



# Tri-City Health Profile

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Alameda County Public Health Department





# **Tri-City Health Profile 2007**

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# Executive Summary

This report describes the health status of Tri-City residents by examining a range of demographic and health indicators including maternal, child, and adolescent health, leading causes of death, chronic diseases, injury and violence, and communicable diseases. Data sources include birth, mortality, hospitalization, cancer and communicable disease incidence, in addition to the census. All health indicators are examined by gender, age, and race/ethnicity. Trends over time and the geographic distribution of selected indicators are also examined. Current health status is compared to Alameda County rates and to Healthy People 2010 national objectives where possible.

## Healthy People 2010 Objectives Met in Tri-City

	Tri-City	Alameda County	HP2010
Infant mortality per 1,000 live births	4.5	4.6	4.5
Early prenatal care	90.1%	90.7%	90.0%
Coronary heart disease mortality (per 100,000)	153.5	146.7	166.0
All cancer mortality (per 100,000)	159.6	168.9	159.9
Lung cancer mortality (per 100,000)	43.6	42.9	44.9
Female breast cancer mortality (per 100,000)	19.0	23.4	22.3
Prostate cancer mortality (per 100,000)	24.5	26.9	28.8
Motor vehicle crash mortality (per 100,000)	7.2	7.9	9.2
Homicide (per 100,000)	2.9	8.5	3.0

## Healthy People 2010 Objectives Not Met in Tri-City

	Tri-City	Alameda County	HP2010
Low birth weight	6.9%	6.9%	5.0%
Stroke mortality (per 100,000)	54.7	56.1	48.0
Childhood (<5) asthma hospitalization (per 100,000)	312.4	633.4	250.0
Colorectal cancer mortality (per 100,000)	15.4	17.6	13.9
Unintentional injury mortality (per 100,000)	20.6	24.5	17.5
Suicide (per 100,000)	7.1	8.5	5.0
Tuberculosis cases (per 100,000)	15.2	11.2	1.0
AIDS cases (per 100,000)	4.1	11.9	1.0



## ■ Summary of Key Findings

*Demographics* The population of Tri-City grew from 265,000 in 1990 to 313,000 in 2000, an 18% increase, especially in the ages of 35 to 54. Asians represented 38% of the population compared to 20% of the county. Less than 4% of the population was African Americans. In Tri-City, 14.4% of all persons 25 years and over did not have a high school degree or equivalent. Over 25% of households had incomes less than \$50,000.

*Infant Mortality* In 2002-2004, infant mortality rate in Tri-City was 4.5 per 1,000 live births, which was in line with the HP2010 objective.

*Low Birth Weight* During the last decade, the percentage of low birth weight babies in Tri-City has increased, higher than the HP2010 objective of 5% or less. African Americans in Tri-City had the highest rate of LBW (11.4%), followed by that of multiple races.

*Prenatal Care* During the past decade, the percentage of women seeking early prenatal care has remained relatively unchanged, meeting the HP2010 objective of at least 90% in recent years.

*Teen Births* Tri-City had much lower teen birth rates than Alameda County over the last decade. While Latinas accounted for over half of all teen births in Tri-City, its rate was 43 per 1,000 Latinas aged 15–19 as compared to 64 per 1,000 in the county.

*Mortality Rates from All Causes* In Tri-City, the mortality trend from all causes declined significantly about 1.5% per year during the last decade. The African American rate was more than twice the rate of Asians, and almost two times the rate of Latinos.

*Leading Causes of Death* Nearly 1,500 residents die each year in Tri-City. Almost 60% of these die from three causes: heart disease, cancer, and stroke. The ranking of these three leading causes of death for all Tri-City areas were same except Newark, where cancer was the top leading cause of death.

*Diabetes* The mortality rates from diabetes increased during the early 1990s and then leveled off. Diabetes mortality was higher in Tri-City than in the county, and among males. With limited available data, Latinos in Tri-City had the highest mortality rate. The diabetes-related hospitalization rate in Tri-City increased significantly, by about 2% per year. The rate was higher among Whites, Latinos, and APIs in Tri-City than in the county. The African American Tri-City rate was lower than the county rate, but, significantly higher than any other Tri-City racial/ethnic group but Latinos.

*Coronary Heart Disease* While the mortality rate from CHD has declined significantly during the last decade, still gender and racial/ethnic differences existed. Male CHD death rates were 50–70% higher than female rates. Females in all Tri-City areas and the county as a whole have met the HP2010 objective, but males have not. African Americans in Tri-City experienced significantly higher CHD mortality rate than any other racial/ethnic group. CHD-related hospitalization rates among both males and females in all Tri-City areas were significantly higher than those at the county level. The Tri-City White rate was significantly higher than those of any other racial/ethnic group, and well above the county White rate.

*Stroke* While stroke mortality rates have declined significantly over the past decade, hospitalization rates have declined significantly in recent years. African Americans in Tri-City experienced higher stroke mortality and hospitalization rates than any other racial/ethnic group. In Newark, the male stroke death rate was 80% higher than the female rate. For both sexes, none of the Tri-City areas or

Alameda County has met the HP2010 objective of no more than 48 deaths per 100,000. White and API hospitalization rates in Tri-City were significantly greater than those in the county.

*All Cancer* Mortality and incidence rates from all cancers have declined significantly during the last decade for both Tri-City and the county. In Tri-City, both African American and White death rates were significantly higher than the overall rate. Females in all Tri-City areas and the county have met the HP2010 objective, but males have not. All Tri-City areas except Newark had significantly lower cancer incidence rates than the county. The differences in all cancer incidence rates among Whites and APIs were statistically significant in both Tri-City and the county.

*Lung Cancer* Mortality and incidence rates from lung cancer have declined significantly during the last decade for both Tri-City and the county. Newark had significantly higher lung cancer incidence and mortality than the county. Among males, Union City was the only area to have met the HP2010 objective of no more than 44.9 deaths per 100,000. Among females, Newark was the only area that has not met the objective. Gender differences in both mortality and incidence were significant in all locales except Union City.

*Colorectal Cancer* While mortality trend of colorectal cancer has declined significantly in Tri-City over the last decade, the incidence trend has not changed much. The colorectal cancer death rate in Fremont was significantly lower than the county rate and Fremont was the only city that has met the HP2010 objective. Colorectal cancer death and incidence rates increased substantially with age, especially after age 55.

*Breast Cancer* While breast cancer mortality rates have declined significantly in both Tri-City and the county over the last decade, the incidence rates have not changed. All Tri-City areas have met the HP2010 objective of no more than 22.3 deaths per 100,000, but, Alameda County has not met the objective. Almost 30% of all Tri-City breast cancer deaths were in the age group of 55-64. White women had the highest, and APIs the lowest rates of new breast cancer cases in both Tri-City and the county. These racial differences were statistically significant.

*Prostate Cancer* While the mortality rates of prostate cancer have declined significantly in both Tri-City and the county over the last decade, the incidence rates have been leveled off since mid 1990s. In Tri-City, while the prostate cancer death rate among Whites was similar to the county rate, the rate among Asians was twice the rate of the county. Prostate cancer incidence was highest among men 75 to 84 years.

*Asthma* Asthma hospitalization rates declined significantly over the last decade. In Tri-City, children under five years and seniors were vulnerable to asthma attacks serious enough to require hospitalization. While African Americans had the highest rates in both Tri-City and the county, the Tri-City rate was half of the county rate. The asthma hospitalization rate among children one to five years declined significantly in Tri-City by about 7% per year before increasing in most recent years. Among children under five years, male asthma hospitalization rates exceeded female rates by about two times.

*Unintentional Injury* While the county rate of unintentional injury mortality declined gradually over the last decade, the declining trend was not observed in Tri-City. No males in Tri-City areas or the county has met the HP2010 objective. Females in the 85 and over age group were vulnerable to unintentional injury deaths and hospitalizations, largely due to falls. Whites had the higher unintentional injury hospitalization rate in both Tri-City and the county.

*Motor Vehicle Crashes* Deaths due to motor vehicle crashes were highest among males, especially teens, young adults, and 65 and older age groups. Females over 75 years also had high MVC death rate in Tri-City. In Tri-City, MVC hospitalization rates were 60% to 90% higher for males than females. Male MVC hospitalization rates were highest in the 15 to 24 and the 85 and over age groups. Fremont males had a significantly lower rate than the county males. African Americans and Whites in Tri-City did not show any differences in the rates of motor vehicle crash hospitalizations.

*Homicide/Assault* The homicide rate for Tri-City has been much lower than that for Alameda County. Most of the homicide victims were males. No males in any locales have met the HP2010 objective. Assault hospitalization rates were highest among teen and young adult males, at least three times higher than any other age group. The Tri-City African American assault hospitalization rate was one-third of the rate of African Americans in the county.

*Suicide/Self-Inflicted Injury* Suicides were much higher among males than females, especially for teens, young adults, and seniors. The highest suicide rate was among males between the ages of 75 and 84. The White suicide rate was more than twice the rates of any other racial/ethnic group. In Tri-City, the self-inflicted injury hospitalization rate was very high among females aged 15 to 24. Female rates declined with age, as did male rates. However, male rates climbed after age 75 and peaked in the 85 and older age group.

*Injury Deaths by Mechanism and Intent* More than half of all injury deaths in Tri-City from 2000 to 2004 were unintentional (60.2%), 25.1% were from suicides, and 10.0% from homicides. In Tri-City, the five leading mechanisms of injury death – motor vehicle crashes, firearms, poisonings, falls, and suffocation – accounted for 79% of all injury deaths from 2000-2004.

*Tuberculosis* Since 2000, TB case rates have declined in both Tri-City and the county. In contrast to the earlier trend, the rates in Tri-City have been higher than the county rates in recent years. While APIs comprised the majority of TB cases in both Tri-City and the county, a much higher TB case rate was observed among APIs in Tri-City. For each age group above age 15, Tri-City had higher TB case rates than the county.

*HIV/AIDS* The Tri-City AIDS case rate of 4.1 per 100,000 was one-third of the county rate. In Tri-City, while the majority of AIDS cases were Whites, the highest case rate was observed among African Americans. Although men who have sex with men (MSM) was the predominant exposure mode (37%), 27% of cases were attributed to heterosexual exposure.

*Sexually Transmitted Diseases* While chlamydia and gonorrhea case rates in Alameda County remained relatively stable, the rates in Tri-City increased steadily during the period 1999 to 2005. Chlamydia and gonorrhea case rates were highest in the age group 20-24 years for both males and females. Chlamydia case rates were greater for females than males for every age group; the largest gender difference was in the age group 15 to 19 years. Over age 20, males had higher gonorrhea rates than females.

# Introduction

The purpose of this report is to inform the community about the health status of Tri-Valley residents; to help identify gaps in services; and to assist in developing culturally appropriate programs that target high risk populations.

This report includes socioeconomic and health indicators. Data have been compiled and analyzed for each city in the Tri-Valley and for the Tri-Valley as a whole. The Tri-Valley information, generally presented as rates, is compared to county, state, and national statistics and to Healthy People 2010 national objectives where such comparisons are possible. Comparing characteristics of cities with the county as a whole and Healthy People 2010 national objectives illustrates some of the socioeconomic, racial/ethnic, and geographic health disparities that exist in the county.

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

- *Demographic characteristics:* Age, education, household income, race/ethnicity.
- *Maternal, child, and adolescent health:* Infant mortality, low birth weight, early prenatal care, teen births.
- *Death from all causes:* Mortality rates from all causes; leading causes of death.
- *Chronic diseases:* Mortality and hospitalization for diabetes, coronary heart disease, and stroke; mortality and incidence for all cancers, lung cancer, colorectal cancer, female breast cancer, and prostate cancer; and hospitalization for asthma.
- *Injury, homicide, and suicide:* Mortality and hospitalization for unintentional injury, homicide/assaults, motor vehicle accidents, and suicide/self-inflicted injury; injury deaths by mechanism and intent.
- *Communicable disease:* Tuberculosis, AIDS, chlamydia, and gonorrhea.

The mission of the Alameda County Public Health Department includes working “in partnership with the community to ensure optimal health and well being of all people.” The Public Health Department prepared this report as part of this mission, and hopes it is a useful reference to support planning and policy development to help build healthy communities.

## ■ The Tri-City Area

The Tri-city area includes the cities of Fremont, Newark, and Union City. Washington Township, one of seven townships into which Alameda County was originally divided, comprised this south county region. Alameda County, especially southern Alameda County, was the heart of agricultural production for the whole state. The county seat was located at Alvarado from 1853 to 1856. Centerville, Irvington, Mission San Jose, Niles, Warm Springs, and Newark looked to incorporate together, but Newark decided to incorporate alone in 1955 when faced with a proposal for industrial zoning for the whole of Newark. The remaining five communities incorporated as Fremont in 1956. Faced with annexation by one of the surrounding cities, Union City was incorporated in 1959, combining the communities of Alvarado, Decoto, and New Haven.

## ■ Using the Report

Chapters begin with a background section that contains information on a specific disease or health

condition, rates in the population nationally and in California, if available, and the distribution in the population by sex and race/ethnicity. Comparisons to Healthy People 2010 national objectives are also made when appropriate. In general, the format for each indicator is the same. First, a chart showing trends over time is presented, comparing Tri-City to Alameda County. Second, a chart is presented showing current rates by sex (as a three-year average) for each of the cities in Tri-City and Alameda County. Next, a chart specific to the Tri-City population shows rates by sex and age. The final chart shows rates by race/ethnicity for Tri-City compared to Alameda County.

Generally, data are presented for the three-year period 2002 to 2004 in the case of mortality and live births, hospitalizations, and communicable diseases. At the city level, detail on age, sex, and population subgroups is limited because of small numbers. The health department's CAPE Unit follows a standard for presentation of rates: a rate will not be presented if the number of events is less than ten (twenty for cancer incidence) for the period under consideration.<sup>1</sup> For the most part, if a rate for an individual city could not be presented, then no city-specific rates are presented. In all cases, readers can refer to the tabular appendix for detail by city, which at a minimum will have the number of events and in some cases will include a rate with 95% confidence limits.

In preparing this report we attempted to strike a balance between providing as much information as possible for individual cities and providing information that may be misleading. While a chart may show large differences between cities on a given indicator, the difference may not persist the next time we measure it, say in three years. This is because such differences may be the result of random fluctuation that occurs in areas with small populations. A look at the charts showing trends over time illustrates this point. Thus in the text, we focus on the Tri-City combined rates and take note of differences between cities for the most part only when they are statistically significant or the magnitude of the difference is in itself noteworthy.

## ■ Race and Ethnicity

This report restricts descriptions of race and ethnicity to a specific set of categories and terms. It is recognized that individual preference varies and that classification is not trivial. Considering the report's many text references, tables, and figures that make comparisons between races, readability and space require consistent and abbreviated usage. Thus, the report refers to African American, rather than Black or African. In tables and figures, African American is usually shortened to AfrAmer. Other categories used are White; American Indian (sometimes shortened to AmerInd); Pacific Islander (sometimes shortened to PacIsl and sometimes referred to as Native Hawaiian or Other Pacific Islander); and Asian (sometimes combined with Pacific Islanders and shortened to API). Latino includes all those of Spanish- and Portuguese-speaking descent in the Americas, including people from Spain. Hispanic or Latino is considered by most data collectors such as the Census Bureau to be an ethnicity rather than a race. Thus, a Latino may be White or Asian or Black, but here all those persons are reported as Latino. Some data systems are allowing people to choose multiple races or simply a Multirace or Other category, so the report uses those designations when needed. Finally, race is often unreported, mis-reported, or unclassifiable in many data systems; the report often includes these for completeness.

In this report, we present mortality data on the Multirace group, but it appears only in the tables. It is not shown in the charts. This is because the data do not accurately reflect the Multirace population, probably in most cases undercounting deaths.

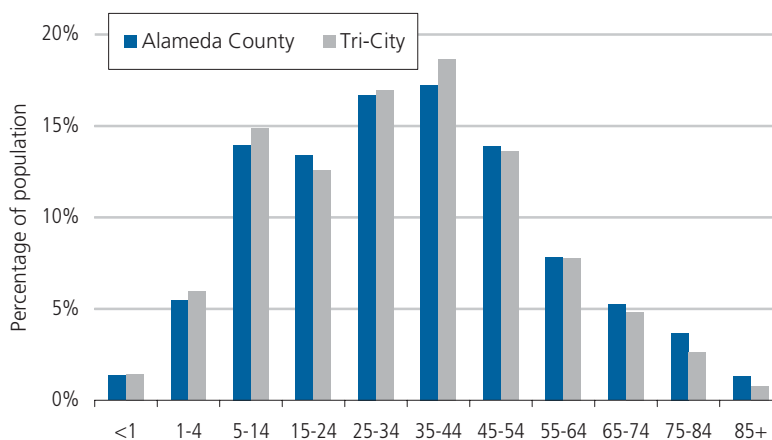


# Demographic Profile

According to the World Health Organization, “health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.”<sup>1</sup> To better understand the health status of a region’s population, it is important to examine the social, economic and environmental conditions in which people live. Studies have shown that conditions such as income, education, and social isolation can have a large impact on health. In fact, these conditions can be as important as genetics, biology, and access to medical care.<sup>2</sup>

The age structure of Tri-City was similar to that of Alameda County. Tri-City did have a slightly higher percent of adults aged 35-44 years and children and youth aged 5-14 years. It also had fewer persons aged 65 years and older as a percentage of the total population.

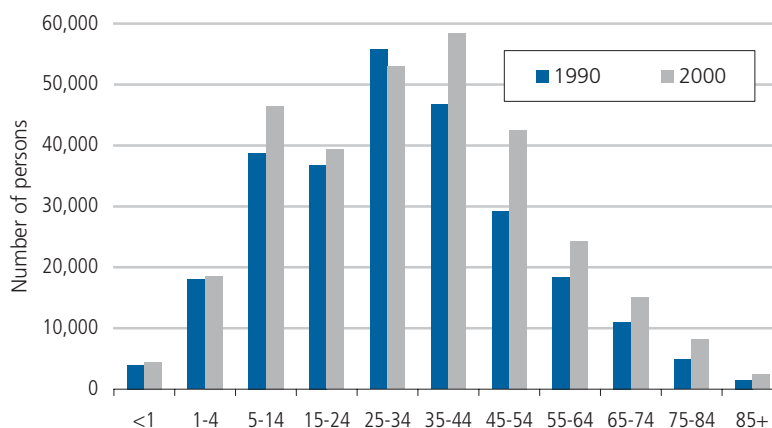
Figure 1: Age Distribution, Alameda County and Tri-City



Source: CAPE; Census 2000.

The population of Tri-City grew from about 265,000 in 1990 to about 313,000 in 2000, an 18% increase. The largest population increases were in the 35 to 44 and the 45 to 54 age groups.

Figure 2: Age Distribution, 1990 and 2000, Tri-City

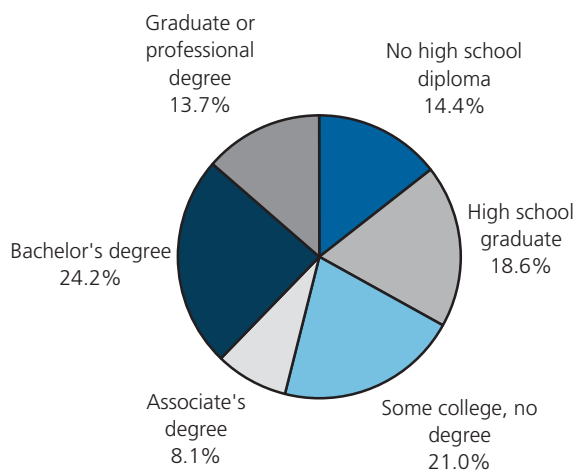


Source: CAPE; Census 1990 and Census 2000.



Only 14.4% of persons 25 years and older in Tri-City did not have at least a high school education or equivalent. This was less than the county average of 17.6%.

Figure 3: Education, Tri-City

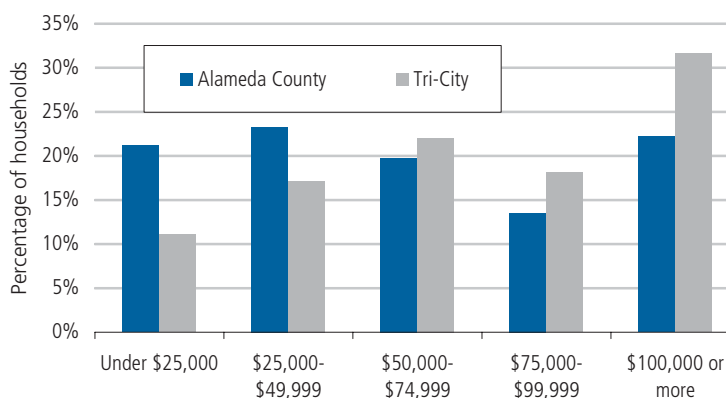


Source: CAPE; Census 2000.

Note: Education level for adults 25 years and older.

While Tri-City households had higher incomes than Alameda County, over 25% of households had incomes less than \$50,000.

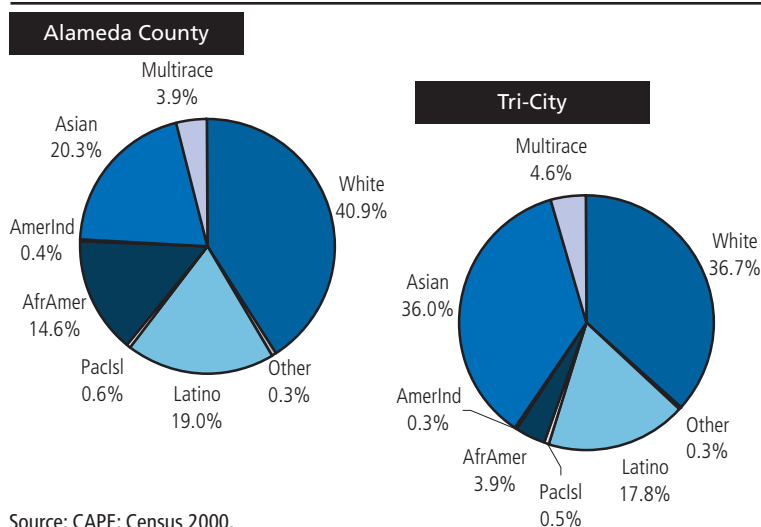
Figure 4: Household Income



Source: CAPE; Census 2000.

Asians represented a larger proportion of the population in Tri-City (36.0%) than the county (20.3%). African Americans were a smaller proportion in Tri-City (3.9%) than the county (14.6%).

Figure 5: Race/Ethnicity



Source: CAPE; Census 2000.

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# Maternal, Child, and Adolescent Health

The health of mothers, infants, and children is important, both as an indicator of population health and as a predictor of the next generation's health. Traditional maternal and child health (MCH) indicators include those that affect pregnant and postpartum women, as well as the health and survival of their infants and children. Increasingly, there is recognition that the general health status of women even before pregnancy has an impact on birth outcomes. This means that in order to influence problem areas, such as low birth weight, where there has been little or no improvement, broader women's health issues need to be addressed. At the heart of most such issues lie the root causes of health inequities: income, education, and other social and environmental inequities. This chapter covers four core MCH indicators: infant mortality, low birth weight, prenatal care, and births to teenagers.

## ■ Infant Mortality

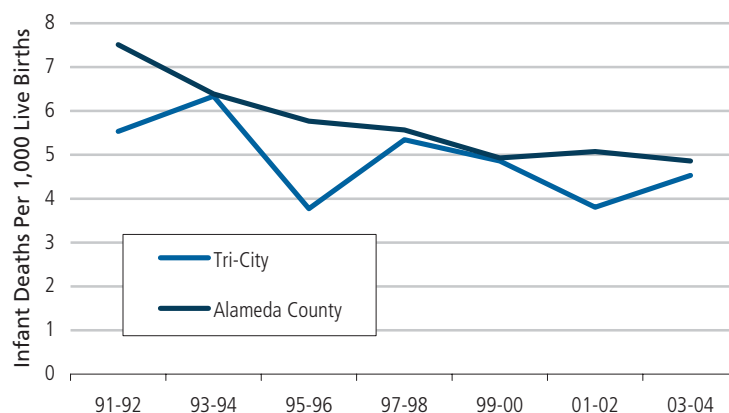
The infant mortality rate, or the number of deaths to children less than one year old per 1,000 live births, has been declining over the past several decades. Advancements in medical care have been responsible for a large portion of the decline, but public health efforts also have played an important role in preventing infant deaths.<sup>1</sup> One of the great public health successes has been the dramatic decrease (97% since 1915) in infant mortality rates.<sup>1</sup> In no other area has mortality decreased by this much in the last hundred years. However, the persistent challenge in infant mortality remains the inequities by race/ethnicity. African American infants continue to be over two times more likely to die before their first birthday than White infants.<sup>2</sup>

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

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

The infant mortality rate declined over the last decade in Alameda County. The Tri-City rate had more variability over time but generally had a rate that was lower than the county rate. In 2003-2004, Tri-City met the HP2010 objective of 4.5 or fewer infant deaths per 1,000 live births.

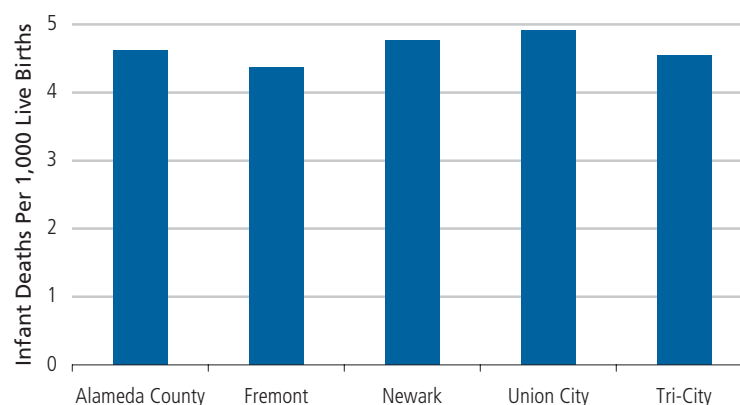
Figure 6: Historical Infant Mortality Rate



Source: CAPE; Alameda County vital statistics files.

For the period 2002-2004, Tri-City and Alameda County had a similar infant mortality rate. There were only 69 infant deaths in Tri-City, an average of 23 per year. The highest infant mortality rate was in Union City, 4.9 per 1,000 live births, but was not statistically different from Newark or Fremont.

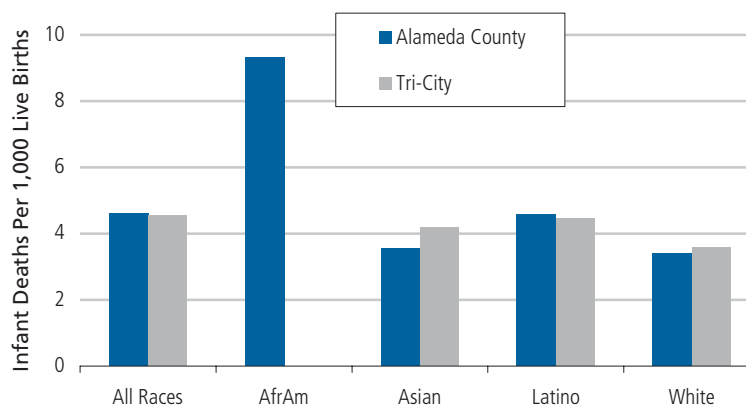
Figure 7: Infant Mortality by Area



Source: CAPE; Alameda County vital statistics files 2002-2004.

The infant mortality rates by race/ethnicity were similar between Tri-City and Alameda County. The county's infant mortality rate was two times higher for African Americans than other race/ethnic groups.

Figure 8: Infant Mortality by Race/Ethnicity



Source: CAPE; Alameda County vital statistics files 2002-2004.

## Low Birth Weight

Achieving a healthy weight is crucial for a newborn's survival. Infants weighing less than 2,500 grams (5 lbs 8 oz) at birth are considered low birth weight. Low birth weight (LBW) is the most common cause of death during the neonatal period, the first 28 days of life.<sup>4</sup> 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 increased risk of long-term physical and developmental complications than are infants of normal birth weight.

In the past decade, infant mortality has declined largely due to improved survival rates of LBW infants, not to a decrease in the number of LBW infants.<sup>5</sup> Nationally, LBW rates have slowly increased over time, partially because of an increase in multiple births. In 2004, the nationwide percentage of LBW infants was its highest in three decades at 8.1%.<sup>6</sup>

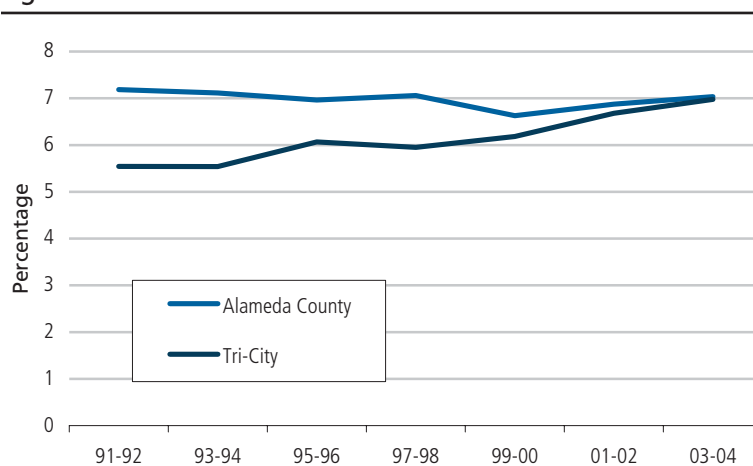
An additional area of concern is that no progress has been made in decreasing racial inequities in LBW infants. LBW rates are two times higher for African Americans than for Whites. The reasons for this inequity are complex and are not entirely understood.

Many factors increase the risk of low weight at birth. Some of the most important factors are pre-term delivery, maternal smoking and illicit drug use, poor maternal nutrition, young maternal age, low maternal educational attainment, low family income, late or no prenatal care, and pregnancy-associated hypertension.<sup>6,7</sup> Emerging research also suggests that cumulative stress, racism, and maternal infections may also affect the weight of babies.<sup>3</sup> Of all infants that are LBW, the smallest—those weighing less than 1,500 grams—are at the highest risk of dying in their first year of life.

During the last decade, the percentage of low birth weight (LBW) babies in Alameda County has remained approximately 7%, while the rate for Tri-City has increased. In the early 1990s, Tri-City had lower LBW rates than Alameda County. In 2003-2004, they were identical. Neither Tri-City nor the county have reached the HP2010 objective of no more than 5% of LBW births.

LBW is a risk factor for infant mortality. However, the increase in the number of LBW babies was not associated with an increase in infant mortality.

Figure 9: Historical LBW

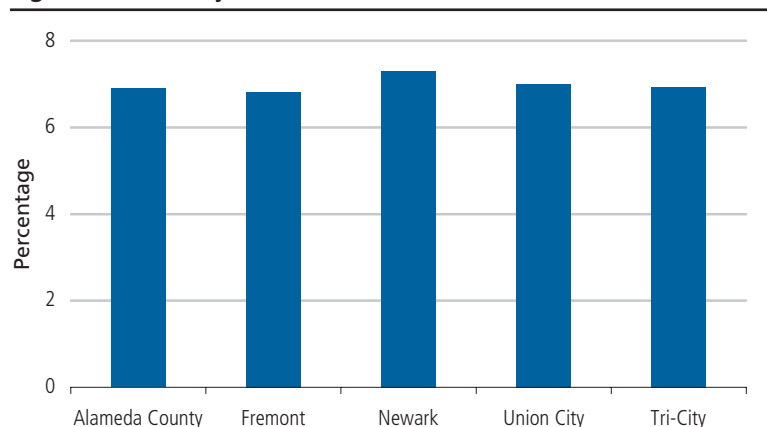


Source: CAPE; Alameda County vital statistics files.



For the period 2002-2004, 6.9% of births for both Tri-City and Alameda County were LBW. The LBW rates in Fremont, Newark and Union City were about the same.

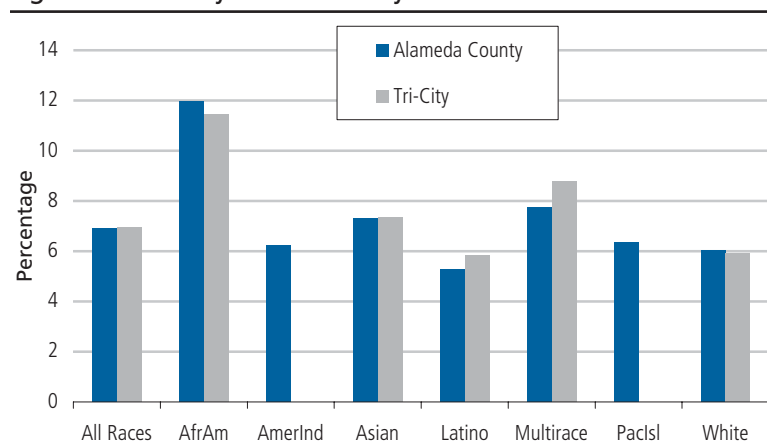
Figure 10: LBW by Area



Source: CAPE; Alameda County vital statistics files 2002-2004.

African Americans in Tri-City and in Alameda County had the highest rate of LBW followed by those of multiple race. Latinos had the lowest LBW rate. Percentages of LBW among American Indians and Pacific Islanders were stable enough to present in Alameda County but not for Tri-City.

Figure 11: LBW by Race/Ethnicity



Source: CAPE; Alameda County vital statistics files 2002-2004.

## ■ Early Prenatal Care

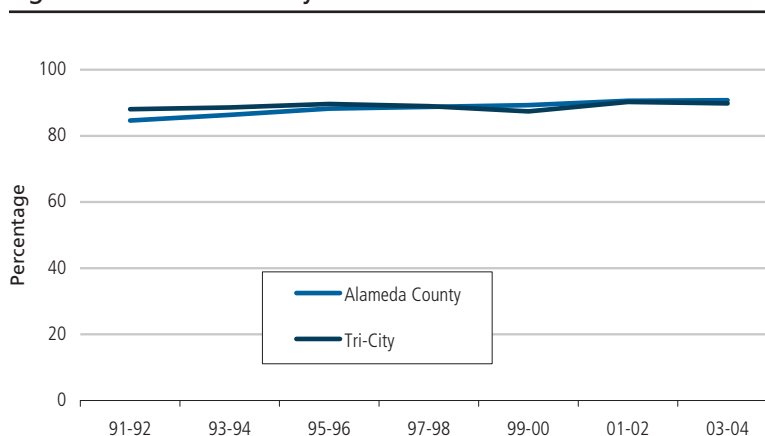
Prenatal care refers to pregnancy-related health care provided to a woman during pregnancy. It is recommended that a woman start receiving prenatal care as soon as she knows she is pregnant, at least within the first trimester (before 12 weeks) of pregnancy.

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

Risk factors for late entry into prenatal care include lack of culturally appropriate pregnancy testing sites, pregnancy at a young age, less than a high school education, and having had a large number of children. Domestic violence, cultural beliefs, drug abuse, single parenthood, and poverty may also prevent women from receiving timely prenatal care.<sup>4</sup>

In the most recent period, 2003-2004, both Tri-City and Alameda County have met the HP2010 objective of at least 90% of women seeking prenatal care in the first trimester of pregnancy. The Alameda County rate has increased slowly over the last decade, reaching or surpassing Tri-City's rate since 1997-1998. The Tri-City rate has fluctuated some, remaining close to 90% for the last decade.

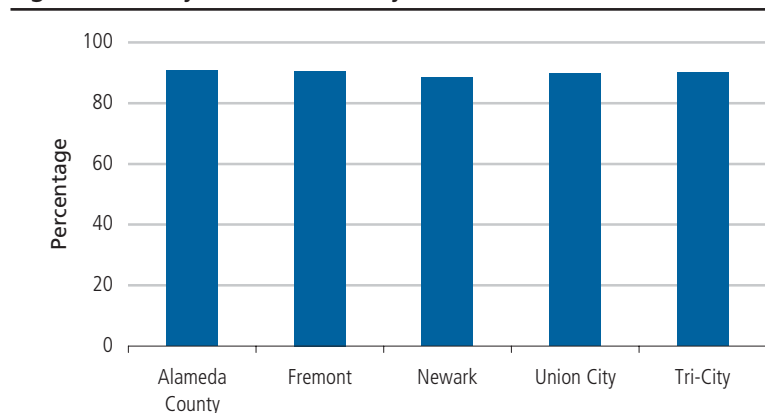
Figure 12: Historical Early Prenatal Care



Source: CAPE; Alameda County vital statistics files.

Tri-City and Alameda County had a high rate of women entering into prenatal care in their first trimester. There was very little difference among the Tri-City areas. The city with the lowest rate was Newark with 89%; Fremont had the highest with 91%.

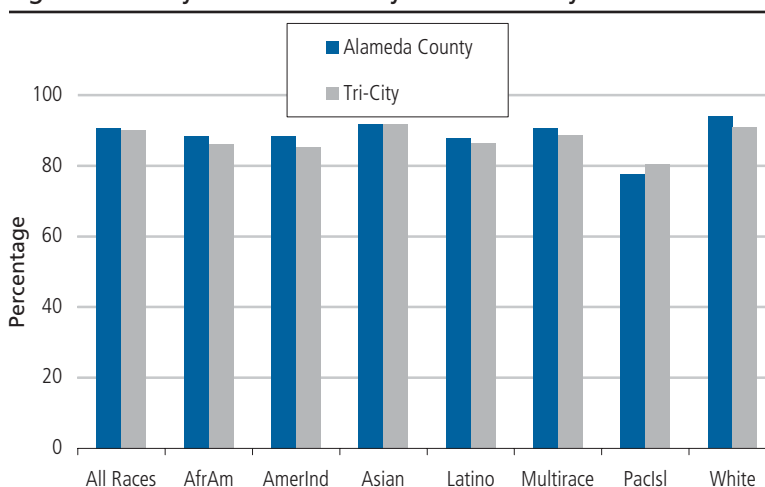
Figure 13: Early Prenatal Care by Area



Source: CAPE; Alameda County vital statistics files 2002-2004.

In both Tri-City and Alameda County, Whites and Asians had the highest rates of early entry into prenatal care. Pacific Islanders had the lowest rates. Rates of early prenatal care were lower in Tri-City compared to Alameda County for all racial/ethnic groups except for Pacific Islanders.

Figure 14: Early Prenatal Care by Race/Ethnicity



Source: CAPE; Alameda County vital statistics files 2002-2004.

## ■ Teen Births

The teen birth rate is defined as the number of live births to mothers aged 15-19 years per 1,000 females 15-19 years of age in the population. The rate of teen births is not the same as the rate of teen pregnancies. It is estimated that 50% of teen pregnancies end in birth, 36% in abortion and 14% in miscarriage.<sup>8</sup> Thus, the teen pregnancy rate may be twice the teen birth rate.

Teen mothers typically have more difficulty completing their education, have fewer employment opportunities, and are more likely to live in poverty and require public assistance than their peers.<sup>9</sup> 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.<sup>9</sup>

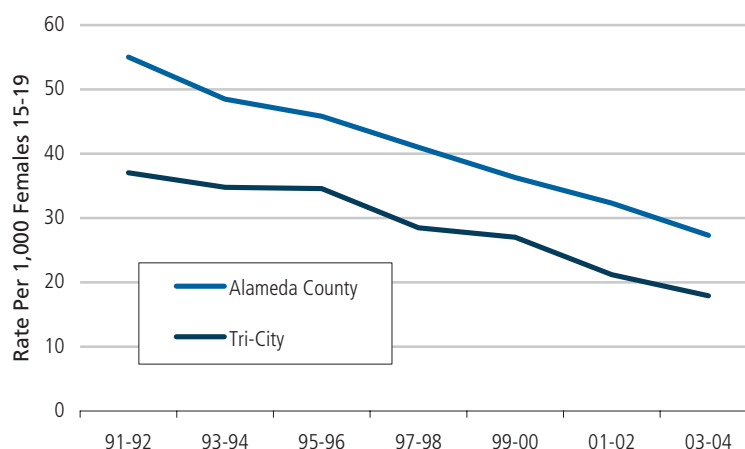
Adolescence is a time of increased vulnerability to social influences, which can have implications for the health of young people. This life stage is characterized by experimentation, risk-taking, and increased dependence on peers. Youth are at higher risk for unplanned pregnancies and sexually transmitted diseases than adults.<sup>10</sup> 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 for the thirteenth consecutive year from 62.1 births per 1,000 females 15-19 years in 1991 to 41.2 in 2004.<sup>6</sup> During the last decade, a decline in teen birth rates was observed in every state and for every racial and ethnic group.

Many factors increase risk for teen pregnancy. Among the most important are poor access to birth control and health care, low income and education status, lack of financial and emotional support, lack of positive role models, unsatisfactory adult relationships, lack of after-school and community activities, substance abuse, and low self-esteem.<sup>10</sup>

The teen birth rates decreased steadily in Tri-City and in Alameda County over the past decade. Tri-City had a much lower teen birth rate than Alameda County. Of all health indicators presented in this chapter, teen birth is the one that stood out as being much better in Tri-City as compared to the county. There is no HP2010 objective for teen birth rate.

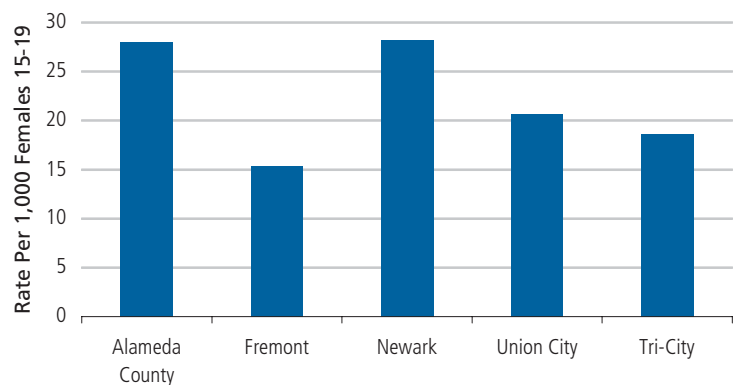
Figure 15: Historical Teen Birth Rate



Source: CAPE; Alameda County vital statistics files, CA DOF, Census 1990 and 2000.

While Tri-City had a much lower teen birth rate than Alameda County, this was not the case for each city within Tri-City. Newark had the same teen birth rate as Alameda County, whereas Fremont and Union City had significantly lower rates.

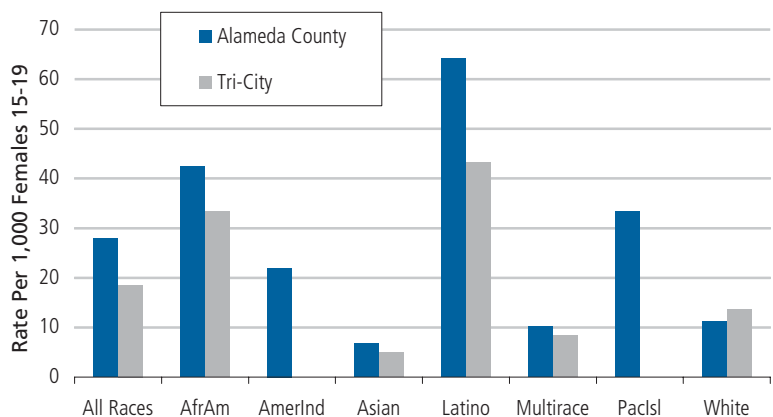
Figure 16: Teen Birth Rate by Area



Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

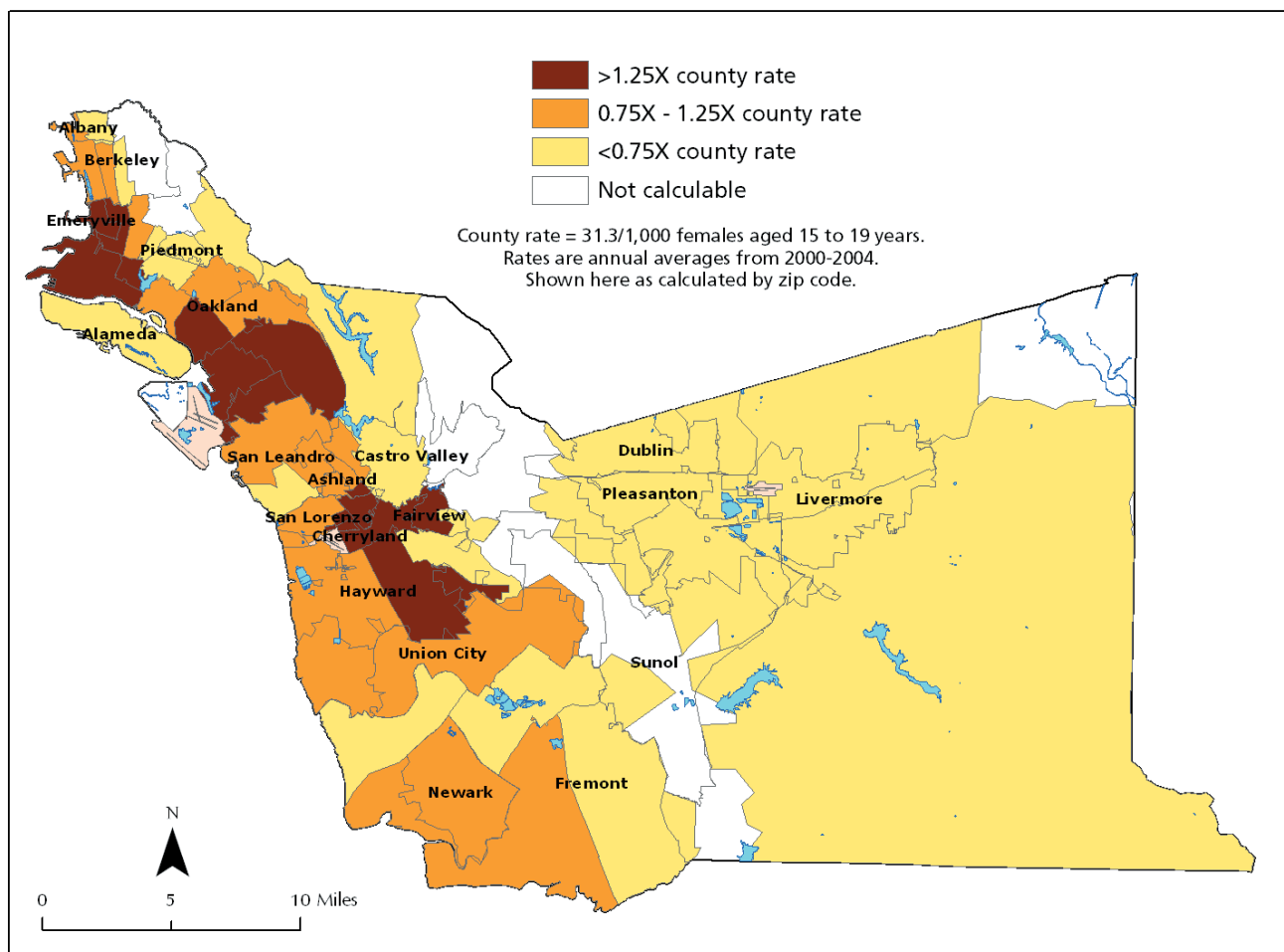
All racial/ethnic groups in Tri-City had lower teen birth rates than in Alameda County except Whites. The biggest difference in teen birth rates between Tri-City and Alameda County were among Latinas. Latinas accounted for over half of all teen births in Tri-City and Alameda County. Latinas in Fremont had the lowest teen birth rate at 37 births per 1,000 Latinas aged 15-19 as compared to 44 per 1,000 in Union City and 56 per 1,000 in Newark. In Alameda County, the Latina teen birth rate was 64 per 1,000.

Figure 17: Teen Birth Rate by Race/Ethnicity



Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

Map 1: Teen Birth Rate, Alameda County, 2000-2004



Source: CAPE; vital statistics files 2000-2004, CA DOF, Census 2000.

This map shows the teen birth rate by zip code. Union City and Newark and about half of Fremont are at or about the county rate. The other half of Fremont is below the county rate. There are areas in Oakland, Hayward, Cherryland, and Fairview that are above the county rate.

