CITY OF BERKELEY HEALTH STATUS REPORT

1999

City of Berkeley
Health and Human Services Department
Public Health Services

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INTRODUCTION

The City of Berkeley Public Health Department has the responsibility to ensure and enhance the health of the community. One of the core functions necessary to fulfill this responsibility is assessment of health status and community health needs.

The 1999 Health Status Report contains the primary health indicators available to assess the health of Berkeley residents. As often as possible, Berkeley data is compared with Alameda County, California and the United States Healthy People 2000 objectives to identify areas where Berkeley has achieved health successes and those in which we are behind the larger population and health goals.

While overall this report shows Berkeley to be a healthy community, there is also evidence of tremendous disparity among residents of the city based upon ethnicity and socioeconomic status. In Berkeley we believe that "public health should be a way of doing justice, a way of asserting the value and priority of all human life." The Public Health Department is committed to reducing these disparities and improving the quality of life for all.

This report is intended to inform the community and assist the City and residents in prioritizing health resources. Finally, it is one of many reports done on a regular basis to assist in measuring progress toward a truly healthy community for all.

TABLE OF CONTENTS

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

The Berkeley 1999 Health Status Report contains information that assesses the health of Berkeley residents to assist both the City and residents in responding to health issues and concerns. This sharing of information is the key to better health outcomes for children and families. Shared information can help people from different perspectives understand their assets and needs, and often becomes the language to provide common ground for our community's hopes for the future. "Data-driven decision making can increase the value and rationality of planning, policy development and resource allocation…Data can also provide helpful tools—shining a light on key issues, challenges and accomplishments".[1]

Public health surveillance systems at the local, state and national level are the collectors and repositories of health data. An example of how the Berkeley local health department uses its data to advocate for and provide services is the establishment of the Injury Prevention Program. An analysis of bicycle and pedestrian injury rates revealed that the city of Berkeley had the highest rates of bicycle and pedestrian injuries of any city in Alameda County. With funding from the California Office of Traffic Safety in 1997, an Injury Prevention Program was started. The impact of this educational program, in addition to engineering and enforcement efforts, has been promising. According to California Highway Patrol data, bicycle collisions decreased from 236 collisions in 1997 to 179 collisions in 1998. Pedestrian collisions also decreased from 150 collisions in 1997 to 133 collisions in 1998. With this heightened awareness of injury data, the Berkeley City Council took several steps to address the issue including: (1) approving the Berkeley Bicycle Plan which includes a chapter on safety; (2) establishing the Bicycle and Pedestrian Safety Task Force made up of commissioners from the Community Health, Planning and Transportation Commissions; and (3) providing $35,000 in 1999 to continue the efforts of the Public Health Department's Injury Prevention Program. Hopefully, this Health Status Report will stimulate interest, guide planning and focus our efforts to improve the health of Berkeley residents in a similar way.

The Health Status Report shows that overall Berkeley is a healthy community. While deaths due to chronic disease such as heart disease, cancer and stroke represent 68% of all deaths in Berkeley, deaths due to all causes decreased 9% overall from 1997 to 1998. However, health status is impacted by the significant economic, educational, social and racial disparities that exist within the city. African Americans have the highest mortality rate unadjusted for age of all race/ethnicities. Welfare reform, lack of affordable health insurance, and disparities in income and educational outcomes may all have a negative influence upon the health of residents.

Information on specific infections, diseases and other health problems indicate a similar combination of good and bad news. Deaths due to AIDS dropped 90% in the past four years, from a peak of 49 deaths in 1994 to only 5 deaths in 1998. This decrease in mortality, as well as the prolongation of the progression from HIV infection to AIDS, is due to new drug regimens. However, Berkeley continues to have AIDS rates significantly higher than either Alameda

[1] The Foundation Consortium, *What Works: Policy Brief*, 1999

County or California. In addition, racial disparities are particularly striking with African Americans comprising just 19% of Berkeley's population, yet representing over 31% of the total AIDS cases (523 cumulative AIDS cases reported through 1998). This difference reflects the trends in Berkeley over the past 9 years with the proportion of African Americans with AIDS increasing from 19.5% in 1988-89 to 43% of AIDS cases in 1997-98, and a corresponding decrease among Whites from 71% to 40.5%. This growing disparity is recognized as being a direct result of lack of access to the new modalities of treatment and care and the changing mode of exposure to HIV.

Data on other communicable diseases show that the increase in chlamydia rates over the past several years continues. Of particular concern is the doubling of chlamydia case rates over the last two years among females ages 15-19. Hepatitis C virus (HCV) emerges as the next epidemic to threaten our community and the nation. Nationally, it is estimated that approximately 4 million people are infected with this blood-borne virus. As a comparison, it is estimated that approximately 1 million people have HIV in the U.S. HCV causes 12,000 deaths per year in the U.S. and these numbers are expected to triple in the next 10-20 years. In Alameda County, approximately 19,000 people are infected with HCV; 2,000 of whom are likely to reside in Berkeley. In 1998 there were 102 reported cases of HCV in Berkeley. The reporting requirements for HCV in California were changed in 1996, thus there is no accumulation of prior comparable cases from which trends can be predicted. As community awareness grows about this disease, the number of cases reported will undoubtedly increase.

Since the re-emergence of tuberculosis (TB) in the 1980's, Berkeley has experienced higher than expected case rates for tuberculosis. Although the actual numbers of TB cases in Berkeley are small, ranging from a low of 7 cases to a high of 20 cases per year from 1990 through 1998, our population is also comparatively small. For example, if Berkeley had 20 TB cases in one year, that would correspond to Alameda County having well over 200 cases as its population is approximately thirteen times larger. The case rate of 6.5 per 100,000 population in 1998 is the lowest rate since 1987, however disturbing changes are becoming evident in the characteristics of the cases. The proportion of tuberculosis cases diagnosed in Berkeley among U.S.-born residents has dramatically decreased from a 1994 high of 88% of reported cases to a 1998 low of 29% of reported cases. Commensurately, the proportion of foreign-born cases has risen from 12% in 1994 to 71% in 1998, which mirrors what is happening in all of California. The numbers of TB cases among the homeless have also increased. These changes dictate a greater allocation of public health resources and personnel and will challenge the department's ability to control and prevent the spread of tuberculosis. Each case of TB in a homeless person involves securing adequate housing, food, health care, directly observed therapy and extensive contact tracing. Curing TB is not only a medical endeavor, but requires the resources and cooperation of all of the social and mental health services that our society can provide.

The 1998 women's health data reflected significant racial disparities; 96% of White and Hispanic women received early prenatal care compared to 83% of African American women. Mortality echoed this disparity with a 1997 crude mortality rate for African American women being twice that of White women. The crude mortality rate of White women, in turn, was two and one-half times that of Asian women. In addition, while the total number of deaths due to breast cancer

have decreased since a high of 22 in 1995, the risk of dying of breast cancer is higher for African American women than it is for White women and for all other races/ethnicities combined.

A success story in adolescent health continues to be the low birth rate among Berkeley adolescents aged 15-19 with teens representing less than 1% of the total births in 1998 (10 births out of 1,017 total births). This is the fourth year in a row that Berkeley has had the lowest birth rate in California among this age group. Other successes occurred in the area of infant/children's health with a childhood immunization rate of 67%, higher than the California rate of 64%. Most notable is the increase in the immunization rate among Berkeley Hispanic children from 44% in 1996 to 73% in 1999, demonstrating the possibility of successfully reducing racial health disparities in the city. However, in the area of low birth weight, Berkeley does not meet the Healthy People 2000 Objective of no more than 5% of total births being low birth weight. In Berkeley, 8% of total births are low birth weight in 1998. In addition, among cities of comparable size in the United States, Berkeley ranked the 3rd highest in the proportion of African American low birth weight births over a three year period, from 1993 through 1995.

In the area of domestic violence, 1,830 domestic violence physical and related non-physical incident reports were filed with the Berkeley Police Department, Domestic Violence Prevention Unit in 1997-98. Women were named as the victim in 84% of the cases and the perpetrator was arrested in 29% of the cases. Demonstrating the multiple causative factors in domestic violence, alcohol or drug use was involved 23% of the time.

This 1999 Health Status Report documents both successes achieved and articulates challenges for the future as the Public Health Department works together with City Government and the community to achieve a better quality of life for all residents by addressing social, economic and health issues that are the real determinants of health.

CHAPTER 1

DEMOGRAPHIC PROFILE

HIGHLIGHTS

- By 1998 population estimates, Berkeley's population is ethnically and racially diverse: 54% of residents are White, 19% African American, 15% Asian/Pacific Island and 10% Latino.
- In the 1990 Census, 17% of the population was identified as foreign-born.
- Poverty status is unequally distributed by race. In 1990, 1,800 (9%) families lived in poverty: 19% of African American families, 15% of Asian/Pacific Islander families, 17% of Hispanic families, 4% of White families and 22% of families of other races.
- In 1990, 14% of the population was under the age of 18; recent birth data suggests there has been little change in the age structure in Berkeley.
- Social and economic trends impact the health and well-being of Berkeley's population and exacerbate racial disparities in health including 1) changes in the occupational structure; 2) welfare reform and other cuts in social services; 3) disparities in educational outcomes; 4) gentrification; and 5) increasing lack of affordable health insurance.

DEMOGRAPHIC PROFILE

The city of Berkeley is one of the most densely populated communities in the state, with 107,800 residents living in approximately 10 square miles. The University of California plays a prominent role in the city as a magnet for students and as the city's largest employer and landowner.

Berkeley's diverse population is characterized by significant economic, educational, social and racial disparities, which are reflected in various indicators of health and quality of life. Health data reveal that racial disparities continue to exist between the White and African American population, as evident in indicators such as low birth weight. Geographically, health risks also tend to concentrate in the low-income sections of the city, oftentimes within particular census tracts in South and West Berkeley. These health data correspond to numerous social indicators, such as educational outcomes, poverty, unemployment and housing and challenge the City to address health issues in the context of broader social factors. Furthermore, research demonstrates that wide income gaps between the rich and poor – in countries, states and metropolitan areas – are associated with poor health. Countries that do not have large income disparities between the "haves" and the "have-nots" have significantly better overall health.[2]

COMMUNITY PROFILE

Berkeley is at the geographic center of the East Bay Corridor; its population is ethnically and racially diverse. According to the 1998 population estimates, the city's residents are 54% White, 19% African American, 15% Asian/Pacific Islander and 10% Latino. According to the 1990 Census, the largest Asian ethnic groups were Chinese, Japanese, Filipino, Korean and Asian Indian and Vietnamese. Nearly 60% of the Latino population was of Mexican descent. Other major groups were Central and South American in ancestry. School district data indicate that 8% of the student population is identified as multiracial.

Berkeley has a substantial immigrant population. In 1990, 17% of the population was identified as foreign-born, including 10% who were non-citizens and 7% who were naturalized as citizens. Data from the Berkeley Unified School District indicate that over 12% (1,144) of its 9,400 students are "English Learners", speaking approximately 60 languages. Sixty-one percent (701) of these students speak Spanish as a primary language. Other language groups individually comprise less than 5% of the "English Learners". The largest of these groups include Arabic (51 students, 4.4 %), Cantonese (43 students, 3.7%), Vietnamese (40 students, 3.4%) and Mandarin (35 students, 3%).

The University of California has an impact on the city's population. Its student body is about 31,000, nearly 1/3 the size of the entire Berkeley population. In 1988-89, 19,289 U.C. students

[2] The California Wellness Foundation at www.tcwf.org

lived in Berkeley, comprising 18% of the city's population. The University is the city's largest employer, with roughly 14,000 employees, many of whom reside in Berkeley.

Berkeley's diversity is not evenly reflected throughout the city. African American and Latino communities are concentrated primarily in the low-income areas of South and West Berkeley. In 1990, nearly half (47.4%) the population below 200% of poverty resided in South and West Berkeley and three out of four children below poverty (76%) lived in these areas. Roughly 3/4 of those eligible for MediCal and people on Temporary Assistance to Needy Families (76%) reside in South and West Berkeley. The remainder of the city, including the high-income hill area, is predominantly White. Asians are spread throughout the city, with the largest clusters residing near the University.

Poverty status is also unequally distributed by race. In 1990, there were 1,800 (9%) families living in poverty. Only 4% of White families lived in poverty compared with 19% of African American families, 15% of Asian/Pacific Islander families, 17% of Hispanic origin families and 22% families of other races. Whites in all census tracts had higher per capita incomes than all other racial/ethnic groups.[3] Berkeley's neighborhoods are economically divided. The upper-income population is clustered in the hills. Middle-income neighborhoods are clustered mostly in north Berkeley. The median incomes are lowest in South and West Berkeley. Areas near the university also reflect very low median incomes due to the heavy concentration of students residing there.

In 1990, the census counted 14,589 children and adolescents under the age of 18, or 14% of the population. There were 5,697 children in the 0-5 year old group. Thirty percent of the families with children under six were single-parent families. There were 8,892 children and adolescents, ages 6-17. Thirty eight percent of the families with children in this age group were single-parent families, mostly headed by females. On average, single females with children had an annual income of $24,650, as compared with $73,572 for married couples with children and $42,677 for single males with children. Although current population figures are unavailable, estimates suggest that there has been little change in the age structure of Berkeley's population.

SCHOOLS

The Berkeley Unified School District has 14 schools, including 11 elementary schools serving K-5, three middle schools serving grades 6 to 8, a high school and an alternative high school. Although the elementary and middle schools serve particular zones, all schools serve a mix of children from throughout the city. In 1998, there were approximately 9,400 students enrolled in the public schools. Their racial/ethnic breakdown was 39% African American, 31% White, 13% Hispanic, 8% Asian, 8% Multiracial, and 1% other Ethnic Groups. Thirty-three percent of the children qualified for free and reduced lunch, indicating that their families were low-income. Many children, particularly those from middle and upper-income families, attend private schools. This partially explains the under-representation of Whites in the public schools.

[3] The University student population may distort poverty statistics, since many students are considered at poverty level. Nearly ½ of Asians in Berkeley were students in 1990.

SOCIAL AND ECONOMIC ENVIRONMENT

Several social and economic trends impact the health and well-being of Berkeley's population and exacerbate racial disparities in health. These include: 1) changes in the occupational structure; 2) welfare reform and other cuts in social services; 3) disparities in educational outcomes; 4) gentrification; and 5) increasing lack of affordable health insurance.

PROPERTY AND RENTAL COSTS

Berkeley is in the center of a region in which housing costs have increased faster than incomes for the past two decades. The skyrocketing costs of property in Berkeley, coupled with changes in rent control have decreased the availability of low-income housing and added to the risk of homelessness. Gentrification, the physical improvement of Berkeley's housing stock, has occurred as higher income owners upgrade homes, particularly in South and West Berkeley. This phenomenon results in the decrease of housing affordability and can also impact neighborhood stability. High demand for housing also increases competition for rental units, and drives the prices up.

CHANGES IN THE OCCUPATIONAL STRUCTURE

The East Bay Corridor has historically been dominated by manufacturing, transportation, and wholesale trade activity. This picture is being modified by high tech manufacturing and business service growth. High property costs and zoning restrictions have made it difficult for Berkeley to attract and retain these new industries, such as high tech manufacturers, biotech firms, and software companies. Reflecting nationwide trends, the traditional manufacturing sector, which tends to provide the most accessible high wage jobs for people with limited education, shrank 25% between 1981 and 1990, causing a loss of 2,600 jobs[4].

WELFARE REFORM AND CUTS IN SOCIAL SERVICES

In May of 1999, 993 Berkeley households with 5,111 individuals received welfare. They were 8% White, 79% African American, 7% Latino and 7% Asian and other races. African Americans are over-represented on welfare, while Whites are under-represented. Alameda County Department of Social Services (DSS) administers the welfare programs for residents of Berkeley. Since the implementation of welfare reform, the number of households in Berkeley receiving this aid has declined by 18.5%. In December of 1998, before the program was implemented, there were 1,218 households on AFDC. In May of 1999, there were 993 households enrolled in CalWORKs. This decline in recipients is reflected throughout the county and DSS is in the process of analyzing its underlying causes.[5] Some of the decline may be due to an increase in employment in this population, but much of it may be attributed to confusion with new policies, programs and procedures[6-7].

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[4] Source: City of Berkeley Profile
[5] Source: Alameda County Department of Social Services
[6] Source: Association of Bay Area Governments, Welfare Reform Network
[7] Source: Alameda County Department of Social Services, CalWORKs Quarterly Report, September, 1998

The health risks of low-income communities are increased by reductions in a variety of services and resources, which have adversely affected options for health care, mental health services, housing and other important services. This has contributed to the risk of homelessness, a growing concern in Berkeley.

EDUCATIONAL DISPARITIES

Despite Berkeley's efforts to integrate schools and promote multicultural education, there are pronounced disparities in educational achievement along racial and economic lines. In 1990 64% of the population aged 25 and older had a college degree. This included 76% of Whites, 62% of Asians, 57% of Native Americans, 47% of Latinos and 27% of African Americans. Four percent of the population in the same age group had less than a 9th grade education, including 2% of Whites, 3% of Native Americans, 6% of Asians, 10% of African Americans, and 17% of Latinos.

These educational disparities begin at an early age. A survey of 9th graders in 1997 showed that 7% of African American students and 12% of Latino students had a GPA of over 3.5 compared with 54% of Asians and 48% of Whites. Ninth graders from higher income neighborhoods and private feeder schools tended to have higher GPAs than ninth graders from public feeder schools and low-income neighborhoods.[8] Of Berkeley High School graduates, 77% of Whites, 63% of Asians, 39% of Hispanics, 30% of Filipinos, 29% of Native Americans and 27% of African Americans meet UC/CSU eligibility requirements. None of the students graduating from the Berkeley Alternative High School met these requirements.[9]

Educational status is linked to health outcomes in many ways. Youth who do poorly in school are also more likely to engage in behaviors, such as drug and alcohol abuse, tobacco use, unprotected sex, crime and violence that can be detrimental to their own health and the health of others. These educational disparities have tremendous implications for community health and often serve to reinforce social inequities by circumscribing employment opportunities.

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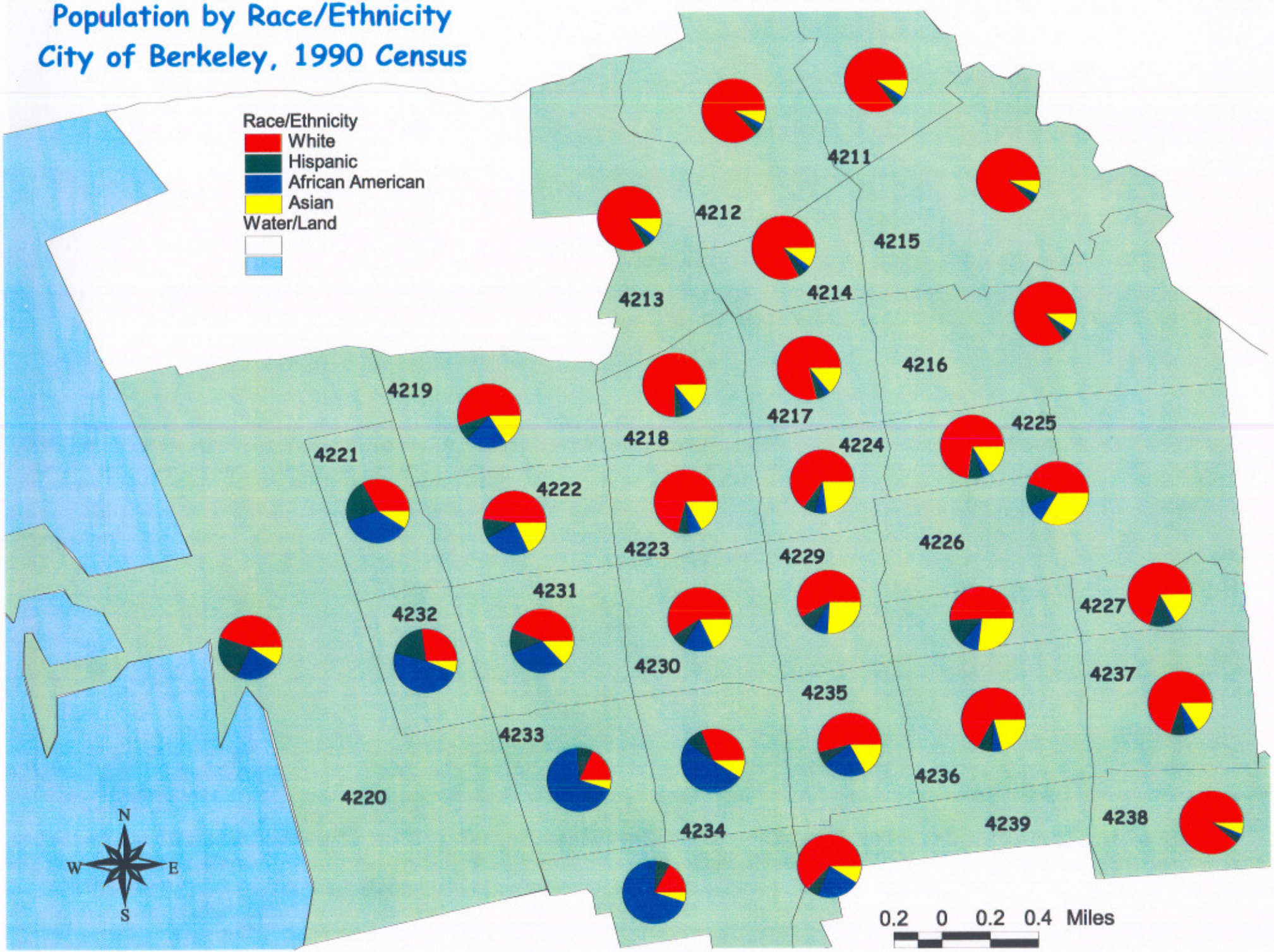
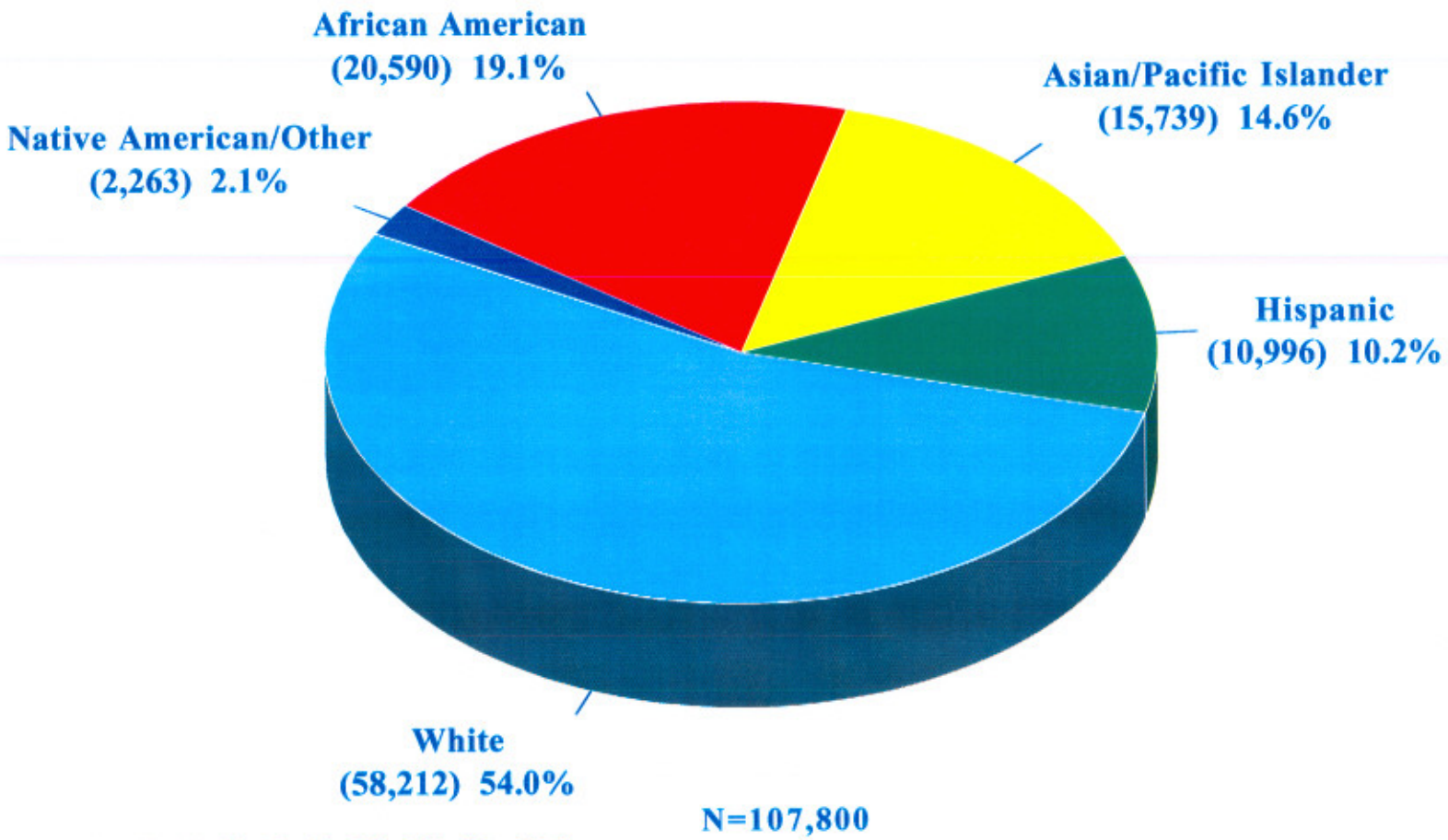
[8] Source: Diversity Project, *Facts on the Whole 9th Grade Class*, SASI data as of 3/1/97.
[9] Source: State of California, CBEDS Database

Population by Race/Ethnicity
City of Berkeley, 1990 Census

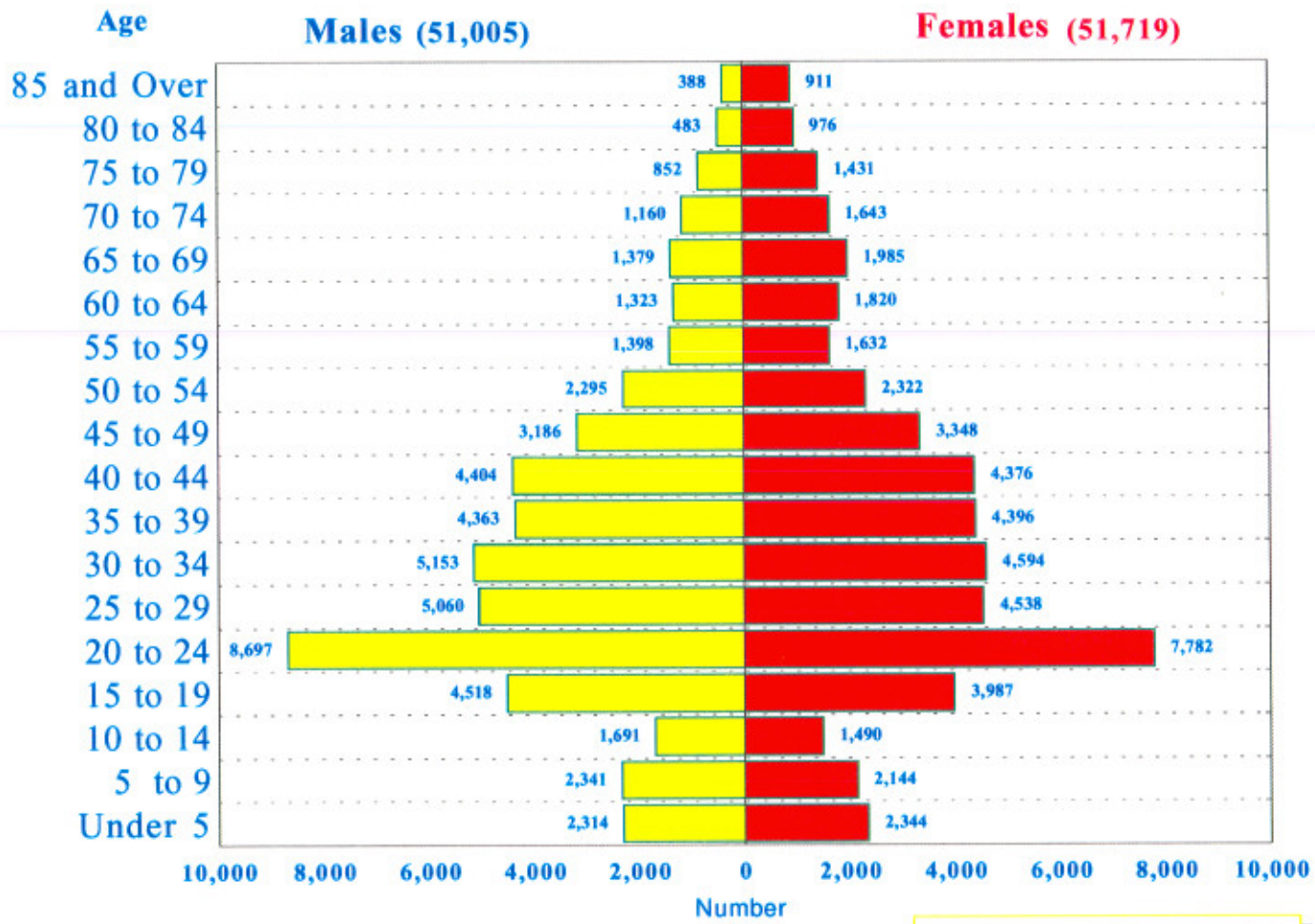


Berkeley Population by Race/Ethnicity
1998 Estimates



Source: City of Berkeley Vital Statistics Unit, Epidemiology Section
California Demographics.

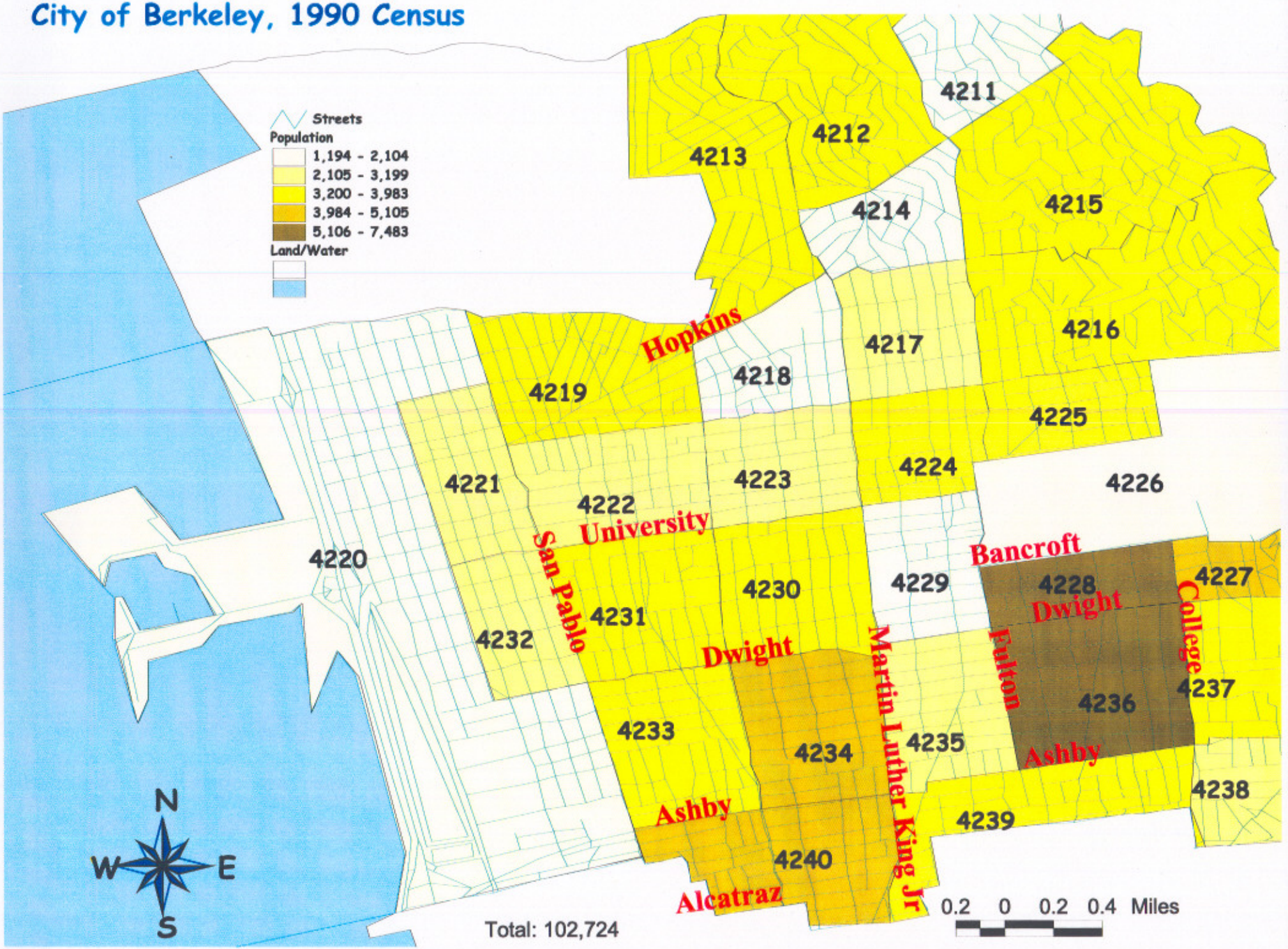
Population by Age and Gender
City of Berkeley, 1990 Census



Total Population: 102,724

Source: City of Berkeley Public Health Department, Vital Statistics Division, 1990 Census Data.

