Program. The Family Care Network targets at-risk pregnant women and new mothers for HIV/AIDS prevention.
- The MCAH Program works with other county agencies and service providers to develop and implement a Countywide Strategic Plan for
addressing perinatal substance abuse and its effects. The program aims to reduce barriers to substance abuse treatment among pregnant women.
- The MCAH Program provides technical assistance and training to Comprehensive Perinatal Services Program (CPSP) providers to ensure they are providing prenatal care according to state regulations, as well as identifying and enrolling Medi-Cal eligible women.
- MCAH, through a Community Challenge Grant, works in partnership with Oakland schools, after-school programs, and in neighborhoods to provide health education, mentoring, and youth leadership opportunities to adolescents. The aim is to reduce the rates of teen births with the focus on abstinence, birth control, refusal skills, access to health care, and healthy relationships. The Grant also provides resources for a Regional Collaborative of youth health care providers and community members. This group has an additional health policy focus to improve access to care and health education for adolescents.
- The MCAH Program works with Alameda County delivery hospitals to conduct the Sudden Infant Death Syndrome (SIDS) Risk Reduction campaign. The Fetal Infant Mortality Review (FIMR) Program works with local agencies in a broad-based, comprehensive case review process to better understand and prevent fetal and infant deaths. The Child Care Health Linkages Program works with childcare providers, other health care providers and other community based organizations to decrease childhood injury and mortality through increased caregiver education and awareness.


## Immunizations

The Immunization Assistance Project in the Division of Communicable Disease Control and Prevention, ACPHD, provides education and targeted outreach to families and community groups; training and technical assistance to physicians, nurses, and medical assistants; disease investigation and surveillance; vaccine distribu-
tion and management; and immunizations to children, adolescents, and seniors at risk of underimmunization. The Project also operates an immunization registry. Computerized assessments of the immunization status of two-year old children are conducted each year in county clinics and community health centers. The immunization status of children in childcare centers and kindergarten is monitored annually.

## Dental Health

The Office of Dental Health in the Community Health Service Division, ACPHD, has organized a variety of age-related interventions designed to address both the primary and secondary prevention of dental caries. In brief, these include the following: Healthy Kids, Healthy Teeth, Early Childhood Caries Initiative for $0-5$ year old MediCal enrollees; the California Children's Dental Disease Prevention Program, which provides sealants and dental education in a school-based setting; The Healthy Smiles Children's Dental Treatment Program for children who require dental care and have no insurance; and Dental Health Referral Services for people of all ages who need dental referrals and information.

## What else do we need to do?

- Promote full participation in Medi-Cal and other insurance options in order to assure access to prenatal care and vital medical and support services by providing information and advocacy services that increase enrollment.
- Develop and implement programs that would offer health services for women before and during pregnancy. Participate in action-oriented community processes that lead to improvement of services and resources for women, infants and families of Alameda County.
- Collaborate with local obstetric providers and delivery hospitals to prevent preterm labor through intensive patient education. Collaborate with community agencies to develop and implement aggressive outreach programs targeting
high-risk pregnant women.
- Target high-risk geographic areas for intensive parent education including parenting skills, safety precautions, nutrition, and healthy lifestyles.
- Increase the number and capacity of school based clinics and other youth-centered clinics to provide primary care, referrals, counseling, health education, and youth development services to both adolescent boys and girls.
- Increase outreach and education to young men to provide job training, health education, and other types of classes to improve personal relationships and promote anger management and responsible fatherhood.
- Collaborate with public and private organizations to conduct a representative County-wide Oral Health Needs Assessment at 3-year intervals in order to 1) measure oral/dental health, 2) evaluate prevention and intervention efforts, 3) make comparisons with state and national data.
- Expand successful elements of the Healthy Kids, Healthy Teeth Demonstration project to other low income families beyond those enrolled in Medi-Cal.
- Continue the Healthy Smiles Dental Treatment Program strengthening outreach and follow-up services to facilitate access to care and insurance resources.
- Actively support the statutory change that would require Child Health and Disability Program physicians to refer all children beginning at age 1 to the dentist.


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## Endnotes

${ }^{\text {a }}$ Early prenatal care figures reported for Bay Area counties in Figure 2D. 1 chart reflect slightly higher estimates of the percent of mothers receiving prenatal care in their first trimester of pregnancy than those shown in the remainder of the section. This is due to a small difference in how the California Department of Health Services computes the figures. The State's figures are based on a live birth count from which those with unknown prenatal care status were removed, yielding a higher estimate of early prenatal care.
${ }^{b}$ The United States estimate of untreated tooth decay ( $16 \%$ among 2-5 year-olds and $29 \%$ among $6-8$ year-olds) is not directly comparable to the California figures because they are from a health survey conducted during a different time period, 1988-1994, and they are based on the full sample. Water fluoridation and urban/rural status is not taken into account in the U.S. estimates. However, we would expect the observed differences between the California and U.S. figures to be even greater if the U.S. estimates were based on an urban sample with a fluoridated water supply.


## Rates of Death from All Causes

## Why is it Important?

Mortality rates are a valuable tool for measuring our 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 unsafe working conditions. With the success of biomedical innovations such as vaccinations and antibiotics, and the development of health education campaigns, the impact of these diseases has decreased significantly over the last 50 years. ${ }^{1.5}$ Life expectancy at birth has changed from 47.3 in 1900 to 76.9 in $2000 .{ }^{6}$

In general, recent declines in many leading causes of death reflect the influence of healthier life styles, greater use of preventive care, public health efforts, and advances in medicine. ${ }^{7-11}$ Despite these successes, the rates of some diseases have continued to increase. For example, the prevalence of diagnosed diabetes, increased $33 \%$ from 1990 to $1998 .{ }^{12}$

Today, five chronic diseases account for over two-thirds of all deaths in the U.S.-heart disease, cancer, stroke, chronic obstructive pulmonary disease, and diabetes. Heart disease and cancer combined account for more than half of all deaths. ${ }^{13}$

Research has linked chronic disease to a number of causes, particularly unhealthy behaviors. 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. ${ }^{14}$

Despite overall declines in mortality, racial and ethnic disparities as well as gender disparities in mortality persist. ${ }^{15-18}$ Low-income groups, African Americans and men continue to have higher mortality rates. Future progress in improving health status will require comprehensive interventions that address individual behaviors, neighborhood environments and public policy.

A profile of mortality for the residents of Alameda County by sex, age, and race/ethnicity provides us with a picture of the burden of disease and injury and can serve to guide related prevention efforts.

## What is Alameda County's Status?

The average number of deaths in Alameda County was 9,791 per year for the three-year period 1998 to 2000. ${ }^{\text {a }}$ The average age-adjusted death rate from all causes was 785.5 per 100,000 population. ${ }^{10}$ This rate was significantly higher than those in San Francisco and Santa Clara Counties. Alameda County's death rate is only slightly higher than the rate in Contra Costa County or California as a whole. ${ }^{\text {b }}$

Annual age-adjusted death rates from all causes declined significantly from 916.0 deaths per 100,000 in 1990 to 789.2 per 100,000 in 2000. This pattern reflects a similar state and nationwide trend. ${ }^{7-8,10}$

Figure 3A. 1
Death from All Causes: Selected Counties and California Age-Adjusted Rates, 1998-2000 Average


Figure 3A. 2
Death from All Causes in Alameda County Age-Adjusted Rates, 1990-2000


Figure 3A. 3
Death from All Causes in Alameda County Age-Adjusted Rates by Sex, 1999-2000 Average


## Figure 3A. 4

Death from All Causes in Alameda County Age-Adjusted Rates by Race/Ethnicity, 2000

*Native Hawaiian/Other Pacific Islander

Figure 3A. 5
Death from All Causes by Race/Ethnicity Alameda County, 2000


Figure 3A. 6
Age-Specific Death Rates from All Causes by Race/Ethnicity, Alameda County, 2000


Due to new classification of racial groups in 2000, death rates are presented here for only one year and are therefore subject to more variation compared to a multi-year average. The death rate for African Americans was 1156.5 per 100,000, and for Native Hawaiians/Pacific Islanders it was 1293.3. Both rates were significantly higher than rates for Whites, Latinos, Asians, and those of multiple races. Similarly, the White rate was significantly higher than rates for Latinos, Asians and those of multiple races. It is important to note that death rates for American Indians, Native Hawaiians/Pacific Islanders and those of multiple races may not be reliable due to small numbers of deaths in relatively small populations.

Sixty percent of those who died in 2000 were White, followed by African American (21.0\%), Asian (10.1\%), and Latino (7.8\%). Native Hawaiians/Pacific Islanders, American Indians, and those of multiple race made up approximately $1 \%$ of all deaths.

Another way of comparing mortality is through an agespecific death rate. In the chart below, the death rate for each age and racial group in Alameda County is shown for the year 2000. ${ }^{\text {c }}$

The age-specific death rates for African Americans were higher than rates in any other racial/ethnic groups at every age interval. The gap was largest among infants, teens over age 15 , and young adults. Age-specific death rates were lowest among Asians in most age groups.


## Leading Causes of Death

## What are they?

Generally, leading causes of death are presented in terms of the top ten causes, and deaths are ranked according to the most frequently occurring causes. ${ }^{19}$ When ranking cause of death for smaller groups that experience relatively few deaths (such as age or racial groups) only the top three to five most common causes are presented. ${ }^{\text {d }}$

## Why are they important?

Cause-of-death ranking is a useful way to examine the relative burden of mortality from specific
causes. From the standpoint of prevention, it is helpful to understand the most common causes of death and how they vary in different age, race, and sex subgroups. This type of data informs resource allocation, program planning, and provision of services.

## What is Alameda County's Status?

Of the county's average annual 9,807 deaths during 1999-2000, $81 \%$ were attributable to the 10 leading causes of death.



## Figure 3B. 3

Leading Causes of Death Among Females
Alameda County, 1999-2000
(Average Annual Deaths $=5,013$ )


The three most common causes of death were diseases of the heart, cancer, and stroke. These three chronic diseases accounted for $62 \%$ of all deaths. Chronic lower respiratory disease and unintentional injury ranked fourth and fifth, respectively, followed by influenza \& pneumonia, and diabetes mellitus. Alzheimer's disease, chronic liver disease \& cirrhosis, and hypertension, which did not rank among the 10 leading causes in previous years, ranked among the 10 leading causes in 1999-2000.

The rank order of the three leading causes (heart disease, cancer and stroke) was not affected by the introduction of ICD-10, ${ }^{20}$ the new disease classification system. However, some changes in the ranking occurred for the fourth to tenth leading causes, due in part to the introduction of ICD-10 and to actual change in causes of death.

## Leading Causes of Death by Sex

The four leading causes of death-heart disease, cancer, stroke and chronic lower respiratory disease-were the same for both males and females. These four causes of death accounted for $65 \%$ of deaths among males and $69 \%$ of deaths among females.

For males, unintentional injury was the fifth leading cause of death, followed by influenza \& pneumonia, diabetes, chronic liver disease \& cirrhosis, homicide and suicide. All injury (unintentional, homicide and suicide) accounted for $8.1 \%$ of all male deaths.

For females, influenza \& pneumonia was the fifth leading cause of death, followed by diabetes, Alzheimer's, unintentional injury, hypertension, and chronic liver disease \& cirrhosis.

## Leading Causes of Death by Race/Ethnicity

Diseases of the heart, cancer, and stroke were the three leading causes of death for all racial/ethnic groups except American Indians and those of multiple races. For Asians, however, cancer ranked first and heart disease second.

For American Indians, heart disease was the leading cause, followed by chronic liver disease \& cirrhosis, and cancer. For the multiple race group, heart disease was the leading cause of death, followed by unintentional injury, certain conditions originating in the perinatal period, and cancer.

It is important to note that the total number of deaths for American Indians, Native Hawaiians/Pacific Islanders, and those of multiple races was small ( $31,52, \& 33$, respectively). Therefore, ranking may shift based on a single death.

Diabetes was the fourth leading cause of death for African Americans and the fifth for Latinos. Homicide was the fifth leading cause of death for African Americans. Unintentional injury was the fourth leading cause of death for Asians and Latinos.

## Figure 3B. 4

Leading Causes of Death by Race/Ethnicity Alameda County, 2000
African American


American Indian
(Total deaths = 31)


Asian
(Total deaths = 991)


Latino
(Total deaths =763)


Native Hawaiian/Pacific Islander


Two or More Races
(Total deaths = 33)


White



## Figure 3B. 6



## Figure 3B. 7

Leading Causes of Death, 15 to 24 Years
Alameda County, 1999-2000
(Average Annual Deaths = 111)


## Leading Causes of Death by Age Group

Birth defects were the leading cause of death among babies under 1 year of age, accounting for nearly onefourth of deaths in this age group. Low birth weight (LBW) and sudden infant death syndrome (SIDS) tied as second leading cause, each one responsible for $10.4 \%$ of all infant deaths. Respiratory distress syndrome was the fourth leading cause of death, followed by maternal complication of pregnancy.

Unintentional injury was the leading cause of death among children 1-14 years of age, accounting for $30.7 \%$ of all deaths in this age group. Of unintentional injury deaths, $58.1 \%$ were from motor vehicle crashes. Cancer ranked second, accounting for $16.8 \%$ of deaths among children, and congenital anomalies ranked third, accounting for $8.9 \%$ of deaths. While there are very few cancer deaths among children, the predominant cancer sites in this age group were brain and blood, or blood-forming organs (e.g. leukemia and lymphoma).

Three of the four leading causes of death among youth 15 to 24 years of age were due to injuries, both intentional and unintentional, and accounted for over $70 \%$ of all deaths in this age group.

Homicide was the leading cause of death, accounting for $32.4 \%$ of deaths. Unintentional injury ranked second, accounting for $29.3 \%$ of deaths, followed by cancer ( $8.6 \%$ ) and suicide ( $8.6 \%$ ). Of the unintentional injury deaths, $64.6 \%$ were due to motor vehicle accidents. The predominant cancer sites in this age group were blood and blood forming organs.

Unintentional injury was the leading cause of death among adults 25-34 years of age, accounting for $20.2 \%$ of deaths in this age group. Homicide ranked second, accounting for $16.2 \%$ of deaths, followed by cancer ( $12.7 \%$ ), suicide ( $9.5 \%$ ), and HIV diseases ( $8.5 \%$ ). Thirtyfour percent of unintentional injury deaths were due to motor vehicle crashes. The most common cancer sites in this age group were breast and blood or blood-forming organs.

Cancer was the leading cause of death among adults 3544 years of age, accounting for $21.9 \%$ of deaths in this age group. Unintentional injury ranked second, accounting for $14.5 \%$ of deaths, followed by diseases of the heart ( $13.3 \%$ ), suicide ( $7.0 \%$ ), and HIV diseases ( $6.9 \%$ ). The most common cancer sites in this age group were breast, lung, and blood or blood forming organs.

It is noteworthy that suicide ranks among the five leading causes of death in the 15-24 and 25-34 age groups, as well as in the 35-44 age group.

Cancer was the leading cause of death among adults 4554 years of age, accounting for $30.7 \%$ of deaths in this age group. Diseases of the heart ranked second, accounting for $20.1 \%$ of deaths, followed by unintentional injury (8.2\%), chronic liver disease and cirrhosis (5.1\%), and HIV diseases (4.3\%).

Cancer and heart disease combined accounted for over half of all deaths in this age group. Motor vehicle crashes were responsible for $30 \%$ of unintentional injury deaths. The most common cancer sites in this age group were breast and lung, followed by colon, blood or blood forming organs. Chronic liver disease and cirrhosis are conditions largely due to alcohol dependence.

## Figure 3B. 8

eading Causes of Death, 25 to 34 Years
Alameda County, 1999-2000
(Average Annual Deaths = 189)


Figure 3B. 9
Leading Causes of Death, 35 to 44 Years
Alameda County, 1999-2000
(Average Annual Deaths $=422$ )


Figure 3B. 10
Leading Causes of Death, 45 to 54 Years
Alameda County, 1999-2000
(Average Annual Deaths = 776)


## Figure 3B. 11

Leading Causes of Death, 55 to 64 Years
Alameda County, 1999-2000
(Average Annual Deaths $=1,058$ )


Figure 3B. 12
Leading Causes of Death, 65 Years \& Over Alameda County, 1999-2000
(Average Annual Deaths $=7,096$ )


Chronic conditions comprised the 5 leading causes of death for adults aged 55-64. Cancer was the leading cause of death, accounting for $37.4 \%$ of deaths in this age group. Diseases of the heart ranked second, accounting for $26.4 \%$ of deaths. Stroke and diabetes emerge as leading causes of death in this age group, in addition to chronic lower respiratory disease. This latter condition is due predominantly to chronic obstructive pulmonary disease and emphysema.

Over $70 \%$ of all deaths in Alameda County were among those 65 years of age and older. Heart disease was the leading cause of death, accounting for $33.1 \%$ of deaths in this age group. Cancer ranked second, accounting for $22.4 \%$ of deaths, followed by stroke ( $10.5 \%$ ), chronic lower respiratory disease ( $5.7 \%$ ), and influenza \& pneumonia (3.9\%). Four of the five leading causes of death in this age group are due to chronic conditions. The fifth, influenza \& pneumonia, is due to infections that affect the more frail elderly population.


## Causes of Premature Death

## What is it?

According to the National Vital Statistics System, the average life expectancy at birth in 2000 was 79.5 years for females and 74.1 years for males. ${ }^{21}$ Death before this age is considered premature, especially the death of young people. In addition to being tragic, early death represents a loss to society in terms of lost years of productivity. These "unlived" years are summarized in a measure called "Years of Potential Life Lost." 6,22

## Why is it important?

This measure provides another way to measure population health. By taking into account the
years of life lost due to early death, we can begin to focus on strategies for prevention. Premature death is usually caused by motor vehicle crashes and other unintentional injuries, homicide, suicide, drug and alcohol poisoning, and tobacco use. Many deaths due to the major chronic diseases such as cancer, heart disease, stroke, and diabetes are premature as well because they are attributable to lifestyle behaviors and are therefore preventable. ${ }^{2325}$

As with other health indicators, racial and ethnic disparities are seen in measures of premature death. For instance, nationally in 1998, years of potential life lost were two times higher among African American women than White women and over three times higher than Asian/Pacific Islander women. ${ }^{6}$ These disparities reflect the earlier ages at which African American women died.

## Figure 3C. 1

Leading Causes of Premature Death Alameda County, 1999-2000 Average


## What is Alameda County's status?

The most notable difference between leading causes of death, in general, and leading causes of premature death is that intentional injury-homicide and suicide-rank among the top ten causes of years of life lost.

The leading cause of premature death, as measured by total number of years of life lost, was cancer, followed by heart disease, unintentional injury, stroke, and chronic lower respiratory diseases. Homicide ranked sixth in years of life lost, followed by diabetes, suicide, certain conditions originating in the perinatal period, and chronic liver disease \& cirrhosis.

The major cancer contributing years of life lost was lung cancer, followed by breast cancer. Coronary heart disease was the major cause contributing years of life lost to diseases of the heart, and motor vehicle crash was the major cause contributing years of life lost to unintentional injury. The most common chronic lower respiratory diseases were chronic obstructive pulmonary disease and emphysema. Deaths classified as 'certain conditions originating in the perinatal period' are deaths to newborns. These were predominantly due to low birth weight and other conditions relating to short gestation, respiratory distress, and maternal complications. Chronic liver disease and cirrhosis were largely the result of alcohol dependence.

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## Endnotes

a 9,791 is the total number of deaths in Alameda County's vital records system and reflects the 1998-2000 annual average. This number is lower than the 9,835 deaths in the state of California statistical master files because Alameda County cleans the data to remove deaths from other jurisdictions, duplicates, etc. Throughout this report, death rates presented in the regional section (comparison with other Bay Area counties and California) are based on the California County

Health Profiles 2002 in order to maintain comparability. The County Profiles report used counts that are slightly higher than what we have used, and it also used 1999 population estimates whereas we used Census 2000 population estimates. These discrepancies have had minimal impact on the age-adjusted death rates.
b It is important to note that the age-adjusted rates published in this report are not comparable to rates published in past reports because we are age-adjusting to a new standard population, the 2000 US Standard Million. ${ }^{26}$ Most rates are markedly higher, especially for those diseases associated with aging, such as heart disease, because the U.S. population has aged. Compared to the previous standards, the 2000 standard has a larger proportion of the total population in the older age groups. Therefore we expect higher death rates.
c The logarithmic scale on the vertical axis is used for a more complete description of the relationship between the rates among different racial/ethnic groups. It allows us to observe differences between younger age groups that would not appear on the usual arithmetic scale. This is because the death rates range vastly from 13 per 100,000 in the 1-14 age group to over 16,000 per 100,000 in the age group 85 and older. Thus, even substantial differences in the younger age groups are not apparent on the arithmetic scale.
d A list of 50 'rankable' causes has been recommended by the National Center for Health Statistics for use with ICD-10. These are broad disease categories that are groupings of the 113 more specific 'selected' causes of death. ${ }^{19}$


## Asthma

## What is it?

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 breath.

## Why is it important?

The prevalence of asthma has been increasing nationally since 1980. It is a disease influenced by both genetic and environmental factors. Environmental factors such as air pollution are a concern in Alameda County, especially in the proximity of major freeways and industrial areas.

It is estimated that 14 million people in the U.S. have asthma and that 11 million have had an asthma attack in the past year. In general, asthma rates are higher among females and children 5-14
years of age. Rates are also higher among African Americans than Whites. ${ }^{1}$

There are approximately 5,000 deaths nationally per year from asthma. The death rate among African Americans is approximately 2.5 times higher than among Whites, and approximately 1.5 times higher among females than males. Asthma death rates increase with age..$^{1,2}$

Nationally, there are approximately 460,000 asthma hospitalizations per year. Rates of asthma hospitalization are highest among children under age 5 , followed by children 5-14 and adults 65 and older. Overall, asthma hospitalization rates are 1.5 times higher among females than males and three times higher among African Americans than Whites. ${ }^{1}$

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 (e.g., dust, smoke, air pollution, colds and flu); 2) adequately managing asthma with medications; 3) monitoring lung function; and 4) educating asthma patients to work with medical providers as partners in their own care. ${ }^{\text {² }}$

## What is Alameda County's status?

## Asthma Mortality

In Alameda County, there were 39 asthma deaths in 1999 and 25 in 2000, for a 2 -year average of 32 . The ageadjusted rate for this period was 2.5 per 100,000 compared to 1.7 per 100,000 nationally in 1999.
The Healthy People 2010 (HP2010) objective for reducing asthma deaths specifies a target rate for five different age groups-under 5, 5-14, 15-34, 35-64, and 65 or older. Due to the small number of asthma deaths in Alameda County, reliable rates for only the two older age groups could be computed. The asthma death rate among those $35-64$ years of age was 24.0 per million population, exceeding the HP2010 target of no more than 9 deaths per million. The asthma death rate among those age 65 and older was 105.0 per million, exceeding the HP2010 target of no more than 60 per million.

## Asthma Hospitalization

The Healthy People 2010 national objectives for asthma hospitalization focus on three age groups: under 5, 5-64, and 65 or older. Alameda County rates for these three age groups were higher than either the California rates or the HP2010 targets.
Most notably, the rate of 710.3 per 100,000 children under 5 in Alameda County was two times higher than the California rate and nearly three times higher than the HP2010 target of 250 or fewer hospitalizations per 100,000 . The rate of 134.8 per 100,000 population $5-64$ years of age was over $50 \%$ higher than the California rate and $75 \%$ higher than the HP2010 target of 77 or fewer per 100,000 . Similarly, the rate of 253.3 per 100,000 people 65 and older was over $50 \%$ above the California rate and over two times the HP2010 target of 110 or fewer per 100,000.
For all ages, the average number of asthma hospitalizations in Alameda County was 2,606 per year from 1998 to 2000. Of these, $53.1 \%$ were female and $46.9 \%$ were male.

The age-adjusted rate of asthma hospitalization for all ages increased from 172.3 per 100,000 in 1996 to 202.1 in 1999, then dropped back to 172.3 in 2000, the latest year for which data are available. Female rates were consistently higher than male rates. The gap between females and males widened in recent years. The age-adjusted rate for females in 2000 was 180.2 per 100,000 compared to 160.7 per 100,000 for males. Overall, African American rates were three to four times higher than those for Asians, Latinos, or Whites.

Figure 4A. 1
Rates of Asthma Death and National Objective* Age-Specific Rates, 1999-2000 Average

| Age Group | Alameda County | HP2010 |
| :--- | :---: | :---: |
| 35 to 64 | 24.0 | 9.0 |
| 65 and over | 105.0 | 60.0 |

*Rates are per million population.

\left.| Figure 4A.2 |  |  |  |
| :---: | :---: | :---: | :---: |
| Rates of Asthma Hospitalization |  |  |  |
| and National Objective* |  |  |  |$\right]$

*Rates are per 100,000 population.
**Age-adjusted to the 2000 Standard Population.

## Figure 4A. 3

Childhood Asthma Hospitalizations in Alameda County Age-Adjusted Rates by Sex, 1995-2000


Figure 4A. 4
Childhood Asthma Hospitalizations (Under Age 15)
Alameda County and California, 1998-2000 Average


## Asthma Hospitalization Among Children Under 15 Years of Age

A common measure of childhood asthma is the ageadjusted rate of asthma hospitalization among children under 15 years of age. It is in this measure that the greatest racial, sex, and geographic differences are seen.

The annual rate of childhood asthma hospitalization increased for both males and females between 1996 and 1999 and then declined in 2000. The peak in 1999 was more pronounced for males than females. Additional years of data are necessary to determine if the pattern we are seeing is random change or part of a downward trend.

From 1998 to 2000, the age-adjusted rate of hospitalization for asthma among children under age 15 in Alameda County was 420.2 per 100,000 . This countywide rate is over two times the California rate of 195.5 per 100,000 children under 15 for the same time period.