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# Death from All Causes

## ■ Mortality Rates from All Causes

Measuring death rates from all causes is a valuable tool for monitoring progress in fighting disease and improving health. In 2003, a total of 2,448,288 deaths occurred in the United States and the age-adjusted death rate from all causes was 832.7 per 100,000 population.<sup>1</sup> In California it was 704.5 for the period 2002-2004.<sup>2</sup> Currently, five chronic diseases account for two-thirds of all deaths in the United States—heart disease, cancer, stroke, chronic lower respiratory disease, and diabetes. Heart disease and cancer combined account for more than half of all deaths.<sup>3</sup>

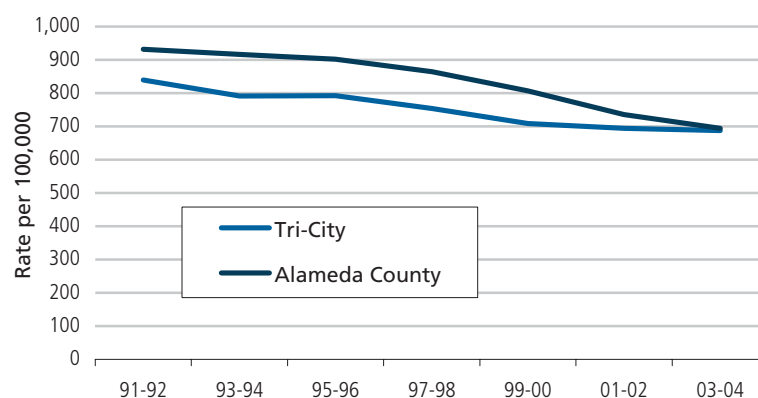
Recent declines in rates of many leading causes of death reflect the influence of healthier lifestyles, greater use of preventive care, public health efforts, and advances in medicine. However, the rising prevalence of overweight in children, adolescents and adults, and the high percentage of physically inactive adolescents and adults could contribute to increased burdens of disease and death in the future.<sup>4,5</sup>

The elderly population in the United States is growing rapidly. By 2050, one in every five Americans will be 65 years or older.<sup>4,5</sup> As the elderly population increases, more services will be required to prevent, treat, and manage both chronic and acute health conditions.

Despite overall declines in mortality, race/ethnic and gender inequities persist. Low-income groups continue to have poorer health outcomes. Future progress in improving health status will require comprehensive interventions that address individual behaviors, neighborhood environments and public policy. A profile of mortality for the residents of Tri-City by sex, age, and race/ethnicity provides us with a picture of the burden of disease and injury, which can serve as a guide for prevention efforts.

The mortality rate from all causes in both Tri-City and Alameda County has declined significantly during the last decade. In Tri-City, the mortality trend from all causes declined about 1.5% per year from 1991 to 2004, while the county rate declined about 1.3% per year during the first half of the period and about 4.1% per year during the second half. Throughout the period, the rates in Tri-City were lower than the county rates, but recently the rates were getting very close. In 2003-2004, the overall mortality rate from all causes in Tri-City was 687.5 per 100,000 compared to 694.0 in Alameda County.

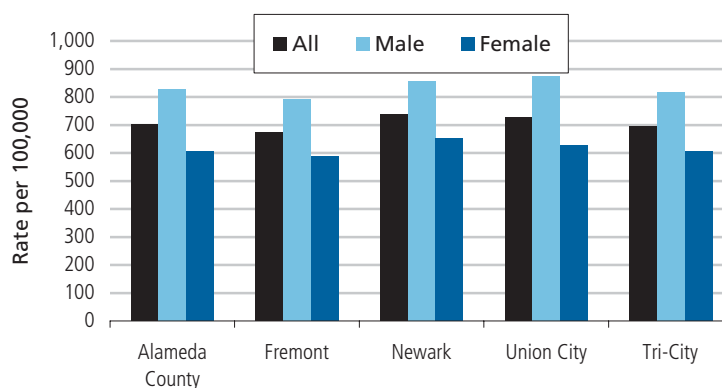
Figure 18: Historical Mortality from All Causes



Source: CAPE; Alameda County vital statistics files, CA DOF, Census 1990 and 2000.

All-cause mortality rates among males were higher than among females in all areas. In general, males had 30-40% higher rates than females. Mortality rates in Tri-City and Alameda County were fairly similar. In Fremont, both male and female rates were slightly lower compared to other Tri-City areas.

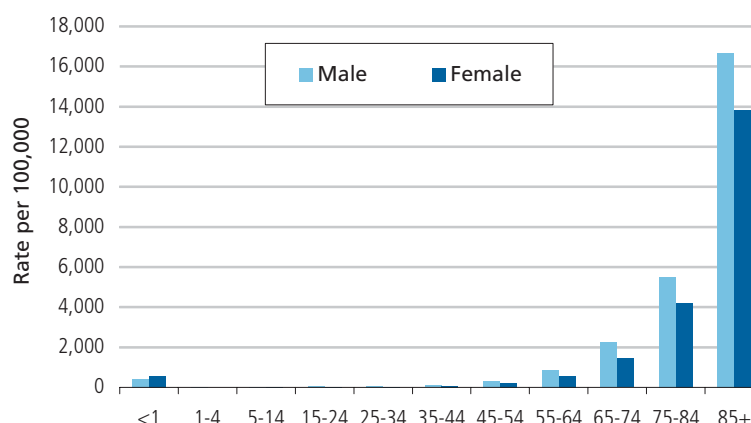
Figure 19: Mortality from All Causes by Area and Sex



Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

Mortality from all causes was higher among males than females in every age group except the infant group. After the age of 25, all-cause mortality rose steeply with age. It was three times higher for the 85 and older age group than for the age group 75-84.

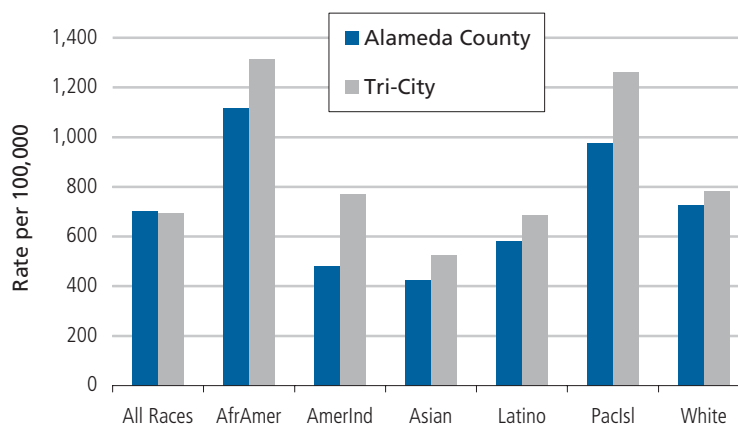
Figure 20: Mortality from All Causes by Age and Sex, Tri-City



Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

All-cause mortality rates by race/ethnicity in Tri-City showed similar patterns to those of the county. The highest mortality rates were observed among African Americans, followed by Pacific Islanders. The African American rate was more than twice the rate of Asians, and almost two times the rate of Latinos.

Figure 21: Mortality from All Causes by Race/Ethnicity



Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

## ■ Leading Causes of Death

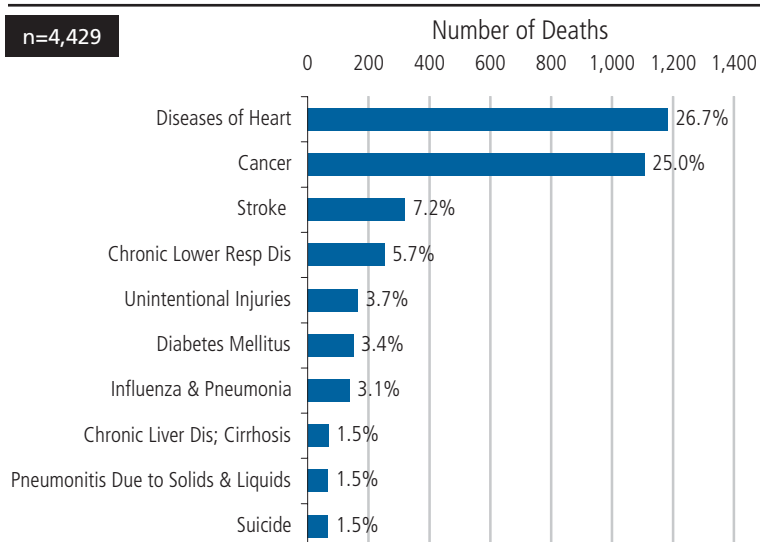
Cause of death ranked according to the number of deaths is a useful way to examine the relative burden of mortality from specific causes. For prevention, it is helpful to understand the most common causes of death and how they vary across age, race, and sex subgroups. This type of data informs resource allocation, program planning, and service provision.

In 2002, the ten leading causes of death accounted for 79% of all deaths occurring in the United States.<sup>3</sup> Five chronic diseases accounted for almost two-thirds of all deaths in the United States—heart disease, cancer, stroke, chronic lower respiratory disease, and diabetes. The first and third leading causes of death, heart disease and stroke, have been declining since 1950 and the second leading cause of death, cancer, has been declining since 1990.<sup>5</sup>

During the period 2002-2004, there were 4,429 deaths among Tri-City residents, an average of 1,476 deaths per year. Almost 80% were attributable to the ten leading causes of death. Diseases of the heart, cancer and stroke, which were all chronic diseases, accounted for 59% of all deaths. Chronic lower respiratory disease and unintentional injuries ranked fourth and fifth, respectively, followed by diabetes, influenza and pneumonia, chronic liver disease, and cirrhosis. Suicide, which was not among the top ten leading causes of death for the county as a whole, ranked tenth.

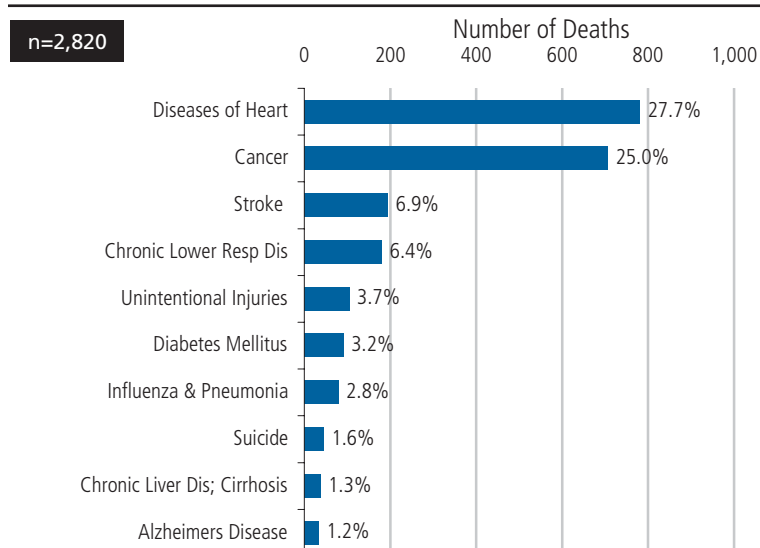
Of Fremont's three-year total 2,820 deaths during 2002-2004, 80% were attributable to the ten leading causes of death. Diseases of the heart, cancer and stroke were the top three leading causes of death, accounting for 60% of all deaths. Chronic lower respiratory disease and unintentional injuries ranked fourth and fifth, respectively, followed by diabetes, influenza and pneumonia, suicide, chronic liver disease and cirrhosis, and Alzheimer's disease. Suicide ranked eighth.

Figure 22: Leading Causes of Death, Tri-City



Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

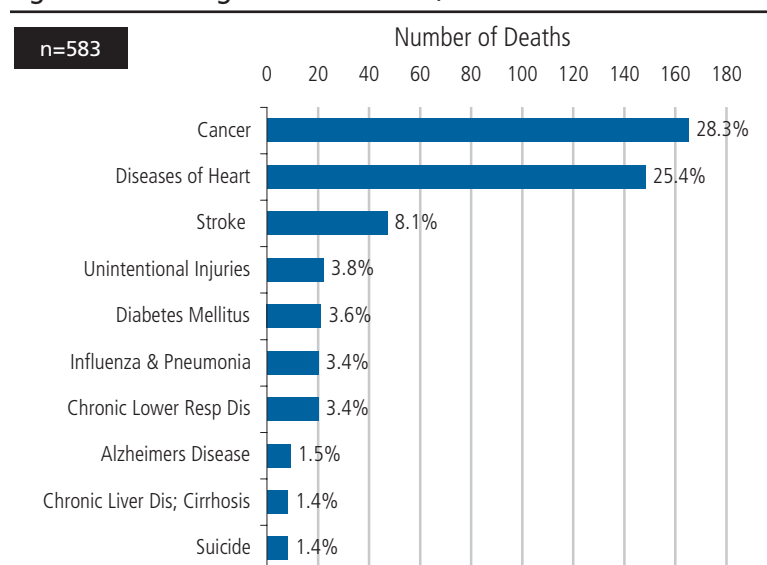
Figure 23: Leading Causes of Death, Fremont



Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

Of Newark's three-year total 583 deaths during 2002-2004, 28.3% were attributable to cancer, and 25.4% were due to heart disease. The ten leading causes of death accounted for 80% of all deaths. The number of deaths due to unintentional injuries, diabetes, influenza and pneumonia, or chronic lower respiratory disease was very close, each accounting for about 3% to 4% of the total deaths.

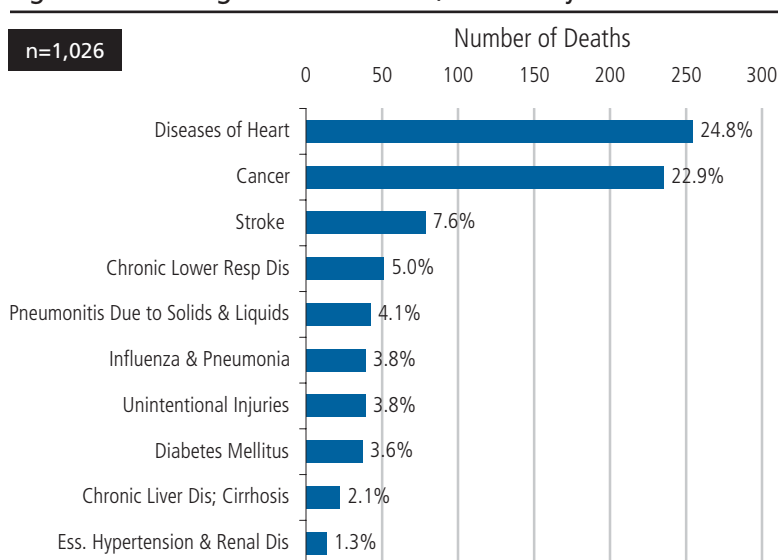
Figure 24: Leading Causes of Death, Newark



Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

Of Union City's three-year total 1,026 deaths during 2002-2004, 79% were attributable to the ten leading causes of death. Diseases of the heart, cancer and stroke accounted for 55% of all deaths. Chronic lower respiratory disease, and pneumonitis due to solids and liquids ranked fourth and fifth, respectively, followed by influenza and pneumonia, unintentional injuries, diabetes, and chronic liver disease and cirrhosis. Essential hypertension and renal disease ranked tenth.

Figure 25: Leading Causes of Death, Union City



Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

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# Chronic Disease

## ■ Diabetes

Diabetes mellitus is a chronic disease in which the body does not produce or properly use insulin, which can lead to blood glucose (sugar) levels that are too high. This is generally due to the body's inability to produce insulin (the hormone produced by the pancreas to regulate blood sugar) or use it properly. The two main types of diabetes are type 1 and type 2:

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

Type 2 diabetes was previously called non-insulin-dependent diabetes mellitus or adult-onset diabetes. Type 2 diabetes may account for about 90% to 95% of all diagnosed cases of diabetes. It usually begins as insulin resistance, a disorder in which the cells do not use insulin properly. As the need for insulin rises, the pancreas gradually loses its ability to produce insulin. Type 2 diabetes is associated with older age, obesity, family history of diabetes, history of gestational diabetes, impaired glucose metabolism, physical inactivity, and race/ethnicity. African Americans, Latinos, American Indians, and some Asian Americans and Native Hawaiians or Other Pacific Islanders are at particularly high risk for type 2 diabetes. Type 2 diabetes is increasingly being diagnosed in children and adolescents.<sup>1,2</sup>

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

Diabetes was the sixth leading cause of death in the United States in 2003.<sup>3</sup> The CDC estimates that in the year 2005, nearly 21 million people of all ages, about 7.0% of the population, had diabetes. Most of these are adults aged 20 years or more. Approximately 6.2 million of these cases have yet to be diagnosed.<sup>1,2,4</sup> The number of U.S. adults with diagnosed diabetes has increased 61% since 1991 and is projected to more than double by 2050.<sup>5,6</sup>

In 2005, about 1.5 million adults 20 years and older were newly diagnosed with diabetes.<sup>1,5</sup> While diabetes is most common among those 65 years and older, the rate of type 2 diabetes in children and adolescents has been increasing, especially among people of color.<sup>7</sup>

It is estimated that 15.1% of adult American Indians have diabetes, 13.3% of African Americans, 9.5% of Latinos, and 8.7% of Whites.<sup>1</sup> The prevalence of diabetes has increased steadily over the past 20 years among all race-sex groups. From 1980 to 2004, the age-adjusted prevalence rate of diagnosed diabetes was much higher among African Americans than Whites and highest among African American females. Recent increases have also occurred among Latinos.<sup>4,8</sup>

In 2003, there were 74,219 deaths from diabetes in the United States. The age-adjusted death rate was 25.3 per 100,000.<sup>3</sup> The diabetes death rate in California was 21.3 per 100,000 in 2002-2004.<sup>9</sup> However, the statistics on deaths alone do not fully describe the problem. Over 200,000 people

die each year of diabetes-related complications.<sup>2</sup> And, studies have shown that death certificates frequently do not reflect diabetes as a cause of death or as an underlying cause of death.<sup>1,2</sup>

According to the California Health Interview Survey (CHIS), about 1.5 million or 6.6% of Californians 19 years and older had been diagnosed with diabetes in 2001. Nearly 37% of cases were among seniors 65 years and older. Overall, about 9.2% of African American and 10.4% of American Indian adults have been diagnosed with diabetes in California. The racial/ethnic disparity in diabetes was widest among older adults. Among adults 65 years and older, approximately one out of four African Americans and Latinos have been diagnosed with diabetes, at least two times the figure for Whites.<sup>10</sup>

Adults living at or below the federal poverty level (FPL) had a higher diabetes prevalence than those with incomes above 300% FPL. In addition, the rate of diabetes was much higher among adults who never attended high school than among college graduates.<sup>10</sup>

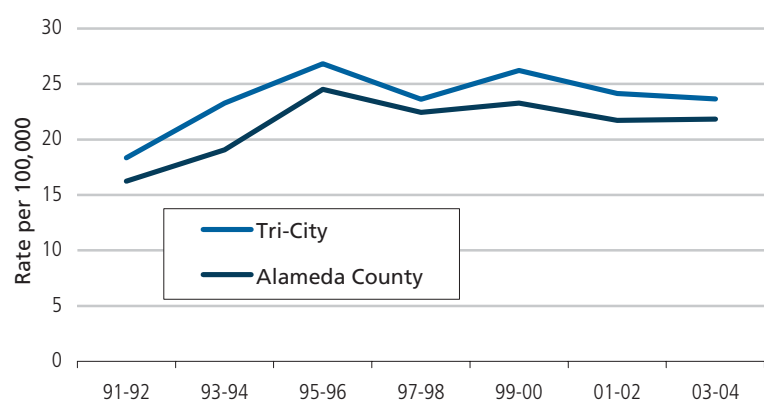
In 2003, 5.1% of Alameda County adults had been diagnosed with diabetes. The prevalence was higher among African Americans (8.2%) than Whites (5.0%).<sup>11</sup>

## Diabetes Mortality

In Tri-City and Alameda County, the mortality rate from diabetes increased during the early 1990s and then leveled off. This trend was more pronounced in Alameda County, where the rate increased significantly more than 10% per year during the early 1990s, and remained unchanged since then. The gap between the two areas has not changed much; the rate in Tri-City is about 10% higher than the county rate. In 2003-2004, the diabetes mortality rate in Tri-City was 23.7 per 100,000 compared to 21.9 in Alameda County.

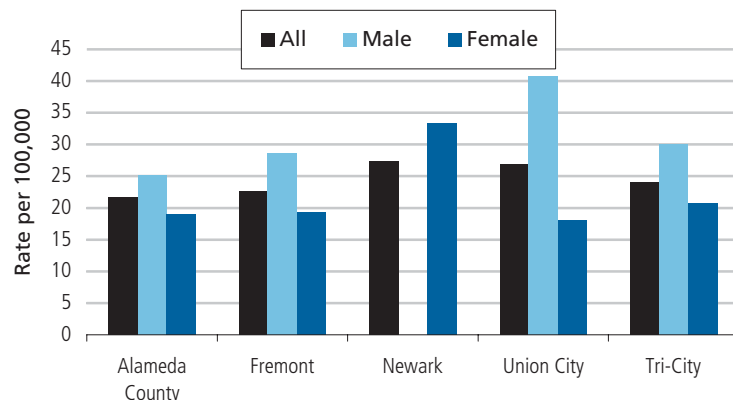
The male rate in Union City and female rate in Newark were much higher than corresponding rates for the county. However, none of these rates were significantly different from the county rates. Males had 30% to 50% higher rates than females except in Union City, where the male rate was more than 130% higher.

Figure 26: Historical Diabetes Mortality



Source: CAPE; Alameda County vital statistics files, CA DOF, Census 1990 and 2000.

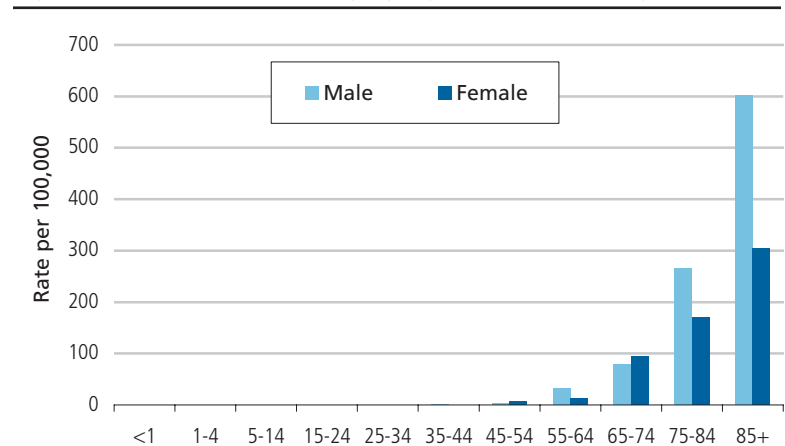
Figure 27: Diabetes Mortality by Area and Sex



Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

There were very few deaths prior to 45 years. After this, the rate increased with age and was highest in the age group 85 and older. Diabetes mortality was higher among males in the 55-64 age group and seniors after age 75.

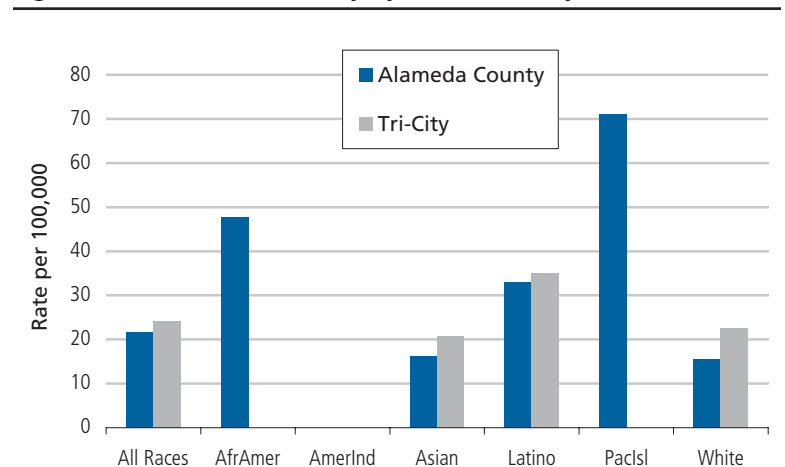
Figure 28: Diabetes Mortality by Age and Sex, Tri-City



Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

African Americans and Pacific Islanders had the highest diabetes death rate in the county. In Tri-City, Latinos had the highest rate. However, for those rates which were available, diabetes mortality rates by race/ethnicity in Tri-City and Alameda County showed a similar pattern. The African American rate in Tri-City was not shown due to the small number of deaths.

Figure 29: Diabetes Mortality by Race/Ethnicity

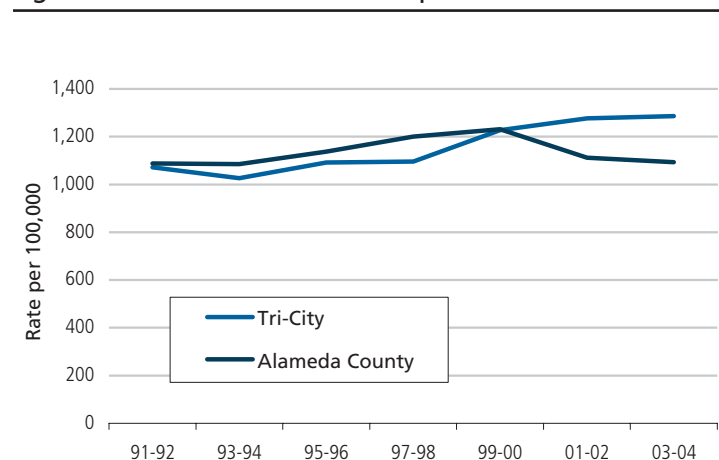


Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

## Diabetes Hospitalization

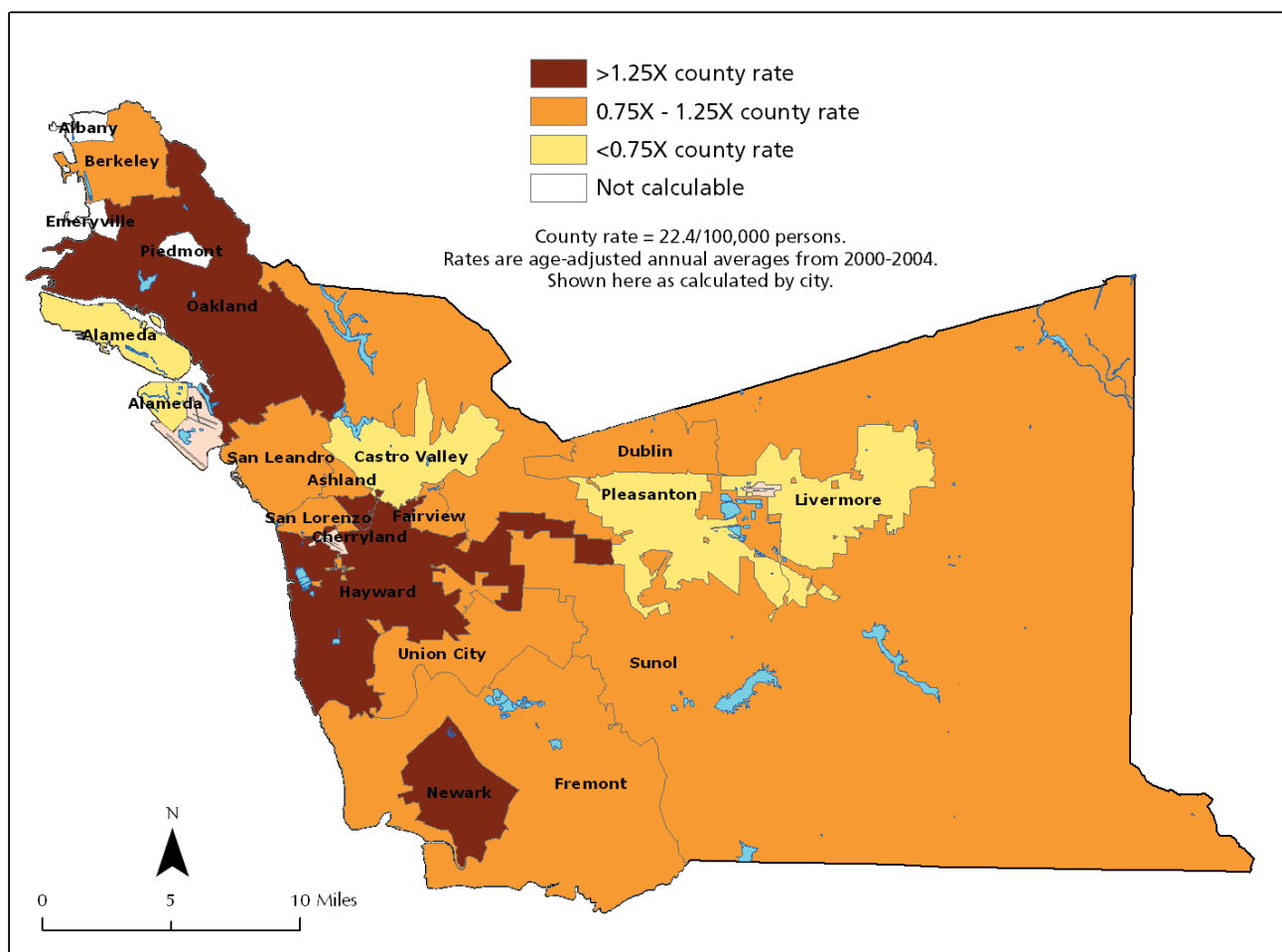
Between 1991 and 2004, the diabetes hospitalization rate in Tri-City increased significantly, by about 2% per year. The Alameda County rate increased similarly until 2000 when it began to decline.

Figure 30: Historical Diabetes Hospitalization



Source: CAPE; OSHPD hospitalization files, CA DOF, Census 1990 and 2000.

Map 2: Diabetes Mortality, Alameda County, 2000-2004

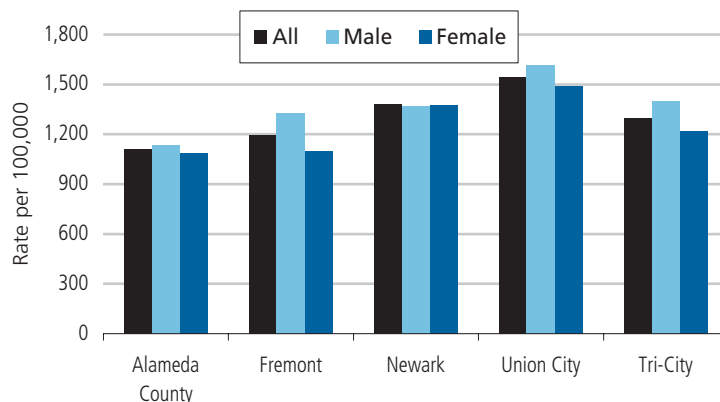


Source: CAPE; vital statistics files 2000-2004, CA DOF, Census 2000.

This map shows diabetes mortality by city, place, and unincorporated area in the county. Most of the county is about the county rate of 22.4 deaths per 100,000. Newark, Hayward, Cherryland, and Oakland are more than 1.25 times the county rate.

Union City had the highest diabetes-related hospitalization rates among the cities as well as Alameda County. Male rates were higher than female rates in Fremont and Union City.

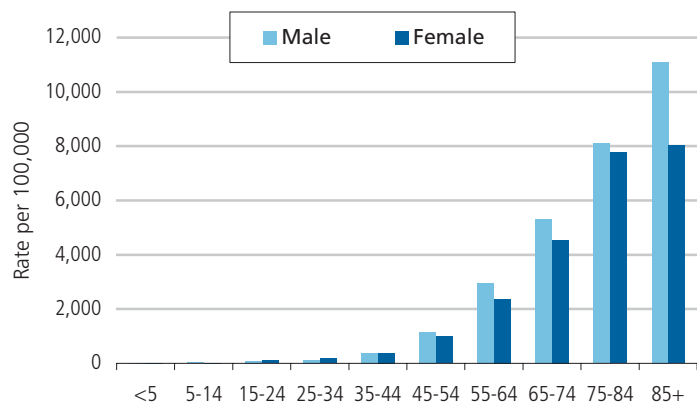
Figure 31: Diabetes Hospitalization by Area and Sex



Source: CAPE; OSHPD hospitalization files 2002-2004, CA DOF, Census 2000.

Rates of hospitalization for diabetes-related illnesses increase with age. In Tri-City, male rates were higher than female rates in every age group, with the largest gender difference in the age group 85 years and older.

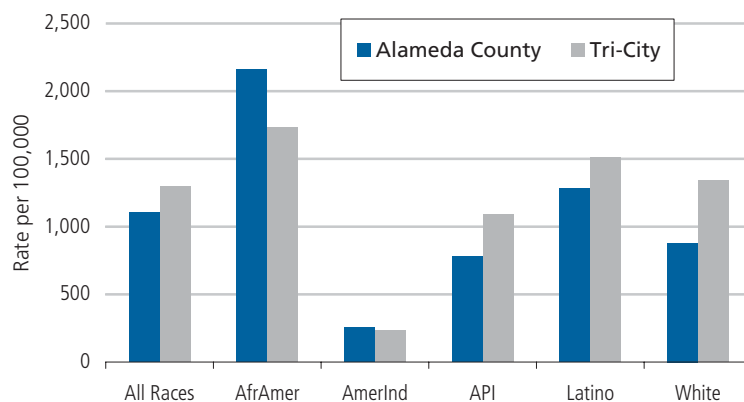
Figure 32: Diabetes Hospitalization by Age and Sex, Tri-City



Source: CAPE; OSHPD hospitalization files 2002-2004, CA DOF, Census 2000.

The rate of diabetes-related hospitalization was higher among Whites, Latinos, and APIs in Tri-City than in the county. The African American Tri-City rate was lower than the county rate, but significantly higher than any other Tri-City racial/ethnic group but Latinos.

Figure 33: Diabetes Hospitalization by Race/Ethnicity



Source: CAPE; OSHPD hospitalization files 2002-2004, CA DOF, Census 2000.

## Coronary Heart Disease

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

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

Deaths from all types of heart disease have declined steadily over the past 50 years, mostly from better medical treatment and effective prevention efforts to reduce controllable risk factors such as hypertension, smoking, high blood cholesterol, and physical inactivity.<sup>3,5</sup> Most deaths from heart disease are due to CHD. Other forms of heart disease include hypertensive heart disease and rheumatic heart disease.<sup>1,2</sup>

CHD is the most common cause of death in the United States, accounting for more than one of every five deaths. About 335,000 people per year die of CHD in an emergency department or before reaching the hospital. Most of these are sudden deaths caused by cardiac arrest.<sup>6</sup>

It is estimated that 13 million people in the United States, about 6.9% of the population 20 years and older, have CHD.<sup>6</sup> In 2003, the age-adjusted death rate nationally was 162.9 per 100,000 population.<sup>7</sup> In California it was 164.7 for the period 2002-2004.<sup>8</sup> National and California rates met the HP2010 objective of 166 or fewer CHD deaths per 100,000.<sup>3</sup>

From 1993 to 2003, the U.S. death rate from CHD declined 30.2%. More than 83% of people who died of CHD were 65 years and older. Approximately 14.2 years of life were lost on average due to heart attack.<sup>9</sup> African American males had the highest CHD death rate (243.3 per 100,000), followed by White males (209.6), African American females (160.9), and White females (125.0).<sup>7</sup>

CHD occurs more often in men than in women. It is the leading cause of premature and permanent disability among U.S. workers, and accounts for 19% of social security's disability allowances. About two-thirds of heart attack patients do not make a complete recovery, but 88% of those less than 65 years are able to return to their usual work.<sup>10-12</sup> It was estimated that the direct and indirect cost of CHD was \$142.5 billion in 2006.<sup>9</sup>



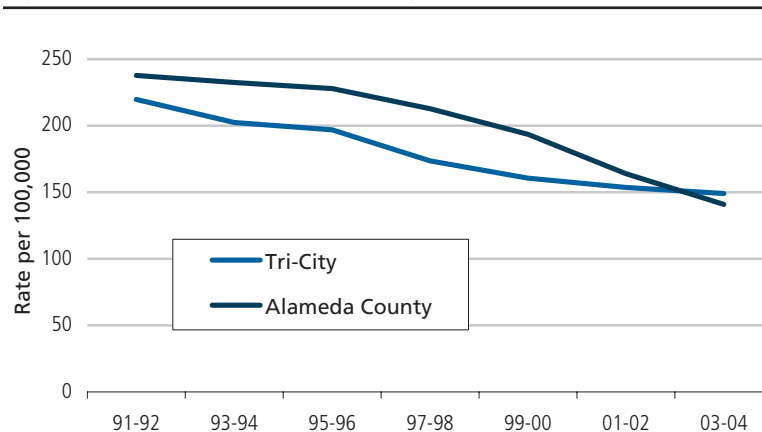
## CHD Mortality

The mortality rate from CHD for both Tri-City and Alameda County has declined significantly during the last decade. In Tri-City, the mortality trend from CHD declined about 3.2% per year during the period of 1991-2004, while the countywide rate declined about 2.1% per year during the first half of the study period and about 7.2% per year during the second half. For most of the period, the rates in Tri-City were lower than the county rates.

CHD death rates did not vary considerably for either males or females across areas. However, male CHD death rates were 50-70% higher than female rates in all areas. In Union City, the male rate was more than 70% higher than the female rate. Females in all Tri-City areas and the county as a whole have met the HP2010 objective of no more than 166.0 deaths per 100,000, but males have not.

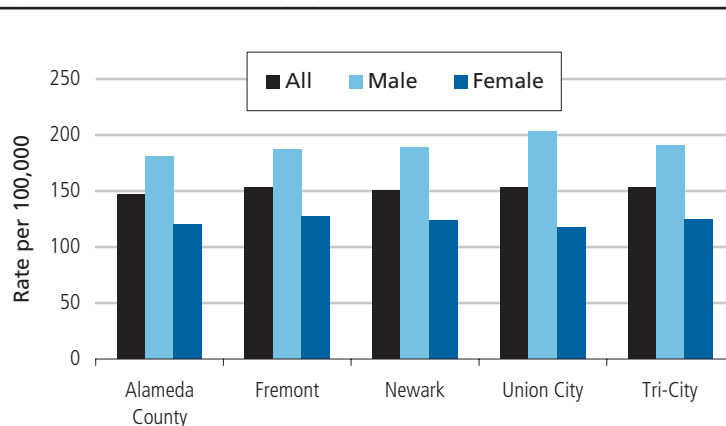
CHD mortality increased with age. Very few deaths occurred before the age of 35. Between the ages of 35 and 64, the rate was four to five times higher for males than females. The gender difference diminished with increasing age, and by the 85 and older age group, there was little gender difference.

Figure 34: Historical CHD Mortality



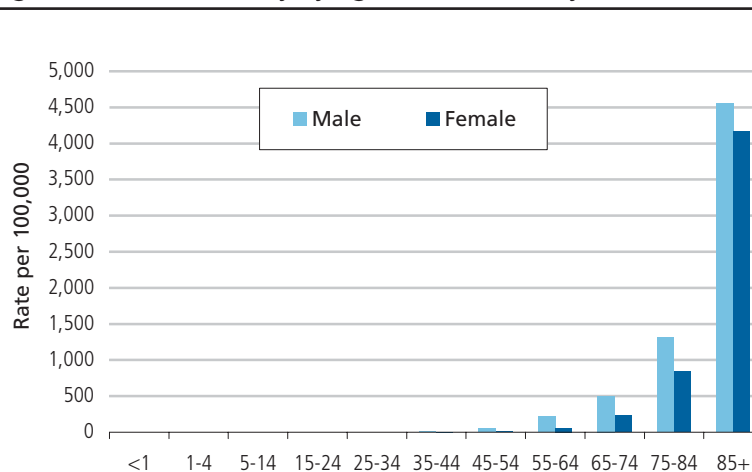
Source: CAPE; Alameda County vital statistics files, CA DOF, Census 1990 and 2000.

Figure 35: CHD Mortality by Area and Sex



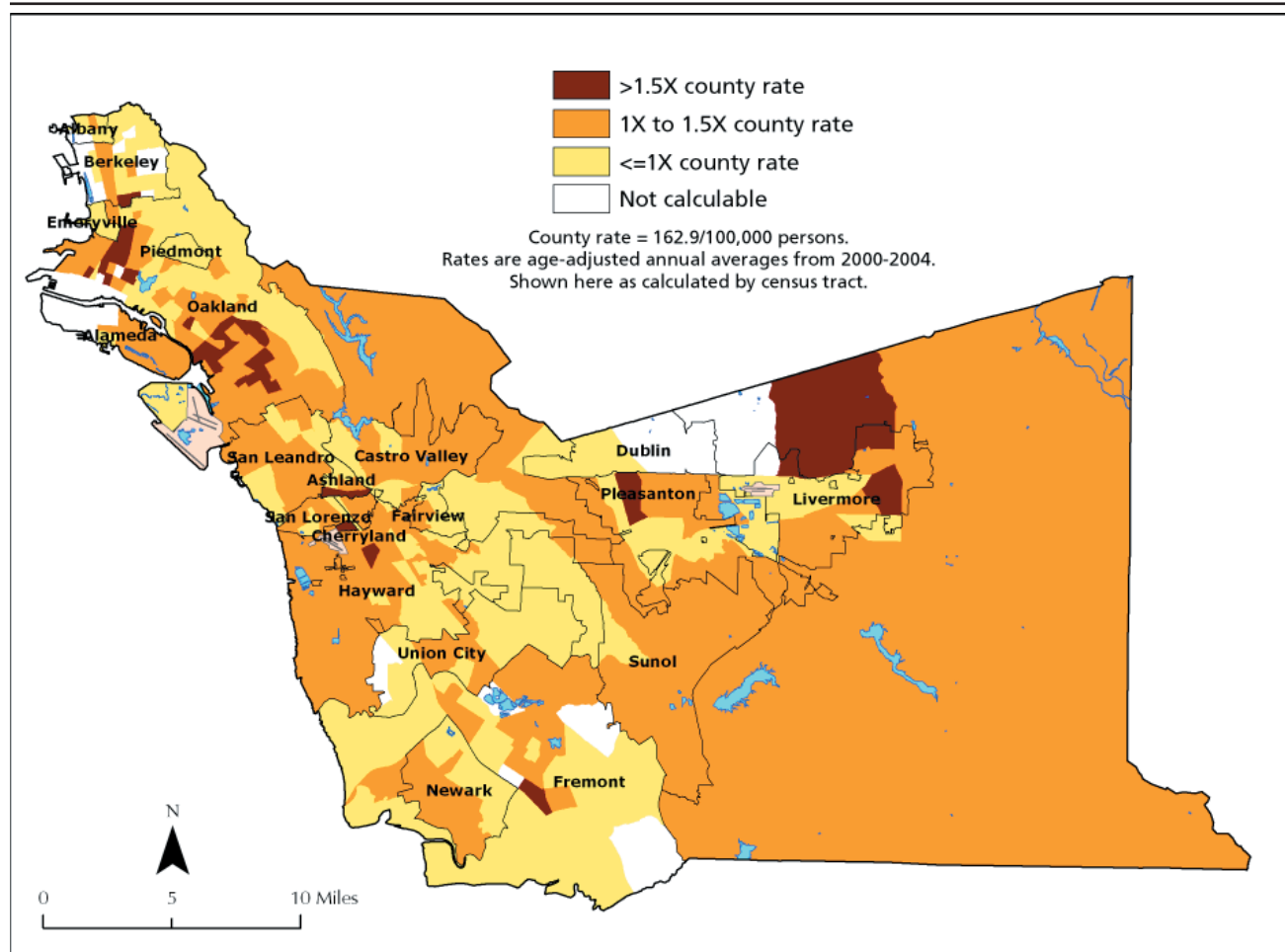
Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

Figure 36: CHD Mortality by Age and Sex, Tri-City



Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

Map 3: Coronary Heart Disease Mortality, Alameda County, 2000-2004

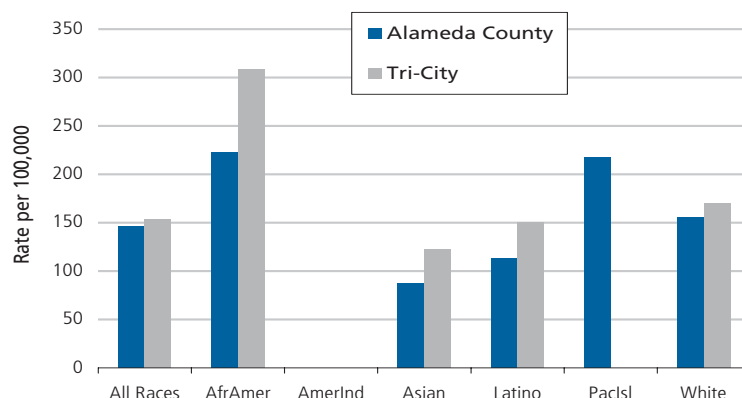


Source: CAPE; vital statistics files 2000-2004, CA DOF, Census 2000.

This map shows coronary heart disease mortality by census tract. About half of Tri-City is less than the county rate of 162.9 deaths per 100,000. There is one neighborhood in Fremont, Blacow, that has a rate more than one and a half times the county rate.

African Americans experienced a higher CHD mortality rate than any other racial/ethnic group in both Tri-City and the county. Pacific Islanders were also noted for a higher CHD mortality rate in Alameda County. In Tri-City, the rate for African Americans was more than twice the rates for Asians and Latinos and statistically significantly higher than any other racial/ethnic group.

Figure 37: CHD Mortality by Race/Ethnicity

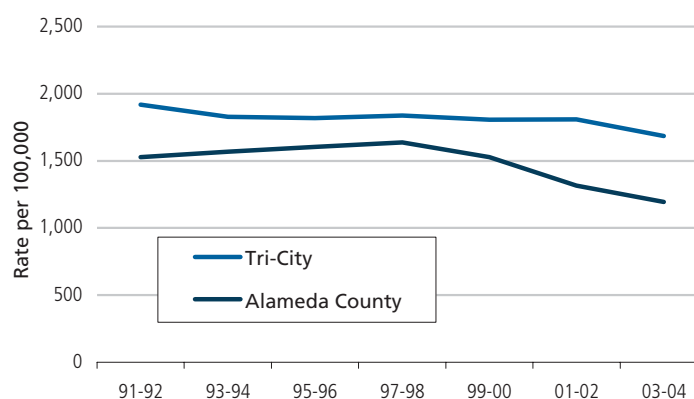


Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

## CHD Hospitalization

The CHD hospitalization rate in Tri-City declined by less than one percent per year, on average, between 1991 and 2004. In Alameda County, the rate increased slightly until 1998. Since then, it has declined significantly by almost 6% per year.

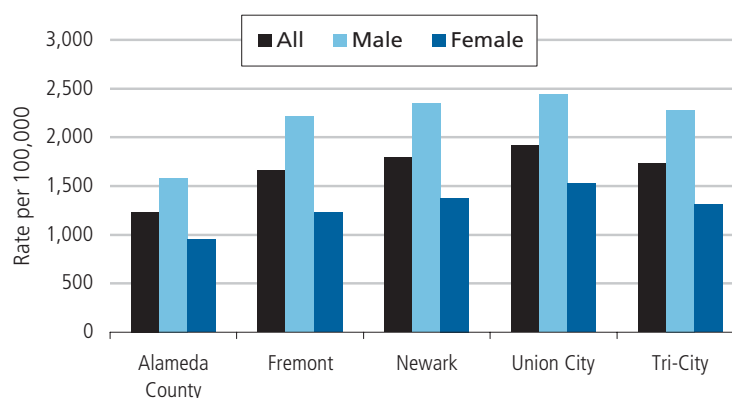
Figure 38: Historical CHD Hospitalization



Source: CAPE; OSHPD hospitalization files, CA DOF, Census 1990 and 2000.

CHD-related hospitalization rates among both males and females in each city were significantly higher than those at the county level. Male rates in Tri-City and Alameda County were about 70% higher than female rates.

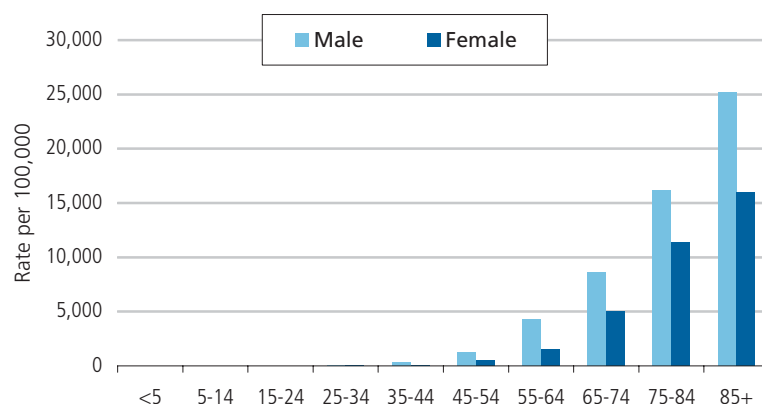
Figure 39: CHD Hospitalization by Area and Sex



Source: CAPE; OSHPD hospitalization files 2002-2004, CA DOF, Census 2000.