Population by Census Tract
City of Berkeley, 1990 Census



CHAPTER 2

MORTALITY OVERVIEW

HIGHLIGHTS

- The average years of life in Berkeley varies from 62-64 years in South and West Berkeley to 80-84 years in North Berkeley, Berkeley Hills and the Claremont area.
- Among African Americans in Berkeley, the crude mortality rate is twice as high as that of Whites.
- Deaths due to chronic disease represent 68% of all deaths in Berkeley including heart disease, cancer and stroke.

MORTALITY

DATA SOURCES AND LIMITATIONS

This section reviews data related to deaths occurring from 1993-1998. Death rates are per 100,000 population. Reviewing deaths over a multi-year period provides more reliable death rates and allows for better comparisons by cause of death, age, gender and race/ethnicity. Additionally, an average of 1995-1997 data is used throughout this section in order to compare Berkeley data to Alameda County and California figures. Death certificate data for the city of Berkeley, including age, gender, race/ethnicity, and coded cause of death, was obtained from the City of Berkeley Public Health Department Vital Statistics Unit.[10]

COMPARISON OF ALL-CAUSE MORTALITY RATES BY GENDER AND RACE/ETHNICITY

In 1997, the average number of years of life in the city of Berkeley as a whole was 77 years. However, length of life varies considerably by census tract and, as previously described, by racial and economic diversity. The average years of life in Berkeley ranges from 62-64 years in South Berkeley and West Berkeley in contrast to 80-84 years in North Berkeley, the Berkeley Hills and the Claremont area. These numbers were calculated by taking all the deaths in a given census tract and averaging the ages at death. It is a factual number and not a projection or estimation.

The crude mortality rate is the rate of deaths due to all causes, not adjusted for age differences. The crude mortality rate in Berkeley in 1998 was 607 per 100,000 persons, down 9% from 670 per 100,000 in 1997. While the crude mortality rate has decreased somewhat, disparities in health among racial and ethnic communities in Berkeley are significant as the 1997 crude mortality data shows in Table 1.

Table 1
Crude Mortality Rates by Race/Ethnicity
Berkeley, 1997

	TOTALS*
African American	**1,241**
White	**634**
Asian/Pacific Islander	**355**
Hispanic	**182**
All Race/Ethnicities	**670**

***Per 100,000 population**

- The probability of dying if one is African American is 1 in 80 persons.

[10] Inaccuracies inherent in death certificate data include information with regard to race/ethnicity and cause of death.

- The probability of dying if one is White is 1 in 158 persons.
- The probability of dying if one is Asian is 1 in 282 persons.
- Among African Americans in Berkeley, the probability of dying is twice as high as the probability of dying among Whites.

After adjusting for differences in age in order to make comparisons across age categories and with other regions, the total age-adjusted mortality rate (deaths due to all causes) for the period 1995-1997 is 397 per 100,000, lower than both Alameda County (455/100,000) and California (440/100,000). This 1995-1997 age-adjusted rate is also lower than the 1994-1996 age-adjusted mortality rate of 418/100,000.

There are significant differences in mortality between men and women in Berkeley. Specifically, the age-adjusted mortality rate for males in 1997 is 509 per 100,000 while the age-adjusted mortality rate for women in the same year is 316 per 100,000. Age-adjusted mortality rates cannot be computed in Berkeley by gender and race/ethnicity together due to the relatively small number of events in each group.

As shown in Table 2 below, the age-adjusted mortality rate in Berkeley is 397/100,000. Upon reviewing 1997 age-adjusted mortality rates (for both males and females) by race/ethnicity, however, glaring differences emerge. The African American mortality rate is 67% higher than the White mortality rate. If we use the Asian/Pacific Islander rate as a reference (because this rate is the lowest), the following comparisons can be made for all-cause age-adjusted mortality rates during 1997:

- White mortality rates were 64% higher than Asians; and
- African American mortality rates were 88% higher than Asians.

Table 2
Age-Adjusted Mortality Rates by Race/Ethnicity
Berkeley, 1997

Race/Ethnicity	Total*
African American	**1,076.9**
White	**357.6**
Hispanic	**157.2****
Asian/Pacific Island	**127.9**
All Race/Ethnicities	396.9

*Rate per 100,000 population, age-adjusted to 1940 U.S. Standard Population
**Rate statistically unreliable due to small number of events

The median age at the moment of death was 83 years for Asian/Pacific Islanders, 80 years for Whites and 75 years for African Americans.

LEADING CAUSES OF DEATH

In 1997, 68% of all deaths in Berkeley were due to chronic diseases (compared to 64% in 1996). This decrease is not statistically significant. In both 1996 and 1997, the three leading causes of death were heart disease, followed closely by cancer deaths (malignant neoplasms) and stroke (cerebrovascular disease). While Berkeley has met the Healthy People 2000 Objectives for heart disease and some cancer rates, the age-adjusted mortality rate for stroke is 29 per 100,000 and has yet to meet the Healthy People 2000 Objective (20 per 100,000). Although the numbers of total deaths for all diseases increased in 1997 versus 1996, the increases are not significant except for the deaths due to chronic obstructive pulmonary disease (COPD) which increased 100% in this time period.

Table 3
Five Leading Causes of Death
Berkeley, 1996-1997

Cause of Death	1996 Total Deaths	1997 Total Deaths
Heart Disease	**197**	**203**
Total Cancer Deaths	**152**	**158**
Stroke	**68**	**73**
Chronic Obstructive Pulmonary Disease	**20**	**40**
Pneumonia/Influenza	**27**	**29**

Between 1996 to 1997, there was a noticeable decrease from 21 to 13 deaths due to unintentional injuries. In 1996, the Public Health Department established its first Injury Prevention Program.

In 1994, there were 49 deaths due to AIDS in Berkeley. Since then, however, 1998 AIDS deaths have dropped to 5.

DEATHS DUE TO HEART DISEASE

Major cardiovascular disease is the number one cause of death in Berkeley, as it is in the rest of the U.S. The total age-adjusted mortality rate of 56 per 100,000 is significantly lower than that of Alameda County (92/100,000), California (97/100,000) and the Healthy People 2000 Objective (100/100,000). However, consideration of deaths alone severely understates the burden of cardiovascular disease. While almost one-fourth of the nation's population lives with some form of the disease, it is unknown what proportion of residents of Berkeley has heart disease. Additionally, in California as a whole, the rate of coronary heart disease among African Americans is higher than that among Whites.[11]

[11] DHS Health Status report

CANCER DEATHS

Cancer (malignant neoplasms) is the second leading cause of death in both the United States and in Berkeley. The age-adjusted cancer mortality rate (deaths due to all cancers) in Berkeley is 102/100,000 for the period of 1995-1997. This rate is lower than Alameda County (117/100,000), California (113/100,000) and the Healthy People 2000 Objective (130/100,000). The age adjusted mortality rate due to all cancers is higher among men (125/100,000) than it is among women (88/100,000). Reducing cancer mortality and morbidity through prevention, early detection and treatment strategies still holds great potential. Consideration of the five leading cancer deaths allows for more in-depth comparison.

- The number of deaths due to lung cancer in 1997 (29) are lower than 1996 deaths (36). Lung cancer is still the leading cause of cancer deaths in Berkeley. The age-adjusted lung cancer mortality rate of 22/100,000 is lower than Alameda County (33/100,000) and California (31/100,000)[12] and significantly lower than the Healthy People 2000 Objective (42/100,000).

- The total number of female breast cancer deaths in Berkeley has declined steadily since 1995 (22 in 1995, 19 in 1996 and 16 in 1997). However, the age-adjusted mortality rate (21/100,000) is still higher than Alameda County (18/100,000), California (19/100,000) and close to the Healthy People 2000 Objective (20.6/100,000).

- Colorectal cancer is the third leading cause of cancer death in the United States. In Berkeley, deaths due to colorectal cancer have increased slightly since 1995 and colorectal cancer is now the second leading cause of cancer deaths.

DEATHS DUE TO STROKE

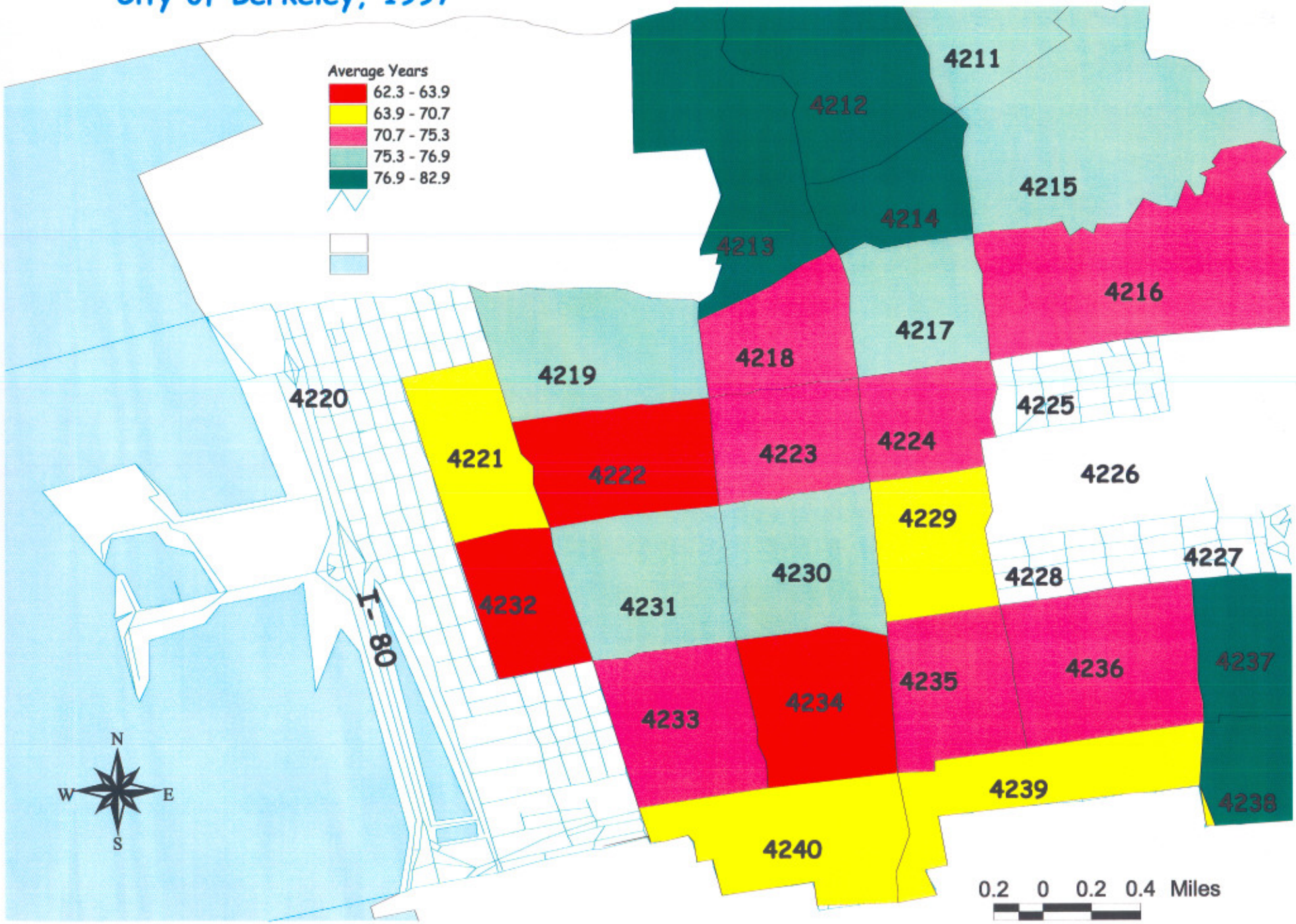
The age-adjusted cerebrovascular disease (stroke) mortality rate in Berkeley is 29 per 100,000, similar to Alameda County (29/100,000) but higher than California (26/100,000) and significantly higher than the Healthy People 2000 Objective of 20 deaths per 100,000 persons. Nationally, age-adjusted stroke mortality rates have declined primarily due to improved control of high blood pressure (hypertension) and reductions in the prevalence of cigarette smoking.[13]

[12] States with tighter tobacco laws have lower smoking rates: California has the lowest smoking rate in the country at 18.4% (1997). This represents a 26% drop since 1984.
[13] DHS Health Status Report

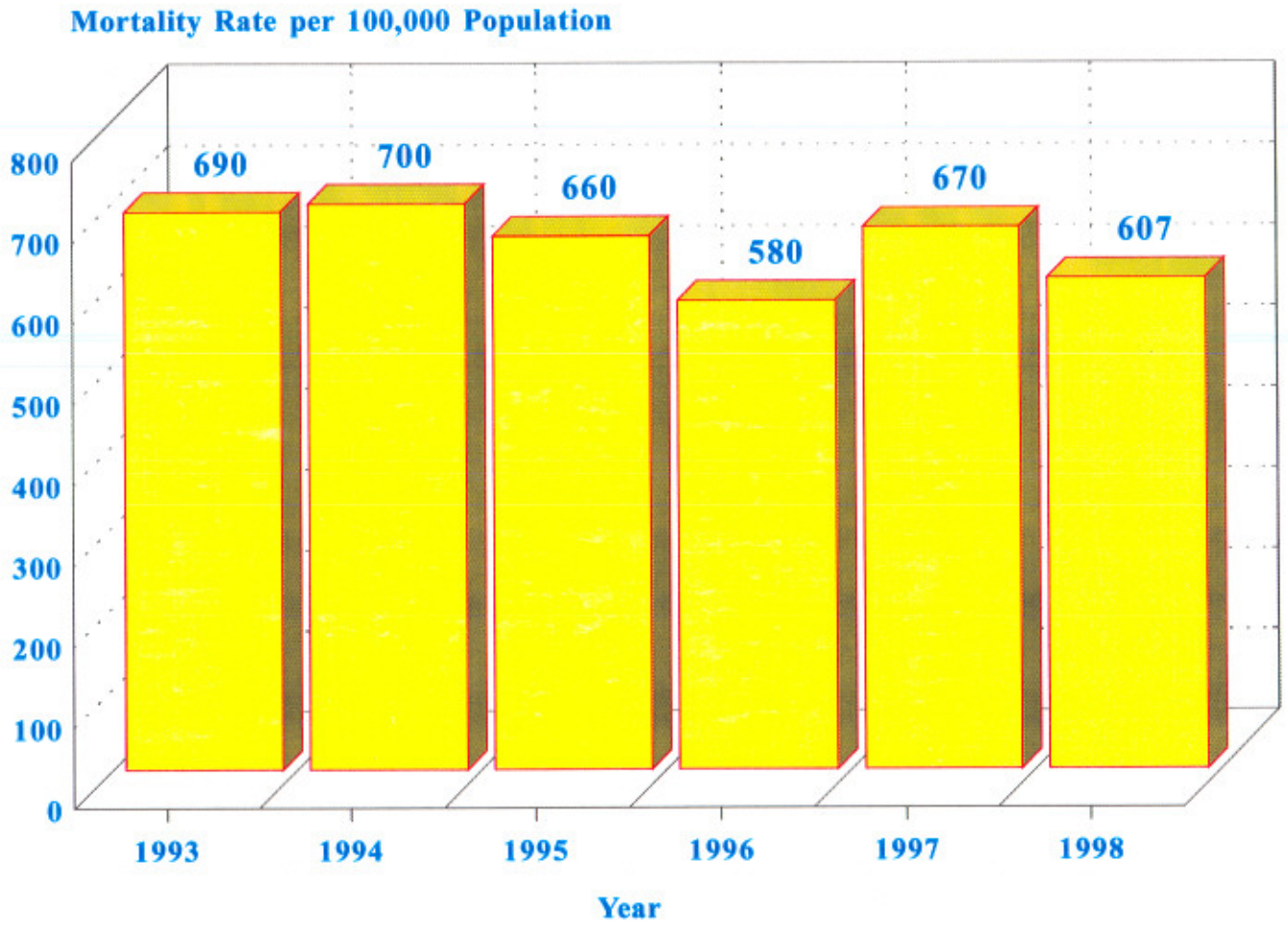
"YEARS OF POTENTIAL LIFE LOST BEFORE AGE SIXTY-FIVE" ANALYSIS

Another useful method for analyzing mortality data is to calculate the years of potential life lost. This method measures the impact of premature mortality in a population. For example, deaths of young people signify more years of potential life lost (YPLL) than deaths to elderly persons. Many of the deaths to younger persons are preventable and amenable to public health interventions. In analyzing mortality, a few causes of premature death rob Berkeley residents of many of their most productive years. These causes include cancers (505 YPLL), unintentional injuries (motor vehicle crashes, drowning, poison and falls) (390 YPLL), and suicide and homicide (350 YPLL). The impact of AIDS on YPLL is also noteworthy: since 1996, YPLL due to AIDS deaths has declined from 300 YPLL in 1996 to 180 YPLL in 1997.

Average Years of Life by Census Tracts
City of Berkeley, 1997

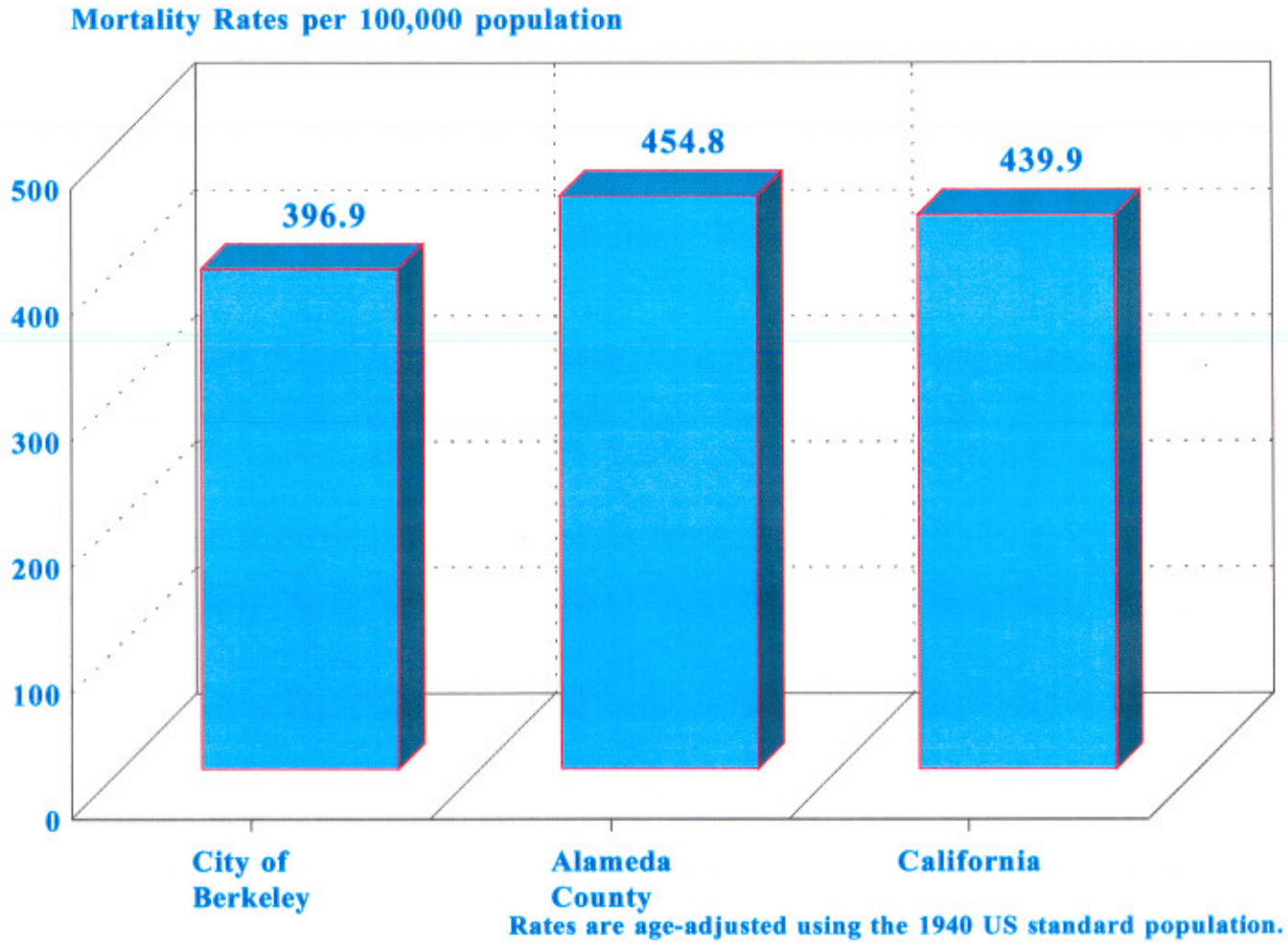


Crude Mortality Rate by Year
City of Berkeley, 1993 - 1998



Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Mortality Records

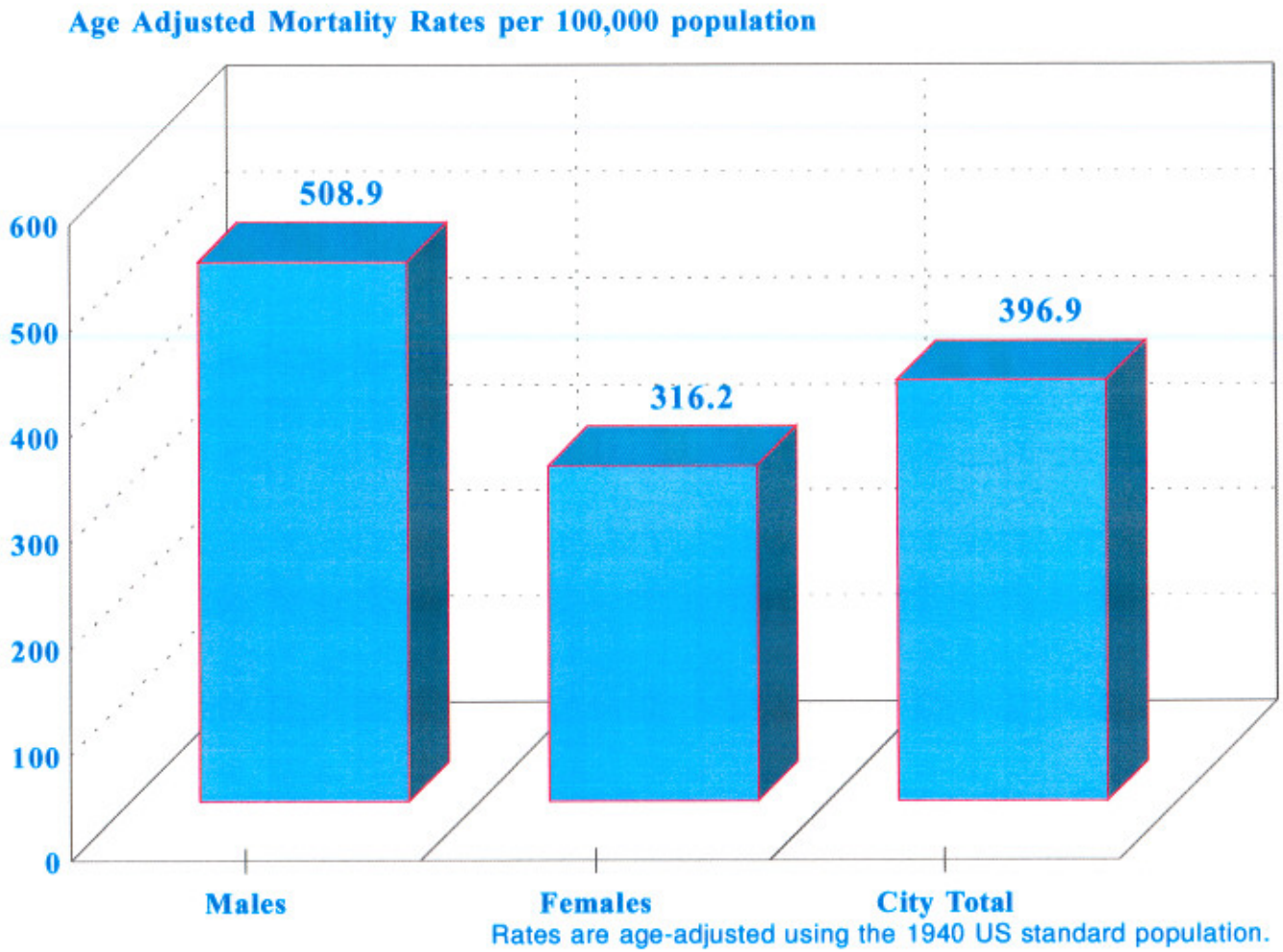
Age Adjusted Mortality Rate (Deaths Due to All Causes)
City of Berkeley, Alameda County and California, 1995-1997 Average



Rates are age-adjusted using the 1940 US standard population.

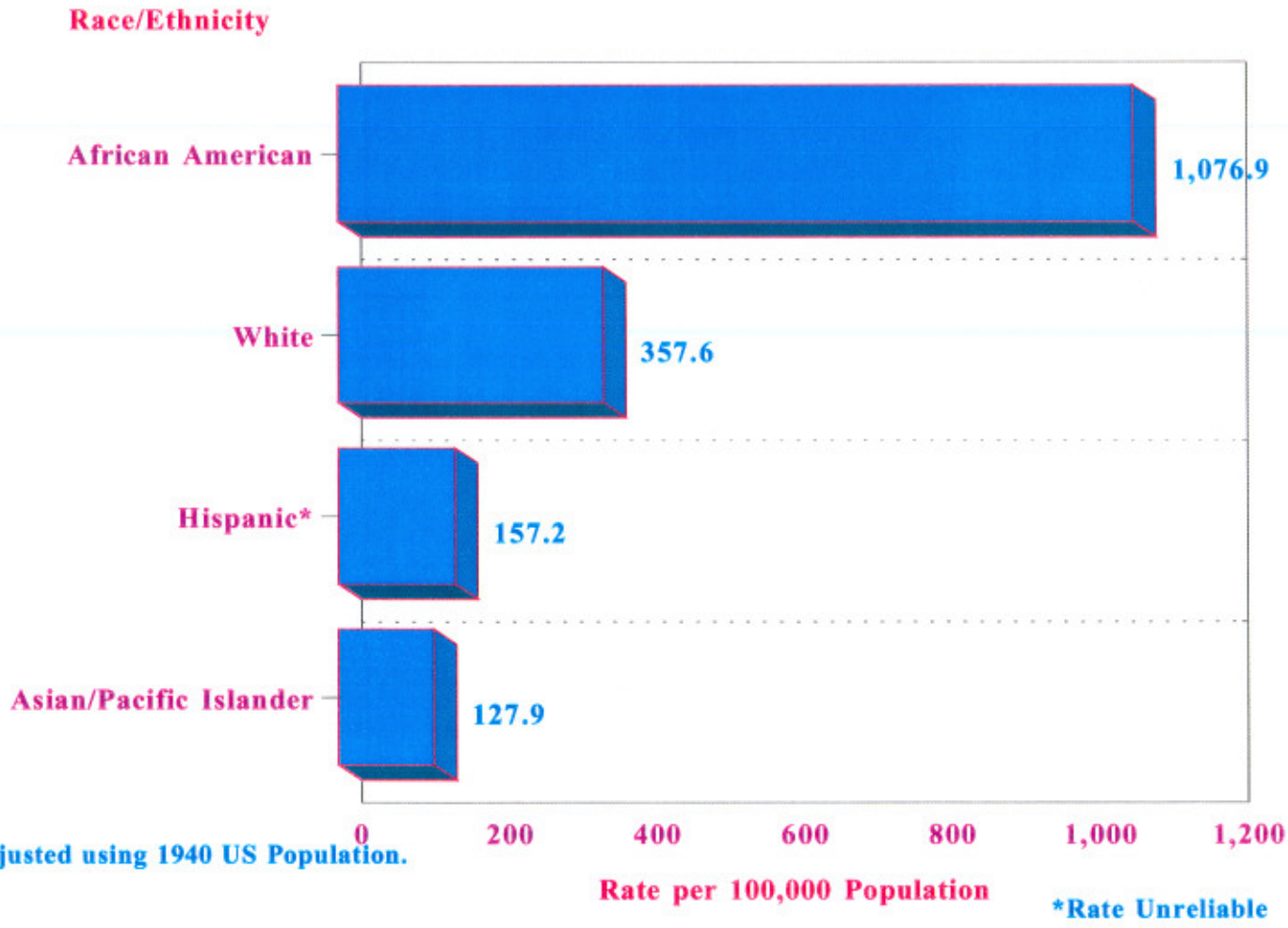
Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Mortality Records

Age Adjusted Mortality Rate (Deaths Due to all Causes) by Gender
City of Berkeley, 1995-1997 Average



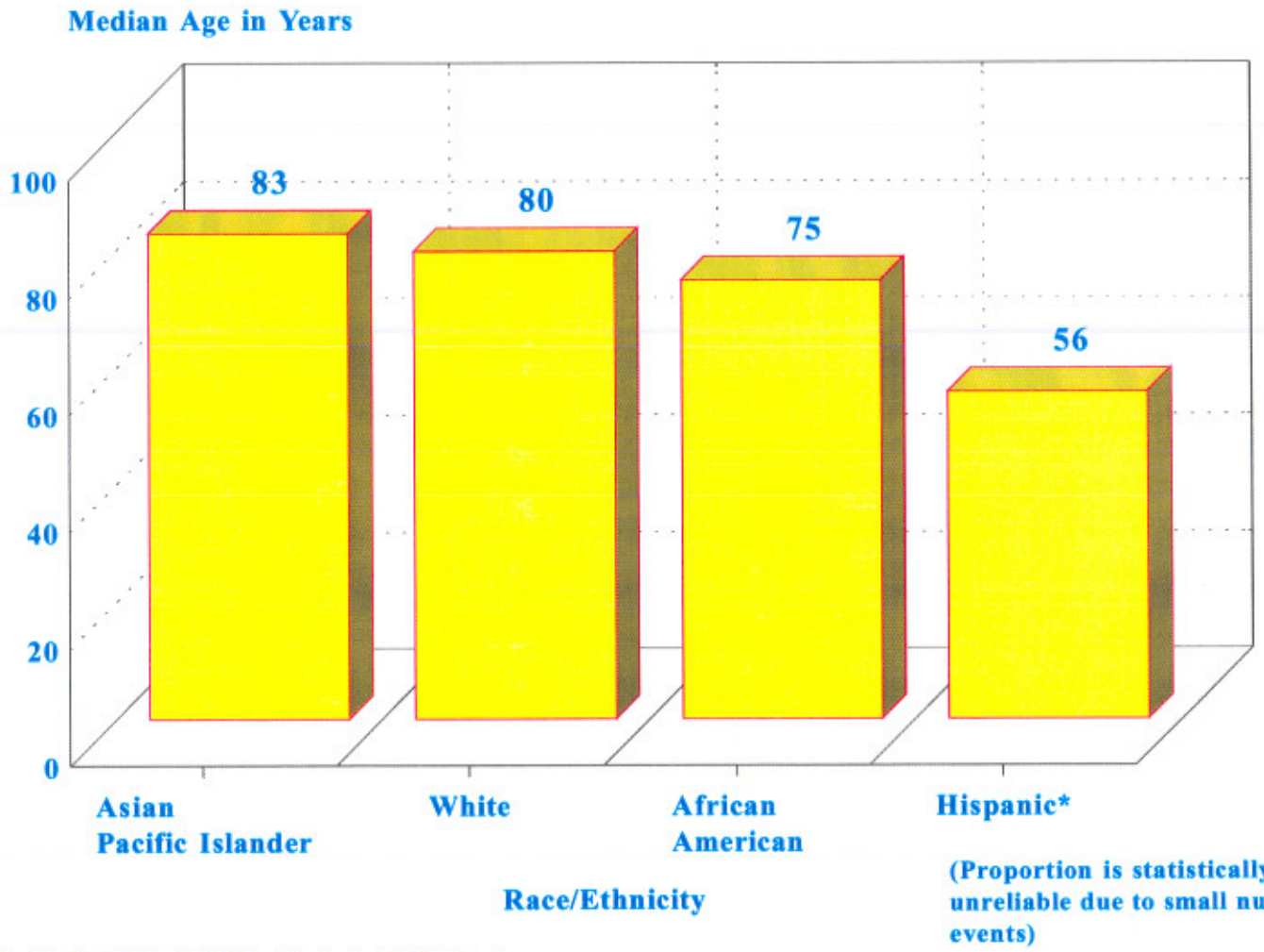
Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Mortality Records