The original Healthy People 2000 objective for the age group $0-14$ was 225 per 100,000. As there is no comparable objective for 2010 and there is a great deal of interest in this age group in Alameda County, we have chosen to continue using the Healthy People 2000 objective of no more than 225 as a basis for comparison. ${ }^{\text {a }}$

The map on the following page shows three categories of age-adjusted rates of asthma hospitalization among children under age 15 in Alameda County by zip code. The highest rates, those that exceed the Healthy People 2000 objective by more than two times, are concentrated along the I-880 corridor in Berkeley and Oakland.
Map 4A. 1 Childhood Asthma Hospitalizations (Under Age 15) by Zip Code, Alameda County, 1998-2000

| Age-Adjusted Rates per |
| :---: |
| 100,000 Population |
| $2+$ times HP2000 Objective (450.0-1595.6) |
| $1-2$ times HP2000 Objective (225.1-449.9) |
| $\square$ HP2000 Objective met $(0.1-225.0)$ |
| $\square$ Rate not shown due to small numbers |

## Figure 4A. 5

Childhood Asthma Hospitalizations in Alameda County Age-Adjusted Rates by Sex and Race/Ethnicity, 1998-2000 Average


Figure 4A. 6
Childhood Asthma Hospitalizations by Race/Ethnicity Alameda County, 1998-2000


The average number of childhood asthma hospitalizations in Alameda County was 1,255 per year from 1998 to 2000. Nearly two-thirds of children under 15 hospitalized for asthma were male ( $63.1 \%$ ) and $36.9 \%$ were female.

The age-adjusted asthma hospitalization rate for African American males ages 0-14 was 1,281 per 100,000, nearly four times higher than for Latino males, and five times higher than for Asian and White males. The African American female rate was 858.6 per 100,000, four times higher than for Latino females, and six times higher than for Asian and White females.

Race/Ethnicity is shown here as a percent of the total number hospitalized. Nearly half of children under age 15 hospitalized for asthma were African American (48.4\%), followed by Latino (16.3\%), White (15.6\%), Asian (10.1\%), and American Indian ( $0.2 \%$ ). Due to the way hospital discharge information is completed, there are larger than expected numbers of patients in the 'other' and 'unknown' racial categories.


## Diabetes

## What is it?

Diabetes mellitus is a chronic disease (or group of diseases) in which blood glucose (sugar) levels 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. There are two main types of diabetes, type 1 and type 2 . Most cases of diabetes ( $90 \%-95 \%$ ) are of the type 2 variety which, in the past, primarily affected adults over 40 years of age. Risk factors include older age, obesity, ethnicity, and a family history of diabetes. In recent years, type 2 diabetes has been diagnosed with increasing frequency in children and adolescents. ${ }^{2}$

## Why is it important?

Diabetes requires rigorous management in order 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 of pregnancy. ${ }^{3}$

Diabetes is the 6th leading cause of death in the U.S. The Centers for Disease Control estimates that 17 million people in the U.S. have diabetes, or just over $6 \%$ of the population. While diabetes is most common among those over age 65, current surveillance activities reveal that type 2 diabetes is growing among children and adolescents, especially among people of color. Some who study the disease believe that over one-third of total diabetes cases have never been diagnosed. ${ }^{3.7}$

It is estimated that $15 \%$ of adult American Indians/Alaska Natives have diabetes, $13 \%$ of African Americans, $10 \%$ of Latinos, and nearly $8 \%$ of Whites. The prevalence of diabetes has increased steadily over the past 20 years, most notably among African Americans. Recent increases have also occurred among Latinos. ${ }^{3}$

## Figure 4B. 1

Diabetes Deaths: Selected Counties and California
Age-Adjusted Rates, 1999-2000 Average


Figure 4B. 2
Diabetes Deaths in Alameda County Age-Adjusted Rates, 1990-1998


Figure 4B. 3
Diabetes Deaths in Alameda County Age-Adjusted Rates by Sex, 1999-2000 Average


What is Alameda County's status?

## Diabetes Mortality

The average number of diabetes deaths in Alameda County was 280 per year from 1999 to 2000 . The ageadjusted diabetes mortality rate was 22.6 deaths per 100,000 population. ${ }^{8}$ This rate was significantly higher than the San Francisco rate of 13.7 per 100,000, and exceeded rates in other neighboring counties and the state of California. ${ }^{\text {b }}$

Age-adjusted diabetes death rates increased from 14.6 per 100,000 in 1990 to 22.9 per 100,000 in 1995 and then leveled off over the remainder of the decade. Data points for the latest years, 1999 and 2000, are not shown here due to changes in the disease classification system. However, the rate of 22.6 per 100,000 for 1999-2000 is considered roughly comparable to earlier rates.? Additional years of data will be necessary to determine the current trend.

During the period 1999-2000, $52 \%$ of those who died from diabetes were female and $48 \%$ were male. The ageadjusted rate of death from diabetes, however, was higher for males than females, but not significantly: 26.3 deaths per 100,000 males compared to 20.2 per 100,000 females.

In 2000, the racial/ethnic differences in diabetes death rates were pronounced. Age-adjusted death rates among African Americans were 49.3 per 100,000, nearly three times higher than for Asians and Whites, and rates for Latinos were 34.6 per 100,000, two times higher than for Asians and Whites.

Of the 276 people who died of diabetes in 2000, $42.0 \%$ were White, $31.2 \%$ were African American, $14.1 \%$ were Latino, and $11.6 \%$ were Asian.

Figure 4B. 7
Diabetes-Related Hospitalizations in Alameda County Age-Adjusted Rates by Sex and Race/Ethnicity 1998-2000 Average


## Figure 4B. 8

Diabetes-Related Hospitalizations by Race/Ethnicity Alameda County, 1998-2000


From 1998 to 2000, the average number of diabetes-related hospitalizations was 15,070 per year. Of these, $55.8 \%$ were female and $44.2 \%$ male.

African American females had significantly higher rates of hospitalization than their male counterparts ( 2,404 per 100,000 compared to 2,032), as did Latino females $(1,281$ per 100,000 compared to 1,044 ). In contrast, White males had significantly higher rates of hospitalization than White females (1,069 per 100,000 compared to 894).

Whites comprised the largest group of those hospitalized for a diabetes-related illness (43.8\%), followed by African Americans (29.4\%), Latinos (11.9\%), Asians (11.4\%), and American Indians ( $0.2 \%$ ). Due to the way hospital discharge information is completed, there are larger than expected numbers of patients in the 'other' and 'unknown' racial categories.

## $\rightarrow$

The map on the following page shows three categories of age-adjusted diabetes hospitalization rates in Alameda County by zip code. The map shows the highest onethird, middle one-third, and lowest one-third of zip code areas in different colors. The highest rates are concentrated in Emeryville, Oakland, Ashland, Cherryland, Fairview, Hayward, Union City, and Fremont.
Map 4B. 1 Diabetes-Related Hospitalizations by Zip Code, Alameda County, 1998-2000

Pleasanton Livermore



## Coronary Heart Disease

## What is it?

Coronary heart disease (CHD) is a condition that develops when the arteries of the heart become narrowed or clogged and cannot supply enough blood to the heart. Blood carries oxygen and nutrients the heart needs to function. If the blood supply to parts of the heart is restricted, a person can experience pain called angina. A heart attack occurs when the blood supply to parts of the heart is cut off completely.

Most deaths from heart disease are due to CHD. Other forms of heart disease include hypertensive heart disease and rheumatic heart disease. ${ }^{10}$

## Why is it important?

Deaths from heart disease have declined steadily
over the past 50 years, in large part because of advances in prevention efforts, early detection, treatment and health care.

Coronary heart disease is the single most common cause of death in the U.S. It is estimated that 12 million people in the U.S. have CHD. In 1998, there were 459,841 CHD deaths in the U.S. Nationally, White males have the highest rates of death from CHD, followed closely by African American males, African American females, and Latino males. ${ }^{2,11-12}$

The risk of coronary heart disease and stroke can be reduced by not smoking, adopting a healthy diet, becoming physically active, and reducing or controlling high blood pressure, high blood cholesterol, and diabetes. Other important factors in the development of the disease are socioeconomic status (including income, education level and occupation), environment, and culture. ${ }^{211-12}$

## What is Alameda County's status?

## Coronary Heart Disease Mortality

The average number of coronary heart disease deaths in Alameda County was 2,289 per year from 1999 to 2000. The age-adjusted rate of death was 188.0 per 100,000 population. ${ }^{8}$ This rate exceeds the Healthy People 2010 objective of no more than 166.0 deaths per 100,000, and it was significantly higher than both the Contra Costa County rate of 166.1 per 100,000 and San Francisco rate of 159.2 per 100,000 . It is significantly lower than the California rate of 201.5 per 100,000.

The age-adjusted rate of death from coronary heart disease in Alameda County declined throughout most of the 1990s. Data points for the latest years, 1999 and 2000, are not shown here due to changes in the disease classification system. The rate of 188.0 per 100,000 for 1999-2000 is not directly comparable to earlier rates.' Additional years of data will be necessary to determine if the downward trend continues.

The average age-adjusted CHD death rate was nearly $50 \%$ higher among males than among females (230.0 per 100,000 compared to 156.0 ). Despite the higher rate among males, less than half of CHD deaths were male ( $48.4 \%$ male and $51.6 \%$ female). This is due in part to the fact that there are fewer males in the elderly population most affected by heart disease.

Figure 4C. 1
Coronary Heart Disease Deaths Selected Counties and California Age-Adjusted Rates, 1999-2000 Average


Figure 4C. 2
Coronary Heart Disease Deaths in Alameda County Age-Adjusted Rates, 1990-1998


Figure 4C. 3
Coronary Heart Disease Deaths in Alameda County Age-Adjusted Rates by Sex, 1999-2000 Average


## Figure 4C. 4

Coronary Heart Disease Deaths in Alameda County Age-Adjusted Rates by Race/Ethnicity, 2000


## Figure 4C. 5

Coronary Heart Disease Deaths by Race/Ethnicity
Alameda County, 2000


In 2000, the CHD death rate among African Americans was 266.4 per 100,000 , significantly higher than all other racial/ethnic groups: $170 \%$ higher than Asians, $70 \%$ higher than Latinos, and $33 \%$ higher than Whites.

The majority of the 2,278 who died of CHD in 2000 were White ( $64.1 \%$ ), followed by African American (20.0\%), Asian (8.1\%), Latino (6.6\%), and very small numbers of other racial groups.

The map on the following page shows three categories of age-adjusted death rates from coronary heart disease by city in Alameda County. The highest rates were found in Emeryville, San Leandro, Ashland, and Hayward. These communities had coronary heart disease death rates that exceeded the Healthy People 2010 objective by more than $25 \%$. The national Healthy People 2010 objective for coronary heart disease mortality is no more than 166 deaths per 100,000 population.


## Figure 4C. 6

Coronary Heart Disease-Related Hospitalizations
Age-Adjusted Rates by Sex, 1995-2000


## Figure 4C. 7

Coronary Heart Disease-Related Hospitalizations Age-Adjusted Rates by Sex and Race/Ethnicity 1998-2000 Average


Figure 4C. 8
Coronary Heart Disease-Related Hospitalizations by Race/Ethnicity, Alameda County, 1998-2000


Annual CHD Hospitalizations $=18,483$

## Coronary Heart Disease Hospitalization

Hospitalization related to CHD changed little between 1995 and 2000. A decrease in rates for both males and females was seen in 2000, but additional years of data are needed to determine if this reflects a true decline in rates.

Age-adjusted rates of CHD-related hospitalization have been consistently higher for males than females by over $50 \%$. In 2000, males were hospitalized at a rate of $1,839.9$ per 100,000 compared to $1,162.1$ per 100,000 females.

From 1998 to 2000, the average number of CHD-related hospitalizations in Alameda County was 18,483 per year. Of these, $53 \%$ were male and $47 \%$ female.

The highest rates of CHD-related hospitalization were seen among White males ( $2,147.9$ per 100,000), followed by African American males, African American females, Asian males, White females, and Latino males. Asian females had the lowest rates, followed by Latino females.

The majority of those hospitalized for CHD-related illness were White ( $60.0 \%$ ), followed by African American (17.9\%), Asian (10.7\%), Latino (7.9\%), and American Indian $(0.1 \%)$. Due to the way hospital discharge information is completed, there are larger than expected numbers of patients in the 'other' and 'unknown' racial categories.


## Stroke

## What is it?

A stroke occurs when a blood vessel bringing oxygen and nutrients to the brain bursts or is clogged by a blood clot or some other particle. Without oxygen, nerve cells in the brain cannot function and begin to die within minutes.

Why is it important?
Stroke is the third leading cause of death in the U.S. and a major cause of death and serious, long-term disability among adults. Age-adjusted stroke death rates have declined steadily since the early part of the twentieth century. Presently, it is estimated that more than 600,000 strokes occur each year in the U.S. ${ }^{2}$ In 1999, there were 167,366 deaths from stroke in the U.S. Rates of stroke death are highest among African Americans, followed by Whites, Asian/Pacific Islanders, Latinos, and American Indians. ${ }^{12-13}$

Figure 4D. 1
Stroke Deaths: Selected Counties and California Age-Adjusted Rates, 1999-2000 Average


Figure 4D. 2
Stroke Deaths in Alameda County Age-Adjusted Rates, 1990-1998


Figure 4D. 3
Stroke Deaths in Alameda County
Age-Adjusted Rates by Sex, 1999-2000 Average


## What is Alameda County's status?

## Stroke Mortality

The average number of deaths from stroke in Alameda County was 854 per year from 1999 to 2000 . The ageadjusted rate of stroke death was 70.7 deaths per 100,000 population. ${ }^{8}$ This rate exceeds the Healthy People 2010 objective of no more than 48.0 deaths per 100,000, and it was significantly higher than both the San Francisco rate of 60.4 per 100,000 and the state rate of 63.3 per 100,000 .

The age-adjusted stroke death rate in Alameda County declined from 76.6 per 100,000 in 1991 to 66.5 in 1996 and has since remained relatively stable. Data points for the latest years, 1999 and 2000, are not shown here due to changes in the disease classification system. The rate of 70.7 per 100,000 for $1999-2000$ is not comparable to earlier rates. ${ }^{\text {A }}$ Additional years of data will be necessary to determine the current trend.

The age-adjusted stroke death rate was higher among males than females in Alameda County ( 75.1 per 100,000 compared to 67.6 per 100,000), though the difference was not significant. Despite the higher rate of stroke among males, only $40 \%$ of those who died from stroke were male. This is due in part to the fact that there are fewer males in the elderly population most affected by stroke and other cardiovascular diseases.

The average age-adjusted stroke death rate among African Americans was 103.9 per 100,000 , significantly higher than other racial/ethnic groups: $85 \%$ higher than Latinos, $58 \%$ higher than Asians, and $51 \%$ higher than Whites.

The majority of the 870 who died of stroke in 2000 were White (58.4\%), followed by African American (20.5\%), Asian (13.9\%), Latino (6.3\%), and very small numbers of other racial groups.

## Stroke-Related Hospitalizations

Hospitalization related to stroke has changed little since 1995. Though the male rate has been consistently higher than the female rate, the gap has narrowed in recent years. In 2000, the age-adjusted male rate was 593.3 per 100,000 and the female rate was 552.4 per 100,000 .

Figure 4D. 4
Stroke Deaths in Alameda County Age-Adjusted Rates by Race/Ethnicity, 2000


Figure 4D. 5
Stroke Deaths by Race/Ethnicity Alameda County, 2000


Total Stroke Deaths $=870$

## Figure 4D. 6

Stroke-Related Hospitalizations in Alameda County Age-Adjusted Rates by Sex, 1995-2000


## Figure 4D. 7

Stroke-Related Hospitalizations in Alameda County Age-Adjusted Rates by Sex and Race/Ethnicity 1998-2000 Average


Figure 4D. 8
Stroke-Related Hospitalizations by Race/Ethnicity Alameda County, 1998-2000


Annual Stroke Hospitalizations $=7,014$

The average number of stroke-related hospitalizations was 7,014 per year from 1998 to 2000 . Of these, $56.3 \%$ were male and $43.7 \%$ female.

The highest rates of stroke-related hospitalization were seen among both African American males and females, ( 880.0 and 863.8 per 100,000, respectively), followed by White males $(624.8$ per 100,000$)$ and then White females ( 519.6 per 100,000 ). Latino males and females had the lowest stroke hospitalization rates, less than half those for African Americans. Asian males and females had the second lowest rates.

The majority of those hospitalized for stroke-related illness were White (54.7\%), followed by African American (23.3\%), Asian (12.1\%), Latino (6.6\%), and American Indian ( $0.2 \%$ ). Due to the way hospital discharge information is completed, there were larger than expected numbers of patients in the 'other' and 'unknown' racial categories.


## All Cancer

## What is it?

Cancer is a large group of diseases characterized by uncontrolled growth and spread of abnormal cells. Cancer occurs when normal cells in the body mutate, or change, into abnormal cells, which then grow out of control. Most types of cancer cells form a lump or mass called a tumor. Cells from the tumor can break away and travel to other parts of the body where they can continue to grow and damage surrounding tissues and organs. If the spread is not controlled or checked, it results in death. However many cancers can be cured if detected early and treated promptly, and many can be prevented by lifestyle changes.

## Why is it important?

Cancer is the second leading cause of death in the United States, killing an estimated 551,000
people in $2000 .{ }^{4}$ Some risk factors for cancer we have no control over, such as age and family history of cancer. However, other important risk factors include personal behaviors such as cigarette smoking, diet and exercise. According to the American Institute for Cancer Research, maintaining a healthy weight, exercising regularly, and not smoking, can reduce an individual's risk of cancer substantially. ${ }^{14}$

Some racial and ethnic groups are more affected by cancer than others. African Americans are more likely to die of cancer than any other racial/ethnic groups. Some specific cancers affect ethnic groups differently. Nationally, for example, Hispanics have higher rates of cervical, esophageal, gallbladder, and stomach cancers than non-Hispanic Whites. Also, stomach and liver cancers among Asian Americans and colorectal cancer among Alaskan Natives are higher than in the rest of the U.S. population. ${ }^{2}$

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. ${ }^{15}$

## Figure 4E. 1

All Cancer Deaths: Selected Counties and California Age-Adjusted Rates, 1999-2000 Average


Figure 4E. 2
All Cancer Deaths in Alameda County
Age-Adjusted Rates, 1990-1998


Figure 4E. 3
All Cancer Deaths in Alameda County Age-Adjusted Rates by Sex, 1999-2000 Average


## What is Alameda County's Status?

## Mortality from All Cancers

The average number of deaths from all cancers was 2,357 per year in Alameda County during the period 1999-2000. The age-adjusted cancer death rate was 187.7 per 100,000, ${ }^{8}$ a significantly higher rate than in San Francisco or Santa Clara Counties, and only slightly higher than California's rate of 179.8. Alameda County has not yet met the Healthy People 2010 national target of no more than 159.9 cancer deaths per 100,000 population.

The death rate from all cancers in Alameda County declined over the past decade, from a high of 215.9 per 100,000 in 1991 to 184.1 per 100,000 in 1998. Data points for the latest years, 1999 and 2000, are not shown here due to changes in the disease classification system. However, the rate of 187.7 for 1999-2000 is considered roughly comparable to earlier rates. ${ }^{9}$ Additional years of data are necessary to determine if the downward trend continues.

Of those who died from cancer in Alameda County during the period 1999 to $2000,49.3 \%$ were male and $50.7 \%$ were female. The cancer death rate among males was 228.3 per $100,000,36 \%$ higher than the female rate of 167.7 per 100,000.

In 2000, the death rate from all cancers was significantly higher among African Americans (259.4 per 100,000) than rates among Asians, Latinos or Whites. The cancer death rate among Whites ( 213.0 per 100,000 ) was significantly higher than rates among Asians and Latinos.

Of the 2,395 who died from cancer in 2000 , the majority was White ( $61.5 \%$ ), followed by African American (19.1\%), Asian (11.8\%), Latino (6.9\%), and a very small number from other racial groups.

Figure 4E. 4
All Cancer Deaths in Alameda County Age-Adjusted Rates by Race/Ethnicity, 2000


Figure 4E. 5
All Cancer Deaths by Race/Ethnicity Alameda County, 2000


Total Cancer Deaths $=2,395$


## Lung Cancer

## What is $i t$ ?

Lung cancer is caused by an uncontrolled growth of abnormal cells in the lungs. The growing cells form a mass called a tumor, which can invade and damage nearby tissues and organs.

## Why is it important?

Lung cancer is the leading cause of death from cancer in the United States for both men and women, accounting for $28 \%$ of all cancer deaths. More than 152,000 people in the U.S. died of lung cancer in 1999. ${ }^{16}$ The American Cancer Society estimates that more than 169,400 new cases of lung cancer will be diagnosed in the U.S. in
2002. ${ }^{17}$ Although there has been some progress in methods of cancer treatment, the chances of full recovery after treatment are very low. Only about $14 \%$ of those treated for lung cancer survive five or more years.

National data shows that while lung cancer death rates have declined since 1990 among males, lung cancer death rates have continued to increase for females. Since 1987, more females have died from lung cancer than from breast cancer. Ageadjusted lung cancer death rates are approximately 40 percent higher among African American males than White males. ${ }^{2}$

According to the American Cancer Society, cigarette smoking is thought to be responsible for 8 out of 10 cases of lung cancer. In addition, nonsmokers who breathe the smoke of others also have an increased risk of developing lung cancer. Thus, preventing and reducing cigarette smoking is key to reducing illness and death from lung cancer. ${ }^{17}$

## What is Alameda County's Status?

## Lung Cancer Mortality

The average number of lung cancer deaths in Alameda County was 622 per year during the period 1999 to 2000 . The age-adjusted death rate was 50.1 per 100,000 , a significantly higher rate than in San Francisco or Santa Clara Counties, and only slightly higher than the California rate of 46.8 per $100,000 .{ }^{8}$ Alameda County has not yet met the Healthy People 2010 national target of no more than 44.9 lung cancer deaths per 100,000 population.

The lung cancer death rate in Alameda County varied in the early part of the 1990s and declined from 61.4 per 100,000 in 1993 to 47.4 per 100,000 in 1998. Data points for the latest years, 1999 and 2000, are not shown here due to changes in the disease classification system. The rate of 50.1 for 1999-2000 is not directly comparable to earlier rates. ${ }^{9}$ Additional years of data are necessary to determine if the downward trend continues.

Of those who died from lung cancer in Alameda County from 1999 to 2000, $52.1 \%$ were male and $47.9 \%$ were female. The lung cancer death rate among males was 63.6 per 100,000 , nearly $50 \%$ higher than the female rate of 42.7 .

Figure 4F. 1
Lung Cancer Deaths: Selected Counties and California Age-Adjusted Rates, 1999-2000 Average


## Figure 4F. 2

Lung Cancer Deaths in Alameda County Age-Adjusted Rates, 1990-1998


Figure 4F. 3
Lung Cancer Deaths in Alameda County Age-Adjusted Rates by Sex, 1999-2000 Average


## Figure 4F. 4

Lung Cancer Deaths in Alameda County Age-Adjusted Rates by Race/Ethnicity, 2000


Figure 4F. 5
Lung Cancer Deaths by Race/Ethnicity Alameda County, 2000


Total Lung Cancer Deaths $=633$

In 2000, the lung cancer death rate among African Americans was 70.9 per 100,000, significantly higher than rates among Asians, Latinos or Whites. In fact, the African American rate was more than two times the Asian and Latino rates. The lung cancer death rate among Whites (59.0 per 100,000 ) was also significantly higher than rates among Asians and Latinos.

Of the 633 who died from lung cancer in 2000, the majority was White ( $63.2 \%$ ), followed by African American (19.9\%), Asian (10.1\%), Latino (5.8\%), and a very small number from other racial groups.

The map on the following page shows three categories of age-adjusted death rates from lung cancer by city in Alameda County. The highest rates were found in Hayward, Livermore and Newark. These communities had lung cancer death rates that exceeded the Healthy People 2010 objective by more than $25 \%$. The national Healthy People 2010 objective for lung cancer mortality is no more than 44.9 deaths per 100,000 population.


## Figure 4F. 6

Lung Cancer Incidence in Alameda County Age-Adjusted Rates, 1990-1999


Figure 4F. 7
Lung Cancer Incidence in Alameda County Age-Adjusted Rates by Sex, 1997-1999 Average


## Figure 4F. 8

Lung Cancer Incidence in Alameda County Age-Adjusted Rates by Race/Ethnicity, 1997-1999 Average


## Lung Cancer Incidence

The annual age-adjusted incidence rate in Alameda County varied between 1990 and 1995 and then leveled off between 1996 and 1999. The age-adjusted incidence rate in 1999 was 62.5 per 100,000.

The average number of lung cancer cases diagnosed in Alameda County was 742 per year for the period 1997 to 1999. Of these, $50.7 \%$ were male and $49.3 \%$ were female.

The lung cancer incidence rate among males was 73.9 per $100,000,37 \%$ higher than the female rate of 53.9 .

The overall age-adjusted incidence rate for lung cancer was 62.0 per 100,000 population for the period 1997 to 1999. The incidence rate was significantly higher among African Americans and Whites (74.4 and 67.7 per 100,000, respectively) than among Asians or Latinos (37.0 and 39.4 per 100,000, respectively) in Alameda County.

Of those diagnosed with lung cancer from 1997 to 1999, the majority was White ( $62.4 \%$ ), followed by African American (19.1\%), Asian (9.3\%), Latino (6.7\%), and a very small number of American Indians (0.1\%).

## Figure 4F. 9

Lung Cancer Cases by Race/Ethnicity Alameda County, 1997-1999


Annual Lung Cancer Cases $=742$


## Female Breast Cancer

## What is it?

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.