The rate of CHD-related hospitalization increases with age. In Tri-City, rates were higher for men in every age group. Between the ages of 35 and 64, male rates were over two times female rates. After 65 years of age, the gender differences were smaller.

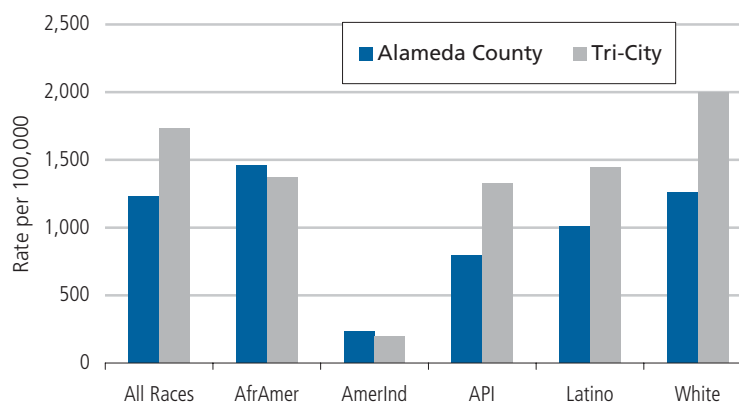
Figure 40: CHD Hospitalization by Age and Sex, Tri-City



Source: CAPE; OSHPD hospitalization files 2002-2004, CA DOF, Census 2000.

CHD-related hospitalization was highest among Whites in Tri-City. The White rate was significantly higher than those of any other racial/ethnic group in the area, and well above the county White rate. Tri-City rates among APIs and Latinos were also significantly higher than those in the county, while African American and American Indian rates were about the same as those in the county.

Figure 41: CHD Hospitalization by Race/Ethnicity



Source: CAPE; OSHPD hospitalization files 2002-2004, CA DOF, Census 2000.

## Stroke

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

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

Hemorrhagic stroke starts with the rupture of a blood vessel in the brain. Bleeding from the

rupture compresses nearby blood vessels, depriving surrounding tissue of oxygen and causing stroke. Hemorrhagic stroke usually affects a large area of the brain, many times leading to death.<sup>1,2</sup> Hypertension is the most common cause of hemorrhagic stroke. Strokes in young adults tend to be hemorrhagic.

Stroke is the third leading cause of death in the United States. It also is a leading cause of serious, long-term disability. About 700,000 people experience a new or recurrent stroke each year. Death rates from stroke have declined steadily since the early part of the twentieth century. From 1993 to 2003 the U.S. death rate from stroke declined 18.5%.<sup>3-6</sup>

Nationally, the age-adjusted rate of death from stroke in 2003 was 53.5 per 100,000 population.<sup>7</sup> The California rate in 2003 was 53.3 and in 2004 it went down even more to 50.3.<sup>8</sup> These rates exceeded the HP2010 objective of no more than 48.0.<sup>5</sup> Because women live longer than men, more women than men die of stroke each year. Women accounted for 61.0% of U.S. stroke deaths in 2003.<sup>6</sup>

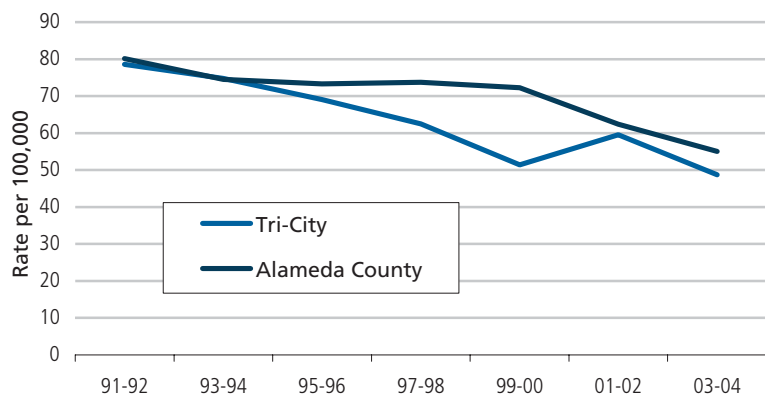
In 2003, of all racial/ethnic groups, African American males and females had the highest rates of death from stroke (79.5 and 69.8 per 100,000), followed by White males and females (51.7 and 50.5).<sup>7</sup> The African American rate in California was 80.0, higher than the national rate of 74.3. Both were higher than their respective White rates, 53.8 in California and 51.4 nationally.<sup>7,8</sup>

High blood pressure, diabetes, smoking, and having had a previous stroke or heart attack increase a person's chances of having a stroke. Maintaining healthy blood pressure through diet, exercise,

## Stroke Mortality

The mortality rate from stroke for both Tri-City and Alameda County has declined significantly during the last decade. In Tri-City, mortality from stroke declined about 3.2% per year during the period 1991-2004, while the countywide rate declined about 1.1% per year until year 2000 and then declined more steeply during recent years, about 7.7% per year. In the early 1990s, stroke death rates in Tri-City and Alameda County were very close, but then the difference between these rates grew. In 2003-2004, the stroke mortality rate in Tri-City was 48.7 per 100,000 compared to 55.0 in Alameda County.

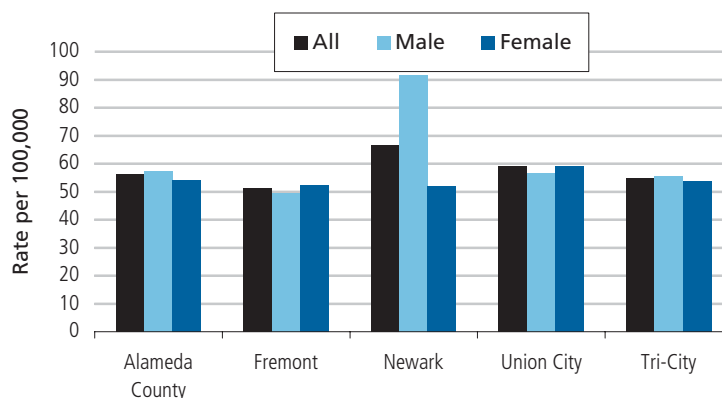
Figure 42: Historical Stroke Mortality



Source: CAPE; Alameda County vital statistics files, CA DOF, Census 1990 and 2000.

Overall, stroke death rates did not vary considerably across areas. The only gender differences were in Newark, where the male stroke death rate was 80% higher than the female rate. The male rate in Newark was the highest, but it was not significantly different from the county rate. None of the Tri-City areas or Alameda County has met the HP2010 objective of no more than 48.0 deaths per 100,000. This was true for both sexes.

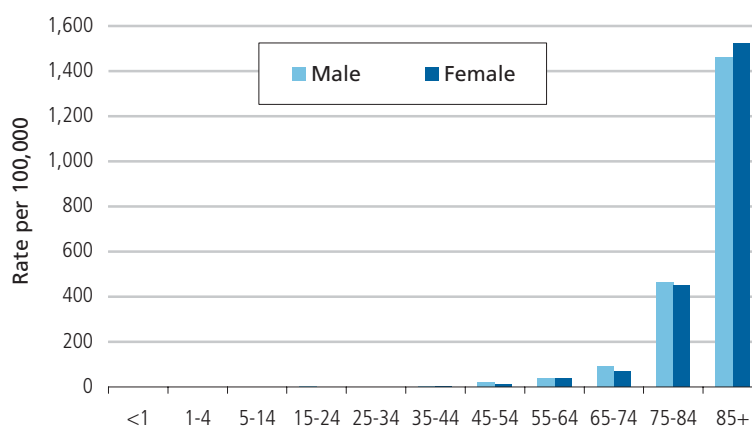
Figure 43: Stroke Mortality by Area and Sex



Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

Stroke mortality increased steeply with age starting at about 45 years. In Tri-City, rates for both males and females were similar except for the 45-54 and 65-74 age groups.

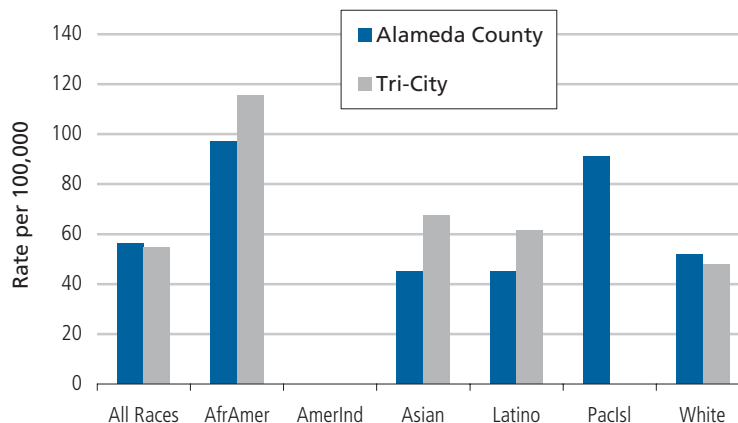
Figure 44: Stroke Mortality by Age and Sex, Tri-City



Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

In Tri-City, African Americans experienced between 70% and 140% higher stroke mortality rates than any other racial/ethnic group. A similar pattern was noted for African Americans in the county. Both African Americans in Tri-City and Alameda County had significantly higher rates than their corresponding overall rates. With the exception of Whites, the stroke death rates in Tri-City were slightly higher for African Americans, Asians, and Latinos compared to those rates in the county.

Figure 45: Stroke Mortality by Race/Ethnicity



Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

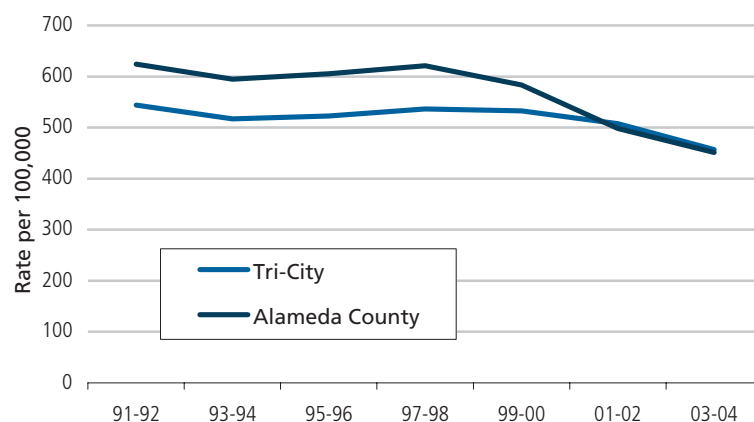
## Stroke Hospitalization

There were few changes in stroke hospitalization rates from 1991 to 1999 in either Tri-City or Alameda County. However, rates in both localities declined significantly between 1999 and 2004: Tri-City by 3.5% per year and Alameda County by 6.5% per year.

Stroke-related hospitalization rates were similar across the Tri-Cities and the county. Male rates in Union City were higher than those in the other areas, but the differences were not significant. Across cities, female rates were only slightly lower than male rates.

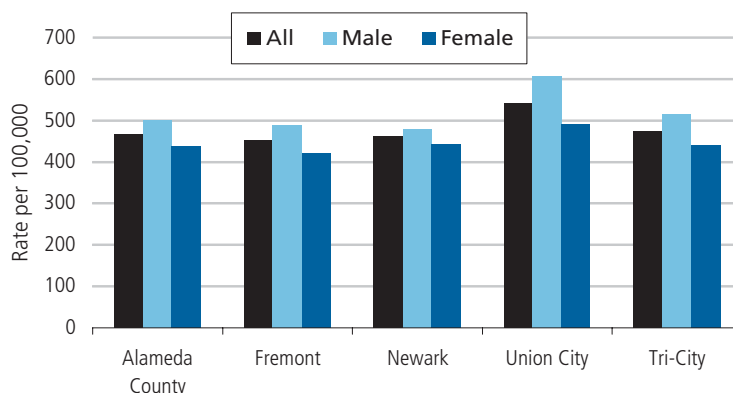
Hospitalization for stroke is very uncommon prior to age 55. Rates increase dramatically with age for both males and females. In Tri-City, male rates were markedly higher than female rates between the ages of 35 and 84. Over 85 years of age, female rates were higher than male rates.

Figure 46: Historical Stroke Hospitalization



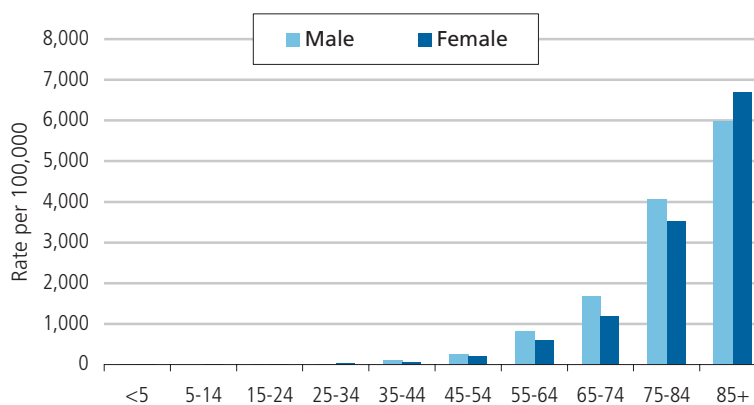
Source: CAPE; OSHPD hospitalization files, CA DOF, Census 1990 and 2000.

Figure 47: Stroke Hospitalization by Area and Sex



Source: CAPE; OSHPD hospitalization files 2002-2004, CA DOF, Census 2000.

Figure 48: Stroke Hospitalization by Age and Sex, Tri-City

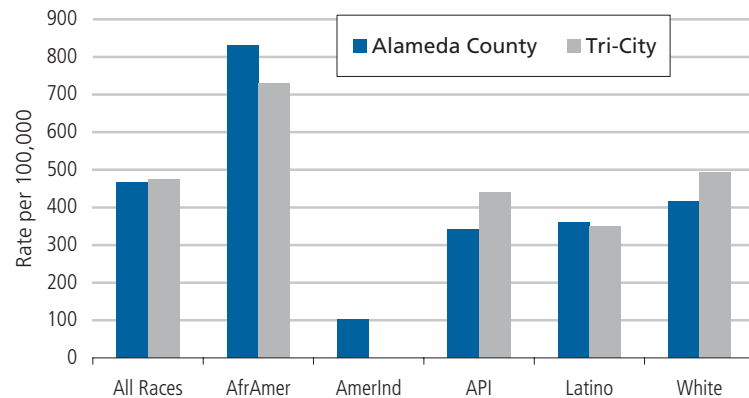


Source: CAPE; OSHPD hospitalization files 2002-2004, CA DOF, Census 2000.



Stroke-related hospitalization rates, overall, were similar in Tri-City as in the county. African American rates were significantly higher than those of other racial/ethnic groups in both Tri-City and Alameda County. White and API rates in Tri-City were greater than those in the county.

Figure 49: Stroke Hospitalization by Race/Ethnicity



Source: CAPE; OSHPD hospitalization files 2002-2004, CA DOF, Census 2000.

## ■ All Cancer

Cancer is a large group of diseases in which abnormal cells divide uncontrollably. Cancer cells differ from normal cells in size and in function. They are characterized by uncontrolled growth and spread of abnormal cells throughout the body rapidly and independently from the primary site to other tissues. They can spread, or metastasize, to other locations via the bloodstream, the lymphatic system, or by accidental transplantation from one site to another during surgery. Cancer is broadly classified according to histologic origin: carcinomas—those derived from cells found in the lining of various tissues, and sarcomas—those derived from the underlying supporting tissue.<sup>1,2</sup>

Nationally, there were 556,902 deaths from cancer in 2003. Cancer is the second leading cause of death in the United States, accounting for 23% of all deaths. The age-adjusted death rate in the United States in 2003 was 190.1 per 100,000.<sup>3</sup> In California it was 164.1 for the period 2002-2004.<sup>4</sup> Both national and state rates exceeded the HP2010 objective of 159.9 or fewer cancer deaths per 100,000.<sup>5</sup> Nationally, about 1.4 million new cancer cases are expected to be diagnosed in 2006.<sup>6</sup>

In general, incidence and death rates for all cancers combined are lower among Asian/Pacific Islander, American Indian, and Latino populations than among White and African American populations. African Americans are more likely to die of cancer than any other racial/ethnic group.<sup>7</sup> An examination of national figures for four major cancer sites revealed disparities between White and African American populations.<sup>3,7-10</sup> African American males have a higher incidence of lung, prostate, and colorectal cancer than White males. They are also more likely to die from these diseases. The rate of new breast cancer cases among White females is higher than among African American females, yet African American females are more likely to die from breast cancer.

Latinos have higher rates of cervical, esophageal, gallbladder, and stomach cancers than non-Hispanic Whites. Rates of stomach and liver cancers are higher among Asian Americans than the rest of the population, and the death rate from lung cancer is the third highest among American Indian/Alaska Natives after African Americans and Whites.<sup>7,10</sup>

Although the rates of cancer incidence and death have declined recently, the actual number of people diagnosed with cancer is expected to double in the next several decades, as the elderly population grows.<sup>11</sup> 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.<sup>12</sup>

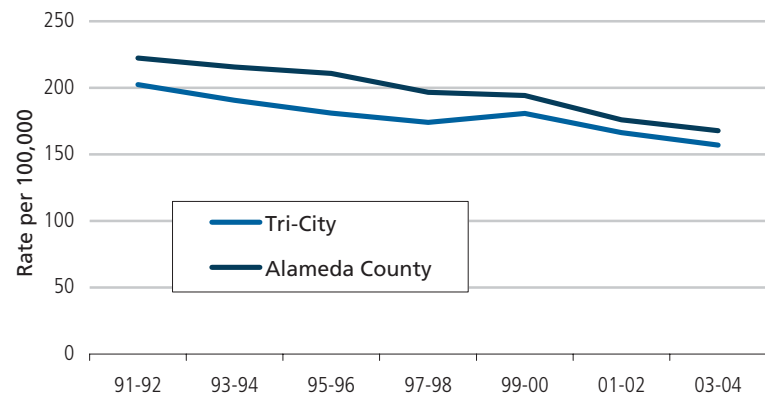
Many cancers can be cured if detected early and treated promptly. Cancers that can be detected by screening account for about half of all new cancer cases. The five-year relative survival rate for all cancers diagnosed between 1995 and 2000 was 64%, up from 50% in 1974-1976.<sup>6</sup> In addition, some cancers can be prevented by lifestyle changes. Maintaining a healthy weight, exercising regularly, and not smoking can reduce an individual's risk of cancer substantially.<sup>13</sup>

## All Cancer Mortality

Mortality from all cancers for both Tri-City and Alameda County has declined significantly during the last decade. In Tri-City, the mortality trend from all cancer declined about 1.8% per year during the period of 1991-2004, while the countywide rate declined about 1.6% per year until year 1999 and then declined more steeply during recent years, about 3.6% per year. Throughout the study period, the rates in Tri-City were lower than the county rates.

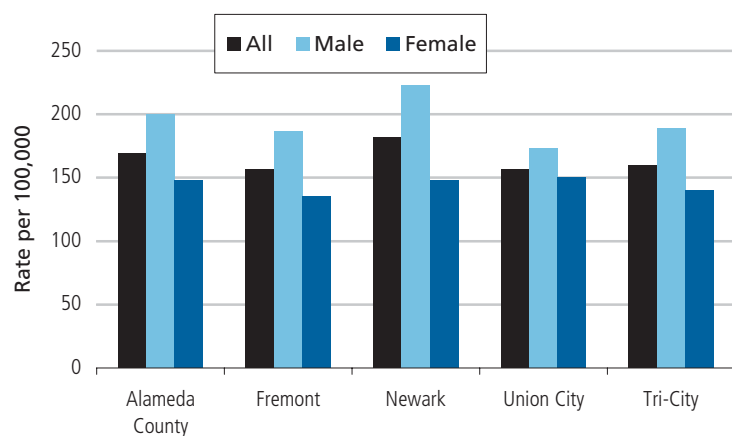
Mortality from all cancers among males were higher than females in all areas. Males had a 20% to 50% higher rate than females. None of the rates in Tri-City areas were significantly different from the county rates. Newark was the only city among Tri-City areas to have not met the HP2010 objective of no more than 159.9 deaths per 100,000. Females in all Tri-City areas and the county as a whole have met the HP2010 objective, but males have not.

Figure 50: Historical All Cancer Mortality



Source: CAPE; Alameda County vital statistics files, CA DOF, Census 1990 and 2000.

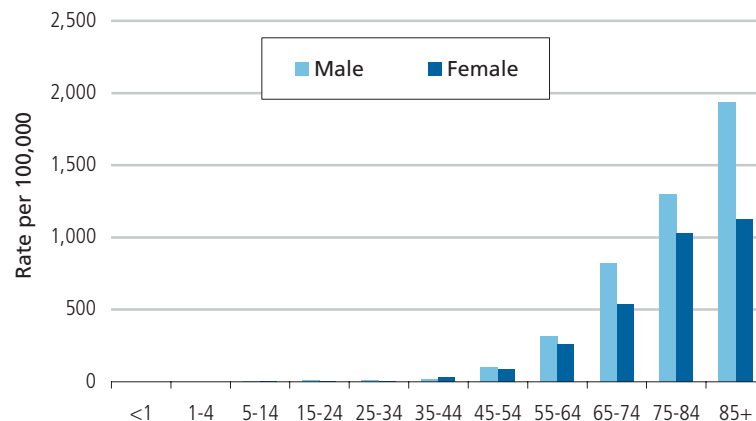
Figure 51: All Cancer Mortality by Area and Sex



Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

Cancer killed people of all ages, but it largely affected people over the age of 35. As age increased so did cancer mortality rates, significantly more for males than females. In general, males had higher rates than females in every age group except 35-44 age group.

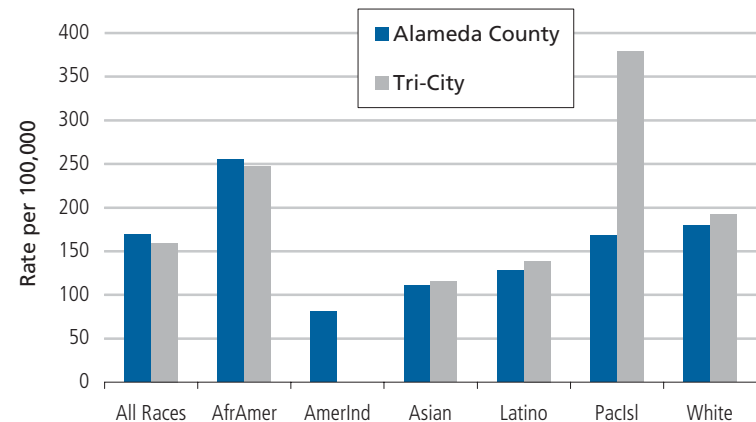
Figure 52: All Cancer Mortality by Age and Sex, Tri-City



Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

All cancer mortality rates by race/ethnicity in Tri-City and Alameda County showed a similar pattern, except for Pacific Islanders. Pacific Islanders had the highest rate of cancer mortality in Tri-City, but the rate was based on a small number (12 deaths). The rates for African Americans were about two times the rates for Asians and Latinos. In Tri-City, both African American and White rates were significantly higher than the overall rate.

Figure 53: All Cancer Mortality by Race/Ethnicity

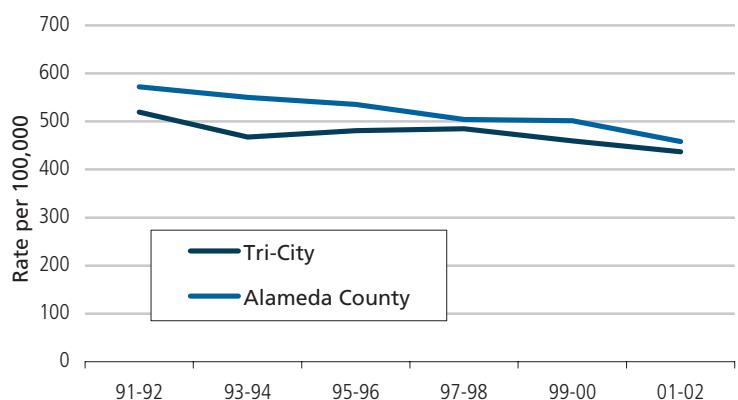


Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

## All Cancer Incidence

The incidence of all cancers combined was consistently lower in Tri-City compared to the county between 1991 and 2002. The incidence trend declined significantly in both Tri-City and the county, 1.2% and 2.0% per year respectively.

Figure 54: Historical All Cancer Incidence



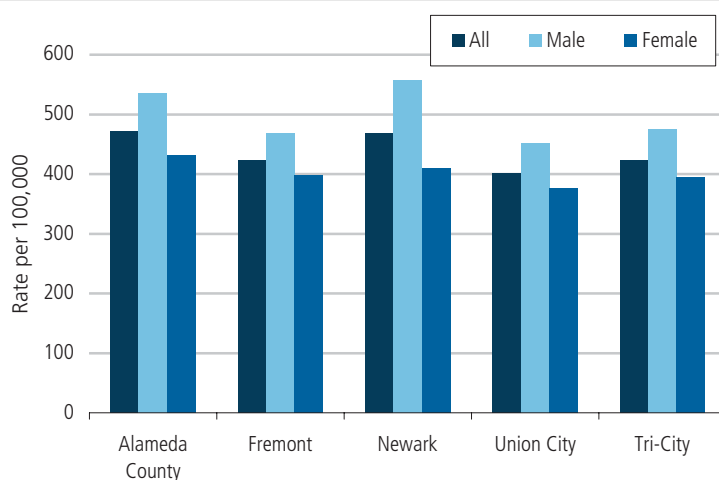
Source: CAPE; NCCC files, CA DOF, Census 1990 and 2000.

Incidence of all cancers combined varied substantially across areas during the time period 2000-2002. Tri-City, Fremont, and Union City had significantly lower incidence than the county. Newark the highest and Union City the lowest cancer incidence of all areas. In Tri-City, incidence of all cancers combined among males was 20% higher than that among females. Gender differences were significant in all locales except in Union City.

Cancer was very uncommon before age 35; incidence of all cancers combined increased with age. Males in Tri-City age 65 and over were more likely than females in the same age group to have cancer. Between ages 35 and 54, females had higher incidence of all cancers.

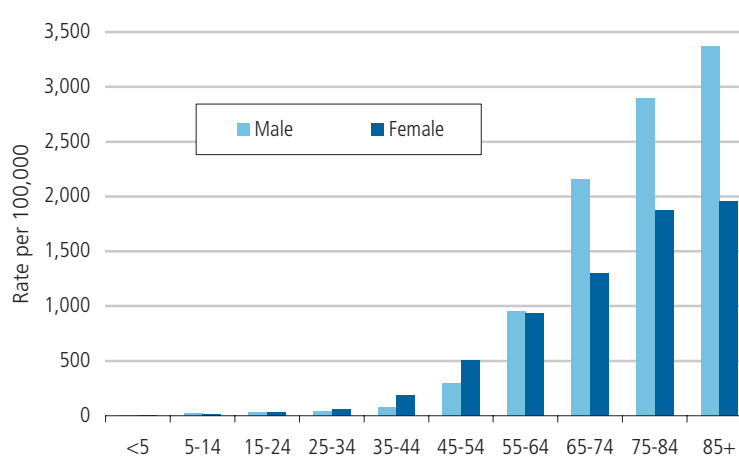
Whites in both Tri-City and the county had the highest all cancer incidence rates, while APIs in both areas had the lowest rates. The differences in rates among Whites and APIs were statistically significant in both Tri-City and the county.

Figure 55: All Cancer Incidence by Area and Sex



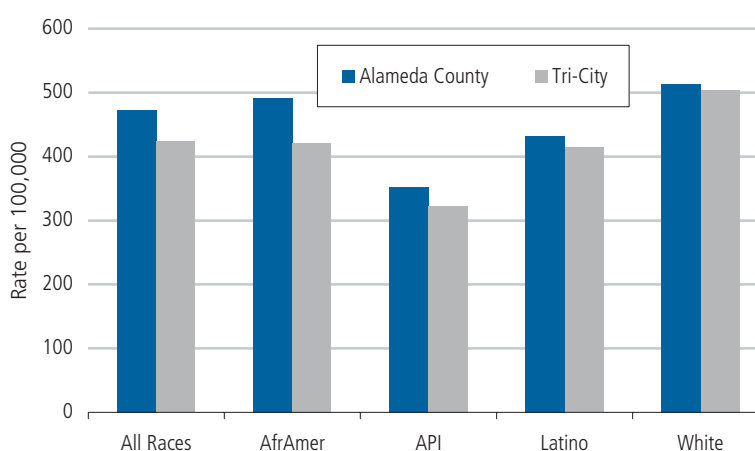
Source: CAPE; NCCC files 2000-2002, CA DOF, Census 2000.

Figure 56: All Cancer Incidence by Age and Sex, Tri-City



Source: CAPE; NCCC files 2000-2002, CA DOF, Census 2000.

Figure 57: All Cancer Incidence by Race/Ethnicity



Source: CAPE; NCCC files 2000-2002, CA DOF, Census 2000.

## ■ Lung Cancer

Lung cancer is caused by an uncontrolled growth of abnormal cells in lung tissue. Primary lung cancer originates in the lungs, while metastatic lung cancer spreads to the lungs from another organ. Classification is based on the type of cell the cancer originates from and is broken down into two groups: small cell lung cancer and non-small cell lung cancer. The majority of lung cancer patients are non-small cell lung cancers. The most common form of lung cancer, squamous cell carcinoma, originates in the bronchi and is slow to spread to other parts of the body. About 20% to 25% of lung cancer cases are caused by small cell carcinomas. Small cell lung cancer is more likely to spread to other parts of the body than non-small cell lung cancer.<sup>1,2</sup>

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 158,000 people in the United States died of lung cancer in 2003.<sup>3</sup> The American Cancer Society estimates that more than 174,400 new cases of lung cancer will be diagnosed in the United States in 2006.<sup>6</sup> Although there has been some progress in treatment of lung cancer, the chances of full recovery are very low because a large proportion of cases are diagnosed at an advanced stage. Only about 15% of those treated for lung cancer survive five or more years.<sup>6</sup>

Nationally, the age-adjusted lung cancer death rate in 2003 was 54.1 deaths per 100,000 population.<sup>3</sup> In California, it was 41.8 for the period 2002-2004.<sup>4</sup> The national rate exceeds the Healthy People 2010 objective of 44.9 or fewer lung cancer deaths per 100,000 while the state rate meets the objective.<sup>5</sup>

While the lung cancer death rate has declined since 1990 among males, it has continued to increase among females. Since 1987, more females have died from lung cancer than from breast cancer.<sup>5</sup> Age-adjusted lung cancer death rates are more than 30 percent higher among African American males than White males.<sup>3,7,10</sup> Part of this racial difference is attributed to factors associated with poverty.<sup>14</sup>

During the last 50 years patterns of lung cancer mortality among males changed dramatically. Early on, lung cancer mortality was higher among men in wealthier areas. However, by the early 1970s, the pattern reversed and men from poor areas had the higher rates.<sup>15</sup>

These racial and socioeconomic inequities will likely widen in the future if current racial and socioeconomic differences in smoking, dietary patterns, cancer screening, and cancer survival persist or increase.<sup>15, 16</sup>

According to the American Cancer Society, a single behavior—cigarette smoking—is thought to be responsible for eight out of ten cases of lung cancer. In addition, non-smokers who breathe the smoke of others also have an increased risk of developing lung cancer.<sup>17, 18</sup> Although per-capita cigarette consumption is currently lower than at any point since World War II, an estimated 25% of men and 20% of women still smoke cigarettes, and approximately 82% of these people are still smoking daily.<sup>19</sup> Thus, preventing and reducing cigarette smoking is key to reducing illness and death from lung cancer.

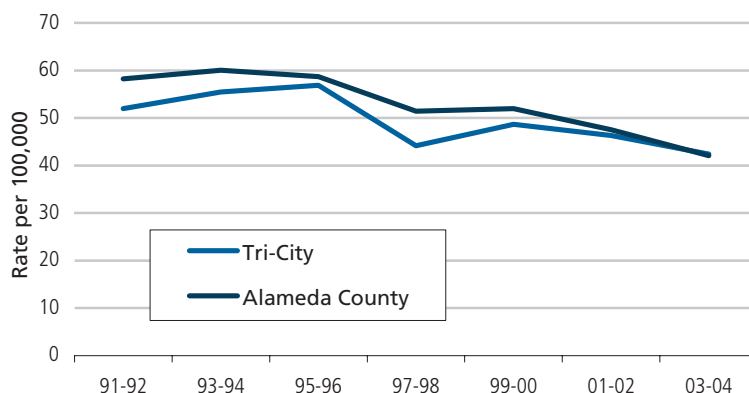
## Lung Cancer Mortality

The mortality rate from lung cancer in both Tri-City and Alameda County has declined significantly during the last decade. In Tri-City, the mortality trend from lung cancer declined about 2.2% per year during the period of 1991-2004, while the countywide rate declined about 2.5% per year. For the last decade, the rates in Tri-City were slightly lower than the county rates. However, recent data showed the rates in both areas were essentially the same.

Overall lung cancer death rates did not vary substantially across areas except Newark. The mortality rate in Newark was much higher than the Alameda County rate and this difference was significant. Males had 50% to 60% higher rates than females except in Union City. Fremont and Union City and Alameda County have met the HP2010 objective of no more than 44.9 deaths per 100,000. Among males, Union City was the only area to have met the HP2010 objective. Among females, Newark was the only area that has not met the HP2010 objective.

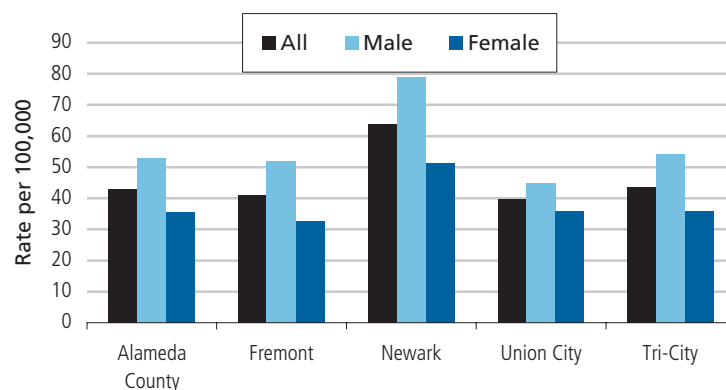
There were very few lung cancer deaths prior to the age of 45 in Tri-City from 2002 to 2004. For the 75-84 age group, male and female rates were similar. For all other age groups, lung cancer mortality was 60% to 100% higher among males than females. Males over 85 years had the highest rate.

Figure 58: Historical Lung Cancer Mortality



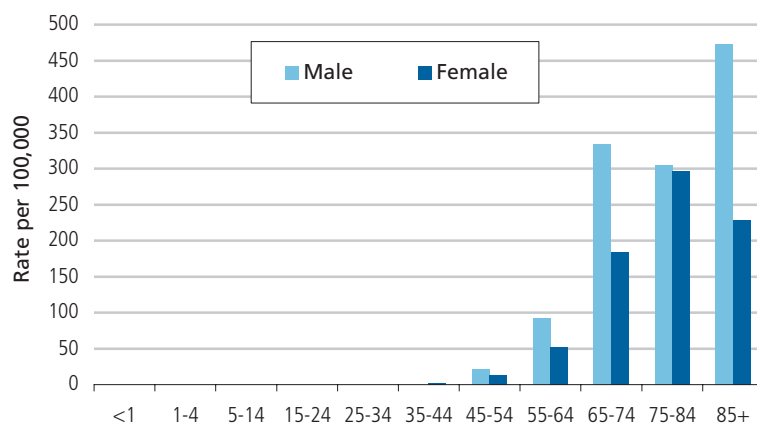
Source: CAPE; Alameda County vital statistics files, CA DOH, Census 1990 and 2000.

Figure 59: Lung Cancer Mortality by Area and Sex



Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOH, Census 2000.

Figure 60: Lung Cancer Mortality by Age and Sex, Tri-City



Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOH, Census 2000.

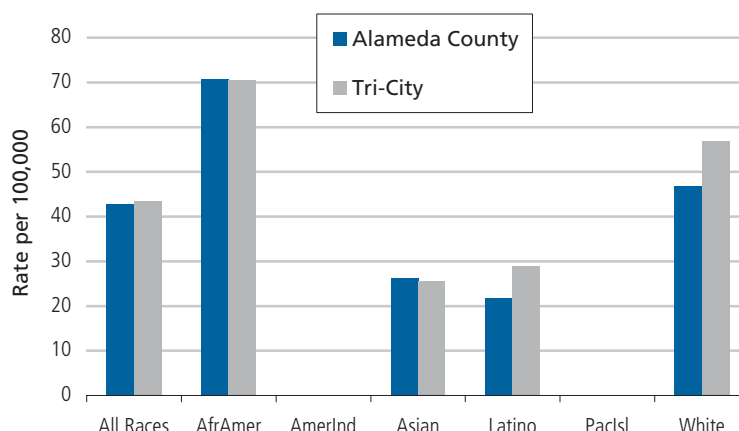
Lung cancer death rates by race/ethnicity in Tri-City and Alameda County showed similar patterns: the highest rate among African Americans, and the lowest rates among Asians and Latinos. The rate for African Americans was more than twice the rates for Asians and Latinos. In Alameda County, African Americans had a significantly higher lung cancer death rate than any other racial/ethnic group. However, this statistical significance was not observed in Tri-City due to the small number of African American lung cancer deaths in the area.

## Lung Cancer Incidence

The incidence of lung cancer was consistently lower in Tri-City compared to the county between 1991 and 2002, however most differences were not statistically significant. The incidence trend declined significantly in both Tri-City and the county by 2.1% and 2.5% per year respectively.

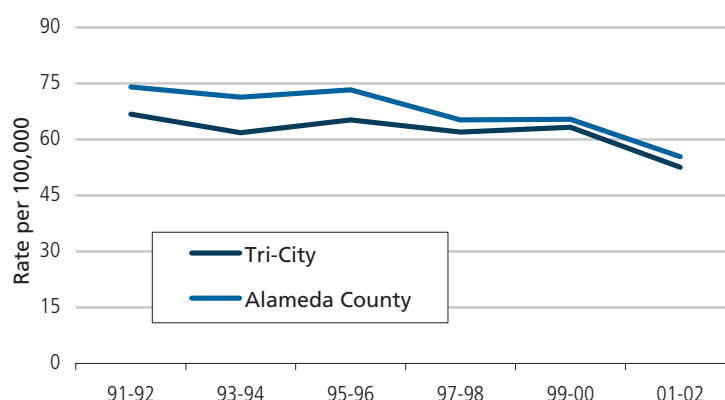
Newark had significantly higher lung cancer incidence than the county. Lung cancer incidence in Fremont, Union City, and Tri-City was lower than the county, however, only Fremont's incidence rate was significantly lower than the county rate. In Tri-City, males had a 75% higher incidence of lung cancer than females; gender differences were significant in all locales except Union City.

Figure 61: Lung Cancer Mortality by Race/Ethnicity



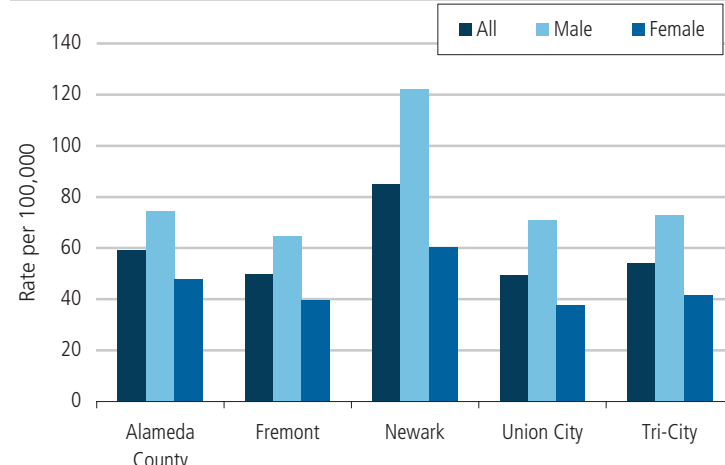
Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

Figure 62: Historical Lung Cancer Incidence



Source: CAPE; NCCC files, CA DOF, Census 1990 and 2000.

Figure 63: Lung Cancer Incidence by Area and Sex

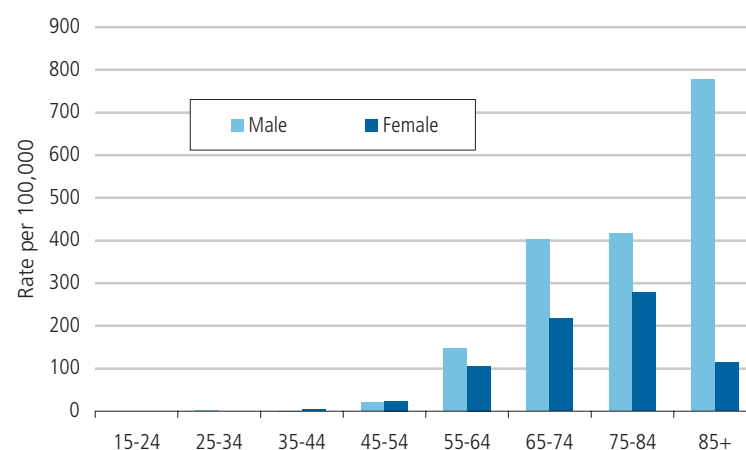


Source: CAPE; NCCC files 2000-2002, CA DOF, Census 2000.



Lung cancer was very uncommon before age 45 in Tri-City. Males had substantially higher lung cancer incidence rate than females in age groups 55 years and over. Gender differences were most pronounced among the elderly age 85 years and over.

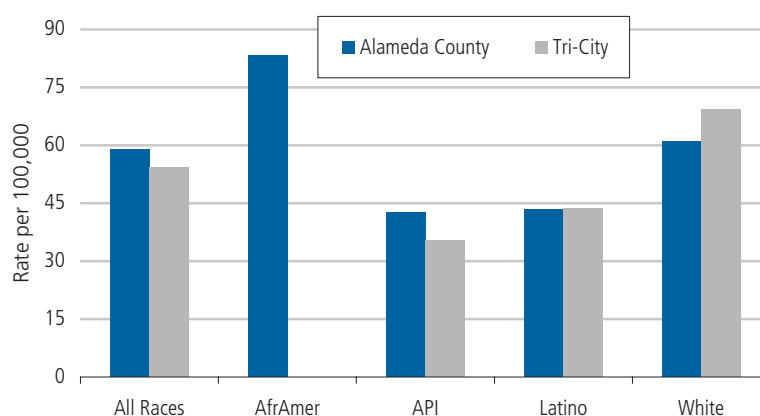
Figure 64: Lung Cancer Incidence by Age and Sex, Tri-City



Source: CAPE; NCCC files 2000-2002, CA DOF, Census 2000.

In Tri-City, Whites had a lung cancer incidence rate almost twice that for Asian/Pacific Islanders. There were too few cases among African Americans in Tri-City to calculate the rate for comparison. In the county, African Americans had the highest and APIs had the lowest lung cancer incidence rates.

Figure 65: Lung Cancer Incidence by Race/Ethnicity



Source: CAPE; NCCC files 2000-2002, CA DOF, Census 2000.

## Colorectal Cancer

Colorectal cancer is caused by abnormal tissue growth in the colon or rectum that is malignant. Symptoms for colorectal cancer may include rectal bleeding, abdominal discomfort, pain, bloating, a change in bowel habits, iron deficiency anemia, and unexplained weight loss.<sup>1,2</sup> Most colorectal cancers develop over many years from benign polyps. Precancerous polyps can be detected and removed during certain screening procedures, thereby preventing colorectal cancer. If colorectal cancer is found early and treated appropriately, the chance of survival is greatly enhanced.<sup>18, 20-23</sup> However, only 39% of cases are diagnosed at this early stage.<sup>6</sup>

Colorectal cancer is the second leading cause of cancer-related death in the United States and it is the third most common cancer in men and women.<sup>18, 20, 21</sup> It is estimated that approximately 148,610 new colorectal cancer cases will be diagnosed in 2006 and that 55,170 Americans will die of colorectal cancer in 2006.<sup>6</sup>

Nationally, there were 55,958 deaths from colorectal cancer in 2003 and the age-adjusted death rate was 19.1 deaths per 100,000.<sup>3</sup> In California, the rate was 18.1 per 100,000 during the period 1997-2001.<sup>24</sup> Both the national and state rates exceed the HP2010 objective of 13.9 or fewer deaths per 100,000.<sup>5</sup>

For males, incidence rates of colorectal cancer have declined over the past ten years for every racial/ethnic group except Latinos. For females, incidence rates have stabilized in every racial/ethnic group. Mortality rates have steadily declined for both males and females.<sup>21</sup>

The risk of developing colorectal cancer increases with age. Most cases are diagnosed in those 50 years and older. The risk is also higher among people with inflammatory bowel disease (ulcerative colitis or Crohn's disease), a family history of colorectal cancer or colorectal polyps, and certain hereditary syndromes. Lack of regular physical activity, low fruit and vegetable intake, a low-fiber and high-fat diet, obesity, alcohol consumption, and tobacco use are associated with colon cancer.<sup>1, 6, 20, 21</sup>

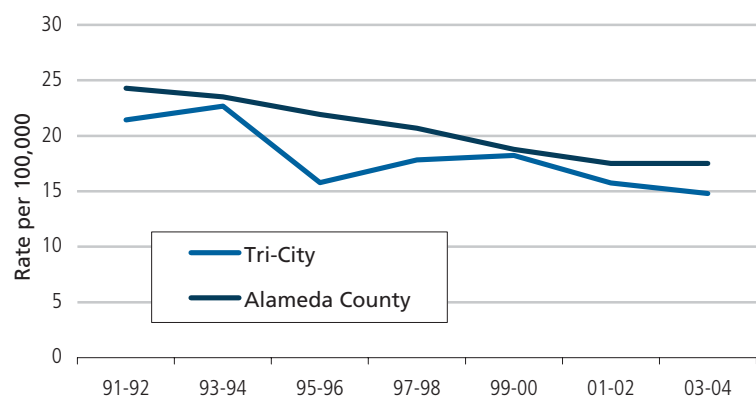
All adults 50 years and older should be screened routinely for colorectal cancer. Studies have found that at least 75% of colorectal cancers occur among people with no family or personal history of colorectal cancer and no risk factors that would place them at high risk for developing colorectal cancer.<sup>20-23</sup> Despite the proven effectiveness and availability of various screening tests, colorectal cancer screening is not widely used.<sup>21, 22, 25</sup>

Both incidence and mortality rates of colorectal cancer are highest among African American males and females.<sup>7</sup> Studies show that African Americans were more likely to be diagnosed after the disease had spread beyond the colon and were less likely to receive recommended treatment and therapy.<sup>21, 26, 27</sup>

## Colorectal Cancer Mortality

The mortality rate from colorectal cancer for both Tri-City and Alameda County has declined significantly over the last decade. In Tri-City, the mortality trend from colorectal cancer declined about 2.9% per year during the period of 1991-2004. The countywide rates have also declined about 2.8% per year during the same time period. Throughout the last decade, the rates in Tri-City were slightly lower than the county rates. During the period 2003-2004, the colorectal cancer mortality rate in Tri-City was 14.8 per 100,000 compared to 17.5 in Alameda County.

Figure 66: Historical Colorectal Cancer Mortality



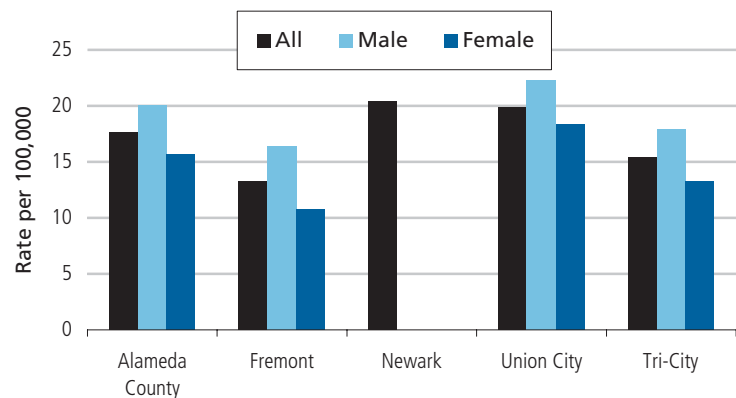
Source: CAPE; Alameda County vital statistics files, CA DOF, Census 1990 and 2000.