Age Adjusted Mortality Rate by Race/Ethnicity
City of Berkeley, 1995-1997 Average



Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Mortality Records

Median Age at Moment of Death by Race/Ethnicity
City of Berkeley, 1997



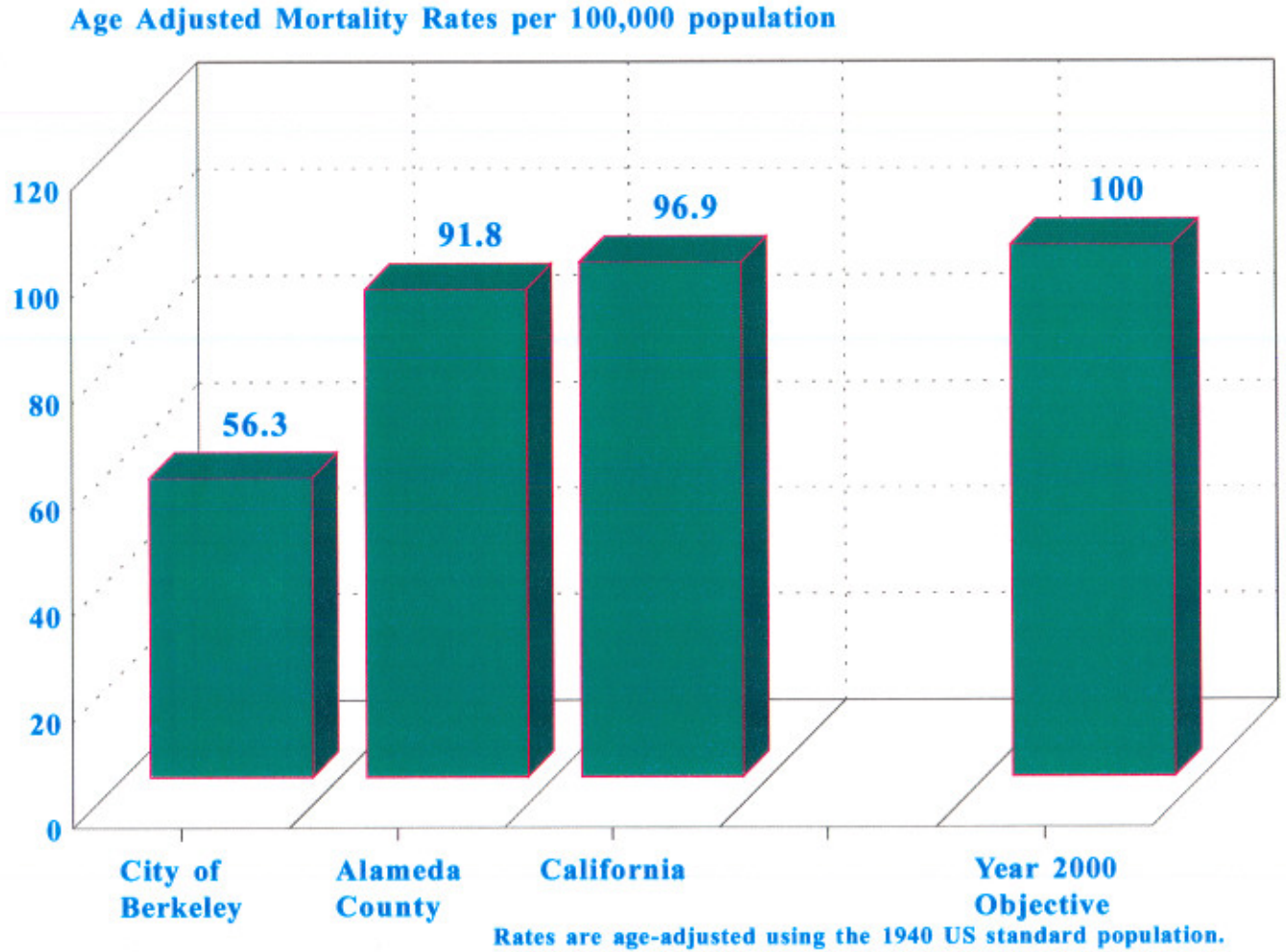
Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Mortality Records

Ten Leading Causes of Death
City of Berkeley, 1996-1997

Cause of Death	1996 (Percent of Total)	Rank	1997 (Percent of Total)	Rank
Diseases of the Heart	197 (28.8)	1	203 (28.9)	1
Malignant Neoplasms	152 (22.2)	2	158 (22.5)	2
Cerebrovascular disease	68 (9.90)	3	73 (10.4)	3
Pneumonia and Influenza	27 (3.90)	4	29 (4.10)	5
Unintentional Injuries	21 (3.10)	5	13 (1.90)	8
Chronic Obstructive Pulmonary Disease	20 (2.90)	6	40 (5.70)	4
Diabetes	18 (2.60)	7	15 (2.10)	7
AIDS	14 (2.10)	8	13 (1.90)	8
Suicide	13 (1.90)	9	12 (1.70)	9
Chronic Liver Disease\Cirrhosis	12 (1.80)	10	17 (2.40)	6
Homicide	6 (0.90)		10 (1.40)	10
All Other Causes	136 (19.9)		119 (17.0)	
TOTAL	684 (100.0)		702 (100.0)	

Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Mortality Records

Age Adjusted Coronary Heart Disease Mortality Rate
City of Berkeley, 1995-1997 Average

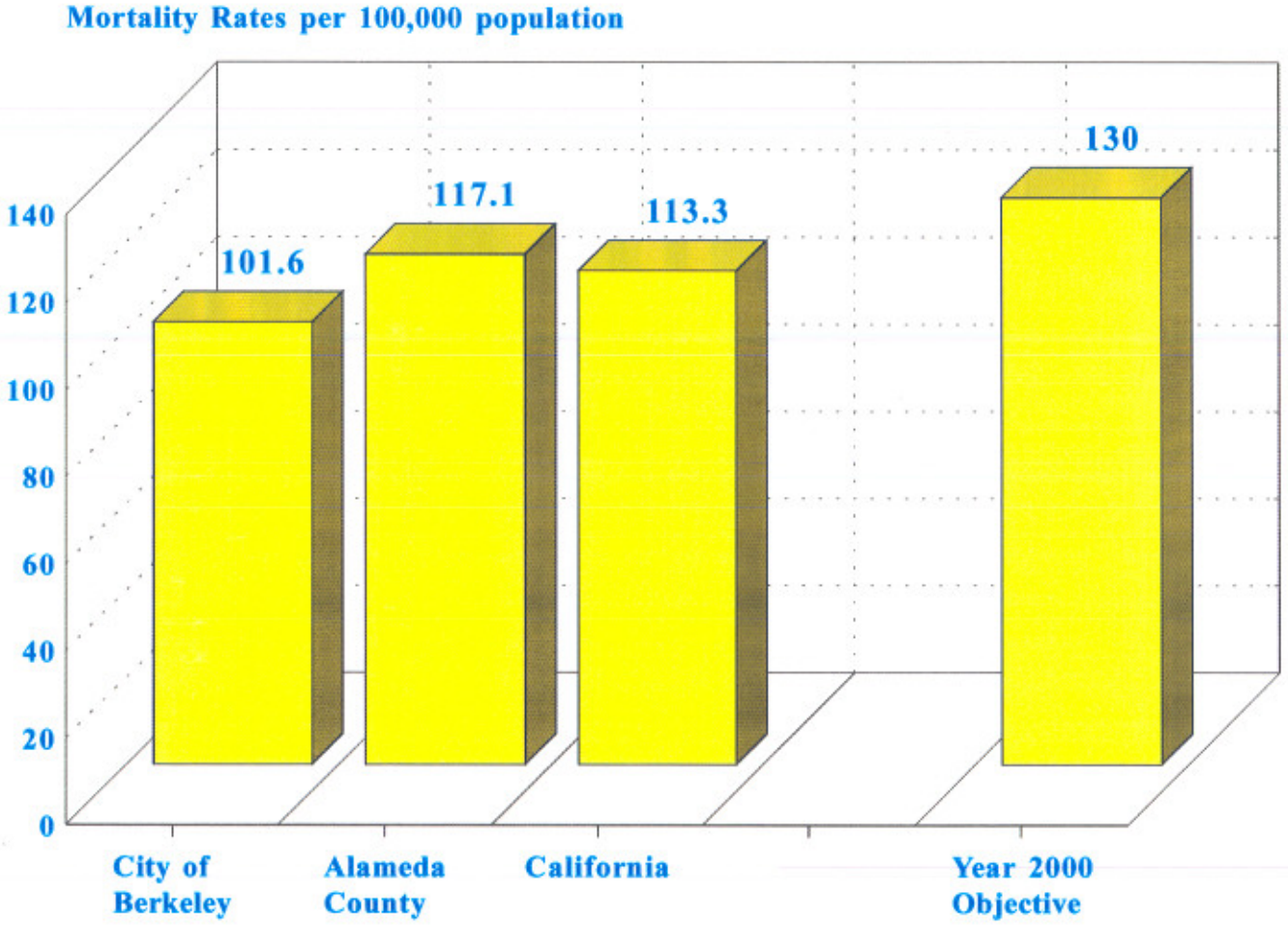


Rates are age-adjusted using the 1940 US standard population.

Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Mortality Records

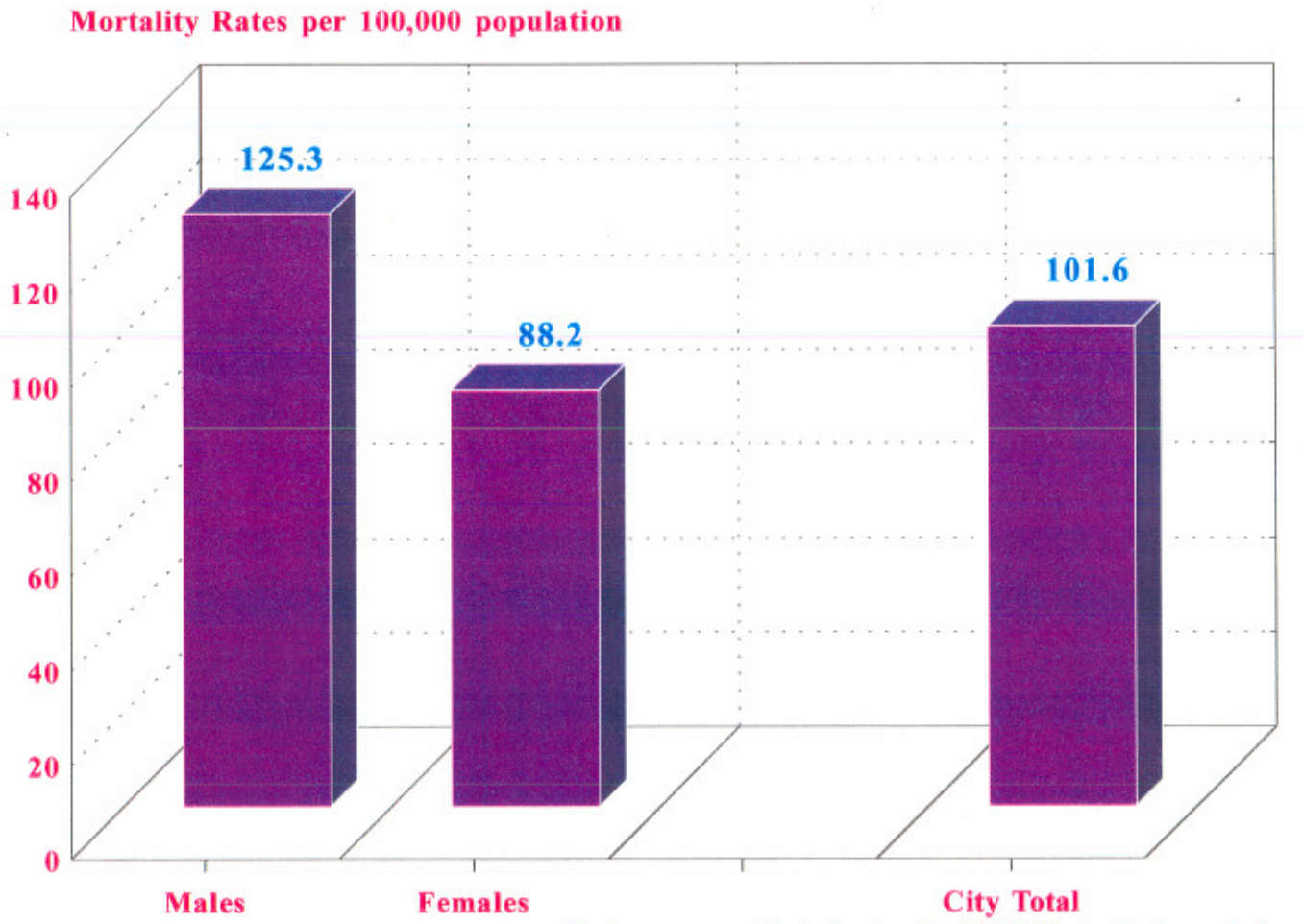
Age Adjusted Cancer Mortality Rate (Deaths Due to All Cancers)
City of Berkeley, 1995-1997 Average

Rates are age-adjusted using the 1940 US standard population.



Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Mortality Records

Age Adjusted Cancer Mortality Rate (Deaths Due to All Cancers) by Gender
City of Berkeley, 1997



Rates are age-adjusted using the 1940 US standard population.

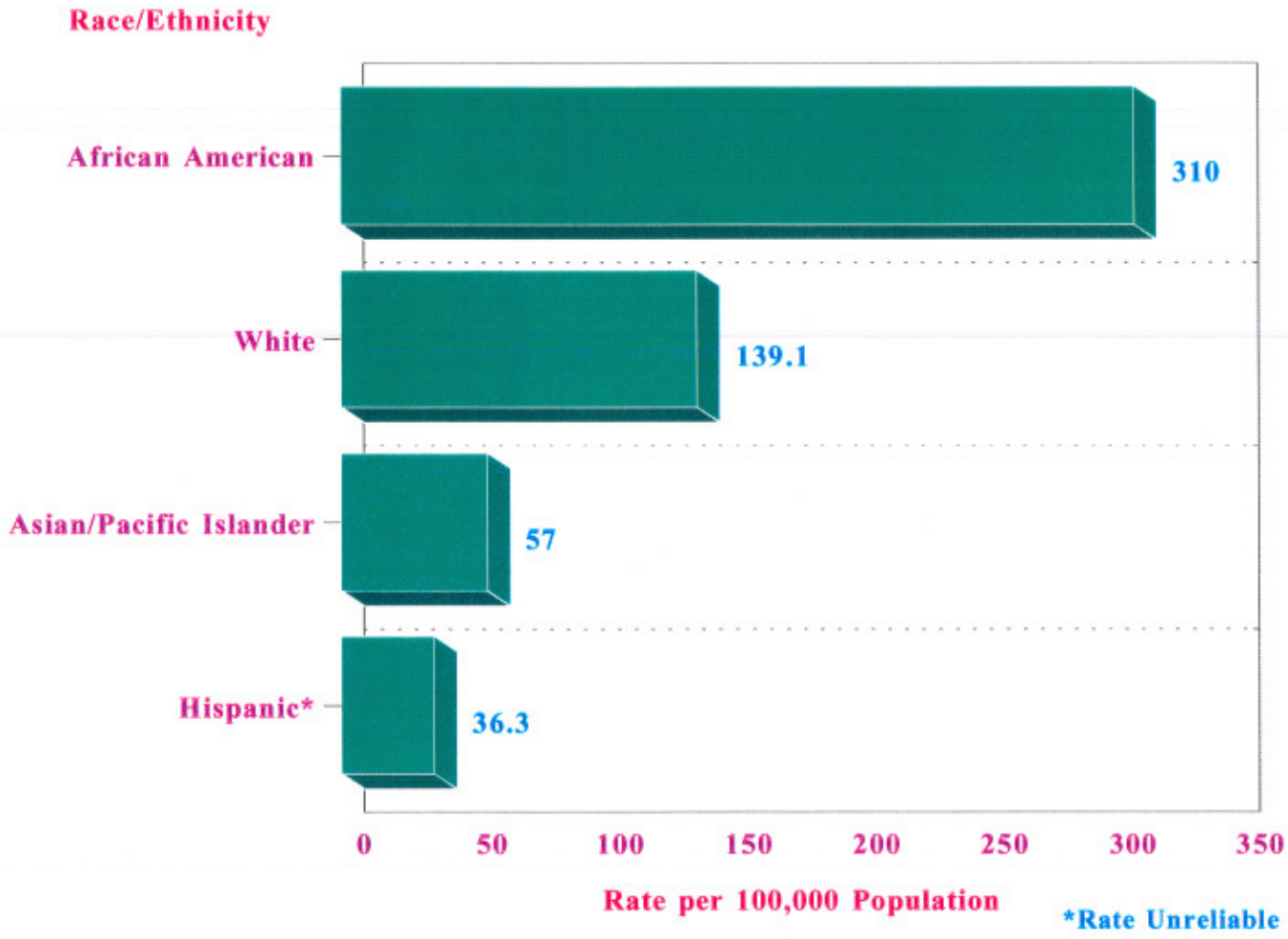
Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Mortality Records

Five Leading Cancer Deaths
City of Berkeley, 1995-1997

Cause of Death	1995	Rank	1996	Rank	1997	Rank
Lung Cancer	31	1	36	1	29	1
Breast Cancer	22	2	19	2	16	3
Colorectal Cancer	15	4	17	3	20	2
Prostate Cancer	16	3	15	4	16	3
Stomach Cancer	9	5	3	5	5	4
All Other Cancers	85		62		72	
Total Cancer Deaths	178		152		158	

Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Mortality Records

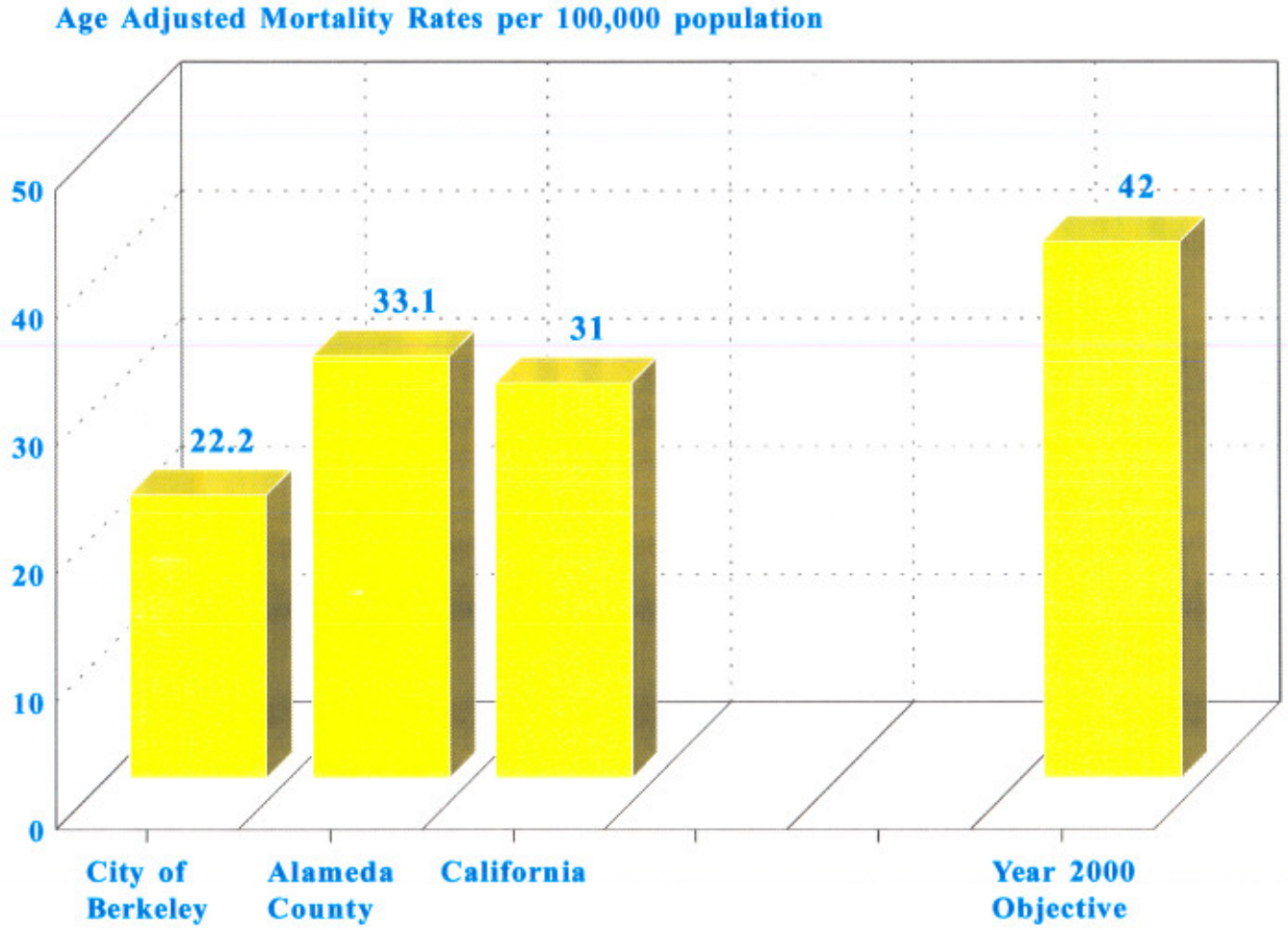
Crude Mortality Rate (Deaths Due to All Cancers) by Race/Ethnicity
City of Berkeley, 1997



Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Mortality Records

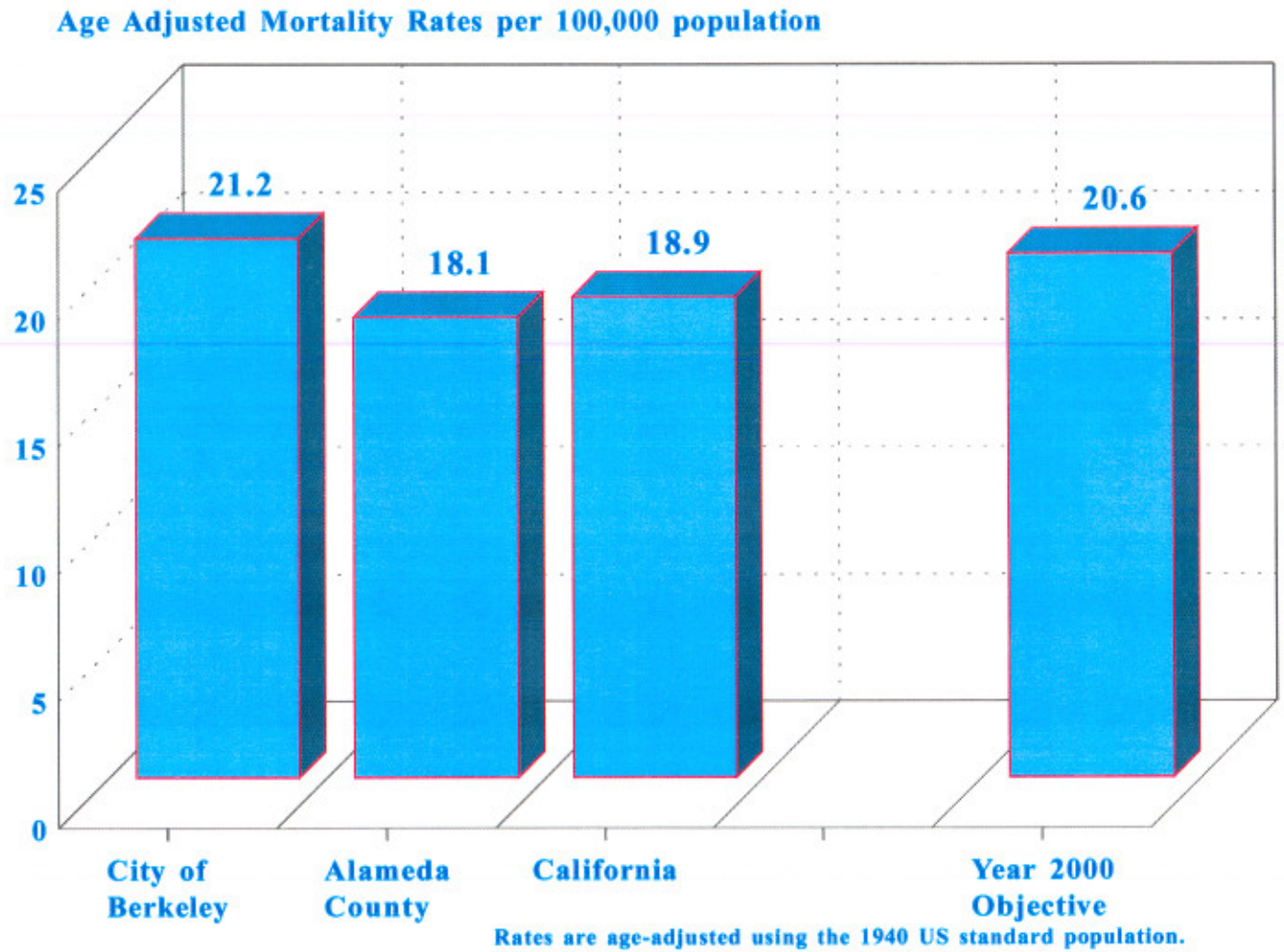
Age Adjusted Lung Cancer Mortality Rate
City of Berkeley, 1995-1997 Average

Rates are age-adjusted using the 1940 US standard population.



Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Mortality Records

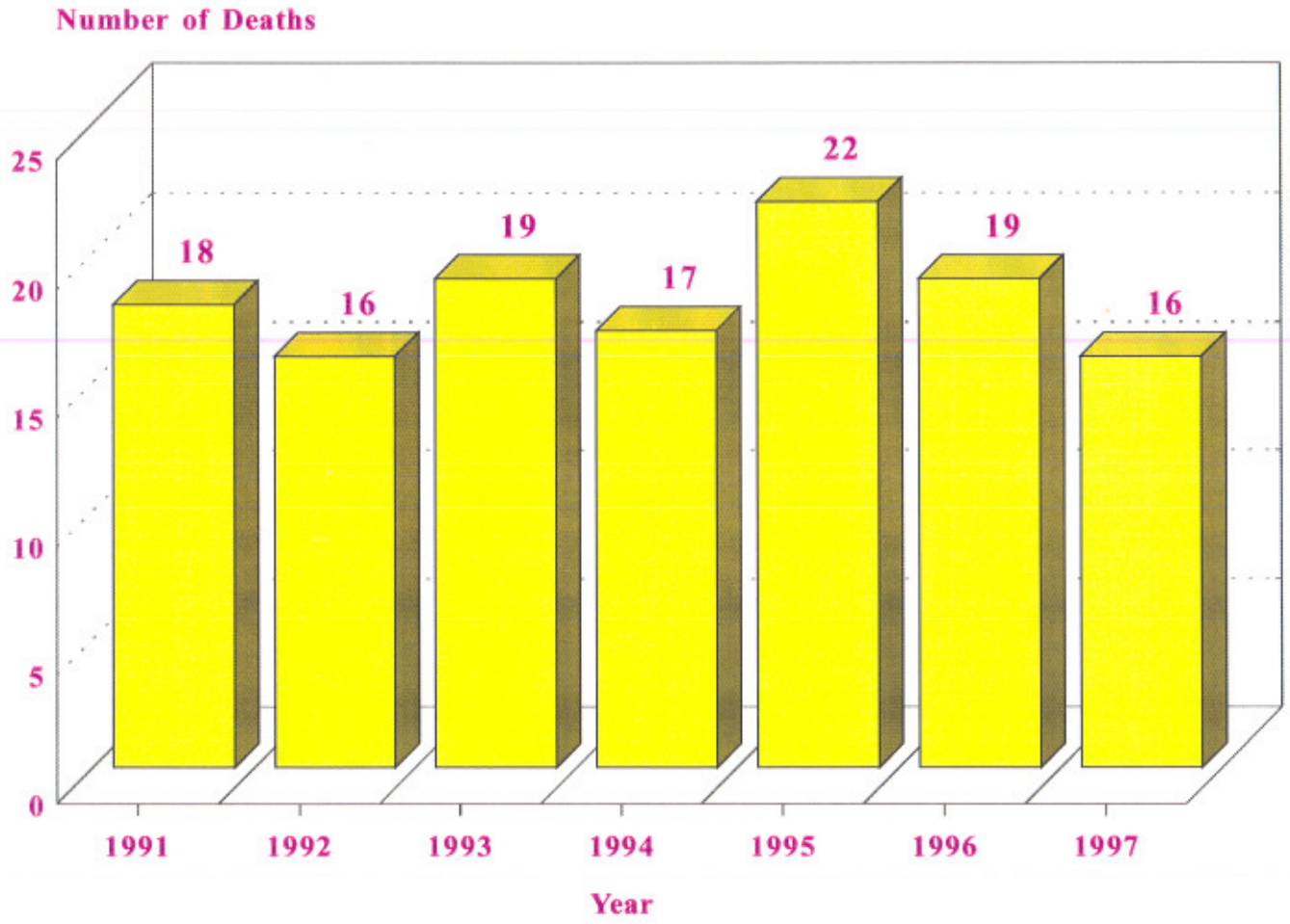
Age Adjusted Female Breast Cancer Mortality Rate
City of Berkeley, 1995-1997 Average



Rates are age-adjusted using the 1940 US standard population.

Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Mortality Records

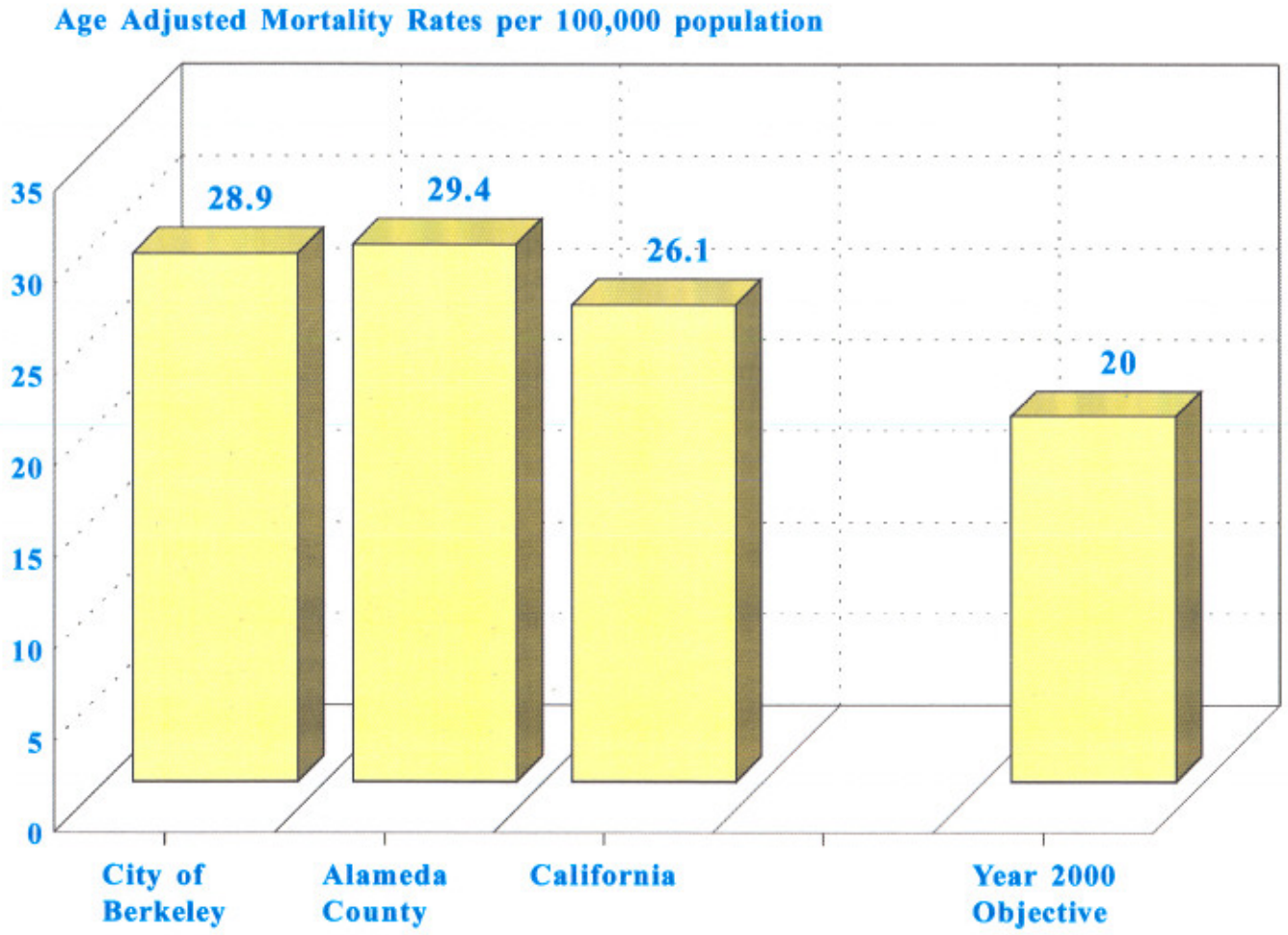
Female Breast Cancer Deaths by Year
City of Berkeley, 1991-1997



Source: City of Berkeley Health and Human Services Department, Division of Public Health, Vital Statistics Unit; Mortality Records.

Age Adjusted Cerebrovascular Disease Mortality Rate
City of Berkeley, 1995-1997 Average

Rates are age-adjusted using the 1940 US standard population.



Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Mortality Records

Years of Potential Life Lost (YPLL) Before Age 65
City of Berkeley, 1996 and 1997

Years of Potential Life Lost (YPLL) measures the impact of premature mortality on a population.

Cause of Death	YPLL 1996	Rank	YPLL 1997	Rank
Malignant Neoplasms	560	1	505	1
Unintentional Injuries	340	2	390	2
Suicide/Homicide	315	3	350	3
AIDS	300	4	180	6
Diseases of the Heart	260	5	270	4
Chronic Liver Disease/Cirrhosis	105	6	190	5
Cerebrovascular disease	70	7	85	7
Diabetes	65	8	70	9
Pneumonia and Influenza	65	9	80	8
Chronic Obstructive Pulmonary Disease	35	10	70	9

Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Mortality Records

CITY OF BERKELEY SERVICES AND PROGRAMS

TOBACCO PREVENTION PROGRAM

The City of Berkeley Tobacco Prevention Program receives funding from the Proposition 99 tobacco tax to develop and implement interventions to reduce environmental tobacco smoke, reduce youth access to tobacco and counter the tobacco industry's glamorization of tobacco. Current activities include:

- conducting a smoke-free pledge campaign in several community and transnational settings;
- collaborating with the UC Berkeley, University Health Services to develop institutional policies and other strategies to increase attempts of students to quit tobacco use;
- responding to current tobacco issues and community tobacco-related needs and problems;
- reducing youth tobacco sales through youth purchase surveys and merchant education;
- collaborating with a community coalition to support local initiatives to reduce outdoor tobacco advertising and self-service displays;
- conducting a community-wide anti-tobacco art contest and using winning pieces in a media campaign;
- conducting a campaign to reduce youth access to "social sources" of tobacco; and
- researching effectiveness of program interventions.

NURSE OF THE DAY (ADVICE NURSE)

The City of Berkeley Nurse of the Day is a free health information service available to the public through phone calls or drop-in visits. Public Health Nurses are available every day to answer questions and give counseling about health problems and provide health education and teaching on such topics as blood pressure control, diet and nutrition, AIDS, sexually transmitted diseases, and tuberculosis. The nurses will also perform certain physical assessments such as blood pressure measurements.

The advice nurses take referrals for public health nursing visits and provide resource information about other community programs and services such as emergency food programs, support groups, mental health resources, and drug and alcohol programs. In addition to providing referrals, the nurses will assist clients in contacting other health and social service agencies and accessing needed services.

CHAPTER 3

HIV/AIDS

HIGHLIGHTS

- Berkeley has 7.7% of the total Alameda County population, however, 10% of AIDS cases reside in Berkeley.
- Berkeley has consistently reported AIDS rates significantly higher than either Alameda County or California.
- Deaths due to AIDS dropped 90% in four years from a peak of 49 deaths in 1994, to only 5 deaths in 1998.
- While African Americans comprise 19% of the population, they represent over 31% of the total cumulative AIDS cases reported through 1998.
- Cumulative AIDS cases are heavily skewed by gender with 480 being male and 43 female.
- From 1992-1998, 60.5% of AIDS cases report sex with other men as the most likely mode of transmission followed by injection drug use at 18.8%. This is compared to the years from 1983-1992 when 79.4% of AIDS cases reported sex with other men and 8.5% reported injection drug use as the most likely modes of transmission.
- From 1989 to 1998, the proportion of African Americans diagnosed with AIDS increased from 19.5% to 43% of the cases with a corresponding decrease among Whites of 71% to 40.5%.

HIV/AIDS

Background

HIV (Human Immunodeficiency Virus) is a virus that is primarily transmitted by unprotected sexual contact and sharing injection drug needles. Infection with another sexually transmitted disease such as genital herpes or chlamydia can increase the risk of transmission of HIV. HIV infection progresses over a period of many years to AIDS (Acquired Immunodeficiency Disease). While there is currently no cure or preventive vaccine for HIV/AIDS, new drug treatment regimens have dramatically slowed and in some cases halted the progression from HIV infection to AIDS and prolonged the lives of people living with AIDS. As a consequence, the incidence of AIDS (newly diagnosed cases) has decreased dramatically while the prevalence of people living with HIV has increased. Unfortunately, these drug treatment regimens are prohibitively expensive with costs conservatively estimated at $10,000-$12,000 per year per patient. This cost has resulted in disparities in treatment among people with HIV infection depending upon their access to insurance and other payment sources.

Because of the long period between HIV infection and the progression to AIDS, AIDS cases do not reflect the current infected populations. However, since HIV infection is not reportable, data in this report reflect AIDS cases rather than current HIV infection levels. Both AIDS case data and HIV prevalence surveys conducted throughout the United States and in California indicate that the HIV/AIDS epidemic is having an increasingly disproportionate impact on racial/ethnic minority populations, particularly among women, youth and children. At the same time, prevalence surveys indicate that young men who have sex with men continue to be at high risk for HIV infection.

Data Sources and Limitations

The following section includes data on AIDS cases reported to the City of Berkeley Public Health Department.

The AIDS data represent mandatory incidence reporting to the City of Berkeley Public Health Department, Office of Epidemiology and Health Statistics, AIDS Registry.

AIDS Cases

California is second to New York State in having the highest number of diagnosed AIDS cases. About 17% of the nation's cases are in California.[14] Within California, the Bay Area and Los Angeles have the highest numbers of cases.

The city of Berkeley had 523 cumulative AIDS cases reported through 1998, making Berkeley second only to Oakland in the number of people reported with AIDS in the major cities of Alameda County. While 7.7% of the total Alameda County population resides in Berkeley, 10% of the total AIDS cases of Alameda County reside in Berkeley.

As discussed previously, new treatments for HIV infected individuals have resulted in dramatic reductions in diagnosed AIDS cases. In the three year period of 1992-1994, Berkeley had an incidence of 55.0 per 100,000, significantly above the Healthy People Year 2000 Objective of 43 per 100,000. However, in the period 1995-1997, Berkeley's case rate of 29.6 was far below the Year 2000 objective. Despite this decrease, Berkeley continues to have reported AIDS rates significantly higher than either Alameda County or California.

Deaths from AIDS have dropped significantly as increasingly efficacious treatments have been developed. Deaths due to AIDS dropped 90% in four years from a peak of 49 deaths in 1994, to only 5 in 1998.

AIDS Cases by Reported Mode of Exposure

Approximately half of the total AIDS cases in the city of Berkeley were reported between 1983-1991 and half between 1992-1998. The percentage of AIDS cases among men who have sex with men decreased from 80% to 60.5% during this time with an increase of people reporting injection drug use as the mode of exposure from 8.5% to 19%. There was also an increase in people with AIDS reporting exposure through heterosexual contact from 1.2% to 8%.

AIDS Cases by Gender, Race/Ethnicity and Age

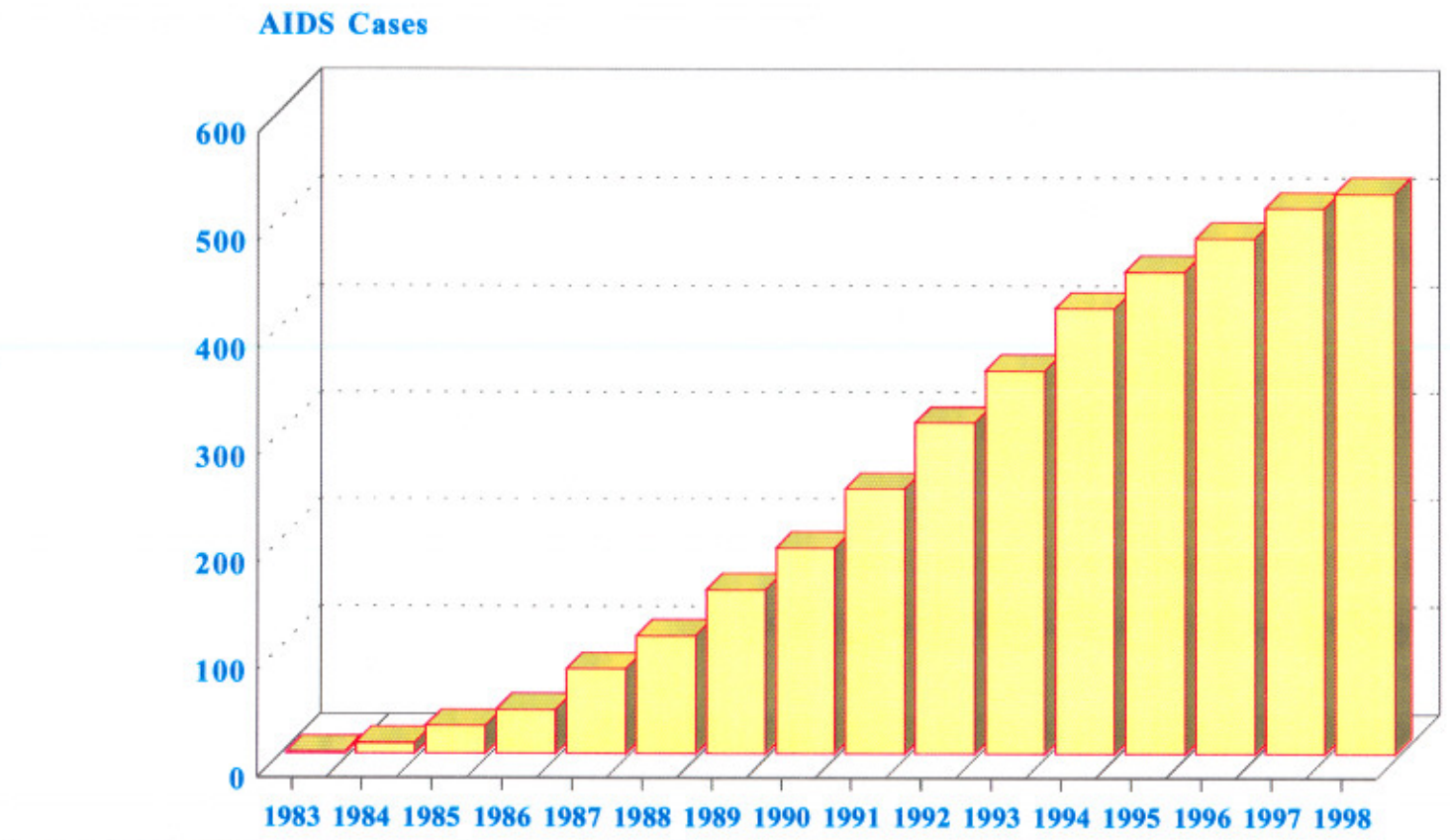
The cumulative AIDS cases through 1998 shows Whites having the largest percentage of Berkeley cases (59%) followed by African Americans (31%) and Hispanics (7.5%). However, when cases are broken down between the time period of 1983-1991 and 1992-1998, there is a trend toward decreasing numbers among Whites and increasing numbers among African Americans with Hispanics remaining about the same. From 1989 to 1998, the proportion of African Americans increased from 19.5% to 43% of cases with a corresponding decrease among Whites from 71% to 40.5%. This increase among African Americans is of particular significance when comparisons are made between the number of cumulative AIDS cases and the 1998 Berkeley population. While African Americans make up 19% of the population, they represent over 31% of the total AIDS cases. Whites make up 54% of the population with almost 59% of

[14] Healthy California 2000, June 1999

the AIDS cases while Hispanics have slightly fewer cases (7.5%) than the proportion of the Hispanic population (10%).

Cumulative AIDS cases are heavily skewed by gender with 92% (480) being male and 8% (43) female. Among women, 49% report injection drug use as the most likely mode of exposure with 42% reporting heterosexual contact, 7% unknown risk and 2% blood product transfusion. This contrasts with men of whom 76% report sex with other men as the most likely mode of transmission followed by injection drug use (11%), both sex with men and injection drug use (8%), unknown risk (3%), blood product transfusion (2%) and heterosexual contact (1.5%). As with race/ethnicity, there are significant trends indicating changes in the ratios of men to women diagnosed with AIDS. The actual number of females diagnosed with AIDS has remained stable since 1987. However, because the number of male cases has decreased significantly, this stable number of female cases accounts for almost 20% of the AIDS cases in 1997-98 versus only 8% of the cases in 1987. The race/ethnicity composition of women with AIDS is different also with African American women representing 49% of the female cases, Whites 39.5%, Hispanics 9% and Asian/Pacific Islander 2%.

Cumulative AIDS Cases
City of Berkeley, 1983-1998



AIDS Cases	2	10	26	41	79	110	153	192	247	309	358	416	450	481	509	523

Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, AIDS Registry

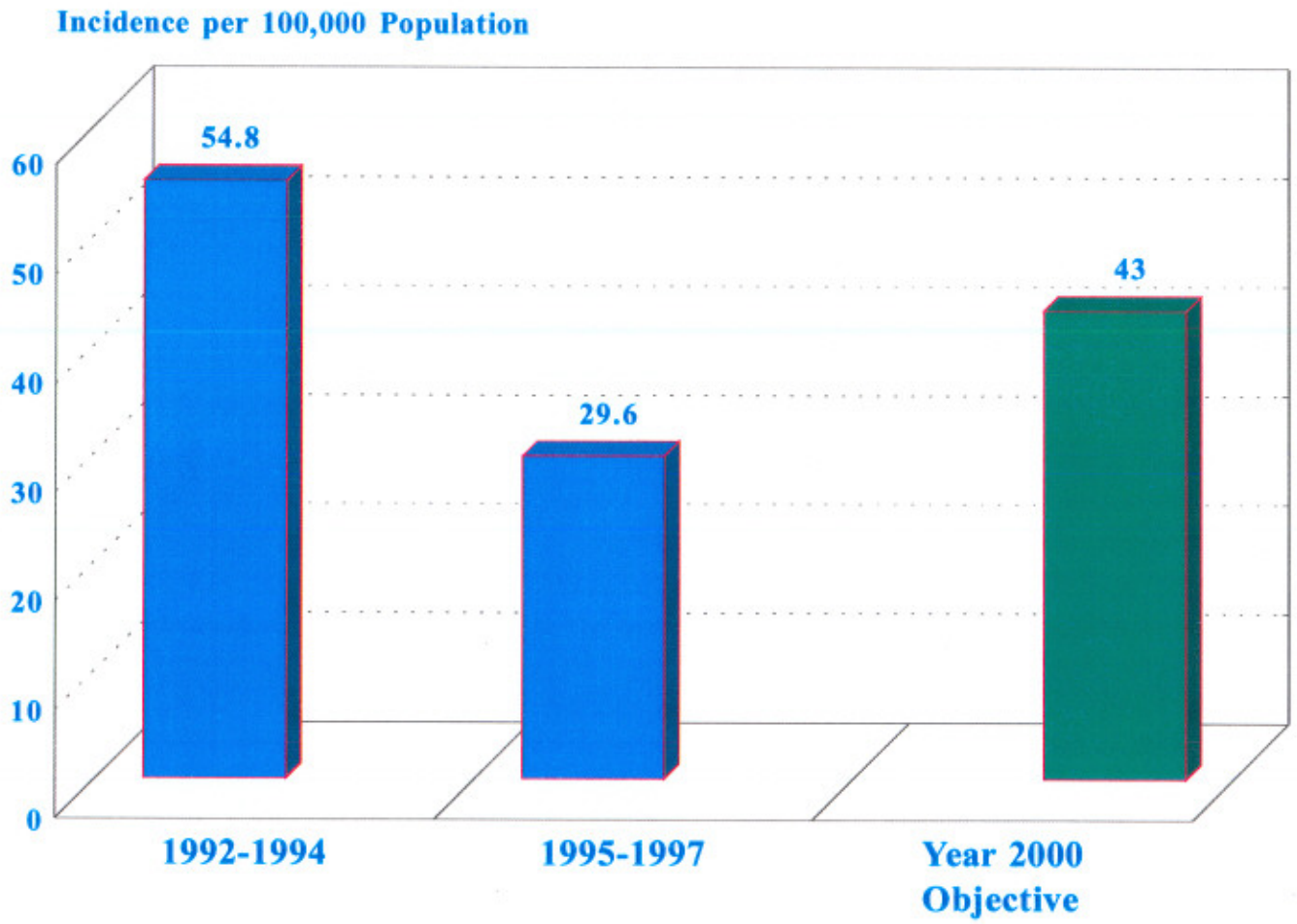
AIDS Cases by City of Residence
Alameda County, As of December 31, 1996

City	Number of Cases	% of County Cases in City
Alameda	241	5
Albany	40	1
Berkeley	*463*	*10*
Dublin*	45	1
Emeryville	41	1
Fremont	201	4
Hayward	370	8
Livermore	55	1
Newark	51	1
Oakland	2,791	58
Piedmont	31	1
Pleasanton	49	1
San Leandro	275	6
Union City	52	1
Unincorporated Area	127	4
Unknown	3	1
Total Alameda County	4,835	100

Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Public Health, Vital "AIDS Cases, 1996, Alameda County Data Tables Report", Alameda County Public Health Department.

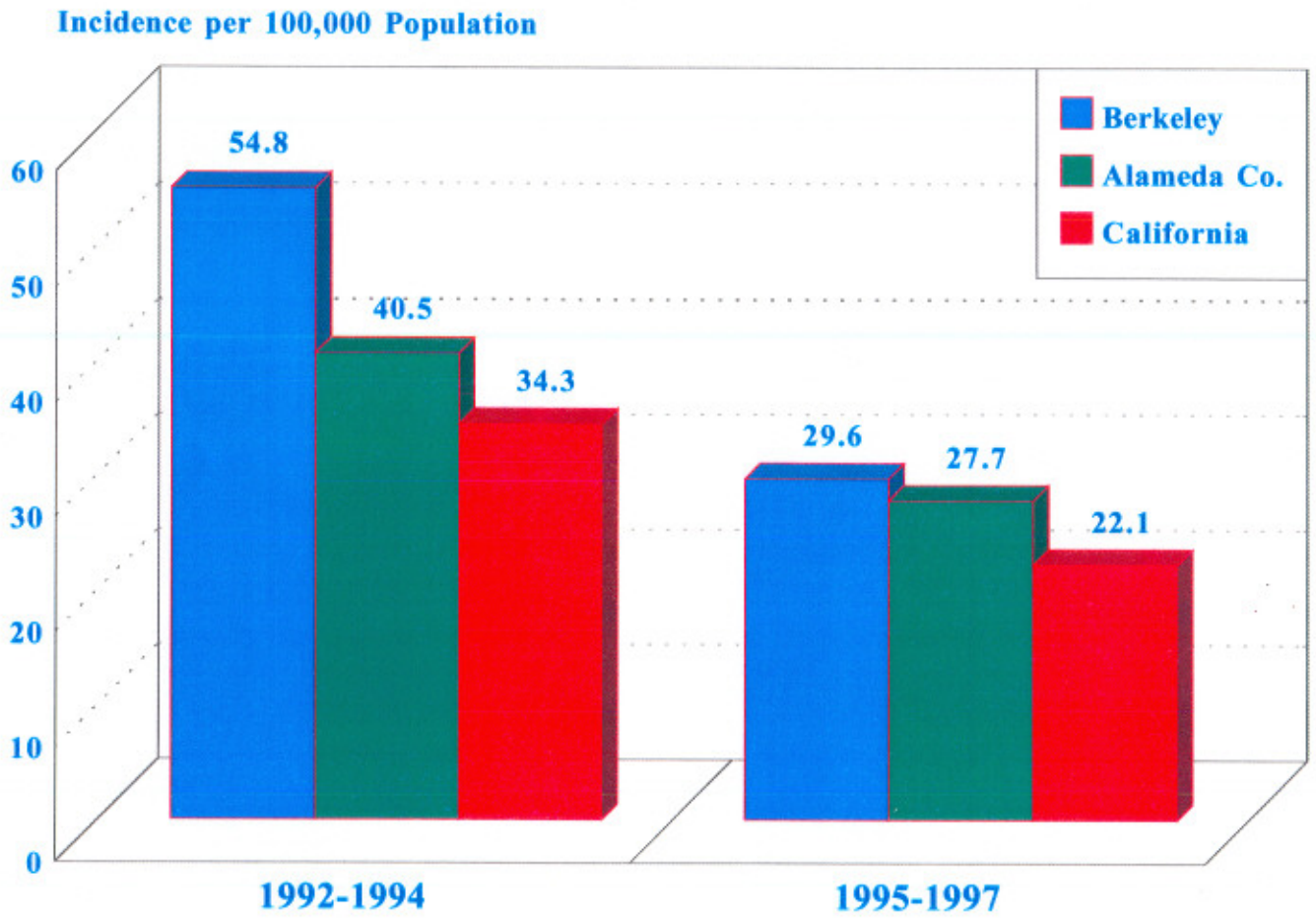
*Dublin Cases Include Santa Rita Inmates not residents of Dublin.

Reported Incidence of AIDS (Three Year Average)
1992-1994 and 1995-1997



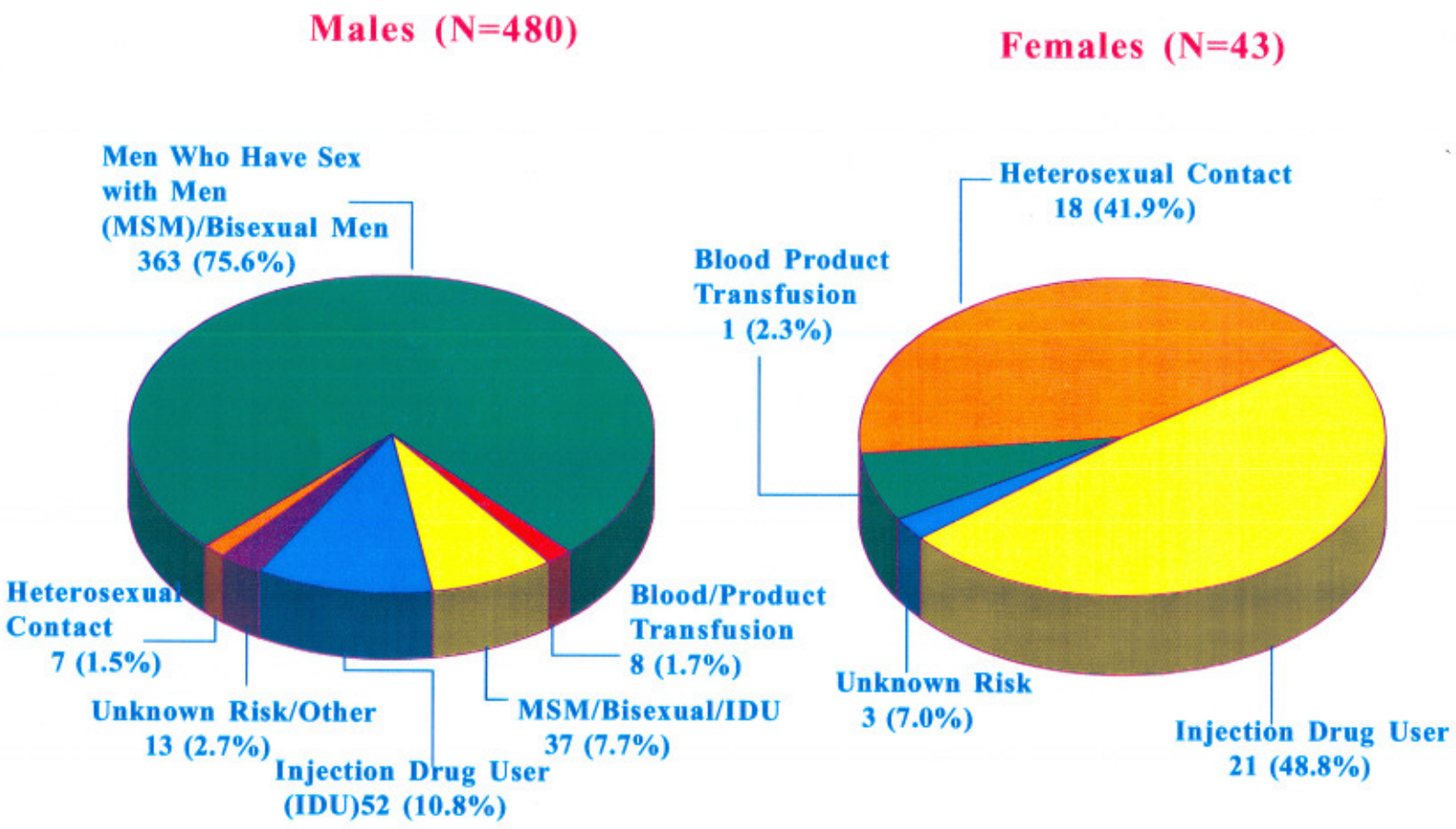
Source: City of Berkeley Vital Statistics Unit, epidemiology Section, AIDS Registry

Reported Incidence of AIDS (Three Year Average)
1992-1994 and 1995-1997



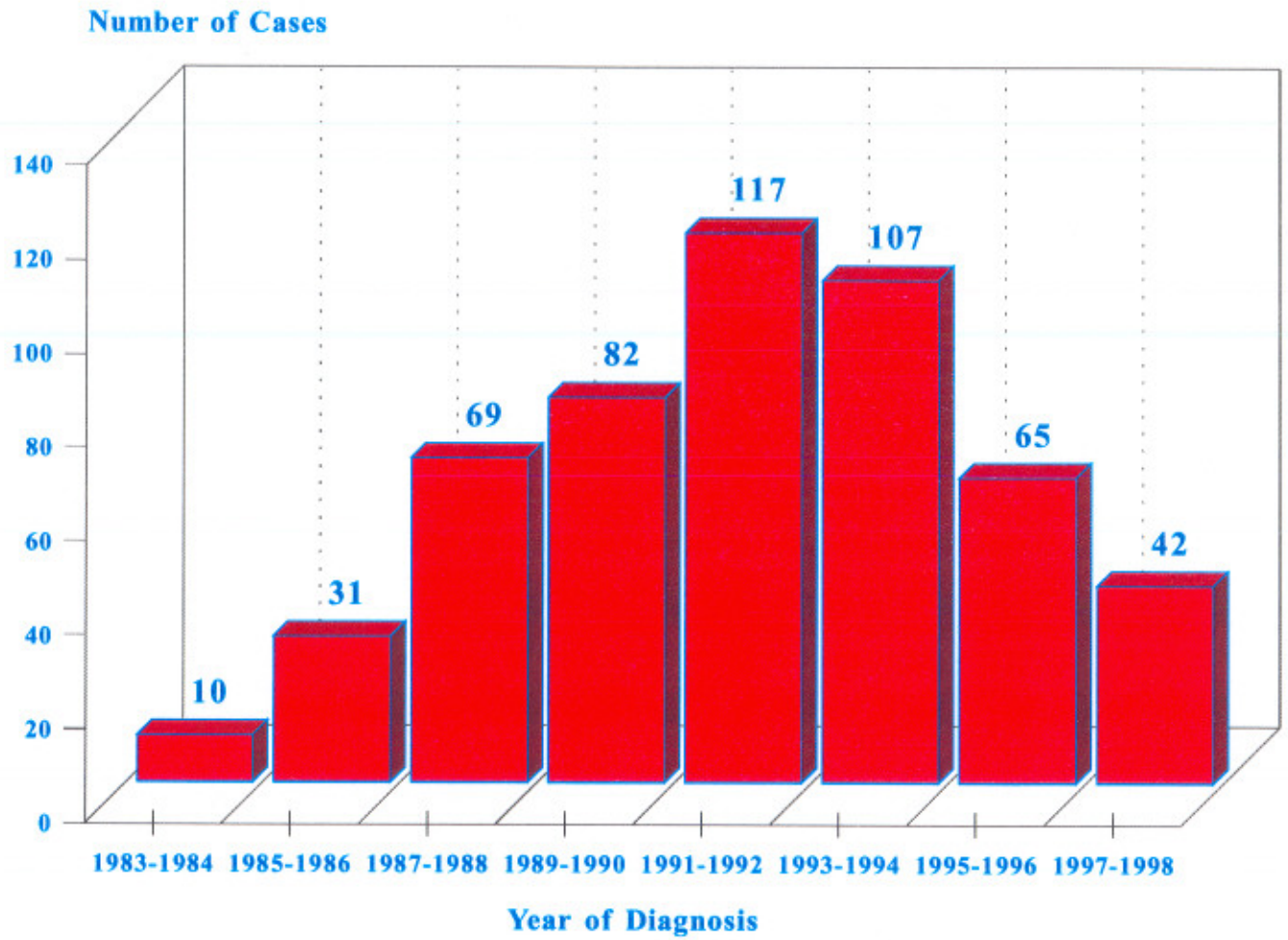
Source: City of Berkeley Vital Statistics Unit, Epidemiology Section
AIDS Registry; County Health Status Profiles, 1999, DHS.