## Why is it important?

Breast cancer is the second leading cause of cancer death among women and the most commonly diagnosed cancer among women in the United States. Among the risk factors are older age, later age at birth of first child, and family history of breast cancer. ${ }^{16}$

In 1999 , more than 41,100 women died of breast cancer in the U.S. The age-adjusted death rate
from breast cancer among U.S. women was 25.3 per 100,000 . At the national level, breast cancer death rates are $33 \%$ higher among African American women than among White women. ${ }^{16,18}$

Seventy percent of all diagnosed cases of breast cancer are among women 50 years of age or older. The American Cancer Society estimates that in 2002, 203,500 women have been diagnosed with breast cancer and that 39,600 women will die of the disease in the U.S. ${ }^{16}$

Nationally, even though deaths from breast cancer have recently decreased in White females, deaths due to breast cancer in African Americans continue to increase and new cases among Hispanics are increasing. This difference is due in part to the fact that breast cancer tends to be diagnosed at later stages in African Americans and Hispanics compared to non-Hispanic White females. ${ }^{2}$

Early detection of breast cancer requires a combination of regular breast self-examination, clinical breast examination, and mammography. It is estimated that timely mammography screening among women older than age 40 could prevent $15 \%-30 \%$ of all deaths from breast cancer. ${ }^{16}$

## What is Alameda County's Status?

## Breast Cancer Mortality

The average number of breast cancer deaths was 195 per year among females in Alameda County during the period 1999-2000. The average age-adjusted death rate was 26.5 per 100,000 females, a rate significantly higher than in San Francisco but similar to Contra Costa County and California. ${ }^{8}$ Alameda County has not yet met the Healthy People 2010 national target of no more than 22.3 breast cancer deaths per 100,000 females.

The age-adjusted death rate from breast cancer in Alameda County declined from 34.2 per 100,000 females in 1990 to a low of 24.9 in 1995, and has been variable since. Data points for the latest years, 1999 and 2000, are not shown here due to changes in the disease classification system. The rate of 26.5 for 1999-2000 is not directly comparable to earlier rates. ${ }^{\text {P }}$ Additional years of data are necessary to determine the current trend.

In 2000, breast cancer death rates among African American and White females were nearly identical ( 34.7 and 34.5 per 100,000 , respectively). The numbers of breast cancer deaths in other racial/ethnic groups were too few to calculate reliable rates.

## Figure 4G. 1

Female Breast Cancer Deaths: Selected Counties and California Age-Adjusted Rates, 1999-2000 Average


Figure 4G. 2
Breast Cancer Deaths in Alameda County Age-Adjusted Rates, 1990-1998


Figure 4G. 3
Breast Cancer Deaths in Alameda County
Age-Adjusted Rates by Race, 2000


Figure 4G. 4
Breast Cancer Deaths by Race/Ethnicity Alameda County, 2000


Total Breast Cancer Deaths $=206$

Figure 4G. 5
Breast Cancer Incidence in Alameda County Age-Adjusted Rates, 1990-1999


Figure 4G. 6
Breast Cancer Incidence in Alameda County Age-Adjusted Rates by Race/Ethnicity, 1997-1999 Average


Of the 206 women who died of breast cancer in 2000 , nearly two-thirds were White (64.1\%), 18.4\% were African American, $8.3 \%$ Latino and Asian, and $1 \%$ were Native Hawaiian and Pacific Islander.

## Female Breast Cancer Incidence

Overall, the breast cancer incidence rate in Alameda County increased from 154.5 in 1990 to 173.1 in 1999. This trend reflects the changes in breast cancer screening practices among older women, which in turn results in more frequent diagnosis at early stages of the disease.

The average number of breast cancer cases diagnosed was 1,141 per year in Alameda County for the period 1997 to 1999. The age-adjusted breast cancer incidence rate for all races combined was 165.0 per 100,000 females.
White females had an incidence rate of 186.6 per 100,000, significantly higher than rates for any other racial/ethnic group. African American females had the second highest rate, followed by Asians and Latinos.

Of those diagnosed with breast cancer from 1997 to 1999 , nearly two thirds were White ( $62.7 \%$ ), $13.3 \%$ were African American, $12.2 \%$ were Asian, $7.1 \%$ were Latino, and $0.2 \%$ were American Indian.

Figure 4G. 7
Breast Cancer Cases by Race/Ethnicity Alameda County, 1997-1999


Annual Breast Cancer Cases $=1,141$


## Prostate Cancer

## What is it?

Prostate cancer is a malignancy that develops in the prostate gland, the walnut-shaped gland deep in the pelvis, between the bladder and the penis that produces the fluid part of semen. Prostate cancer occurs almost exclusively in middle-aged and older men. Unlike other cancers, it often lies dormant for many years. But once it begins to spread, it progresses rapidly, with a life expectancy of two to three years from the time of diagnosis. ${ }^{19}$

## Why is it important?

Prostate cancer is the second leading cause of cancer death among men in the U.S., as well as the most commonly diagnosed cancer among
men. It is estimated that in 2002, there will have been 189,000 new cases of prostate cancer in the U.S. and that more than 30,000 men will have died from it. Significantly more African American men than White men are diagnosed with prostate cancer. ${ }^{19}$

About 70 percent of prostate cancers are diagnosed among men who are 65 years or older. Prostate cancer mortality rates are declining among both African American and White men. However, rates among African American men continue to be two times higher than those among White men. Among those whose cancer is detected in the early stages, the 5 -year survival rate is nearly $100 \%$. ${ }^{19}$

In the 1980s the introduction and widespread use of prostate specific antigen (PSA) screening test resulted in a sharp increase in prostate cancer incidence. Consistent with the introduction with this new, sensitive screening method, incidence rates peaked and then started to decline in 1993. ${ }^{19}$

## What is Alameda County's Status?

## Prostate Cancer Mortality

The average number of prostate cancer deaths in Alameda County was 135 per year during the period 1999 to 2000 . The 5 -year average age-adjusted death rate was 35.9 per 100,000 males, a rate significantly higher than in San Francisco and Santa Clara Counties. ${ }^{20,21}$ Alameda County has not yet met the Healthy People 2010 national target of no more than 28.8 prostate cancer deaths per 100,000 males.

The age-adjusted prostate cancer death rate in Alameda County rose to 45.4 per 100,000 males in 1992 and 1993, and then declined to 33.1 per 100,000 males in 1998. Data points for the latest years, 1999 and 2000, are not shown here due to changes in the disease classification system. The average prostate cancer death rate in Alameda County for the period 1999-2000 was 30.2 per 100,000 males. This rate is not directly comparable to earlier rates.? Additional years of data will be necessary to determine if the downward trend continues.

The prostate cancer death rate among African American males was 73.6 per 100,000, 2.7 times the White male rate of 27.4. The number of deaths in other racial/ethnic groups was too small to calculate reliable rates.

Figure 4H. 1
Prostate Cancer Deaths Selected Counties and California Age-Adjusted Rates, 1995-1999 Average


Figure 4H. 2
Prostate Cancer Deaths in Alameda County
Age-Adjusted Rates, 1990-1998


Figure 4H. 3
Prostate Cancer Deaths in Alameda County Age-Adjusted Rates by Race, 2000


## Figure 4H. 4

Prostate Cancer Deaths by Race/Ethnicity Alameda County, 2000


Total Prostate Cancer Deaths $=131$

## Figure 4H. 5

Prostate Cancer Incidence in Alameda County Age-Adjusted Rates, 1990-1999


## Figure 4H. 6

Prostate Cancer Incidence in Alameda County Age-Adjusted Rates by Race/Ethnicity, 1997-1999 Average


Of the 131 men who died of prostate cancer in 2000 , over half were White (55.7\%), one-third was African American (33.6\%), 6.9\% Asian, and 3.8\% Latino.

## Prostate Cancer Incidence

During the 1990s, the incidence of prostate cancer in Alameda County rose, declined, and then began to rise again at the end of the decade to 163.2 per 100,000 males in 1999.

The average number of prostate cancer cases diagnosed in Alameda County was 772 per year from 1997 to 1999. The age-adjusted prostate cancer incidence rate for all races combined was 152.1 per 100,000 males.

African American males had the highest rate of prostate cancer ( 188.8 per 100,000 ), followed by White males ( 146.5 per 100,000 ). Incidence rates in both these groups were significantly higher than among Latino or Asian males ( 94.1 per 100,000 and 84.3 , respectively).

Over half of newly diagnosed prostate cancer cases during the period 1997-1999 were White (55.3\%), followed by African American (18.6\%), Asian (8.9\%), Latino (7.1\%) and American Indian (0.1\%).

## Figure 4H. 7

Prostate Cancer Cases by Race/Ethnicity Alameda County, 1997-1999


Annual Prostate Cancer Cases $=772$

## What are we doing?

## Nutrition

The Nutrition Services Program in the Community Health Services Division, Alameda County Public Health Department (ACPHD), promotes nutritional health in the community through a variety of activities. The Nutritional Services Program:

- Works with several Alameda County school districts to develop nutrition policies promoting healthy food practices.
- Works with local corner markets to increase the supply of fresh fruits and vegetables and it documents food resources in local neighborhoods. ACPHD staff works in neighborhoods to identify and promote local farmer's markets.
- Conducts community-based nutrition education with parents, food service workers, teachers, principals, senior citizens, children in schools, and after school programs, including the Oakland Parks and Recreation Department.
- Makes nutrition education programs available to seniors at selected senior centers and local Parks and Recreation sites, and provides information to the medical community regarding obesity, under-nutrition, and the assessment and referral process.

The Women, Infants and Children (WIC) Program in the Family Health Services Division, ACPHD, promotes the consumption of low fat milk ( $1 \%$ or less) among Program families.

## Tobacco

The Tobacco Control Program in the Community Health Services Division, ACPHD, works with various community groups, organizations, educators, and policy makers to counter pro-tobacco influences in the community through a variety of strategies, including: 1) providing education on tobacco-related disease prevention, 2) reducing exposure to environmental tobacco smoke, 3) increasing the number of smoke-free public spaces, worksites, schools, and communities; and 4) reducing the availability of tobacco products to youth.

To reduce exposure to environmental tobacco smoke, the Tobacco Control Program encourages community-based agencies, grass-roots organizations, businesses, and schools to incorporate new health promotion strategies, policies, and ordinances aimed at preventing smoking and reducing exposure to second hand smoke. It also provides training and support to local police departments in enforcement of smoke-free public spaces.

## Diabetes

The Diabetes Control Program in the Community Health Services Division, ACPHD, works in partnership with national and state diabetes organizations to develop and provide educational materials on diabetes prevention. The Program offers information for medical professionals on guidelines for care of people with diabetes, and it provides case management to people living with type 2 diabetes. In addition, the Program works with the East Oakland and South Hayward communities to address the problems associated with diabetes.

## Asthma

The Asthma Start Program in the Community Health Services Division, ACPHD, provides case management services to children with asthma under age five living in northern Alameda County. Services include health education, environmental home assessments for asthma triggers, asthma trigger reduction counseling (including smoking cessation and reducing exposure to second hand smoke), provision of asthma trigger supplies (such as mattress encasings or vacuum cleaners) as appropriate, and advocacy mentoring for negotiating the health care system.

The Asthma Start Program also participates in, and actively supports, partnerships and coalitions to provide services in a seamless manner, share referrals, raise awareness of best practices towards managing asthma, and plan coordinated service delivery.

## Prostate Cancer

The Community Assessment Planning and Education (CAPE) Unit in the Office of the

Director, ACPHD, is collaborating with the Ethnic Health Institute of the Alta Bates Summit Medical Center in the evaluation of the Prostate Cancer Initiative, a project to increase prostate cancer awareness and screening practices among African American men living in Alameda County. The project also educates medical providers on protocols for prostate cancer screening.

## Employee Health

The Nutrition Services Program in the Community Health Services Division, ACPHD, promotes employee health within the department by providing healthy food tastings and demonstrations at select Public Health Department events and though a regular column in the Department's monthly newsletter called 'Ask A Dietitian.'

The ACPHD also supports cooperative agreements to offer discounted membership in health clubs, exercise programs and nutrition classes as part of the County benefits program, as well as the 'Commit to Be Fit' program that promotes employee fitness and improved nutrition.

## What else do we need to do?

- Work with communities to promote greater access to fresh fruits/vegetables by 1) supporting an increase in the number of markets in underserved areas, 2) developing partnerships with corner grocery stores to increase supply and demand of fresh fruit/vegetables, 3) supporting creative alternatives with retail supermarkets to partner with small corner markets to offer more fruit/vegetables, and 4) starting up farmer's markets and community gardens.
- Work with communities to promote initiatives to increase physical activity and improve nutrition through mini-grants, assessments, and other strategies.
- Develop a community education campaign that includes public service messages and health education materials on important health topics such as the benefits of physical activity and good nutrition, and the importance of reducing exposure to second hand tobacco smoke as well as other common asthma triggers in the home.
- Actively identify and support legislation to address key nutrition and physical activity issues in schools and regulate food advertising to children.
- Work with school districts to develop policies that 1 ) support the sale of nutritious foods, 2) ban the sale of unhealthy foods/sodas on campus, and require regular physical activity in the curriculum.
- Work with HMOs and other medical insurance companies to reimburse for Medical Nutrition Therapy.
- Develop local ordinances to reduce environmental asthma triggers such as air pollution in low income residential neighborhoods.
- Expand funding for chronic disease programming to make interventions available to as many people as possible.


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## Endnotes

${ }^{\text {a }}$ Due to a shift to the 2000 standard population for ageadjustment, many of the HP2000 targets are simply no longer in a range that is comparable to rates we are currently calculating based on the 2000 standard. This is largely the case with heart disease and other diseases of the elderly. Since the population has aged, the proportion of elderly in the population has grown, and therefore we expect to see more deaths associated with the aging process. Thus the 2010 targets are higher for these diseases. The same shifts have not occurred in the younger age groups, and so references to the Healthy People 2000 objective for childhood asthma are still relevant. In fact, the childhood asthma hospitalization rate based on the 2000 standard population is nearly identical to that based on the 1940 standard.
b The Healthy People 2010 objective of 45 or fewer deaths per 100,000 for diabetes mortality is based on contributing as well as underlying causes of death and is thus not comparable to rates presented here which are based only on underlying cause of death.


## Unintentional Injury

## What is it?

Physical injury is bodily harm. Injury that is not purposely inflicted is unintentional injury. We think of unintentional injuries as accidents, and we sometimes think of accidents happening as a result of chance or bad luck. In fact, most unintentional injuries are predictable and preventable. The most common causes of unintentional injury are motor vehicle crashes, falls, burns, drownings, gun shots, and poisonings.

## Why is it important?

Injury is a major cause of premature death and lifelong disability. Most injuries are unintentional. Two-thirds of injury deaths are unintentional, and $94 \%$ of nonfatal injuries treated in Emergency Departments are unintentional. ${ }^{1,2}$

In 2000, 93,592 people died of unintentional
injuries in the U.S. ${ }^{1}$ It is estimated that an additional 28 million unintentional injuries were treated in hospital Emergency Departments in 2000. ${ }^{2}$

Nationally, the age-adjusted rate of unintentional injury death was 33.9 per 100,000 population. ${ }^{1}$ The rate of unintentional injury death among males in 1999 was 47.7 per 100,000, nearly two times the female rate of 24.6. ${ }^{3}$

American Indians have disproportionately high rates of death from unintentional injury relative to other racial and ethnic groups in the U.S. Rural or isolated living, minimal emergency medical services, and great distances from sophisticated trauma care contribute to these increased rates for American Indians. ${ }^{4}$

Motor vehicle accidents were the single largest source of unintentional injury death, followed by falls, poisoning, drowning and fire. ${ }^{1}$ Of unintentional, nonfatal injuries seen in Emergency departments, falls comprised the single largest number. The second largest number was from being struck by or against an object, followed by motor vehicle accidents, overexertion, and then cuts. ${ }^{2}$

## What is Alameda County's status?

## Unintentional Injury Mortality

The average number of unintentional injury deaths in Alameda County was 328 per year from 1999 to 2000. The age-adjusted death rate was 24.4 per 100,000 in Alameda County, a rate statistically similar to Contra Costa and Santa Clara Counties and the state.5 Only San Francisco's rate was significantly higher than other counties or the state. Neither the state nor any Bay Area counties have met the Healthy People 2010 national objective of no more than 17.5 unintentional injury deaths per 100,000 population.

The death rate from unintentional injury in Alameda County has varied in the past decade. Overall, there has been a modest decline from a high of 30.9 per 100,000 in 1991 to a low of 22.8 per 100,000 in 1997. An increase was observed again in 1998. Data points for the most recent years, 1999 and 2000, are not included here due to a change in the disease classification system. The average rate of 24.4 per 100,000 for $1999-2000$ is not directly comparable to previous years. ${ }^{6}$ Additional years of data will be necessary to determine if the downward trend continues.

During the period 1999 to $2000,64.2 \%$ of those who died from unintentional injury were male and $35.8 \%$ were female. The age-adjusted death rate from unintentional injury in Alameda County during this period was 31.8 per 100,000 for males, nearly twice the rate of 15.8 per 100,000 for females. While these rates are lower than those seen nationally, the two-fold sex difference is similar.

Figure 5A. 1
Unintentional Injury Deaths: Selected Counties and California Age-Adjusted Rates, 1999-2000 Average


Figure 5A. 2
Unintentional Injury Deaths in Alameda County Age-Adjusted Rates, 1990-1998


Figure 5A. 3
Unintentional Injury Deaths in Alameda County Age-Adjusted Rates by Sex, 1999-2000 Average


## Figure 5A. 4

Unintentional Injury Deaths in Alameda County Age-Adjusted Rates by Race/Ethnicity, 2000


## Figure 5A. 5

Unintentional Injury Deaths by Race/Ethnicity Alameda County, 2000


Total Unintentional Injury Deaths $=328$

## Figure 5A. 6

Unintentional Injury Hospitalizations in Alameda County Age-Adjusted Rates by Sex, 1995-2000


In 2000, the rate of unintentional injury death among African Americans was 32.7 per 100,000 , significantly higher than among Asians (19.0), Latinos (21.7), or Whites (23.1).

Nearly half of those who died from unintentional injuries in 2000 were White (48.2\%), followed by African American (20.7\%), Asian (14.3\%), Latino (14.0\%), two or more races (1.8\%), and Native Hawaiian/Pacific Islander (0.9\%).

## Unintentional Injury Hospitalization

Rates of hospitalization for unintentional injury changed very little between 1995 and 2000. Males had consistently higher rates than females, though the difference was not two-fold as seen for unintentional injury deaths. In 2000, the male rate was 462.8 per 100,000 and for females it was 410.0 per 100,000 .

The average number of unintentional injury hospitalizations was 5,825 per year from 1998 to 2000. Of these, $50 \%$ were male.

Asians had the lowest rates of unintentional injury hospitalization, and they were the only racial subgroup in which male rates did not exceed female rates. The highest rates were seen among White males ( 507.7 per 100,000 ) and African American males (505.9), followed by White females (466.0), Latino males (367.4), and African American females (360.5).

Over half of those hospitalized for unintentional injury were White ( $57.0 \%$ ), followed by African American (16.8\%), Latino (11.9\%), Asian (8.0\%), and American Indian $(0.2 \%)$. Due to the way hospital discharge information is recorded, there were more patients in the 'other' racial category than expected.

Figure 5A. 7
Unintentional Injury Hospitalizations in Alameda County Age-Adjusted Rates by Sex and Race/Ethnicity, 1998-2000 Average


Figure 5A. 8
Unintentional Injury Hospitalizations by Race/Ethnicity Alameda County, 1998-2000


Annual Unintentional Injury Hospitalizations $=5,825$


## Motor Vehicle Crashes

## What are they?

Motor vehicle crash injuries include all injuries to motor vehicle occupants during a collision, as well as injuries in which a pedestrian or cyclist is struck by a vehicle.

## Why are they important?

Motor vehicle crashes are the single largest cause
of all injury mortality in the U.S., and they are the leading cause of death and disability for young children and young adults. ${ }^{1,2}$ Two times as many males as females die in motor vehicle crashes. ${ }^{3}$ American Indians and Alaska Natives have disproportionately higher death rates from motor vehicle crashes than any other racial/ethnic groups. ${ }^{4}$
Nationally, in 2000, there were 41,804 motor vehicle crash deaths, comprising $45 \%$ of all unintentional injury deaths. In the same year, there were 3.7 million nonfatal motor vehicle injuries (motor vehicle occupant, motorcyclist, or pedestrian) treated in Emergency Departments in the U.S. ${ }^{1,2}$

## What is Alameda County's Status?

## Motor Vehicle Crash Mortality

The average number of motor vehicle crash deaths among Alameda County residents was 104 per year from 1999 to 2000. The age-adjusted death rate was 7.7 per 100,000 , similar to the neighboring counties of Contra Costa, San Francisco, and Santa Clara. ${ }^{5}$ Rates for the four counties were significantly lower than in California as a whole. In fact, each of the four counties has met the Healthy People 2010 national objective of no more than 9.2 motor vehicle crash deaths per 100,000 population, but California has not.

The death rate from motor vehicle crashes among Alameda County residents has declined in the past decade. In 1990, the age-adjusted death rate was 11.2 per 100,000, and in 1998 it was 7.7. Data points for the most recent years, 1999 and 2000, are not included here due to a change in the disease classification system. The average rate of 7.7 per 100,000 for 1999-2000 is not directly comparable to previous years. ${ }^{6}$ Additional years of data will be necessary to determine if the downward trend continues.

## Figure 5B. 1

Motor Vehicle Crash Deaths: Selected Counties and California Age-Adjusted Rates, 1999-2000 Average


Figure 5B. 2
Motor Vehicle Crash Deaths in Alameda County Age-Adjusted Rates, 1990-1998


Figure 5B. 3
Motor Vehicle Crash Deaths in Alameda County Age-Adjusted Rates by Sex, 1999-2000 Average


## Figure 5B. 4

Motor Vehicle Crash Deaths in Alameda County Age-Adjusted Rates by Race/Ethnicity, 2000


Figure 5B. 5
Motor Vehicle Crash Deaths by Race/Ethnicity Alameda County, 2000


Total Motor Vehicle Crash Deaths $=115$

## Figure 5B. 6

Motor Vehicle Crash Hospitalizations in Alameda County
Age-Adjusted Rates by Sex, 1995-2000


In 2000, the death rate from motor vehicle crashes was 9.2 per 100,000 for both Asians and Latinos. The rate among Whites was 6.6 per 100,000, lower than other groups, but not significantly. The rate for other racial/ethnic groups was not calculated due to small numbers.

Over one-third (37.4\%) of those who died from motor vehicle crashes were White, followed by Asian (22.6\%), Latino (20.9\%), African American (14.8\%), two or more races (2.6\%), and Native Hawaiian/Pacific Islander (1.7\%).

## Motor Vehicle Crash Hospitalization

The rate of hospitalization for motor vehicle crashes has remained stable for females since 1996. For males, the rate has been more variable but consistently $50 \%$ to $80 \%$ higher than the female rate. In 2000, the male rate was 123.6 per 100,000 compared to 71.6 for females.

The average number of motor vehicle crash hospitalizations in Alameda County was 1,343 per year from 19982000. Of these, $62.0 \%$ were male and $38.0 \%$ were female.

The rate of hospitalization for motor vehicle crashes was highest among African American males (133.3 per 100,000 ), followed by White males (125.0), and Latino males (89.7). Only among Asians were male and female rates similar ( 44.2 and 41.5 per 100,000, respectively).

Nearly half ( $46.7 \%$ ) of those hospitalized for motor vehicle crashes were White, followed by African American (19.3\%), Latino (13.4\%), Asian (8.6\%), and American Indian ( $0.2 \%$ ). An unusually large number ( $10.8 \%$ ) were classified as 'other,' perhaps reflecting the hospital admission process. In the case of traumatic injury, it is likely most patients are admitted through the Emergency Department at a time when they may not be able to provide accurate personal information and family members may not be present.

Figure 5B. 7
Motor Vehicle Crash Hospitalizations Age-Adjusted Rates by Sex and Race/Ethnicity Alameda County, 1998-2000


Figure 5B. 8
Motor Vehicle Crash Hospitalizations by Race/Ethnicity Alameda County, 1998-2000


Annual Motor Vehicle Crash Hospitalizations $=1,343$


## Homicide/Assault

## What is it?

Homicide, or murder, is any intentionally inflicted fatal injury to another person. These exclude 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 an intent to kill.

## Why is it important?

In 2000, there were 16,137 homicides in the U.S. It is estimated that an additional 1.7 million
assault injuries were treated in hospital Emergency Departments in 2000. ${ }^{1,2}$

Homicide is the second leading cause of death, after unintentional injury, among those 15-24 years of age in the U.S. Homicide rates are especially high among 20-24 year-old males: 26.6 per 100,000 compared to 5.2 per 100,000 among 2024 year-old females. Nearly two-thirds ( $64 \%$ ) of homicides involve the use of firearms. ${ }^{3}$

Homicide victimization is especially high among African American and Hispanic youth. In recent years, African American males and females 15 to 24 years of age had homicide rates that were more than twice the rates of their Hispanic counterparts and nearly 14 times the rate of their White counterparts. ${ }^{4}$

## What is Alameda County's status?

## Mortality Due to Homicide

Alameda County ranks 6th among California's 58 counties in deaths due to homicide. The average number of homicides in Alameda County was 109 per year from 1999 to 2000. The age-adjusted homicide rate was 7.6 per 100,000 in Alameda County, significantly higher than Santa Clara County's rate of 2.3 per $100,000 .^{5}$ Alameda County has not yet met the Healthy People 2010 national objective of no more than 3.0 homicides per 100,000.

The rate of homicide in Alameda County declined from 15.2 per 100,000 in 1992 to 7.5 per 100,000 in 1998. Data points for the most recent years, 1999 and 2000, are not included here due to a change in the disease classification system. However, the average rate of 7.6 per 100,000 in 1999-2000 is considered roughly comparable to prior years ${ }^{6}$ and suggests a leveling off of the homicide rate. Though the data are not shown here, it is clear that the numbers of homicides began to climb again in 2001 and 2002, at least temporarily interrupting the downward trend of the previous decade.