The colorectal cancer death rate in Fremont was the lowest and it was significantly different from the county rate. In general, males had 20% to 50% higher rates than females. In Fremont, both male and female rates were lower than their corresponding rates in Union City, Tri-City, or Alameda County as a whole. Fremont was the only city that has met the HP2010 objective of no more than 13.9 deaths per 100,000. Males in all areas, including Fremont, have not met the HP2010 objective, while females in Fremont and Tri-City have.

There were no colorectal cancer deaths below the age of 25 in Tri-City from 2002 to 2004. Colorectal cancer mortality increased dramatically after age 55 and was higher among males than females in every age group except 85 years and older. Among males, 75-84 age group had the highest colorectal cancer death rate.

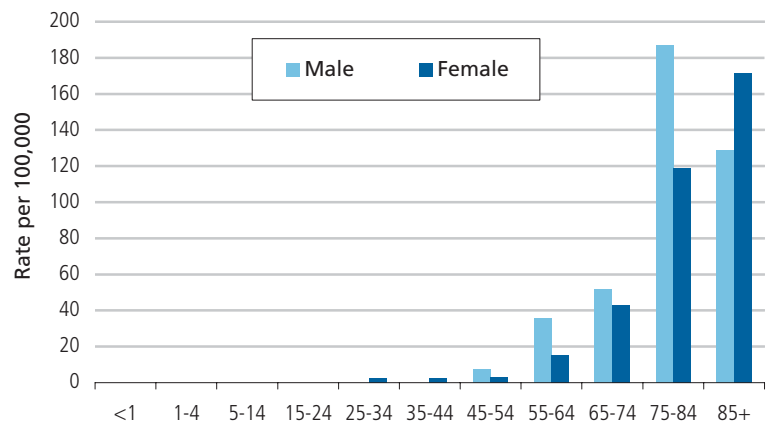
For those rates which were available, colorectal cancer mortality rates by race/ethnicity in Tri-City and Alameda County showed a similar pattern. The African American rate in Tri-City was not shown due to the small number of deaths. Latinos in both Tri-City and Alameda County experienced the lowest rate. In Alameda County, the rate for African Americans was twice the rates for Asians and Latinos.

Figure 67: Colorectal Cancer Mortality by Area and Sex



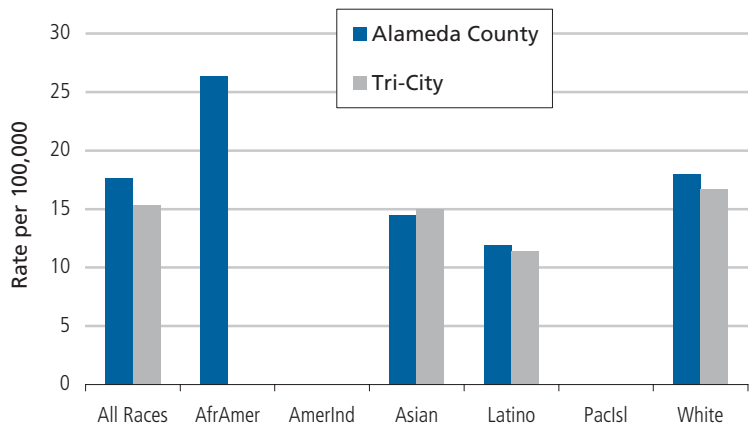
Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

Figure 68: Colorectal Cancer Mortality by Age and Sex, Tri-City



Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

Figure 69: Colorectal Cancer Mortality by Race/Ethnicity



Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

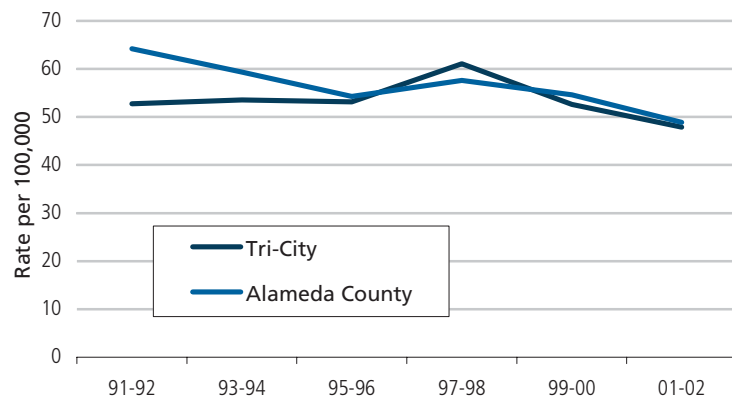
## Colorectal Cancer Incidence

The incidence rates of colorectal cancer in Tri-City were variable and did not change substantially over the last decade. In Alameda County, the incidence rates declined significantly by 2.2% per year during the same time period.

Incidence rates of colorectal cancer did not vary substantially across locales during the time period 2000-2002. In Tri-City males had 45% higher colorectal cancer incidence than females. Gender differences were significant in all locales except Union City.

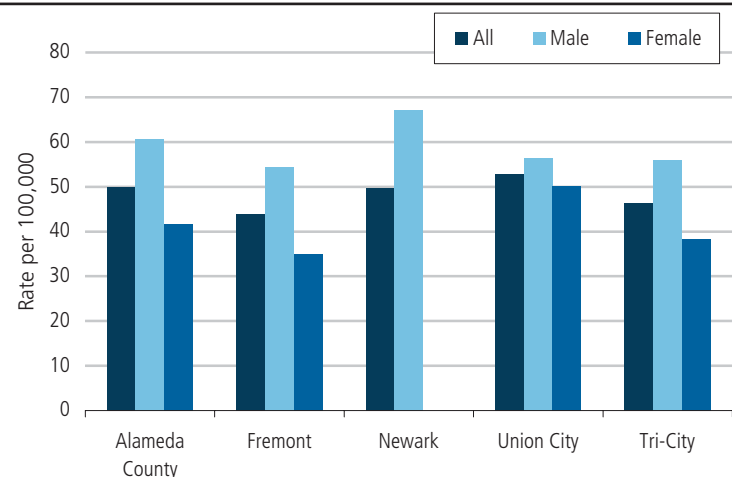
Colorectal cancer was very uncommon before age 45; incidence increased substantially with age, especially after age 55. In Tri-City, males were more likely than females to have colorectal cancer in age groups 45 years and over.

Figure 70: Historical Colorectal Cancer Incidence



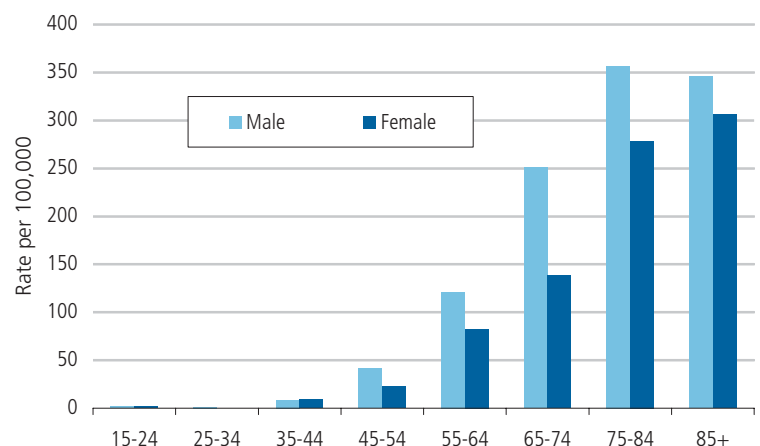
Source: CAPE; NCCC files, CA DOF, Census 1990 and 2000.

Figure 71: Colorectal Cancer Incidence by Area and Sex



Source: CAPE; NCCC files 2000-2002, CA DOF, Census 2000.

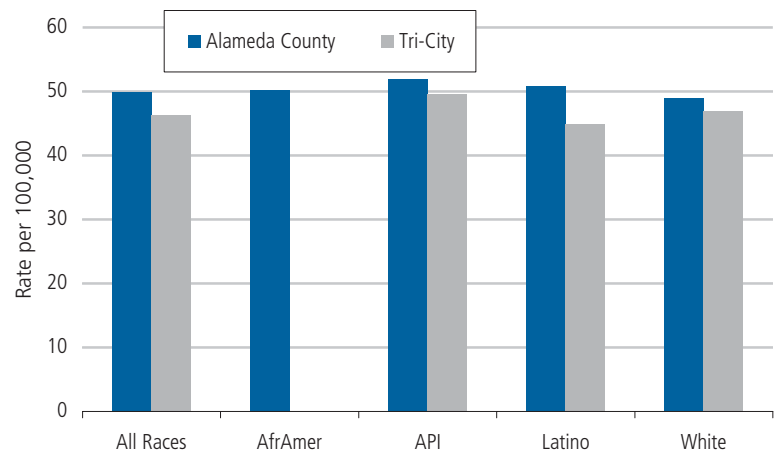
Figure 72: Colorectal Cancer Incidence by Age and Sex, Tri-City



Source: CAPE; NCCC files 2000-2002, CA DOF, Census 2000.

Colorectal cancer incidence rates by race/ethnicity showed a similar pattern in both Tri-City and the county. There were too few cases among African Americans in Tri-City to calculate the rate for comparison.

Figure 73: Colorectal Cancer Incidence by Race/Ethnicity



Source: CAPE; NCCC files 2000-2002, CA DOF, Census 2000.

## Female Breast Cancer

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

Breast cancer is the second leading cause of cancer death among women and the most commonly diagnosed cancer among women in the United States.<sup>6</sup> Women at high risk of developing breast cancer include those who: have a family history of breast cancer, have never been pregnant, were first pregnant after age 31, have had endometrial, ovarian, or unilateral breast cancer, or were exposed to low level ionizing radiation. Estrogen therapy and diet are also associated with breast cancer.<sup>1, 2, 12</sup>

Seventy percent of all diagnosed cases of breast cancer are among women 50 years or older. The American Cancer Society estimates that more than 212,900 American women will be diagnosed with breast cancer in 2006 and over 40,900 women will die from the disease.<sup>6</sup>

In 2003, breast cancer killed 41,620 women in the United States.<sup>3</sup> 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 more than 30% higher among African American women than among White women.<sup>3,7,10</sup> In California, the breast cancer death rate is 22.8 per 100,000 women for the period 2002-2004.<sup>4</sup> Both the national and state rates exceed the HP2010 objective of no more than 22.3 per 100,000 women.<sup>5</sup>

Breast cancer can be detected early through a combination of regular self-breast examination, clinical breast examination, and mammography. It is estimated that timely mammography screening among women older than age 40 could prevent 15% to 30% of all deaths from breast cancer.<sup>12</sup>

According to the National Health Interview Survey, there was a significant increase in the percentage of women aged 40 and older who reported having had a mammogram within the past two years during the last decade.<sup>28</sup>

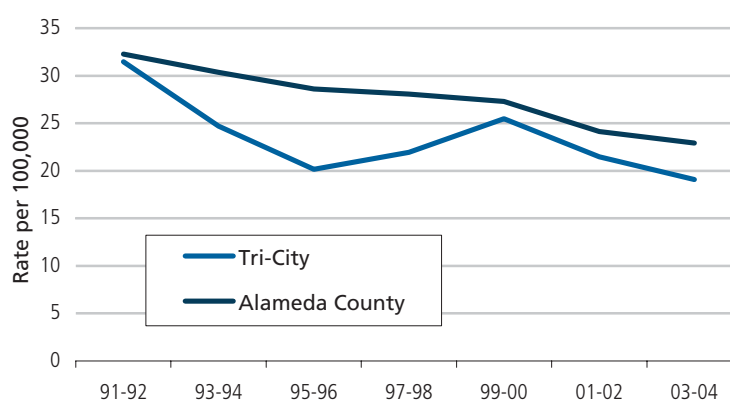
Since 1990, the breast cancer death rate has decreased for White females. There are no clear trends for other racial/ethnic groups. Deaths due to breast cancer for African Americans continued to increase until 1995 and then showed a gradually decreasing trend. However, for other race/ethnic groups the death rates leveled off since the mid-1990s.<sup>8,9</sup> This difference may be due to the fact that breast cancer tends to be diagnosed at later stages in African Americans and Hispanics compared to non-Hispanic White females.<sup>5,14,29</sup> Also, African American and Hispanic women may be less likely to be screened for breast cancer, and they may be more likely to delay seeking treatment once symptoms are present.<sup>14,30</sup> Other studies also suggest that the racial differences in breast cancer survival decrease when socioeconomic factors are taken into account.<sup>31,32</sup>

## Female Breast Cancer Mortality

Mortality from breast cancer for both Tri-City and Alameda County has declined significantly during the last decade. In Tri-City, mortality from breast cancer declined about 2.7% per year during the period of 1991-2004. The countywide rates have also declined about 2.8% per year during the same time period. Throughout the last decade, the rates in Tri-City were slightly lower than the county rates. During the period 2003-2004, the breast cancer mortality rate in Tri-City was 19.1 per 100,000 compared to 22.9 in Alameda County.

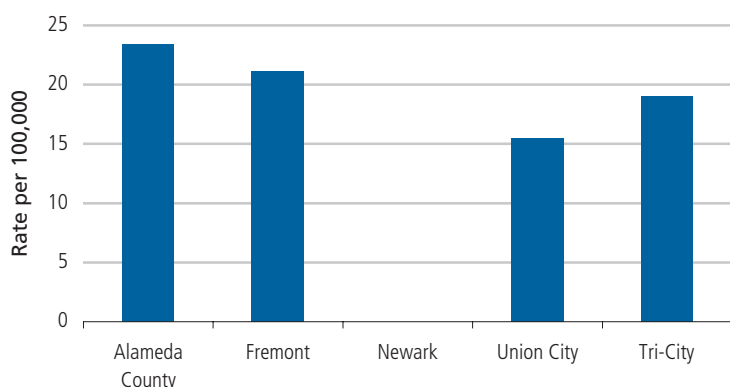
The breast cancer death rates in all Tri-City areas were lower than Alameda County rate. The rate in Union City was the lowest, but it was not significantly different from the county rate. All rates in Tri-City areas have met the HP2010 objective of no more than 22.3 deaths per 100,000. But Alameda County, with a rate of 23.4, has not yet met the objective.

Figure 74: Historical Female Breast Cancer Mortality



Source: CAPE; Alameda County vital statistics files, CA DOF, Census 1990 and 2000.

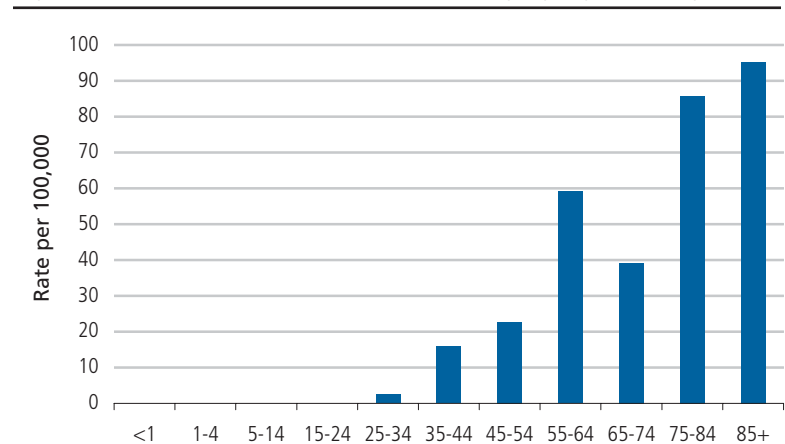
Figure 75: Female Breast Cancer Mortality by Area



Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

There were no breast cancer deaths below the age of 25 years in Tri-City from 2002 to 2004. In general, breast cancer mortality increased steadily with age, with the surge of deaths in the age group 55-64. Almost 30% of all Tri-City breast cancer deaths were in this age group, compared to 23% countywide.

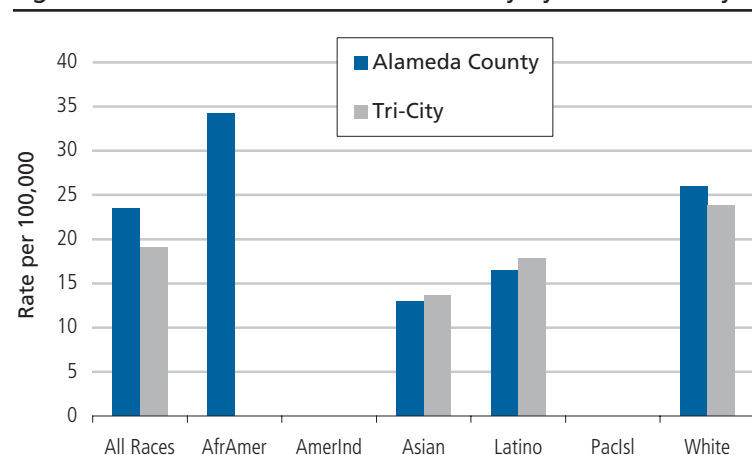
Figure 76: Female Breast Cancer Mortality by Age, Tri-City



Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

For those rates which were available, breast cancer mortality rates by race/ethnicity in Tri-City and Alameda County showed a similar pattern. In Alameda County, African Americans had the highest breast cancer death rate, followed by Whites. Asians experienced the lowest rate. The rate for African Americans was more than two times the rates of Asians and Latinas, and this was a significant difference.

Figure 77: Female Breast Cancer Mortality by Race/Ethnicity

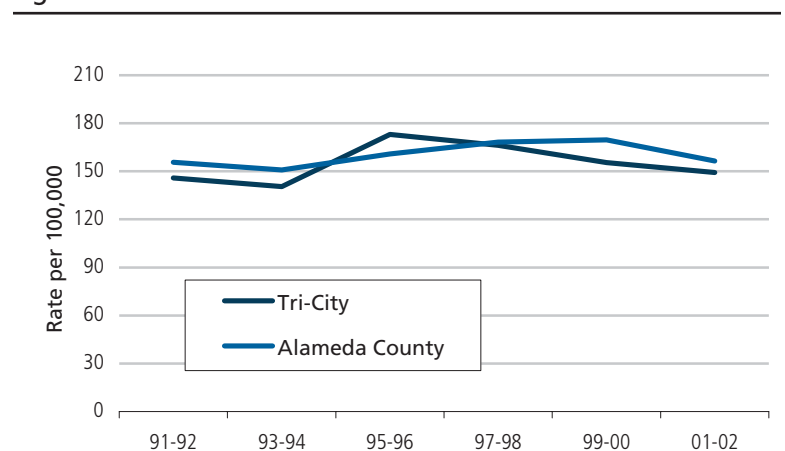


Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

## Female Breast Cancer Incidence

Incidence rates of breast cancer in Tri-City and the county showed a similar trend over the last decade. Breast cancer incidence did not change significantly in Tri-City or the county during this period.

Figure 78: Historical Female Breast Cancer Incidence

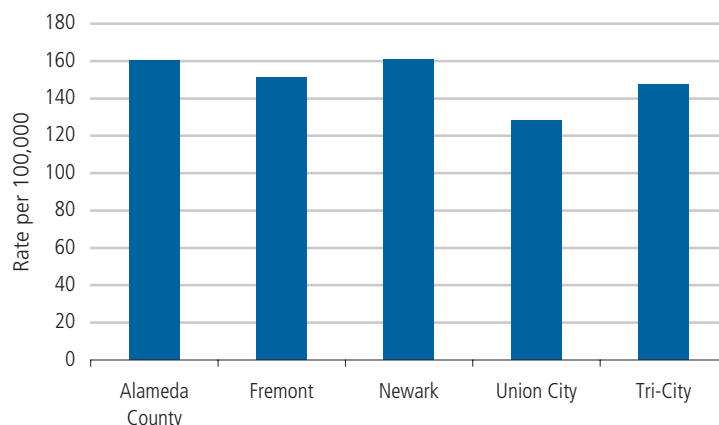


Source: CAPE; NCCC files, CA DOF, Census 1990 and 2000.



The incidence rate of breast cancer was significantly lower in Union City and Tri-City compared to the county.

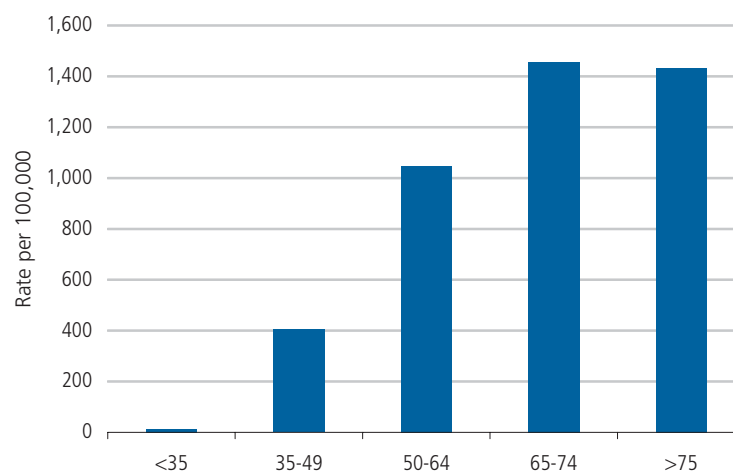
Figure 79: Female Breast Cancer Incidence by Area



Source: CAPE; NCCC files 2000-2002, CA DOF, Census 2000.

Breast cancer was uncommon before age 35; incidence increased substantially with age. Post-menopausal women age 50 and over in Tri-City were over twice as likely as women age 35-49 to be diagnosed with breast cancer.

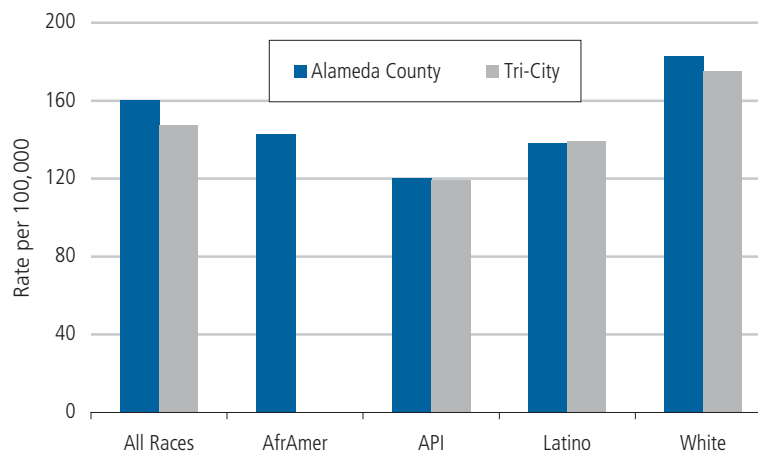
Figure 80: Female Breast Cancer Incidence by Age, Tri-City



Source: CAPE; NCCC files 2000-2002, CA DOF, Census 2000.

White women had the highest, and Asian/Pacific Islanders the lowest breast cancer incidence rates in Tri-City and in the county. These racial differences were statistically significant. Whites in Tri-City had breast cancer rates 1.5 times that for Asian/Pacific Islanders. There were too few cases among African American women in Tri-City to calculate rates for comparison.

Figure 81: Female Breast Cancer Incidence by Race/Ethnicity



Source: CAPE; NCCC files 2000-2002, CA DOF, Census 2000.

## Prostate Cancer

Prostate cancer is caused by malignant, abnormal tissue growth in the prostate gland, the walnut-sized gland deep in the pelvis, between the bladder and the penis. The prostate, which wraps around the urethra, produces the fluid part of semen, which carries sperm. Most prostate cancer develops in the posterior part of the prostate gland, and the rest near the urethra. Prostate cancer is a slow-growing cancer that rarely produces symptoms until it is well advanced.<sup>1,2</sup>

Prostate cancer is the second leading cause of cancer-related death among men in the United States, as well as the most commonly diagnosed cancer among men. The American Cancer Society estimates that in 2006, there were 234,460 new cases of prostate cancer and approximately 27,350 deaths from the disease.<sup>6</sup>

Nationally, the age-adjusted prostate cancer death rate in 2003 was 26.5 deaths per 100,000 males; 29,554 men died from the disease.<sup>3</sup> About 70% of prostate cancer cases are diagnosed among men who are 65 years or more.<sup>33</sup> In California, the age-adjusted prostate cancer death rate was 28.0 per 100,000 during the period 1997-2001.<sup>24</sup> Both national and state rates are slightly lower than the Healthy People 2010 objective of no more than 28.8 per 100,000 men.<sup>5</sup>

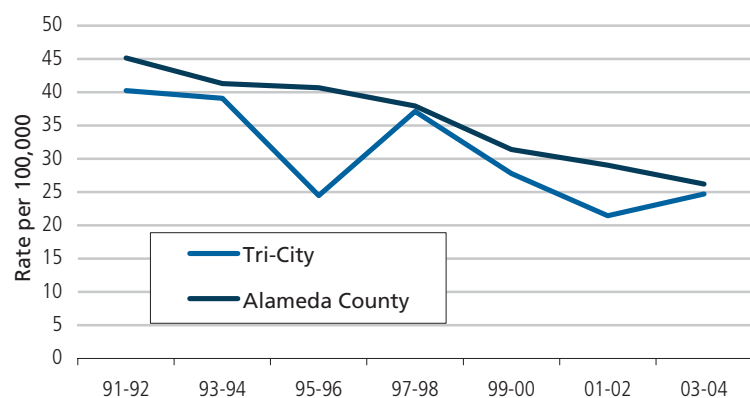
Since 1990 there has been a gradual decline in the prostate cancer death rate among all racial/ethnic groups monitored. This trend is more notable among Whites than among African Americans.<sup>8,29,33</sup> The death rate for African American men continues to be two times higher than that for White men.<sup>3,7,10</sup>

The declining trend might be attributed to technological advances in medicine and early screening for prostate cancer, known as prostate-specific antigen (PSA) testing.<sup>29,33</sup> From a public health perspective, the effectiveness of PSA screening in reducing mortality has not yet been clearly demonstrated because the test produces a large number of false positives.<sup>33</sup>

### Prostate Cancer Mortality

The mortality rate from prostate cancer for both Tri-City and Alameda County has declined significantly over the last decade. In Tri-City, mortality from prostate cancer declined about 4.4% per year during the period 1991-2004. The countywide rates also declined about 4.0% per year during the same period. Throughout the last decade, the rates in Tri-City were slightly lower than the county rates. During the period 2003-2004, the prostate cancer mortality rate in Tri-City was 24.7 per 100,000 compared to 26.2 in Alameda County.

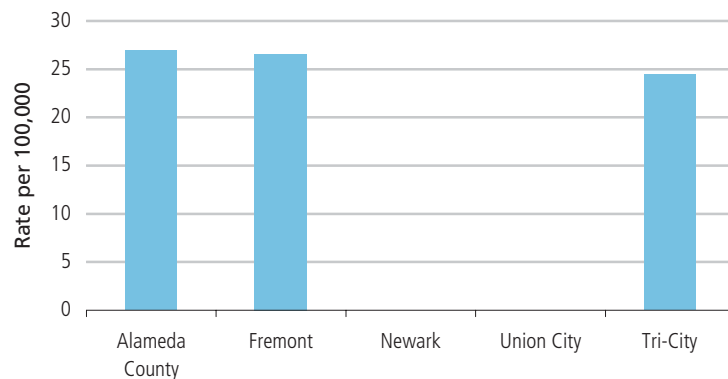
Figure 82: Historical Prostate Cancer Mortality



Source: CAPE; Alameda County vital statistics files, CA DOF, Census 1990 and 2000.

Prostate cancer death rates in Fremont and Tri-City were similar to that of Alameda County. The rates in Newark and Union City were not calculated due to small numbers. The rates in Fremont, Tri-City, and Alameda County have met the HP2010 objective of no more than 28.8 deaths per 100,000.

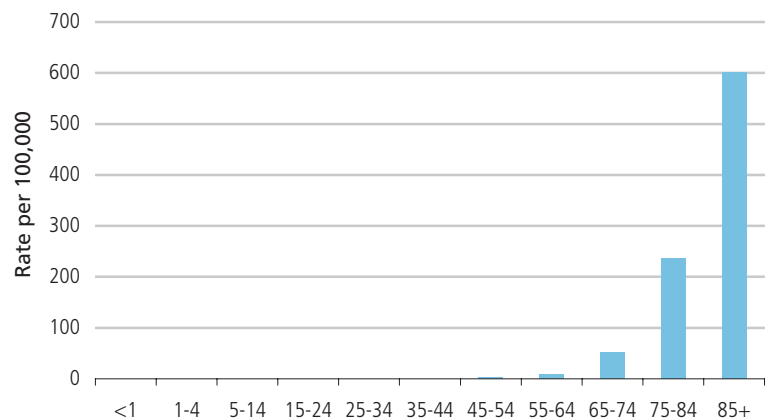
Figure 83: Prostate Cancer Mortality by Area



Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

There were no prostate cancer deaths below the age of 45 years in Tri-City from 2002 to 2004. Prostate cancer mortality increased steeply with age.

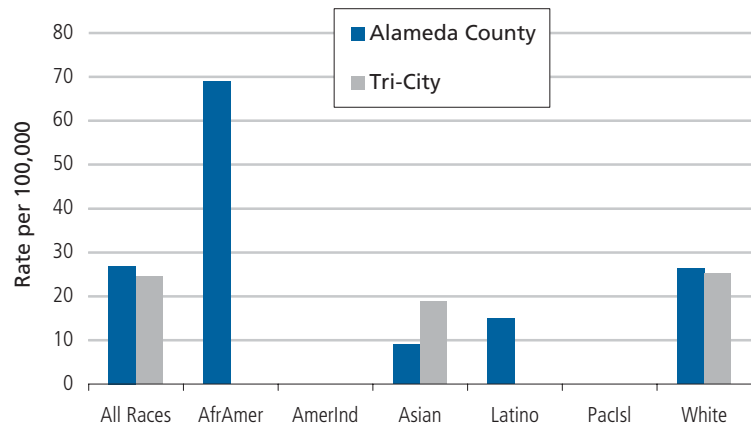
Figure 84: Prostate Cancer Mortality by Age, Tri-City



Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

In Tri-City, while the prostate cancer death rate among Whites was similar to the countywide rate, the rate among Asians was twice the rate of the county. For African Americans, the countywide rate was significantly higher than any other racial/ethnic group. In Alameda County, the rate for African Americans was 7.6 times the rate of Asians, 4.6 times that of Latinos, and 2.6 times that of Whites.

Figure 85: Prostate Cancer Mortality by Race/Ethnicity

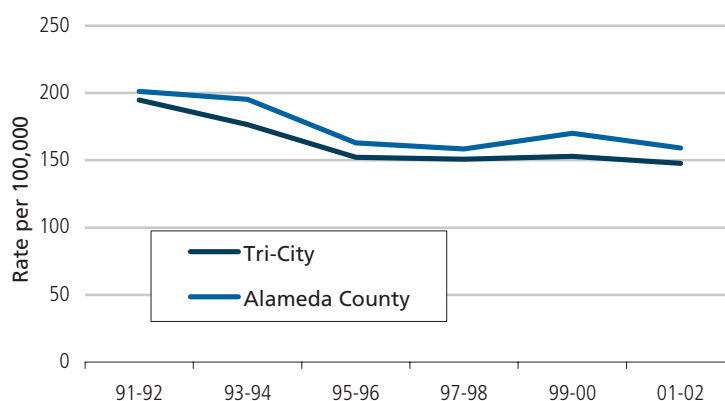


Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

## Prostate Cancer Incidence

Incidence of prostate cancer in Tri-City and the county showed a similar pattern between 1991 and 2002. Prostate cancer incidence rates have leveled off in both Tri-City and the county since the mid 1990s.

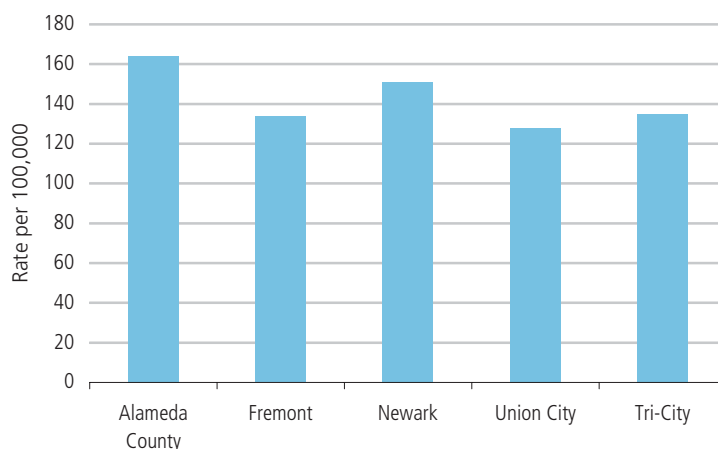
Figure 86: Historical Prostate Cancer Incidence



Source: CAPE; NCCC files, CA DOF, Census 1990 and 2000.

Incidence rates of prostate cancer were lower in all Tri-City areas compared to the county. However, only Fremont and Tri-City had significantly lower rates than the county.

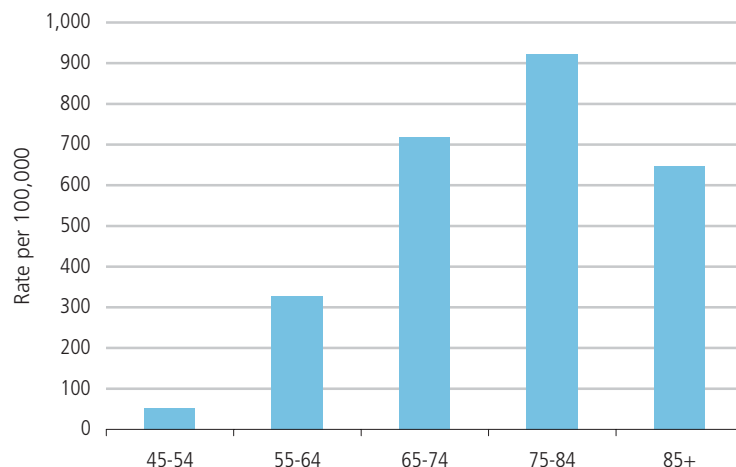
Figure 87: Prostate Cancer Incidence by Area



Source: CAPE; NCCC files 2000-2002, CA DOF, Census 2000.

Prostate cancer incidence in Tri-City was highest among men 75 to 84 years. The most notable increase in incidence from one age group to the next was among men in their 50s and 60s.

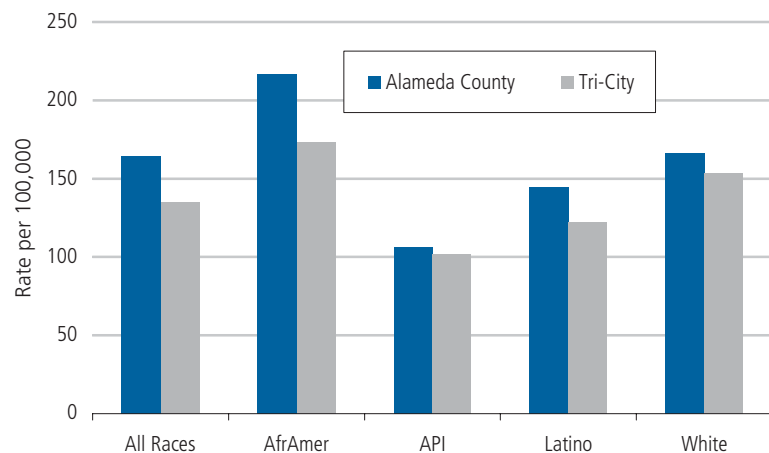
Figure 88: Prostate Cancer Incidence by Age, Tri-City



Source: CAPE; NCCC files 2000-2002, CA DOF, Census 2000.

In Tri-City, African Americans had a prostate cancer incidence rate 70% higher than Asian/Pacific Islanders, however, the difference in incidence between these groups was not significant. In the county, the incidence rate among African Americans was the highest of all race/ethnic groups, and 120% higher than that for APIs. The difference in incidence rates between these groups was statistically significant.

Figure 89: Prostate Cancer Incidence by Race/Ethnicity



Source: CAPE; NCCC files 2000-2002, CA DOF, Census 2000.

## Asthma

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

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

There are roughly 5,000 deaths nationally per year from asthma. The death rate for African Americans is 2.5 times that for Whites, and about 1.5 times higher among females than males. Asthma death rates increase with age.<sup>2</sup>

The prevalence of asthma has been increasing nationally since 1980.<sup>2</sup> The CDC estimates that over 19 million people in the United States have asthma and that 11 million have had an asthma attack in the past year.<sup>3</sup> In general, asthma rates are higher among females and children five to 14 years. They are also higher among African Americans and low-income residents of inner cities.<sup>2</sup>

Data from the Behavioral Risk Factor Surveillance System show that 7.5% of U.S. adults and 6.4% of California adults currently have asthma.<sup>4</sup> Estimates from the California Health Interview Survey are higher: about 10% to 11% of children and adults in Alameda County have had asthma symptoms in the last year.<sup>5</sup>

Chronic conditions such as asthma can affect the physical, cognitive, social, and emotional de-

velopment of young children. According to *The Health of Young Children in California*, asthma is the most common health condition among young children.<sup>6</sup> Approximately 10.5% of California children ages one to five years have been diagnosed with asthma. The highest rates are for African American children. Many children diagnosed with asthma do not get the medication they need to control it, leaving them to suffer symptoms and physical limitations that could be controlled. In addition, about 22% of children diagnosed with asthma have an asthma-related ER visit each year. Asthma is the single largest contributor to preventable hospital admissions among children.<sup>6</sup>

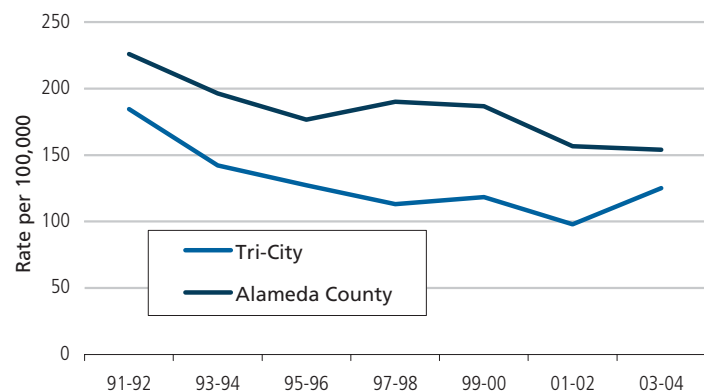
Nationally, there are approximately 484,000 asthma hospitalizations per year.<sup>3</sup> Rates of asthma hospitalization are highest among children under five years, followed by children five to 14 years and adults 65 years and older. In California, asthma hospitalization rates are highest among African Americans even when income is taken into account. Statewide and nationally, rates among African Americans are at least three times those for Whites.<sup>7</sup> Asthma hospitalization rates in Alameda County exceed California rates in every demographic group studied. Alameda County rates are the second highest among the state's 58 counties.<sup>8</sup>

## Asthma Hospitalization

The asthma hospitalization rate declined significantly between 1991 and 2004 in both Tri-City and Alameda County. In Tri-City, the rate dropped an average of 3.8% per year and in Alameda County it dropped 2.8% per year.

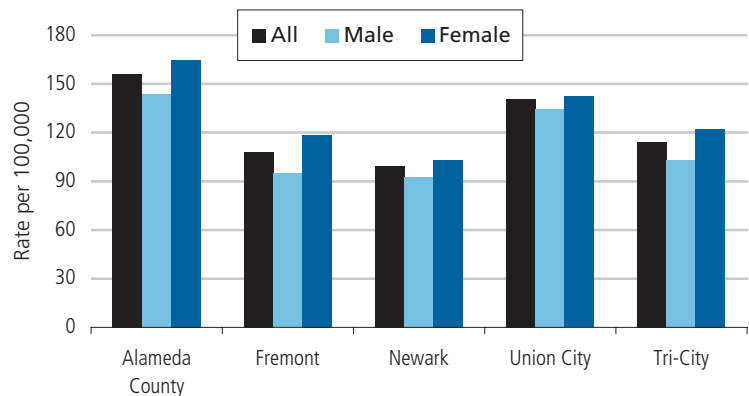
Asthma hospitalization rates for both males and females (all ages) were higher in Union City than in Fremont and Newark. Rates in Tri-City were lower than those at the county level.

Figure 90: Historical Asthma Hospitalization



Source: CAPE; OSHPD hospitalization files, CA DOF, Census 1990 and 2000.

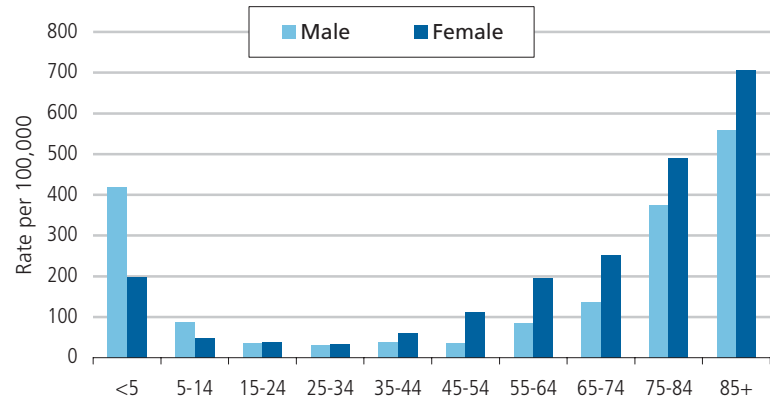
Figure 91: Asthma Hospitalization by Area and Sex



Source: CAPE; OSHPD hospitalization files 2002-2004, CA DOF, Census 2000.

Boys under age 15 in Tri-City were hospitalized for asthma at higher rates than girls. However, the pattern shifted during adolescence and young adulthood, when females were hospitalized for asthma at higher rates than males. These age-specific data showed that children under five years and seniors were particularly vulnerable to asthma attacks serious enough to require hospitalization.

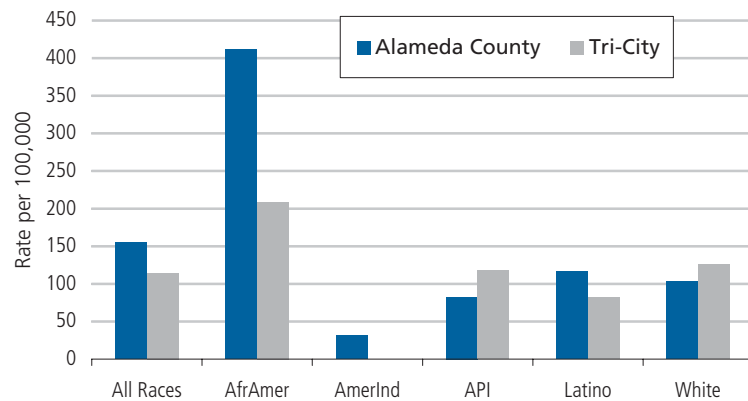
Figure 92: Asthma Hospitalization by Age and Sex, Tri-City



Source: CAPE; OSHPD hospitalization files 2002-2004, CA DOF, Census 2000.

Overall, the asthma hospitalization rate in Tri-City was lower than that of the county. African Americans had the highest rates of asthma hospitalization in both areas; however, the Tri-City African American rate was half of the county rate. White and API rates in Tri-City were higher than those at the county level. The Latino rate was significantly lower than those of African Americans, APIs, or Whites in Tri-City.

Figure 93: Asthma Hospitalization by Race/Ethnicity

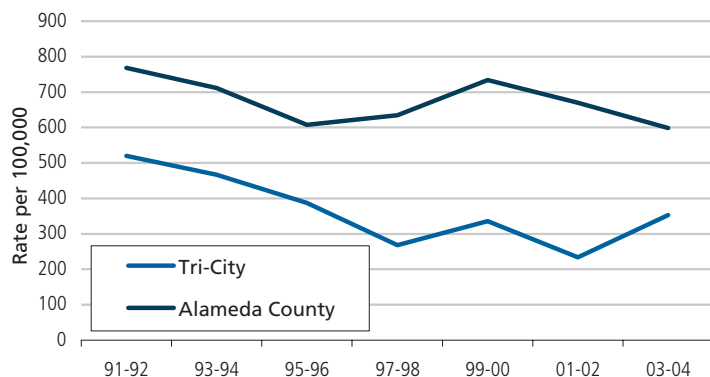


Source: CAPE; OSHPD hospitalization files 2002-2004, CA DOF, Census 2000.

## Childhood (<5 years) Asthma Hospitalization

The asthma hospitalization rate among children one to five years declined significantly in Tri-City between 1991 and 2002 by about 7% per year before increasing in recent years. The Alameda County rate declined overall, but the trend was not statistically significant.

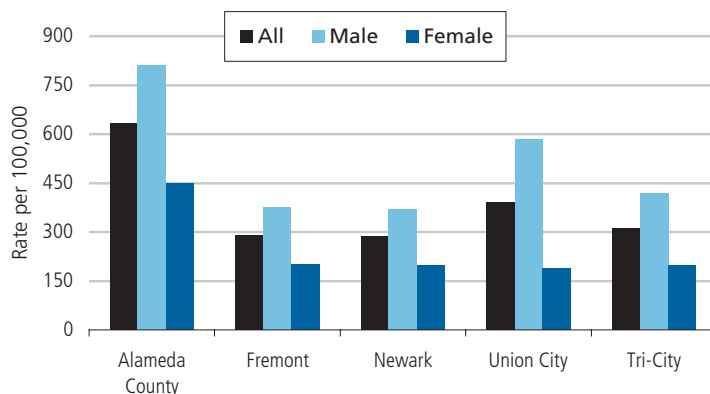
Figure 94: Historical Childhood (<5 years) Asthma Hospitalization



Source: CAPE; OSHPD hospitalization files, CA DOF, Census 1990 and 2000.

Among children under five years, male asthma hospitalization rates exceeded female rates by about two times in every locale. Female rates were the same in Fremont, Newark, and Union City while the male rate in Union City was substantially higher than those in Fremont and Newark.

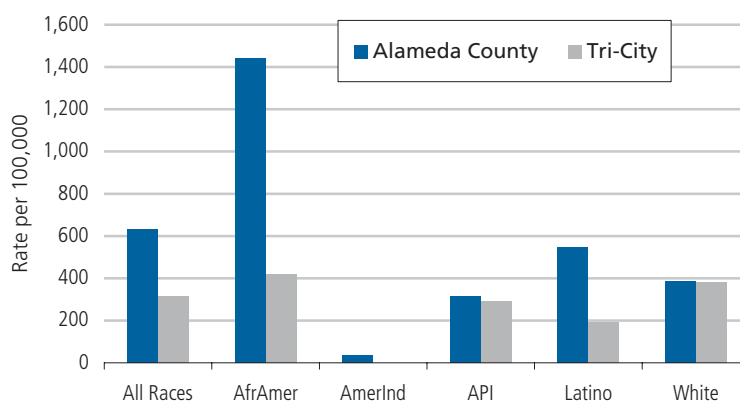
Figure 95: Childhood (<5 years) Asthma Hospitalization by Area and Sex



Source: CAPE; OSHPD hospitalization files 2002-2004, CA DOF, Census 2000.

The rate of childhood asthma hospitalization in Tri-City was half that of the county. African American and Latino rates in Tri-City were one-third of those at the county level. There were no American Indian cases in Tri-City. While African Americans had the highest rate in Tri-City, the racial/ethnic differences were less than those observed at the county level.

Figure 96: Childhood (<5 years) Asthma Hospitalization by Race/Ethnicity



Source: CAPE; OSHPD hospitalization files 2002-2004, CA DOF, Census 2000.



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# Injury, Homicide, and Suicide

## ■ Unintentional Injury

Physical injury that is not purposely inflicted is unintentional injury. Nationally, two-thirds of injury deaths are unintentional, and 94% of nonfatal injuries treated in emergency rooms are unintentional.<sup>1-3</sup> About 29.7 million injuries were treated in hospital emergency rooms in 2001.<sup>4</sup> The majority of these were unintentional; less than two million were violence-related.