AIDS Cases by Reported Mode of Exposure
City of Berkeley, 1983-1998



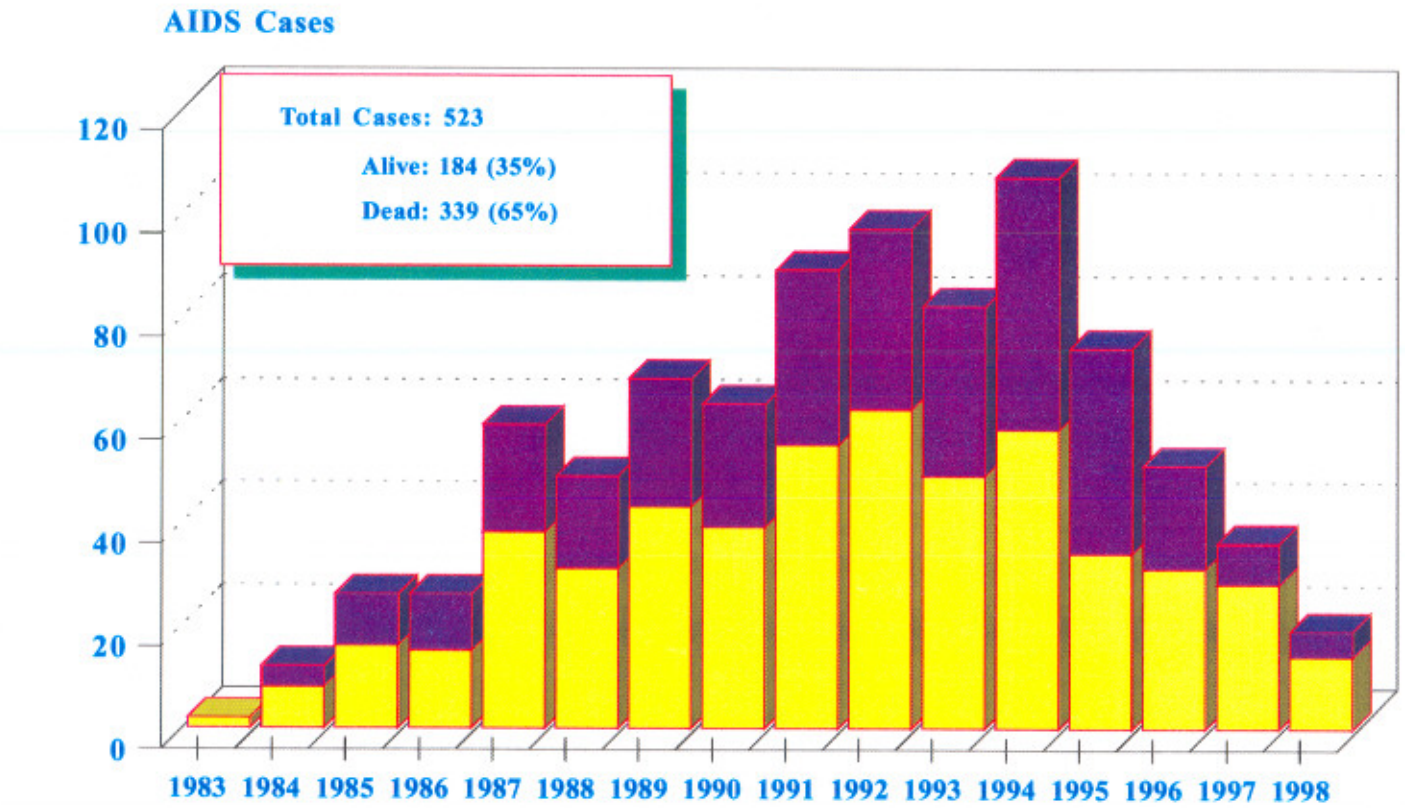
Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, AIDS Registry

AIDS Cases by Two Year Average
City of Berkeley, 1983-1998



Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, AIDS Registry

AIDS Cases by Vital Status
City of Berkeley, 1983 - 1998

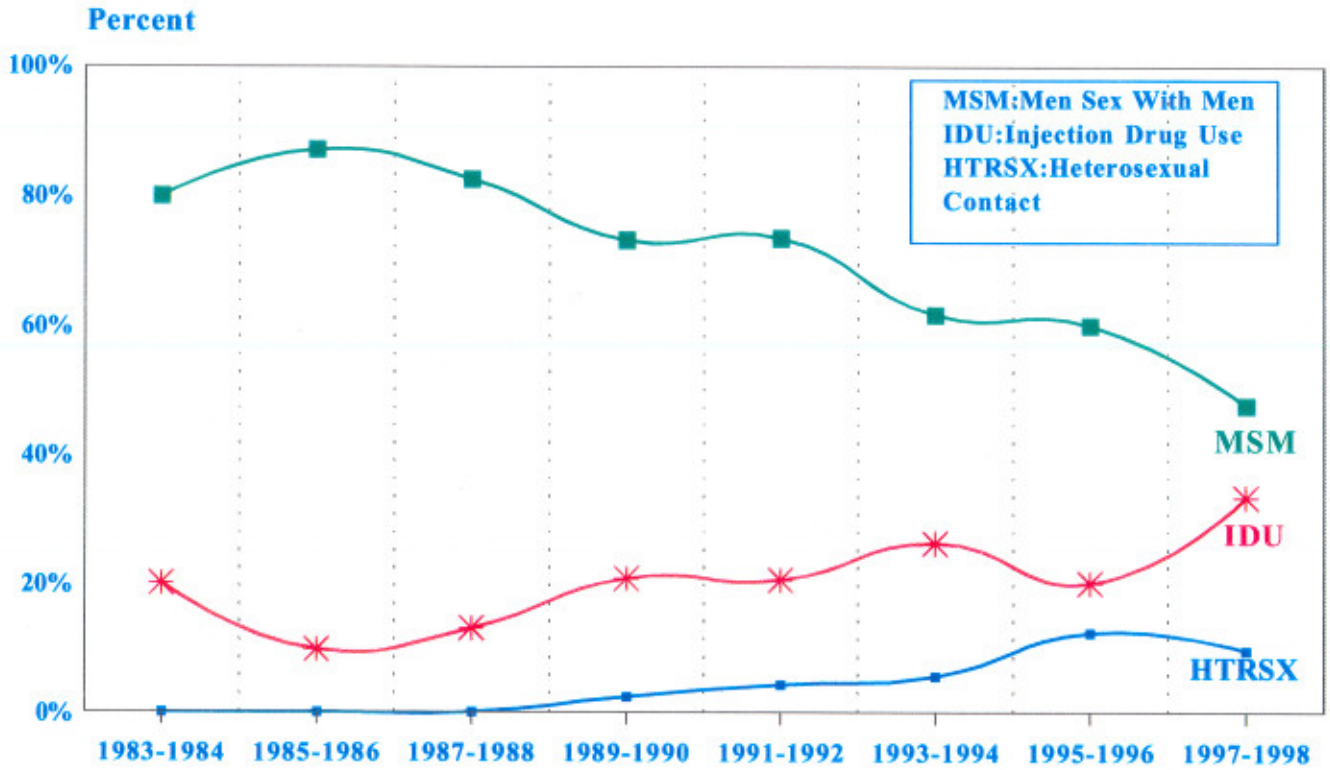


	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Deaths	0	4	10	11	21	18	25	24	34	35	33	49	40	20	8	5
Cases	2	8	16	15	38	31	43	39	55	62	49	58	34	31	28	14

Year of Diagnosis

Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, AIDS Registry

AIDS Cases By Mode of Exposure as a Proportion of All Cases
City of Berkeley, 1983 - 1998



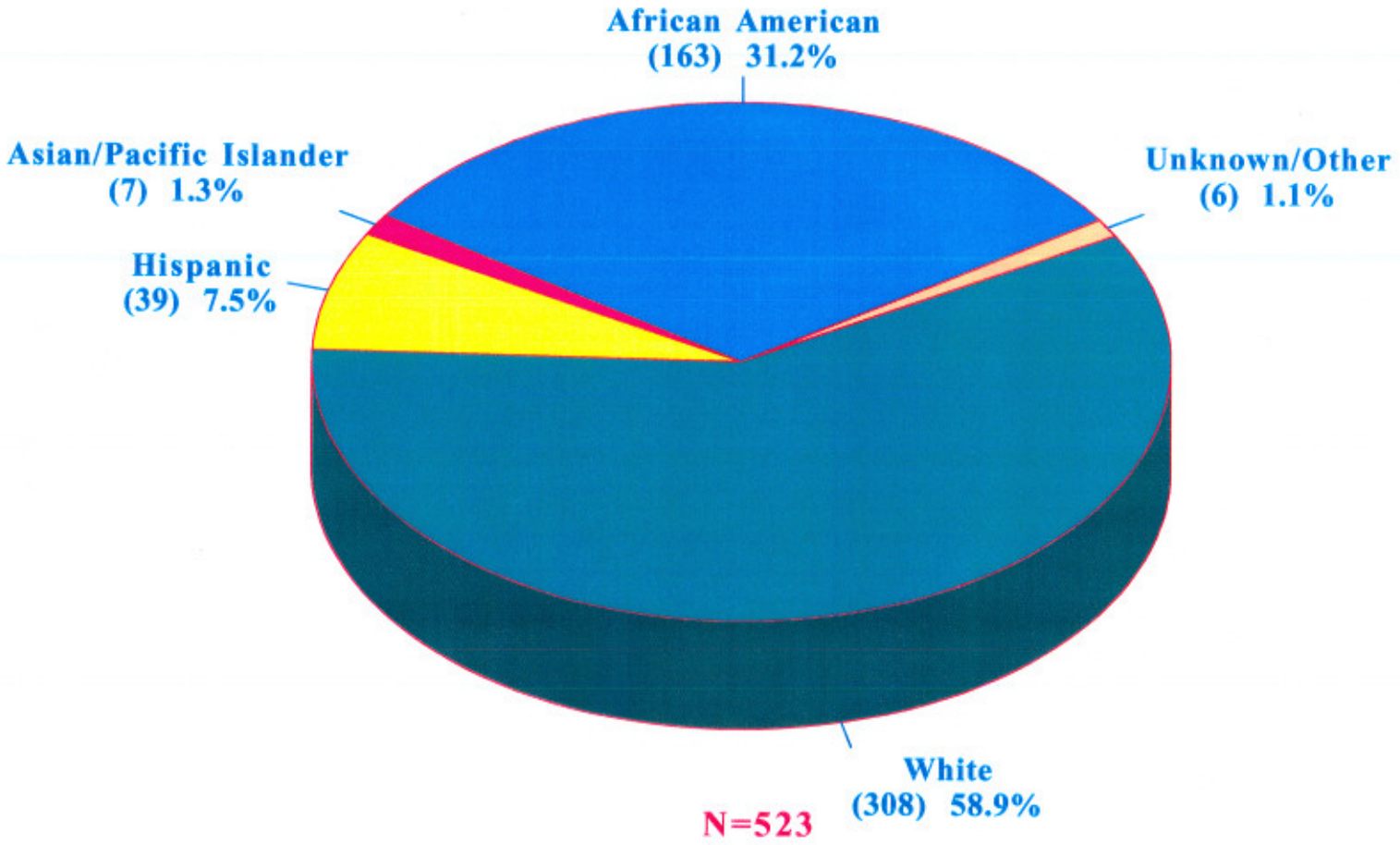
	1983-1984	1985-1986	1987-1988	1989-1990	1991-1992	1993-1994	1995-1996	1997-1998
MSM	80%	87.1%	82.6%	73.2%	73.5%	61.7%	60%	47.6%
IDU	20%	9.7%	13%	20.7%	20.5%	26.2%	20%	33.3%
HTRSX	0%	0%	0%	2.4%	4.3%	5.6%	12.3%	9.5%

Year of Diagnosis

N=523 Cases

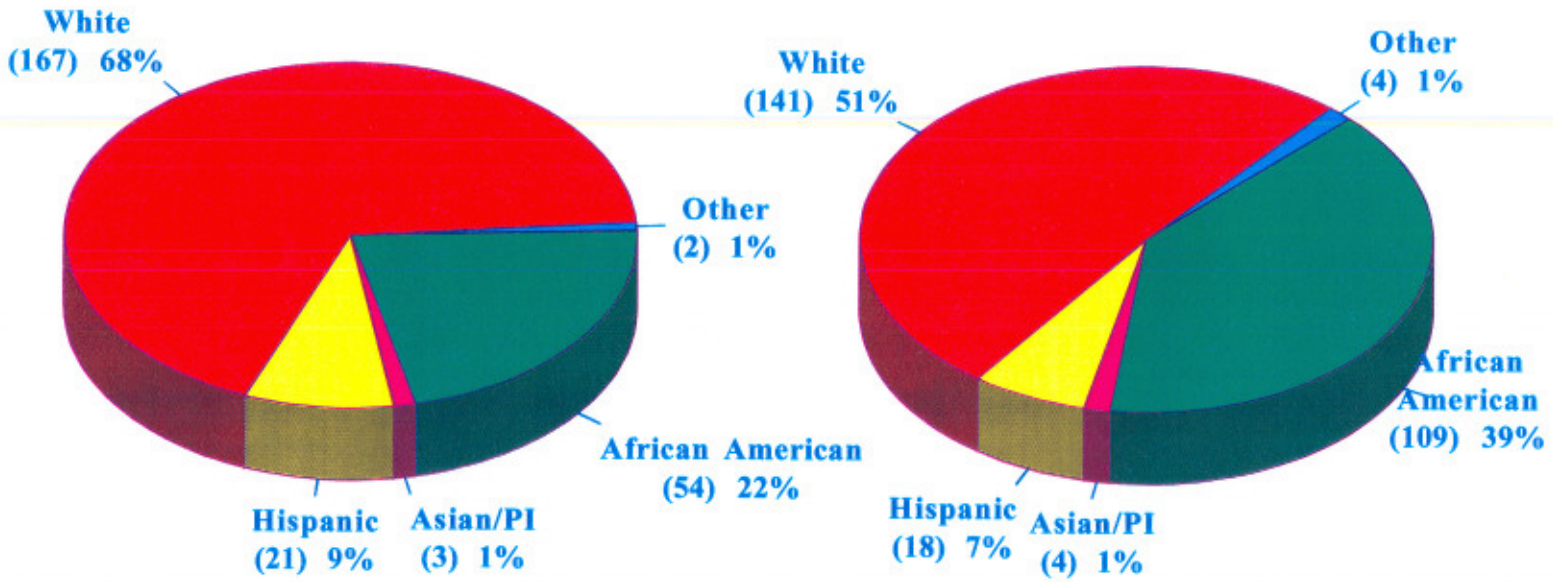
Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, AIDS Registry

Cumulative AIDS Cases by Race/Ethnicity
City of Berkeley, 1983-1998



Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, AIDS Registry

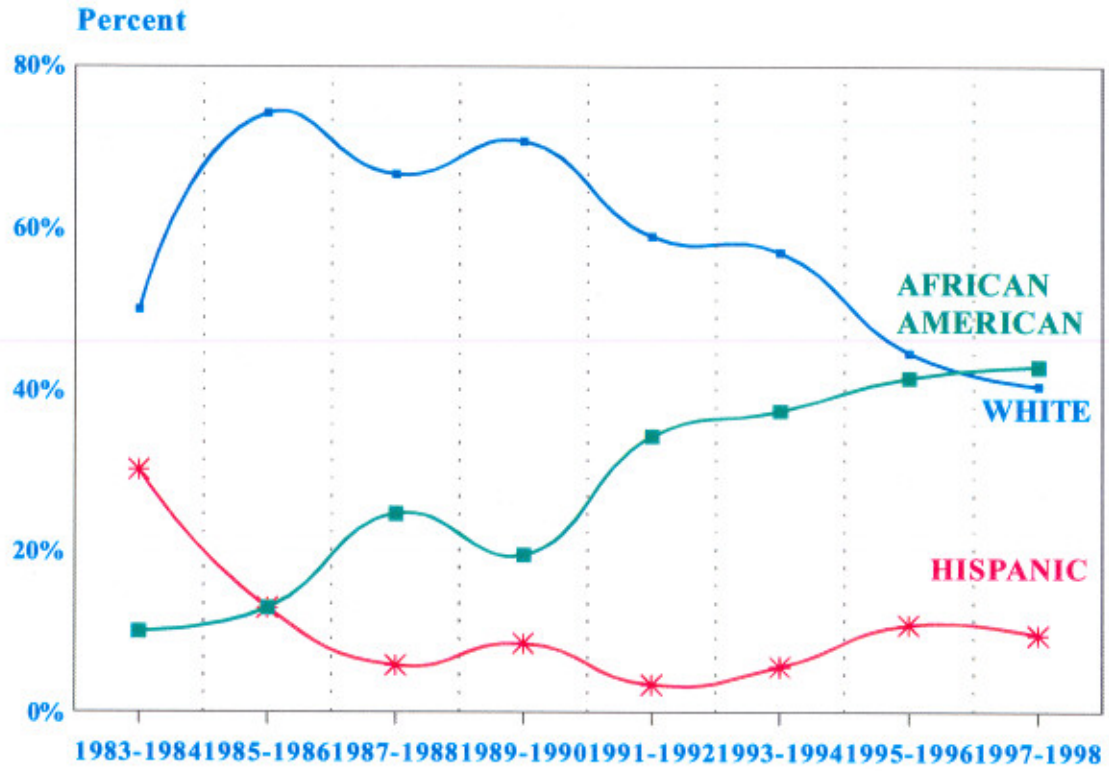
Proportion of AIDS Cases by Race/Ethnicity
City of Berkeley, 1983-1991 and 1992-1998



N=523

Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, AIDS Registry

AIDS Cases By Race/Ethnicity as a Proportion of All Cases
City of Berkeley, 1983 - 1998



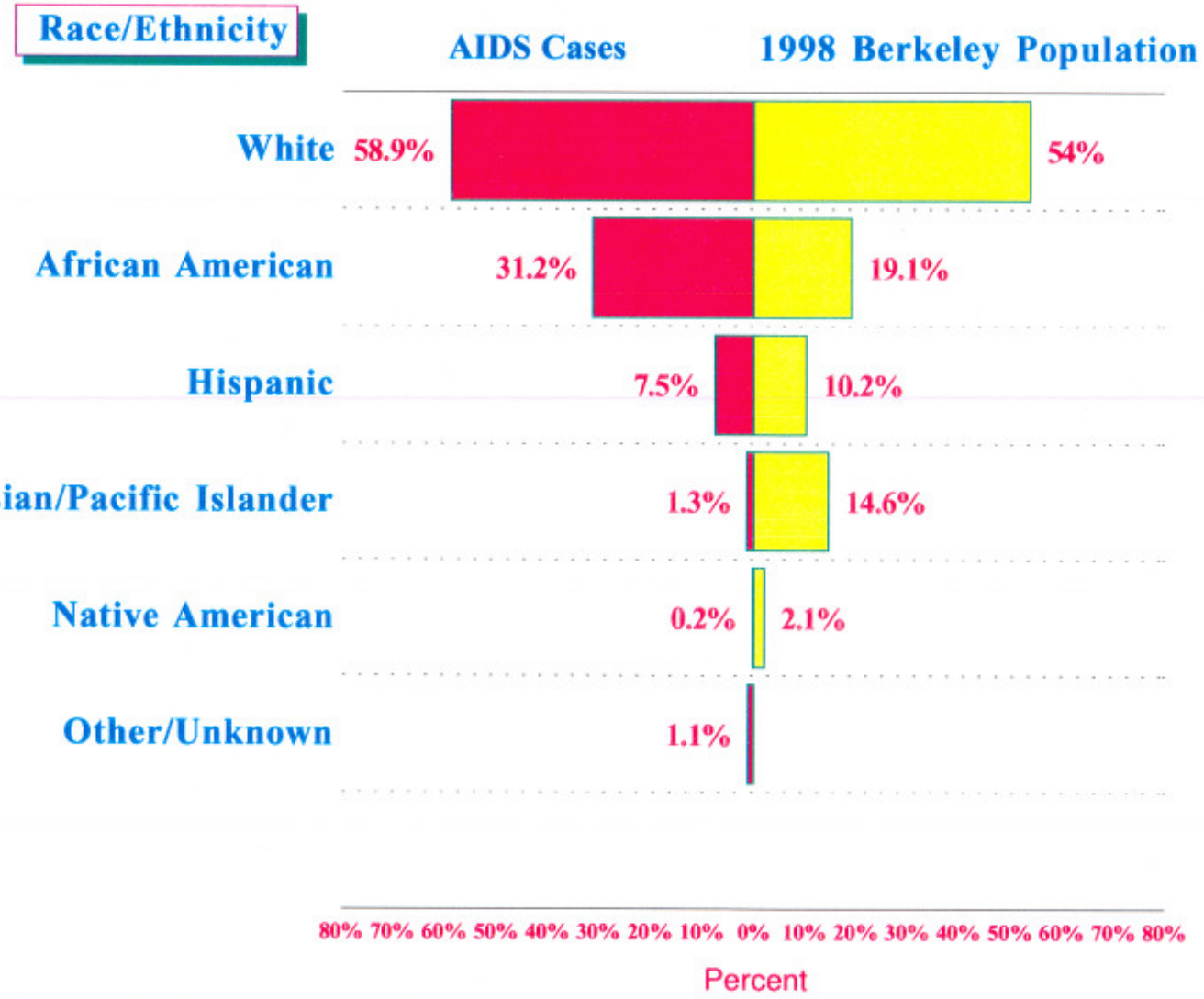
	1983-1984	1985-1986	1987-1988	1989-1990	1991-1992	1993-1994	1995-1996	1997-1998
AFRICAN AMERICAN	10%	12.9%	24.6%	19.5%	34.2%	37.4%	41.5%	42.9%
HISPANIC	30%	12.9%	5.8%	8.5%	3.4%	5.6%	10.8%	9.5%
WHITE	50%	74.2%	66.7%	70.7%	59%	57%	44.6%	40.5%

Year of Diagnosis

N=523 Cases

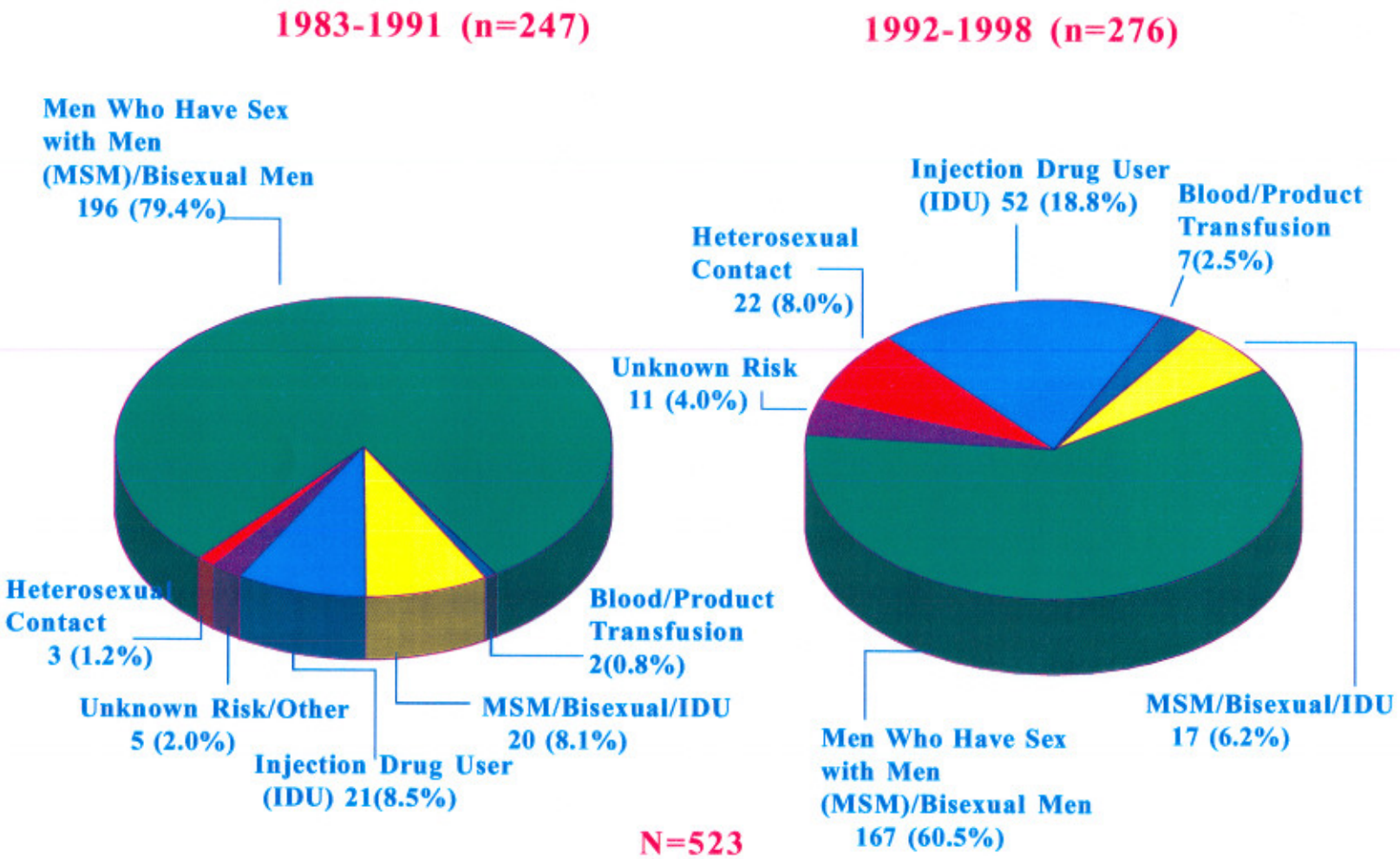
Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, AIDS Registry

AIDS Cases by Race/Ethnicity Compared with 1998 Estimated Berkeley Population
City of Berkeley, 1983 - 1998



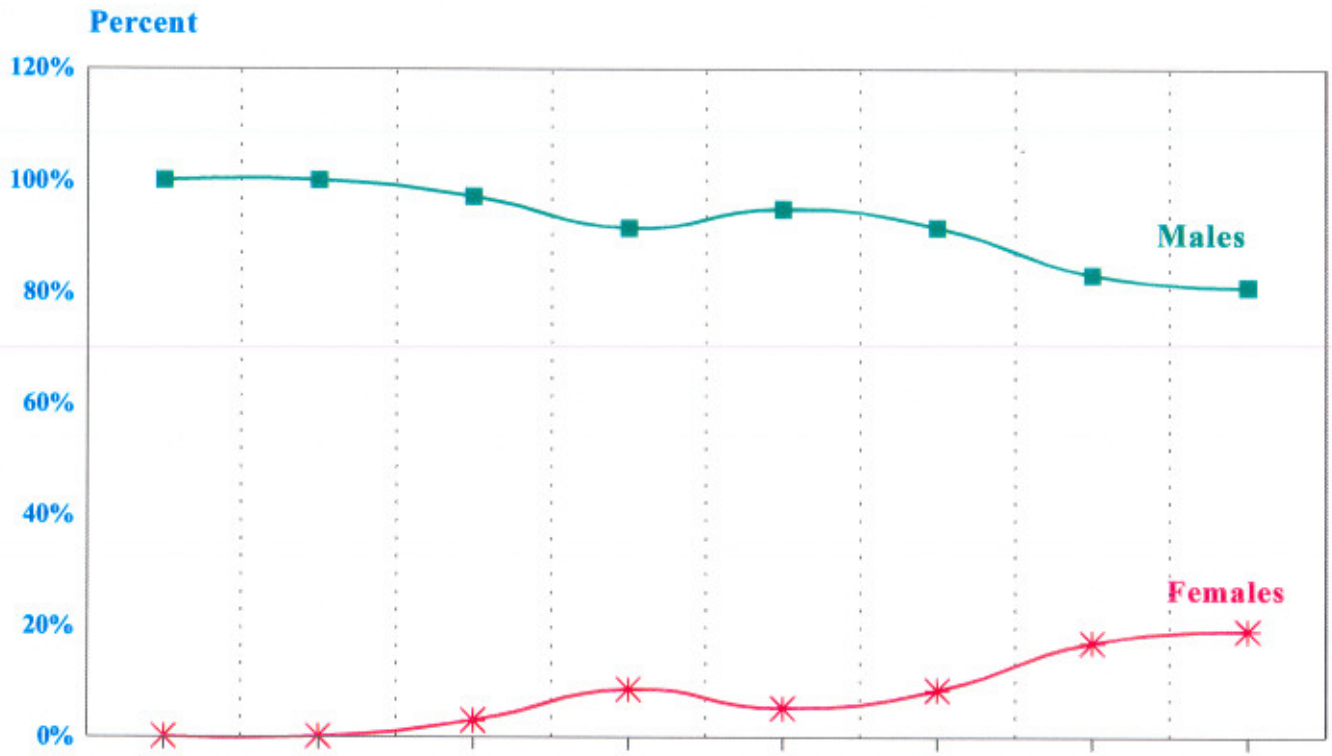
Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, AIDS Registry

AIDS Cases by Reported Mode of Exposure
City of Berkeley, 1983-1991 and 1992-1998



Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, AIDS Registry

AIDS Cases by Gender as a Proportion of All Cases
City of Berkeley, 1983 - 1998



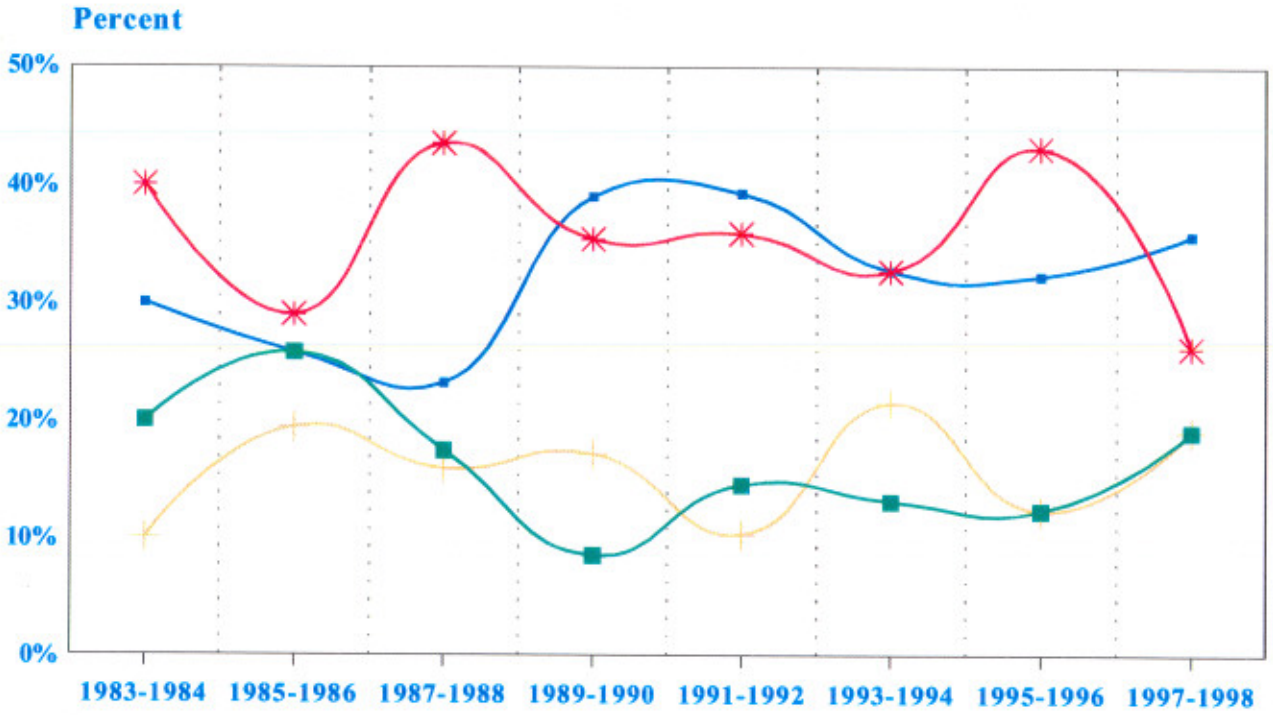
	1983-1984	1985-1986	1987-1988	1989-1990	1991-1992	1993-1994	1995-1996	1997-1998
Males	100%	100%	97.1%	91.5%	94.9%	91.6%	83.1%	81%
Females	0%	0%	2.9%	8.5%	5.1%	8.4%	16.9%	19%

Year of Diagnosis

N=523 Cases

Source: City of Berkeley Health and Human Services Department, Public Health Divison, Vital Statistics Unit; AIDS Registry.

AIDS Cases By Age Groups as a Proportion of All Cases
City of Berkeley, 1983 - 1998



	1983-1984	1985-1986	1987-1988	1989-1990	1991-1992	1993-1994	1995-1996	1997-1998
19 to 29	20%	25.8%	17.4%	8.5%	14.5%	13.1%	12.3%	19%
30 to 39	40%	29%	43.5%	35.4%	35.9%	32.7%	43.1%	26.2%
40 to 49	30%	25.8%	23.2%	39%	39.3%	32.7%	32.3%	35.7%
50 and Over	10%	19.4%	15.9%	17.1%	10.3%	21.5%	12.3%	19%

Year of Diagnosis

N=523 Cases

Source: City of Berkeley Health and Human Services Department, Public Health Divison, Vital Statistics Unit; AIDS Registry.

CITY OF BERKELEY SERVICES AND PROGRAMS

HIV/AIDS PROGRAM

The City of Berkeley HIV/AIDS Program provides outreach to Berkeley residents to increase knowledge about HIV, modify attitudes and/or beliefs, and change behavior to stop the spread of HIV. Services offered include street outreach, group presentations, discussion, and one to one counseling. A mobile van provides an opportunity for people to access information and testing services at various neighborhood locations.

The program provides anonymous HIV testing, education and referral services as well as support services to those infected by HIV. The program also assists in sustaining the health and well being of persons living with HIV by providing services through the AIDS Drug Assistance Program.