Of the 109 homicides annually, $82.9 \%$ of the victims were male and $17.1 \%$ were female. The age-adjusted homicide rate for the period 1999 to 2000 among males was 11.8 per 100,000 , over four times the female rate of 2.5 per 100,000 (female rate is unreliable due to small numbers).

Figure 5C. 1
Homicide: Selected Counties and California Age-Adjusted Rates, 1999-2000 Average


Figure 5C. 2
Homicide in Alameda County
Age-Adjusted Rates, 1990-1998


Figure 5C. 3
Homicide Deaths by Sex
Alameda County, 1999-2000


## Figure 5C. 4

Homicide in Alameda County, African Americans and All Others Age-Adjusted Rates, 2000


Figure 5C. 5
Homicide Deaths by Race/Ethnicity Alameda County, 2000

62.7\%

Total Homicide Deaths $=118$

## Figure 5C. 6

Hospitalizations for Assault in Alameda County Age-Adjusted Rates by Sex, 1995-2000


In 2000, the African American homicide rate was 34.1 per 100,000 , ten times higher than the rate for all other racial/ethnic groups combined. Rates were not calculated for other racial/ethnic groups separately due to small numbers.

In 2000, nearly two-thirds of homicide victims were African American ( $62.7 \%$ ), followed by Latino (11.9\%), White (11.9\%), Asian (10.2\%), Native Hawaiian/Pacific Islander ( $1.7 \%$ ), American Indian and those of two or more races ( $0.8 \%$ each).

## Assault Hospitalization

Male rates of hospitalization for assault have been consistently five to six times higher than female rates. The ageadjusted rate for males declined from 99.6 per 100,000 in 1995 to 73.4 per 100,000 in 2000 . The female rate declined from 17.9 per 100,000 in 1995 to 12.3 per 100,000 in 2000.

The average number of assault hospitalizations in Alameda County was 684 per year from 1998-2000. Of these, $84.6 \%$ were male and $15.4 \%$ were female.

The rate of assault hospitalization among African American males was 235.1 per 100,000 , exceeding rates in any other group. It was three times the Latino male rate, six times the White male rate, and fifteen times the Asian male rate. The assault hospitalization rate for African American females was four times the White female rate. Rates for females of other racial/ethnic groups were not calculated due to small numbers.

Half of those hospitalized for assault injury were African American (49.8\%), followed by White (21.4\%), Latino (17.5\%), Asian (4.0\%), and American Indian (0.2\%). Due to the way hospital discharge data is recorded, there were more patients in the 'other' racial category than expected.

Figure 5C. 7
Hospitalizations for Assault In Alameda County Age-Adjusted Rates by Sex and Race/Ethnicity, 1998-2000 Average


Figure 5C. 8
Hospitalizations for Assault by Race/Ethnicity Alameda County, 1998-2000


Annual Assault Hospitalizations $=684$


## Suicide/Self-Inflicted Injury

## What is it?

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.

## Why is it important?

Nationally, suicide is the second leading cause of death in the 25-34 age group, and the 3rd leading
cause of death in the 15-24 age group. Among those 25-34, for all races combined, the male rate exceeds the female by more than four to one ( 22.3 per 100,000 compared to 4.8 in 1999). ${ }^{3}$

In 2000, there were 28,332 suicides in the U.S. Overall, the age-adjusted suicide rate was 10.3 per 100,000 population. It is estimated that in the same year an additional 225,577 self-inflicted injuries were treated in hospital Emergency Departments. Of these, $55.9 \%$ were female. Over half of all suicides ( $57.9 \%$ ) involve the use of firearms. ${ }^{1,2}$

Among males 25-34 years of age, American Indians have the highest suicide rates, followed by Whites. Among females in this age group, Whites have the highest suicide rates followed by Asian/Pacific Islanders. ${ }^{3}$

## What is Alameda County's status?

## Mortality from Suicide

The average number of suicides in Alameda County was 111 per year from 1999 to 2000. The age-adjusted suicide rate was 7.8 per 100,000 . Due to the relatively small number of suicides, the rate was not significantly different from the statewide rate of 9.5 per 100,000 , or those in neighboring counties. ${ }^{5}$ Neither California nor any Bay Area counties have met the Healthy People 2010 national objective of no more than 5 suicide deaths per 100,000 population.

The rate of suicide in Alameda County changed very little between 1990 and 1998. It was 10.7 per 100,000 in 1990 and 10.1 in 1998. Data points for the most recent years, 1999 and 2000, are not included here due to a change in the disease classification system. However, the average rate of 7.8 per 100,000 for 1999-2000 is considered roughly comparable to previous years. ${ }^{6}$ Additional years of data will be necessary to determine if there is a downward trend in suicide.

Figure 5D. 1
Suicide: Selected Counties and California Age-Adjusted Rates, 1999-2000 Average


Figure 5D. 2
Suicide in Alameda County Age-Adjusted Rates, 1990-1998


Figure 5D. 3
Suicide in Alameda County Age-Adjusted Rates by Sex, 1999-2000 Average



Total Suicide Deaths = 107

## Figure 5D. 5

Hospitalizations for Self-Inflicted Injury in Alameda County
Age-Adjusted Rates by Sex, 1995-2000


## Figure 5D. 6

Hospitalizations for Self-Inflicted Injury Age-Adjusted Rates by Sex and Race/Ethnicity

Alameda County, 1998-2000 Average


In 2000, nearly two-thirds of those who died from suicide were White (61.7\%), followed by Asian (17.8\%), African American (9.3\%), Latino (8.4\%), Native Hawaiian \& Pacific Islander ( $1.9 \%$ ), and those of two or more races $(0.9 \%)$.

## Hospitalization for Self-Inflicted Injury

The rate of hospitalization for self-inflicted injury changed very little for males between 1995, when it was 24.3 per 100,000, and the year 2000 when it was 21.5 per 100,000. The female rate, while consistently higher than the male rate, has been more variable, fluctuating from a high of 39.0 in 1998 to a low of 31.9 in 1999. The rate in 2000 was 37.4 per 100,000.

The average number of hospitalizations for self-inflicted injury in Alameda County was 432 per year from 19982000. Of these, $61.6 \%$ were female and $38.4 \%$ were male.

In contrast to suicide deaths, where the male rate exceeded the female rate by a substantial margin, the female rate of hospitalization for self-inflicted injury exceeded the male rate by $55 \%$ for all races combined. Rates were highest among White females ( 44.3 per 100,000), followed by African American females ( 32.0 per 100,000), and Latino females ( 27.1 per 100,000). The numbers of selfinflicted injury hospitalizations for Asian and Latino males were too small to calculate reliable rates.

Over half of those hospitalized for self-inflicted injury were White ( $54.8 \%$ ), followed by African American (16.2\%), Latino ( $12.3 \%$ ), Asian ( $10.7 \%$ ), and American Indian $(0.3 \%)$. Due to the way hospital discharge data is recorded, there were more patients in the 'other' racial category than expected.

Figure 5D. 7
Hospitalizations for Self-Inflicted Injury by Race/Ethnicity Alameda County, 1998-2000


Annual Self-Inflicted Injury Hospitalizations $=432$


## Injury Deaths by Mechanism and Intent

Well over half of injury deaths from 1999 to 2000 were unintentional (58.5\%). An additional 19.7\% were from suicide, $19.3 \%$ from homicide, and $2.5 \%$ from other or unknown causes.

The leading cause of unintentional injury death was transport-related (37.7\%), primarily involving
motor vehicles. The second leading cause was poisoning (25.9\%), followed by falls (17.7\%), drowning (4.1\%) and suffocation (3.5\%).

Guns were involved in the majority of homicides (71.9\%). A smaller number of homicides involved stabbing or striking ( $11.5 \%$ and $6.0 \%$, respectively).

Guns were used in $43.9 \%$ of suicides. Most others involved suffocation (26.7\%), and poisoning ( $12.7 \%$ ), while a smaller number were from cuts, falls, and drowning.

Injury Deaths by Mechanism and Intent: Average Annual Number \& Percent, Alameda County, 1999-2000

| Injury by Mechanism ${ }^{7}$ | Unintentional |  | Homicide |  | Suicide |  | Other |  | Total Count |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Count | \% | Count | \% | Count | \% | Count | \% |  |
| Cut/pierce | 0 |  | 13 | 11.5 | 5 | 4.5 | 0 |  | 18 |
| Drowning | 14 | 4.1 | 0 |  | 4 | 3.6 | 1 | 3.6 | 18 |
| Fall | 58 | 17.7 | 0 |  | 5 | 4.1 | 0 |  | 63 |
| Fire/hot object or substance | 9 | 2.7 | 0 |  | 0 |  | 0 |  | 9 |
| Firearm | 1 | 0.3 | 78 | 71.9 | 49 | 43.9 | 4 | 28.6 | 132 |
| Machinery | 1 | 0.3 | 0 |  | 0 |  | 0 |  | 1 |
| All transport | 124 | 37.7 | 2 | 1.8 | 0 |  | 1 | 3.6 | 126 |
| Motor vehicle crash | (104) |  |  |  |  |  |  |  |  |
| All other transport-related | (20) |  |  |  |  |  |  |  |  |
| Natural/environmental | 2 | 0.6 | 0 |  | 0 |  | 0 |  | 2 |
| Overexertion | 1 | 0.2 | 0 |  | 0 |  | 0 |  | 1 |
| Poisoning | 85 | 25.9 | 1 | 0.9 | 14 | 12.7 | 2 | 14.3 | 102 |
| Struck by or against | 2 | 0.6 | 7 | 6.0 | 0 |  | 1 | 3.6 | 9 |
| Suffocation | 12 | 3.5 | 4 | 3.2 | 30 | 26.7 | 0 |  | 45 |
| Other/unspecified | 21 | 6.4 | 5 | 4.6 | 5 | 4.5 | 7 | 46.4 | 38 |
| Total* | 328 | 100.0 | 109 | 100.0 | 111 | 100.0 | 14 | 100.0 | 561 |

* Excludes adverse effects of medical and therapeutic intervention. Counts may not add to total due to rounding.



## Injury Hospitalizations by Mechanism and Intent

A large majority of injury hospitalizations from 1998-2000 were due to unintentional injury (83.3\%). An additional $9.9 \%$ were from assault, $6.2 \%$ from self-inflicted injuries, and $0.6 \%$ from other or unknown causes.

Most unintentional injury hospitalizations were
from two causes, falls (49.6\%) and motor vehicle traffic accidents (22.1\%). A smaller number were from poisoning, striking or being struck by an object, overexertion, bicycle crashes, and cuts.

The greatest number of assault hospitalizations were caused from being struck by or against an object ( $45.3 \%$ ), from being cut or pierced ( $21.8 \%$ ), or from being shot ( $21.5 \%$ ).

Most hospitalizations from self-inflicted injury were caused by poisoning ( $85.6 \%$ ), and a smaller number by cuts, gunshots, and falls.

Injury Hospitalizations by Mechanism and Intent: Average Annual Number \& Percent, Alameda County, 1998-2000

| Injury by Mechanism ${ }^{7,8}$ | Unintentional |  | Assault |  | Self-Inflicted |  | Other |  | Total Count |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Count | \% | Count | \% | Count | \% | Count | \% |  |
| Cutting/piercing | 121 | 2.1 | 150 | 21.8 | 35 | 8.2 | 2 | 4.2 | 307 |
| Drowning | 17 | 0.3 | 0 |  | 0 | 0.1 | 0 | 0.8 | 18 |
| Falls | 2,865 | 49.6 | 2 | 0.3 | 8 | 1.8 | 3 | 6.8 | 2,877 |
| Fire Burn | 109 | 1.9 | 2 | 0.3 | 0 | 0.1 | 3 | 7.6 | 114 |
| Firearms | 15 | 0.3 | 148 | 21.5 | 9 | 2.1 | 4 | 9.3 | 175 |
| Machinery | 76 | 1.3 | 0 |  | 0 | 0.0 | 0 |  | 76 |
| Motor vehicle-traffic | 1,277 | 22.1 | 0 |  | 1 | 0.2 | 0 |  | 1,277 |
| Other-bike/ped | 139 | 2.4 | 0 |  | 0 |  | 0 |  | 139 |
| Other transport | 93 | 1.6 | 2 | 0.2 | 0 |  | 0 |  | 94 |
| Nature/environment | 36 | 0.6 | 0 |  | 0 |  | 0 |  | 36 |
| Bites/stings | 52 | 0.9 | 0 |  | 0 |  | 0 |  | 52 |
| Overexertion | 147 | 2.5 | 0 |  | 0 |  | 0 |  | 147 |
| Poisonings | 350 | 6.1 | 1 | 0.1 | 369 | 85.6 | 15 | 39.0 | 735 |
| Struck by or against | 164 | 2.8 | 311 | 45.3 | 0 |  | 3 | 7.6 | 478 |
| Suffocation/strangulation | 30 | 0.5 | 1 | 0.1 | 3 | 0.7 | 1 | 1.7 | 35 |
| Other/unspecified | 283 | 4.9 | 69 | 10.1 | 6 | 1.3 | 9 | 22.0 | 366 |
| Total* | 5,771 | 100.0 | 686 | 100.0 | 431 | 100.0 | 39 | 100.0 | 6,927 |

*Excludes adverse effects of medical and therapeutic intervention. Counts may not add to total due to rounding.

## What are we doing?

## Unintentional Injuries

- The Emergency Medical Services (EMS) Division of the Alameda County Public Health Department (ACPHD) collaborates with the Oakland Pedestrian Safety Project (OPSP) of the City of Oakland Public Works Department to raise awareness about pedestrian injuries in Oakland. OPSP coordinates SAFE MOVES, a program that teaches children of all ages about traffic safety.
- The EMS Division is the lead partner in the Senior Injury Prevention Project (SIPP), a collaborative made up of public and private partners, advocacy groups and other community-based organizations. The SIPP holds conferences, discussion groups, and safety fairs aimed at preventing falls and other injuries common among senior citizens. It partners with businesses to provide free minor safety repairs for low-income, homebound seniors, and produces educational materials and a resource directory.
- The Injury Prevention Program in the EMS Division provides education to providers, parents and school age children on childhood injury. The Program is the lead agency for the Alameda County Safe Kids Coalition, part of the National Safe Kids Coalition, dedicated to raising awareness about the risks from injuries that children face and how to prevent them. The Safe Kids Coalition partners with other agencies in Alameda County to conduct car seat checks to help parents learn the basics of proper car seat installation and use.
- The Injury Prevention Program oversees the Child Passenger Safety Work Group, which is comprised of representatives from community based organizations, child care organizations, and health clinics. This work group distributes car seats and car seat vouchers and bike helmets to eligible low income families. The Program works in conjunction with the courts, to offer a court diversion class for car seat and seat belt violations.
- The Alameda County Public Health Department provides cribs to eligible low income
families visited by public health nurses in order to reduce the risk of infant injury.


## Homicide/Assault

- The Alameda County Public Health Department is working with the Martin Luther King Center to develop a county-wide directory of violence prevention and intervention programs.
- Project New Start of the Community Health Services Division is a tattoo removal program that provides laser treatment to remove gang tattoos on prominent areas (especially on the hands and neck) and develops mentorship opportunities for youth involved in gangs.
- The Teen Relationship Improvement Program (TRIP) in the Family Health Services Division, ACPHD, works with coalitions, schools, and health service providers to prevent violence and other injuries among youth through increasing capacity for healthy relationships.


## Suicide/Self-Inflicted Harm

- Suicide is preventable in many cases by early recognition and treatment of mental disorders, including substance abuse. ${ }^{4}$ Limiting access to lethal methods of suicide and providing mental health services, including crisis intervention, are two of the most important suicide prevention strategies. The Alameda County Public Health Department currently does not have programs that address suicide prevention.


## What else do we need to do?

- Work with county and community-based agencies to develop a countywide violence prevention plan that will articulate overall vision and proposed strategies for addressing violence prevention on a continual basis.
- Work with county and community-based agencies to assess current efforts aimed at violence prevention, investigate best practices, and identify gaps in Alameda County.
- Identify, assess, and monitor the prevalence intentional and unintentional injury in Alameda County as well as the behavioral and environmental risk factors associated with such injuries. Make information available through a data warehouse provided through the departmental web page.
- Review hospital trauma data and police records to identify the causes of intentional and unintentional injury in the county.
- Support enforcement of existing safety regulations including housing codes, pedestrian, traffic, car seat, and helmet laws.
- Support legislation that reduces intentional injuries (including domestic violence, homicide and suicide) and unintentional injuries. Explore additional policy interventions to reduce the root causes of violence in Alameda County.


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## Communicable

 Diseases

## AIDS

## What is it?

Acquired Immunodeficiency Syndrome (AIDS) is caused by the Human Immunodeficiency Virus, known as HIV. By weakening the body's immune system, HIV progressively destroys the body's ability to protect itself from infection and disease. A positive HIV test result does not mean that the person has AIDS. The term AIDS applies to the most advanced stages of HIV infection. The United States Centers for Disease Control and Prevention (CDC) developed the official definition of AIDS, which is diagnosed when a person with HIV:

- Has a very low number of disease-fighting cells (CD4 Positive T cell count below 200 or $14 \%$ ); or
- Becomes ill with an "opportunistic" infection caused by bacteria, viruses, fungi or parasites that normally do not affect healthy people.

HIV is spread from person to person through bodily fluids, which include blood, semen, vaginal secretions, and breast milk. The most common forms of transmission are sexual contact with infected people and sharing contaminated needles or syringes. HIV can also be transmitted from HIV-infected women to their babies during pregnancy, delivery or breast-feeding. In the

United States, HIV is rarely spread through transfusions of infected blood or blood products.

HIV is not spread through casual contact, such as touching, sneezing, sharing food or towels, swimming or using public toilets. Scientists have found no evidence of HIV spreading by casual kissing. There is documented evidence that HIV can be transmitted through oral sex, though it is generally agreed that the risk is less than for intercourse. ${ }^{1}$

## Why is it important?

HIV/AIDS is a severe, life-threatening condition that has reached epidemic proportions. Since the onset of the HIV/AIDS epidemic 20 years ago, more than 60 million people worldwide have been infected with HIV. In the United States, there have been 816,149 AIDS cases, and 467,910 reported deaths from AIDS as of December, 2001. ${ }^{\text {² }}$

The Centers for Disease Control and Prevention estimates that there are 800,000 to 900,000 people currently living with HIV in the United States, with approximately 40,000 new infections occurring each year. ${ }^{3}$

Although there is no cure for HIV/AIDS, the use of antiretroviral combination therapy has slowed the progression from HIV infection into AIDS, and decreased the number of deaths among those infected with HIV/AIDS.

## What is Alameda County's status?

Since 1983, Alameda County, as well as the rest of California, has required the confidential reporting of AIDS cases, enabling the characterization of AIDS cases throughout the course of the epidemic. In Alameda County, the number of new AIDS cases increased from one in 1980 to 627 at the height of the epidemic in 1992. Since then,
new cases have steadily declined to 191 cases in 2001. Since the early 1990 s, California and states across the U.S. have experienced a decrease in new cases diagnosed each year, as well as dramatic decrease in disease progression from HIV infection to AIDS diagnosis, and AIDS deaths. Although about $90 \%$ of persons diagnosed before 1990 have died, AIDS mortality in Alameda County has decreased dramatically from 354 deaths in 1992 to 71 deaths in 2001.

Figure 6A. 1
AIDS Cases and Deaths
Alameda County, 1986-2001


While the number of new AIDS cases diagnosed annually has declined and more people are living with HIV without progressing to AIDS, it is difficult to determine the extent of HIV infection. According to the CDC, half of the people with HIV develop AIDS within an average of 10 years after becoming infected. This varies from person to person, depending on an individual's health status and health behaviors. AIDS diagnosis data, although delayed, are useful in showing approximate and expected patterns of HIV infection.

Because changes in the standard of care for HIV patients have produced a delayed progression from HIV infection to an AIDS diagnosis or death, AIDS surveillance data alone are no longer reliable to reflect the course of HIV.
Beginning July 2002, the State of California implemented mandatory reporting of confirmed HIV infection without a diagnosis of AIDS. After full implementation of this system, new data will be available to characterize cases of HIV in Alameda County.

## Figure 6A. 2

AIDS Case Rates: Selected Counties and California 1999-2001 Average


Figure 6A. 3
AIDS Case Rates by Year of Diagnosis and Race/Ethnicity Alameda County, 1990-2001


## Figure 6A. 4

AIDS Mode of Exposure by Year of Diagnosis Alameda County, 1986-2001


The average AIDS case rate in Alameda County for the years 1999 to 2001 was 15.4 cases per 100,000 residents. This rate was higher than Contra Costa and Santa Clara Counties' rates of 7.6 and 7.3 cases per 100,000, respectively. It is substantially lower than San Francisco County's rate of 63.1 cases per 100,000. Alameda County's AIDS case rate is higher than California's rate of 11.4 cases per 100,000 and falls well short of the Healthy People 2010 objective of no more than one AIDS case per 100,000.

The crude AIDS case rate among different racial/ethnic groups in Alameda County has shifted dramatically through the course of the epidemic. In the early 1980s, the highest AIDS rate was in the White population. Through the 1990s to date, African Americans have had the highest AIDS case rates. In 2001, the case rate among African Americans was eight times that of Whites and nearly four times that of Latinos. Case rates for Latinos have exceeded those of Whites in the last five years. Rates for Asian/Pacific Islanders and Native American are not shown due to small numbers yielding unreliable rates. In recognition of the disparity in risk of AIDS between African Americans and other race/ethnicity groups, the Alameda County Board of Supervisors declared a State of Emergency in November 1998.

Although men having sex with men (MSM) continues to be the predominant mode of exposure, it accounts for a decreasing proportion of Alameda County AIDS cases diagnosed each year. Injection drug use (IDU) became a major exposure mode among AIDS cases in the 1990s and has remained at approximately $20 \%$. Exposure by heterosexual contact has increased markedly since 1996 and accounted for about one-third of cases in 2001.

Historically, males comprised the majority of the cases, but the gender distribution has also changed over time. Each year, women accounted for a greater proportion of cases. In $1990,7.9 \%$ of the newly diagnosed AIDS cases were women; by 2001, women comprised $24.1 \%$ of new cases. As the proportion of AIDS cases in women has increased, the proportions of exposure through heterosexual contact and injection drug use have also increased. Heterosexual contact and injection drug use accounted for $54.3 \%$ and $34.8 \%$ respectively of AIDS cases among women in 2001.

As more effective therapies have become available, fewer people with AIDS are dying. Concurrent with decreases in mortality, there are markedly increased numbers of persons living with AIDS (PLWA) in Alameda County. From 1996 to 2001, the number of PLWA has increased by 51\%.

Despite the drop in mortality, HIV/AIDS was the fifth leading cause of death among adults in the age groups 25 to 34,35 to 44 , and 45 to 54 . The disease accounted for $8.5 \%, 6.9 \%$, and $4.3 \%$, respectively, of deaths in these age groups in Alameda County for the period 1999-2000.



## Chlamydia

## What is it?

Chlamydia, caused by the Cblamydia trachoma tis organism, is the most common bacterial sexually transmitted disease (STD) in the United States. It is sometimes referred to as the "silent epidemic" because approximately $75 \%$ of infections in females, and at least $50 \%$ of infections in males are asymptomatic (have no symptoms). Therefore, the majority of cases go undiagnosed and unreported. Although 702,093 cases were reported nationally in 2000 , researchers estimate that three million cases occur annually.

## Why is it important?

Since public health officials began formal moni-
toring efforts in 1989, chlamydia has been the most common reportable infectious disease in California. Chlamydia is widespread among those who are sexually active, and accounts for over three-fourths of the reportable STD infections annually. Adolescents and young adults have the highest rates of chlamydia, with the infection rate exceeding $20 \%$ in some groups.

Symptoms of chlamydia infections tend to develop slowly and are frequently mild, making the infection difficult to diagnose. Consequently, many chlamydia infections may be inappropriately treated or, more commonly, not treated at all. Left untreated, this disease can result in serious health consequences. Untreated chlamydia in women can cause pelvic inflammatory disease, infertility, and tubal pregnancy. Chlamydia infection also plays a critical role in increasing the receptiveness to and transmission of HIV in both males and females. In fact, research indicates that those infected with chlamydia have three to five times higher risk of contracting HIV, if exposed. ${ }^{4}$

## What is Alameda County's status?

The average annual case rate for chlamydia in Alameda County for 1999-2001 was 341.4 cases per 100,000 residents. This rate was higher than rates for other counties in the Bay area, with the exception of San Francisco, where the rate was 379.7 per 100,000 residents. The rate in Alameda County was also higher than California's case rate of 278.0 cases per 100,000 residents. ${ }^{5}$

Alameda County experienced a $47.5 \%$ increase in the number of reported chlamydia cases, from 3,375 cases in 1996 to 4,977 cases in 2000. In 2001, the numbers declined to 4,675 cases, yielding a case rate of 343.9 per 100,000 residents. Annual case rates for Alameda County consistently exceed those for California.

Chlamydia case rates show considerable differences by race/ethnicity, sex and age. However, race or ethnicity was not specified for $59.3 \%$ of the chlamydia cases reported during the years 1999-2001.

Of those cases for which race/ethnicity was known, $61 \%$ were African American and $20 \%$ were Latino.

While a large proportion of cases are missing information on race/ethnicity, other chlamydia data at the state level clearly indicate that rates of chlamydia and other STDs are substantially higher among African Americans and Latinos compared to other racial/ethnic groups. ${ }^{5}$

Figure 6B. 1
Chlamydia Case Rates
Selected Counties and California, 1999-2001 Average


Figure 6B. 2
Chlamydia Case Rates
Alameda County and California, 1996-2001


Figure 6B. 3
Chlamydia Cases by Race/Ethnicity Alameda County, 1999-2001


## Figure 6B. 4

Chlamydia Case Rates by Age Group
Alameda County, 1999-2001 Average


In Alameda County from 1999-2001, $77.1 \%$ of chlamydia cases reported were female. This striking sex difference is primarily attributed to increased efforts to screen and treat women for chlamydia. Other factors include, but are not limited to, easier transmission of the bacterium to females and greater susceptibility of women to chlamydia infection.