Unintentional injuries are one of the major causes of premature death and lifelong disability. Most unintentional injuries are predictable and preventable. Motor vehicle accidents are the primary source of unintentional injury death, followed by poisoning, falls, suffocation, drowning, and fire.<sup>5,6</sup> Falls cause the greatest number of unintentional, nonfatal injuries treated in emergency rooms. Next are injuries from being struck by or against an object, motor vehicle accidents, over-exertion, and cuts.<sup>3</sup>

About two-thirds of poisoning deaths are unintentional, and 93% of unintentional poisonings are related to drugs. Narcotics are responsible in half of all unintentional poisonings.<sup>1,2</sup>

In 2003, 109,277 people died of unintentional injuries in the United States.<sup>6</sup> Nearly two-thirds of those were male. The age-adjusted rate of unintentional injury death in the United States was 37.3 per 100,000 in 2003. The rate among males was 51.8 per 100,000, over twice the female rate of 24.1.<sup>6</sup> The death rates for males between 18 and 74 years were two to four times the rates for females. Persons over 75 years had the highest death rates.<sup>1,2</sup>

In California, the rate of unintentional injury deaths was 29.3 per 100,000 during 2002-2004.<sup>7</sup> Both national and state rates exceed the HP2010 objective of 17.5 or less.<sup>8</sup> Unintentional injuries were the fifth leading cause of death in the United States in 2003.<sup>6</sup> For those under 45 years, they were the leading cause of death as they have been for the last 50 years.<sup>1,2,9</sup> The death rate for unintentional injury declined from 1950 until 1992 and then increased slightly.<sup>10</sup> Since 2000, the age-adjusted death rates of unintentional injury have increased between one and three percent from the rates of previous years.<sup>1,2,5,6</sup>

American Indians have disproportionately high rates of death from unintentional injury. Rural or isolated living, minimal emergency medical services, and great distances from sophisticated trauma care contribute to these increased rates.<sup>8</sup>



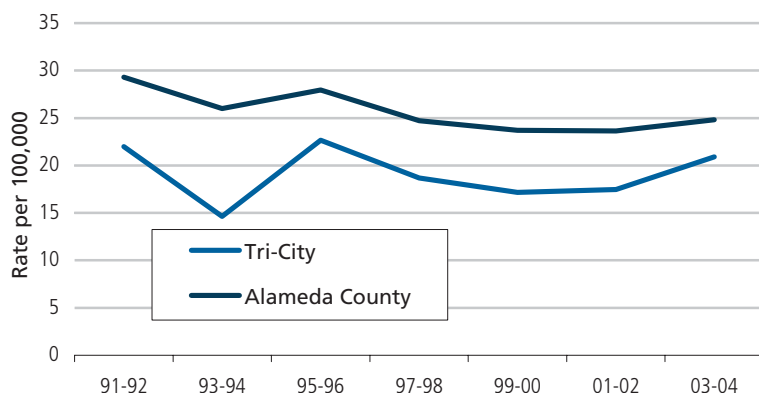
## Unintentional Injury Mortality

Although the overall trend for unintentional injury death rates in Tri-City has not changed during the last decade, the rates in Alameda County have declined gradually, about 1.5% per year. The declining trend in the county was statistically significant. The unintentional injury death rates for Tri-City were consistently lower than the rates for Alameda County. In 2003-2004, the unintentional injury death rate in Tri-City was 20.9 per 100,000 compared to 24.8 in Alameda County.

Overall unintentional injury death rates in Fremont and Tri-City were significantly lower than the county-wide rate. Male rates in all areas except Newark were higher than female rates. The female rate in Newark was 25% higher than the male rate. Females in all areas except Newark have met or were close to the HP2010 objective. None of the males in Tri-City areas or Alameda County have met the HP2010 objective of no more than 17.5 deaths per 100,000.

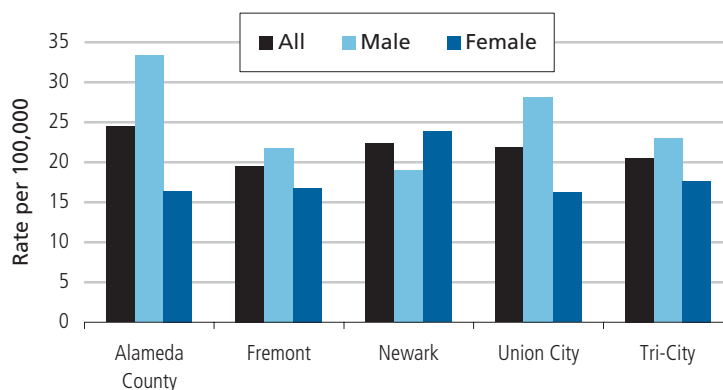
Deaths due to unintentional injuries were higher among males than females for teens and young adults. For seniors ages 85 and older, the female rate was higher than male rate. This pattern was different from the county. Countywide data showed that males had higher rates than females in every age group.

Figure 97: Historical Unintentional Injury Mortality



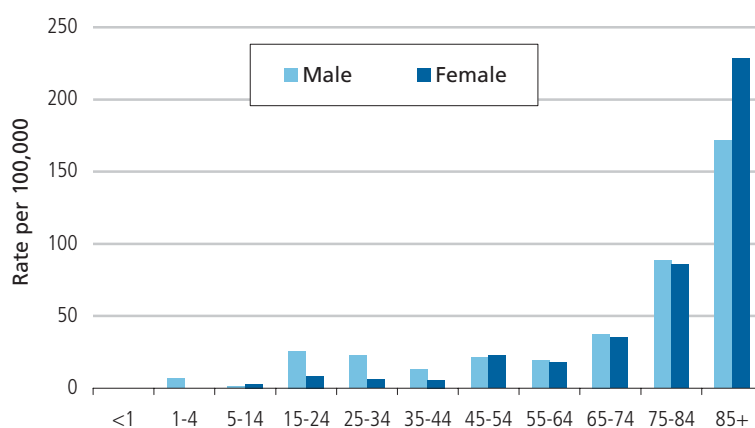
Source: CAPE; Alameda County vital statistics files, CA DOF, Census 1990 and 2000.

Figure 98: Unintentional Injury Mortality by Area and Sex



Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

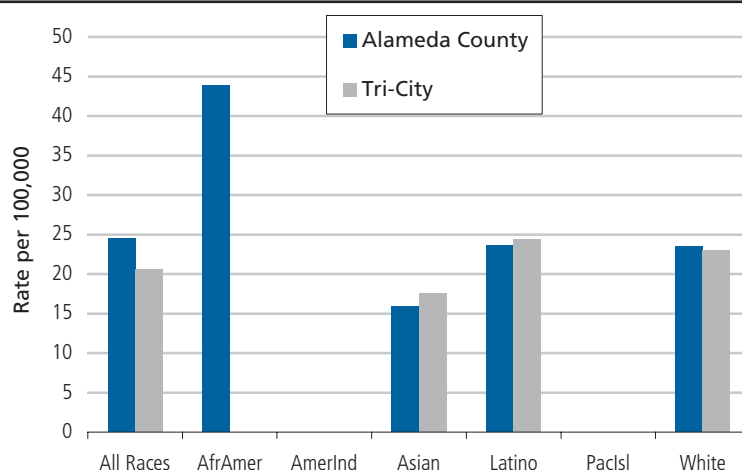
Figure 99: Unintentional Injury Mortality by Age and Sex, Tri-City



Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

In Tri-City, the unintentional injury death rates by race/ethnicity did not vary much. The rate for African Americans was not calculated due to small numbers. In Alameda County, the unintentional injury death rate among African Americans was significantly higher than any other racial/ethnic group. The rate for African Americans was almost three times the rate of Asians, and twice the rates of Latinos and Whites.

Figure 100: Unintentional Injury Mortality by Race/Ethnicity

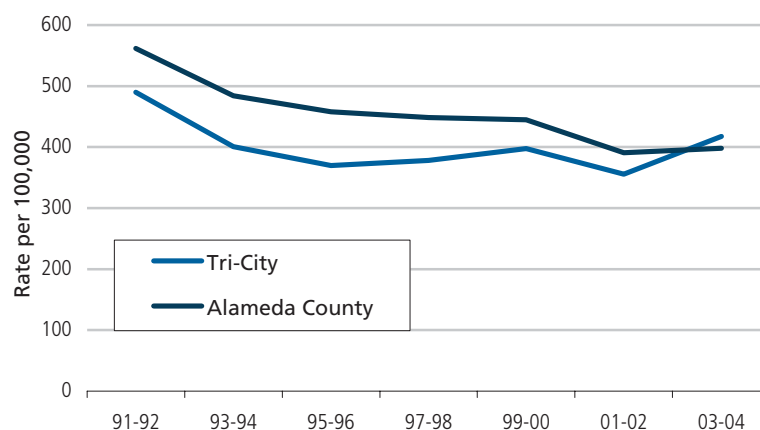


Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

## Unintentional Injury Hospitalization

The unintentional injury hospitalization rate in Tri-City declined significantly by 8% per year between 1991 and 1995. The rate leveled off in the latter 1990s and has been variable since 2000. In Alameda County, the rate declined significantly by 2.6% per year to a level very similar to that of Tri-City.

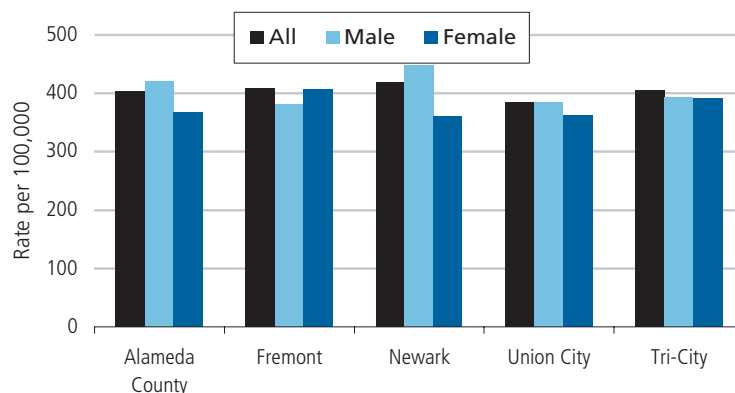
Figure 101: Historical Unintentional Injury Hospitalization



Source: CAPE; OSHPD hospitalization files, CA DOF, Census 1990 and 2000.

Hospitalization rates for unintentional injury were similar across the county and Tri-City area. Rates were highest among Newark males, but not significantly.

Figure 102: Unintentional Injury Hospitalization by Area and Sex

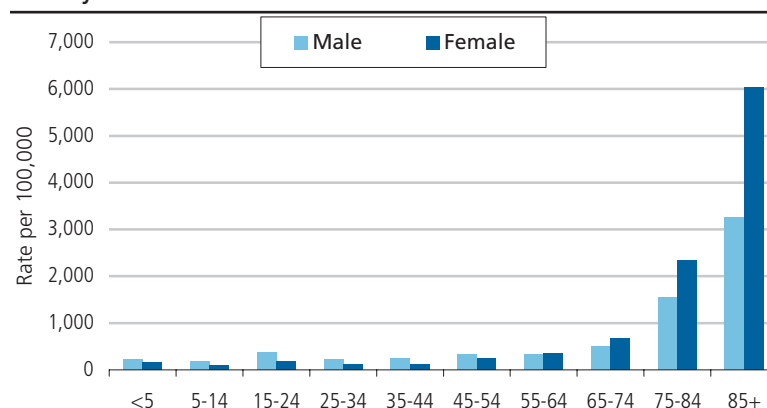


Source: CAPE; OSHPD hospitalization files 2002-2004, CA DOF, Census 2000.



The rate of unintentional injury hospitalization increases dramatically after age 75. In Tri-City, prior to age 55, rates were higher among males than females. After age 65, female rates were higher than male rates. Females in the 85 and older age group were particularly vulnerable to unintentional injury, largely due to falls.

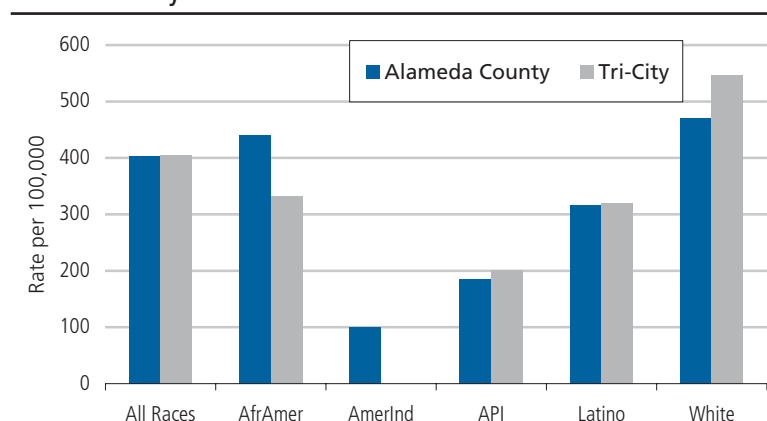
Figure 103: Unintentional Injury Hospitalization by Age and Sex, Tri-City



Source: CAPE; OSHPD hospitalization files 2002-2004, CA DOF, Census 2000.

The overall unintentional injury hospitalization rate was the same in Tri-City as in the county. The highest rates were seen among Whites in both Tri-City and the county. These White rates were significantly higher than any other racial/ethnic group. In Alameda County, American Indians had the lowest rate. The Tri-City African American rate of unintentional injury hospitalization was well below the county rate.

Figure 104: Unintentional Injury Hospitalization by Race/Ethnicity



Source: CAPE; OSHPD hospitalization files 2002-2004, CA DOF, Census 2000.

## Motor Vehicle Crashes

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

Motor vehicle crashes are the single largest cause of all injury mortality in the United States, and they are the leading cause of death and disability for young children and young adults.<sup>1,2,9</sup> Two times as many males as females die in motor vehicle crashes.<sup>5,6</sup> American Indians and Alaska Natives have disproportionately higher death rates from motor vehicle crashes than any other race/ethnic groups.<sup>8</sup>

Nationally, in 2003, there were 44,757 motor vehicle crash deaths, comprising 41% of all unintentional injury deaths.<sup>6</sup> The age-adjusted death rate from motor vehicle crashes was 15.3 per 100,000.<sup>6</sup> In California, the death rate from motor vehicle crashes was 12.1 per 100,000 for the period 2002-2004.<sup>7</sup> Both national and state rates exceed the HP2010 objective of 9.2 or less.<sup>8</sup>

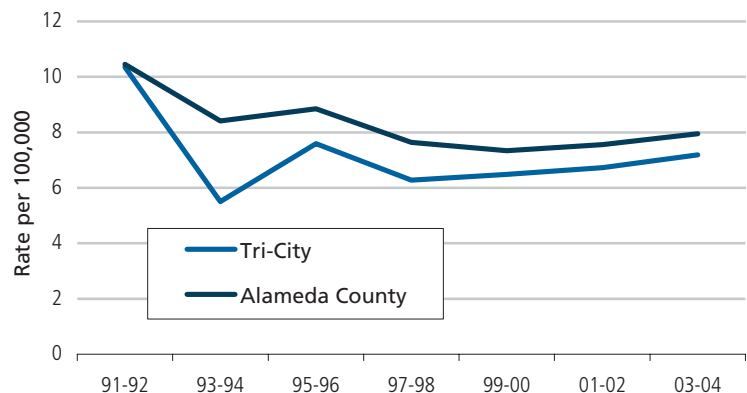
In 2000, there were 3.3 million nonfatal motor vehicle-related injuries treated in emergency rooms in the United States.<sup>3</sup>

There has been a significant decline in deaths attributable to motor-vehicle crashes, especially in the 1990s. Prevention of motor vehicle-related injuries has focused on environmental interventions such as highway and vehicle safety, reduction of risky behaviors such as drunk driving, and legislation on vehicle occupant protection such as helmet and seat belt laws. These strategies have substantially reduced the burden of injury morbidity and mortality.<sup>11,12</sup>

## Motor Vehicle Crash Mortality

The trends for motor vehicle crash (MVC) death rates in Tri-City and Alameda County have shown similar patterns throughout the last decade. In Alameda County, the trend declined significantly from the early 1990s until 1999, about 4.7% per year. Since then, the trend has been slightly upward, although it was not statistically significant. The MVC mortality rates for Tri-City were consistently lower than the rates for Alameda County except the period of 1991-1992. In 2003-2004, the death rate in Tri-City was 7.2 per 100,000 compared to 8.0 in Alameda County.

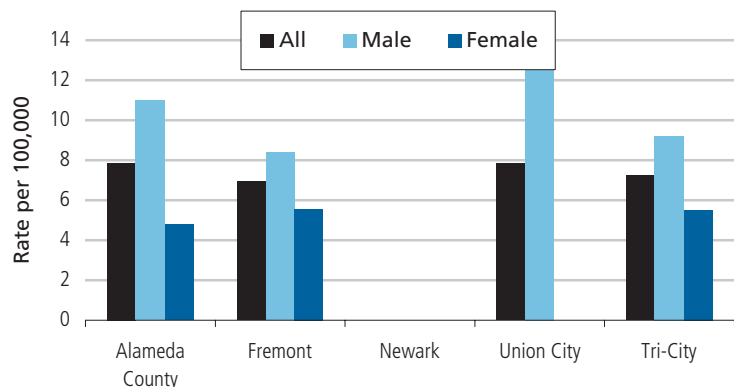
Figure 105: Historical Motor Vehicle Crash Mortality



Source: CAPE; Alameda County vital statistics files, CA DOF, Census 1990 and 2000.

Overall MVC death rates did not vary considerably across areas. Male death rates in all areas for which data were available were 50% to 130% higher than female rates. Females in Tri-City areas and the county and males in Fremont and Tri-City have met the HP2010 objective of no more than 9.2 deaths per 100,000. Males in Alameda County and Union City have not.

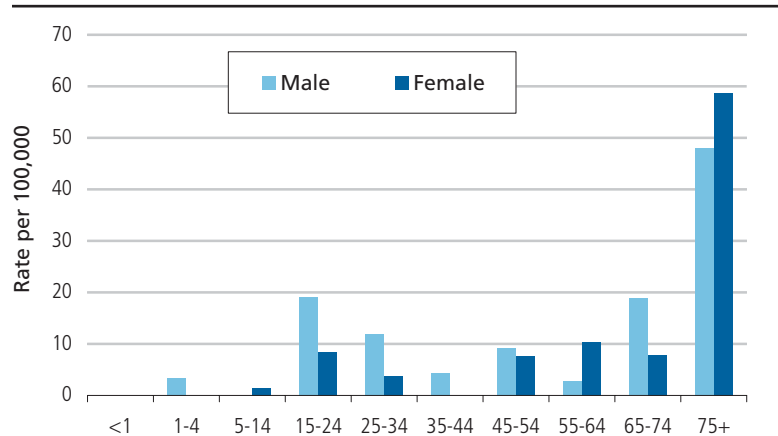
Figure 106: Motor Vehicle Crash Mortality by Area and Sex



Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

Among males, teens, young adults and seniors were the highest risk groups for dying from MVC. Females over 75 years also had high MVC death rate in Tri-City.

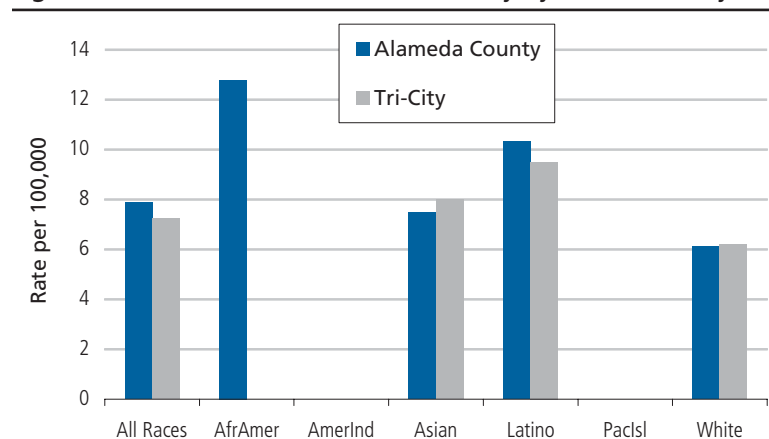
Figure 107: Motor Vehicle Crash Mortality by Age and Sex, Tri-City



Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

MVC death rates by race/ethnicity in Tri-City and Alameda County showed similar patterns. The African American rate in Tri-City was not shown due to small numbers. In Alameda County, African Americans had the highest rate followed by Latinos. Countywide, the African American rate was statistically significantly higher than any other race/ethnic group except Latinos. The rate for African Americans was more than 70% higher than the rate for Asians and 110% higher than Whites.

Figure 108: Motor Vehicle Crash Mortality by Race/Ethnicity

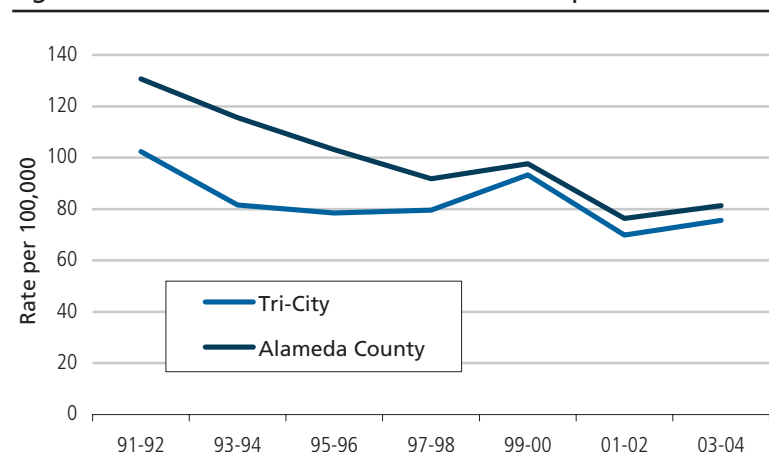


Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

## Motor Vehicle Crash Hospitalization

The MVC hospitalization rate in Tri-City declined overall between 1991 and 2004, but the decline was not statistically significant. In Alameda County, the rate declined significantly by 4% per year to a level very similar to that of Tri-City.

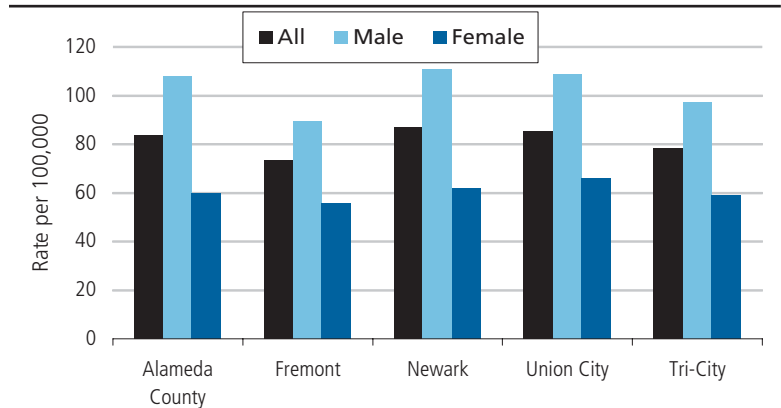
Figure 109: Historical Motor Vehicle Crash Hospitalization



Source: CAPE; OSHPD hospitalization files, CA DOF, Census 1990 and 2000.

MVC hospitalization rates in Tri-City were 60% to 90% higher for males than females. Rates were nearly the same among females across locales. Male rates in Newark and Union City were similar to the countywide male rate. The male rate in Fremont was significantly lower than the countywide male rate.

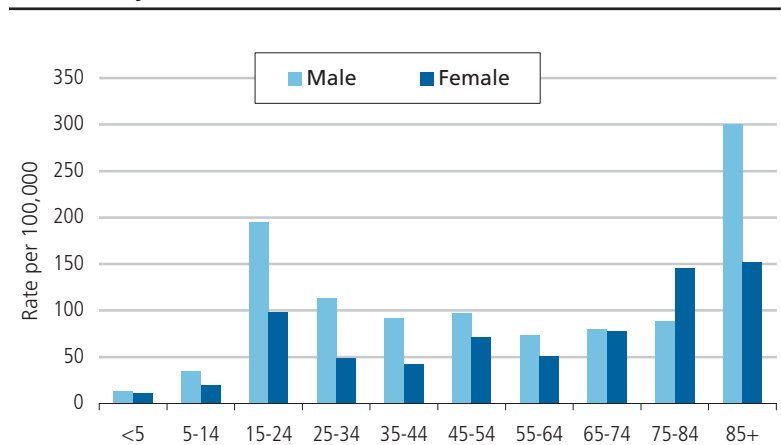
Figure 110: Motor Vehicle Crash Hospitalization by Area and Sex



Source: CAPE; OSHPD hospitalization files 2002-2004, CA DOF, Census 2000.

MVC hospitalization in Tri-City was higher among males than females in every age group except ages 75-84. Among males, rates were highest in the 15-24 and the 85 and over age groups. Among females, rates were highest for those aged 75 years and over.

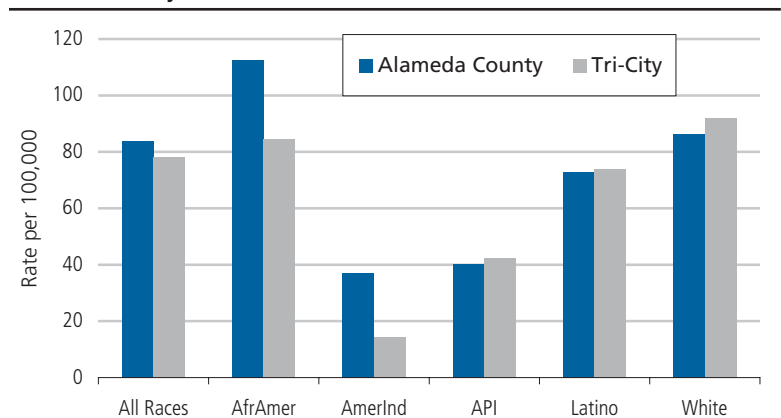
Figure 111: Motor Vehicle Crash Hospitalization by Age and Sex, Tri-City



Source: CAPE; OSHPD hospitalization files 2002-2004, CA DOF, Census 2000.

Patterns of MVC hospitalization rates were similar to those for unintentional injury because MVC was the most common cause of unintentional injuries. In Tri-City, the African American rate was close to the White rate, and these were followed by the Latino rate.

Figure 112: Motor Vehicle Crash Hospitalization by Race/Ethnicity



Source: CAPE; OSHPD hospitalization files 2002-2004, CA DOF, Census 2000.

## Homicide and Assault

Homicide is defined as 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.

Nationally, the age-adjusted rate of homicide in 2003 was 6.0 per 100,000. The homicide rate among males was 9.4, more than three times the female rate of 2.6.<sup>6</sup> In California, the homicide rate was 6.7 per 100,000 for the period 2002-2004.<sup>7</sup> Both national and state rates exceed the HP2010 objective of 3.0 or less.<sup>8</sup>

In 2003, there were 17,732 known homicide victims in the United States.<sup>6</sup> More than 75% were males.<sup>6</sup> Homicide was the second leading cause of death, after unintentional injury, for the 15-24 age group.<sup>9</sup> For the 25-34 age group, homicide ranked third after unintentional injury and suicide.<sup>9</sup> Homicide victimization was especially high among African American males, exceeding the White male rate by seven times.<sup>6</sup> Among African American males 15 to 19 years, 20 to 24 years, and 25 to 34 years, homicide was the leading cause of death, accounting for 44%, 51%, and 31% of deaths, respectively, in those age groups.<sup>9</sup>

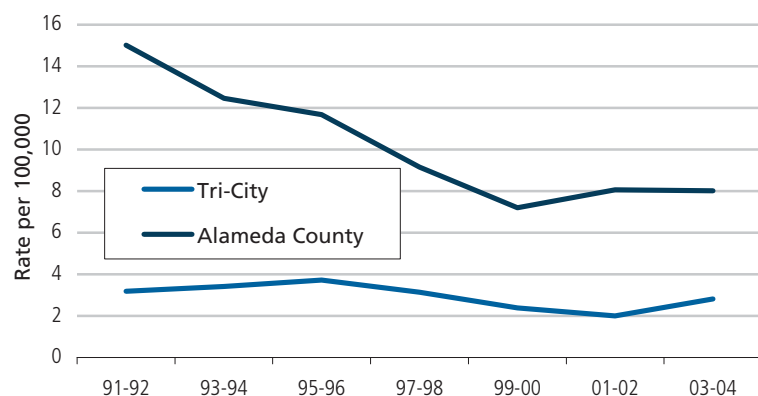
Nationally, homicide rates among children and young adults increased between 1960 and the mid-1990s, and have been declining since.<sup>10</sup> However, recent national data showed homicide rates among African American males had increased slightly from 1999 to 2004.<sup>5,6,10,13</sup>

The leading mechanisms of homicide were firearms and cut/pierce. In 2002, sixty-seven percent of homicides involved firearms, while 12% involved cut/pierce.<sup>2</sup>

### Homicide Mortality

While the homicide rates in Tri-City have been stable during the last decade, the rates in Alameda County have declined significantly, about 5.3% per year. However, the declining trend in the county was not seen in recent years. The countywide homicide rates reached the lowest in 1999-2000; since then the trend was slightly upward. The homicide rate for Tri-City has been much lower than that for Alameda County. In 2003-2004, the homicide rate in Tri-City was 2.8 per 100,000 compared to 8.0 in Alameda County.

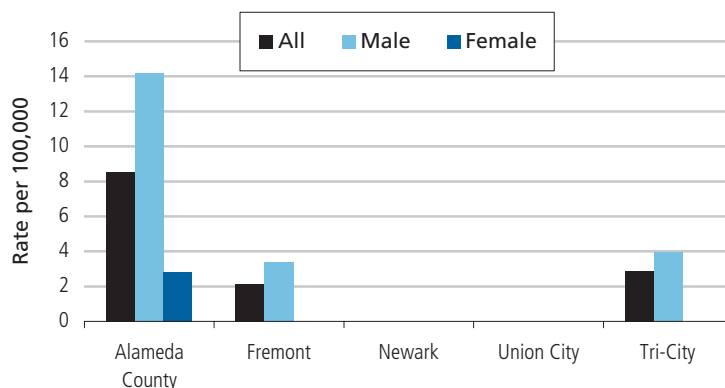
Figure 113: Historical Homicide Mortality



Source: CAPE; Alameda County vital statistics files, CA DOF, Census 1990 and 2000.

Overall homicide rates in Fremont and Tri-City were about one-third of the Alameda County rate. Although the county has not met the HP2010 objective of no more than 3.0 deaths per 100,000, Fremont and Tri-City have. Most of the homicide victims in Tri-City and the county were males. No males in any locales have met the HP2010 objective.

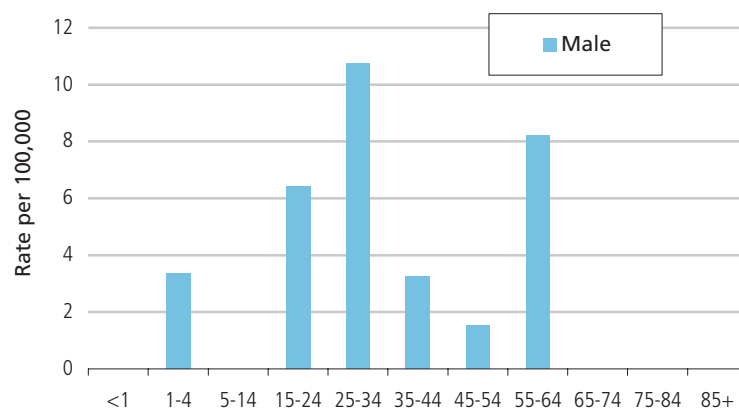
Figure 114: Homicide Mortality by Area and Sex



Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

There were 21 male and 9 female homicides in Tri-City during 2002-2004. The rate was highest among young adult males.

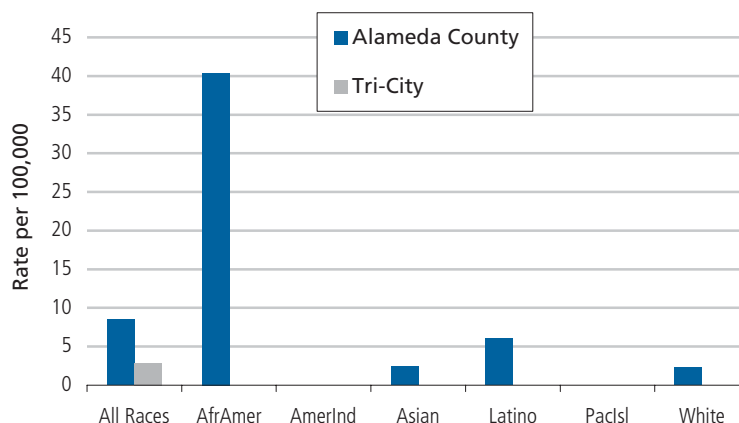
Figure 115: Homicide Mortality Among Males by Age, Tri-City



Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

The overall homicide rate in Tri-City was about one-third of the county rate. In Alameda County, the African American rate was significantly higher than any other racial/ethnic group. The rate for African Americans was more than sixteen times the rates for Asians and Whites, and seven times the rate of Latinos.

Figure 116: Homicide Mortality by Race/Ethnicity



Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

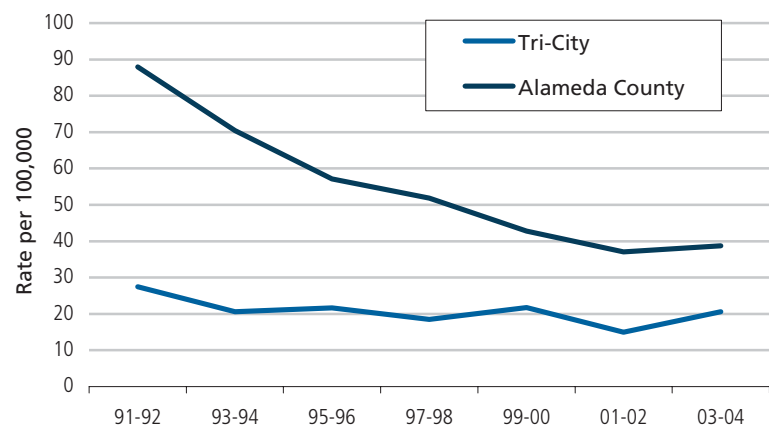
## Assault Hospitalization

The assault hospitalization rate in Tri-City did not change significantly between 1991 and 2004. In Alameda County, the rate dropped sharply between 1991 and 2001 by nearly 9% per year before leveling off in recent years.

Assault hospitalization rates in Tri-City and the county were five to six times higher for males than females. Male rates in Tri-City areas were well below that of the county. Union City males had the highest rate of assault hospitalization in the area. Female rates in Tri-City areas and the county were uniformly low.

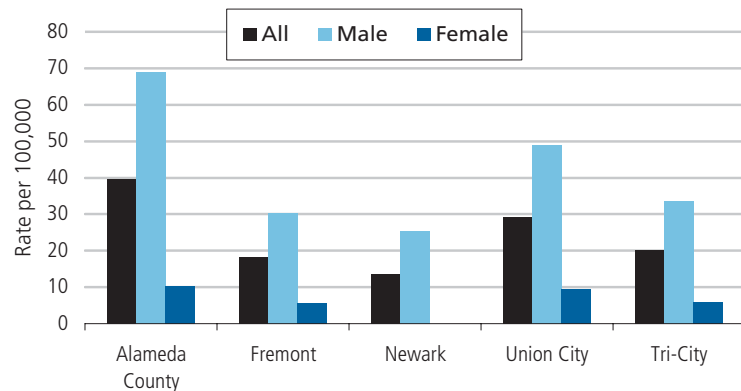
Rates of hospitalization for assault in Tri-City were highest among males in all but the youngest age group. Males 15 to 24 years of age were particularly at high risk of assault-related injury, with a rate at least three times higher than any other age group. Female rates were also highest in the 15-24 age group.

Figure 117: Historical Assault Hospitalization



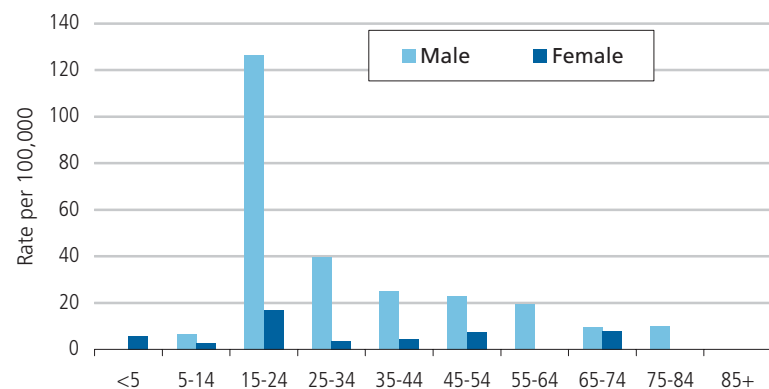
Source: CAPE; OSHPD hospitalization files, CA DOF, Census 1990 and 2000.

Figure 118: Assault Hospitalization by Area and Sex



Source: CAPE; OSHPD hospitalization files 2002-2004, CA DOF, Census 2000.

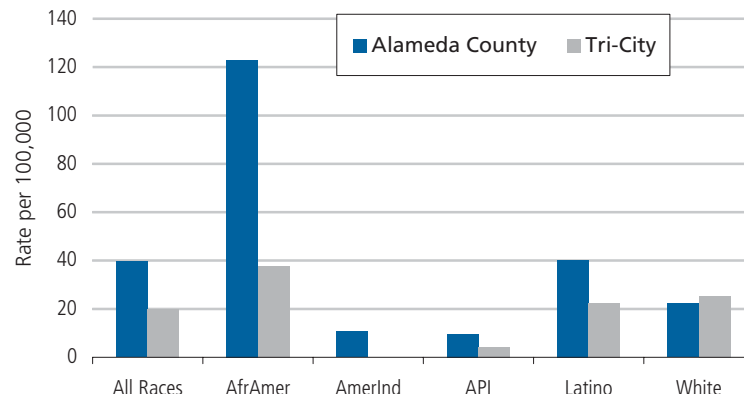
Figure 119: Assault Hospitalization by Age and Sex, Tri-City



Source: CAPE; OSHPD hospitalization files 2002-2004, CA DOF, Census 2000.

The overall assault hospitalization rate in Tri-City was half the county rate. African Americans had the highest rate of any racial/ethnic group; however this rate was one-third the rate for African Americans in the county. Similarly, the Tri-City Latino rate was half the county Latino rate.

Figure 120: Assault Hospitalization by Race/Ethnicity



Source: CAPE; OSHPD hospitalization files 2002-2004, CA DOF, Census 2000.

## ■ Suicide and Self-Inflicted Injury

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

In 2003, there were 31,484 suicides in the United States. Overall, the age-adjusted suicide rate was 10.8 per 100,000 population.<sup>6</sup> In California, the suicide rate was 9.4 per 100,000 for the period 2002-2004.<sup>7</sup> Both national and state rates exceed the HP2010 objective of 5.0 or less.<sup>8</sup>

Nationally, suicide is the second leading cause of death in the 25-34 age group, and the third leading cause of death in the 15-19 and 20-24 age groups. Among those 25 to 34 years, for all races combined, the male rate exceeds the female by more than four to one (20.5 per 100,000 compared to 4.6 in 2002).<sup>9</sup>

Among males 25 to 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.<sup>9</sup>

In 2003, more than 30,000 persons died from firearm injuries in the United States. Firearm suicide accounted for 56.1% of all firearm injury deaths.<sup>6</sup> Firearms were the leading mechanism of suicide among all ages. Suffocation was the second leading mechanism of suicide among teenagers and young adults, while poisoning was the second among the middle aged and seniors.<sup>1,2</sup>

In 2000, an estimated 264,108 nonfatal self-inflicted injuries were treated in hospital emergency departments in the United States. Of these, 57.4% were females.<sup>14</sup> About 90% of self-inflicted injuries were the result of poisoning or being cut/pierced with a sharp instrument.<sup>14</sup>



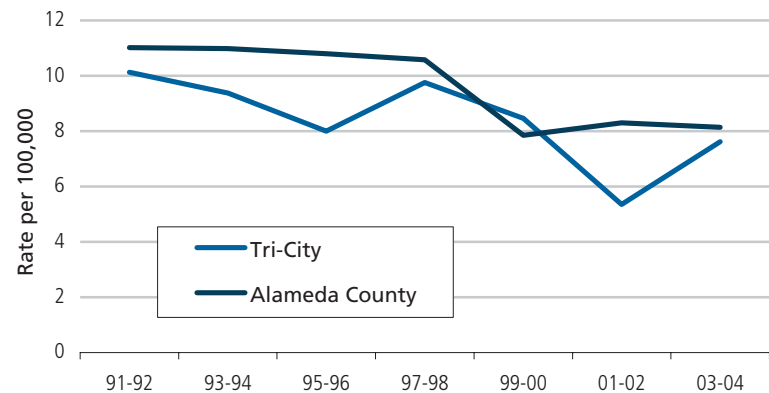
## Suicide Mortality

Although no clear pattern was seen in Tri-City, the suicide rate in Alameda County has declined significantly during the last decade, about 2.8% per year. This declining trend was not seen in recent years. The suicide rates for Tri-City were lower than the rates for Alameda County in early and mid 1990s. In 2003-2004, the suicide rate in Tri-City was 7.6 per 100,000 compared to 8.1 in Alameda County.

Overall suicide rates did not vary considerably across areas. However, male rates in all areas for which data were available were at least two to three times higher than female rates. The male and the overall rates have not met the HP2010 objective of no more than 5.0 deaths per 100,000.

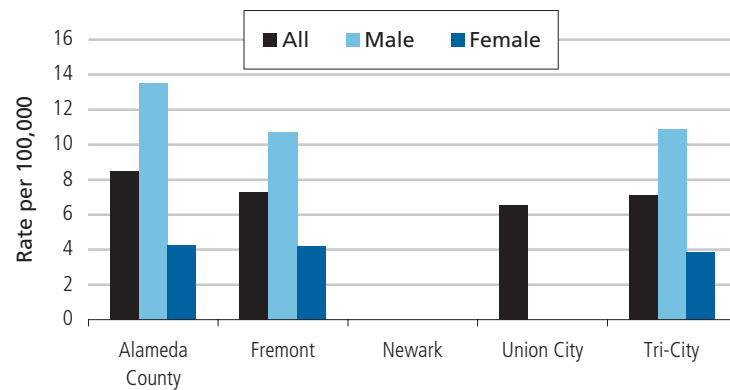
Suicides were much higher among males than females, especially for teens, young adults, and seniors. The highest suicide rate was among males between the ages of 75 and 84.

Figure 121: Historical Suicide Mortality



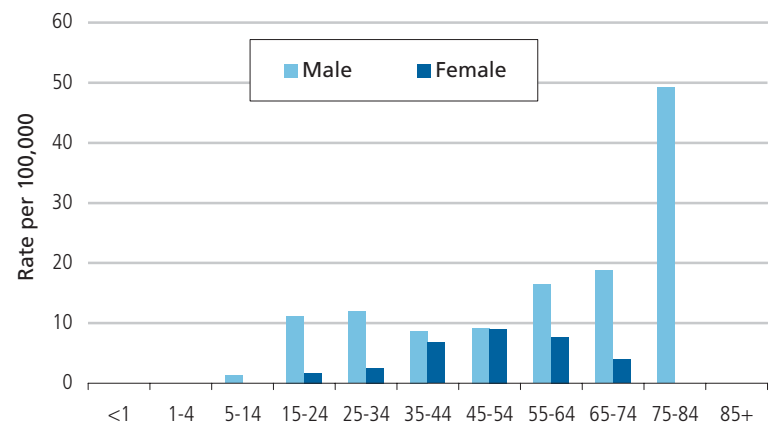
Source: CAPE; Alameda County vital statistics files, CA DOF, Census 1990 and 2000.

Figure 122: Suicide Mortality by Area and Sex



Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

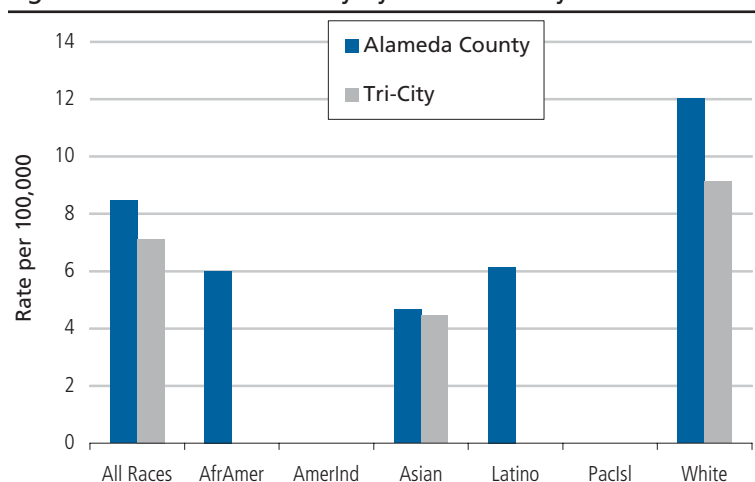
Figure 123: Suicide Mortality by Age and Sex, Tri-City



Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

The rate of suicide among Whites was more than twice the rates of any other racial/ethnic group. Asians had the lowest suicide rate. There were only six suicides among African Americans in Tri-City during the years 2002 to 2004.

Figure 124: Suicide Mortality by Race/Ethnicity

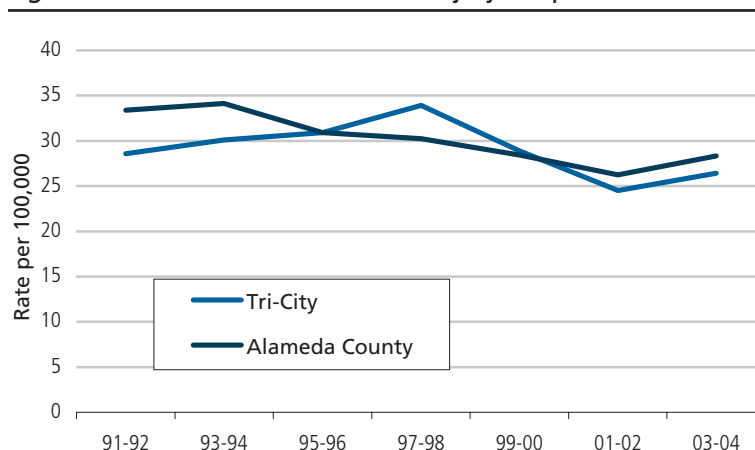


Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

## Self-Inflicted Injury Hospitalization

The trend of self-inflicted injury hospitalization in Tri-City was slightly upward between 1991 and 1998; since then the rate has declined. In Alameda County, the rate declined significantly by almost 2% per year.

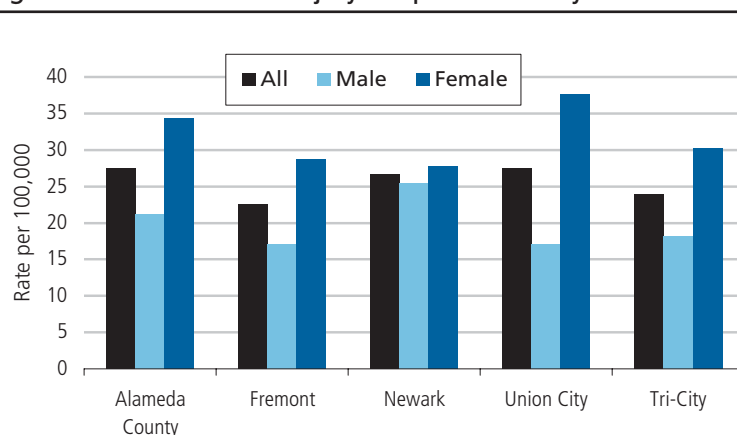
Figure 125: Historical Self-Inflicted Injury Hospitalization



Source: CAPE; OSHPD hospitalization files, CA DOF, Census 1990 and 2000.

Rates of hospitalization for self-inflicted injury were much more common among females than males in every locale except Newark. The rate was highest among Union City females and Newark males. However, due to small numbers, none of these rates were significantly different.

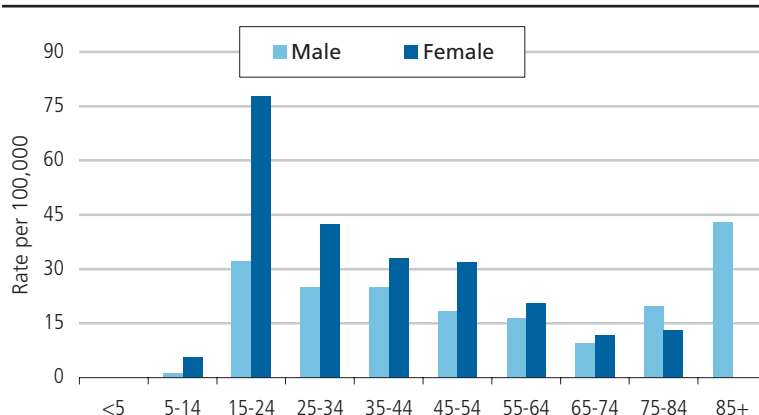
Figure 126: Self-Inflicted Injury Hospitalization by Area and Sex



Source: CAPE; OSHPD hospitalization files 2002-2004, CA DOF, Census 2000.