CHAPTER 4

SEXUALLY TRANSMITTED DISEASES (STDS)

HIGHLIGHTS

- Chlamydia infection rates have increased over the past several years, however, still remain below the California case rate of 198 per 100,000.
- There are significant racial disparities in chlamydia cases in Berkeley with African American men accounting for 76% of all male cases reported from 1993-1998. African American women had 70% of reported female cases in the same time period.
- Chlamydia case rates have doubled over the past two years for females ages 15-19 from 511 in 1996 to 1,029 in 1998.
- Gonorrhea rates for all ages in Berkeley continue to be significantly above the California case rate of 63 per 100,000.
- There are racial disparities in reported gonorrhea cases with African American women accounting for 83% of all female cases reported from 1993-1998. African American males had 84% of reported male cases in the same time period.
- The 1998 gonorrhea case rate of 233 for both male and female adolescents ages 15-19 remains below the Year 2000 Objective of 375 per 100,000 youth.

SEXUALLY TRANSMITTED DISEASES

BACKGROUND

Sexually transmitted diseases (STDs) are typically transmitted by unprotected sexual contact. The most common diseases that are transmitted sexually are chlamydia, genital herpes, genital warts, gonorrhea, hepatitis B, HIV/AIDS, and syphilis. Infection with one STD can increase the transmission of other STDs, including HIV.

Early identification and treatment of STDs is very important to prevent complications and the spread of infection to other people. Women who are not treated or whose treatment is delayed may get pelvic inflammatory disease (PID) which can result in infertility or ectopic pregnancy (the fetus develops in the fallopian tube rather than in the uterus). They may also have children with birth defects, mental disabilities or increased risk of infant death.

DATA SOURCES AND LIMITATIONS

The following section includes data on chlamydia and gonorrhea cases reported in the city of Berkeley. Please see Chapter 3 for HIV/AIDS data.

The source for this sexually transmitted disease data is mandatory incidence reporting to the City of Berkeley Public Health Department, Office of Epidemiology and Health Statistics. These are diagnosed cases and individuals may have multiple cases at the same time. Research strongly indicates that sexually transmitted diseases are under-reported. An additional limitation of this data is the fact that race/ethnicity was not reported in more than 50% of the cases.

CHLAMYDIA

Chlamydia is a sexually transmitted disease primarily found in young adults and adolescents. It can cause a variety of long-term complications, including pelvic inflammatory disease (PID), ectopic pregnancy, infertility and chronic pelvic pain in women and pneumonia in newborn babies.

Chlamydia is the most common sexually transmitted disease reported in California and in the United States. Since 70-80% of chlamydia infections in women and 50% of infections in men may be asymptomatic, infection is often not identified and not treated early. Untreated chlamydia infection is the major cause of preventable infertility in the United States, a condition affecting one in six couples trying to conceive. Chlamydia infection increases the risk of acquiring HIV infection. Men and women infected with chlamydia may have a three to five times higher risk of acquiring HIV, if exposed.

Data presented in this report does not represent an estimate of the actual incidence of chlamydia in Berkeley residents.[15] However, screening for chlamydia is becoming more and more common as a result of dramatic changes in diagnostic technology in the past few years. This is a contributing factor in increased reported rates in Berkeley as the Public Health Department has had access to these new tests through the State Public Health Laboratory.

CHLAMYDIA CASE RATES

In 1998, the city of Berkeley reported 167 cases of chlamydia, yielding a chlamydia crude case rate of 155 per 100,000 population. This rate reflects no significant change from 1997. By contrast, the 1997 rate was up 25% from 1995 and 1996. While Berkeley's rates remain below the California state case rate of 198 per 100,000, this level of chlamydia infection rates still indicates the need for further efforts in prevention, screening and treatment given the immense consequences of untreated chlamydial infection.

CHLAMYDIA CASE RATES BY GENDER, RACE/ETHNICITY AND AGE

Since they are more likely to have routine family planning medical visits, women are more likely to be tested for chlamydia than men, further confounding the differences between actual and reported cases. In 1997, chlamydia case rates by gender were comparable, but in 1998, females had rates twice those of males. Gender differences were even more significant for 15-19 year olds with a female case rate almost four times that of the male rate.

There are significant racial disparities in chlamydia cases in Berkeley with African American men accounting for 76% of all male cases reported from 1993-1998. African American women had 70% of reported female cases in the same time period. There are also significant racial/ethnic differences in the age of diagnosed cases. The median age at diagnosis for women of all races was 20 years old. African American women had a median age of 18, with a median age of 22 for Hispanics, 23 for Whites and 27 for Asians.

As is the case nationwide, Berkeley adolescents and young adults have a disproportionate share of chlamydia cases. In 1998, 85% of female cases and 67% of male cases occurred in 15-29 year olds. Of these cases, over one third of the female cases and about one fourth of the male cases were among 15-19 year olds. Of particular concern is the doubling of chlamydia case rates over the past two years for females ages 15-19 from 511 in 1996 to 1,029 in 1998. This rate is beginning to approach the 1997 California case rate of 1,936. Case rates for females ages 20-29 rose more slowly from 305 to 408.

Male case rates went up for males ages 15-19 year olds from 175 in 1996 to 273 in 1998. However, 20-29 year old male rates dropped from 239 in 1996 to 160 in 1998. This increase in adolescents with a corresponding decrease among young adult men may be due to increased testing and diagnosis among adolescents.

[15] Holmes KK, et al. *Sexually Transmitted Diseases*, Second Edition, New York: McGraw-Hill, 1990.

GONORRHEA CASE RATES

Gonorrhea is the second most frequently reported STD in the United States. In 1998, the city of Berkeley reported 79 cases of gonorrhea, yielding a case rate of 73 per 100,000 population. This rate is slightly lower than that of 1997 and almost 50% lower than 1995 levels. In every year since 1996, rates have been significantly below the Healthy People Year 2000 Objective of 100 per 100,000. However, Berkeley's gonorrhea rates continue to be significantly above the California case rate of 63 per 100,000.

GONORRHEA CASE RATES BY GENDER, RACE/ETHNICITY AND AGE

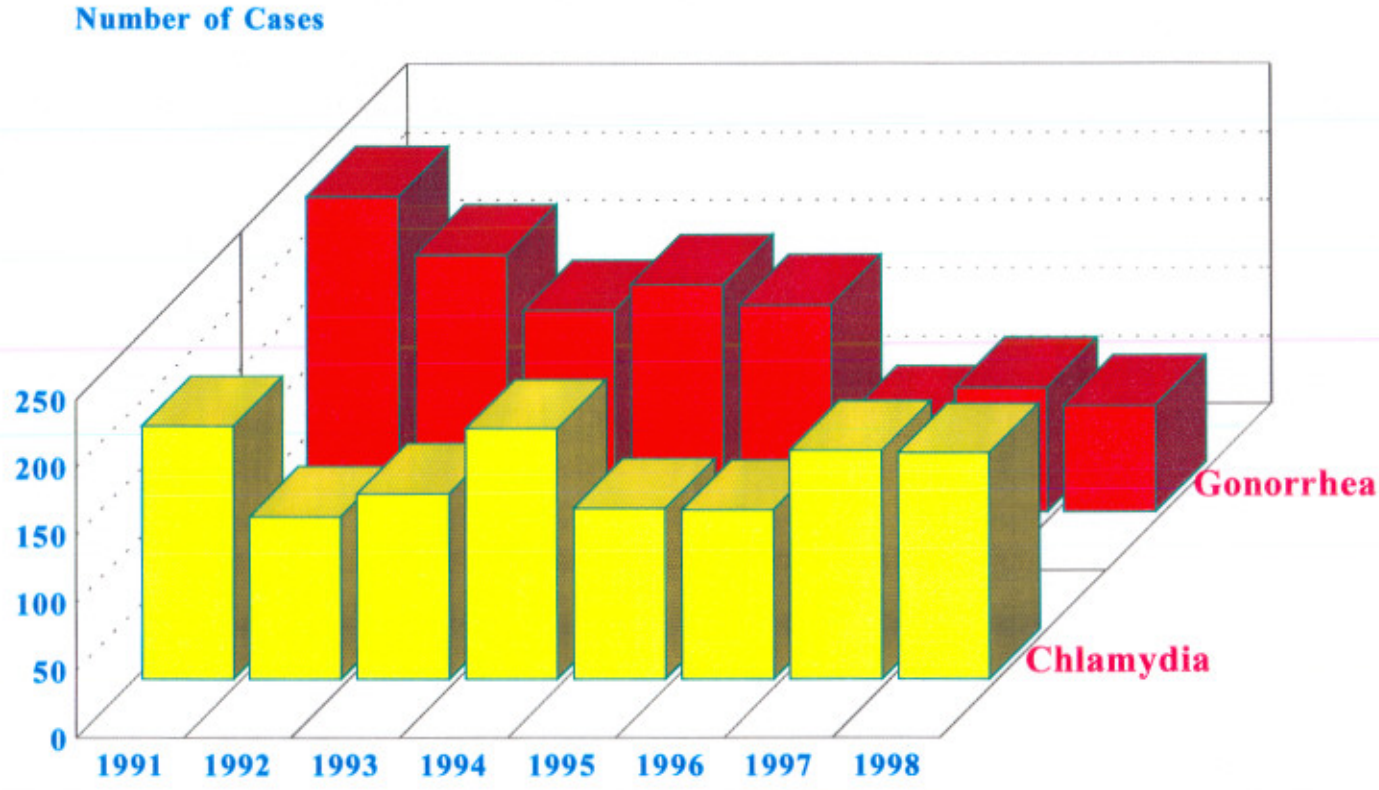
In 1998 gonorrhea case rates between genders were comparable with rates of 77 for males and 70 for females. Males showed declining rates from 1997 to 1998 while there was no significant change in female rates. As with chlamydia, the 1998 gonorrhea case rate for 15-19 year old females was higher than for males, with a female case rate about two and a half times that of the male rate.

There are immense racial disparities in reported gonorrhea cases with African American women accounting for 83% of all female cases reported from 1993-1998. African American males had 84% of reported male cases in the same time period.

Gonorrhea case rates have increased over the past two years for females ages 15-19 from 146 per 100,000 in 1996 to 335 per 100,000 in 1998. Despite this increase, the 1998 case rate of 233 per 100,000 for both male and female adolescents ages 15-19 remains below the Year 2000 Objective of 375 per 100,000 youth. Case rates for females ages 20-29 rose 35% in 1997 and dropped again in 1998 to 100 per 100,000 women.

Male case rates went up for 15 to 19 year olds rising from 24.3 per 100,000 in 1996 to 125.9 per 100,000 in 1998. However, 20-29 year old male rates dropped from 188.4 in 1996 to 111.1 in 1998.

Chlamydia and Gonorrhea Cases by Year of Report
City of Berkeley, 1991 - 1998

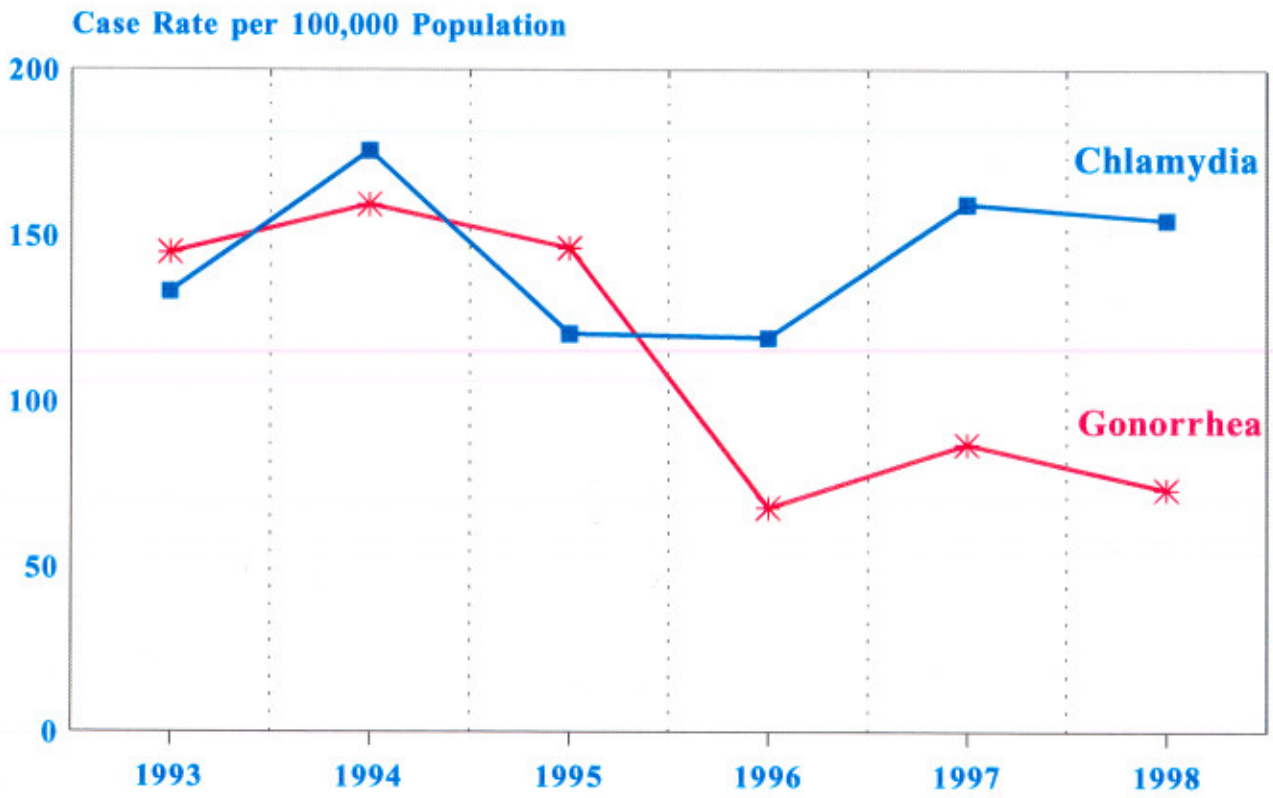


	1991	1992	1993	1994	1995	1996	1997	1998
Gonorrhea	233	190	149	168	153	71	92	79
Chlamydia	187	120	137	185	126	125	169	167

Year of Report

Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Morbidity Records

Chlamydia and Gonorrhea Case Rates
City of Berkeley, 1991 - 1998

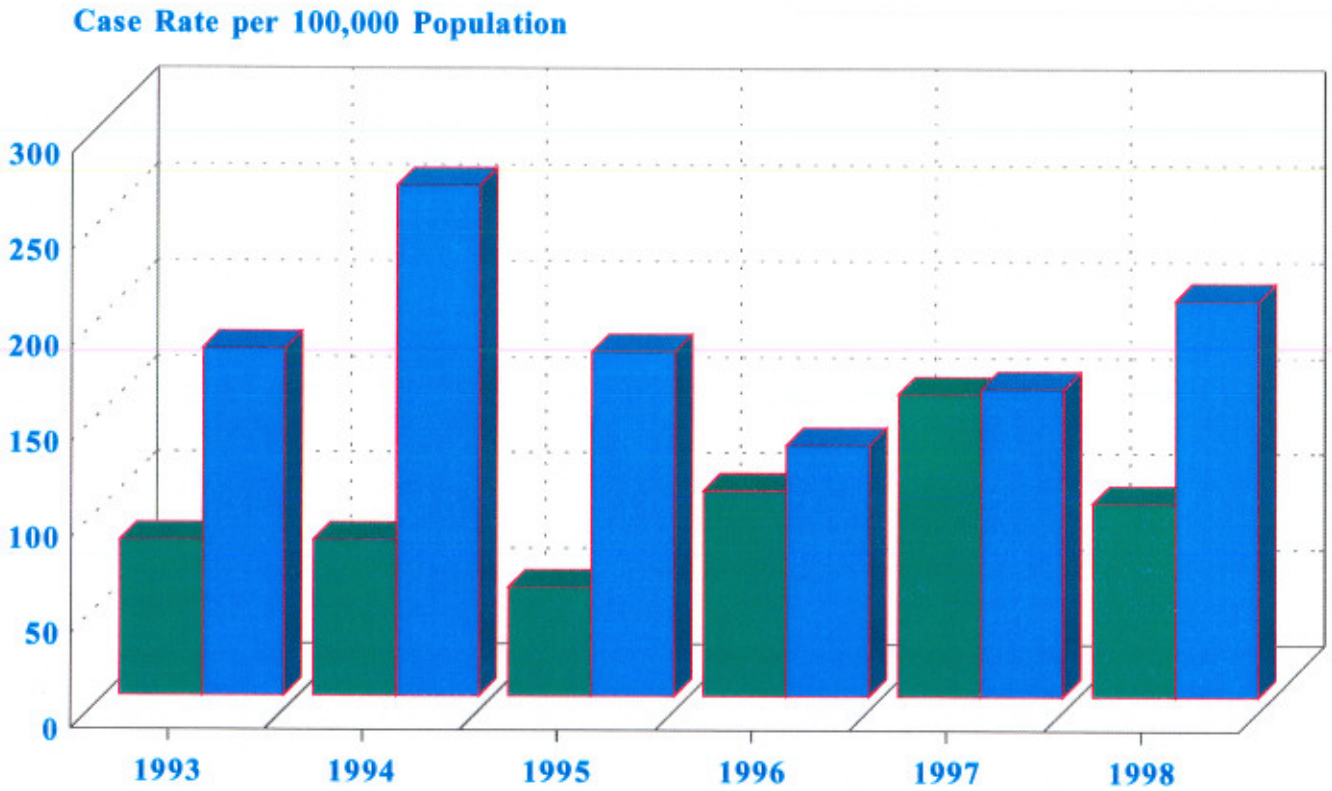


	1993	1994	1995	1996	1997	1998
Chlamydia	133.3	175.8	120.6	119.4	159.6	154.9
Gonorrhea	145	159.6	146.4	67.8	86.9	73.3

Year of Report

Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Morbidity records

Chlamydia Case Rate by Gender
City of Berkeley, 1993 - 1998

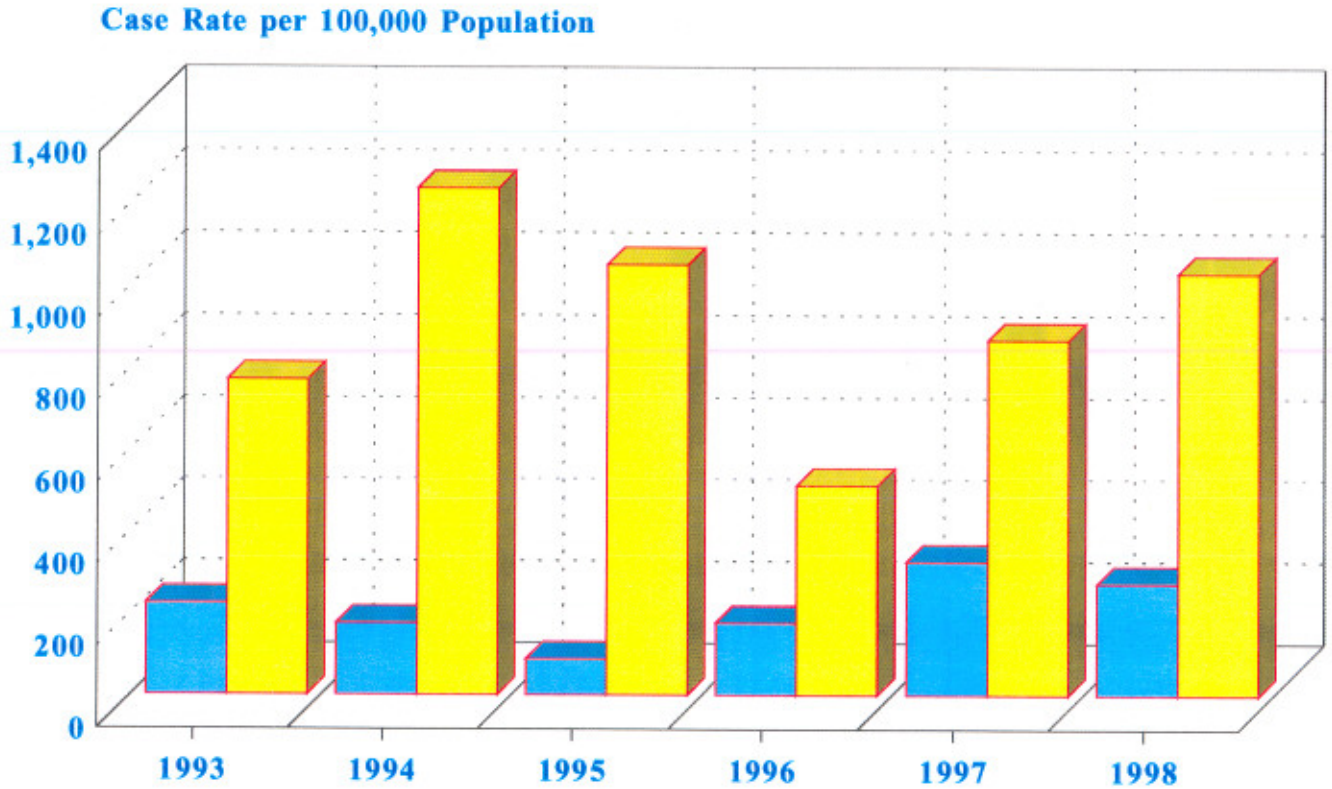


	1993	1994	1995	1996	1997	1998
Males	81	81.4	56.6	107.2	158	100.9
Females	181.3	266.4	180.1	131.1	161	207

Year of Report

Source: City of Berkeley Vital Statistics, Epidemiology Section, Morbidity Records

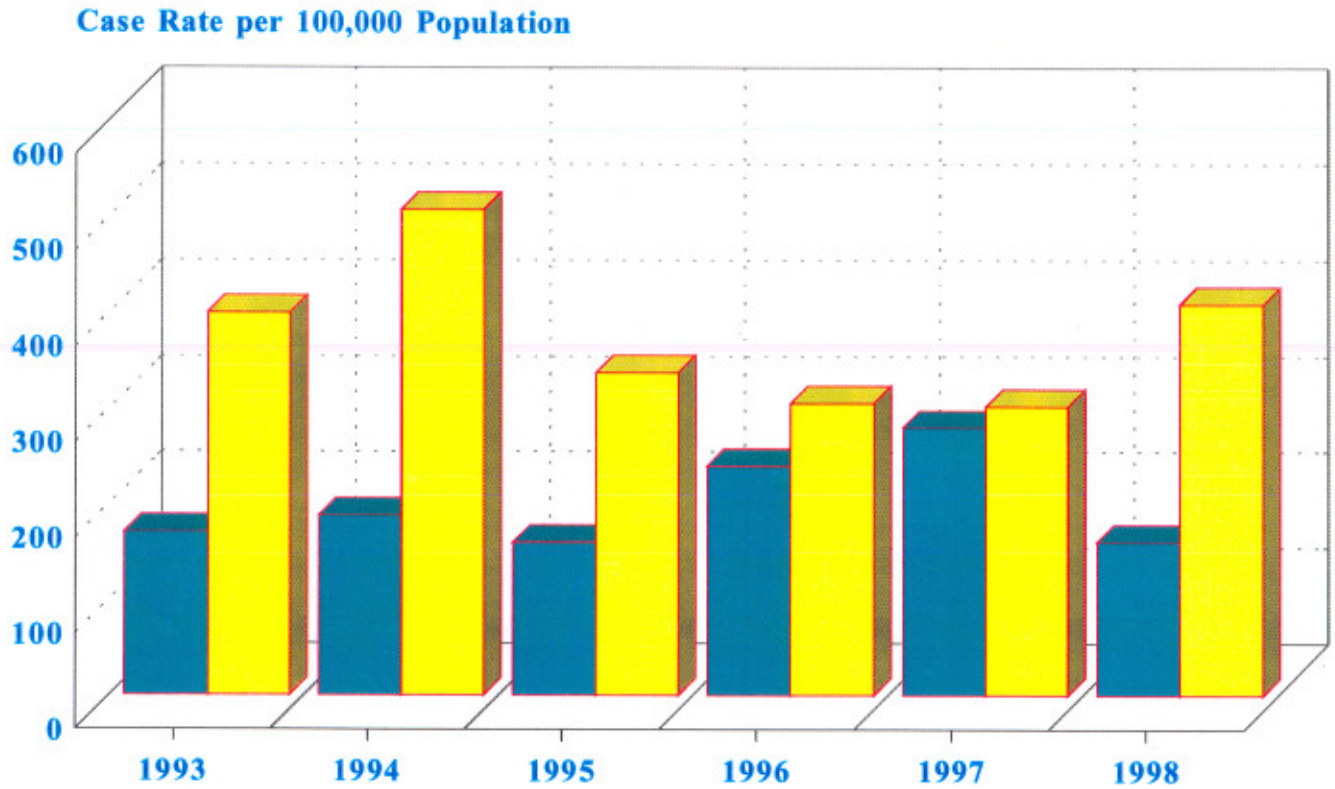
Chlamydia Case Rate Among Adolescents 15 to 19 Years of Age by Gender
City of Berkeley, 1993 - 1998



	1993	1994	1995	1996	1997	1998
Males	223.2	174.3	87.8	175.2	324.8	272.9
Females	768	1,233	1,048	510.8	865.8	1,029

Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Morbidity Records

Chlamydia Case Rate Among Young Adults 20 to 29 Years of Age by Gender
City of Berkeley, 1993 - 1998



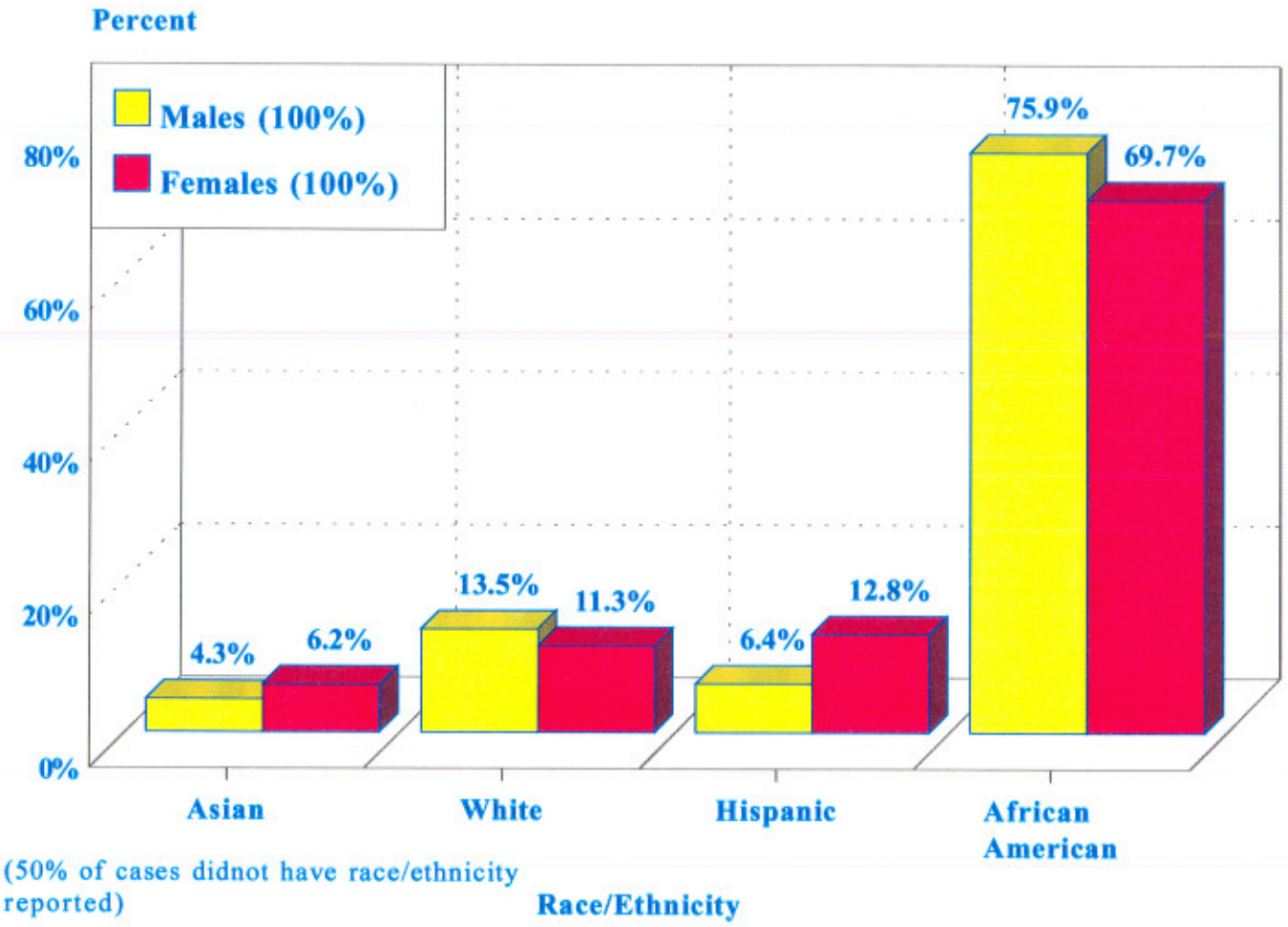
	1993	1994	1995	1996	1997	1998
Males	169.8	187.4	159.7	239.1	279.4	159.8
Females	399.2	506.6	337.6	305.6	302.1	408.6

Year

Source: City of Berkeley vital Statistics Unit, Epidemiology Section, Morbidity Records

Proportion of Chlamydia Cases by Race/Ethnicity and Gender
City of Berkeley, 1993 - 1998

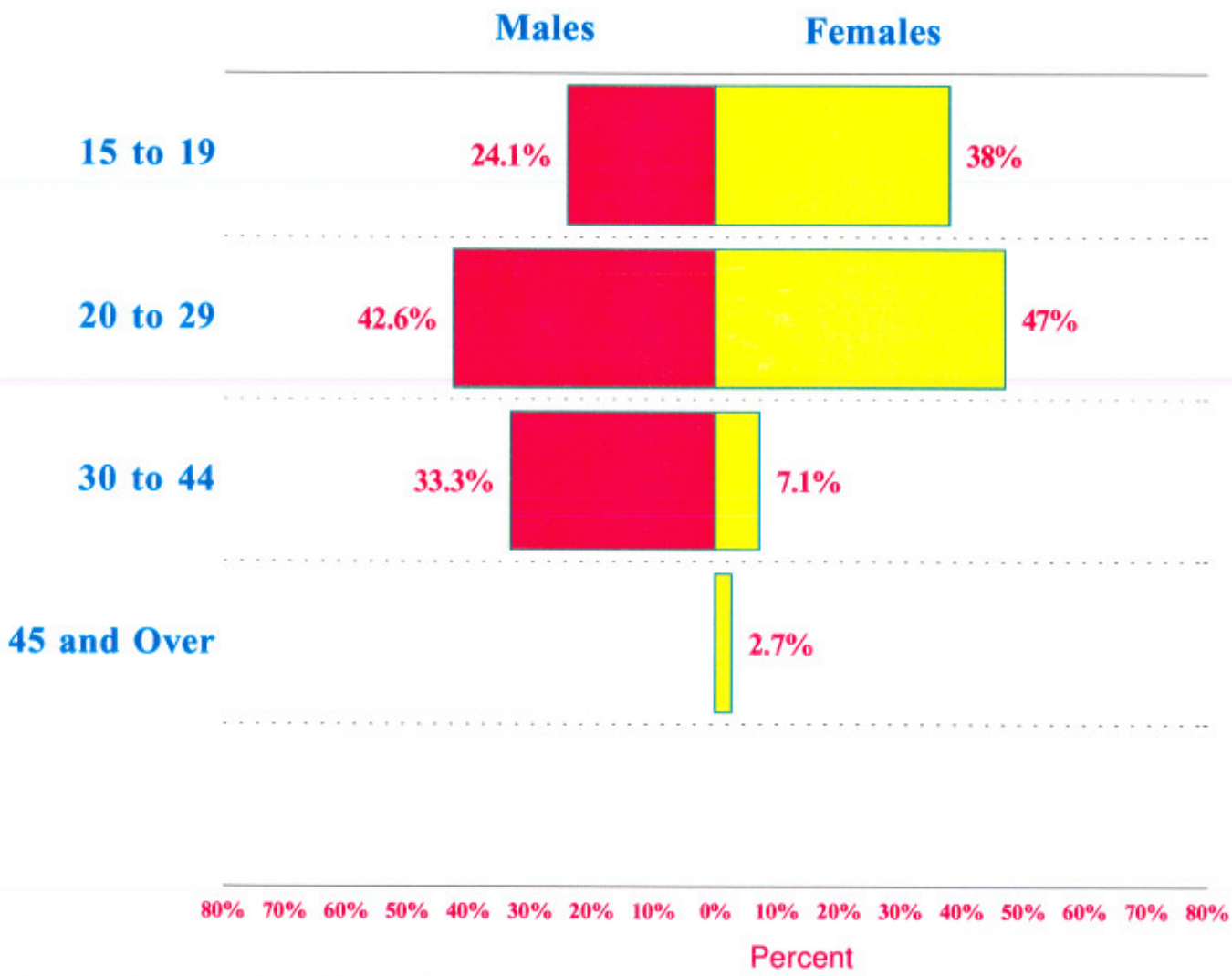
(Includes Only Cases With Known Race/Ethnicity)