Chlamydia cases and case rates are highest among individuals aged 15-24 years. The case rate for 15-19 yearolds in Alameda County was $1,924.9$ per 100,000 during the period 1999-2001. The rate for 20-24 year-olds was $1,721.6$ per 100,000 . After age 25 , the case rate decreases with increasing age.


## Tuberculosis

## What is it?

Tuberculosis (TB) is a communicable disease caused by Mycobacterium tuberculosis, also referred to as tubercle bacilli. It is transmitted from person to person through particles carrying the bacteria through the air. When a person with infectious TB coughs, laughs, sneezes or sings, the bacteria are expelled, and can hang in the air for many hours. Transmission can occur when people breathe in the bacteria while in close and prolonged contact with a person with infectious TB.

Infection is different from disease. Once a person has been exposed to someone with TB and has inhaled the TB bacteria, that person may become infected with TB. In most people who inhale the bacteria, the body is able to fight the bacteria to stop it from growing. The bacteria become inactive, but remain in the body and can become active later. This is referred to as latent TB infection (LTBI). This does not mean that the person is contagious or sick. A person who has been infected can take TB medicine to help their body prevent the development of active TB disease. However, if a person with LTBI does not take preventive medicine, the bacteria may grow and overcome the body's immune system, causing the person to become sick with active TB disease.

For some individuals who inhale the TB bacteria and become infected, TB infection can progress to TB disease when the immune system cannot fight off the tubercle bacilli, such as individuals with weak immune systems. Babies, young children, and people infected with diseases that compromise the immune system (e.g. HIV/AIDS), are at greater risk of developing TB disease. A per-
son with active TB disease may become contagious and can cause illness in their family or others in the community. A person with active TB disease will need to take several TB medications for many months to become well and not infect others. 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. Sometimes a person with advanced TB will cough up blood-streaked sputum. A person with active TB disease may have only mild symptoms. It is important to remember that a person may be spreading TB bacteria to others without knowing they have the disease.

## Why is it important?

Approximately one-third of the world's population is infected with Mycobacterium tuberculosis, with more than eight million people becoming sick with TB disease and approximately two million people dying from TB each year. ${ }^{6}$ The majority of these cases occur in countries of Asia, Africa, Eastern Europe, and Latin America where there are high rates of TB. In the United States, there are an estimated 10 to 15 million Americans with the TB bacteria, who have the potential to develop active TB disease in the future. About $10 \%$ of these infected individuals will develop TB disease at some point in their lives. The remaining $90 \%$ will stay infected but free of TB disease.

Tuberculosis was once the leading cause of death in the United States. In the 1940s scientists discovered the first of several drugs now used to treat TB, and in the following decades, TB slowly began to disappear in the United States. But in the past two decades, TB has come back. After 1984, the number of TB cases reported in the United States began to increase and by 1992, more than 26,600 U.S. residents had active TB. By 2001, less than 16,000 cases of tuberculosis were reported in the U.S.?

These facts may be frightening, but the important thing to know is that TB is preventable and curable. Knowing the risks for TB infection and disease can protect yourself and your family.

Preventing Infection from Developing into Disease: People can take preventive medicine to stop the infection in their bodies from developing into active disease. The length of treatment for infection is long because it takes time to kill the TB bacteria. If a patient does not take the full course of medicines properly, the person can remain infectious, become sick again or the bacteria may become resistant to the usual drugs used to treat TB. This means that those medicines may not work to control TB anymore, leading to serious problems in the future. Therefore, for both TB infection and disease, it is important for patients to take all the medicines for the entire time, and in the manner prescribed by the medical provider.

## What is Alameda County's Status?

In 2001, there were 196 new cases of active tuberculosis reported in Alameda County (excluding Berkeley), down from 241 cases in 2000. The TB disease case rate for 2001 was 14.3 cases per 100,000 residents, which was the third highest case rate in the state.

For the period 1999-2001, Alameda County's average annual rate was 16.4 per 100,000, over 1.5 times higher than California's rate of 10.1, and well above the Healthy People 2010 objective of no more than one new TB case per 100,000 residents. Compared to other Bay area counties, only San Francisco surpasses Alameda County in its TB case rate. ${ }^{8}$


The map on the following page depicts Tuberculosis cases throughout Alameda County (excluding Berkeley) from 1997 to 2001. Each dot represents a TB case. Cases are concentrated in Oakland and along the Interstate-880 corridor.


## Figure 6C. 2

TB Cases by Age Group
Alameda County, 1999-2001


Average Annual TBCases $=220$

Figure 6C. 3
TB Case Rates by Race/Ethnicity Alameda County, 1999-2001 Average


The age breakdown of cases has remained relatively stable over the last decade. For the period 1999-2001, over $85 \%$ of Alameda County TB cases occurred among adults aged 25 years and older, with the greatest number occurring among those 25-44 years of age. This pattern is similar to that observed at the state level.

Over the past decade, the highest TB rates have been observed among the county's ethnic minorities. The average annual TB case rate among Asian/Pacific Islanders in Alameda County during the period 1999-2001 was 43.2 per 100,000, two times the African American rate of 21.9, over three times the Latino rate of 12.3 , and 18 times the White rate of 2.4 .

White and Latino case rates in Alameda county are similar to those in California. However, case rates among Asian/Pacific Islanders and African Americans in Alameda County are substantially higher than those in California.

Tuberculosis disease cases among foreign-born individuals account for an increasing proportion of cases both nationally and locally. Of all TB cases in Alameda County, cases occurring among foreign-born individuals increased from $53 \%$ in 1993 to $81 \%$ in 2001. Many of these people came from countries with very high TB rates.

Asian/Pacific Islanders comprised over three-quarters of the foreign-born cases for the period 1999-2001.

Among the U.S.-born cases, African Americans accounted for the majority of cases.

## Figure 6C. 4

TB Cases by Race/Ethnicity and Place of Birth, Alameda County, 1999-2001

Foreign-Born TB Cases


Average Annual Foreign Born TBCases $=161$


Average Annual U.S. Born TBCases $=59$

## What are we doing?

## AIDS

Beginning July 1, 2002, mandatory reporting of HIV infection without a diagnosis of AIDS using a "non-names" code became effective. Analysis of this expanded surveillance information provides the Alameda County Public Health Department (ACPHD) information necessary to monitor trends in the HIV/AIDS epidemic. The information will also be used to plan and develop policies and programs. In addition to surveillance of HIV and AIDS cases, ACPHD participates in federally funded activities such as the Young Men's Survey and Enhanced Perinatal Surveillance to augment surveillance data.

The ACPHD, in collaboration with the HIV Prevention Planning Council, the Health Services Planning Council, community-based organizations, service providers, and other state and federal agencies, seeks to develop and implement focused HIV Education \& Prevention and Care \& Treatment programs for people living with HIV/AIDS. Alameda County allocates Ryan White Care funds through contracts with communitybased organizations for the provision of these services, and has full responsibility of implementing the contracting process. Programs and services include:

- Early Intervention Program: attempts to mitigate the effects of HIV infection by providing care, treatment and prevention services to HIVinfected county residents from the moment they test positive.
- Outreach to High-Risk Groups/Community Street Outreach Project: mobile testing clinics are used to provide counseling, testing and referrals for high-risk populations such as intravenous drug users and sex trade workers.
- AIDS Drug Assistance Program: provides HIV/AIDS drugs to individuals who could not otherwise afford them.
- Minority AIDS Initiative: care and treatment are made available for recently released prisoners, a known high-risk group.
- Youth Initiative: an HIV/AIDS Education, Prevention, Care and Treatment project that includes radio and television spots, a youth rally at City Hall and an educational video shown in local high schools.
- Advocacy: The Office of AIDS conducts routine advocacy for HIV/AIDS awareness in the community through periodic town hall meetings, alliances with faith based organizations and ongoing dissemination of information and materials.


## Chlamydia

The Alameda County Public Health Department is proactively engaged on multiple levels to assess the number of new and existing cases of chlamydia. The Chlamydia Awareness and Prevention Program (CAPP) builds collaborative partnerships with the public and private medical sectors, managed care organizations, communitybased organizations, Juvenile Justice system, and court-ordered and alternative schools. Through these collaborative efforts, the ACPHD works to increase chlamydia awareness, identify prevention strategies, and implement early detection and treatment efforts throughout the county.

## Tuberculosis

There is much work to be done in Alameda County to control TB. Continued efforts are being made to strengthen relationships with care providers to assist in the early diagnosis of TB, to initiate appropriate therapy, and to assist patients in completing therapy treatments successfully.

The Alameda County Tuberculosis Control Program is involved in a number of activities to further understand the impact of tuberculosis in the county:

- Tuberculosis Indicator Project - Alameda County Public Health Department, in conjunction with the California Department of Health Services is evaluating its performance on selected indicators in controlling and eliminating tuberculosis. Outcome and process data results are used to continually improve the efforts of controlling tuberculosis in Alameda County.
- Tuberculosis Management System - A new surveillance system developed by the County is expected to be implemented for use by the Alameda County Public Health Department in 2003. This system, along with other data sources, will facilitate better case management, coordination of services, and surveillance activities for the county on tuberculosis disease cases, individuals with LTBI, and individuals exposed to TB.
- Analysis of B1/B2 immigrant Tuberculosis cases - Enhanced tracking and follow-up of individuals visiting or migrating from other parts of the world to Alameda County, to assure access to medical care. Program staff ensure these individuals are appropriately assessed and treated for tuberculosis. These efforts further allow the program to evaluate the impact of TB among the individuals immigrating to the U.S., particularly Alameda County.
- Zero Tolerance for Pediatric Tuberculosis project - This CDC sponsored project aims to help the TB program evaluate its performance in detecting children exposed to infectious tuberculosis cases, and the effectiveness of TB prevention interventions.
- Screening of Exposed Pediatric individuals Alameda County Public Health Department plans to conduct screening of children, $0-5$ years, in high-risk populations to determine the number of children whose TB skin test convert to a positive test. The presence of active, untreated TB disease, as may be indicated by a large percentage of converters, enables the Alameda County TB Program to target prevention efforts.
- Bay Area Tuberculosis Genotyping of cases This project aids the county in understanding chains of transmission within clusters of cases infected with similar strains of tuberculosis using current DNA fingerprinting methods, enabling expanded contact tracing and improved community control.


## What else do we need to do?

## AIDS

- Improve surveillance efforts to ensure timely and complete diagnosis and reporting of HIV and AIDS cases.
- Strengthen partnerships with communitybased organizations, and promote involvement with faith-based organizations around AIDS awareness, education, and prevention.
- Collaborate with the various hospitals and organizations that receive Ryan White Care funds to develop uniform reporting of services provided by each.
- Integration of harm reduction education into services.
- Enhanced integration of HIV and STD testing and prevention services.


## Chlamydia

- Improve surveillance efforts to ensure timely and complete diagnosis and reporting of chlamydia.
- Work in partnership with health care providers to improve screening of sexually active adolescents and young adult females.
- Encourage repeat screening of adolescent and young adult cases and pregnant females within 46 months of treatment.
- Strengthen provider utilization of appropriate therapy to treat uncomplicated Chlamydia cases and use of "partner delivered therapy" to prevent re-infection of cases.
- Increase awareness of communities regarding high rates of chlamydia


## Tuberculosis

- Enhance surveillance and reporting mechanisms for all active and suspected TB cases and their contacts.
- Increase surveillance activities to identify areas of active transmission in Alameda County.
- Support heightened screening and assessment of B1/B2 immigrants entering Alameda County from countries with elevated tuberculosis rates.
- Sustain partnerships with the medical community to enhance the awareness of tuberculosis and assure early diagnosis.
- Continue to ensure that high-risk individuals with TB receive directly observed therapy (DOT).
- Assure excellence in case management and contact investigation through ongoing quality assurance measures.
- Provide education to general nursing staff of importance of identifying source cases to children less than 5 years of age, with positive TB skin tests.
- Enrich surveillance and case management through implementation of computer automation and informatics.


## References

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## APPENDIX A: Technical Notes

## Data Sources

Demographic and Socioeconomic Data: U.S. Bureau of the Census, American Fact Finder, 2000 Census and 1990 Census.

Population Estimates: For maternal and child health, and mortality indicators, county population data were obtained from the American Fact Finder, U.S. Bureau of the Census, 2000 Census. Hospitalization rates were calculated using 1999 population estimates. Intercensal population estimates for the county were calculated assuming a linear increase between the decennial censuses. These intercensal population estimates were used for calculating rates to depict trend data for health indicators other than communicable diseases. Trend data for communicable diseases used intercensal and postcensal population estimates obtained from California Department of Finance.

Birth Data: Alameda County Public Health Department Vital Statistics Files obtained from the Automated Vital Statistics System (AVSS).

Death Data: Alameda County Public Health Department Vital Statistics Files obtained from the Automated Vital Statistics System (AVSS).

Hospital Discharge Data: Hospital Inpatient Discharge Data collected by the California Office of Statewide Health Planning and Development (OSHPD).

Cancer Incidence Data: Cancer incidence data from the Northern California Cancer Center (NCCC).

Communicable Disease Data:
AIDS: Cases of Acquired Immune Deficiency Syndrome from the HIV/AIDS Reporting System (HARS) database maintained by Alameda County Public Health Department.

Chlamydia: Cases of Chlamydia from the California Department of Health Services Sexually Transmitted Disease Control Branch. Cases of

Chlamydia among Berkeley residents are reported to the City of Berkeley, and therefore, are excluded from county figures.

Tuberculosis: Reportable cases of tuberculosis from the Tuberculosis Information Management System (TIMS) maintained by Alameda County Public Health Department. Cases of tuberculosis among Berkeley residents are reported to the City of Berkeley, and therefore, are excluded from county counts.

Childhood Immunization Data: Childhood immunization data was obtained from California State Department of Health Services, Immunization Branch.

## Limitations of Data and

Other Data Issues

Hospital Discharge Data: Because persons with multiple hospitalizations during the year can be counted more than once, hospital discharge data produces the estimates for discharges, not persons. Changes in rates of hospitalization may be attributed to changes in hospital admission practices or the diagnostic coding of illnesses, or reflective of true changes in the patterns of disease. Hospitalization data captures those illnesses or injuries serious enough to get people admitted to the hospital, but may not describe the prevalence of a given illness in the population since many who have the illness are not hospitalized.

Race and ethnicity data is missing for many cases due to the omission of a race field on many hospital discharge forms. Reportedly, race is not recorded in about $18 \%$ of hospital discharge records. ${ }^{1}$ Therefore, there are a large number of cases of 'unknown' and 'other' values for which rates are not calculated, resulting in an over-estimation of rates for some racial groups and an under-estimation for others.

Birth Data: 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.

Mortality Data: 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. As a result of the combined effect of numerator and denominator biases, it has been estimated that death rates are overestimated by about $1 \%$ among Whites, and 5\% among African Americans; and are underestimated by $21 \%$ for the American Indian or Alaska Natives, $11 \%$ among Asian or Pacific Islanders, and $2 \%$ among Hispanics. ${ }^{2}$

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. However, the mortality trend data for 1990 to 1998 , and hospital discharge data are based on ninth revision of International Classification of Disease (ICD-9).

Since the beginning of the century, the International Classification of Disease (ICD) for mortality has been modified about once every 10 years, except for the 20 -year interval between the last two revisions, ICD-9 and ICD-10. 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 4-digit alpha-numeric codes compared with 4-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. ${ }^{3}$

Introduction of 10th revision of International Classification of Disease creates discontinuities in time series trends for causes of death due to the reclassification of diseases and changes in the coding rules. 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.
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 US 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."

For racial/ethnic comparison of mortality data, only 2000 data is presented. Therefore, it is more vulnerable to random variation since the data is based on a single year.

Leading Causes of Death: Causes are ranked according to the number of deaths because it most accurately reflects the frequency of causespecific 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. ${ }^{4}$ 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. ${ }^{4}$

Ranking leading causes of death is a useful 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 in the rankings, both causes would be placed among the 10 leading causes of death.

Years of Potential Life Lost: Years of Potential Life Lost is a summary measure often used to gauge the overall health of a population. Because females live longer than males, and actual life expectancies at birth in the United States are lower than some other regions of the world, the
female life expectancy table from Murray was used so as not to underestimate the disease burden in the population. ${ }^{5}$

## Data Definitions

Race and Ethnicity: Race and ethnicity for hospital discharge, cancer Incidence and communicable disease data were defined as follows:

African American: ethnicity is non-Hispanic, and race is Black

American Indian: ethnicity is non-Hispanic, and race is American Indian, Eskimo, or Aleut

Asian/Pacific Islander: ethnicity is non-Hispanic, and race is any of the following:

Asian(Unspecified) or Asian(Specified): Chinese, Japanese, Korean, Vietnamese, Cambodian, Thai, Laotian, Filipino, Indian, Samoan, Hawaiian, Guamanian, or Pacific Islander

Latino: ethnicity is Hispanic regardless any race
White: ethnicity is non-Hispanic, and race is White

Race and ethnicity for maternal, child and adolescent data and mortality data were defined as follows:

African American: ethnicity is non-Hispanic, and race is Black

American Indian: ethnicity is non-Hispanic, and race is American Indian, or Eskimo, or Aleut

Asian: ethnicity is non-Hispanic, and race is any of the following:

Asian (Unspecified) or Asian (Specified): Chinese, Japanese, Korean, Vietnamese, Cambodian, Thai,

Laotian, Filipino, Indian
Latino: ethnicity is Hispanic regardless any race
Native Hawaiian and other Pacific Islander: Native
Hawaiian, Samoan, Guamanian, or Pacific Islander

White: ethnicity is non-Hispanic, and race is White

Two or More Races: ethnicity is non-Hispanic, and races are more than one of the above

Case Definition:
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.

Tuberculosis: 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.

Cancer Incidence: A cancer case is defined in this report as a primary malignant tumor, that is, one originating in a particular organ or anatomic site rather than having spread from another location. Primary site and histological type of the cancer are coded according to the International Classification of Diseases of Oncology (ICD-O), Second Edition. ${ }^{6}$ The ICD-O-2 codes and histological types used to define cases of cancer in this report are described below:

| Site | ICD-O-2 Site Code | Histology Type |
| :--- | :--- | :--- |
| Breast | C500-C509 | Excludes Types 9590-9989 |
| Prostate | C619 | Excludes Types 9590-9989 |
| Lung | C340-C349 | Excludes Types 9590-9989 |

Asthma Hospitalization: Asthma discharge if ICD9 code 493 appears in the primary diagnosis code position.

Diabetes-Related Hospitalization: Diabetes discharge if ICD-9 code 250 appears in the primary diagnosis code position or any one of four underlying diagnosis code positions.

## Coronary Heart Disease-Related Hospitalization:

 CHD discharge if ICD-9 codes 402, 410-414, and 429.2 appear in the primary diagnosis code position or any one of four underlying diagnosis code positions.Stroke-Related Hospitalization: Stroke discharge if ICD-9 codes 430-438 appear in the primary diagnosis code position or any one of four underlying diagnosis code positions.

Injury Hospitalization: A subset of injury hospitalizations was created based on guidelines estab-
lished by the National Center for Injury Prevention and Control. ${ }^{7}$ The injury subset is defined using specific inclusion and exclusion criteria within the primary diagnosis field ( N codes). By this definition, an injury hospitalization is defined as:

A record in which the principal reason for admission, after study, to a non-federal, acutecare, inpatient facility was an injury, including late effects, but excluding adverse effects of therapeutic use of drugs and adverse effects of medical/surgical care and the late effects of those adverse effects.

Specific types of injury are defined by selection of specified E-codes. The first listed valid E-code is used unless it meets additional exclusion criteria. Additional E-codes are checked if the first Ecode is excluded.

## ICD-10 Codes

The following tabulation lists are the ICD-10 codes used in this report for the selected causes of death and for the matrix of injury death by mechanism.

## ICD-10 Codes for Mortality Data

| Cause of Death | ICD-10 Code |
| :--- | :--- |
| All Cancer | C00-C97 |
| All Causes | A00-Y89 |
| Alzheimer's Disease | G30 |
| Asthma | J45-J46 |
| Certain Conditions Originating in the Perinatal Period | P00-P96 |
| Chronic Liver Disease and Cirrhosis | K70, K73-K74 |
| Chronic Lower Respiratory Diseases | J40-J47 |
| Congenital Malformations, Deformations, and |  |
| $\quad$ Chromosomal Abnormalities | Q00-Q99 |
| Coronary Heart Disease | I11, I20-I25 |
| Diabetes | E10-E14 |
| Diseases of Heart | I00-I09, I11, I13, I20-I51 |
| Disorders Related to Short Gestation and Low |  |
| $\quad$ Birth Weight, Not Elsewhere Classified | P07 |
| Essential (primary) Hypertension and | I10-I12 |
| $\quad$ Hypertensive Renal Disease | C50 |
| Female Breast Cancer | X85-Y09, Y87.1 |
| Homicide | B20-B24 |
| Human Immunodeficiency Virus (HIV) Disease | J10-J18 |
| Influenza \& Pneumonia | C33-C34 |
| Lung Cancer | V02-V04, V09.0, V09.2, V12-V14, V19.0- |
| Motor Vehicle Crash | V19.2, V19.4-V19.6, V20-V79, V80.3-V80.5, |
|  | V81.0-V81.1, V82.0-V82.1, V83-V86, V87.0- |
| Newborn Affected by Maternal Complications of Pregnancy | P01 |
| Prostate Cancer | C61 |
| Respiratory Distress of Newborn | P22 |
| Stroke | I60-I69 |
| Sudden Infant Death Syndrome (SIDS) | R95 V89.2 |
| Suicide | X60-X84, Y87.0 |
| Unintentional Injury | V01-X59, Y85-Y86 |

ICD-10 Codes for the Matrix of Injury Mortality by Mechanism

| Mechanism | ICD-10 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | All injury | Manner |  |  |
|  |  | Unintentional | Suicide | Homicide |
| All Injury | V01-Y36, Y85-Y87, Y89 | V01-X59, Y85-Y86 | $\begin{array}{\|l\|} \hline \mathrm{X} 60-\mathrm{X} 84, \\ \mathrm{Y} 87.0 \end{array}$ | $\begin{aligned} & \text { X85-Y09, } \\ & \text { Y87.1 } \end{aligned}$ |
| Cut/pierce | $\begin{aligned} & \text { W25-W29, W45, X78, X99, } \\ & \text { Y28, Y35.4 } \end{aligned}$ | W25-W29, W45 | X78 | X99 |
| Drowning | W65-W74, X71, X92, Y21 | W65-W74 | X71 | X92 |
| Fall | W00-W19, X80, Y01, Y30 | W00-W19 | X80 | Y01 |
| Fire/hot object or substance | $\begin{aligned} & \text { X00-X19, X76-77, X97-X98, } \\ & \text { Y26-Y27, Y36.3 } \end{aligned}$ | X00-X19 | X76-77 | X97-X98 |
| Firearm | $\begin{aligned} & \text { W32-W34, X72-74, X93-X95, } \\ & \text { Y22-Y24, Y35.0 } \end{aligned}$ | W32-W34 | X72-74 | X93-X95 |
| Machinery | W24, W30-W31 | W24, W30-W31 |  |  |
| All transport | $\begin{aligned} & \text { V01-V99, X82, Y03, Y32, } \\ & \text { Y36.1 } \end{aligned}$ | V01-V99 | X82 | Y03 |
| Motor vehicle crash | V02-V04, V09.0, V09.2, V12-V14, <br> V19.0-V19.2, V19.4-V19.6, V20- <br> V79, V80.3-V80.5, V81.0-V81.1, <br> V82.0-V82.1, V83-V86, V87.0- <br> V87.8, V88.0-V88.8,V89.0,V89.2 | $\begin{array}{\|l\|} \hline \mathrm{V} 02-\mathrm{V} 04, \mathrm{~V} 09.0, \mathrm{~V} 09.2, \mathrm{~V} 12 \\ -\mathrm{V} 14, \mathrm{~V} 19.0-\mathrm{V} 19.2, \mathrm{~V} 19.4- \\ \mathrm{V} 19.6, \mathrm{~V} 20-\mathrm{V} 79, \mathrm{~V} 80.3-\mathrm{V} 80.5 \\ \mathrm{~V} 81.0-\mathrm{V} 81.1, ~ V 82.0-\mathrm{V} 2.1, \\ \mathrm{~V} 83-\mathrm{V} 86, ~ V 87.0-V 87.8, ~ \\ \text { V88.0-V88.8, V89.0, V89.2 } \end{array}$ |  |  |
| All other transportrelated | V01, V05-V06, V09.1, V09.3, V09.9, V10, V11, V15-V18, <br> V19.3, V19.8, V19.9, V80.0- <br> V80.2, V80.6-V80.9, V81.2-V 81.9, V82.2-V82.9, V87.9, V88.9, <br> V89.1, V89.3, V89.9, V90-V99, <br> X82, Y03, Y32, Y36.1 | V01,V05M V06,V09.1,V09.3. V09.9, V10, V11, V15-V18, V19.3,V19.8, V19.9, V80.0-V80.2,V80.6-V80.9, V81.2V81.9, V82.2-V82.9, V87.9, V88.9,V89.1, V89.3, V89.9, V90-V99 | X82 | Y03 |
| Natural/environmental | W42, W43, W53-W64 | W42, W43, W53-W64 |  |  |
| Overexertion | X50 | X50 |  |  |
| Poisoning | $\begin{aligned} & \text { X40-X49, X60-X69, X85-X90, } \\ & \text { Y10-Y19, Y35.2 } \end{aligned}$ | X40-X49 | X60-X69 | X85-X90 |
| Struck by or against | $\begin{aligned} & \text { W20-W22, W50-W52, X79, Y00, } \\ & \text { Y04, Y29, Y35.3 } \end{aligned}$ | W20-W22, W50-W52 | X79 | Y00, Y04 |
| Suffocation | W75-W84, X70, X91, Y20 | W75-W84 | X70 | X91 |

## ICD-9 Codes

The following tabulation list is the ICD-9 codes used in this report for the selected causes of morbidity data, and for the early years' mortality data (1990-1998).