The rate of self-inflicted injury hospitalization in Tri-City was very high among females aged 15 to 24, being at least two times higher than any other age group. Female rates declined with age, as did male rates. However, male rates climbed after age 75 and peaked in the 85 and older age group.

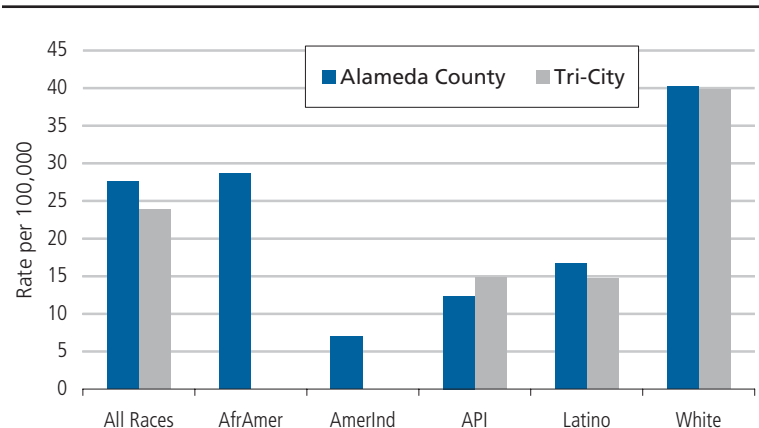
Figure 127: Self-Inflicted Injury Hospitalization by Age and Sex, Tri-City



Source: CAPE; OSHPD hospitalization files 2002-2004, CA DOF, Census 2000.

Rates of hospitalization for self-inflicted injury were highest among Whites in Tri-City as well as in the county. White rates in Tri-City were 2.6 times higher than API or Latino rates. Numbers for Tri-City African Americans and American Indians were too small to calculate rates.

Figure 128: Self-Inflicted Injury Hospitalization by Race/Ethnicity



Source: CAPE; OSHPD hospitalization files 2002-2004, CA DOF, Census 2000.

## ■ Injury Deaths by Mechanism and Intent

Table 1 presents figures on death due to injury by both mechanism and intent using the External Cause of Death coding scheme. The matrix is developed by the Injury Control and Emergency Health Services (ICEHS) section of the American Public Health Association and the International Collaborative Effort (ICE) on Injury Statistics.<sup>1</sup> It is a standard framework for presentation of injury mortality statistics. The mechanism describes the way someone died, such as fall, motor vehicle crash, or poisoning. The intent of the injury describes whether the injury is inflicted purposefully or not. If purposefully inflicted, it describes whether the injury is self-inflicted or inflicted by another person.<sup>1</sup>

Nationally in 2002, the leading mechanisms of injury death—motor vehicle crashes, firearms, poisonings, falls, and suffocation—accounted for 81% of all injury deaths.<sup>2</sup> In Tri-City, these five accounted for 79% of all injury deaths from 2000 to 2004.

Table 1: Injury Deaths by Mechanism and Intent, Tri-City, 2000-2004

	Unintentional Injuries		Suicide		Homicide		All Other		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Cut/Pierce	1	0.4	4	3.7	5	11.6	0	0.0	10	2.3
Drowning	9	3.5	3	2.8	0	0.0	2	10.0	14	3.3
Fall	46	17.8	1	0.9	0	0.0	0	0.0	47	10.9
Fire/hot object or substance	7	2.7	0	0.0	0	0.0	0	0.0	7	1.6
Firearm	2	0.8	38	35.2	30	69.8	2	10.0	72	16.7
Machinery	2	0.8	0	0.0	0	0.0	0	0.0	2	0.5
All transport	112	43.2	0	0.0	0	0.0	0	0.0	112	26.0
Motor vehicle crash	103	39.8							103	24.0
All other transport	8	3.1							8	1.9
Natural environmental	1	0.4	0	0.0	0	0.0	0	0.0	1	0.2
Poisoning	49	18.9	21	19.4	0	0.0	3	15.0	73	17.0
Struck by or against	2	0.8	0	0.0	5	11.6	0	0.0	7	1.6
Suffocation	6	2.3	36	33.3	2	4.7	1	5.0	45	10.5
Other/unspecified	22	8.5	5	4.6	1	2.3	12	60.0	40	9.3
Total	259	100.0	108	100.0	43	100.0	20	100.0	430	100.0

Source: CAPE; Alameda County vital statistics files 2000-2004.

More than half of the injury deaths in Tri-City from 2000 to 2004 were unintentional (60.2%). An additional 25.1% were from suicides, 10.0% were homicides, and 4.7% were from other or unknown causes.

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# Communicable Disease

## ■ Tuberculosis

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. Transmission can occur when people breathe in the bacteria while in close and prolonged contact with a person with infectious TB.

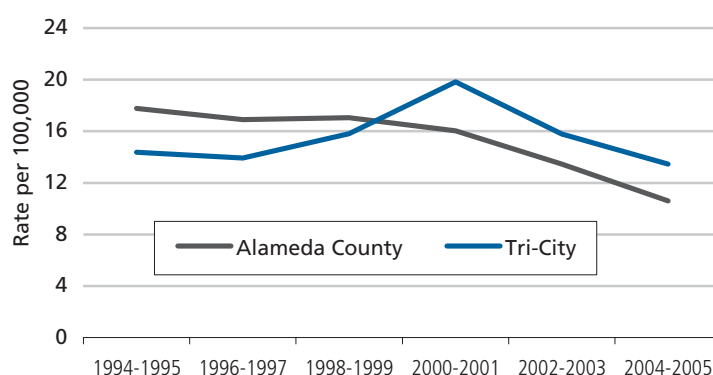
Once a person has been exposed to someone with TB and has inhaled the TB bacteria, that person may become infected with TB. In most people who are infected with the TB bacteria, the body is able to fight the bacteria to stop it from growing, but will still show evidence of exposure when tested. This is referred to as latent TB infection (LTBI). For other 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. TB is curable if a person takes all of their TB medications as prescribed. 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.

Approximately one-third of the world's population is infected with *Mycobacterium tuberculosis*, with more than nine million people becoming sick with TB disease and approximately two million people dying from TB each year.<sup>1</sup> The majority of these cases occur in the 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 infected with LTBI, and about 10% of these have the potential to develop active TB disease in the future. In 2005, the United States had 14,097 cases of tuberculosis reported nationwide and a case rate of 4.8 per 100,000.<sup>2</sup> Although the TB case rate has decreased by half since the early 1990s, the U.S. rate still exceeds the Healthy People 2010 objective of 1.0 per 100,000.

Drug resistant strains of tuberculosis can occur when a person with TB disease does not take their medications as prescribed and the bacteria changes, becoming resistant to the drug(s). This is of concern because drug resistant strains and multi-drug resistant (MDR) TB are more difficult and more costly to treat, requiring longer treatment regimens.

Since 2000, TB case rates have been declining in Tri-City and the county. During this time period, rates in Tri-City have been higher than those for Alameda County. The opposite relationship was observed during the 1990s. In 2004-2005, there were 87 new cases of TB in Tri-City, and the average annual incidence rate was 13.5 per 100,000.

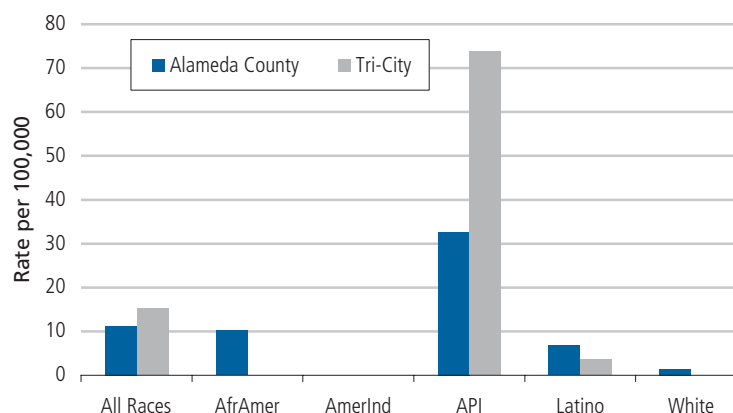
Figure 129: Historical TB Case Rate



Source: CAPE; Alameda County TIMS.

While Asian and Pacific Islanders comprised the majority of tuberculosis cases in both Alameda County and Tri-City, a much higher rate of TB cases were observed among APIs in Tri-City. Latinos in Tri-City had a lower rate than those in Alameda County.

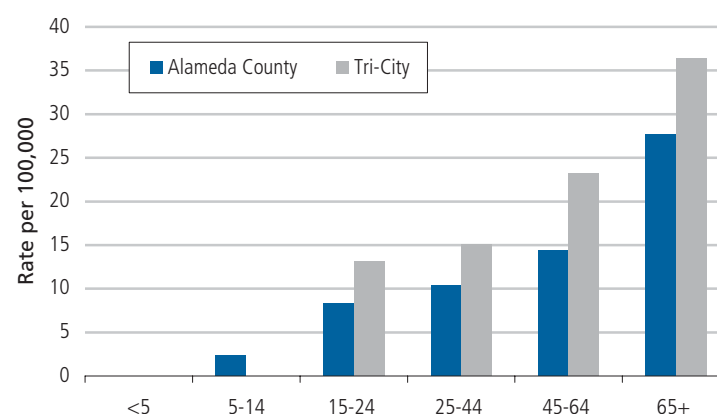
Figure 130: TB Case Rates by Race/Ethnicity



Source: CAPE; Alameda County TIMS 2003-2005.

The majority (88%) of TB cases in Tri-City were over the age of 25 years. There were no pediatric TB cases among children five years and younger in Tri-City during 2003-2005. For each age group above age 15, Tri-City had higher TB case rates compared to Alameda County.

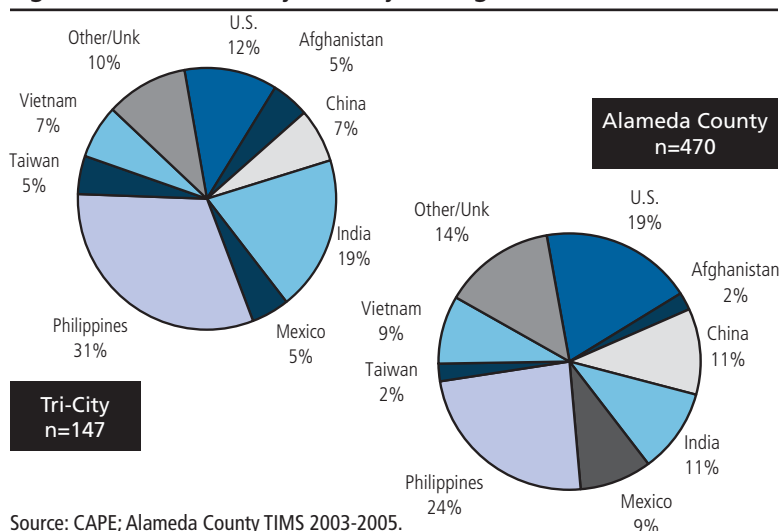
Figure 131: TB Case Rates by Age



Source: CAPE; Alameda County TIMS 2003-2005.

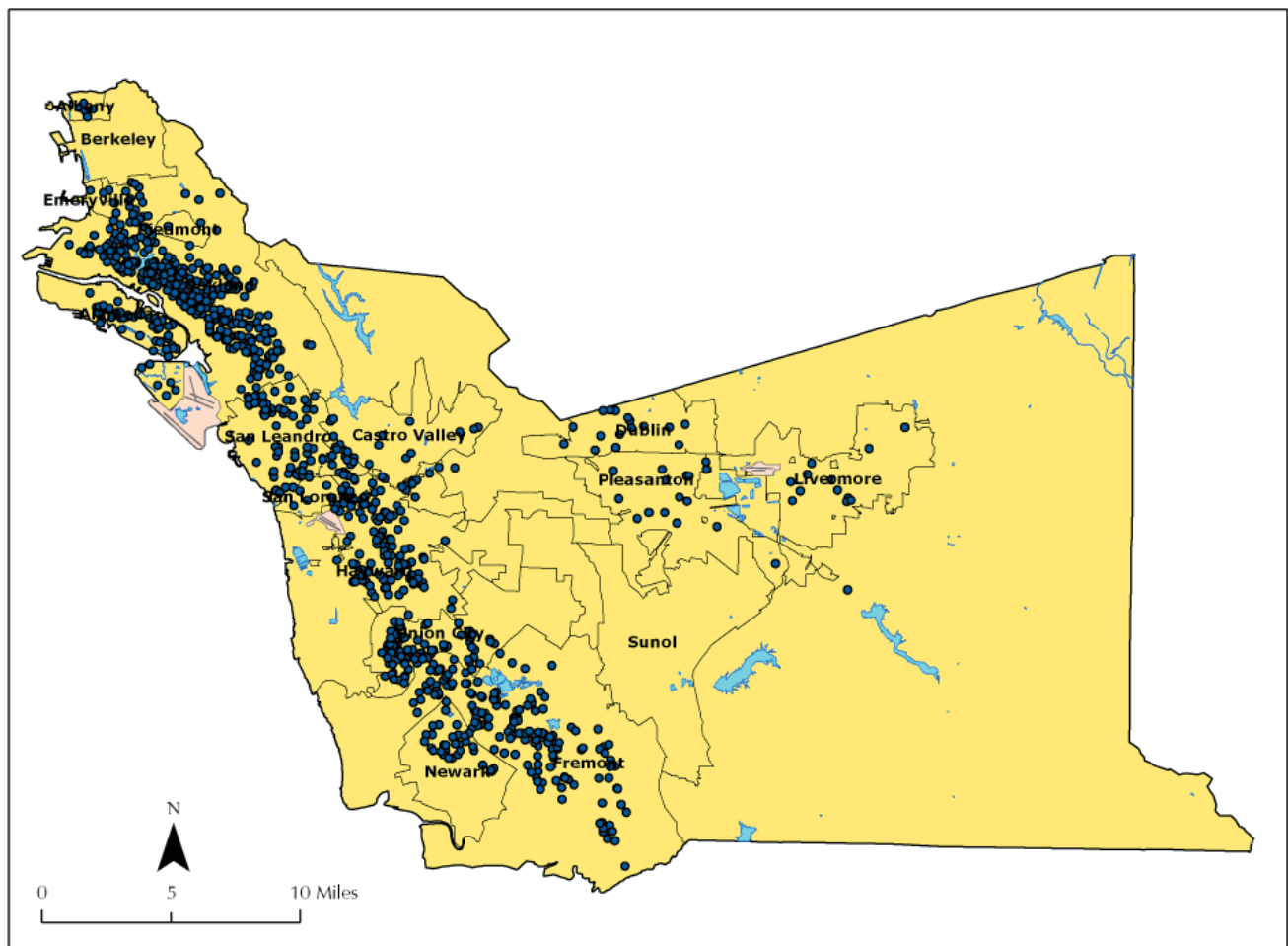
About 88% of Tri-City cases were foreign-born individuals, compared to about 80% of cases in Alameda County. Half of the TB cases in Tri-City were from the Philippines and India. In Alameda County, a large proportion of TB cases were from the Philippines, China and India.

Figure 132: TB Cases by Country of Origin



Source: CAPE; Alameda County TIMS 2003-2005.

Map 4: Tuberculosis Cases, Alameda County, 2000-2005



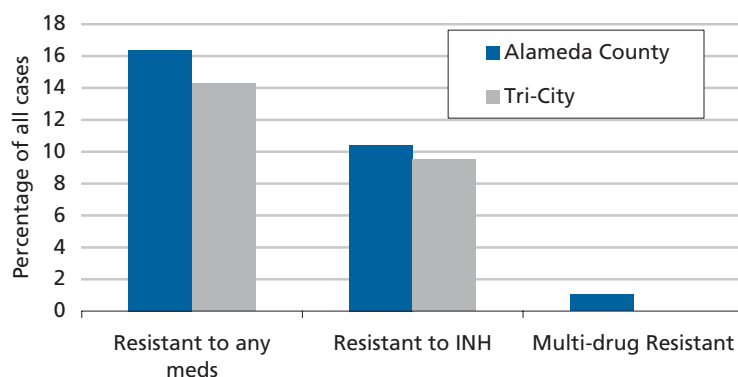
Source: CAPE; Alameda County TIMS.  
Note: Data exclude the Berkeley health jurisdiction.

This map illustrates the home of those diagnosed with tuberculosis between 2000 and 2005. While most of the cases are in Oakland, there are quite a few cases in Tri-City. There appears to be a hot spot in east Union City.



About 14% of TB cases in Tri-City showed the resistance to any TB drugs, compared to 16.4% of cases in Alameda County. None of TB cases in Tri-City showed multi-drug resistance.

Figure 133: Drug Resistance Among TB Cases



Source: CAPE; Alameda County TIMS 2003-2005.

## AIDS

Acquired immune deficiency syndrome (AIDS) is caused by the human immunodeficiency virus, known as HIV. The term AIDS applies to the most advanced stages of HIV infection. HIV progressively weakens the body's immune system and thus the ability to protect itself from infection and disease. HIV is spread from person to person through the exchange of bodily fluids, including blood, semen, vaginal secretions and breast milk. While the most common forms of transmission are sexual contact with infected individuals and the sharing of contaminated needles or syringes, the virus can also be transmitted from HIV-infected women to their babies during pregnancy, delivery, or breast-feeding.

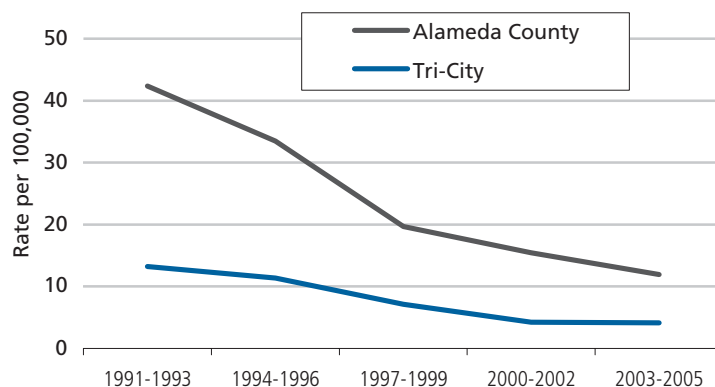
HIV/AIDS is a severe, life-threatening condition that has reached epidemic proportions, affecting more than 60 million people worldwide since the onset of the HIV/AIDS epidemic 25 years ago. In the United States, there have been approximately 944,000 AIDS cases and 529,000 AIDS-related deaths reported as of December 2004.<sup>3</sup> It is estimated that between 1,039,000 and 1,185,000 people were living with HIV/AIDS in the United States at the end of 2003 and that 40,000 new HIV infections are occurring annually.<sup>4</sup> The 2004 AIDS case rate in the United States was 15 per 100,000; in California it was 13 per 100,000. In Alameda County, the number of new AIDS cases increased from one case in 1980 to 621 cases at the height of the epidemic in 1992, and decreased to 143 cases in 2005.

Individuals can place themselves at risk for HIV/AIDS with various behaviors, such as unprotected sex and non-sterile injecting practices. Men having sex with men (MSM) continues to be the predominant exposure mode, accounting for the greatest number and percentage of cases. However, new infections due to heterosexual contact have been steadily increasing over the past decade. Injection drug use remains a major risk factor.

The AIDS epidemic has changed over time, which has implications for prevention. Case rates peaked in the early 1990s and have dramatically declined since. Improved behavioral risk reduction interventions have reduced HIV infections, and antiretroviral drug therapies have dramatically slowed the progression of HIV to AIDS.

Case rates in Tri-City over the past 15 years have been consistently lower than county rates. In 2003-2005, 40 new cases of AIDS were diagnosed among Tri-City residents. The average annual rate in Alameda County during 2003-2005 was 11.9 per 100,000 residents, nearly three times the Tri-City rate of 4.1. Neither area has met the HP2010 objective of 1.0 per 100,000 residents.

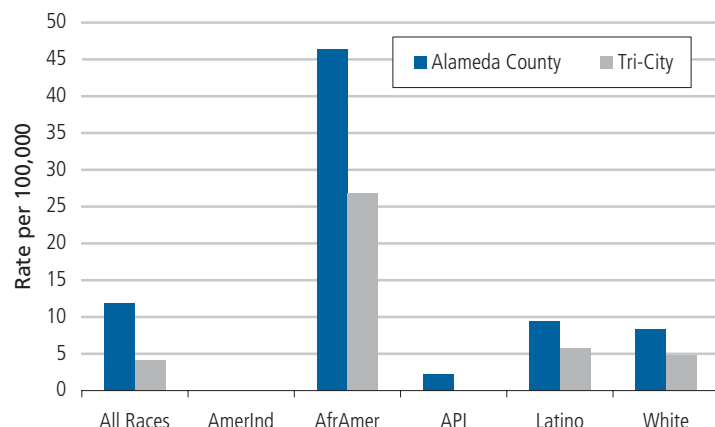
Figure 134: Historical AIDS Case Rate



Source: CAPE; Alameda County HARS.

The greatest proportion of AIDS cases in Tri-City were White (42%); African Americans and Latinos each represented 25%. The AIDS case rate in Tri-City was one-third of the county rate. The county case rates among African Americans, Latinos, and Whites were about 60% to 70% higher than those of Tri-City. African Americans had the highest AIDS case rate in Tri-City and the county.

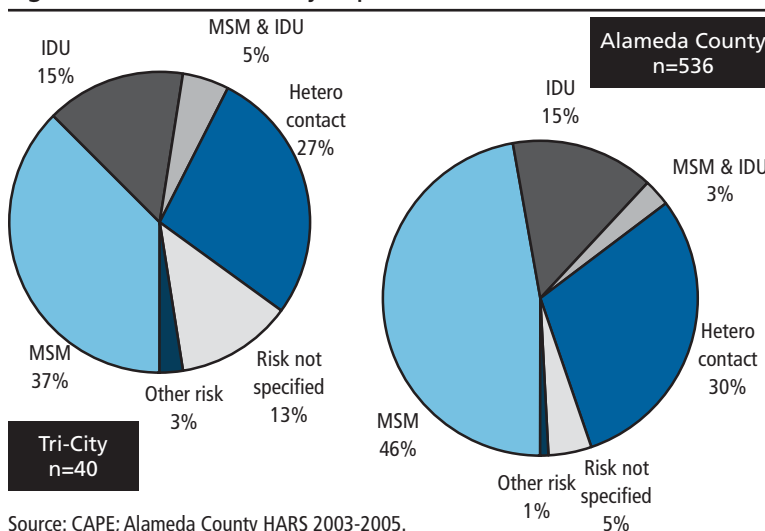
Figure 135: AIDS Case Rates by Race/Ethnicity



Source: CAPE; Alameda County HARS 2003-2005.

Exposure to HIV among Tri-City residents was primarily through sexual contact—either men having sex with men (37%) or heterosexual intercourse (27%). About 15% were exposed through IV drug use. The pattern was similar at the county level, although HIV transmission among men having sex with men was relatively higher.

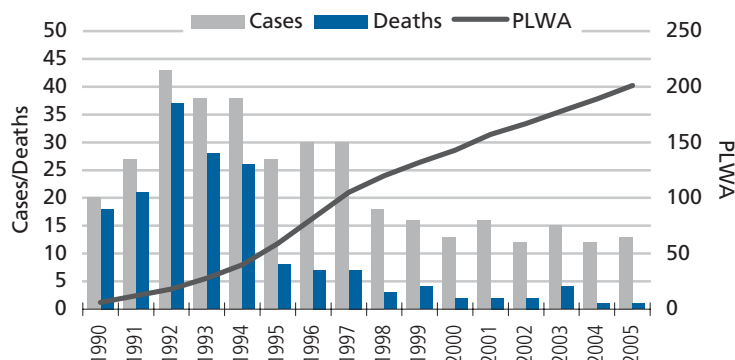
Figure 136: AIDS Cases by Exposure Mode



Source: CAPE; Alameda County HARS 2003-2005.

Figure 137: AIDS Cases, Deaths, and Persons Living With AIDS, Tri-City

The numbers of new AIDS cases and deaths among AIDS cases have declined dramatically since 1992. With antiretroviral drug treatment, people are living longer and healthier after a diagnosis of HIV, and thus the number of people living with HIV/AIDS continues to rise. By the end of 2005, there were 2,824 known persons living with AIDS in Alameda County; 201 (7%) of these were Tri-City residents.



Source: CAPE; Alameda County HARS.

## Sexually Transmitted Diseases

Sexually transmitted diseases (STDs) are infections that are acquired through sexual contact. They are among the most common infectious diseases in the United States today. Nationally, 65 million people are living with an incurable STD and 15 million people are infected each year. Although STDs affect men and women of all backgrounds and economic levels, they are most prevalent among teenagers and young adults. Nearly two-thirds of all STDs occur in people younger than 25 years. Females are biologically more susceptible to many STDs.

Many individuals infected with STDs will show no symptoms of the disease and are therefore unlikely to be diagnosed and treated. Even cases of disease that are detected are often times not reported. Thus the magnitude of STDs is difficult to monitor as each new case that goes undetected and untreated magnifies this “hidden” epidemic. Untreated STDs can cause serious health problems such as pelvic inflammatory disease (PID), which can cause damage to the fallopian tubes, uterus and surrounding tissues or lead to infertility.

Chlamydia is the most commonly reported infectious disease in the United States. While chlamydia affects both men and women, women suffer the most severe consequences of untreated infection. Up to 40% of untreated women will develop PID and 20% of these may become infertile. Fifty percent of men and 75% of women infected with chlamydia will show no symptoms. In 2004, more than 929,000 cases were reported in the United States. The rate of chlamydia infection has been increasing in the United States from a rate of 50.8 per 100,000 from the mid-1980s to 319.6 per 100,000 in 2004. This increase can be attributed, at least in part, to increased screening and more sensitive diagnostic tests. It is estimated that about 2.8 million new cases in the United States occur annually.<sup>5</sup>

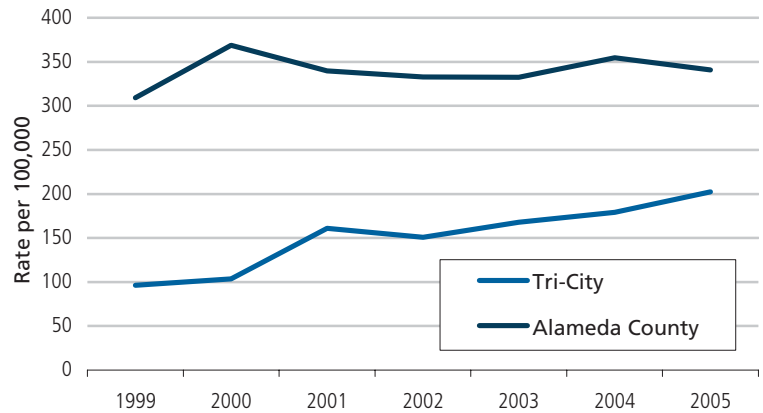
Gonorrhea is a sexually transmitted bacterial infection, and the second most commonly reported infectious disease in the United States. The CDC estimates more than 700,000 cases of gonorrhea occur each year in the United States.<sup>6</sup> Like chlamydia, gonorrhea infections are underreported and it is believed that reported cases constitute only about half of all actual cases occurring annually. More than 330,000 cases of gonorrhea had been reported in the United States in 2004,

yielding a case rate of 113.5 per 100,000. Reported cases of gonorrhea declined in the United States from a high of 467.7 per 100,000 in 1975 to 113.5 in 2004. Gonorrhea rates remain high for African Americans, adolescents and young adults. Left untreated, it is a major cause of PID, which can lead to infertility and tubal pregnancies in women and epididymitis and infertility in

Tri-City experienced a steady increase in chlamydia infection rates from 96 per 100,000 in 1999 to 202 per 100,000 in 2005. The Alameda County rate remained relatively stable. In 2005, the Tri-City rate was just 60% of the county rate. The increases in Tri-City may reflect a true increase in rates of infection. However, they may also be due to increased testing and/or improved reporting of chlamydia cases by providers in the area.

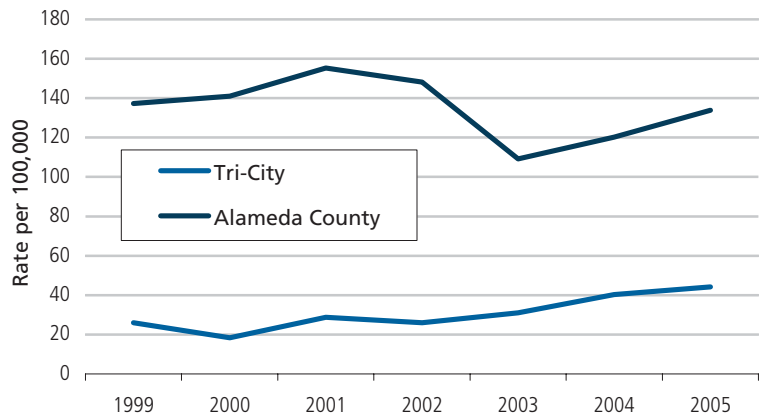
Similarly, the rate of gonorrhea in Tri-City increased from 26 per 100,000 in 1999 to 44 per 100,000 in 2005. In 2005, the Tri-City rate was just one-third of the county rate.

Figure 138: Historical Chlamydia Case Rate



Source: CAPE; Alameda County STD surveillance system.  
Note: The Alameda County rate does not include Berkeley.

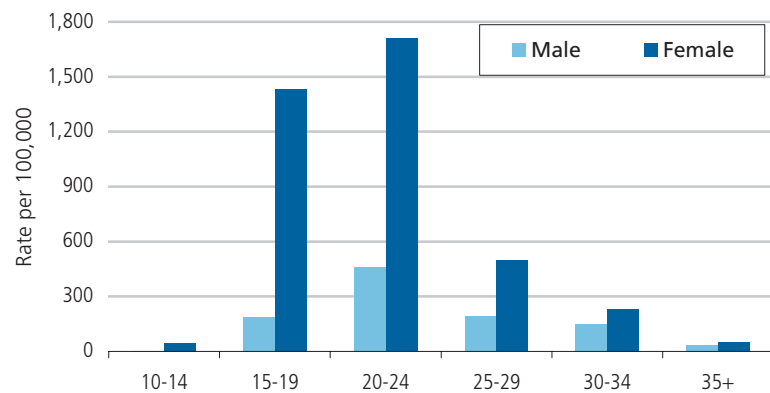
Figure 139: Historical Gonorrhea Case Rate



Source: CAPE; Alameda County STD surveillance system.  
Note: The Alameda County rate does not include Berkeley.

Young females accounted for three-fourths of reported chlamydia cases in Tri-City. Infection rates were higher among females than males in every age group. The most pronounced gender difference was in the age group 15-19 years, where the female rate was nearly eight times the male rate. Similarly, the rate among females 20 to 24 years was nearly four times that for males.

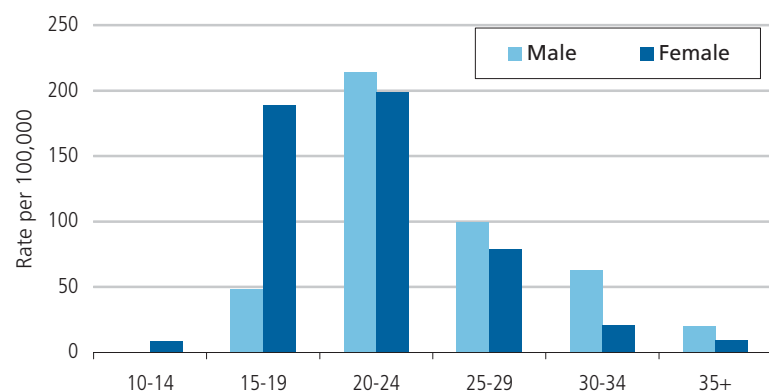
Figure 140: Chlamydia Case Rates by Age and Sex, Tri-City



Source: CAPE; Alameda County STD surveillance system 2003-2005.

From 2003 to 2005, just under half of gonorrhea cases in Tri-City were female. Gonorrhea case rates were highest in the age group 20-24 years. Over age 20, males had higher rates than females. The largest gender difference was in the age group 15 to 19 years where the female rate was four times higher than the male rate.

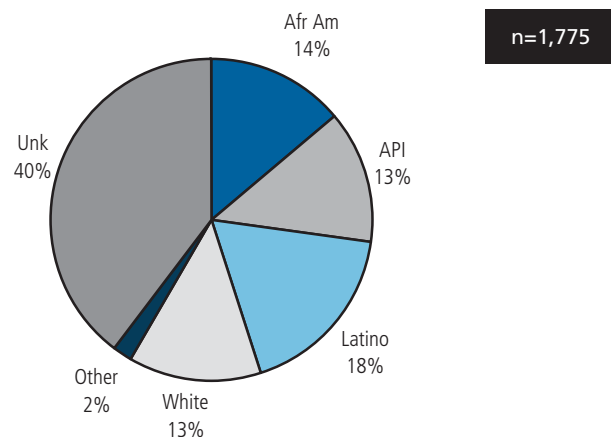
Figure 141: Gonorrhea Case Rates by Age and Sex, Tri-City



Source: CAPE; Alameda County STD surveillance system 2003-2005.

Of the 1,775 chlamydia cases reported in Tri-City from 2003 to 2005, the race/ethnicity for 40% was unknown. Latinos made up 18% of cases, followed by African Americans (14%), Whites (13%), and APIs (13%).

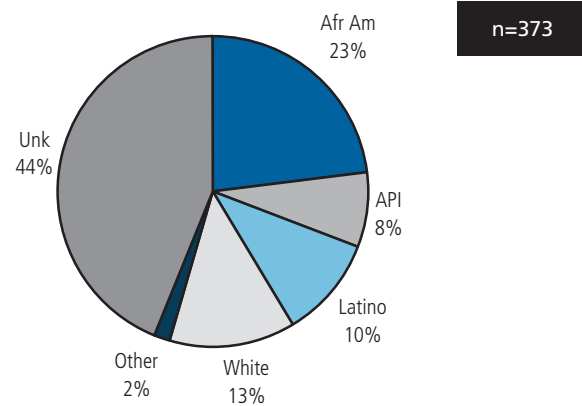
Figure 142: Chlamydia Cases by Race/Ethnicity, Tri-City



Source: CAPE; Alameda County STD surveillance system 2003-2005.

Of the 373 gonorrhea cases reported in Tri-City from 2003-2005, the race/ethnicity of 44% was unknown. African Americans made up nearly one-fourth of cases (23%), followed by Whites (13%), Latinos (10%) and APIs (8%).

Figure 143: Gonorrhea Cases by Race/Ethnicity, Tri-City



Source: CAPE; Alameda County STD surveillance system 2003-2005.

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# Appendix A: Technical Notes

## ■ Methods

### Geographic measures

Each source of data has variations in its geographies:

*Vital statistics* For data prior to 2000, data are based on the address, which is sometimes different from the physical location. For example, many addresses inside Oakland near the Emeryville border use Emeryville for the postal address. For subsequent years data are based on physical location.

*Census 2000* Data are reported for each city as a whole.

*Hospitalizations* City equivalents are developed by grouping zip codes. Fremont is 94536, 94538, 94539, and 94555, Newark is 94560, and Union City is 94587.

### Race and ethnicity

This report restricts descriptions of race and ethnicity to short words and phrases. It is recognized that individual preference varies and that classification is not trivial. Considering the report's many text references, tables, and figures that make comparisons between races, readability and space require consistent and abbreviated usage. Thus, the report refers to African American, rather than Black or African. In tables and figures, African American is usually shortened to AfrAmer. Other standard terms are White; American Indian (sometimes shortened to AmerInd); Pacific Islander (sometimes shortened to PacIsl and sometimes referred to as Native Hawaiian or Other Pacific Islander); and Asian (sometimes combined with Pacific Islanders and shortened to API). Latino includes all those of Spanish- and Portuguese-speaking descent in the Americas, including people from Spain. Hispanic or Latino is considered by most data collectors such as the Census Bureau to be an ethnicity rather than a race. Thus, a Latino may be White or Asian or Black, but here all those persons are reported as Latino. Some data systems are allowing people to choose multiple races or simply a Multirace or Other category, so the report uses those designations when needed. Finally, race is often unreported, mis-reported, or unclassifiable in many data systems; the report often includes these for completeness, labeled as appropriate for the circumstance.

### Rate calculations

Health indicators in this report are presented primarily as age-adjusted rates per 100,000 population. These rates are age-adjusted by the direct method to the U.S. 2000 standard population. Age-adjustment is a summary measure that allows for comparison of rates across population groups that have different age compositions.

Grouping multiple years of data becomes necessary when investigating patterns of health in small geographic areas. This method increases the number of incidents (cases of births, deaths, or hospi-



talizations), allowing the calculation of more reliable rates and reducing random variation. Rates are not shown if the number of events was less than ten. This limits, for example, the data presented for American Indians, or the availability of data for small geographies such as individual Tri-City cities.

## ■ Data Sources

*Demographic and socioeconomic* U.S. Bureau of the Census, American Fact Finder, 2000 Census and 1990 Census.

*Population estimates* The population estimate for each geography is from Census 2000 and California Department of Finance (DOF) estimates. Since most data are for 2002 to 2004, they have a mid-point of July 1, 2003. Age, sex, and race distributions are from Census 2000 (assuming that little had changed since the Census of April 1, 2000), but the total population is adjusted using the DOF May 2006 benchmarks. For the years prior to 2000, the age and sex distributions are assumed to change linearly from Census 1990 to Census 2000, with the total number of persons taken from DOF estimates.<sup>1</sup>

*Births* Alameda County Public Health Department Vital Statistics Files obtained from the Alameda County Department of Public Health Automated Vital Statistics System (AVSS).

*Cancer incidence* California Cancer Registry (CCR) data provided by the Northern California Cancer Center (NCCC) is the source of data on new cases of cancer. This data source has reports of cases diagnosed by site, as well as a range of clinical characteristics such as extent of disease and stage.

*Deaths* Alameda County Public Health Department Vital Statistics Files obtained from the Alameda County Department of Public Health Automated Vital Statistics System (AVSS) and the State of California Statistical Master Death file.

*Hospital discharge* Hospital inpatient discharge data collected by the California Office of Statewide Health Planning and Development (OSHPD).

*Tuberculosis* Alameda County Department of Public Health Tuberculosis Information Management System (TIMS).

*HIV/AIDS* Alameda County Department of Public Health HIV/AIDS Reporting System (HARS).

*STDs* Alameda County STD surveillance system.

## ■ 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 capture those illnesses or injuries serious enough to get people admitted to the hospital and are not a direct reflection of the prevalence of a given disease or condition in the population since many who have the illness are not hospitalized. Race and ethnicity data are missing for many cases due to the omission of a race field on many hospital discharge forms. Consequently, race is not recorded in

about 18% of hospital discharge records.<sup>2</sup> There are a large number of cases of ‘unknown’ and ‘other’ race which are not included in rate calculations, resulting in an overestimation of rates for some racial groups and an underestimation for others.

***Births*** Information on the newborn is taken from the birth certificate. The race/ethnicity on the birth certificate is reported by self-identification according to the race and ethnicity of the mother.

***Deaths*** The race and ethnicity of the decedent is from the death certificate as reported by family members to the funeral director. However, birth and census population data use the self-reported race of the respondent. Because of the combined effect of numerator and denominator biases, it has been estimated that death rates are overestimated by about 1% among Whites and 5% among African Americans. They are underestimated by approximately 21% for American Indian or Alaska Natives, 11% for Asian and Pacific Islanders, and 2% for Latinos.<sup>3</sup>

***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.<sup>4</sup> However, the mortality trend data for 1991 to 1998, and hospital discharge data are based on the ninth revision of the International Classification of Diseases (ICD-9). Since the beginning of the century, the International Classification of Disease for mortality has been modified about once every 10 years, except for the 20-year interval between the last two revisions. ICD-10 differs from ICD-9 in many respects:

- 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.
- ICD-10 uses 4-digit alphanumeric codes compared with 4-digit numeric codes in ICD-9.
- Three additional chapters have been added, some chapters rearranged, cause of death titles have been changed, and conditions have been regrouped.
- Some coding rules have been changed.<sup>5</sup>

Introducing this tenth revision of International Classification of Disease creates discontinuities in time series and trends. This means the Healthy People 2010 objectives may not be strictly comparable with the tracking data for 1999 and subsequent years whose baseline data were 1997 and 1998.<sup>5</sup>

***Multiple race coding*** The data on race in Census 2000 are not directly comparable to those collected in previous censuses. The October 1997 revised standards issued by the U.S. Office of Management and Budget (OMB) led to changes in the question on race for Census 2000. In Census 2000, respondents were allowed to select more than one category for race. Also, the “Asian and Pacific Islander” category was separated into two categories, “Asian” and “Native Hawaiian and Other Pacific Islander.”

***Leading causes of death*** Causes are ranked according to the number of deaths because it most accurately reflects the frequency of cause-specific mortality. In this report, leading causes of death were derived from the recommended list of 50 rank-able causes from the 113 selected causes of death developed for use with ICD-10.<sup>6</sup> Leading causes of infant mortality were derived from a separate ranking procedure using the recommended list of 71 rank-able causes from the 130 selected causes of infant death developed in accordance with ICD-10. 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 separately, both causes would rank among the ten leading causes of death.<sup>6</sup>

*Sexually transmitted diseases* The incidence of STDs depends on levels of screening. Since testing for STDs is not comprehensive or uniform throughout the jurisdiction, and since many STD infections are asymptomatic, the actual incidence of STDs is greater than that which is reported. In addition, STD data derive largely from laboratory reports which do not contain information on the race/ethnicity of the individual. Hence, the data is incomplete and conclusions about the distribution of STDs by race/ethnicity cannot be firmly drawn.

## ■ Case Definitions

### Maternal and Child Health

*Infant mortality* Number of deaths to children less than one year old per 1,000 live births.

*Low birth weight* The percentage of live births weighing less than 2,500 grams.

*Early prenatal care* Care received during the first trimester (before 12 weeks) of pregnancy.

*Teen birth* Births to teenage mothers (15 to 19 years).

### Mortality

Cause of Death	ICD-10 Codes	Cause of Death	ICD-10 Codes
Diabetes	E10-E14	Motor Vehicle Crash	V02-V04, V09.0, V09.2, V12-V14, V19.0-V19.2, V19.4-V19.6, V20-V79, V80.3-V80.5, V81.0-V81.1, V82.0-V82.1, V83-V86, V87.0-V87.8, V88.0-V88.8, V89.0, V89.2
Coronary heart disease	I11, I20-I25		
Stroke	I60-I69		
All cancer	C00-C97		
Lung cancer	C33-C34		
Colorectal cancer	C18-C21		
Female breast cancer	C50	Unintentional injury	V01-X59, Y85-Y86
Prostate cancer	C61	Suicide	X60-X84, Y87.0
		Homicide	X85-Y09, Y87.1

### Hospitalization

Diagnosis	ICD-9 Codes	Code Positions
Asthma	493.00-493.99	Primary Dx
Diabetes	250.00-250.99	Primary Dx-Dx4
Coronary heart disease	402.00-402.99; 410.00-414.99; 429.2	Primary Dx-Dx4
Stroke	430.00-438.99	Primary Dx-Dx4
Self-inflicted injury	E950-959	Primary E-code
Unintentional injury	E800-E949	Primary E-code
Assault	E960-E969	Primary E-code

## Cancer Indidence

Site	SEER Site Code
Breast	26000
Prostate	28010
Colorectal	21041–21049, 21051–21052
Lung	22030

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. Surveillance Epidemiology and End Results (SEER) site codes in the California Cancer Registry were used to define and select cases by site for this report.<sup>7</sup>

## Communicable Disease

**AIDS** The Centers for Disease Control and Prevention expanded the AIDS surveillance case definition in 1993 to include all HIV-infected persons with a CD4+ T-lymphocyte count of less than 200 cells/uL or with one of the AIDS-defining clinical conditions.

**Chlamydia** A case that is laboratory confirmed by isolation of *C. trachomatis* by culture.

**Gonorrhea** A case that is laboratory confirmed by isolation of *Neisseria gonorrhea* by culture.

**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.

## Rates

**Age-adjustment** All age-adjusted rates in this report are adjusted by the direct method to the 2000 U.S. Standard Population. In general, the number of deaths 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 a function of age, simply calculating a crude rate for vital events such as death (number of deaths/population) can lead to misleading conclusions when comparing different subpopulations. 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 to determine age-specific 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 unbiased comparison across 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, the National Center for Health Statistics (NCHS) recommends presenting only rates based on 20 or more events.<sup>8</sup> For this report, this standard has been relaxed to a requisite ten or more events for rates, a standard recently adopted by the Family Health Outcomes Project of the University of California, San Francisco.<sup>9</sup>

*Confidence interval* A good measure of the reliability of a rate is the confidence interval (CI) around the rate estimate. A confidence interval defines the range of rates that would be determined by repeated sampling of the same phenomenon. By statistical convention, a 95% confidence interval is considered a useful measure of the range of accuracy of an estimate. This means that with repeated sampling, one would obtain a rate within the confidence interval 95% of the time. These calculations normally use the binomial distribution. Based on recommendations of the National Center for Health Statistics (NCHS) regarding the calculation of rates and confidence intervals, the standard error of any rate based on fewer than 100 events is based on the Poisson distribution. The Poisson distribution is similar to the binomial distribution but is characterized by very small numbers of events occurring in a large number of trials.<sup>9</sup>

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Table B-1: Demographics

	Alameda County		Fremont		Newark		Union City		Tri-City	
Total Persons	1,443,741		203,413		42,471		66,869		312,753	
Male	709,300	49.1%	102,273	50.3%	21,386	50.4%	33,248	49.7%	156,907	50.2%
Female	734,441	50.9%	101,140	49.7%	21,085	49.6%	33,621	50.3%	155,846	49.8%
<b>Age</b>										
Under 5 years	98,378	6.8%	15,137	7.4%	3,062	7.2%	4,870	7.3%	23,069	7.4%
5 to 14 years	201,417	14.0%	29,276	14.4%	6,631	15.6%	10,560	15.8%	46,467	14.9%
15 to 24 years	193,193	13.4%	23,736	11.7%	5,900	13.9%	9,695	14.5%	39,331	12.6%
25 to 34 years	241,073	16.7%	35,274	17.3%	7,011	16.5%	10,672	16.0%	52,957	16.9%
35 to 44 years	248,706	17.2%	39,578	19.5%	7,556	17.8%	11,202	16.8%	58,336	18.7%
45 to 54 years	200,518	13.9%	27,859	13.7%	5,442	12.8%	9,214	13.8%	42,515	13.6%
55 to 64 years	112,865	7.8%	15,586	7.7%	3,545	8.3%	5,220	7.8%	24,351	7.8%
65 to 74 years	75,699	5.2%	9,933	4.9%	2,071	4.9%	3,098	4.6%	15,102	4.8%
75 to 84 years	53,069	3.7%	5,394	2.7%	1,013	2.4%	1,769	2.6%	8,176	2.6%
85 years and over	18,823	1.3%	1,640	0.8%	240	0.6%	569	0.9%	2,449	0.8%
Median age		34.5		34.5		33.1		32.8		34.0
<18	354,572	24.6%	52,452	25.8%	11,575	27.3%	18,562	27.8%	82,589	26.4%
65+	147,591	10.2%	16,967	8.3%	3,324	7.8%	5,436	8.1%	25,727	8.2%
<b>Race</b>										
African American	211,124	14.6%	6,084	3.0%	1,639	3.9%	4,321	6.5%	12,044	3.9%
American Indian	5,306	0.4%	656	0.3%	148	0.3%	132	0.2%	936	0.3%
Asian	292,673	20.3%	74,773	36.8%	8,951	21.1%	28,780	43.0%	112,504	36.0%
Latino	273,910	19.0%	27,409	13.5%	12,145	28.6%	16,020	24.0%	55,574	17.8%
Pacific Islander	8,458	0.6%	736	0.4%	378	0.9%	577	0.9%	1,691	0.5%
White	591,095	40.9%	84,149	41.4%	17,103	40.3%	13,610	20.4%	114,862	36.7%
Some other race	4,676	0.3%	553	0.3%	128	0.3%	203	0.3%	884	0.3%
Multiple race	56,499	3.9%	9,053	4.5%	1,979	4.7%	3,226	4.8%	14,258	4.6%
<b>Characteristics of persons</b>										
% poverty: total		11.0%		5.4%		5.5%		6.5%		5.7%
% poverty: <18 years		13.8%		6.2%		5.9%		7.3%		6.4%
% poverty 18-64 years		10.4%		5.0%		5.1%		6.2%		5.3%
% poverty: 65+ years		8.1%		6.2%		6.9%		6.5%		6.4%
% unemployed		5.5%		3.9%		5.0%		5.1%		4.3%
% high school or higher		82.4%		88.4%		79.2%		80.5%		85.6%
% bachelor or higher		34.9%		43.2%		24.2%		29.5%		37.9%
% speak English not well or not at all		8.5%		7.4%		9.5%		10.4%		8.3%
Households	523,366		68,237		12,992		18,628		99,857	
Average HH size	2.8		3.0		3.3		3.6		3.1	
Average HH income	\$72,687		\$92,891		\$77,218		\$81,486		\$88,724	
% owner-occupied HH		54.7%		64.5%		70.7%		71.2%		66.6%
% HH linguistically isolated		8.7%		10.4%		10.1%		12.8%		10.8%
Families w/own children <18	174,020		27,829		5,266		8,456		41,551	
% families w/single mother		20.4%		10.3%		15.0%		11.7%		11.2%

Source: CAPE; Census 2000.