(50% of cases didnot have race/ethnicity reported)

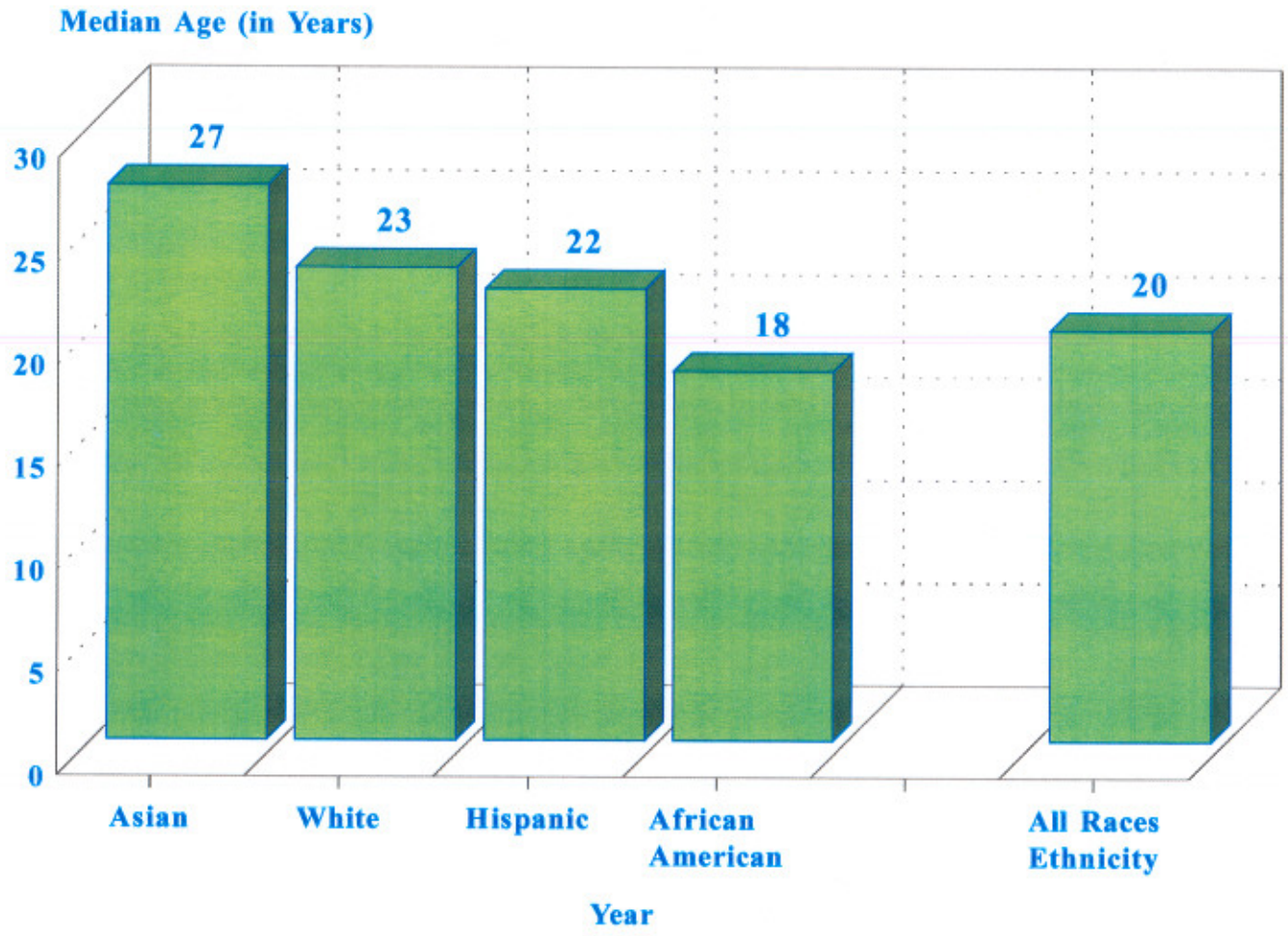
Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Morbidity Records

Percent of Chlamydia Cases by Age and Gender
City of Berkeley, 1998



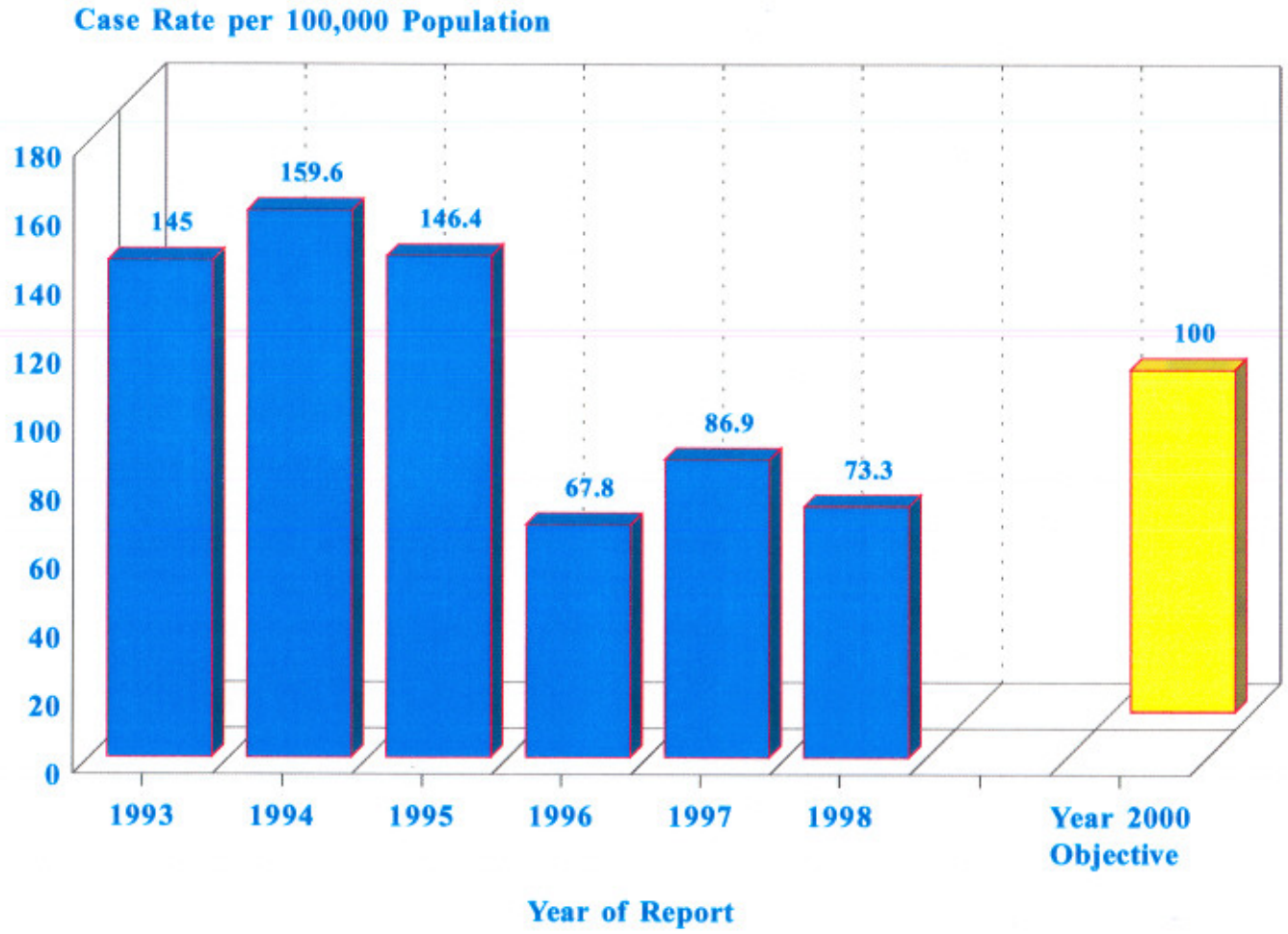
Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Morbidity Records

Median Age at Diagnosis of Chlamydia by Race/Ethnicity
City of Berkeley, 1993 - 1998



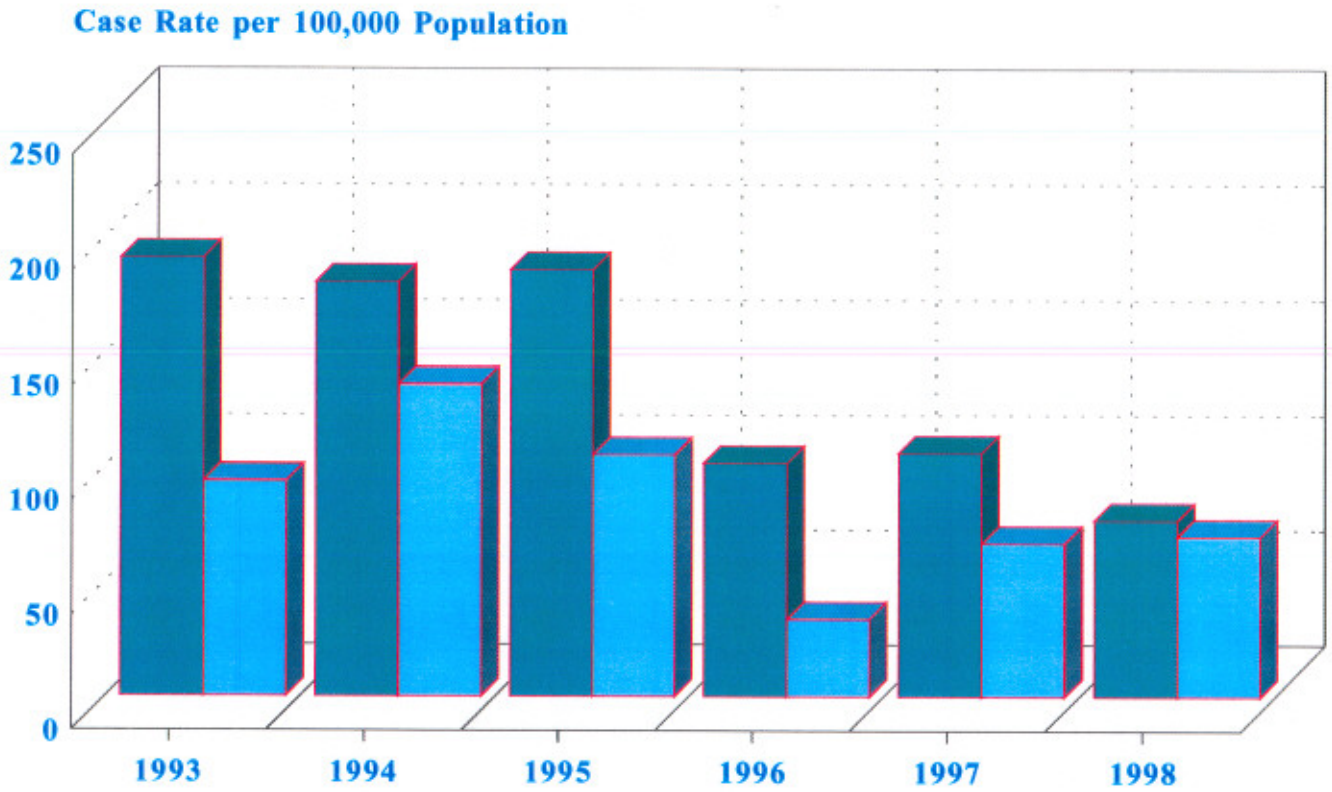
Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Morbidity Records

Gonorrhea Case Rates and Healthy People 2000 Objective
City of Berkeley, 1993 - 1998



Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Morbidity Records

Gonorrhea Case Rate by Gender
City of Berkeley, 1993 - 1998

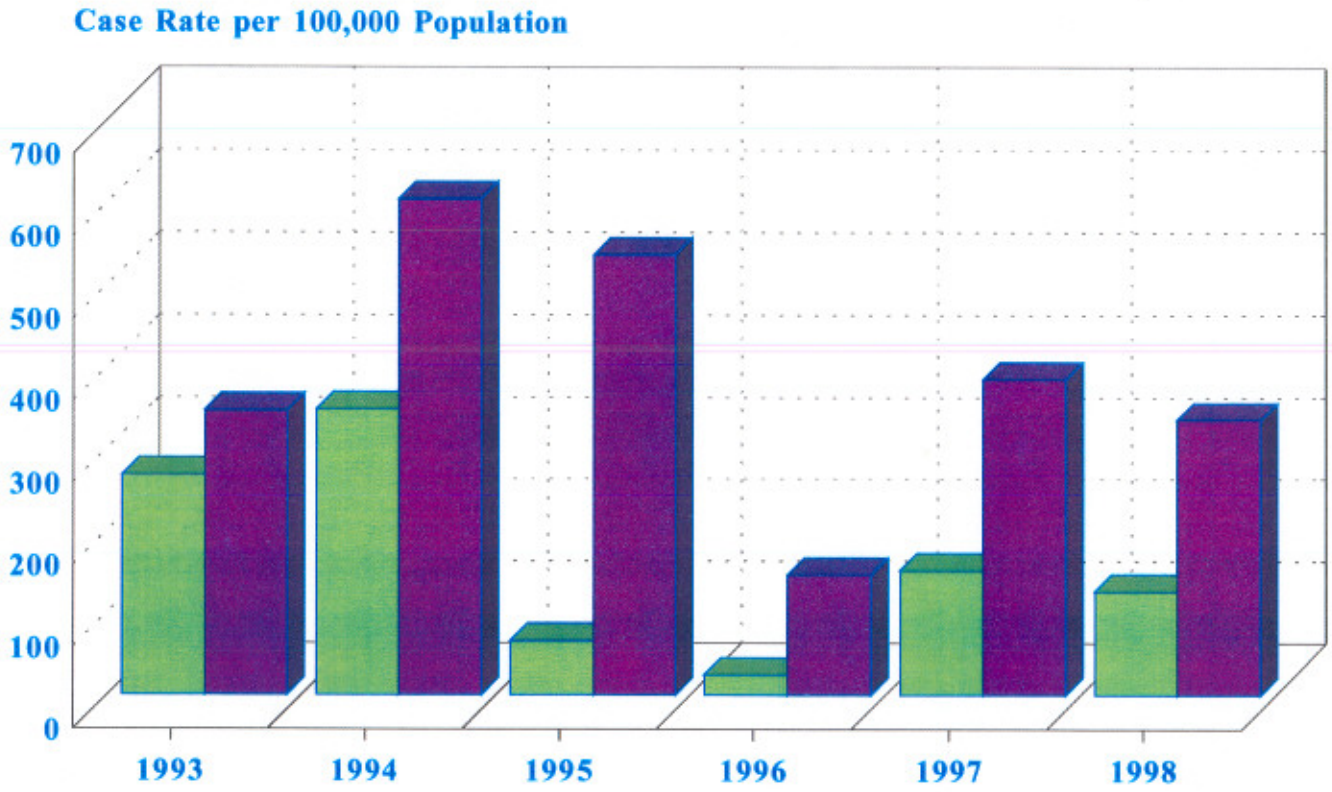


	1993	1994	1995	1996	1997	1998
Males	190.7	180.3	185.5	101.4	106	76.6
Females	93.5	136	105	33.7	66.7	69.7

Year of Report

Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Morbidity Records

Gonorrhea Case Rate Among Adolescents 15 to 19 Years of Age by Gender
City of Berkeley, 1993 - 1998

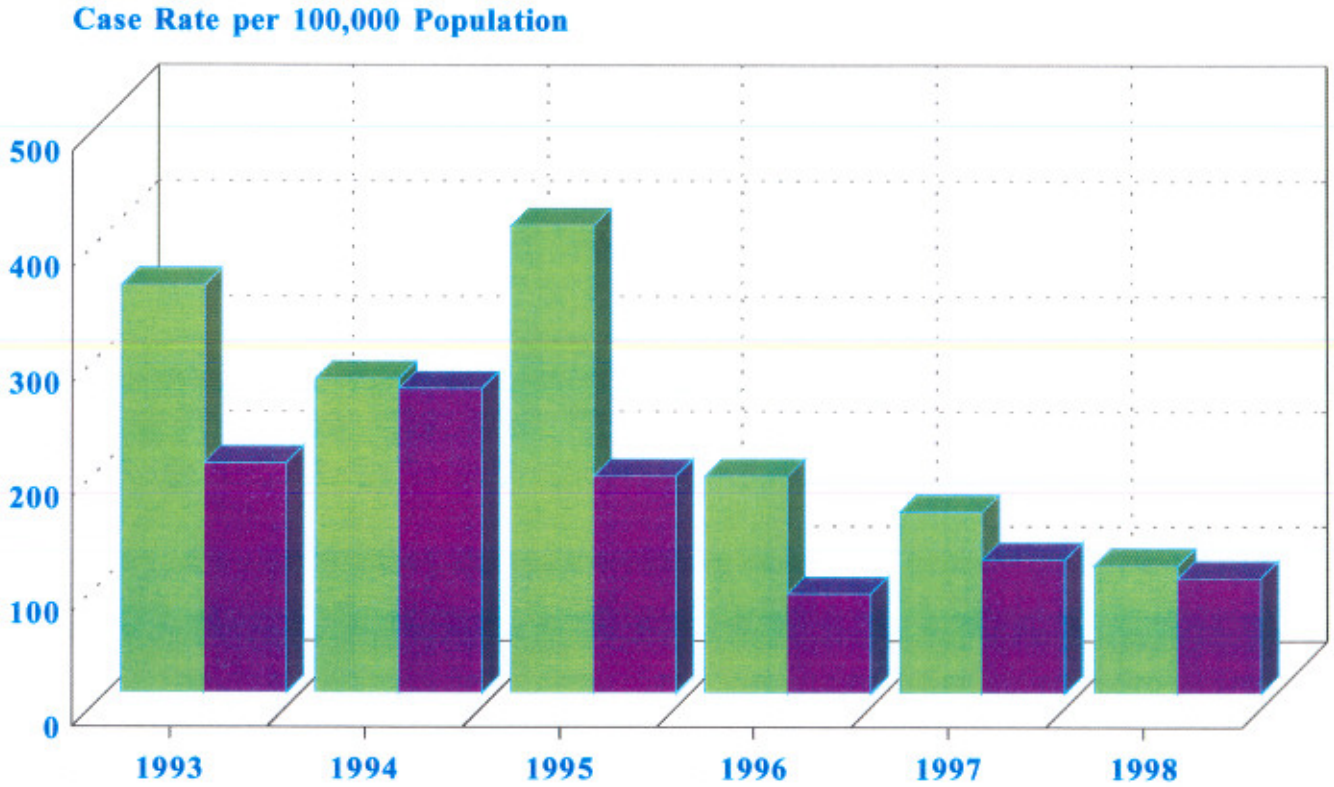


	1993	1994	1995	1996	1997	1998
Males	267.9	348.6	65.8	24.3	151.6	125.9
Females	347	604	536.2	146.2	384.8	335

Year

Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Morbidity Records

Gonorrhea Case Rate Among Young Adults 20 to 29 Years of Age by Gender
City of Berkeley, 1993 - 1998



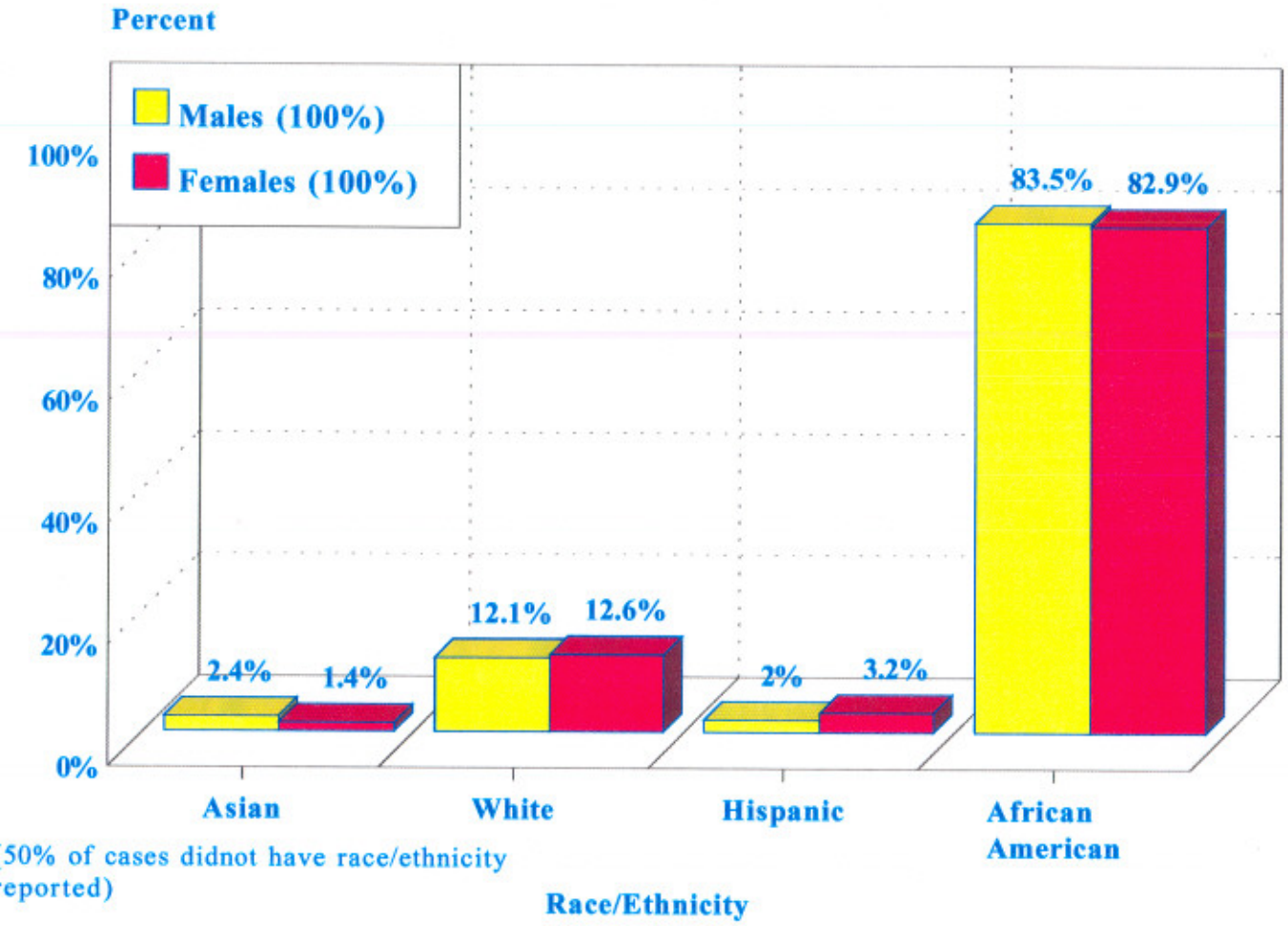
	1993	1994	1995	1996	1997	1998
Males	354.4	273.9	406.6	188.4	157.6	111.1
Females	199.6	265	188.4	86.2	116.2	100.2

Year

Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Morbidity Records

Proportion of Gonorrhea Cases by Race/Ethnicity and Gender
City of Berkeley, 1993 - 1998

(Includes Only Cases With Known Race/Ethnicity)



(50% of cases didnot have race/ethnicity reported)

Source: City of Berkeley Vital statistics Unit, Epidemiology Section, Morbidity Records

CHAPTER 5

TUBERCULOSIS

HIGHLIGHTS

- Berkeley's three-year case rate is 15 per 100,000 which ranks the City of Berkeley as number 7 of 61 health jurisdictions in the State with the highest number of cases per 100,000 population.

- The ratio of U.S. born to foreign–born tuberculosis cases diagnosed in Berkeley shifted dramatically from 88% (U.S.) : 12% (foreign) in 1994 to 29% (U.S.) : 71% (foreign) in 1998.

- During the five-year period of 1993-1998, African Americans account for 42% of cases; Asian/Pacific Islanders, 37%; Whites, 11%; Hispanics, 10% (73 total cases reported in Berkeley). In contrast, African Americans account for 19% of the population; Asian/Pacific Islanders, 15%; Whites, 54%; Hispanics, 10%.

TUBERCULOSIS

DATA SOURCES AND LIMITATIONS

The following tuberculosis data is from the Tuberculosis Registry of the Berkeley Public Health Department, Vital Statistics Unit, a sub-unit of the Office of Epidemiology and Health Statistics. California law mandates that tuberculosis (TB) cases be reported to the local public health department. In Berkeley, reported cases are followed up by Public Health Nurses who investigate contacts and also ensure that a client actually takes his/her medication (directly observed therapy) when appropriate. This data is maintained in the confidential communicable disease database.

TUBERCULOSIS CASE RATES

In 1998, the city of Berkeley reported 7 cases of tuberculosis, yielding a TB crude case rate of 6.5 per 100,000 population. While this case rate is a dramatic decrease from the prior year, its significance cannot be over emphasized, as TB case rates in Berkeley are a function of the importation of cases (both U.S. born and foreign born) and not a result of the spread of disease within Berkeley.

COMPARING BERKELEY TO OTHER REGIONS

Ranking California counties by three-year average crude case rates, the tuberculosis case rate in Alameda County (17.4/100,000) is the 4th highest rate in the State of California. Berkeley's three-year case rate is 15/100,000 which ranks Berkeley 7th in the State, just behind Los Angeles County (16.7/100,000). We strive to reach the California state case rate of 13.4/100,000. The Healthy People 2000 Objective is a distant 3.5 per 100,000 population, five times lower than the Berkeley three-year crude case rate for 1995-1997.

TUBERCULOSIS CASE RATES BY GENDER, RACE/ETHNICITY AND AGE

Of all TB cases reported in the city of Berkeley from 1993 through 1998 (74 cases), 43% (32 cases) were diagnosed among females and 57% (42 cases) were diagnosed among males. These percentages remain unchanged from the 1993-1997 cumulative case counts.

The proportion of TB cases diagnosed in Berkeley among U.S.-born residents has steadily decreased from a 1994 high of 88% of reported cases to a 1998 low of 29% of reported cases. Consequently, the percentage of cases reported among foreign-born has increased to 71% in 1998.

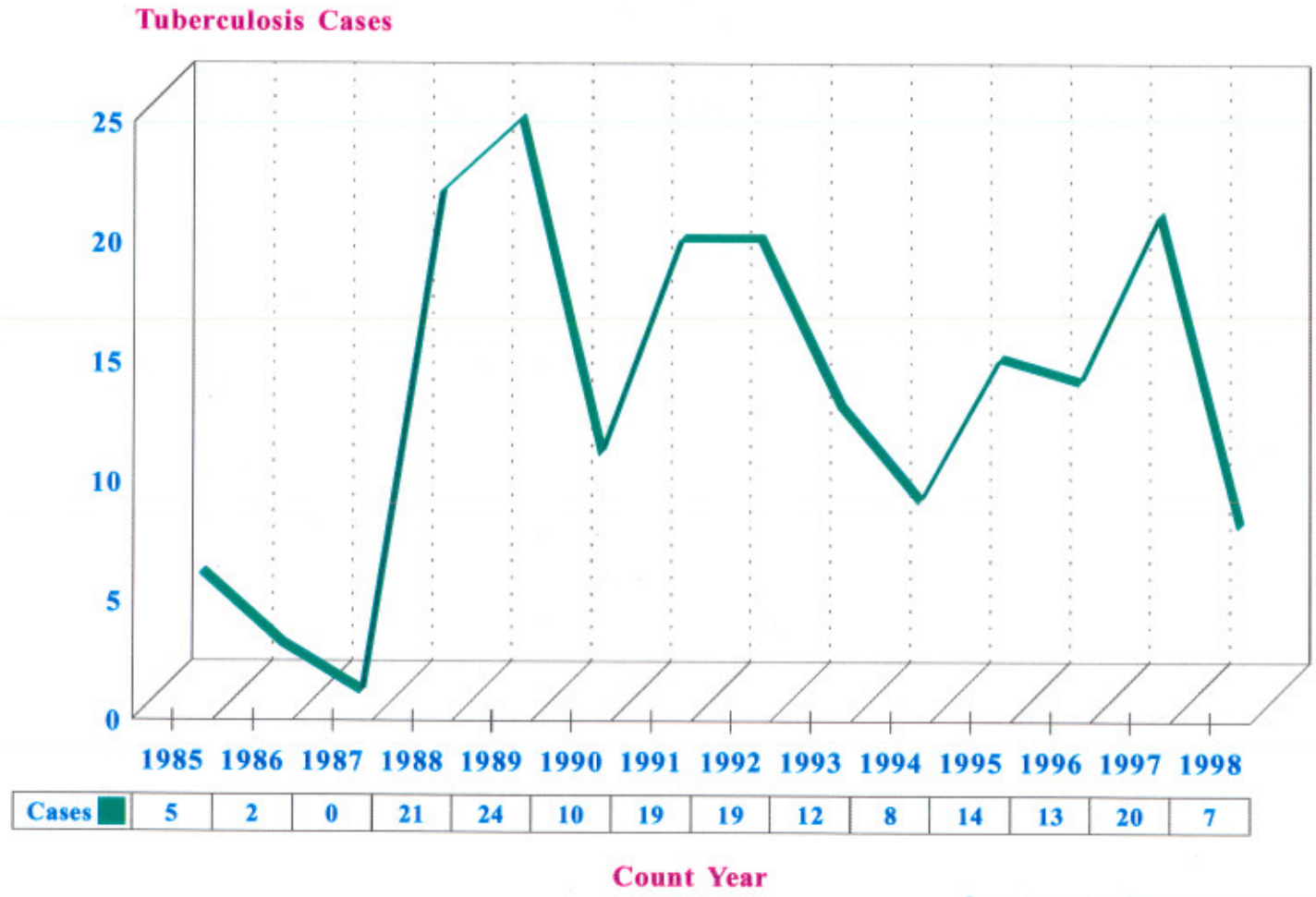
Table 1
Tuberculosis Cases by Race/Ethnicity
Berkeley, 1993-1998

Race/Ethnicity	1993-1998 (Cases)	1993-1998 (Percent)
White	8	11%
African American	31	42%
Hispanic	7	10%
Asian/Pacific Islander	27	37%

TUBERCULOSIS CASE RATE AMONG THE HOMELESS

The number of TB cases diagnosed among the homeless population in Berkeley continues to grow. From 1993-1995, 35% (6 cases) were reported among homeless persons while during the years 1996-1998, 65% (11 cases) were reported. Each case of TB in a homeless person involves a tremendous allocation of resources and personnel. Thus this increase of 5 cases in 1996-98 versus 1993-95 represents an approximately three-fold increase in the use of funding and personnel time.