## ICD-9 Codes for Morbidity and Mortality Data

| Cause | ICD-9 Code |
| :--- | :--- |
| Acquired Immunodeficiency Syndrome (AIDS) | $042-044$ |
| All Cancer | $140-208$ |
| All Causes | $001-\mathrm{E} 999$ |
| Asthma | 493 |
| Breast Cancer | 174 |
| Coronary Heart Disease | $402,410-414,429.2$ |
| Diabetes | 250 |
| Diseases of the Heart | $390-398,402,404-429$ |
| Homicide/Assault | E960-E969 |
| Lung Cancer (bronchus \& lung) | $162.2-162.9$ |
| Motor Vehicle Crashes | E810-E825 |
| Prostate Cancer | 185 |
| Stroke | $430-438$ |
| Suicide/Self-Inflicted Injury | E950-E959 |
| Unintentional Injury | E800-E949 |

## Rates

Age-Adjustment: All age-adjusted rates in this report are adjusted by the direct method to the 2000 US Standard Population. In general, the number of deaths for specific causes of mortality in a community is affected by the size and age composition of the population. Because the risk of dying is primarily a function of age, simply calculating a crude rate for vital events such as death \{e.g. (number of deaths/population)X100,000\} can lead to misleading conclusions when comparing different sub-populations. This is because populations with a large component of elderly people tend to have a high death rate simply because the risk of dying is determined mostly by age.

In order to nullify the effect of differences in the age composition of populations, disease rates can be age-adjusted. Age-adjusting methodology
involves first calculating rates for each age category for each sub-population to determine agespecific rates. Each age-specific rate is then multiplied by the proportion of the corresponding age category in a standard population. The sum of these weighted age-specific rates in a community is the age-adjusted rate for that community. Age-adjusted disease rates form a better basis for an unbiased comparison of sub-populations.

Variability of Rates: All vital statistics, including death rates, are subject to random variation. This variation is inversely related to the number of events (e.g. deaths) used to calculate the rate. The smaller the number of events, the greater the likelihood of random variation.

In order to protect against providing misleading information based on statistically unreliable rates, this report adopts the recommendations of the

National Center for Health Statistics (NCHS) ${ }^{8}$ regarding the calculation of rates. NCHS recommends that rates are statistically reliable when they are based upon 20 or more events occurring during the period in question, and the relative standard error (RSE) of the related rate is less than $23 \%$. Rates not meeting these criteria are not shown in the report.

Confidence Intervals: 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.

Formula:

$$
\begin{aligned}
95 \% \mathrm{CI} & =\text { Rate } \pm(1.96 \mathrm{X} \mathrm{SE}) \\
\mathrm{SE} & =(\text { Rate } \sqrt{*})^{*} \\
\mathrm{RSE} & =(\mathrm{SE} / \text { Rate }) \times 100
\end{aligned}
$$

Where:

> CI = Confidence Interval

SE = Standard Error
E = Number of Events
RSE $=$ Relative Standard Error
If RSE $>23 \%$, then rate is considered unreliable

* Standard error of an age-adjusted rate is calculated using the sum over the age groups of weighted age-specific rates divided by the square root of the number of events in each age group.

Based on recommendations of the National Center for Health Statistics (NCHS) ${ }^{8}$ 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. The Poisson distribution is similar to the binomial distribution but is characterized by very small numbers of events occurring ( p ) in a large number of trials ( n ).

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Infant Mortality Rates (per 1,000 Live Births)
Confidence Intervals, and Counts, Alameda County, 1990-2000

| YEAR | Rate | $95 \%$ Confidence Interval <br> Lower <br> Upper | Infant <br> Deaths | Live <br> Births |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| 1990 | 8.8 | 7.6 | 10.0 | 206 | 23,315 |
| 1991 | 7.7 | 6.6 | 8.8 | 178 | 23,146 |
| 1992 | 7.3 | 6.2 | 8.4 | 166 | 22,647 |
| 1993 | 6.4 | 5.4 | 7.5 | 141 | 21,910 |
| 1994 | 6.4 | 5.3 | 7.5 | 137 | 21,460 |
| 1995 | 5.6 | 4.6 | 6.7 | 115 | 20,441 |
| 1996 | 5.9 | 4.9 | 7.0 | 122 | 20,659 |
| 1997 | 6.0 | 5.0 | 7.1 | 125 | 20,761 |
| 1998 | 5.1 | 4.1 | 6.1 | 107 | 20,907 |
| 1999 | 5.3 | 4.3 | 6.3 | 109 | 20,475 |
| 2000 | 4.6 | 3.7 | 5.5 | 103 | 22,164 |

Percent Low Birth Weight, Confidence Intervals, and Counts,
Alameda County, 1990-2001

| YEAR | Percent <br> LBW |  | 95\% Confidence <br> Lower | Interval <br> Upper | Number <br> LBW |
| :--- | ---: | ---: | ---: | ---: | ---: |
| 1990 | 6.6 | 6.3 | 7.0 | 1,547 | Live <br> Births |
| 1991 | 7.2 | 6.9 | 7.5 | 1,665 | 23,315 |
| 1992 | 7.2 | 6.8 | 7.5 | 1,625 | 22,146 |
| 1993 | 6.8 | 6.4 | 7.1 | 1,484 | 21,910 |
| 1994 | 7.5 | 7.1 | 7.8 | 1,600 | 21,460 |
| 1995 | 7.0 | 6.6 | 7.3 | 1,423 | 20,441 |
| 1996 | 7.0 | 6.6 | 7.3 | 1,439 | 20,659 |
| 1997 | 6.9 | 6.6 | 7.3 | 1,439 | 20,761 |
| 1998 | 7.2 | 6.8 | 7.5 | 1,503 | 20,907 |
| 1999 | 6.5 | 6.2 | 6.9 | 1,338 | 20,475 |
| 2000 | 6.7 | 6.4 | 7.1 | 1,490 | 22,164 |
| 2001 | 7.1 | 6.8 | 7.4 | 1,560 | 21,995 |

## Percent Receiving First Trimester Prenatal Care

Confidence Intervals, and Counts, Alameda County, 1990-2001

| YEAR | Percent <br> PNC |  | 95\% Confidence Interval <br> Lower <br> Upper | Number <br> PNC | Live <br> Births |
| :--- | ---: | ---: | ---: | ---: | ---: |
| 1990 | 82.0 | 81.5 | 82.5 | 19,121 | 23,315 |
| 1991 | 82.8 | 82.3 | 83.3 | 19,172 | 23,146 |
| 1992 | 84.2 | 83.7 | 84.7 | 19,075 | 22,647 |
| 1993 | 84.4 | 83.9 | 84.9 | 18,500 | 21,910 |
| 1994 | 85.3 | 84.8 | 85.8 | 18,304 | 21,460 |
| 1995 | 86.3 | 85.8 | 86.8 | 17,645 | 20,441 |
| 1996 | 87.0 | 86.6 | 87.5 | 17,982 | 20,659 |
| 1997 | 87.8 | 87.3 | 88.2 | 18,228 | 20,761 |
| 1998 | 86.8 | 86.4 | 87.3 | 18,156 | 20,907 |
| 1999 | 87.5 | 87.0 | 87.9 | 17,910 | 20,475 |
| 2000 | 88.6 | 88.1 | 89.0 | 19,631 | 22,164 |
| 2001 | 89.2 | 88.8 | 89.6 | 19,614 | 21,995 |

Teen Birth Rates (per 1,000 Females Age 15-19)
Confidence Intervals, and Counts, Alameda County, 1990-2001

| YEAR | Rate | 95\% Confidence Interval <br> Lower | Teen <br> Upper | Teen <br> Bop |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| 1990 | 55.7 | 53.4 | 58.1 | 2,177 | 39,074 |
| 1991 | 55.0 | 52.7 | 57.3 | 2,183 | 39,665 |
| 1992 | 54.9 | 52.7 | 57.2 | 2,212 | 40,256 |
| 1993 | 50.2 | 48.0 | 52.3 | 2,049 | 40,847 |
| 1994 | 46.2 | 44.1 | 48.2 | 1,913 | 41,438 |
| 1995 | 46.8 | 44.8 | 48.9 | 1,968 | 42,030 |
| 1996 | 42.9 | 40.9 | 44.9 | 1,828 | 42,621 |
| 1997 | 41.1 | 39.2 | 43.0 | 1,777 | 43,212 |
| 1998 | 40.1 | 38.2 | 42.0 | 1,756 | 43,803 |
| 1999 | 35.9 | 34.2 | 37.7 | 1,595 | 44,394 |
| 2000 | 37.7 | 35.9 | 39.5 | 1,694 | 44,985 |
| 2001 | 34.5 | 32.8 | 36.2 | 1,573 | 45,576 |


| Infant Mortality Rates (per 1,000 Live Births) by Race/Ethnicity Confidence Intervals, and Counts, Alameda County, 2000 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Race/Ethnicity | Rate | 95\% Confiden Lower | Upper | Infant Deaths | Live Births |
| Total | 4.6 | 3.7 | 5.5 | 103 | 22,164 |
| White | 3.7 | 2.2 | 5.1 | 24 | 6,575 |
| African American | 8.5 | 5.3 | 11.7 | 27 | 3,183 |
| Latino | 4.0 | 2.4 | 5.6 | 25 | 6,270 |
| Asian | ** |  |  | 16 | 5,405 |
| American Indian/Alaskan Native | ** |  |  | 0 | 53 |
| Native Hawaiian/Other Pacific Islander | ** |  |  | 3 | 177 |
| Two or More Races | ** |  |  | 7 | 358 |
| Unknown/ Other | ** |  |  | 1 | 143 |

Percent Low Birth Weight by Race/Ethnicity and Age
Confidence Intervals, and Counts, Alameda County, 2000-2001 Average

|  | Percent | 95\% Confidence Interval Lower <br> Upper |  | $\begin{gathered} \hline \text { Number } \\ \text { LBW } \\ \hline \end{gathered}$ | Live Births |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Total | 6.9 | 6.6 | 7.3 | 1,525 | 22,079 |
| Race/Ethnicity |  |  |  |  |  |
| White | 5.3 | 4.8 | 5.9 | 343 | 6,407 |
| African American | 12.4 | 11.3 | 13.6 | 390 | 3,142 |
| Latino | 5.5 | 5.0 | 6.1 | 348 | 6,335 |
| Asian | 7.2 | 6.5 | 7.9 | 389 | 5,401 |
| American Indian/Alaskan Native | ** | 2.3 | 17.8 | 4 | 57 |
| Native Hawaiian/Other Pacific Islander | ** | 3.2 | 10.2 | 12 | 205 |
| Two or More Races | 8.3 | 5.8 | 11.9 | 30 | 358 |
| Unknown/ Other | ** | 3.3 | 11.1 | 11 | 177 |
| Age Group |  |  |  |  |  |
| 19 and under | 9.4 | 8.4 | 10.4 | 156 | 1,662 |
| 20-34 | 6.4 | 6.1 | 6.7 | 1,034 | 16,165 |
| 35 and older | 7.9 | 7.3 | 8.5 | 335 | 4,252 |


| Percent Receiving First Trimester Prenatal Care by Race/Ethnicity and Age Confidence Intervals, and Counts, Alameda County, 2000-2001 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percent | 95\% Confidence Interval Lower <br> Upper |  | Early | Live |
|  |  |  |  | PNC | Births |
| Total | 88.9 | 88.6 | 89.2 | 19622 | 22,079 |
| Race/Ethnicity |  |  |  |  |  |
| White | 93.6 | 93.0 | 94.2 | 5,996 | 6,407 |
| African American | 86.9 | 85.7 | 88.1 | 2,731 | 3,142 |
| Latino | 84.8 | 83.9 | 85.6 | 5,370 | 6,335 |
| Asian | 90.3 | 89.5 | 91.1 | 4,878 | 5,401 |
| American Indian/Alaskan Native | 87.7 | 75.7 | 94.5 | 50 | 57 |
| Native Hawaiian/Other Pacific Islander | 73.2 | 66.5 | 79.0 | 150 | 205 |
| Two or More Races | 86.1 | 81.6 | 89.1 | 307 | 358 |
| Unknown/ Other | 80.5 | 74.1 | 86.2 | 143 | 177 |
| Age Group |  |  |  |  |  |
| 19 and under | 76.4 | 74.9 | 77.8 | 1,270 | 1,662 |
| 20-34 | 89.2 | 88.8 | 89.5 | 14,414 | 16,165 |
| 35 and older | 92.6 | 92.0 | 93.2 | 3,938 | 4,252 |

Teen Birth Rates (per 1,000 Females Age 15-19) by Race/Ethnicity
Confidence Intervals, and Counts, Alameda County, 2000-2001 Average

| Race/Ethnicity | Rate | 95\% Confidence Interval |  | Teen Births | Female Pop |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |
| Total | 36.3 | 34.6 | 38.1 | 1,634 | 44,985 |
| White | 13.9 | 12.0 | 15.8 | 200 | 14,406 |
| African American | 63.9 | 58.1 | 69.6 | 470 | 7,360 |
| Latino | 73.9 | 68.7 | 79.1 | 768 | 10,395 |
| Asian | 12.7 | 10.4 | 14.9 | 122 | 9,623 |
| American Indian/Alaskan Native | ** |  |  | 4 | 176 |
| Native Hawaiian/Other Pacific Islander | ** |  |  | 17 | 376 |
| Two or More Races | 18.2 | 12.9 | 23.5 | 45 | 2,470 |
| Unknown/ Other | ** |  |  | 9 | 179 |

[^1]Age-Adjusted Death Rates, Alameda County, 1990-2000

| Death from All Causes | Rate | 95\% Confidence Interval <br> Lower | Upper | Total Deaths |
| :--- | ---: | ---: | ---: | ---: |
| Year | 916.0 | 897.5 | 934.6 | 9614 |
| 1990 | 915.1 | 896.8 | 933.4 | 9787 |
| 1991 | 871.3 | 853.6 | 888.9 | 9499 |
| 1992 | 881.6 | 864.0 | 899.2 | 9802 |
| 1993 | 858.8 | 841.6 | 876.0 | 9715 |
| 1994 | 857.3 | 840.2 | 874.3 | 9872 |
| 1995 | 825.5 | 808.9 | 842.0 | 9625 |
| 1996 | 803.7 | 787.5 | 819.9 | 9518 |
| 1997 | 813.9 | 797.7 | 830.1 | 9760 |
| 1998 | 803.6 | 787.7 | 819.6 | 9809 |
| 1999 | 789.2 | 773.5 | 804.9 | 9805 |
| 2000 |  |  |  |  |

Age-Adjusted Death Rates, Alameda County, 1990-1998

| Diabetes |  | 95\% Confidence Interval <br> Lower | Upper | Total Deaths |
| :--- | ---: | ---: | ---: | ---: |
| Year | Rate | 12.9 | 153 |  |
| 1990 | 14.6 | 12.2 | 16.9 | 175 |
| 1991 | 16.1 | 13.7 | 18.5 | 166 |
| 1992 | 15.2 | 12.9 | 17.5 | 187 |
| 1993 | 16.8 | 14.4 | 19.2 | 219 |
| 1994 | 19.4 | 16.8 | 22.0 | 261 |
| 1995 | 22.9 | 20.1 | 25.7 | 266 |
| 1996 | 22.8 | 20.1 | 25.6 | 253 |
| 1997 | 21.3 | 18.6 | 23.9 | 251 |
| 1998 | 21.0 | 18.4 | 23.6 |  |


| Coronary Heart Disease | 95\% Confidence Interval <br> Lower |  | Upper | Total Deaths |
| :--- | ---: | ---: | ---: | ---: |
| Year | Rate | 261.0 | 2504 |  |
| 1990 | 251.1 | 241.2 | 241.2 | 2354 |
| 1991 | 231.8 | 222.4 | 228.5 | 2289 |
| 1992 | 219.5 | 210.5 | 230.1 | 2337 |
| 1993 | 221.1 | 212.1 | 225.1 | 2340 |
| 1994 | 216.3 | 207.5 | 222.9 | 2367 |
| 1995 | 214.2 | 205.6 | 215.7 | 2334 |
| 1996 | 207.3 | 198.9 | 202.6 | 2235 |
| 1997 | 194.6 | 186.5 | 208.2 | 2339 |


| Stroke | Rate | 95\% Confidence Interval <br> Lower | Upper | Total Deaths |
| :--- | ---: | ---: | ---: | ---: |
| Year | 74.6 | 69.1 | 80.0 | 732 |
| 1990 | 76.6 | 71.2 | 82.0 | 771 |
| 1991 | 74.8 | 69.5 | 80.1 | 770 |
| 1992 | 71.2 | 66.1 | 76.3 | 753 |
| 1993 | 68.9 | 64.0 | 73.9 | 744 |
| 1994 | 69.0 | 64.1 | 73.9 | 766 |
| 1995 | 66.5 | 61.8 | 71.3 | 750 |
| 1996 | 68.6 | 63.8 | 73.4 | 786 |
| 1997 | 68.0 | 63.2 | 72.7 | 793 |
| 1998 |  |  |  |  |

Age-Adjusted Death Rates, Alameda County, 1990-1998 (cont.)

| All Cancer | Rate | 95\% Confidence Interval <br> Lower | Upper | Total Deaths |
| :--- | ---: | ---: | ---: | ---: |
| Year | 212.5 | 203.7 | 221.3 | 2258 |
| 1990 | 215.9 | 207.0 | 224.7 | 2322 |
| 1991 | 210.6 | 201.9 | 219.2 | 2296 |
| 1992 | 210.0 | 201.4 | 218.5 | 2338 |
| 1993 | 199.3 | 191.0 | 207.5 | 2251 |
| 1994 | 201.1 | 192.9 | 209.4 | 2302 |
| 1995 | 192.4 | 184.4 | 200.4 | 2238 |
| 1996 | 186.2 | 178.4 | 194.0 | 2203 |
| 1997 | 184.1 | 176.4 | 191.8 | 2210 |
| 1998 |  |  |  |  |


| Lung Cancer |  | Rate | 95\% Confidence Interval <br> Lower | Upper |
| :--- | ---: | ---: | ---: | ---: | Total Deaths | Yoar |
| :--- |
| Year |
| 1990 |


| Breast Cancer |  | 95\% Confidence Interval Lower <br> Upper |  | Total Deaths |
| :---: | :---: | :---: | :---: | :---: |
| Year | Rate |  |  |  |
| 1990 | 34.2 | 29.4 | 38.9 | 205 |
| 1991 | 32.7 | 28.1 | 37.3 | 197 |
| 1992 | 29.6 | 25.3 | 33.8 | 185 |
| 1993 | 30.3 | 26.0 | 34.6 | 193 |
| 1994 | 27.7 | 23.6 | 31.7 | 180 |
| 1995 | 24.9 | 21.1 | 28.7 | 165 |
| 1996 | 28.7 | 24.6 | 32.7 | 193 |
| 1997 | 26.2 | 22.3 | 30.1 | 178 |
| 1998 | 27.3 | 23.4 | 31.2 | 191 |


| Prostate Cancer |  | 95\% Confidence Interval <br> Lower |  | Upper |
| :--- | ---: | ---: | ---: | ---: | Total Deaths | Year | Rate | 43.6 |
| :--- | :--- | :--- |

Age-Adjusted Death Rates, Alameda County, 1990-1998 (cont.)

| Unintentional Injury |  | 95\% Confidence Interval Lower <br> Upper |  | Total Deaths |
| :---: | :---: | :---: | :---: | :---: |
| Year | Rate |  |  |  |
| 1990 | 27.9 | 24.9 | 31.0 | 341 |
| 1991 | 30.9 | 27.7 | 34.0 | 385 |
| 1992 | 26.6 | 23.7 | 29.5 | 334 |
| 1993 | 27.7 | 24.8 | 30.6 | 364 |
| 1994 | 27.6 | 24.7 | 30.5 | 359 |
| 1995 | 28.9 | 25.9 | 31.8 | 380 |
| 1996 | 25.0 | 22.3 | 27.7 | 334 |
| 1997 | 22.8 | 20.3 | 25.4 | 308 |
| 1998 | 25.0 | 22.3 | 27.7 | 337 |


| Motor Vehicle Crashes |  | 95\% Confidence Interval Lower <br> Upper |  | Total Deaths |
| :---: | :---: | :---: | :---: | :---: |
| Year | Rate |  |  |  |
| 1990 | 11.2 | 9.3 | 13.0 | 146 |
| 1991 | 10.9 | 9.1 | 12.7 | 144 |
| 1992 | 9.8 | 8.1 | 11.5 | 126 |
| 1993 | 8.0 | 6.4 | 9.5 | 111 |
| 1994 | 8.7 | 7.1 | 10.3 | 116 |
| 1995 | 9.5 | 7.9 | 11.2 | 130 |
| 1996 | 7.8 | 6.3 | 9.3 | 105 |
| 1997 | 7.2 | 5.8 | 8.6 | 100 |
| 1998 | 7.7 | 6.2 | 9.2 | 106 |


| Homicide |  | 95\% Confidence Interval <br> Lower | Upper | Total Deaths |
| :--- | ---: | ---: | ---: | ---: |
| Year | Rate | 11.7 | 15.6 | 192 |
| 1990 | 13.7 | 14.9 | 12.9 | 17.0 |


| Suicide | Rate | 95\% Confidence Interval <br> Lower | Upper | Total Deaths |
| :--- | ---: | ---: | ---: | ---: |
| Year | 10.7 | 8.9 | 12.5 | 138 |
| 1990 | 11.4 | 9.5 | 13.3 | 143 |
| 1991 | 10.6 | 8.8 | 12.4 | 137 |
| 1992 | 11.5 | 9.6 | 13.3 | 151 |
| 1993 | 10.5 | 8.8 | 12.3 | 140 |
| 1994 | 11.3 | 9.5 | 13.1 | 153 |
| 1995 | 9.4 | 7.8 | 11.1 | 129 |
| 1996 | 10.4 | 8.7 | 12.1 | 144 |
| 1997 | 10.1 | 8.4 | 11.8 | 137 |
| 1998 |  |  |  |  |

Age-Adjusted Death Rates, Alameda County, 1999-2000 Average*

| Death from All Causes |  | 95\% Confidence Interval <br> Lower |  | Average <br> Upper |
| :--- | ---: | ---: | ---: | ---: |
| Annual Deaths |  |  |  |  |
| Total Population | Rate | 789.9 | 774.2 | 805.6 |
| Males | 946.7 | 919.2 | 974.2 | 9807 |
| Females | 675.2 | 656.4 | 694.0 | 4794 |
|  |  |  |  | 5013 |
| Whites | 822.8 | 801.6 | 844.0 |  |
| African Americans | 1156.5 | 1106.1 | 1206.8 | 5877 |
| Hispanics | 651.0 | 601.1 | 700.9 | 2056 |
| Asians | 494.9 | 462.9 | 526.8 | 763 |
| Native Americans | 847.5 | 575.8 | 1203.0 | 991 |
| Nat. Haw. \& Pac. Is. | 1293.3 | 965.9 | 1696.0 | 31 |
| Two or more races | 103.6 | 71.3 | 145.5 | 52 |


| Asthma |  | 95\% Confidence Interval |  |
| :--- | ---: | ---: | ---: |
| Lower | Average <br> Upper | Annual Deaths <br> An |  |
| Total Population | Rate | 3.5 | 32 |
| Males | 2.5 | 1.7 | 14 |
| Females | $* *$ |  | 18 |
|  | $* *$ |  |  |
| Whites | $* *$ |  | 7 |
| African Americans | $* *$ |  | 11 |
| Hispanics | $* *$ |  | 3 |
| Asians | $* *$ |  | 4 |
| Native Americans | $* *$ |  | 0 |
| Nat. Haw. \& Pac. Is. | $* *$ |  | 0 |
| Two or more races |  |  |  |


| Diabetes |  | 95\% Confidence Interval |  |  |
| :--- | ---: | ---: | ---: | ---: |
| Lower | Upper | Average <br> Annual Deaths |  |  |
| Total Population | Rate | 28.5 | 280 |  |
| Males | 22.8 | 20.1 | 25.5 | 134 |
| Females | 26.3 | 21.7 | 30.8 | 146 |
|  | 20.2 | 16.9 | 23.5 |  |
| Whites |  |  | 19.8 | 116 |
| African Americans | 16.7 | 13.6 | 60.9 | 86 |
| Hispanics | 49.3 | 39.4 | 47.3 | 39 |
| Asians | 34.6 | 24.6 | 23.3 | 32 |
| Native Americans | 16.5 | 11.3 |  | 1 |
| Nat. Haw. \& Pac. Is. | $* *$ |  |  | 1 |
| Two or more races | $* *$ |  |  | 1 |

[^2]Age-Adjusted Death Rates, Alameda County, 1999-2000 Average* (cont.)