Note: Linguistically isolated means that no one in the household 14 years and over speaks English "very well."

Table B-2: MCAH Indicator Data

	Alameda County					Fremont			Newark			Union City			Tri-City		
	Total	Rate	LCL	UCL		Total	Rate	LCL	UCL	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL
Infant Mortality																	
All	296	4.6	4.1	5.1		43	4.4	3.2	5.9	10	4.8	2.3	8.8	16	4.9	2.8	8.0
AfrAm	74	9.3	7.3	11.7		3				0				0			
AmerInd	1					0				0				0			
Asian	59	3.6	2.7	4.6		23	4.3	2.7	6.5	2				7	4.2	2.9	5.9
Latino	88	4.6	3.7	5.6		8				3				4	4.5	2.5	7.4
Multirace	12	10.8	5.6	18.9		4				1				2			
PacIsl	3					0				0				1			
White	59	3.4	2.6	4.4		5				4				2	3.6	1.8	6.4
All	4,428	6.9	6.7	7.1		671	6.8	6.3	7.3	153	7.3	6.2	8.4	228	7.0	6.1	7.9
AfrAm	949	12.0	11.2	12.7		28	11.2	7.3	15.2	12	15.6	7.5	23.7	18	9.9	5.6	14.3
AmerInd	13	6.2	2.9	9.5		2				0				0			
Asian	1,209	7.3	6.9	7.7		381	7.1	6.4	7.8	50	8.2	6.0	10.4	132	7.8	6.5	9.1
Latino	1,011	5.3	4.9	5.6		89	5.5	4.4	6.6	57	6.6	5.0	8.3	50	5.6	4.1	7.1
Multirace	86	7.7	6.2	9.3		12	8.2	3.7	12.6	2				6			
Other	76	6.6	5.2	8.1		13	8.4	4.0	12.8	3				5			
PacIsl	42	6.4	4.5	8.2		3				5				2			
White	1,042	6.0	5.7	6.4		143	6.3	5.3	7.3	24	5.2	3.1	7.2	15	4.3	2.2	6.4
All	57,390	90.7	90.5	90.9		8,832	90.6	90.0	91.2	1,826	88.5	87.1	89.9	2,892	89.7	88.7	90.8
AfrAm	6,880	88.3	87.6	89.0		213	85.5	81.2	89.9	60	82.2	73.4	91.0	158	88.3	83.6	93.0
AmerInd	182	88.3	84.0	92.7		16	80.0	62.5	97.5	3				4			
Asian	15,126	91.9	91.4	92.3		4,872	91.9	91.2	92.7	554	92.0	89.9	94.2	1,525	90.9	89.5	92.3
Latino	16,516	87.9	87.5	88.4		1,382	86.5	84.8	88.2	729	86.7	84.4	89.0	763	86.5	84.3	88.8
Multirace	999	90.7	88.9	92.4		132	89.8	84.9	94.7	23	82.1	68.0	96.3	46	88.5	79.8	97.1
Other	1,033	95.8	94.6	97.0		135	95.7	92.4	99.1	21	91.3	79.8	102.8	40	95.2	88.8	101.7
PacIsl	501	77.7	74.5	80.9		40	85.1	74.9	95.3	19	67.9	50.6	85.2	31	83.8	71.9	95.7
White	16,153	93.9	93.6	94.3		2,042	90.8	89.6	92.0	417	89.7	86.9	92.4	325	93.1	90.5	95.8
All	3,904	28.0	27.1	28.8		289	15.4	13.6	17.1	129	28.2	23.4	33.1	161	20.6	17.4	23.8
AfrAm	969	42.4	39.7	45.1		23	35.9	22.7	53.8	5				21	33.9	21.0	51.8
AmerInd	12	22.0	11.4	38.4		0				0				0			
Asian	201	6.7	5.8	7.7		31	5.4	3.6	7.6	4				14	4.5	2.5	7.5
Latino	2,071	64.2	61.4	67.0		128	37.2	30.8	43.6	87	55.9	44.7	68.9	96	43.5	35.3	53.2
Multirace	78	10.2	8.0	12.7		7				3				6			
PacIsl	39	33.4	23.8	45.7		2				0				6			
White	503	11.2	10.3	12.2		96	12.7	10.2	15.3	29	17.6	11.8	25.3	17	14.0	8.2	22.4
All																	
AfrAm																	
AmerInd																	
Asian																	
Latino																	
Multirace																	
PacIsl																	
White																	

Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF; Census 2000.

Notes: Totals are for three years; rates are annualized. Infant mortality rate is per 1,000 live births; low birth weight and early prenatal care are percentages of births; teen birth rate is per 1,000 teen females 15-19 years. Rates are not shown for total less than 10. LCL and UCL are lower and upper 95% confidence levels for the rate.



Table B-3: Historical MCAH Indicators: Infant Mortality and Low Birth Weight

	Alameda County				Fremont				Newark				Union City				Tri-City				
	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL	
Infant Mortality	1991	178	7.7	6.6	8.8	17	5.2	3.0	8.3	4			10	10.2	4.9	18.8	31	6.2	4.2	8.8	
	1992	166	7.3	6.2	8.4	12	3.6	1.9	6.3	6			7				25	4.9	3.2	7.2	
	1993	140	6.4	5.3	7.4	11	3.4	1.7	6.1	7			7				25	5.1	3.3	7.5	
	1994	137	6.4	5.3	7.5	19	6.0	3.6	9.4	6			12	12.0	6.2	20.9	37	7.6	5.3	10.4	
	1995	115	5.6	4.6	6.7	12	3.9	2.0	6.8	3			2				17	3.6	2.1	5.8	
	1996	122	5.9	4.9	7.0	11	3.5	1.7	6.3	1			7				19	3.9	2.4	6.2	
	1997	125	6.0	5.0	7.1	21	6.8	4.2	10.4	6			7				34	7.1	4.9	9.9	
	1998	107	5.1	4.1	6.1	10	3.3	1.6	6.0	4			3				17	3.6	2.1	5.7	
	1999	109	5.3	4.3	6.3	17	5.6	3.3	9.0	3			5				25	5.4	3.5	8.0	
	2000	101	4.6	3.7	5.5	14	4.1	2.2	6.9	6			3				23	4.4	2.8	6.6	
	2001	132	6.0	5.0	7.0	14	4.5	2.4	7.5	2			8				24	4.8	3.1	7.1	
	2002	90	4.1	3.3	5.1	7				4			4				15	2.9	1.6	4.7	
	2003	97	4.5	3.7	5.5	13	4.0	2.1	6.9	3			3				19	3.8	2.3	5.9	
	2004	109	5.2	4.2	6.2	23	7.2	4.6	10.9	3			9				35	7.2	5.0	10.0	
Low Birth Weight	1991	1,665	7.2	6.9	7.5	197	6.0	5.2	6.8	39	5.1	3.5	6.6	57	5.8	4.4	7.3	293	5.8	5.2	6.5
	1992	1,625	7.2	6.8	7.5	170	5.1	4.4	5.9	39	5.0	3.4	6.5	59	5.9	4.4	7.4	268	5.3	4.7	5.9
	1993	1,485	6.8	6.4	7.1	160	5.0	4.2	5.7	36	5.1	3.5	6.7	52	5.3	3.9	6.7	248	5.1	4.4	5.7
	1994	1,600	7.5	7.1	7.8	182	5.8	4.9	6.6	41	5.7	4.0	7.4	71	7.1	5.5	8.7	294	6.0	5.4	6.7
	1995	1,423	7.0	6.6	7.3	188	6.1	5.2	6.9	35	5.0	3.4	6.6	61	6.5	5.0	8.1	284	6.0	5.3	6.7
	1996	1,439	7.0	6.6	7.3	181	5.8	4.9	6.6	50	7.1	5.2	9.0	64	6.6	5.0	8.2	295	6.1	5.4	6.8
	1997	1,439	6.9	6.6	7.3	173	5.6	4.8	6.4	41	5.8	4.1	7.6	67	6.7	5.2	8.3	281	5.9	5.2	6.5
	1998	1,503	7.2	6.8	7.5	185	6.0	5.2	6.9	44	6.5	4.6	8.3	58	5.9	4.4	7.3	287	6.0	5.4	6.7
	1999	1,338	6.5	6.2	6.9	163	5.4	4.6	6.2	37	6.3	4.4	8.3	64	6.2	4.7	7.6	264	5.7	5.0	6.4
	2000	1,487	6.7	6.4	7.0	200	5.8	5.0	6.6	49	7.1	5.2	9.0	98	8.7	7.0	10.3	347	6.6	5.9	7.3
	2001	1,563	7.1	6.8	7.4	201	6.4	5.5	7.2	51	7.1	5.2	8.9	74	6.5	5.1	8.0	326	6.5	5.8	7.2
	2002	1,444	6.6	6.3	7.0	233	6.8	6.0	7.6	48	6.9	5.0	8.8	78	6.9	5.4	8.4	359	6.8	6.1	7.5
	2003	1,559	7.2	6.9	7.6	225	6.9	6.1	7.8	55	7.6	5.7	9.6	72	6.6	5.1	8.1	352	7.0	6.3	7.7
	2004	1,425	6.8	6.5	7.2	213	6.7	5.8	7.6	50	7.4	5.4	9.3	78	7.6	6.0	9.2	341	7.0	6.3	7.7

Source: CAPE, Alameda County vital statistics files 1991-2004.

Notes: Infant mortality rate is per 1,000 live births; low birth weight rate is percentage of births. Rates are not shown for total less than 10. LCL and UCL are lower and upper 95% confidence levels for the rate.

Table B-4 Historical MCAH Indicators: Early Prenatal Care and Teen Births

	Alameda County				Fremont				Newark				Union City				Tri-City				
	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL	
Early Prenatal Care	1991	19,172	83.9	83.4	84.4	2,868	88.3	87.2	89.4	640	83.9	81.3	86.5	828	85.9	83.7	88.1	4,336	87.1	86.2	88.1
	1992	19,075	85.4	84.9	85.8	2,975	90.6	89.6	91.6	663	84.8	82.3	87.3	848	86.9	84.8	89.0	4,486	89.0	88.1	89.8
	1993	18,500	86.3	85.9	86.8	2,855	89.8	88.8	90.9	609	87.4	84.9	89.8	852	90.1	88.2	92.0	4,316	89.5	88.6	90.4
	1994	18,304	86.3	85.9	86.8	2,794	88.9	87.8	90.0	623	87.6	85.2	90.0	829	84.0	81.7	86.3	4,246	87.7	86.8	88.6
	1995	17,645	87.6	87.1	88.0	2,743	89.5	88.4	90.6	623	88.5	86.1	90.9	790	86.6	84.4	88.8	4,156	88.8	87.9	89.7
	1996	17,982	88.9	88.5	89.3	2,854	91.6	90.6	92.5	613	87.9	85.5	90.4	847	89.0	87.0	91.0	4,314	90.5	89.7	91.3
	1997	18,228	89.0	88.6	89.5	2,781	90.4	89.4	91.5	612	88.2	85.8	90.6	869	88.2	86.2	90.2	4,262	89.7	88.8	90.5
	1998	18,156	88.5	88.0	88.9	2,733	89.3	88.2	90.4	595	87.9	85.4	90.3	841	85.6	83.4	87.8	4,169	88.3	87.4	89.2
	1999	17,910	88.8	88.3	89.2	2,655	88.5	87.3	89.6	496	85.2	82.3	88.1	856	83.1	80.8	85.4	4,007	86.9	85.9	87.8
	2000	19,615	89.8	89.3	90.2	3,026	88.7	87.7	89.8	599	87.3	84.8	89.8	962	85.7	83.6	87.7	4,587	87.9	87.0	88.8
	2001	19,601	90.6	90.2	91.0	2,835	90.6	89.6	91.6	642	89.5	87.3	91.8	993	88.3	86.4	90.1	4,470	89.9	89.1	90.8
	2002	19,330	90.6	90.2	90.9	3,089	91.0	90.1	92.0	622	89.9	87.6	92.1	1,005	89.5	87.7	91.3	4,716	90.6	89.8	91.3
	2003	19,374	90.9	90.5	91.3	2,938	91.2	90.3	92.2	623	88.4	86.0	90.7	961	89.0	87.1	90.8	4,522	90.3	89.5	91.2
	2004	18,686	90.7	90.3	91.1	2,805	89.4	88.3	90.5	581	87.2	84.7	89.8	926	90.8	89.0	92.6	4,312	89.4	88.5	90.3
Teen Birth	1991	2,183	53.9	51.6	56.2	188	35.3	30.2	40.3	49	37.5	27.7	49.5	97	46.7	37.9	57.0	334	38.3	34.2	42.5
	1992	2,212	53.3	51.1	55.5	178	32.9	28.0	37.7	51	38.5	28.7	50.7	87	41.4	33.1	51.0	316	35.7	31.8	39.7
	1993	2,049	48.4	46.3	50.5	168	30.7	26.0	35.3	61	45.7	35.0	58.7	91	42.8	34.5	52.5	320	35.8	31.9	39.7
	1994	1,913	44.2	42.2	46.2	172	31.3	26.6	36.0	51	37.8	28.1	49.7	80	37.3	29.6	46.4	303	33.7	29.9	37.5
	1995	1,968	44.8	42.8	46.8	174	31.5	26.8	36.2	54	39.8	29.9	51.9	85	39.5	31.5	48.8	313	34.7	30.8	38.5
	1996	1,828	41.1	39.2	43.0	172	30.8	26.2	35.4	58	42.4	32.2	54.8	85	39.1	31.2	48.3	315	34.5	30.7	38.3
	1997	1,777	39.3	37.5	41.1	153	26.6	22.4	30.8	51	36.6	27.2	48.1	85	37.7	30.1	46.6	289	30.7	27.2	34.3
	1998	1,756	38.6	36.8	40.4	130	22.1	18.3	25.9	38	26.6	18.8	36.5	86	36.6	29.3	45.2	254	26.3	23.0	29.5
	1999	1,595	35.2	33.4	36.9	122	20.3	16.7	23.9	56	38.3	28.9	49.7	91	37.4	30.1	46.0	269	27.2	23.9	30.4
	2000	1,692	37.4	35.7	39.2	135	22.0	18.3	25.7	50	33.6	25.0	44.3	87	34.8	27.9	42.9	272	26.9	23.7	30.0
	2001	1,573	34.7	32.9	36.4	116	18.6	15.2	22.0	48	31.8	23.4	42.1	68	26.5	20.6	33.6	232	22.5	19.6	25.4
	2002	1,369	30.0	28.4	31.6	98	15.6	12.7	19.0	43	28.3	20.5	38.1	66	25.4	19.6	32.3	207	19.9	17.2	22.6
	2003	1,306	28.3	26.8	29.8	99	15.8	12.8	19.2	44	28.9	21.0	38.8	47	18.1	13.3	24.0	190	18.3	15.7	20.9
	2004	1,229	26.3	24.9	27.8	92	14.7	11.8	18.0	42	27.6	19.9	37.3	48	18.4	13.6	24.4	182	17.5	15.0	20.1

Source: CAPE; Alameda County vital statistics files 1991-2004, CA DOF; Census 1990 and 2000.

Notes: Early prenatal care rate is percentage of births; teen birth rate is per 1,000 teen females 15-19 years. Rates are not shown for total less than 10. LCL and UCL are lower and upper 95% confidence levels for the rate.

Table B-5: Mortality from All Causes

	Alameda County				Fremont				Newark				Union City				Tri-City			
	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL
All	28,306	702.9	694.7	711.1	2,820	673.8	648.3	699.4	583	738.7	674.5	803.0	1,026	725.2	679.8	770.7	4,429	693.4	672.4	714.5
Male	13,854	828.5	814.3	842.6	1,397	789.3	744.5	834.1	294	854.8	741.4	968.2	496	872.2	788.6	955.8	2,187	815.6	778.3	852.9
Female	14,452	604.5	594.5	614.4	1,423	588.9	558.0	619.7	289	649.9	572.6	727.2	530	628.4	574.6	682.2	2,242	605.2	579.9	630.5
AfrAmer	6,080	1,118.0	1,089.7	1,146.3	92	1,372.8	1,106.6	1,683.6	27	1,870.7	1,232.8	2,721.8	70	1,132.6	882.9	1,430.9	189	1,313.1	1,075.6	1,550.7
AmerInd	71	482.3	376.7	608.4	11	872.9	435.8	1,561.9	2								13	769.1	409.5	1,315.3
Asian	3,263	424.2	409.4	438.9	482	474.5	426.6	522.3	110	654.5	523.6	785.3	300	579.4	507.7	651.1	892	526.5	488.1	564.9
Latino	2,414	582.3	557.2	607.4	289	695.5	609.8	781.2	100	615.5	482.4	748.6	179	695.5	589.1	802.0	568	684.8	624.7	744.9
Multirace	139	233.3	190.1	276.5	18	124.7	73.9	197.0	4				11	358.4	178.9	641.4	33	153.7	105.8	215.9
Other	2																			
PacIsl	149	975.0	791.7	1,158.4	16	1,266.2	723.7	2,056.2	13	2,104.4	1,120.5	3,598.6	9				38	1,261.6	892.8	1,731.7
White	16,172	726.3	714.9	737.7	1,909	759.0	724.7	793.2	327	826.2	731.4	921.0	456	895.1	811.4	978.8	2,692	783.7	753.9	813.5

Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

Notes: Totals are for three years; rates are age-adjusted, per 100,000. LCL and UCL are lower and upper 95% confidence levels for the rate.

Table B-6: Historical Mortality from All Causes

	Alameda County				Fremont				Newark				Union City				Tri-City			
	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL
1991-1992	19,234	931.5	918.1	944.8	1,655	816.5	774.7	858.2	316	852.9	746.7	959.2	607	896.2	822.6	969.7	2,578	839.5	805.2	873.8
1993-1994	19,470	916.1	903.1	929.1	1,713	793.6	754.1	833.1	314	739.4	647.4	831.4	594	811.8	744.4	879.1	2,621	791.6	759.7	823.4
1995-1996	19,464	901.9	889.1	914.7	1,788	782.6	744.9	820.4	369	795.3	706.0	884.5	615	812.8	746.8	878.9	2,772	792.7	761.9	823.5
1997-1998	19,278	864.1	851.8	876.4	1,882	758.0	722.5	793.4	381	785.9	700.2	871.7	592	719.3	659.9	778.8	2,855	753.6	725.0	782.3
1999-2000	19,590	806.3	795.0	817.6	1,913	708.1	675.5	740.8	359	684.7	608.7	760.8	649	719.7	663.0	776.5	2,921	708.4	681.8	734.9
2001-2002	19,126	735.8	725.3	746.2	1,887	680.6	649.1	712.2	368	722.3	643.5	801.1	679	722.1	666.4	777.7	2,934	694.4	668.5	720.3
2003-2004	18,816	694.0	684.0	704.0	1,876	670.2	639.0	701.4	388	723.3	646.0	800.6	670	715.8	660.4	771.2	2,934	687.5	661.9	713.2

Source: CAPE; Alameda County vital statistics files 1991-2004, CA DOF, Census 1990 and 2000.

Notes: Totals are for two years; rates are age-adjusted, per 100,000. LCL and UCL are lower and upper 95% confidence levels for the rate.

Table B-7: Diabetes, Coronary Heart Disease, and Stroke Mortality

	Alameda County					Fremont					Newark					Union City					Tri-City				
	Total	Rate	LCL	UCL		Total	Rate	LCL	UCL		Total	Rate	LCL	UCL		Total	Rate	LCL	UCL		Total	Rate	LCL	UCL	
Diabetes	All	861	21.6	20.2	23.1	91	22.6	18.2	27.7	21	27.3	16.9	41.7	37	26.9	19.0	37.1	149	24.1	20.1	28.0				
	Male	424	25.2	22.8	27.7	45	28.6	20.9	38.3	6				22	40.7	25.5	61.6	73	30.0	23.5	37.7				
	Female	437	18.9	17.2	20.7	46	19.4	14.2	25.9	15	33.4	18.7	55.1	15	18.0	10.1	29.8	76	20.8	16.4	26.0				
	AfrAmer	258	47.6	41.8	53.5	4				0				5				9							
	AmerInd	5				0				0				0				0							
	Asian	117	16.1	13.2	19.1	19	20.6	12.4	32.1	3				9				31	20.8	14.2	29.6				
	Latino	122	33.0	26.9	39.0	9				9				10	39.4	18.9	72.5	28	35.1	23.3	50.7				
	Multirace	6				1				1				0				2							
	PacIsl	13	71.1	37.9	121.6	1				2				0				3							
	White	339	15.6	13.9	17.2	57	23.0	17.5	29.9	6				13	26.0	13.9	44.5	76	22.5	17.7	28.2				
Coronary Heart Disease	All	5,820	146.7	142.9	150.5	599	153.5	141.0	166.0	109	150.9	120.9	180.9	202	153.4	131.9	174.8	910	153.5	143.3	163.7				
	Male	2,872	180.8	174.0	187.5	306	186.9	164.5	209.3	59	188.8	143.7	243.5	106	203.2	161.8	244.6	471	190.6	172.0	209.1				
	Female	2,948	120.2	115.9	124.6	293	127.0	112.5	141.6	50	123.6	91.7	162.9	96	117.3	95.0	143.2	439	124.9	113.2	136.6				
	AfrAmer	1,184	223.0	210.3	235.8	18	342.5	203.0	541.2	3				14	291.3	159.2	488.7	35	308.3	214.7	428.7				
	AmerInd	4				2				0				0				2							
	Asian	629	86.7	79.9	93.6	101	114.7	90.4	139.0	17	94.9	55.3	152.0	61	145.9	111.6	187.4	179	122.5	103.3	141.8				
	Latino	384	113.1	101.5	124.8	50	140.7	104.4	185.5	17	138.1	80.5	221.1	39	170.4	121.2	232.9	106	150.1	120.5	179.7				
	Multirace	21	45.3	28.0	69.2	3				2				2				7							
	PacIsl	31	217.6	147.9	308.9	1				3				0				4							
	White	3,565	155.5	150.4	160.7	423	171.2	154.8	187.6	67	182.2	141.2	231.4	86	161.4	129.1	199.3	576	169.9	155.9	183.8				
Stroke	All	2,225	56.1	53.7	58.4	194	51.4	44.1	58.8	47	66.5	48.9	88.5	78	59.0	46.7	73.7	319	54.7	48.6	60.8				
	Male	891	57.2	53.4	61.1	73	49.4	38.8	62.2	25	91.8	59.4	135.4	30	56.5	38.1	80.6	128	55.5	45.2	65.8				
	Female	1,334	54.2	51.3	57.2	121	52.4	43.0	61.8	22	52.0	32.6	78.7	48	59.0	43.5	78.2	191	53.7	46.1	61.4				
	AfrAmer	511	97.0	88.6	105.5	6				5				5				16	115.6	66.1	187.8				
	AmerInd	2				0				0				0				0							
	Asian	331	45.3	40.3	50.2	47	62.1	45.6	82.5	19	132.2	79.6	206.5	28	55.3	36.8	80.0	94	67.4	54.5	82.5				
	Latino	158	45.2	37.9	52.5	26	73.1	47.8	107.1	7				11	51.4	25.7	91.9	44	61.4	44.6	82.4				
	Multirace	9				1				0				0				1							
	PacIsl	11	91.0	45.4	162.9	2				0				3				5							
	White	1,202	51.7	48.7	54.6	111	46.1	37.5	54.7	16	43.2	24.7	70.2	31	58.1	39.5	82.5	158	47.7	40.2	55.1				

Source: CAPE, Alameda County vital statistics files 2002-2004, CA DOF, Census 2000.

Notes: Totals are for three years; rates are age-adjusted, per 100,000. LCL and UCL are lower and upper 95% confidence levels for the rate.

Table B-8: Historical Diabetes, Coronary Heart Disease, and Stroke Mortality

	Alameda County				Fremont				Newark				Union City				Tri-City				
	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL	
Diabetes	1991-1992	339	16.2	14.5	18.0	35	17.1	11.9	23.8	7	22.7	9.1	46.8	14	19.9	10.9	33.3	56	18.4	13.9	23.8
	1993-1994	404	19.1	17.2	21.0	51	23.3	17.4	30.7	7	20.6	8.3	42.5	19	25.5	15.3	39.7	77	23.3	18.4	29.1
	1995-1996	527	24.5	22.4	26.6	56	24.6	18.6	32.0	19	47.7	28.7	74.6	20	23.8	14.5	36.7	95	26.8	21.7	32.8
	1997-1998	504	22.4	20.5	24.4	60	23.1	17.6	29.7	12	29.3	15.1	51.1	22	23.9	15.0	36.1	94	23.6	19.1	28.9
	1999-2000	560	23.3	21.3	25.2	69	25.7	20.0	32.6	13	23.3	12.4	39.8	27	28.5	18.8	41.4	109	26.2	21.2	31.3
2001-2002	559	21.7	19.9	23.5	62	22.2	17.0	28.5	20	36.2	22.1	55.9	19	22.2	13.4	34.7	101	24.2	19.4	29.0	
2003-2004	585	21.9	20.1	23.6	57	21.3	16.1	27.6	11	23.2	11.6	41.5	29	31.6	21.2	45.4	97	23.7	19.2	28.9	
Coronary Heart Disease	1991-1992	4,631	237.8	230.9	244.7	402	219.8	197.4	242.3	83	266.3	212.1	330.1	130	203.8	168.1	239.4	615	219.8	201.7	237.9
	1993-1994	4,671	232.4	225.7	239.0	406	213.3	191.9	234.7	67	187.3	145.1	237.8	123	182.0	149.3	214.7	596	202.5	185.7	219.2
	1995-1996	4,694	227.9	221.3	234.4	425	203.8	183.9	223.7	73	172.2	135.0	216.5	130	186.8	154.2	219.4	628	196.9	181.1	212.8
	1997-1998	4,574	212.7	206.5	218.9	401	175.3	157.7	192.9	85	197.5	157.8	244.2	120	155.4	127.1	183.6	606	173.5	159.3	187.7
	1999-2000	4,585	193.4	187.8	199.0	407	160.2	144.3	176.1	80	167.4	132.7	208.4	134	158.5	131.2	185.7	621	160.6	147.6	173.5
2001-2002	4,181	164.0	159.0	169.0	393	152.9	137.5	168.3	71	151.2	118.1	190.7	135	156.5	129.7	183.2	599	153.7	141.1	166.3	
2003-2004	3,768	140.8	136.3	145.3	391	149.6	134.5	164.7	70	142.4	111.0	179.9	131	148.9	123.1	174.8	592	149.0	136.7	161.2	
Stroke	1991-1992	1,540	80.1	76.1	84.2	133	76.0	62.6	89.4	21	67.7	41.9	103.5	56	88.6	66.9	115.0	210	78.6	67.6	89.6
	1993-1994	1,494	74.5	70.7	78.3	120	63.7	51.9	75.4	23	61.6	39.1	92.4	76	113.3	89.3	141.8	219	74.8	64.5	85.0
	1995-1996	1,514	73.3	69.6	77.0	141	66.0	54.8	77.3	26	59.1	38.6	86.5	52	79.3	59.2	103.9	219	69.1	59.6	78.5
	1997-1998	1,579	73.7	70.1	77.3	142	63.4	52.8	74.1	28	62.7	41.7	90.7	43	57.6	41.7	77.6	213	62.5	53.9	71.1
	1999-2000	1,707	72.3	68.8	75.7	127	50.7	41.7	59.7	19	37.0	22.3	57.8	50	60.6	44.9	79.8	196	51.4	44.1	58.7
	2001-2002	1,587	62.4	59.3	65.4	147	57.4	47.9	66.8	21	50.0	31.0	76.4	64	72.5	55.8	92.6	232	59.5	51.7	67.4
2003-2004	1,473	55.0	52.2	57.9	116	46.4	37.8	54.9	29	57.6	38.6	82.7	45	51.3	37.4	68.6	190	48.7	41.7	55.8	

Source: CAPE, Alameda County vital statistics files 1991-2004, CA DOH, Census 1990 and 2000.

Notes: Totals are for two years; rates are age-adjusted, per 100,000. LCL and UCL are lower and upper 95% confidence levels for the rate.

Table B-9: Diabetes, Coronary Heart Disease, Stroke, and Asthma Hospitalizations

	Alameda County				Fremont				Newark				Union City				Tri-City				
	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL	
Diabetes	All	45,774	1,107.5	1,097.3	1,117.7	5,691	1,192.6	1,160.6	1,224.5	1,340	1,380.1	1,301.9	1,458.4	2,456	1,544.6	1,481.9	1,607.3	9,487	1,294.9	1,268.0	1,321.8
	Male	21,088	1,134.4	1,118.7	1,150.1	2,816	1,324.5	1,271.8	1,377.2	625	1,369.9	1,249.7	1,490.2	1,141	1,617.2	1,517.1	1,717.3	4,582	1,396.6	1,352.9	1,440.2
	Female	24,686	1,087.9	1,074.2	1,101.5	2,875	1,099.5	1,058.8	1,140.2	715	1,375.4	1,271.6	1,479.1	1,315	1,487.3	1,406.1	1,568.5	4,905	1,221.0	1,186.4	1,255.6
	AfrAm	12,573	2,160.2	2,122.1	2,198.3	246	1,797.5	1,517.0	2,078.0	53	993.5	744.2	1,299.6	202	1,869.4	1,577.5	2,161.2	501	1,734.4	1,549.7	1,919.1
	AmerInd	75	255.9	201.3	320.8	12	223.3	115.4	390.0	1				7				20	235.6	143.9	363.9
CHD	API	6,771	778.2	759.4	797.0	1,304	1,022.2	960.9	1,083.6	247	1,037.0	902.1	1,171.8	809	1,249.0	1,156.9	1,341.2	2,360	1,090.6	1,042.8	1,138.4
	Latino	5,819	1,282.9	1,247.7	1,318.1	600	1,306.0	1,195.4	1,416.6	295	1,559.8	1,365.3	1,754.2	503	1,748.8	1,590.2	1,907.4	1,398	1,509.5	1,425.7	1,593.2
	White	18,640	879.3	866.5	892.1	3,393	1,255.3	1,212.7	1,297.9	715	1,479.9	1,365.7	1,594.0	844	1,763.2	1,642.7	1,883.8	4,952	1,341.3	1,303.6	1,379.0
	All	48,960	1,229.4	1,218.4	1,240.4	7,285	1,657.1	1,618.1	1,696.0	1,557	1,795.1	1,700.8	1,889.5	2,774	1,916.2	1,843.5	1,989.0	11,616	1,733.8	1,701.4	1,766.1
	Male	27,162	1,579.8	1,560.6	1,599.0	4,310	2,215.4	2,144.8	2,285.9	910	2,345.8	2,172.6	2,519.1	1,514	2,438.6	2,306.8	2,570.4	6,734	2,280.8	2,222.3	2,339.3
Stroke	Female	21,798	953.2	940.4	966.0	2,975	1,223.9	1,179.6	1,268.2	647	1,379.2	1,270.3	1,488.1	1,260	1,524.6	1,440.0	1,609.2	4,882	1,313.2	1,276.1	1,350.3
	AfrAm	8,122	1,458.0	1,426.1	1,490.0	158	1,473.3	1,205.3	1,741.2	29	622.9	417.2	894.6	129	1,512.9	1,216.7	1,809.0	316	1,370.5	1,195.1	1,545.9
	AmerInd	61	234.5	179.4	301.3	7				3								13	193.3	102.9	330.6
	API	6,585	793.0	773.6	812.3	1,405	1,183.4	1,116.1	1,250.7	308	1,377.5	1,216.8	1,538.1	910	1,575.9	1,466.4	1,685.4	2,623	1,323.8	1,269.2	1,378.4
	Latino	3,867	1,011.2	978.2	1,044.2	505	1,237.9	1,125.4	1,350.4	234	1,548.9	1,337.8	1,760.0	439	1,676.8	1,515.4	1,838.1	1,178	1,441.1	1,355.3	1,526.8
Asthma	White	27,271	1,256.2	1,241.2	1,271.3	5,001	1,914.5	1,861.1	1,967.9	938	2,112.4	1,969.8	2,255.0	1,175	2,408.2	2,268.6	2,547.8	7,114	2,000.6	1,953.7	2,047.4
	All	18,592	466.2	459.4	472.9	1,969	452.5	432.0	473.1	401	461.2	413.4	508.9	784	541.5	502.8	580.3	3,154	474.9	457.8	491.9
	Male	8,487	501.4	490.5	512.3	941	487.8	454.3	521.3	187	479.9	403.5	556.3	369	605.6	539.4	671.7	1,497	513.6	485.6	541.7
	Female	10,105	437.2	428.6	445.8	1,028	419.5	393.6	445.4	214	442.1	381.0	503.1	415	490.6	443.0	538.1	1,657	439.8	418.4	461.2
	AfrAm	4,619	831.8	807.6	855.9	135	906.7	708.1	1,105.3	18	407.4	241.5	643.9	41	555.9	399.0	754.2	194	730.0	598.5	861.5
ChildAsthma	AmerInd	23	101.9	64.6	152.9	3				0				1				4			
	API	2,809	342.3	329.5	355.1	454	402.8	362.5	443.1	90	413.5	332.5	508.3	306	525.4	461.8	588.9	850	441.0	409.0	473.0
	Latino	1,431	358.9	339.3	378.4	118	284.8	230.6	339.0	64	378.6	291.6	483.4	112	419.2	338.5	499.8	294	349.4	307.1	391.7
	White	9,091	416.7	408.0	425.4	1,214	471.7	445.0	498.4	218	495.3	426.2	564.3	301	610.0	540.1	679.8	1,733	493.5	470.1	517.0
	All	6,695	154.6	150.9	158.3	596	108.2	99.2	117.2	116	99.5	80.4	118.6	252	140.9	122.8	158.9	964	114.4	106.9	121.9
ChildAsthma	Male	3,036	143.2	138.0	148.3	259	94.7	82.1	107.4	55	92.7	69.8	120.6	121	134.6	108.4	160.8	435	103.3	92.6	113.9
	Female	3,659	162.9	157.6	168.2	337	118.4	105.6	131.3	61	103.0	78.8	132.3	131	142.2	117.6	166.9	529	121.9	111.4	132.5
	AfrAm	2,616	411.7	395.9	427.6	53	196.3	147.0	256.7	16	217.2	124.2	352.7	22	209.6	131.3	317.3	91	208.9	168.2	256.5
	AmerInd	12	31.9	16.5	55.7	0				0				0				0			
	API	801	82.5	76.7	88.3	164	102.5	83.5	121.5	29	108.9	72.9	156.4	111	157.5	125.5	189.5	304	118.2	102.8	133.5
ChildAsthma	Latino	1,033	116.9	108.4	125.3	60	99.3	75.8	127.8	13	29.7	15.8	50.7	37	84.0	59.1	115.7	110	81.6	64.1	99.1
	White	1,797	103.2	98.2	108.1	299	120.1	106.2	134.0	54	108.8	81.8	142.0	74	184.4	144.8	231.5	427	125.2	113.1	137.3
	All	1,937	633.4	605.2	661.6	136	291.4	242.5	340.4	27	285.4	188.1	415.2	60	391.8	299.0	504.4	223	312.4	271.4	353.4
	Male	1,268	811.5	766.8	856.1	91	375.0	301.9	460.4	18	367.8	218.0	581.2	46	585.7	428.8	781.2	155	419.1	353.1	485.0
	Female	669	447.3	413.4	481.2	45	200.9	146.6	268.8	9				14	187.7	102.6	315.0	68	197.7	153.5	250.6
ChildAsthma	AfrAm	639	1,443.2	1,331.3	1,555.1	11	503.3	251.2	900.5	3				2				16	417.0	238.4	677.2
	AmerInd	2				0				0				0				0			
	API	256	315.4	276.8	354.1	54	237.2	178.2	309.5	8				32	439.4	300.6	620.4	94	289.9	234.3	354.8
	Latino	495	545.9	497.8	594.0	13	163.6	87.1	279.8	6				12	256.1	132.4	447.4	31	189.9	129.0	269.5
	White	326	386.7	344.8	428.7	47	366.7	269.4	487.6	7				12	636.1	328.7	1,111.1	66	379.8	293.8	483.2

Source: CAPE; OSHPD hospitalization files 2002-2004, CA DOF, Census 2000.  
Notes: Totals are for three years; rates are age-adjusted, per 100,000. LCL and UCL are lower and upper 95% confidence levels for the rate.

Table B-10: Historical Diabetes, Coronary Heart Disease, Stroke, and Asthma Hospitalizations

	Alameda County				Fremont				Newark				Union City				Tri-City			
	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL
Diabetes	11,827	1,088.1	1,068.3	1,107.9	2,415	988.6	946.9	1,030.3	522	1,136.7	1,027.1	1,246.2	1,022	1,321.1	1,237.4	1,404.8	3,959	1,071.4	1,036.2	1,106.7
	12,025	1,085.0	1,065.4	1,104.6	2,380	927.6	888.5	966.6	596	1,152.2	1,051.3	1,253.1	1,042	1,275.0	1,195.4	1,354.7	4,018	1,026.0	992.8	1,059.2
	12,743	1,137.2	1,117.3	1,157.1	2,680	1,005.7	966.2	1,045.2	663	1,256.1	1,154.0	1,358.1	1,067	1,269.2	1,191.1	1,347.3	4,410	1,091.6	1,058.1	1,125.0
	13,988	1,200.6	1,180.6	1,220.6	2,863	999.5	961.7	1,037.4	699	1,233.1	1,136.4	1,329.9	1,193	1,319.6	1,242.8	1,396.3	4,755	1,096.1	1,063.9	1,128.3
	15,403	1,231.4	1,211.8	1,251.0	3,468	1,129.2	1,090.5	1,167.9	802	1,302.6	1,207.8	1,397.5	1,480	1,487.4	1,409.8	1,565.0	5,750	1,227.0	1,194.3	1,259.6
	14,874	1,111.7	1,093.7	1,129.7	3,713	1,168.8	1,130.1	1,207.4	914	1,447.7	1,348.3	1,547.0	1,567	1,507.5	1,430.9	1,584.1	6,194	1,277.4	1,244.6	1,310.2
	15,215	1,093.7	1,076.2	1,111.3	3,798	1,195.4	1,156.2	1,234.6	872	1,333.4	1,239.9	1,427.0	1,629	1,530.9	1,454.6	1,607.2	6,299	1,285.9	1,253.1	1,318.7
CHD	15,810	1,527.9	1,503.9	1,551.9	4,206	1,910.4	1,850.0	1,970.9	815	1,897.6	1,752.6	2,042.5	1,402	1,974.6	1,868.9	2,080.4	6,423	1,919.3	1,870.2	1,968.3
	16,601	1,569.3	1,545.3	1,593.3	4,178	1,803.0	1,746.2	1,859.8	926	1,980.7	1,841.7	2,119.8	1,370	1,831.0	1,731.9	1,930.2	6,474	1,829.1	1,782.8	1,875.4
	17,213	1,604.2	1,580.1	1,628.3	4,447	1,818.7	1,763.4	1,874.0	955	1,948.6	1,815.1	2,082.1	1,350	1,745.8	1,650.8	1,840.8	6,752	1,818.6	1,773.7	1,863.5
	18,244	1,636.2	1,612.3	1,660.0	4,643	1,780.5	1,727.8	1,833.1	976	1,871.0	1,745.6	1,996.4	1,675	1,987.3	1,890.0	2,084.5	7,294	1,836.4	1,793.0	1,879.8
	18,408	1,526.6	1,504.5	1,548.8	5,002	1,758.7	1,708.7	1,808.6	1,018	1,759.8	1,645.6	1,874.0	1,833	1,972.5	1,880.3	2,064.7	7,853	1,805.3	1,764.3	1,846.3
	16,930	1,315.4	1,295.5	1,335.3	5,080	1,720.3	1,671.8	1,768.7	1,136	1,970.5	1,849.1	2,091.9	1,918	1,985.7	1,895.0	2,076.4	8,134	1,807.8	1,767.5	1,848.1
	16,002	1,193.4	1,174.8	1,212.0	4,759	1,626.2	1,578.9	1,673.5	970	1,678.7	1,566.9	1,790.5	1,793	1,861.4	1,773.5	1,949.2	7,522	1,684.5	1,645.4	1,723.5
Stroke	6,344	624.2	608.7	639.7	1,100	537.5	504.2	570.8	211	514.0	437.8	590.3	409	582.6	524.7	640.5	1,720	544.0	517.0	570.9
	6,205	594.9	580.0	609.7	1,091	497.9	467.1	528.8	231	544.7	468.2	621.2	404	564.4	508.2	620.7	1,726	517.0	491.6	542.4
	6,442	605.6	590.7	620.4	1,193	509.1	479.1	539.0	236	514.7	442.9	586.4	430	572.8	517.6	628.1	1,859	522.5	497.9	547.2
	6,863	620.9	606.1	635.6	1,351	542.8	513.1	572.6	238	458.2	396.2	520.2	462	556.4	504.5	608.2	2,051	536.6	512.7	560.6
	7,019	583.6	569.9	597.3	1,470	536.4	508.3	564.5	284	529.7	464.0	595.4	487	527.7	479.8	575.6	2,241	532.4	509.8	555.1
	6,414	498.2	485.9	510.4	1,480	510.4	483.6	537.1	268	470.4	410.2	530.5	494	516.9	470.3	563.6	2,242	507.4	485.8	529.1
	6,069	451.3	439.9	462.8	1,230	426.4	401.9	450.8	268	468.7	409.6	527.7	521	537.5	490.3	584.7	2,019	456.6	436.1	477.1
Asthma	2,853	226.0	217.6	234.5	505	163.0	147.9	178.0	126	170.1	137.8	202.4	245	257.1	223.2	291.0	876	184.5	171.5	197.5
	2,576	196.4	188.7	204.1	419	123.5	111.2	135.8	128	173.2	141.0	205.4	187	179.3	152.5	206.2	734	142.1	131.4	152.9
	2,331	176.6	169.4	183.9	400	118.0	105.9	130.0	131	190.9	155.2	226.5	131	117.4	96.5	138.3	662	127.3	117.1	137.4
	2,549	190.1	182.6	197.5	356	99.8	89.1	110.5	95	127.7	100.0	155.3	165	146.1	123.1	169.2	616	113.2	103.9	122.4
	2,593	186.7	179.4	193.9	414	111.6	100.5	122.7	91	113.7	88.9	138.4	170	142.1	120.0	164.1	675	118.3	109.1	127.6
	2,248	156.7	150.2	163.2	332	89.1	79.1	99.0	81	101.5	78.0	124.9	149	123.0	102.6	143.4	562	98.0	89.6	106.4
	2,225	154.1	147.7	160.5	446	122.2	110.4	134.0	82	103.9	80.5	127.3	174	145.6	123.2	168.1	702	125.0	115.4	134.6
Childhood Asthma	809	768.3	715.3	821.3	143	504.2	421.6	586.9	40	610.6	421.4	799.9	45	502.2	355.5	648.9	228	519.7	452.2	587.2
	770	711.6	661.3	761.8	128	448.6	370.9	526.3	32	499.3	326.3	672.3	45	501.7	355.1	648.3	205	466.9	402.9	530.8
	638	607.3	560.1	654.4	100	351.0	282.2	419.8	30	481.5	309.2	653.8	39	438.2	300.6	575.7	169	387.4	329.0	445.8
	649	634.2	585.4	683.0	64	217.7	164.4	271.1	29	469.8	298.8	640.8	27	291.4	181.5	401.3	120	267.7	219.8	315.5
	730	734.3	681.0	787.5	93	307.7	245.2	370.2	18	292.0	157.1	426.9	44	452.9	319.1	586.7	155	336.2	283.3	389.1
	677	669.7	619.2	720.2	60	193.1	144.2	241.9	19	302.6	166.5	438.6	32	315.6	206.2	424.9	111	233.7	190.2	277.2
	613	598.6	551.2	646.0	108	347.2	281.7	412.7	20	317.7	178.5	457.0	40	391.6	270.2	512.9	168	352.8	299.5	406.2

Source: CAPE; OSHPD hospitalization files 1991-2004, CA DOF, Census 1990 and 2000.

Note: Rates are age-adjusted, per 100,000. LCL and UCL are lower and upper 95% confidence levels for the rate.



Table B-11: Cancer Mortality

	Alameda County				Fremont			Newark			Union City			Tri-City							
	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL					
All Cancers	All	6,721	168.9	164.8	172.9	706	156.3	144.5	168.2	165	181.3	152.1	210.6	235	156.2	135.8	176.6	1,106	159.6	149.9	169.2
	Male	3,352	199.9	193.0	206.8	364	186.2	165.8	206.6	91	223.1	179.6	273.9	105	172.9	137.7	208.0	560	188.5	171.8	205.2
	Female	3,369	147.8	142.7	152.8	342	135.2	120.7	149.7	74	148.1	116.3	185.9	130	149.8	123.8	175.7	546	139.8	128.0	151.7
	AfrAmer	1,369	255.1	241.4	268.7	20	311.8	190.5	481.6	8				13	160.7	85.6	274.8	41	247.1	177.4	335.3
	AmerInd	12	80.5	41.6	140.6	3				1				0				4			
	Asian	898	110.7	103.3	118.0	119	99.8	79.7	119.8	34	172.2	119.3	240.7	78	125.8	99.4	157.0	231	115.6	99.3	131.8
	Latino	515	128.3	116.6	139.9	61	134.9	103.2	173.3	27	147.3	97.0	214.3	38	138.0	97.7	189.4	126	138.9	113.4	164.4
	Multirace	28	47.3	31.4	68.4	2				0				2				4			
	PacIsl	32	168.5	115.2	237.8	6				2				4				12	378.6	195.6	661.3
Lung Cancer	White	3,865	179.6	173.8	185.3	494	188.4	171.6	205.1	93	198.6	160.3	243.3	100	206.1	165.2	247.0	687	191.8	177.3	206.2
	All	1,676	42.9	40.8	44.9	180	40.9	34.8	47.0	56	63.7	48.1	82.7	60	39.6	30.2	51.0	296	43.6	38.5	48.7
	Male	888	53.0	49.4	56.5	100	51.9	41.1	62.6	31	79.0	53.7	112.1	30	44.7	30.2	63.9	161	54.1	45.2	62.9
	Female	788	35.3	32.9	37.8	80	32.7	25.9	40.6	25	51.3	33.2	75.7	30	35.7	24.1	51.0	135	35.7	29.6	41.8
	AfrAmer	378	70.7	63.6	77.9	6				4				5				15	70.5	39.4	116.2
	AmerInd	5				0				0				0				0			
	Asian	207	26.3	22.7	29.9	23	19.6	12.4	29.4	11	56.7	28.3	101.5	17	25.8	15.1	41.4	51	25.6	19.1	33.6
	Latino	81	21.7	17.3	27.0	12	28.9	15.0	50.6	4				8				24	29.0	18.6	43.1
	Multirace	5				0				0				1				1			
Colorectal Cancer	PacIsl	8				3				0				0				3			
	White	992	47.0	44.0	49.9	136	52.4	43.6	61.3	37	79.2	55.7	109.1	29	61.9	41.4	88.9	202	57.0	49.1	64.9
	All	699	17.6	16.3	18.9	57	13.3	10.0	17.2	15	20.4	11.4	33.6	29	19.9	13.3	28.6	101	15.4	12.3	18.4
	Male	336	20.1	17.9	22.2	31	16.3	11.1	23.2	7				13	22.3	11.9	38.1	51	17.9	13.4	23.6
	Female	363	15.7	14.1	17.4	26	10.8	7.0	15.8	8				16	18.4	10.5	29.8	50	13.3	9.9	17.5
	AfrAmer	141	26.4	22.0	30.8	3				1				0				4			
	AmerInd	2				0				1				0				1			
	Asian	114	14.5	11.8	17.1	10	10.6	5.1	19.5	3				14	20.6	11.3	34.6	27	14.6	9.6	21.3
	Latino	45	11.9	8.7	15.9	5				1				4				10	11.4	5.5	21.0
Female Breast Cancer	Multirace	3				0				0				0				0			
	PacIsl	1				0				0				0				0			
	White	393	18.0	16.2	19.8	39	14.9	10.6	20.4	9				11	23.2	11.6	41.4	59	16.7	12.7	21.5
	Female	540	23.4	21.4	25.4	58	21.1	16.0	27.3	9				15	15.5	8.7	25.5	82	19.0	15.1	23.6
	AfrAmer	112	34.2	27.9	40.6	1				0				1				2			
	AmerInd	1				0				0				0				0			
	Asian	64	13.0	10.0	16.6	14	15.9	8.7	26.8	2				4				20	13.6	8.3	21.0
	Latino	41	16.5	11.8	22.3	4				3				4				11	17.8	8.9	31.9
	Multirace	6				0				0				0				0			
Prostate Cancer	PacIsl	3				0				0				0				0			
	White	313	25.9	23.0	28.9	39	26.0	18.5	35.6	4				6				49	23.8	17.6	31.4
	Male	403	26.9	24.3	29.6	39	26.6	18.9	36.4	6				9				54	24.5	18.4	31.9
	AfrAmer	125	68.9	56.6	81.3	1				1				3				5			
	Asian	25	9.1	5.9	13.5	8				2				0				10	18.7	9.0	34.4
	Latino	20	15.0	9.2	23.2	4				2				2				8			
	Multirace	2				0				0				0				0			
	PacIsl	1				0				0				0				0			
	White	229	26.4	23.0	29.9	25	27.6	17.8	40.7	1				4				30	25.2	17.0	36.0

Source: CAPE; Alameda County vital statistics files 2002-2004, CA DOH; Census 2000.