| Coronary Heart Disease |  | 95\% Confidence IntervalLowerUpper |  | Average Annual Deaths |
| :---: | :---: | :---: | :---: | :---: |
|  | Rate |  |  |  |
| Total Population | 188.5 | 180.7 | 196.2 | 2289 |
| Males | 230.0 | 216.2 | 243.8 | 1107 |
| Females | 156.0 | 147.1 | 165.0 | 1182 |
| Whites | 199.7 | 189.4 | 210.0 | 1461 |
| African Americans | 266.4 | 241.9 | 291.0 | 456 |
| Hispanics | 156.0 | 130.5 | 181.5 | 151 |
| Asians | 99.1 | 84.5 | 113.8 | 185 |
| Native Americans | ** |  |  |  |
| Nat. Haw. \& Pac. Is. | ** |  |  | 14 |
| Two or more races | ** |  |  |  |


| Stroke |  | 95\% Confidence Interval Lower Upper |  | Average Annual Deaths |
| :---: | :---: | :---: | :---: | :---: |
|  | Rate |  |  |  |
| Total Population | 70.5 | 65.7 | 75.2 | 854 |
| Males | 75.1 | 67.0 | 83.2 | 342 |
| Females | 67.6 | 61.7 | 73.5 | 512 |
| Whites | 68.6 | 62.6 | 74.6 | 508 |
| African Americans | 103.9 | 88.6 | 119.3 | 178 |
| Hispanics | 56.1 | 42.3 | 73.0 | 55 |
| Asians | 65.7 | 53.7 | 77.8 | 121 |
| Native Americans | ** |  |  | 2 |
| Nat. Haw. \& Pac. Is. | ** |  |  | 5 |
| Two or more races | ** |  |  | 1 |


| All Cancer |  | 95\% Confidence Interval |  | Average Annual Deaths |
| :---: | :---: | :---: | :---: | :---: |
|  | Rate |  |  |  |
| Total Population | 190.4 | 182.7 | 198.2 | 2357 |
| Males | 228.3 | 214.9 | 241.7 | 1161 |
| Females | 167.7 | 158.2 | 177.3 | 1196 |
| Whites | 213.0 | 202.0 | 223.9 | 1472 |
| African Americans | 259.4 | 235.5 | 283.3 | 458 |
| Hispanics | 140.4 | 118.0 | 162.9 | 164 |
| Asians | 132.9 | 117.0 | 148.9 | 283 |
| Native Americans | ** |  |  | 4 |
| Nat. Haw. \& Pac. Is. | ** |  |  | 10 |
| Two or more races | ** |  |  |  |
| All others | ** |  |  |  |

[^3]Age-Adjusted Death Rates, Alameda County, 1999-2000 Average* (cont. )

| Lung Cancer |  | 95\% Confidence Interval |  |  |
| :--- | ---: | ---: | ---: | ---: |
| Lower | Upper | Average <br> Annual Deaths |  |  |
| Total Population | Rate | Lown | 622 |  |
| Males | 50.9 | 46.9 | 55.0 | 324 |
| Females | 63.6 | 56.5 | 70.6 | 298 |
|  | 42.7 | 37.8 | 47.6 |  |
| Whites |  |  | 400 |  |
| African Americans | 59.0 | 53.1 | 64.8 | 126 |
| Hispanics | 70.9 | 58.4 | 83.3 | 37 |
| Asians | 33.0 | 23.2 | 45.5 | 64 |
| Native Americans | 31.1 | 24.0 | 39.7 | 0 |
| Nat. Haw. \& Pac. Is. | $* *$ |  |  | 4 |
| Two or more races | $* *$ |  |  | 2 |


| Breast Cancer |  | 95\% Confidence Interval Lower <br> Upper |  | Average Annual Deaths |
| :---: | :---: | :---: | :---: | :---: |
|  | Rate |  |  |  |
| Total Females | 26.9 | 23.1 | 30.7 | 195 |
| White | 34.5 | 28.5 | 40.4 | 132 |
| African American | 34.7 | 24.6 | 47.6 | 38 |
| Hispanic | ** |  |  | 17 |
| Asian | ** |  |  | 17 |
| Native Americans | ** |  |  | 0 |
| Nat. Haw. \& Pac. Is. | ** |  |  | 2 |
| Two or more races | ** |  |  | 0 |


| Prostate Cancer |  | 95\% Confidence Interval Lower <br> Upper |  | Average Annual Deaths |
| :---: | :---: | :---: | :---: | :---: |
|  | Rate |  |  |  |
| Males | 30.2 | 25.1 | 35.4 | 135 |
| White | 27.4 | 21.5 | 34.5 | 73 |
| African American | 73.6 | 53.5 | 98.8 | 44 |
| Hispanic | ** |  |  | 5 |
| Asian | ** |  |  | 9 |
| Native Americans | ** |  |  | 0 |
| Nat. Haw. \& Pac. Is. | ** |  |  | 0 |
| Two or more races | * |  |  | 0 |

* Counts by race/ethnicity are for 2000 only.
** Rates not calculated due to small numbers.

Age-Adjusted Death Rates, Alameda County, 1999-2000 Average* (cont.)

| Unintentional Injury |  | 95\% Confidence Interval Lower Upper |  | Average Annual Deaths |
| :---: | :---: | :---: | :---: | :---: |
|  | Rate |  |  |  |
| Total Population | 23.5 | 20.9 | 26.1 | 328 |
| Males | 31.8 | 27.3 | 36.2 | 211 |
| Females | 15.8 | 12.9 | 18.7 | 117 |
| Whites | 23.1 | 19.5 | 26.8 | 158 |
| African Americans | 32.7 | 25.4 | 41.5 | 68 |
| Hispanics | 21.7 | 15.9 | 28.9 | 46 |
| Asians | 19.0 | 14.0 | 25.3 | 47 |
| Native Americans | ** |  |  |  |
| Nat. Haw. \& Pac. Is. | ** |  |  |  |
| Two or more races | ** |  |  | $6$ |


| Motor Vehicle Crash |  | 95\% Confidence Interval Lower Upper |  | Average Annual Deaths |
| :---: | :---: | :---: | :---: | :---: |
|  | Rate |  |  |  |
| Total Population | 7.3 | 5.9 | 8.7 | 104 |
| Males | 10.6 | 8.3 | 13.3 | 73 |
| Females | 4.3 | 2.9 | 6.1 | 31 |
| Whites | 6.6 | 4.8 | 8.9 | 43 |
| African Americans | ** |  |  | 17 |
| Hispanics | 9.2 | 5.9 | 13.7 | 24 |
| Asians | 9.2 | 6.0 | 13.5 | 26 |
| Native Americans | ** |  |  | 0 |
| Nat. Haw. \& Pac. Is. | ** |  |  |  |
| Two or more races | ** |  |  |  |


| Homicide |  | 95\% Confidence Interval <br> Lower | Average <br> Annual Deaths |  |
| :--- | ---: | ---: | ---: | ---: |
| Total Population | 7.2 | 5.8 | 8.6 | 109 |
| Males | 11.8 | 9.5 | 14.5 | 90 |
| Females | 2.5 |  |  | 19 |
| Whites | $* *$ |  |  | 14 |
| African Americans | 34.1 | 26.8 | 42.8 | 74 |
| Hispanics | $* *$ |  |  | 14 |
| Asians | $* *$ |  |  | 12 |
| Native Americans | $* *$ |  |  | 1 |
| Nat. Haw. \& Pac. Is. | $* *$ |  |  | 2 |
| Two or more races | $* *$ |  |  | 1 |

[^4]Age-Adjusted Death Rates, Alameda County, 1999-2000 Average* (cont. )

| Suicide |  | 95\% Confidence Interval Lower <br> Upper |  | Average Annual Deaths |
| :---: | :---: | :---: | :---: | :---: |
|  | Rate |  |  |  |
| Total Population | 7.8 | 6.3 | 9.2 | 111 |
| Males | 13.0 | 10.4 | 16.0 | 87 |
| Females | 3.2 | 2.1 | 4.8 | 24 |
| Whites | 9.7 | 7.5 | 12.3 | 66 |
| African Americans | ** |  |  | 10 |
| Hispanics | ** |  |  | 9 |
| Asians | ** |  |  | 19 |
| Native Americans | ** |  |  | 0 |
| Nat. Haw. \& Pac. Is. | ** |  |  | 2 |
| Two or more races | ** |  |  | 1 |

* Counts by race/ethnicity are for 2000 only.
** Rates not calculated due to small numbers.

Age-Adjusted Cancer Incidence Rates, Alameda County, 1990-1999

| Lung Cancer |  | 95\% Confidence Interval Lower Upper |  | Annual Number |
| :---: | :---: | :---: | :---: | :---: |
| Year | Rate |  |  |  |
| 1990 | 75.9 | 70.7 | 81.1 | 824 |
| 1991 | 67.8 | 62.9 | 72.7 | 741 |
| 1992 | 74.3 | 69.2 | 79.4 | 826 |
| 1993 | 70.7 | 65.7 | 75.6 | 794 |
| 1994 | 64.8 | 60.1 | 69.5 | 738 |
| 1995 | 73.2 | 68.2 | 78.2 | 840 |
| 1996 | 63.5 | 59.0 | 68.1 | 740 |
| 1997 | 61.4 | 56.9 | 65.9 | 725 |
| 1998 | 61.9 | 57.5 | 66.4 | 742 |
| 1999 | 62.5 | 58.1 | 67.0 | 758 |


| Breast Cancer |  | 95\% Confidence Interval Lower <br> Upper |  | Annual Number |
| :---: | :---: | :---: | :---: | :---: |
| Year | Rate |  |  |  |
| 1990 | 154.5 | 144.5 | 164.5 | 925 |
| 1991 | 151.0 | 141.2 | 160.8 | 926 |
| 1992 | 150.0 | 140.4 | 159.7 | 935 |
| 1993 | 136.6 | 127.5 | 145.7 | 871 |
| 1994 | 151.3 | 141.8 | 160.8 | 976 |
| 1995 | 150.8 | 141.4 | 160.2 | 991 |
| 1996 | 153.0 | 143.6 | 162.4 | 1020 |
| 1997 | 162.3 | 152.7 | 171.9 | 1106 |
| 1998 | 159.2 | 147.8 | 168.7 | 1103 |
| 1999 | 173.1 | 163.4 | 182.9 | 1215 |


| Prostate Cancer |  | 95\% Confidence Interval Lower <br> Upper |  | Annual Number |
| :---: | :---: | :---: | :---: | :---: |
| Year | Rate |  |  |  |
| 1990 | 139.1 | 127.4 | 150.8 | 588 |
| 1991 | 187.5 | 174.3 | 200.7 | 817 |
| 1992 | 198.0 | 184.4 | 211.4 | 873 |
| 1993 | 190.5 | 177.7 | 203.3 | 884 |
| 1994 | 180.1 | 167.7 | 192.5 | 845 |
| 1995 | 152.7 | 141.5 | 164.0 | 735 |
| 1996 | 149.4 | 138.4 | 160.5 | 729 |
| 1997 | 143.8 | 133.1 | 154.6 | 710 |
| 1998 | 149.0 | 138.3 | 159.7 | 761 |
| 1999 | 163.2 | 152.0 | 174.4 | 844 |

Age-Adjusted Cancer Incidence Rates, Alameda County, 1997-1999 Average

| Lung Cancer |  | 95\% Confidence Interval <br> Lower |  | Average <br> Upper |  |
| :--- | ---: | :---: | ---: | ---: | :---: |
|  | Rate | Annual Number |  |  |  |
| Total* | 62.0 | 57.5 | 66.4 | 742 |  |
| Male | 73.9 | 66.3 | 81.4 | 376 |  |
| Female | 53.9 | 43.6 | 64.1 | 366 |  |
|  |  |  |  |  |  |
| African American | 74.4 | 62.1 | 86.7 | 142 |  |
| American Indian | $* *$ |  |  | 1 |  |
| Asian | 37.0 | 28.2 | 45.8 | 69 |  |
| Latino | 39.4 | 28.4 | 50.5 | 50 |  |
| White | 67.7 | 61.6 | 73.9 | 463 |  |


| Breast Cancer |  | 95\% Confidence Interval <br> Late |  | Average <br> Lower |  | Upper | Annual Number |
| :--- | ---: | :---: | ---: | ---: | :---: | :---: | :---: |
|  | Rat | 174.6 | 1141 |  |  |  |  |
| Total | 165.0 | 155.4 | 152.5 | 152 |  |  |  |
| African American | 131.6 | 110.6 |  | 2 |  |  |  |
| American Indian | $* *$ |  | 139.7 | 139 |  |  |  |
| Asian | 119.6 | 99.6 | 164.7 | 81 |  |  |  |
| Latino | 108.4 | 67.0 | 200.3 | 716 |  |  |  |
| White | 186.6 | 172.8 |  |  |  |  |  |


| Prostate Cancer |  | 95\% Confidence Interval <br> Lower |  | Average <br> Annual Number |
| :--- | ---: | :---: | ---: | ---: |
|  | Rate | Uper |  |  |
| Annal | 163.0 | 772 |  |  |
| Total $^{*}$ | 152.1 | 141.2 | 144 |  |
| African American | 188.8 | 157.5 | 220.1 | 1 |
| American Indian | $* *$ |  |  | 68 |
| Asian | 84.3 | 49.7 | 132.5 | 55 |
| Latino | 94.1 | 51.7 | 155.7 | 426 |
| White | 146.5 | 132.4 | 160.6 |  |

[^5]Age-Adjusted Hospitalization Rates, Alameda County, 1995-2000

| Asthma, All Ages |  | 95\% Confidence Interval <br> Lower <br> Upper |  | Annual Number |
| :---: | :---: | :---: | :---: | :---: |
| Year | Rate |  |  |  |
| Total |  |  |  |  |
| 1995 | 179.0 | 171.8 | 186.3 | 2367 |
| 1996 | 172.3 | 165.2 | 179.4 | 2295 |
| 1997 | 183.0 | 175.8 | 190.3 | 2464 |
| 1998 | 194.8 | 187.3 | 202.2 | 2634 |
| 1999 | 202.1 | 194.5 | 209.6 | 2785 |
| 2000 | 172.3 | 165.4 | 179.2 | 2400 |
| Male |  |  |  |  |
| 1995 | 172.6 | 162.4 | 182.8 | 1124 |
| 1996 | 168.0 | 157.9 | 178.0 | 1104 |
| 1997 | 177.1 | 166.8 | 187.4 | 1177 |
| 1998 | 188.9 | 178.3 | 199.5 | 1258 |
| 1999 | 191.7 | 181.2 | 202.3 | 1302 |
| 2000 | 160.7 | 151.1 | 170.2 | 1111 |
| Female |  |  |  |  |
| 1995 | 182.2 | 172.0 | 192.4 | 1243 |
| 1996 | 173.7 | 163.8 | 183.6 | 1191 |
| 1997 | 186.5 | 176.3 | 196.7 | 1287 |
| 1998 | 197.4 | 186.9 | 207.8 | 1376 |
| 1999 | 208.8 | 198.1 | 219.4 | 1483 |
| 2000 | 180.2 | 170.3 | 190.1 | 1289 |


| Childhood Asthma (<age 15) |  | 95\% Confidence Interval <br> Lower |  | Upper |
| ---: | ---: | ---: | ---: | ---: |
| Year | Rate | Annual Number |  |  |
| Total |  |  |  |  |
|  | 1995 | 415.5 | 391.9 | 439.2 |

Age-Adjusted Hospitalization Rates, Alameda County, 1995-2000 (cont.)

| Diabetes |  |  | 95\% Confidence <br> Lower |  | Interval <br> Upper |
| :--- | ---: | ---: | ---: | ---: | ---: | Annual Number


| Coronary Heart Disease |  | 95\% Confidence Interval Lower Upper |  | Annual Number |
| :---: | :---: | :---: | :---: | :---: |
| Year | Rate |  |  |  |
| Total |  |  |  |  |
| 1995 | 1458.1 | 1435.9 | 1480.3 | 16699 |
| 1996 | 1529.6 | 1507.0 | 1552.1 | 17727 |
| 1997 | 1526.6 | 1504.2 | 1549.0 | 17955 |
| 1998 | 1550.5 | 1528.2 | 1572.9 | 18533 |
| 1999 | 1559.6 | 1537.3 | 1581.9 | 18946 |
| 2000 | 1459.2 | 1437.8 | 1480.6 | 17970 |
| Male |  |  |  |  |
| 1995 | 1875.5 | 1836.2 | 1914.9 | 9162 |
| 1996 | 1955.1 | 1915.2 | 1995.0 | 9640 |
| 1997 | 1900.3 | 1861.3 | 1939.4 | 9500 |
| 1998 | 1949.4 | 1910.2 | 1988.5 | 9906 |
| 1999 | 1952.5 | 1913.6 | 1991.4 | 10076 |
| 2000 | 1839.9 | 1802.5 | 1877.4 | 9656 |
| Female |  |  |  |  |
| 1995 | 1134.4 | 1108.8 | 1160.1 | 7537 |
| 1996 | 1197.1 | 1170.9 | 1223.2 | 8087 |
| 1997 | 1233.6 | 1207.3 | 1260.0 | 8455 |
| 1998 | 1243.7 | 1217.4 | 1270.0 | 8627 |
| 1999 | 1257.1 | 1230.8 | 1283.3 | 8870 |
| 2000 | 1162.1 | 1137.0 | 1187.2 | 8314 |

Age-Adjusted Hospitalization Rates, Alameda County, 1995-2000 (cont.)

| Stroke | 95\% Confidence <br> Lower |  | Interval <br> Upper | Annual Number |  |
| :--- | ---: | ---: | :---: | ---: | ---: |
| Total | Year | Rate |  |  |  |
|  | 1995 | 551.2 | 537.5 | 564.9 | 6267 |
|  | 1996 | 574.1 | 560.2 | 588.0 | 6614 |
|  | 1997 | 562.9 | 549.3 | 576.5 | 6588 |
|  | 1998 | 600.6 | 586.7 | 614.6 | 7136 |
|  | 1999 | 570.3 | 556.8 | 583.8 | 6907 |
|  | 2000 | 570.1 | 556.7 | 583.6 | 6998 |
| Male |  |  |  |  |  |
|  | 1995 | 601.4 | 578.6 | 624.1 | 2830 |
|  | 1996 | 627.6 | 604.5 | 650.7 | 2980 |
|  | 1997 | 619.7 | 596.9 | 642.5 | 2973 |
|  | 1998 | 651.3 | 628.1 | 674.5 | 3169 |
|  | 1999 | 608.5 | 586.3 | 630.6 | 3025 |
|  | 2000 | 593.3 | 571.7 | 614.9 | 3008 |
| Female |  |  |  |  |  |
|  | 1995 | 513.8 | 496.6 | 531.0 | 3437 |
|  | 1996 | 532.8 | 515.4 | 550.1 | 3634 |
|  | 1997 | 522.4 | 505.3 | 539.5 | 3615 |
|  | 1998 | 564.6 | 547.0 | 582.2 | 3967 |
|  | 1999 | 543.6 | 526.5 | 560.8 | 3882 |
|  | 2000 | 552.4 | 535.2 | 569.6 | 3990 |


| Unintentional Injury |  | 95\% Confidence Interval Lower Upper |  | Annual Number |
| :---: | :---: | :---: | :---: | :---: |
| Year | Rate |  |  |  |
| Total |  |  |  |  |
| 1995 | 457.6 | 445.7 | 469.6 | 5783 |
| 1996 | 415.3 | 403.9 | 426.6 | 5291 |
| 1997 | 427.1 | 415.8 | 438.5 | 5518 |
| 1998 | 434.6 | 423.1 | 446.0 | 5658 |
| 1999 | 437.7 | 426.4 | 449.1 | 5814 |
| 2000 | 446.8 | 435.4 | 458.2 | 6001 |
| Male |  |  |  |  |
| 1995 | 467.5 | 449.6 | 485.4 | 2876 |
| 1996 | 433.8 | 416.7 | 450.9 | 2688 |
| 1997 | 440.0 | 422.8 | 457.2 | 2748 |
| 1998 | 447.6 | 430.3 | 465.0 | 2770 |
| 1999 | 467.6 | 450.2 | 485.0 | 2981 |
| 2000 | 462.8 | 445.6 | 480.0 | 2978 |
| Female |  |  |  |  |
| 1995 | 423.0 | 407.6 | 438.5 | 2907 |
| 1996 | 372.9 | 358.6 | 387.3 | 2603 |
| 1997 | 391.8 | 377.1 | 406.4 | 2770 |
| 1998 | 403.2 | 388.4 | 417.9 | 2888 |
| 1999 | 389.0 | 374.6 | 403.4 | 2833 |
| 2000 | 410.0 | 395.3 | 424.7 | 3023 |

Age-Adjusted Hospitalization Rates, Alameda County, 1995-2000 (cont.)

| Motor Vehicle Accident |  | 95\% Confidence Interval Lower Upper |  | Annual Number |
| :---: | :---: | :---: | :---: | :---: |
| Year | Rate |  |  |  |
| Total |  |  |  |  |
| 1995 | 108.6 | 102.9 | 114.2 | 1468 |
| 1996 | 90.9 | 85.8 | 96.0 | 1251 |
| 1997 | 93.1 | 88.0 | 98.2 | 1301 |
| 1998 | 87.1 | 82.2 | 92.1 | 1223 |
| 1999 | 98.4 | 93.2 | 103.6 | 1394 |
| 2000 | 97.2 | 92.1 | 102.3 | 1411 |
| Male |  |  |  |  |
| 1995 | 129.5 | 120.6 | 138.5 | 865 |
| 1996 | 115.3 | 107.0 | 123.5 | 783 |
| 1997 | 119.7 | 111.3 | 128.1 | 820 |
| 1998 | 104.2 | 96.5 | 112.0 | 722 |
| 1999 | 127.4 | 118.9 | 135.9 | 891 |
| 2000 | 123.6 | 115.3 | 131.9 | 883 |
| Female |  |  |  |  |
| 1995 | 86.4 | 79.5 | 93.4 | 603 |
| 1996 | 66.8 | 60.7 | 72.9 | 468 |
| 1997 | 67.5 | 61.4 | 73.6 | 481 |
| 1998 | 70.2 | 64.0 | 76.4 | 501 |
| 1999 | 69.6 | 63.5 | 75.7 | 503 |
| 2000 | 71.6 | 65.4 | 77.7 | 528 |


| Self-Inflicted Injury |  | 95\% Confidence IntervalLower |  | Annual Number |
| :---: | :---: | :---: | :---: | :---: |
| Year | Rate |  |  |  |
|  |  |  |  |  |
| 1995 | 31.0 | 28.0 | 33.9 | 438 |
| 1996 | 29.2 | 26.3 | 32.0 | 422 |
| 1997 | 28.1 | 25.4 | 30.9 | 408 |
| 1998 | 31.4 | 28.5 | 34.4 | 455 |
| 1999 | 27.6 | 24.9 | 30.3 | 406 |
| 2000 | 29.4 | 26.6 | 32.2 | 435 |
| Male |  |  |  |  |
| 1995 | 24.3 | 20.5 | 28.1 | 165 |
| 1996 | 24.9 | 21.1 | 28.7 | 177 |
| 1997 | 22.2 | 18.7 | 25.8 | 158 |
| 1998 | 24.0 | 20.3 | 27.7 | 172 |
| 1999 | 24.1 | 20.4 | 27.8 | 170 |
| 2000 | 21.5 | 18.1 | 24.9 | 157 |
| Female |  |  |  |  |
| 1995 | 38.2 | 33.7 | 42.8 | 273 |
| 1996 | 34.0 | 29.7 | 38.2 | 245 |
| 1997 | 34.3 | 30.0 | 38.5 | 250 |
| 1998 | 39.0 | 34.4 | 43.5 | 283 |
| 1999 | 31.9 | 27.8 | 36.0 | 236 |
| 2000 | 37.4 | 33.0 | 41.9 | 278 |

Age-Adjusted Hospitalization Rates, Alameda County, 1995-2000 (cont.)

| Assault Injury |  | 95\% Confidence Interval <br> Lower Upper |  | Annual Number |
| :---: | :---: | :---: | :---: | :---: |
| Year | Rate |  |  |  |
| Total |  |  |  |  |
| 1995 | 59.0 | 55.0 | 63.0 | 861 |
| 1996 | 52.5 | 48.8 | 56.3 | 765 |
| 1997 | 51.7 | 48.0 | 55.4 | 764 |
| 1998 | 51.4 | 47.7 | 55.1 | 760 |
| 1999 | 42.9 | 39.6 | 46.3 | 642 |
| 2000 | 43.0 | 39.7 | 46.3 | 650 |
| Male |  |  |  |  |
| 1995 | 99.6 | 92.2 | 106.9 | 731 |
| 1996 | 87.6 | 80.7 | 94.5 | 641 |
| 1997 | 86.8 | 80.0 | 93.5 | 644 |
| 1998 | 86.1 | 79.4 | 92.9 | 635 |
| 1999 | 72.5 | 66.4 | 78.7 | 545 |
| 2000 | 73.4 | 67.2 | 79.5 | 557 |
| Female |  |  |  |  |
| 1995 | 17.9 | 14.8 | 21.0 | 130 |
| 1996 | 17.0 | 14.0 | 20.0 | 124 |
| 1997 | 16.5 | 13.5 | 19.5 | 120 |
| 1998 | 16.9 | 13.9 | 19.9 | 125 |
| 1999 | 13.0 | 10.4 | 15.6 | 97 |
| 2000 | 12.3 | 9.8 | 14.8 | 93 |


| All Asthma | Age-Adjusted Hospitalization Rates for Chronic Diseases, Alameda County, 1998-2000 Average |  |  |  |  |  |  |  |  | 95\% CI |  | Average Annual \# |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Rate | Lower | Upper | Annual \# | Rate | Lower | Upper | Annual \# | Rate | Lower | Upper |  |
| Total | 180.2 | 170.0 | 190.5 | 1,224 | 195.3 | 185.0 | 205.6 | 1,383 | 189.5 | 182.2 | 196.8 | 2,606 |
| African American | 448.4 | 409.6 | 487.1 | 542 | 458.1 | 420.6 | 495.7 | 580 | 458.1 | 431.0 | 485.2 | 1,122 |
| American Indian |  |  |  | 1 | * |  |  | 2 | * |  |  | 3 |
| Asian | 119.8 | 99.4 | 140.2 | 146 | 110.7 | 92.1 | 129.3 | 141 | 116.0 | 102.2 | 129.8 | 287 |
| Hispanic/Latino | 115.1 | 95.9 | 134.2 | 171 | 130.5 | 108.8 | 152.1 | 160 | 123.1 | 108.6 | 137.6 | 331 |
| White | 98.2 | 86.2 | 110.2 | 267 | 128.9 | 116.4 | 141.4 | 432 | 115.0 | 106.3 | 123.7 | 699 |
|  | Male | 95\% |  | Average | Female | 95\% |  | Average | Total | 95\% |  | Average |
| Child Asthma (<15 Years) | Rate | Lower | Upper | Annual \# | Rate | Lower | Upper | Annual \# | Rate | Lower | Upper | Annual \# |
| Total | 518.3 | 482.2 | 554.4 | 792 | 317.5 | 288.6 | 346.5 | 463 | 420.2 | 396.9 | 443.4 | 1,255 |
| African American | 1281.0 | 1149.9 | 1412.1 | 367 | 858.6 | 749.9 | 967.3 | 240 | 1072.7 | 987.4 | 1158.1 | 607 |
| American Indian | * |  |  | 1 | * |  |  | 1 | * |  |  | 2 |
| Asian | 262.7 | 210.4 | 324.0 | 87 | 129.5 | 92.5 | 176.3 | 40 | 197.9 | 163.3 | 232.2 | 127 |
| Hispanic/Latino | 330.1 | 272.6 | 387.6 | 129 | 200.7 | 157.9 | 251.6 | 75 | 266.7 | 229.8 | 303.6 | 204 |
| White | 251.7 | 208.3 | 295.1 | 130 | 134.8 | 104.3 | 171.5 | 66 | 194.9 | 167.5 | 222.2 | 196 |
|  | Male | 95\% |  | Average | Female | 95\% |  | Average |  | 95\% |  | Average |
| Diabetes | Rate | Lower | Upper | Annual \# | Rate | Lower | Upper | Annual \# | Rate | Lower | Upper | Annual \# |
| Total | 1205.2 | 1175.6 | 1234.8 | 6,660 | 1204.3 | 1178.5 | 1230.1 | 8,409 | 1201.3 | 1182.1 | 1220.6 | 15,070 |
| African American | 2031.7 | 1931.8 | 2131.5 | 1,693 | 2403.8 | 2313.3 | 2494.2 | 2,742 | 2249.1 | 2182.1 | 2316.1 | 4,435 |
| American Indian |  |  |  | 16 | * |  |  | 14 | 509.7 | 343.9 | 727.6 | 30 |
| Asian | 860.0 | 798.9 | 921.2 | 790 | 832.6 | 778.7 | 886.5 | 933 | 847.1 | 806.6 | 887.6 | 1,724 |
| Hispanic/Latino | 1043.6 | 967.0 | 1120.2 | 768 | 1280.7 | 1201.2 | 1360.1 | 1,032 | 1171.1 | 1115.7 | 1226.5 | 1,801 |
| White | 1068.5 | 1030.5 | 1106.5 | 3,157 | 894.0 | 863.8 | 924.2 | 3,441 | 963.6 | 940.3 | 987.0 | 6,598 |
|  | Male | 95\% |  | Average | Female | 95\% |  | Average | Total | 95\% |  | Average |
| Coronary Heart Disease | Rate | Lower | Upper | Annual \# | Rate | Lower | Upper | Annual \# | Rate | Lower | Upper | Annual \# |
| Total | 1913.3 | 1874.8 | 1951.8 | 9,879 | 1220.9 | 1195.0 | 1246.7 | 8,604 | 1522.8 | 1500.7 | 1544.8 | 18,483 |
| African American | 1890.6 | 1790.6 | 1990.7 | 1,449 | 1665.0 | 1589.0 | 1740.9 | 1,857 | 1762.7 | 1702.2 | 1823.2 | 3,305 |
| American Indian | * |  |  | 15 | * |  |  | 10 | 491.3 | 317.9 | 725.3 | 25 |
| Asian | 1357.1 | 1279.0 | 1435.3 | 1,194 | 731.5 | 680.0 | 783.0 | 786 | 1011.2 | 966.2 | 1056.1 | 1,981 |
| Hispanic/Latino | 1136.0 | 1052.6 | 1219.3 | 748 | 915.3 | 847.2 | 983.5 | 703 | 1021.1 | 968.0 | 1074.2 | 1,451 |
| White | 2147.9 | 2092.8 | 2202.9 | 6,098 | 1217.1 | 1182.9 | 1251.3 | 4,992 | 1614.9 | 1584.7 | 1645.0 | 11,090 |
|  | Male | 95\% |  | Average | Female | 95\% |  | Average | Total | 95\% |  | Average |
| Stroke | Rate | Lower | Upper | Annual \# | Rate | Lower | Upper | Annual \# | Rate | Lower | Upper | Annual \# |
| Total | 617.2 | 594.9 | 639.5 | 3,067 | 553.5 | 536.2 | 570.9 | 3,946 | 580.2 | 566.6 | 593.8 | 7,014 |
| African American | 880.0 | 810.9 | 949.2 | 661 | 863.8 | 809.3 | 918.2 | 972 | 874.3 | 831.5 | 917.0 | 1,633 |
| American Indian | * |  |  | 8 | * |  |  | 6 | * |  |  | 14 |
| Asian | 469.7 | 423.1 | 516.3 | 405 | 415.0 | 376.1 | 453.8 | 447 | 439.7 | 409.8 | 469.6 | 851 |
| Hispanic/Latino | 329.6 | 284.6 | 374.7 | 220 | 314.9 | 275.2 | 354.7 | 246 | 324.0 | 294.1 | 353.9 | 465 |
| White | 624.8 | 594.2 | 655.4 | 1,669 | 519.6 | 497.4 | 541.8 | 2,164 | 560.0 | 542.2 | 577.8 | 3,833 |

* Rate not calculated due to small numbers.

| Unintentional Inury | $\begin{gathered} \hline \text { Male } \\ \text { Rate } \end{gathered}$ | 95\% Cl |  | Average Annual \# | Female Rate | 95\% CI |  | Average <br> Annual \# | Total Rate | 95\% CI |  | Average <br> Annual \# |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Lower | Upper |  |  | Lower | Upper |  |  | Lower | Upper |  |
| Total | 459.3 | 442.0 | 476.6 | 2,910 | 400.8 | 386.1 | 415.4 | 2,915 | 439.8 | 428.4 | 451.2 | 5,825 |
| African American | 505.9 | 460.6 | 551.1 | 532 | 360.5 | 326.7 | 394.3 | 444 | 431.4 | 403.8 | 459.1 | 976 |
| American Indian | * |  |  | 6 | * |  |  | 5 | * |  |  | 11 |
| Asian | 184.9 | 159.1 | 210.7 | 218 | 210.0 | 183.1 | 236.9 | 245 | 201.8 | 182.7 | 220.8 | 463 |
| Hispanic/Latino | 367.4 | 329.0 | 405.9 | 447 | 234.1 | 202.9 | 265.2 | 246 | 305.0 | 280.1 | 329.8 | 693 |
| White | 507.7 | 481.1 | 534.2 | 1,486 | 466.0 | 444.0 | 487.9 | 1,835 | 499.8 | 482.5 | 517.0 | 3,321 |
|  | Male | 95\% |  | Average | Female | 95\% |  | Average | Total | 95\% |  | Average |
| Motor Vehicle Accidents | Rate | Lower | Upper | Annual \# | Rate | Lower | Upper | Annual \# | Rate | Lower | Upper | Annual \# |
| Total | 118.5 | 110.2 | 126.7 | 832 | 70.4 | 64.3 | 76.6 | 511 | 94.2 | 89.2 | 99.3 | 1,343 |
| African American | 133.3 | 111.9 | 154.6 | 159 | 76.2 | 61.2 | 91.2 | 101 | 103.0 | 90.3 | 115.7 | 260 |
| American Indian | * |  |  | 1 | * |  |  | 1 | * |  |  | 2 |
| Asian | 44.2 | 32.4 | 55.9 | 59 | 41.5 | 30.5 | 52.6 | 57 | 43.1 | 35.0 | 51.2 | 116 |
| Hispanic/Latino | 89.7 | 72.3 | 107.0 | 122 | 48.8 | 35.5 | 62.1 | 58 | 70.1 | 59.1 | 81.1 | 180 |
| White | 125.0 | 112.3 | 137.6 | 392 | 69.9 | 60.7 | 79.0 | 235 | 97.3 | 89.5 | 105.0 | 627 |
|  | Male | 95\% |  | Average | Female | 95\% |  | Average | Total | 95\% |  | Average |
| Self-Inflicted Inury | Rate | Lower | Upper | Annual \# | Rate | Lower | Upper | Annual \# | Rate | Lower | Upper | Annual \# |
| Total | 23.2 | 19.6 | 26.8 | 166 | 36.1 | 31.7 | 40.5 | 266 | 29.5 | 26.7 | 32.3 | 432 |
| African American | 22.5 | 14.8 | 32.7 | 27 | 32.0 | 23.2 | 43.1 | 43 | 27.4 | 21.4 | 34.6 | 70 |
| American Indian | * |  |  | 1 | * |  |  | <1 | * |  |  | 1 |
| Asian |  |  |  | 16 | 19.2 | 13.0 | 27.4 | 30 | 15.6 | 11.4 | 20.8 | 46 |
| Hispanic/Latino | * |  |  | 19 | 27.1 | 18.8 | 37.9 | 34 | 20.9 | 15.7 | 27.3 | 53 |
| White | 27.9 | 22.5 | 34.3 | 91 | 44.3 | 36.9 | 51.6 | 146 | 35.7 | 31.1 | 40.3 | 237 |
|  | Male | 95\% |  | Average | Female | 95\% |  | Average | Total | 95\% |  | Average |
| Assault | Rate | Lower | Upper | Annual \# | Rate | Lower | Upper | Annual \# | Rate | Lower | Upper | Annual \# |
| Total | 77.2 | 70.9 | 83.6 | 579 | 14.1 | 11.4 | 16.8 | 105 | 45.7 | 42.3 | 49.2 | 684 |
| African American | 235.1 | 207.4 | 262.8 | 287 | 38.6 | 29.0 | 50.4 | 54 | 130.5 | 116.5 | 144.5 | 341 |
| American Indian | * |  |  | 2 | * |  |  | 0 | * |  |  | 2 |
| Asian | 15.6 | 9.8 | 23.6 | 22 | * |  |  | 5 | 9.8 | 6.5 | 14.3 | 27 |
| Hispanic/Latino | 71.7 | 57.5 | 85.9 | 110 | * |  |  | 9 | 40.8 | 33.1 | 48.5 | 120 |
| White | 37.7 | 30.8 | 44.6 | 118 | 8.6 | 5.7 | 12.4 | 28 | 23.4 | 19.6 | 27.3 | 147 |

AIDS Case Counts, Rates, and Confidence Intervals by Year of Diagnosis, Alameda County, 1987-2001

TOTAL

| Year | Cases | Case Rate <br> per 100,000 | 95\% Confidence Interval <br> Lower |  |
| :--- | ---: | ---: | ---: | ---: |
| 1987 | 286 | 23.3 | 20.6 | 26.0 |
| 1988 | 334 | 26.7 | 23.8 | 29.6 |
| 1989 | 420 | 33.0 | 29.9 | 36.2 |
| 1990 | 405 | 31.7 | 28.6 | 34.7 |
| 1991 | 485 | 37.4 | 34.1 | 40.8 |
| 1992 | 627 | 47.8 | 44.0 | 51.5 |
| 1993 | 584 | 44.0 | 40.4 | 47.5 |
| 1994 | 512 | 38.1 | 34.8 | 41.4 |
| 1995 | 449 | 33.0 | 29.9 | 36.0 |
| 1996 | 411 | 29.8 | 26.9 | 32.7 |
| 1997 | 326 | 23.4 | 20.8 | 25.9 |
| 1998 | 261 | 18.5 | 16.3 | 20.7 |
| 1999 | 248 | 17.4 | 15.2 | 19.5 |
| 2000 | 228 | 15.8 | 13.7 | 17.8 |
| 2001 | 191 | 13.1 | 11.2 | 14.9 |

## WHITE

| Year | Cases | Case Rate <br> per 100,000 | 95\% Confidence Interval <br> Lower |  |
| :--- | ---: | ---: | ---: | ---: |
| 1987 | 181 | 26.5 | 22.7 | 30.4 |
| 1988 | 193 | 28.2 | 24.2 | 32.2 |
| 1989 | 238 | 34.7 | 30.3 | 39.1 |
| 1990 | 203 | 29.7 | 25.6 | 33.8 |
| 1991 | 246 | 36.2 | 31.7 | 40.7 |
| 1992 | 290 | 42.7 | 37.8 | 47.6 |
| 1993 | 244 | 36.2 | 31.7 | 40.8 |
| 1994 | 204 | 30.6 | 26.4 | 34.8 |
| 1995 | 169 | 25.7 | 21.8 | 29.6 |
| 1996 | 144 | 22.0 | 18.4 | 25.6 |
| 1997 | 105 | 15.9 | 12.9 | 18.9 |
| 1998 | 85 | 12.8 | 10.2 | 15.8 |
| 1999 | 65 | 10.0 | 7.7 | 12.8 |
| 2000 | 61 | 9.4 | 7.2 | 12.1 |
| 2001 | 35 | 5.4 | 3.8 | 7.5 |

AIDS Case Counts, Rates, and Confidence Intervals by Year of Diagnosis, Alameda County, 1987-2001 (cont.)

AFRICAN AMERICAN

|  |  | Case Rate |  | 95\% Confidence Interval |  |
| :--- | ---: | ---: | ---: | ---: | :---: |
| Year | Cases | per 100,000 | Lower | Upper |  |
| 1987 | 79 | 36.5 | 28.9 | 45.5 |  |
| 1988 | 101 | 46.0 | 37.1 | 55.0 |  |
| 1989 | 134 | 60.3 | 50.1 | 70.5 |  |
| 1990 | 158 | 70.5 | 59.5 | 81.5 |  |
| 1991 | 193 | 84.9 | 72.9 | 96.8 |  |
| 1992 | 264 | 113.9 | 100.2 | 127.7 |  |
| 1993 | 276 | 117.8 | 103.9 | 131.7 |  |
| 1994 | 245 | 103.7 | 90.7 | 116.7 |  |
| 1995 | 236 | 99.2 | 86.6 | 111.9 |  |
| 1996 | 210 | 87.0 | 75.2 | 98.8 |  |
| 1997 | 161 | 65.0 | 55.0 | 75.0 |  |
| 1998 | 134 | 52.9 | 43.9 | 61.9 |  |
| 1999 | 129 | 51.7 | 42.8 | 60.7 |  |
| 2000 | 128 | 50.8 | 42.0 | 59.6 |  |
| 2001 | 110 | 43.3 | 35.2 | 51.4 |  |

## LATINO

|  |  | Case Rate |  |  |
| :--- | ---: | ---: | ---: | ---: |
| Year | Cases | per 100,000 | 95\% Confidence Interval <br> Lower |  |
| 1987 | 17 | $* *$ |  |  |
| 1988 | 34 | 19.7 | 13.6 | 27.5 |
| 1989 | 38 | 21.3 | 15.1 | 29.2 |
| 1990 | 30 | 16.3 | 11.0 | 23.3 |
| 1991 | 38 | 20.0 | 14.2 | 27.5 |
| 1992 | 57 | 29.0 | 22.0 | 37.6 |
| 1993 | 52 | 25.7 | 19.2 | 33.7 |
| 1994 | 47 | 22.7 | 16.7 | 30.2 |
| 1995 | 33 | 15.6 | 10.7 | 21.9 |
| 1996 | 38 | 17.5 | 12.4 | 24.0 |
| 1997 | 39 | 17.2 | 12.2 | 23.5 |
| 1998 | 32 | 13.6 | 9.3 | 19.2 |
| 1999 | 44 | 16.8 | 12.2 | 22.6 |
| 2000 | 31 | 11.6 | 7.9 | 16.4 |
| 2001 | 30 | 10.9 | 7.3 | 15.5 |

[^6]
## AIDS Case Count by Year of Diagnosis:

Asian/Pacific Islander and American Indian**
Alameda County, 1987-2001

| Year | Asian/ <br> PI | American <br> Indian |
| :--- | ---: | ---: |
| 1987 | 7 | 0 |
| 1988 | 3 |  |
| 1989 | 8 | 2 |
| 1990 | 12 |  |
| 1991 | 7 | 2 |
| 1992 | 12 |  |
| 1993 | 11 |  |
| 1994 |  | 1 |
| 1995 | 9 | 2 |
| 1996 |  | 1 |
| 1997 | 18 | 1 |
| 1998 | 18 |  |
| 1999 | 10 | 1 |
| 2000 | 6 | 0 |
| 2001 | 7 | 2 |
|  | 13 |  |

**Rates not calculated due to small numbers.

AIDS Mode of Exposure as Percent of All Cases by Year of Diagnosis, Alameda County, 1990-2001

| Year | MSM | IDU | MSM-IDU | Heterosexual |
| :--- | ---: | ---: | ---: | ---: |
| 1990 | 70.6 | 10.1 | 9.9 | 4.2 |
| 1991 | 70.9 | 11.3 | 7.8 | 3.3 |
| 1992 | 65.7 | 16.3 | 5.4 | 5.6 |
| 1993 | 63.9 | 16.6 | 6.5 | 6.8 |
| 1994 | 58.4 | 18.8 | 6.6 | 10.0 |
| 1995 | 59.9 | 21.6 | 5.6 | 8.9 |
| 1996 | 53.8 | 20.4 | 8.3 | 11.7 |
| 1997 | 51.5 | 22.4 | 3.4 | 19.3 |
| 1998 | 51.0 | 17.2 | 3.8 | 25.7 |
| 1999 | 46.0 | 14.9 | 5.2 | 29.0 |
| 2000 | 45.2 | 13.2 | 4.4 | 32.5 |
| 2001 | 40.3 | 19.4 | 3.7 | 30.9 |

Persons Living with AIDS
Alameda County, 1987-2001

| Year | Number |
| :--- | ---: |
| 1987 | 308 |
| 1988 | 452 |
| 1989 | 590 |
| 1990 | 697 |
| 1991 | 855 |
| 1992 | 1128 |
| 1993 | 1361 |
| 1994 | 1502 |
| 1995 | 1620 |
| 1996 | 1733 |
| 1997 | 1921 |
| 1998 | 2074 |
| 1999 | 2219 |
| 2000 | 2372 |
| 2001 | 2492 |


| AIDS Deaths, Death Rates, and Confidence Intervals by Year of Death, Alameda County, 1987-2001 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Year | Cases | Death Rate per 100,000 | $95 \%$ Confid Lower | terval Upper |
| 1987 | 145 | 11.8 | 9.9 | 13.7 |
| 1988 | 190 | 15.2 | 13.0 | 17.4 |
| 1989 | 282 | 22.2 | 19.6 | 24.8 |
| 1990 | 298 | 23.3 | 20.7 | 25.9 |
| 1991 | 327 | 25.2 | 22.5 | 28.0 |
| 1992 | 354 | 27.0 | 24.2 | 29.8 |
| 1993 | 351 | 26.4 | 23.7 | 29.2 |
| 1994 | 371 | 27.6 | 24.8 | 30.4 |
| 1995 | 361 | 26.5 | 23.8 | 29.3 |
| 1996 | 268 | 19.5 | 17.1 | 21.8 |
| 1997 | 138 | 9.9 | 8.2 | 11.6 |
| 1998 | 108 | 7.7 | 6.2 | 9.1 |
| 1999 | 103 | 7.2 | 5.8 | 8.6 |
| 2000 | 75 | 5.2 | 4.1 | 6.5 |
| 2001 | 61 | 4.2 | 3.2 | 5.4 |

Chlamydia Cases, Case Rates, and Confidence Intervals

| Alameda County, 1996 - 2001 |
| :--- | ---: | ---: | ---: | ---: |


|  |  | Rate | 95\% Confidence Interval |  |
| :--- | ---: | ---: | ---: | ---: |
| Year | Cases | per 100,000 | Lower | Upper |
| 1996 | 3,375 | 272.1 | 262.9 | 281.3 |
| 1997 | 3,417 | 271.1 | 262.0 | 280.2 |
| 1998 | 3,647 | 283.4 | 274.2 | 292.6 |
| 1999 | 4,084 | 311.8 | 302.2 | 321.3 |
| 2000 | 4,977 | 371.1 | 360.8 | 381.5 |
| 2001 | 4,675 | 343.9 | 334.0 | 353.7 |

Chlamydia Cases, Case Rates, and Confidence Intervals
1999-2001 Average

| Jurisdiction | Average <br> Annual \# | Rate <br> per <br> 100,000 | 95\% Confidence Interval <br> Lower |  |
| :--- | ---: | ---: | ---: | ---: |
| Alameda | 4,579 | 341.4 | 331.5 | 351.3 |
| Berkeley | 238 | 231.6 | 202.2 | 261.1 |
| Contra Costa | 2,010 | 211.8 | 202.5 | 221.1 |
| San Francisco | 2,949 | 379.7 | 366.0 | 393.4 |
| Santa Clara | 3,814 | 226.7 | 219.5 | 233.8 |
| California | 94,153 | 278.0 | 276.2 | 279.7 |

Chlamydia Cases by Age, Case Rates, and Confidence Intervals Alameda County, 1999-2001 Average

| Age Group | Average <br> Annual \# | Rate <br> per 100,000 | 95\% Confidence Interval <br> Lower |  |
| :--- | ---: | ---: | ---: | ---: |
| $0-9$ | 7 | Upper |  |  |
| $10-14$ | 103 | 111.4 |  |  |
| $15-19$ | 1,626 | $1,924.9$ | $1,831.4$ | $2,018.5$ |
| $20-24$ | 1,449 | $1,721.6$ | $1,633.0$ | $1,810.2$ |
| $25-34$ | 1,005 | 451.3 | 423.4 | 479.2 |
| $35-44$ | 255 | 108.8 | 95.4 | 122.1 |
| $45-54$ | 64 | 34.6 | 26.6 | 44.1 |
| $55-64$ | 8 | $* *$ |  |  |
| $65+$ | 61 | 44.7 | 34.2 | 57.5 |
| Total | 4,579 | 341.4 | 331.5 | 351.3 |

**Rate not calculated due to small numbers.

Tuberculosis Cases, Case Rates, and Confidence Intervals
Alameda County, 1990-2001

|  |  | Rate | 95\% Confidence Interval |  |
| :--- | ---: | ---: | ---: | ---: |
| Year | TB Cases | per $\mathbf{1 0 0 , 0 0 0}$ | Lower | Upper |
| 1990 | 296 | 25.2 | 22.3 | 28.1 |
| 1991 | 267 | 22.2 | 19.6 | 24.9 |
| 1992 | 223 | 18.6 | 16.1 | 21.0 |
| 1993 | 158 | 13.0 | 11.0 | 15.0 |
| 1994 | 200 | 16.3 | 14.0 | 18.6 |
| 1995 | 238 | 19.3 | 16.9 | 21.8 |
| 1996 | 234 | 18.9 | 16.4 | 21.3 |
| 1997 | 192 | 15.2 | 13.1 | 17.4 |
| 1998 | 223 | 17.3 | 15.1 | 19.6 |
| 1999 | 224 | 17.1 | 14.9 | 19.3 |
| 2000 | 241 | 18.0 | 15.7 | 20.2 |
| 2001 | 196 | 14.3 | 12.3 | 16.3 |

Tuberculosis Cases, Case Rates, and Confidence Intervals 1999-2001 Average

| Jurisdiction | Average <br> Annual \# | Rate <br> per 100,000 | 95\% Confidence Interval <br> Lower | Upper |
| :--- | ---: | ---: | ---: | ---: |
| Alameda | 220 | 16.4 | 14.3 | 18.6 |
| Berkeley | 11 | 10.7 | 5.3 | 19.7 |
| Contra Costa | 93 | 9.8 | 7.8 | 11.8 |
| San Francisco | 196 | 25.5 | 21.9 | 29.1 |
| Santa Clara | 231 | 13.7 | 12.0 | 15.5 |
| California | 3,412 | 10.1 | 9.7 | 10.4 |

Tuberculosis Cases by Age, Case Rates, and Confidence Intervals
Alameda County, 1999-2001 Average

| Age Group | Average |  | $\begin{array}{c}\text { Rate } \\ \text { Annual \# }\end{array}$ |  | Percent |
| :--- | ---: | ---: | ---: | ---: | ---: |
| per 100,000 |  |  |  |  |  |$)$


| Race/ Ethnicity | Average Annual \# | Percent | Rate per 100,000 | 95\% Confid Lower | terval Upper |
| :---: | :---: | :---: | :---: | :---: | :---: |
| White | 13 | 5.9 | 2.4 | 1.3 | 4.0 |
| African American | 45 | 20.3 | 21.9 | 15.9 | 29.4 |
| Latino | 32 | 14.7 | 12.3 | 8.4 | 17.3 |
| Asian/Pac. Is. | 129 | 58.8 | 43.2 | 35.7 | 50.6 |
| Other | 1 | 0.3 | ** |  |  |
| Total | 220 | 100.0 | 16.4 | 14.2 | 18.6 |

[^7]
[^0]:    *Native Hawaiian/Other Pacific Islander

[^1]:    ** Rates were not calculated due to small numbers (<20).

[^2]:    * Counts by race/ethnicity are for 2000 only.
    ** Rates not calculated due to small numbers.

[^3]:    * Counts by race/ethnicity are for 2000 only.
    ** Rates not calculated due to small numbers.

[^4]:    * Counts by race/ethnicity are for 2000 only
    ** Rates not calculated due to small numbers.

[^5]:    * Subgroups may not add to total due to missing values.
    ** Rates not calculated due to small numbers.

[^6]:    **Rate not calculated due to small numbers.

[^7]:    **Rates not calculated due to small numbers.