Notes: Totals are for three years; rates are age-adjusted, per 100,000. LCL and UCL are lower and upper 95% confidence levels for the rate.



Table B-12: Historical Cancer Mortality

	Alameda County				Fremont			Newark			Union City			Tri-City							
	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL					
All Cancers	1991-1992	4,609	222.3	215.8	228.8	443	201.1	181.4	220.9	84	201.2	160.5	249.1	139	201.2	166.8	235.5	666	202.4	186.2	218.6
	1993-1994	4,577	215.6	209.3	221.8	474	204.5	185.4	223.7	73	165.0	129.3	207.4	124	164.2	134.5	193.8	671	190.6	175.6	205.7
	1995-1996	4,531	210.9	204.7	217.1	449	188.4	170.3	206.4	94	183.9	148.6	225.1	123	154.3	126.4	182.3	666	180.9	166.7	195.2
	1997-1998	4,413	196.7	190.8	202.5	476	181.2	164.5	198.0	90	164.0	131.9	201.6	136	157.0	130.0	184.0	702	174.1	160.8	187.4
	1999-2000	4,711	194.2	188.6	199.7	531	186.1	169.8	202.4	100	174.1	138.2	209.9	159	167.5	140.8	194.1	790	180.9	167.9	193.8
	2001-2002	4,536	175.9	170.7	181.0	499	165.2	150.4	180.1	105	189.0	151.0	227.1	159	157.8	132.7	182.9	763	166.3	154.1	178.4
	2003-2004	4,492	167.8	162.9	172.7	457	151.9	137.6	166.2	113	181.4	145.9	216.9	155	157.3	132.1	182.6	725	157.0	145.3	168.7
	Lung Cancer	1991-1992	1,224	58.2	54.9	61.5	117	51.0	41.4	60.7	22	43.1	27.0	65.3	42	57.9	41.7	78.2	181	52.0	44.1
1993-1994		1,281	60.1	56.8	63.4	141	59.6	49.5	69.8	17	38.0	22.1	60.8	39	52.8	37.5	72.2	197	55.5	47.5	63.4
1995-1996		1,255	58.7	55.4	61.9	138	58.6	48.5	68.6	33	70.2	48.3	98.6	32	42.8	29.3	60.4	203	56.9	48.8	64.9
1997-1998		1,146	51.4	48.4	54.4	123	46.8	38.3	55.3	23	47.5	30.1	71.2	30	34.7	23.4	49.5	176	44.2	37.5	50.9
1999-2000		1,243	52.0	49.1	54.8	137	48.3	40.1	56.6	33	63.0	43.4	88.5	39	42.0	29.9	57.4	209	48.7	41.9	55.4
2001-2002		1,208	47.5	44.8	50.2	135	44.8	37.1	52.5	34	59.5	41.2	83.1	44	43.4	31.5	58.2	213	46.3	40.0	52.7
2003-2004		1,104	42.0	39.5	44.5	115	39.4	32.0	46.7	37	64.1	45.1	88.3	38	38.9	27.5	53.4	190	42.4	36.3	48.6
Colorectal Cancer		1991-1992	491	24.3	22.1	26.5	44	20.8	15.1	27.9	10	28.9	13.8	53.1	13	19.2	10.2	32.8	67	21.4	16.6
	1993-1994	491	23.5	21.4	25.6	55	25.6	19.3	33.3	8	20.9	9.0	41.1	13	16.2	8.6	27.7	76	22.7	17.9	28.4
	1995-1996	465	21.9	19.9	23.9	43	18.6	13.5	25.1	5	8.0	2.6	18.8	10	11.8	5.6	21.7	58	15.8	12.0	20.4
	1997-1998	457	20.7	18.8	22.6	48	18.4	13.6	24.4	8	11.3	4.9	22.3	16	19.4	11.1	31.5	72	17.8	14.0	22.5
	1999-2000	448	18.8	17.0	20.5	47	18.0	13.2	23.9	11	19.4	9.7	34.7	16	17.9	10.2	29.0	74	18.2	14.3	22.9
	2001-2002	452	17.5	15.9	19.1	37	12.9	9.1	17.7	12	24.8	12.8	43.3	20	20.2	12.3	31.1	69	15.7	12.2	19.9
	2003-2004	465	17.5	15.9	19.1	42	14.8	10.7	20.0	8	17.1	7.4	33.7	14	14.7	8.0	24.7	64	14.8	11.4	18.9
	Female Breast Cancer	1991-1992	381	32.3	29.0	35.5	37	27.6	19.4	38.1	9	43.6	19.9	82.7	14	35.1	19.2	58.9	60	31.5	24.0
1993-1994		373	30.4	27.3	33.4	36	26.3	18.4	36.4	10	31.6	15.2	58.2	7	14.8	5.9	30.4	53	24.7	18.5	32.3
1995-1996		358	28.6	25.6	31.6	30	19.6	13.2	28.0	6	19.1	7.0	41.7	10	21.8	10.4	40.0	46	20.1	14.7	26.9
1997-1998		369	28.1	25.2	30.9	32	19.3	13.2	27.3	11	35.9	17.9	64.3	11	21.8	10.9	38.9	54	21.9	16.5	28.6
1999-2000		389	27.3	24.6	30.0	46	25.5	18.6	34.0	11	29.4	14.7	52.6	13	22.5	12.0	38.5	70	25.5	19.9	32.2
2001-2002		362	24.1	21.6	26.6	38	21.4	15.2	29.4	8	21.1	9.1	41.7	13	21.1	11.2	36.1	59	21.5	16.3	27.7
2003-2004		356	22.9	20.5	25.3	40	21.8	15.6	29.7	6	14.2	5.2	30.8	9	14.1	6.4	26.7	55	19.1	14.4	24.9
Prostate Cancer		1991-1992	323	45.1	40.0	50.2	22	35.2	22.1	53.3	3	37.8	7.8	110.5	10	49.6	23.8	91.2	35	40.2	28.0
	1993-1994	315	41.3	36.6	45.9	32	42.7	29.2	60.3	3	27.0	5.6	78.9	7	33.4	13.4	68.7	42	39.1	28.2	52.8
	1995-1996	311	40.7	36.0	45.3	24	28.6	18.3	42.5	5	31.2	10.1	72.9	2	8.4	1.0	30.5	31	24.5	16.6	34.7
	1997-1998	297	37.9	33.5	42.3	39	45.7	32.5	62.5	3	17.6	3.6	51.5	6	21.7	8.0	47.3	48	37.1	27.4	49.2
	1999-2000	272	31.4	27.6	35.2	27	30.7	20.3	44.7	2	9.1	1.1	32.7	7	27.6	11.1	57.0	36	27.8	19.5	38.5
	2001-2002	279	29.0	25.6	32.5	26	25.9	16.9	37.9	4	24.4	6.6	62.4	3	6.9	1.4	20.3	33	21.5	14.8	30.1
	2003-2004	264	26.2	23.0	29.4	23	23.3	14.8	35.0	5	19.8	6.4	46.2	8	30.4	13.1	59.9	36	24.7	17.3	34.2

Source: CAPE; Alameda County vital statistics files 1991-2004, CA DOH; Census 1990 and 2000.

Notes: Totals are for two years; rates are age-adjusted, per 100,000. LCL and UCL are lower and upper 95% confidence levels for the rate.

Table B-13: Cancer Incidence

Alameda County																					Fremont						Newark						Union City						Tri-City			
		Count	Rate	LCL	UCL	Count	Rate	LCL	UCL	Count	Rate	LCL	UCL	Count	Rate	LCL	UCL	Count	Rate	LCL	UCL	Count	Rate	LCL	UCL																	
All Cancers	All	18,445	472.2	465.4	479.1	2,072	422.5	403.8	441.3	451	467.5	421.9	513.2	641	401.0	369.2	432.9	3,164	423.5	408.3	438.7																					
	Female	9,467	432.3	423.6	441.1	1,085	398.3	374.3	422.3	222	410.2	354.6	465.8	340	375.9	335.5	416.3	1,647	394.6	375.3	413.9																					
	Male	8,964	535.0	523.7	546.3	987	467.3	436.3	498.4	229	557.1	476.1	638.1	300	451.9	397.4	506.4	1,516	475.2	449.6	500.8																					
	AfrAmer	2,748	491.8	473.3	510.3	38	409.8	226.7	592.8	19				39	384.6	273.5	525.8	96	420.7	340.8	513.7																					
	API	2,572	352.8	338.8	366.9	453	315.9	283.4	348.5	80	367.2	291.2	457.0	219	317.5	272.9	362.2	752	322.7	297.6	347.8																					
	Latino	1,743	431.7	410.1	453.3	217	439.2	377.3	501.2	75	373.9	294.1	468.7	118	397.6	323.4	471.9	410	414.5	372.1	457.0																					
	White	10,733	513.5	503.7	523.3	1,336	491.9	465.3	518.5	273	562.3	492.1	632.5	254	532.0	465.7	598.2	1,863	504.6	481.5	527.7																					
		2,221	59.0	56.5	61.5	226	49.7	43.1	56.3	75	85.2	67.0	106.9	75	49.5	38.9	62.1	376	54.2	48.6	59.8																					
Lung	Female	1,020	47.8	44.8	50.7	101	39.5	31.8	47.3	30	60.6	40.9	86.5	32	37.6	25.7	53.1	163	41.7	35.2	48.2																					
	Male	1,200	74.5	70.2	78.8	125	64.6	52.7	76.4	45	122.3	89.2	163.7	43	70.8	51.2	95.4	213	73.1	62.6	83.5																					
	AfrAmer	457	83.4	75.7	91.1	3				5				9				17																								
	API	285	42.7	37.6	47.7	33	29.5	20.3	41.5	11				25	40.5	26.2	59.7	69	35.5	27.6	44.9																					
	Latino	151	43.4	36.3	50.6	16				9				14				39	43.7	31.1	59.7																					
	White	1,271	61.1	57.8	64.5	173	65.1	55.4	74.9	50	108.8	80.8	143.4	27	54.7	36.0	79.5	250	69.3	60.6	77.9																					
		1,910	49.9	47.7	52.2	204	43.9	37.7	50.1	43	49.7	36.0	66.9	80	52.9	41.9	65.8	327	46.3	41.1	51.4																					
	Female	917	41.7	39.0	44.4	88	34.9	28.0	43.0	18				43	50.2	36.3	67.6	149	38.4	32.2	44.6																					
Colorectal	Male	992	60.6	56.7	64.5	116	54.5	44.1	64.9	25	67.2	43.5	99.2	37	56.4	39.7	77.7	178	55.9	47.2	64.6																					
	AfrAmer	274	50.2	44.3	56.2	2				0				7				9																								
	API	353	51.9	46.3	57.4	59	46.6	35.5	60.1	11				34	53.4	37.0	74.6	104	49.7	39.3	60.0																					
	Latino	180	50.9	43.1	58.7	24	50.9	32.6	75.7	8				10				42	45.0	32.4	60.8																					
	White	1,044	48.9	45.9	51.8	117	43.8	35.9	51.7	24	54.3	34.8	80.8	29	62.1	41.6	89.2	170	47.0	39.9	54.0																					
	Female	3,502	160.1	154.8	165.4	423	150.6	127.7	194.3	92	158.4	127.7	194.3	116	125.8	102.7	149.0	636	147.7	136.0	159.3																					
	AfrAmer	471	142.9	129.9	155.8	5				4				5				14																								
	API	521	120.6	110.2	131.1	117	126.3	101.8	150.8	16				41	97.8	70.2	132.7	176	119.4	101.1	137.7																					
Breast	Latino	329	138.4	123.0	153.8	41	145.7	104.5	197.6	14				25	136.9	88.6	202.1	81	139.2	108.1	170.2																					
	White	2,076	182.7	174.7	190.6	258	172.1	151.1	193.2	57	100.5	76.1	130.2	42	158.9	114.5	214.8	359	175.1	157.0	193.3																					
	Male	2,704	164.3	158.0	170.6	267	133.7	116.9	150.5	62	151.2	116.0	193.9	85	127.9	102.2	158.2	414	134.7	121.1	148.4																					
	AfrAmer	498	216.5	197.1	235.8	8				7				7				22	173.3	108.6	262.5																					
	API	312	106.2	94.2	118.3	49	91.5	67.7	121.0	15				26	94.2	61.5	138.0	90	101.4	81.6	124.7																					
	Latino	221	144.7	124.6	164.8	19				8				21	173.1	107.2	264.7	48	122.1	90.0	161.9																					
	White	1,525	166.5	158.0	174.9	186	159.7	136.0	183.5	30	144.1	97.2	205.7	28	134.2	89.2	194.0	244	153.3	133.3	173.3																					

Source: CAPE, NCCS files 2000-2002, CA DOF, Census 2000.

Notes: Totals are for three years; rates are age-adjusted, per 100,000. LCL and UCL are lower and upper 95% confidence levels for the rate.

Table B-14: Historical Cancer Incidence

		Alameda County				Tri-City			
		Count	Rate	LCL	UCL	Count	Rate	LCL	UCL
All Cancers	91-92	12,560	572.0	561.9	582.2	1,985	519.4	495.1	543.7
	93-94	12,296	550.0	540.2	559.8	1,888	467.7	445.6	489.8
	95-96	12,068	535.3	525.7	545.0	1,988	481.2	459.2	503.2
	97-98	11,729	504.2	495.0	513.3	2,156	485.1	463.9	506.3
	99-00	12,517	501.2	492.4	510.1	2,199	459.3	439.5	479.0
	01-02	12,184	457.9	449.7	466.1	2,189	437.0	418.2	455.9
Lung	91-92	1,569	74.1	70.4	77.8	236	66.8	57.9	75.7
	93-94	1,530	71.3	67.7	74.9	223	61.8	53.4	70.2
	95-96	1,580	73.3	69.6	76.9	246	65.3	56.9	73.7
	97-98	1,465	65.2	61.8	68.5	252	61.9	54.1	69.8
	99-00	1,575	65.4	62.2	68.6	276	63.3	55.6	70.9
	01-02	2,088	55.4	52.5	58.3	248	52.5	45.9	59.2
Colorectal	91-92	1,328	64.2	60.7	67.7	171	52.8	44.5	61.0
	93-94	1,254	59.4	56.1	62.7	193	53.6	45.7	61.4
	95-96	1,164	54.3	51.2	57.4	203	53.2	45.6	60.7
	97-98	1,290	57.6	54.5	60.8	252	61.1	53.3	68.9
	99-00	1,334	54.6	51.7	57.6	236	52.6	45.7	59.5
	01-02	1,271	48.9	46.2	51.6	227	47.9	41.5	54.3
Breast	91-92	1,862	155.6	148.5	162.7	313	145.8	129.3	162.3
	93-94	1,851	150.9	144.0	157.8	320	140.5	124.8	156.2
	95-96	2,012	160.8	153.8	167.9	411	173.1	156.1	190.1
	97-98	2,219	168.3	161.3	175.3	432	166.2	150.3	182.1
	99-00	2,384	169.7	162.9	176.6	433	155.4	140.6	170.2
	01-02	2,335	156.5	150.1	162.9	430	149.2	134.9	163.5
Prostate	91-92	1,690	201.2	191.3	211.1	253	194.7	168.4	221.0
	93-94	1,732	195.3	185.9	204.7	264	176.6	153.6	199.5
	95-96	1,467	162.9	154.4	171.3	237	152.2	131.3	173.0
	97-98	1,489	158.5	150.3	166.7	268	150.9	131.8	170.1
	99-00	1,757	170.0	162.0	178.1	301	152.9	134.7	171.0
	01-02	1,804	159.0	151.6	166.5	303	147.7	130.2	165.2

Source: CAPE; NCCC files, CA DOF, Census 1990 and 2000.

Notes: Totals are for two years; rates are age-adjusted, per 100,000. LCL and UCL are lower and upper 95% confidence levels for the rate.

Table B-15: Unintentional Injury, Motor Vehicle Crashes, Homicide, and Suicide Mortality

	Alameda County					Fremont			Newark			Union City			Tri-City						
	Total	Rate	LCL	UCL		Total	Rate	LCL	UCL		Total	Rate	LCL	UCL		Total	Rate	LCL	UCL		
Unintentional Injury	All	1,078	24.5	23.0	25.9	104	19.5	15.6	23.5	22	22.3	14.0	33.8	39	21.8	15.5	29.8	165	20.6	17.3	23.8
	Male	691	33.3	30.8	35.9	58	21.7	16.5	28.1	10	19.0	9.1	35.0	24	28.1	18.0	41.9	92	23.0	18.5	28.2
	Female	387	16.4	14.8	18.0	46	16.8	12.3	22.4	12	23.9	12.3	41.7	15	16.2	9.1	26.8	73	17.7	13.9	22.3
	AfrAmer	262	43.8	38.5	49.1	4				0				4				8			
	AmerInd	5				0				0				0							
	Asian	137	15.9	13.2	18.6	20	14.0	8.6	21.6	3				17	22.8	13.3	36.5	40	17.5	12.5	23.9
	Latino	177	23.6	19.6	27.6	17	24.3	14.2	38.9	8				7				32	24.4	16.7	34.4
Motor Vehicle Crashes	Multirace	8				1				0				0				1			
	PacIsl	6				1				0				0				1			
	White	481	23.5	21.3	25.6	61	22.8	17.4	29.2	11	23.4	11.7	41.8	11	24.7	12.3	44.3	83	23.0	18.3	28.5
	All	350	7.9	7.0	8.7	41	6.9	5.0	9.4	8				15	7.8	4.4	12.9	64	7.2	5.6	9.2
	Male	240	11.0	9.6	12.4	25	8.4	5.4	12.4	4				11	12.5	6.2	22.4	40	9.2	6.6	12.6
	Female	110	4.8	3.9	5.7	16	5.5	3.2	9.0	4				4				24	5.5	3.5	8.2
	AfrAmer	78	12.8	10.1	16.0	2				0				2				4			
Motor Vehicle Crashes	AmerInd	1				0				0				0				0			
	Asian	67	7.5	5.8	9.5	11	6.1	3.0	10.9	1				10	12.1	5.8	22.2	22	8.0	5.0	12.2
	Latino	86	10.3	8.3	12.8	8				6				2				16	9.5	5.5	15.5
	Multirace	2				0				0				0				0			
	PacIsl	3				0				0				0				0			
	White	112	6.1	5.0	7.3	20	7.6	4.6	11.7	1				1				22	6.2	3.9	9.3
	All	394	8.5	7.7	9.4	15	2.1	1.2	3.5	7				8				30	2.9	2.0	4.1
Homicide	Male	329	14.2	12.6	15.7	12	3.4	1.8	5.9	3				6				21	4.0	2.5	6.1
	Female	65	2.8	2.2	3.6	3				4				2				9			
	AfrAmer	251	40.4	35.4	45.4	5				1				1				7			
	AmerInd	4				0				0				0				0			
	Asian	26	2.4	1.6	3.6	3				1				4				8			
	Latino	64	6.1	4.7	7.7	3				3				2				8			
	Multirace	6				0				0				0				0			
Homicide	PacIsl	1				0				0				0				0			
	White	42	2.3	1.6	3.1	4				2				1				7			
	All	379	8.5	7.6	9.3	45	7.3	5.3	9.7	8				13	6.5	3.5	11.2	66	7.1	5.5	9.1
	Male	278	13.5	11.9	15.2	31	10.7	7.3	15.2	7				9				47	10.9	8.0	14.5
	Female	101	4.3	3.4	5.1	14	4.2	2.3	7.0	1				4				19	3.8	2.3	6.0
	AfrAmer	37	6.0	4.2	8.3	4				2				0				6			
	AmerInd	1				0				0				0				0			
Suicide	Asian	48	4.7	3.4	6.2	10	3.8	1.8	6.9	0				4				16	4.5	2.6	7.3
	Latino	48	6.2	4.5	8.2	6				0				3				9			
	Multirace	1				0				0				0				0			
	PacIsl	4				0				2				2				2			
	White	240	12.0	10.5	13.6	25	9.4	6.1	13.9	4				4				33	9.1	6.3	12.8

Source: CAPE, Alameda County vital statistics files 2002-2004, CA DOH, Census 2000.

Notes: Totals are for three years; rates are age-adjusted, per 100,000. LCL and UCL are lower and upper 95% confidence levels for the rate.

Table B-16: Historical Unintentional Injury, Motor Vehicle Crashes, Homicide, and Suicide Mortality

	Alameda County				Fremont			Newark			Union City			Tri-City							
	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL					
Unintentional Injury	1991-1992	719	29.3	27.1	31.5	65	22.7	17.5	28.9	12	27.0	13.9	47.1	19	19.7	11.9	30.8	96	22.0	17.8	26.8
	1993-1994	670	26.0	24.0	28.0	45	12.3	9.0	16.5	14	17.1	9.4	28.8	22	19.8	12.4	29.9	81	14.6	11.6	18.2
	1995-1996	712	27.9	25.9	30.0	61	19.7	15.0	25.2	21	31.1	19.2	47.5	31	27.2	18.5	38.6	113	22.7	18.2	27.1
	1997-1998	645	24.7	22.8	26.6	67	19.4	15.0	24.6	14	19.3	10.5	32.3	17	16.0	9.3	25.6	98	18.7	15.2	22.8
	1999-2000	654	23.7	21.9	25.6	50	14.2	10.5	18.7	15	19.6	11.0	32.4	30	25.2	17.0	35.9	95	17.2	13.9	21.0
Motor Vehicle Crashes	2001-2002	681	23.6	21.9	25.4	61	17.7	13.6	22.8	11	18.1	9.0	32.3	22	16.5	10.4	25.1	94	17.5	14.1	21.4
	2003-2004	732	24.8	23.0	26.6	73	20.1	15.8	25.3	15	22.0	12.3	36.2	23	21.4	13.6	32.1	111	20.9	16.8	25.0
	1991-1992	270	10.4	9.2	11.7	35	10.8	7.5	15.0	6	12.2	4.5	26.5	10	9.1	4.4	16.8	51	10.4	7.7	13.6
	1993-1994	226	8.4	7.3	9.5	19	5.6	3.4	8.7	3	3.9	0.8	11.5	7	6.1	2.5	12.6	29	5.5	3.7	7.9
	1995-1996	233	8.9	7.7	10.0	22	5.9	3.7	8.9	7	7.9	3.2	16.3	15	12.7	7.1	20.9	44	7.6	5.5	10.2
Homicide	1997-1998	206	7.6	6.6	8.7	24	6.2	3.9	9.2	6	7.0	2.6	15.1	8	6.2	2.7	12.1	38	6.3	4.4	8.6
	1999-2000	208	7.3	6.3	8.3	23	6.1	3.8	9.1	6	7.3	2.7	15.9	9	7.2	3.3	13.7	38	6.5	4.6	8.9
	2001-2002	221	7.6	6.6	8.6	28	7.1	4.7	10.2	2	2.6	0.3	9.4	11	8.1	4.0	14.5	41	6.7	4.8	9.1
	2003-2004	237	8.0	6.9	9.0	28	7.0	4.7	10.2	7	9.1	3.6	18.7	7	6.1	2.4	12.5	42	7.2	5.2	9.7
	1991-1992	422	15.0	13.6	16.5	8	2.1	0.9	4.1	3	3.7	0.8	10.7	8	6.5	2.8	12.9	19	3.2	1.9	5.0
Suicide	1993-1994	360	12.5	11.2	13.8	11	2.6	1.3	4.6	1	1.3	0.0	7.0	9	7.2	3.3	13.6	21	3.4	2.1	5.2
	1995-1996	337	11.7	10.4	12.9	11	3.0	1.5	5.4	8	8.9	3.9	17.6	3	2.3	0.5	6.8	22	3.7	2.3	5.6
	1997-1998	267	9.1	8.0	10.3	12	3.2	1.7	5.7	4	4.2	1.1	10.7	3	2.2	0.5	6.5	19	3.1	1.9	4.9
	1999-2000	217	7.2	6.2	8.2	6	1.4	0.5	3.1	3	3.4	0.7	10.0	6	4.7	1.7	10.3	15	2.4	1.3	3.9
	2001-2002	250	8.1	7.0	9.1	6	1.2	0.5	2.7	2	2.1	0.3	7.5	6	4.0	1.5	8.7	14	2.0	1.1	3.4
	2003-2004	247	8.0	7.0	9.0	9	2.0	0.9	3.7	6	6.4	2.3	13.8	4	2.8	0.8	7.0	19	2.8	1.7	4.4
	1991-1992	274	11.0	9.7	12.4	30	9.3	6.3	13.3	7	11.1	4.5	23.0	8	10.8	4.7	21.3	45	10.1	7.4	13.6
	1993-1994	280	11.0	9.7	12.3	32	9.9	6.8	14.0	9	10.6	4.8	20.1	7	6.3	2.5	13.0	48	9.4	6.9	12.4
	1995-1996	281	10.8	9.5	12.1	29	7.9	5.3	11.3	11	13.5	6.7	24.2	5	4.8	1.5	11.1	45	8.0	5.8	10.7
	1997-1998	281	10.6	9.3	11.8	33	9.5	6.5	13.3	7	9.0	3.6	18.5	13	11.2	6.0	19.2	53	9.8	7.3	12.8
	1999-2000	221	7.8	6.8	8.9	29	7.5	5.0	10.7	9	11.3	5.1	21.4	12	9.9	5.1	17.2	50	8.5	6.3	11.1
	2001-2002	240	8.3	7.2	9.4	19	4.6	2.8	7.1	4	6.4	1.7	16.4	10	7.2	3.5	13.3	33	5.4	3.7	7.5
	2003-2004	245	8.1	7.1	9.2	35	8.4	5.8	11.6	6	8.1	3.0	17.7	7	5.2	2.1	10.7	48	7.6	5.6	10.1

Source: CAPE, Alameda County vital statistics files 1991-2004, CA DOF, Census 1990 and 2000.

Notes: Totals are for two years; rates are age-adjusted, per 100,000. LCL and UCL are lower and upper 95% confidence levels for the rate.

Table B-17: Unintentional Injury, Motor Vehicle Crashes, Assault, and Self-Inflicted Injury Hospitalizations

	Alameda County				Fremont				Newark				Union City				Tri-City			
	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL
Unintentional Injury	17,066	402.8	396.8	408.9	2,001	407.5	388.9	426.2	440	418.5	376.1	461.0	676	384.4	354.2	414.6	3,117	405.3	390.4	420.3
Male	8,464	420.5	411.3	429.7	955	381.6	354.8	408.5	257	448.3	386.2	510.3	341	384.4	339.2	429.6	1,553	392.5	370.8	414.2
Female	8,602	368.2	360.3	376.0	1,046	405.8	380.8	430.7	183	361.0	306.6	415.4	335	362.4	323.1	401.7	1,564	391.6	371.8	411.3
AfrAm	2,670	440.5	423.6	457.3	50	248.7	184.6	327.8	13	267.9	142.6	458.0	65	486.6	375.5	620.2	128	332.5	256.8	408.2
AmerInd	37	99.6	70.1	137.3	3				0				0				3			
API	1,682	185.3	176.2	194.4	300	208.4	180.8	236.0	55	220.3	165.9	286.7	137	183.6	149.2	217.9	492	200.7	180.4	221.1
Latino	2,220	315.8	300.2	331.4	184	287.5	239.9	335.2	89	297.4	238.8	366.0	135	369.7	300.6	438.8	408	319.3	283.7	354.9
White	9,461	470.8	461.0	480.6	1,349	531.6	502.9	560.3	264	577.0	504.0	649.9	278	608.4	534.7	682.2	1,891	547.0	522.0	571.9
Motor Vehicle Crashes	3,741	83.7	81.0	86.4	435	73.4	66.3	80.5	114	87.2	70.9	103.4	177	85.2	72.4	98.1	726	78.2	72.3	84.0
Male	2,386	108.0	103.7	112.4	274	89.6	78.4	100.8	75	110.7	87.1	138.8	108	108.7	86.4	131.1	457	97.1	87.7	106.5
Female	1,355	59.7	56.5	62.9	161	55.7	47.0	64.5	39	61.8	43.9	84.4	69	65.8	51.2	83.3	269	58.9	51.8	66.0
AfrAm	721	112.5	104.2	120.7	21	75.2	46.5	114.9	3				20	114.2	69.8	176.4	44	84.5	61.4	113.4
AmerInd	13	37.1	19.8	63.5	2				0				0				2			
API	420	40.3	36.4	44.2	83	43.1	34.3	53.4	16	50.4	28.8	81.8	37	40.9	28.8	56.4	136	42.5	34.6	50.4
Latino	648	72.7	66.3	79.0	58	69.9	53.1	90.3	26	81.4	53.2	119.3	33	75.0	51.6	105.3	117	73.9	59.2	88.5
White	1,555	86.4	81.9	90.8	219	84.8	73.4	96.2	58	106.1	80.6	137.2	49	117.3	86.7	155.0	326	92.1	81.9	102.3
Assault	1,810	39.6	37.8	41.4	111	18.2	14.7	21.6	19	13.7	8.2	21.4	63	29.1	22.4	37.3	193	20.1	17.2	22.9
Male	1,575	68.8	65.4	72.3	94	30.1	24.4	36.9	18	25.4	15.1	40.1	53	49.0	36.7	64.1	165	33.8	28.5	39.0
Female	235	10.3	9.0	11.6	17	5.7	3.3	9.2	1				10	9.4	4.5	17.3	28	5.9	4.0	8.6
AfrAm	799	123.0	114.4	131.5	10	36.1	17.3	66.4	0				9				19	37.8	22.8	59.0
AmerInd	5				0								0				0			
API	104	9.7	7.8	11.5	6								7				15	4.3	2.4	7.0
Latino	404	40.3	36.1	44.6	22	21.9	13.7	33.1	7				16	28.1	16.1	45.6	45	22.5	16.4	30.1
White	377	22.3	20.0	24.6	60	24.7	18.9	31.9	8				15	39.0	21.8	64.3	83	25.3	20.1	31.3
Self-Inflicted Injury	1,256	27.5	26.0	29.1	138	22.6	18.7	26.4	37	26.6	18.7	36.6	60	27.4	20.9	35.3	235	23.9	20.8	27.0
Male	470	21.2	19.2	23.1	51	17.1	12.7	22.5	18	25.5	15.1	40.3	19	17.2	10.3	26.8	88	18.2	14.6	22.4
Female	786	34.3	31.9	36.8	87	28.8	23.0	35.5	19	27.8	16.7	43.4	41	37.6	27.0	51.0	147	30.2	25.2	35.1
AfrAm	185	28.6	24.5	32.8	3				1				1				5			
AmerInd	3				0				0				0				0			
API	139	12.4	10.3	14.5	31	13.6	9.2	19.3	6				20	18.4	11.3	28.5	57	14.8	11.2	19.2
Latino	152	16.7	13.7	19.7	9				9				7				25	14.7	9.5	21.7
White	713	40.2	37.2	43.3	89	35.8	28.7	44.0	18	33.2	19.7	52.4	32	74.8	51.1	105.5	139	39.8	33.1	46.5

Source: CAPE; OSHPD hospitalization files 2002-2004, CA DOF, Census 2000.

Notes: Totals are for three years; rates are age-adjusted, per 100,000. LCL and UCL are lower and upper 95% confidence levels for the rate.

Table B-18: Historical Unintentional Injury, Motor Vehicle Crashes, Assault, and Self-Inflicted Injury Hospitalization

	Alameda County				Fremont				Newark				Union City				Tri-City			
	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL	Total	Rate	LCL	UCL
Unintentional Injury																				
1991-1992	6,663	561.6	547.7	575.4	1,419	490.2	462.2	518.1	332	534.7	466.0	603.5	433	457.7	411.8	503.6	2,184	489.6	467.1	512.1
1993-1994	5,811	484.2	471.5	496.9	1,181	400.0	375.3	424.8	265	426.6	366.9	486.3	367	386.8	344.7	428.8	1,813	400.9	380.9	421.0
1995-1996	5,537	457.8	445.6	470.1	1,124	379.5	355.7	403.3	245	372.3	320.0	424.7	328	338.7	300.2	377.3	1,697	370.0	351.1	388.9
1997-1998	5,588	448.6	436.7	460.5	1,182	385.4	362.2	408.7	239	370.6	318.5	422.8	376	360.7	322.4	398.9	1,797	378.0	359.5	396.6
1999-2000	5,909	445.0	433.5	456.4	1,310	399.9	377.2	422.5	294	416.7	365.2	468.1	424	374.1	336.9	411.2	2,028	397.4	379.2	415.5
2001-2002	5,430	390.6	380.2	401.1	1,187	355.7	334.6	376.9	283	406.4	354.5	458.2	384	327.2	293.1	361.4	1,854	355.7	338.7	372.7
2003-2004	5,646	397.9	387.4	408.3	1,377	422.7	399.4	446.1	288	412.3	360.9	463.6	464	399.6	361.7	437.5	2,129	417.4	398.8	436.0
Motor Vehicle Crashes																				
1991-1992	1,695	130.7	124.3	137.1	338	95.7	84.9	106.4	91	119.1	92.8	145.5	125	109.8	90.1	129.5	554	102.3	93.4	111.2
1993-1994	1,495	115.6	109.6	121.6	282	79.0	69.4	88.6	73	92.2	69.7	114.7	97	84.0	66.8	101.2	452	81.5	73.7	89.3
1995-1996	1,360	103.1	97.5	108.6	284	77.6	68.2	87.0	66	80.2	60.5	99.9	94	81.1	64.3	98.0	444	78.5	70.9	86.0
1997-1998	1,262	91.7	86.6	96.9	299	79.9	70.6	89.2	69	81.8	62.3	101.4	101	78.9	63.3	94.4	469	79.6	72.2	87.0
1999-2000	1,403	97.7	92.5	102.8	359	92.9	83.1	102.8	90	105.3	83.2	127.5	115	86.6	70.4	102.7	564	93.3	85.4	101.1
2001-2002	1,129	76.4	71.9	80.9	270	68.8	60.3	77.2	68	76.9	58.4	95.3	97	68.7	54.8	82.5	435	69.9	63.2	76.7
2003-2004	1,214	81.3	76.7	85.9	281	70.9	62.4	79.5	69	80.0	60.8	99.1	117	86.3	70.2	102.4	467	75.6	68.5	82.6
Assault																				
1991-1992	1,264	87.9	83.0	92.9	88	22.1	17.3	26.8	25	27.9	16.8	39.0	56	45.6	33.4	57.7	169	27.4	23.2	31.7
1993-1994	1,009	70.4	66.0	74.8	74	18.2	13.9	22.4	19	22.4	12.2	32.5	34	26.6	17.6	35.5	127	20.6	17.0	24.3
1995-1996	813	57.1	53.1	61.1	64	16.4	12.3	20.5	25	28.7	17.4	40.1	42	33.9	23.5	44.3	131	21.7	17.9	25.5
1997-1998	762	51.9	48.2	55.6	70	18.5	14.1	22.9	13	14.8	6.7	22.9	29	21.7	13.8	29.6	112	18.5	15.0	22.0
1999-2000	646	42.8	39.4	46.1	68	17.0	12.9	21.1	28	30.4	19.1	41.8	45	31.8	22.5	41.2	141	21.7	18.1	25.3
2001-2002	567	37.1	34.0	40.1	55	13.3	9.7	16.9	17	18.8	9.8	27.7	26	17.7	10.9	24.6	98	15.0	12.2	18.3
2003-2004	590	38.8	35.6	41.9	78	19.2	14.9	23.5	9	9.3	3.2	15.5	45	31.3	22.1	40.5	132	20.6	17.0	24.1
Self-Inflicted Injury																				
1991-1992	454	33.4	30.3	36.5	104	26.9	21.5	32.3	19	22.6	12.1	33.1	46	37.5	26.5	48.4	169	28.6	24.1	33.0
1993-1994	472	34.1	31.0	37.3	104	27.8	22.2	33.4	24	31.2	17.9	44.5	40	36.5	24.7	48.4	168	30.1	25.3	34.9
1995-1996	431	30.9	28.0	33.9	110	29.2	23.6	34.8	27	31.7	19.6	43.8	42	36.1	24.8	47.3	179	30.9	26.2	35.6
1997-1998	432	30.2	27.3	33.1	129	32.9	27.1	38.7	25	30.1	17.9	42.3	53	40.4	29.5	51.4	207	33.9	29.2	38.6
1999-2000	421	28.4	25.7	31.2	122	29.8	24.4	35.3	25	27.0	16.3	37.7	38	27.4	18.7	36.1	185	28.9	24.7	33.1
2001-2002	397	26.2	23.7	28.8	100	23.4	18.7	28.1	29	30.9	19.6	42.2	34	24.0	15.9	32.1	163	24.5	20.7	28.3
2003-2004	431	28.3	25.7	31.0	102	25.6	20.5	30.7	23	25.1	14.8	35.4	46	31.3	22.2	40.3	171	26.4	22.4	30.5

Source: CAPE; OSHPD hospitalization files 1991-2004, CA DOF, Census 1990 and 2000.

Notes: Rates are age-adjusted, per 100,000. LCL and UCL are lower and upper 95% confidence levels for the rate.

Table B-19: Tuberculosis Cases

	Alameda County					Tri-City				
	Total	%	Rate	LCL	UCL	Total	%	Rate	LCL	UCL
Total	470	100	11.2	10.2	12.3	147	100.0	15.2	12.7	17.6
Sex										
Male	269	57.2	13.1	11.5	14.7	79	53.7	16.3	12.9	20.3
Female	201	42.8	9.5	8.2	10.8	68	46.3	14.1	10.9	17.9
Race/Ethnicity										
AmerInd	0					0				
AfrAmer	56	11.9	10.2	7.7	13.3	3	2.0			
API	323	68.7	32.6	29.0	36.1	127	86.4	73.8	61.0	86.7
Latino	63	13.4	6.8	5.2	8.7	13	8.8	3.7	1.9	6.3
White	23	4.9	1.5	0.9	2.2	4	2.7			
Unknown	4					0				
Age Group										
<5 years	7	1.5				0				
5-14 years	13	2.8	2.3	1.2	3.9	2	1.4			
15-24 yrs	42	8.9	8.3	6.0	11.2	16	10.9	13.1	7.5	21.3
25-44 yrs	143	30.4	10.4	8.7	12.1	52	35.4	15.1	11.3	19.8
45-64 yrs	145	30.9	14.4	12.1	16.7	48	32.7	23.2	17.1	30.7
65+ yrs	120	25.5	27.7	22.7	32.7	29	19.7	36.4	24.4	52.3
Country of Origin										
Foreign-born	379	80.6	32.7	29.4	36.0	129	87.8	35.2	29.1	41.3
U.S.-born	89	18.9	2.9	2.4	3.6	17	11.6	2.8	1.6	4.5
Unknown	2	0.4				1	0.7			

Source: CAPE; Alameda County TIMS 2003-2005, DOF, Census 2000.

Note: Alameda County does not include Berkeley. LCL and UCL are lower and upper 95% confidence levels for the rate.



Table B-20: AIDS Cases

	Alameda County					Tri-City				
	Total	%	Rate	LCL	UCL	Total	%	Rate	LCL	UCL
Total	536	100.0	11.9	10.9	12.9	40	100.0	4.1	3.0	5.6
Sex										
Male	413	77.1	18.7	16.9	20.5	30	75.0	6.2	4.2	8.8
Female	123	22.9	5.4	4.4	6.3	10	25.0			
Race/Ethnicity										
AmerInd	1	0.2				0	0.0			
AfrAmer	273	50.9	46.3	40.8	51.8	10	25.0	26.8	12.9	49.3
API	23	4.3	2.2	1.4	3.3	3	7.5			
Latino	91	17.0	9.5	7.6	11.6	10	25.0	5.8	2.8	10.7
White	146	27.2	8.3	7.0	9.7	17	42.5	4.8	2.8	7.7
Unknown	2	0.4				0				
Age Group										
<5 yrs	0					0				
5-19 yrs	4	0.7				1	2.5			
20-24 yrs	17	3.2	5.8	3.4	9.2	3	7.5			
25-29 yrs	39	7.3	11.6	8.2	15.8	1	2.5			
30-39 yrs	152	28.4	20.0	16.9	23.2	12	30.0	6.6	3.4	11.6
40-49 yrs	207	38.6	28.9	24.9	32.8	15	37.5	9.5	5.3	15.6
50+ yrs	117	21.8	9.8	8.0	11.5	8	20.0			
Exposure Mode										
Men who have sex with men (MSM)	253	47.2				15	37.5			
Injection drug use (IDU)	79	14.7				6	15.0			
MSM & IDU	15	2.8				2	5.0			
Heterosexual contact	160	29.9				11	27.5			
Other risk	4	0.7				1	2.5			
Risk not specified	25	4.7				5	12.5			

Source: CAPE; Alameda County HARS 2003-2005, DOH, Census 2000.

Note: LCL and UCL are lower and upper 95% confidence levels for the rate.

Table B-21: Chlamydia and Gonorrhea Cases, Tri-City, 2003-2005

	Chlamydia					Gonorrhea				
	Total	%	Rate	LCL	UCL	Total	%	Rate	LCL	UCL
Total	1,769	100.0	215.1	205.0	225.1	372	100.0	45.2	40.6	49.8
Sex										
Male	425	24.0	103.6	93.7	113.4	193	51.9	47.0	40.4	53.7
Female	1344	76.0	326.1	308.6	343.5	179	48.1	43.4	37.1	49.8
Race/Ethnicity										
AfrAm	248	14.0				86	23.1			
API	233	13.1				29	7.8			
Latino	316	17.8				39	10.5			
White	238	13.4				49	13.1			
Other	36	2.0				6	1.6			
Unknown	704	39.7				164	44.0			
Age Group										
10-14 yrs	16	0.9	23.0	11.7	34.2	3	0.8			
15-19 yrs	508	28.7	791.4	722.5	860.2	75	20.2	116.8	90.4	143.3
20-24 yrs	617	34.9	1071.8	987.3	1156.4	119	32.0	206.7	169.6	243.9
25-29 yrs	264	14.9	343.2	301.8	384.6	69	18.5	89.7	68.5	110.9
30-34 yrs	165	9.3	189.6	160.7	218.6	37	9.9	42.5	28.8	56.2
35+ yrs	199	11.2	42.6	36.7	48.5	69	18.5	14.8	11.3	18.3
Sex by Age Group										
Male										
10-14 yrs	1	0.2				0				
15-19 yrs	62	14.6	187.6	140.9	234.3	16	8.3	48.4	24.7	72.1
20-24 yrs	136	32.0	462.4	384.7	540.2	63	32.6	214.2	161.3	267.1
25-29 yrs	76	17.9	194.5	150.8	238.2	39	20.2	99.8	68.5	131.1
30-34 yrs	67	15.8	150.1	114.2	186.1	28	14.5	62.7	39.5	86.0
35+ yrs	83	19.5	36.4	28.6	44.2	47	24.4	20.6	14.7	26.5
Female										
10-14 yrs	15	1.1	44.7	22.1	67.4	3	1.7			
15-19 yrs	446	33.2	1432.3	1299.3	1565.2	59	33.0	189.5	141.1	237.8
20-24 yrs	481	35.8	1708.4	1555.7	1861.0	56	31.3	198.9	146.8	251.0
25-29 yrs	188	14.0	496.8	425.8	567.8	30	16.8	79.3	50.9	107.6
30-34 yrs	98	7.3	231.2	185.4	277.0	9	5.0			
35+ yrs	116	8.6	48.5	39.7	57.3	22	12.3	9.2	5.4	13.0

Source: CAPE; Alameda County STD surveillance system 2003-2005, DOF, Census 2000.

Note: Rates are not calculated for race/ethnicity because of large percentage of unknown. LCL and UCL are lower and upper 95% confidence levels for the rate.

Table B-22: Historical Communicable Disease

		Alameda County				Tri-City			
		Total	Rate	LCL	UCL	Total	Rate	LCL	UCL
Tuberculosis	1994-1996	672	18.1	16.8	19.5	114	13.6	11.1	16.1
	1997-1999	639	16.4	15.1	17.7	142	15.8	13.2	18.4
	2000-2002	636	15.4	14.2	16.6	168	17.5	14.8	20.1
	2003-2005	470	11.2	10.2	12.3	147	15.2	12.7	17.6
AIDS	1994-1996	1,341	33.5	31.7	35.3	95	11.3	9.2	13.9
	1997-1999	828	19.7	18.4	21.0	64	7.1	5.5	9.1
	2000-2002	684	15.4	14.3	16.6	41	4.3	3.1	5.8
	2003-2005	536	11.9	10.9	12.9	40	4.1	3.0	5.6
Chlamydia	1999	4,086	309.3	299.8	318.8	296	96.3	85.4	107.3
	2000	4,977	368.7	358.4	378.9	326	103.5	92.3	114.8
	2001	4,665	339.6	329.8	349.3	516	160.8	147.0	174.7
	2002	4,607	332.8	323.2	342.4	487	150.7	137.4	164.1
	2003	4,621	332.6	323.0	342.2	542	167.9	153.7	182.0
	2004	4,940	354.6	344.7	364.5	578	179.1	164.5	193.7
	2005	4,883	340.6	331.1	350.2	655	202.3	186.8	217.8
Gonorrhea	1999	1,813	137.2	130.9	143.6	80	26.0	20.3	31.7
	2000	1,904	141.0	134.7	147.4	58	18.4	13.7	23.2
	2001	2,134	155.3	148.7	161.9	92	28.7	22.8	34.5
	2002	2,050	148.1	141.7	154.5	84	26.0	20.4	31.6
	2003	1,517	109.2	103.7	114.7	100	31.0	24.9	37.0
	2004	1,674	120.2	114.4	125.9	130	40.3	33.4	47.2
	2005	1,919	133.9	127.9	139.9	143	44.2	36.9	51.4

Source: CAPE; TB data from Alameda County TIMS; AIDS data from Alameda County HARS; STD data from Alameda County STD surveillance system; DOF, Census 1990 and 2000.

Notes: For tuberculosis, chlamydia, and gonorrhea, Alameda County does not include Berkeley. LCL and UCL are lower and upper 95% confidence levels for the rate.



# Tri-City Health Profile

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