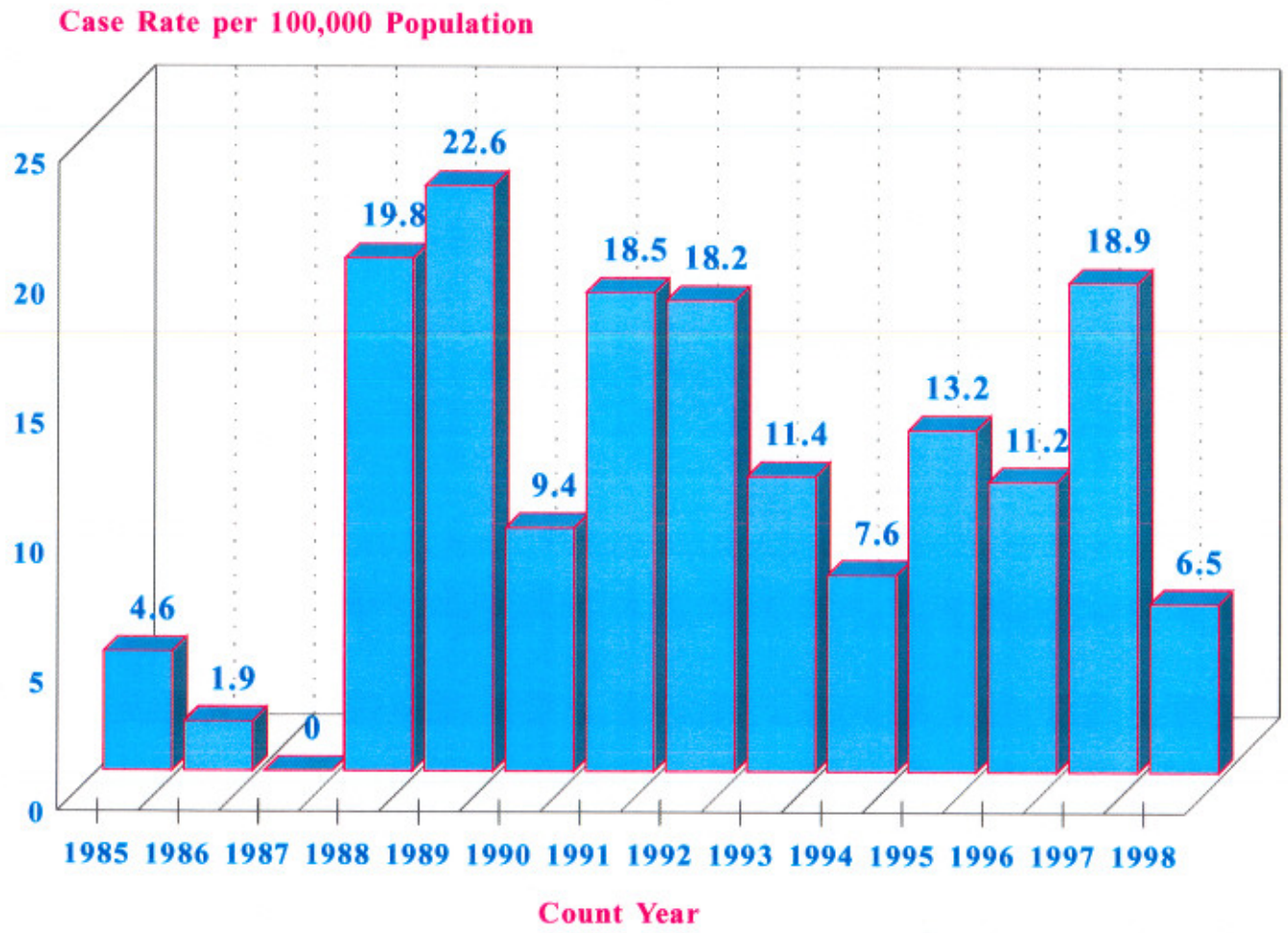
Tuberculosis Cases
City of Berkeley, 1985 - 1998



Count Year: Year TB case is confirmed and reported to the State.

Ssource: City of Berkeley Vital Statistics Unit, Epidemiology Section, TB Registry

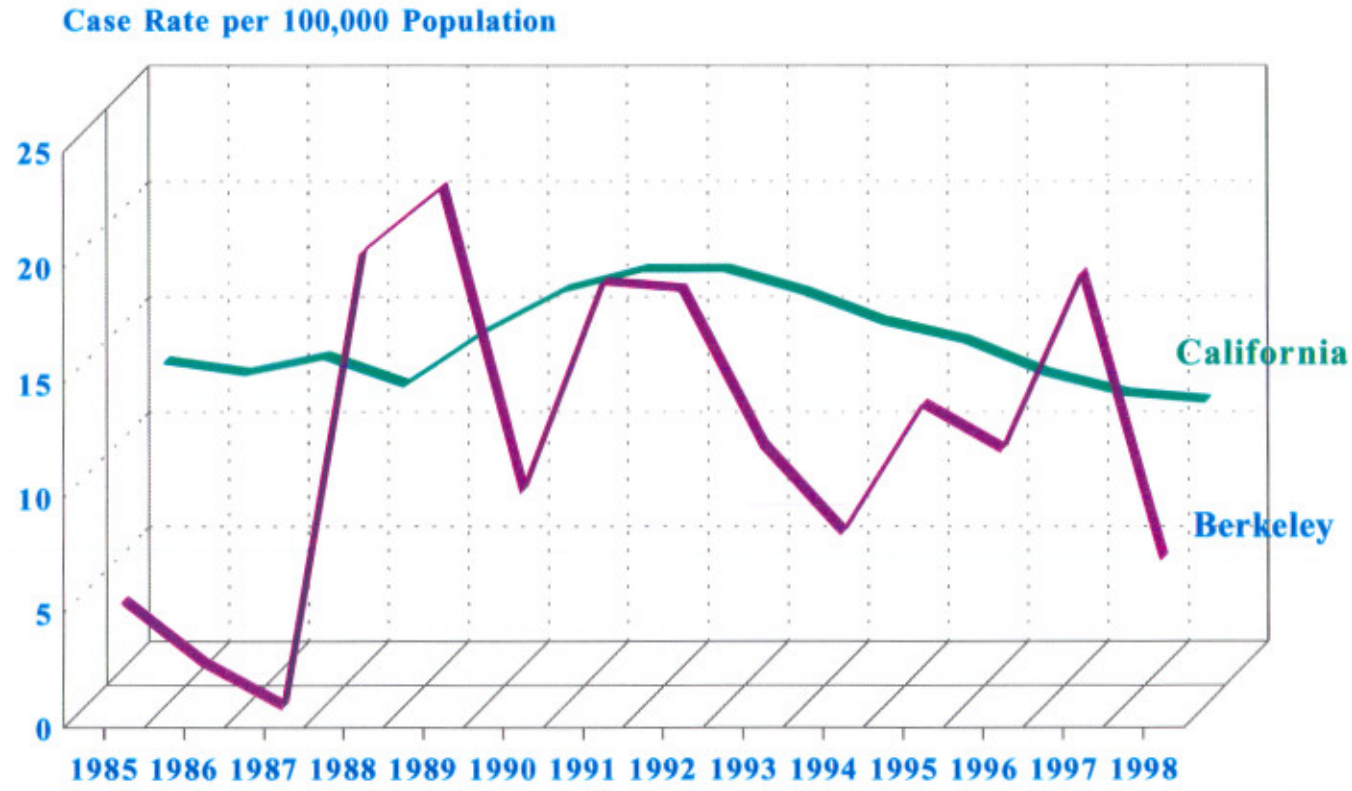
Tuberculosis Case Rates
City of Berkeley, 1985 - 1998



Count Year: Year TB case is confirmed and reported to the State.

Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, TB Registry

Tuberculosis Case Rate by Count Year
City of Berkeley and California, 1985 - 1998

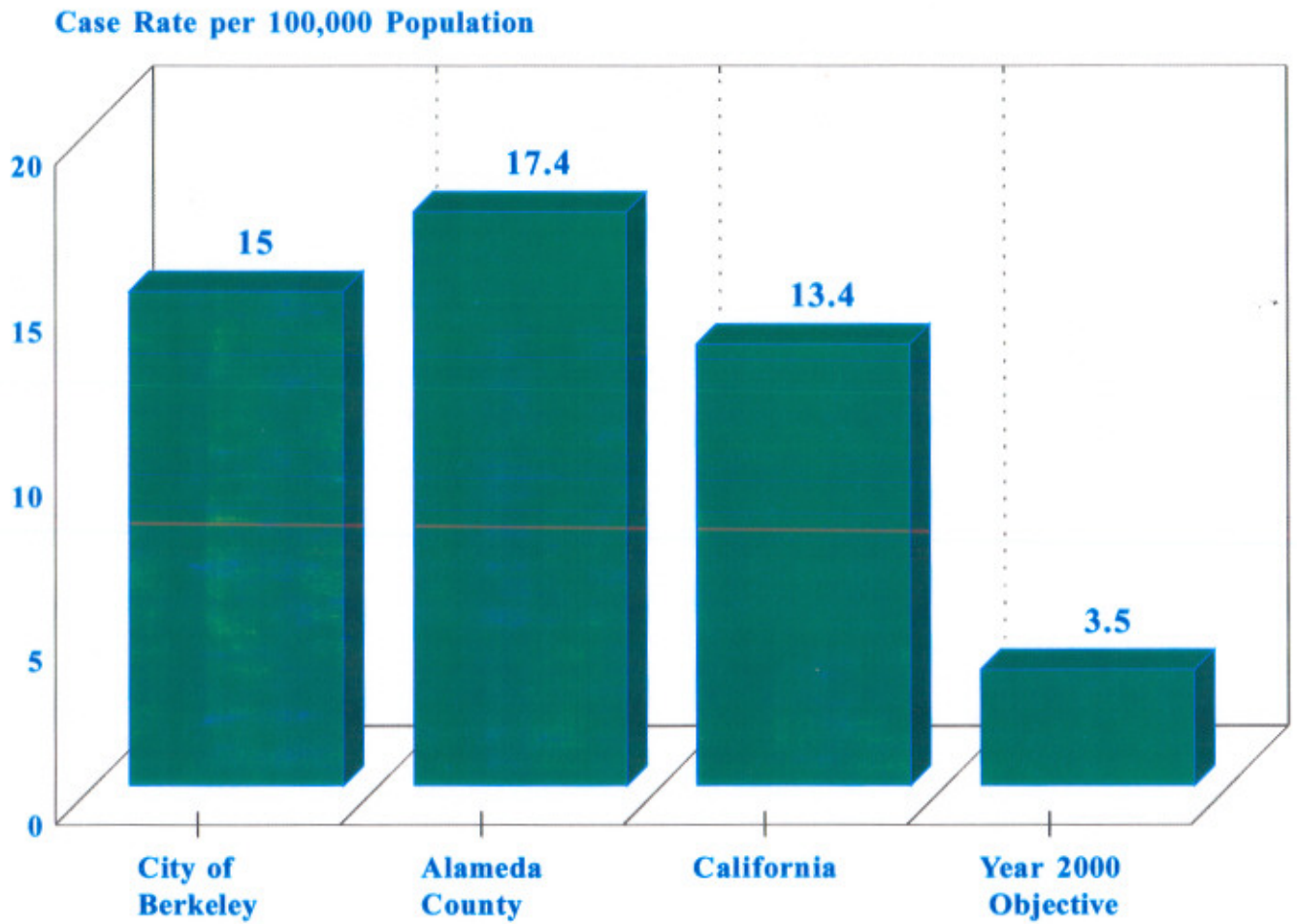


	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Berkeley	4.6	1.9	0	19.8	22.6	9.4	18.5	18.2	11.4	7.6	13.2	11.2	18.9	6.5
California	13.2	12.7	13.4	12.2	14.5	16.3	17.2	17.2	16.2	14.9	14.1	12.7	11.8	11.5

Count Year

Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, TB Registry

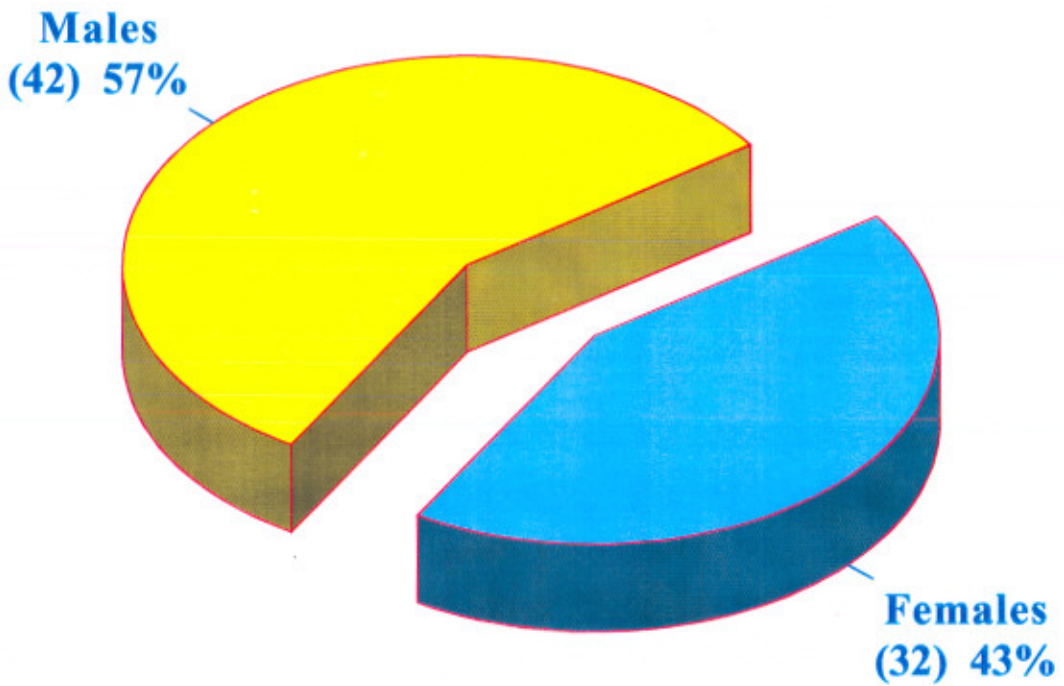
Tuberculosis Case Rates, 1995-1997 Average
City of Berkeley, Alameda County, California and Healthy People 2000 Objectives



Count Year: Year TB case is confirmed and reported to the State.

Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, TB Registry

Cumulative Tuberculosis Cases by Gender
City of Berkeley, 1993 - 1998

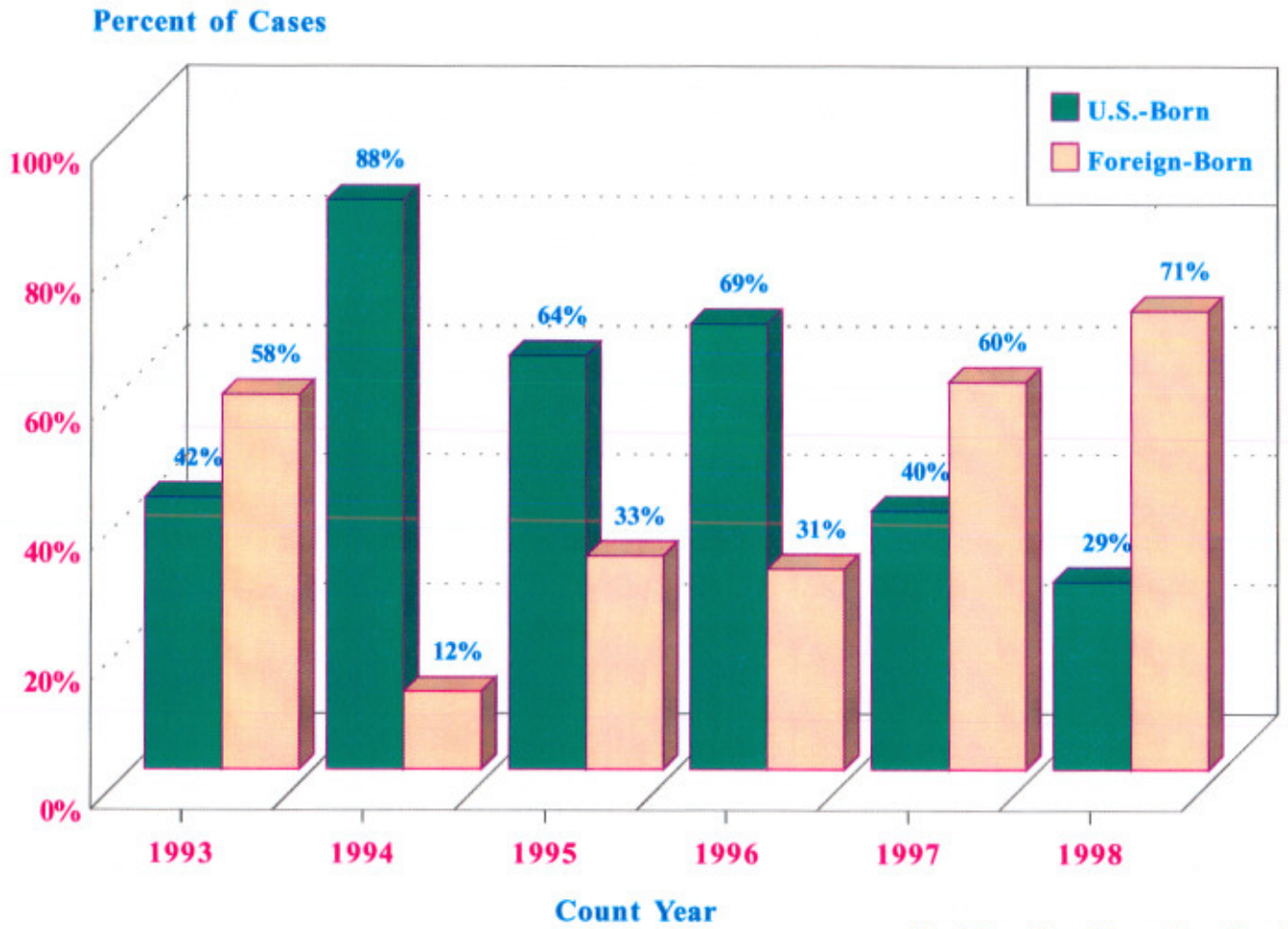


N=74

Count Year: Year TB case is confirmed and reported to the State.

Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, TB registry

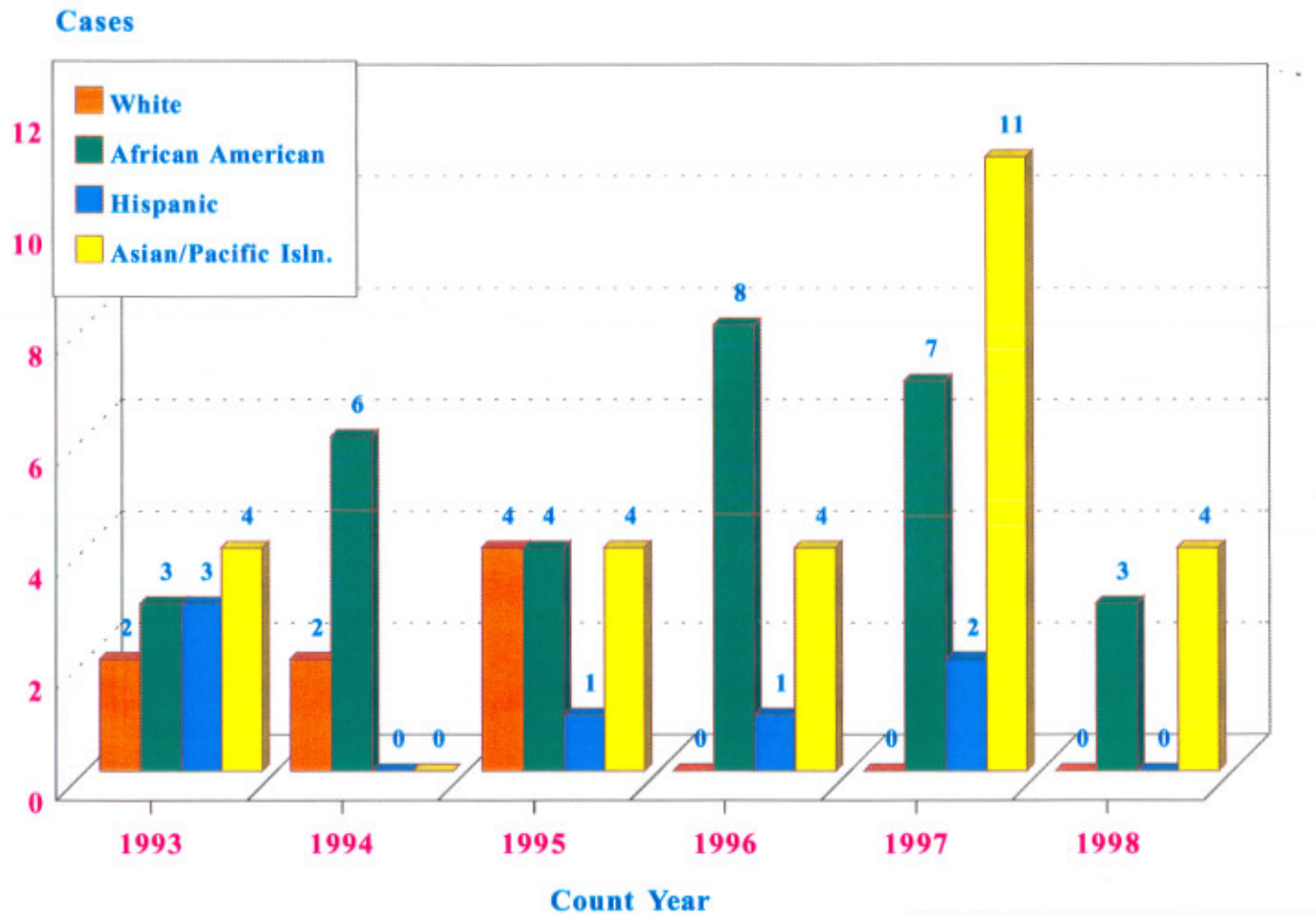
Proportion of Tuberculosis Cases by Origin of Birth
City of Berkeley, 1993 - 1998



Count Year: Year TB case is confirmed and reported to the State.

Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, TB Registry

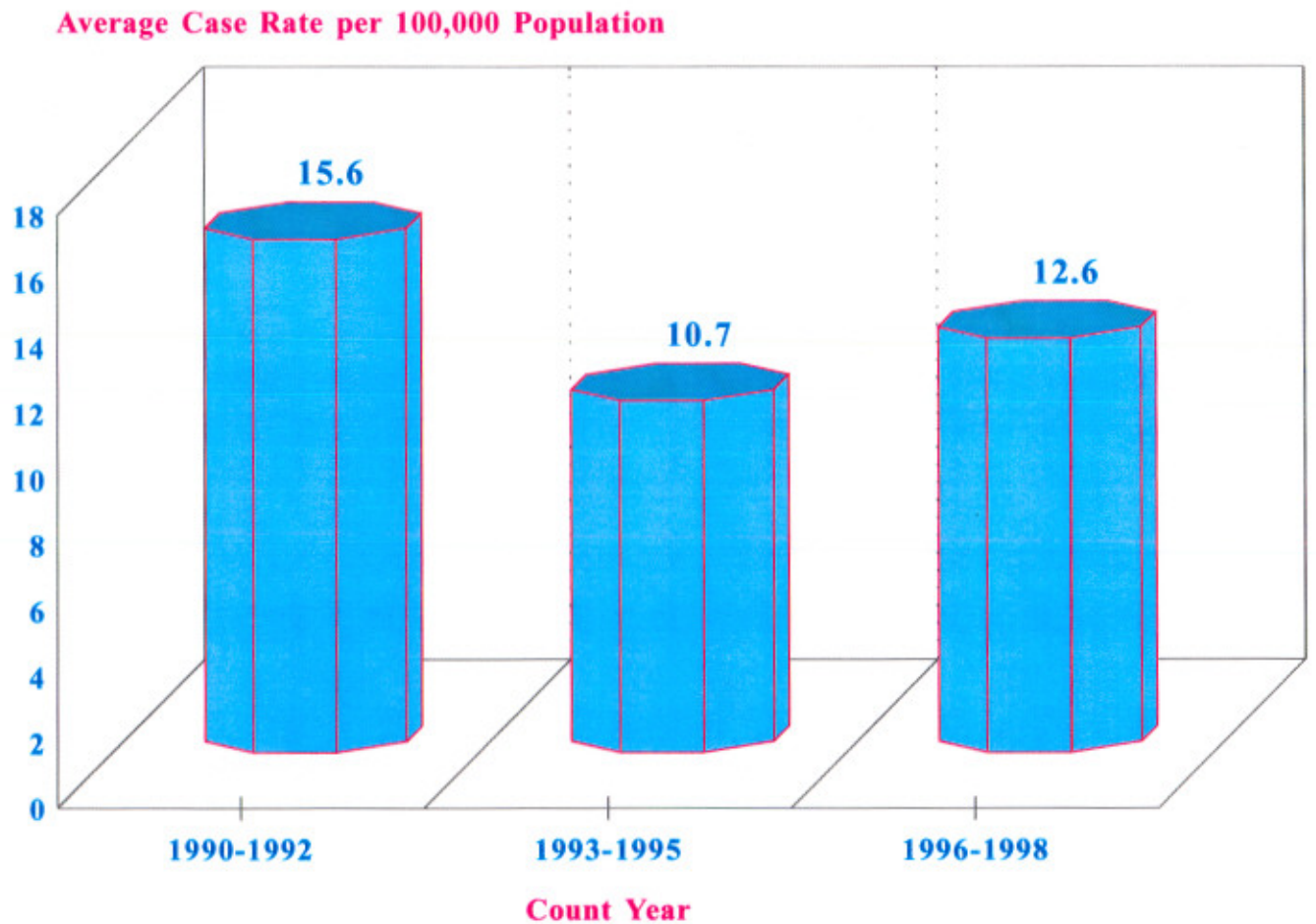
Tuberculosis Cases by Race/Ethnicity
City of Berkeley, 1993 - 1998



Count Year: Year TB case is confirmed and reported to the State.

Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, TB Registry

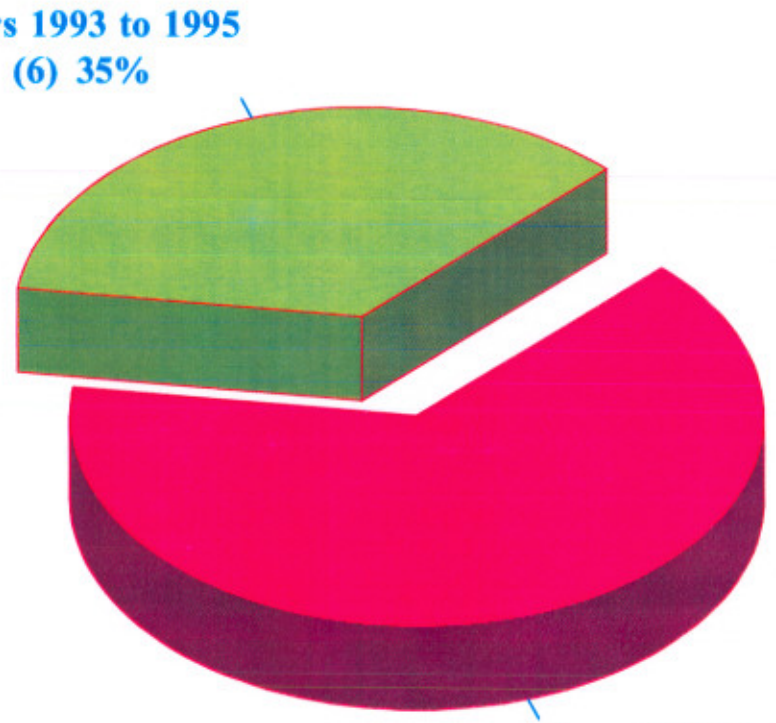
Three Years Average Tuberculosis Case Rates
City of Berkeley, 1990 - 1998



Source: City of Berkeley Health and Human Services Department, Division of Public Health, Vital Statistics Unit; TB Registry.

Count Year: Year TB case is confirmed and reported to the State.

Tuberculosis Cases Homeless at Time of Diagnosis
City of Berkeley, 1993 - 1998



N=17

Count Year: Year TB case is confirmed and reported to the State.

Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, TB Registry

CHAPTER 6

OTHER COMMUNICABLE DISEASES

HIGHLIGHTS

- Chlamydia was the most frequently reported communicable disease, accounting for 35% of all top ten communicable diseases.
- Hepatitis C, for which there is no vaccine or effective treatment, is likely to become chronic in 75%-80% of cases. Chronic Hepatitis C may then progress to cirrhosis and hepatocellular carcinoma. The reported cases in Berkeley showed significant racial disparities with African Americans accounting for 52.2% of reported cases.

OTHER COMMUNICABLE DISEASES

DATA SOURCES AND LIMITATIONS

This section reviews the data collected on other communicable diseases in the city of Berkeley. There were a number of data limitations. Since data were grouped without personal identifiers, case confidentiality was maintained but questionable cases could not be reviewed. As is always the case with communicable diseases, the analyses suffer from high levels of under reporting that varies for each disease with estimates ranging from 50% - 90%.

THE TOP TEN COMMUNICABLE DISEASES

The top ten communicable diseases accounted for 484 reported cases in 1998, compared to 579 in 1997. As in 1997, sexually transmitted diseases (STDs) dominated the list, accounting for over 50% of the cases. Chlamydia was again the number one reported communicable disease accounting for 35% of all top ten communicable diseases, followed by hepatitis C.

HEPATITIS

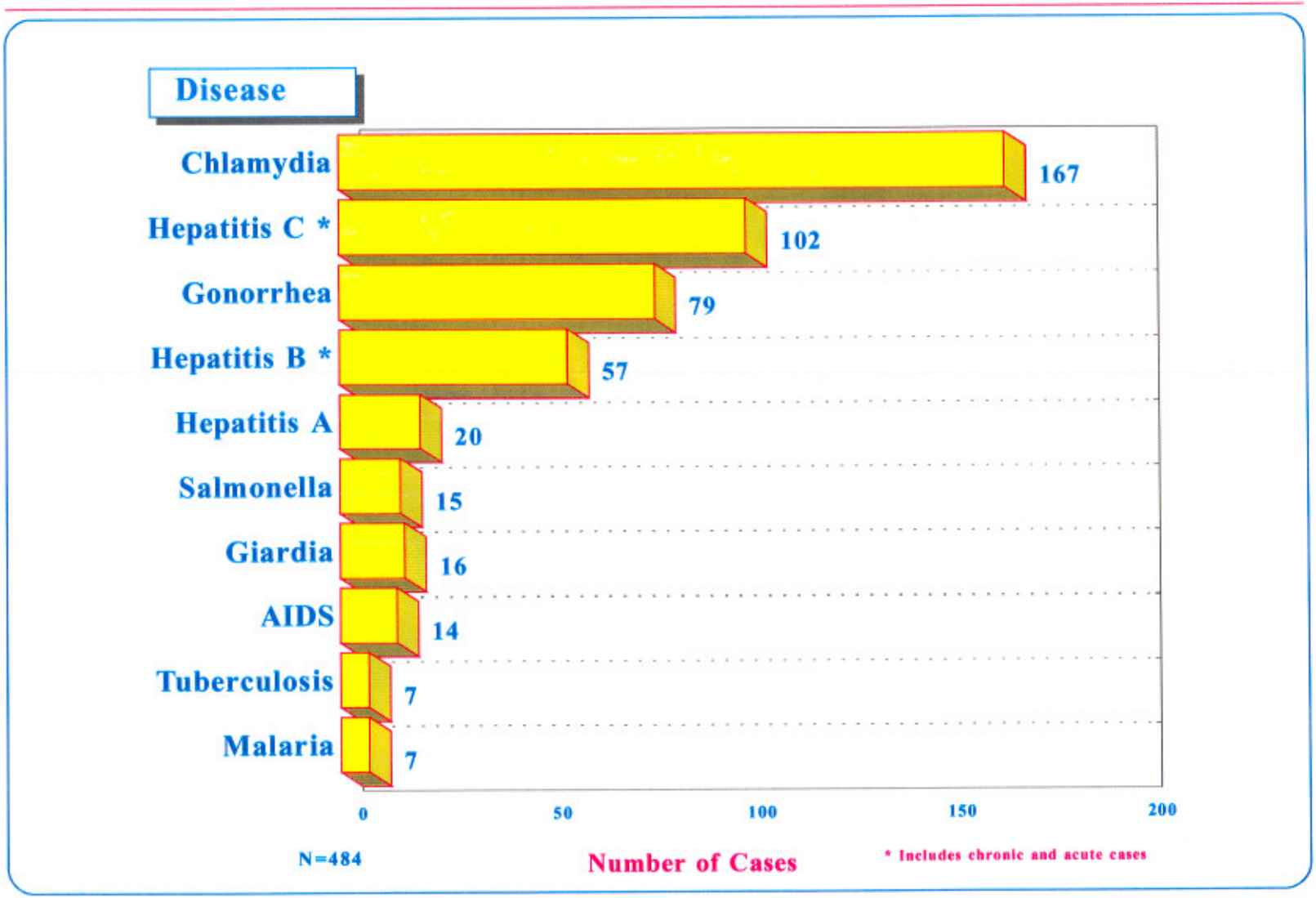
There are three major types of hepatitis, A, B, and C. These three types were the fifth, fourth and second most common communicable disease respectively in Berkeley. Hepatitis A (HAV) is primarily spread by fecal-oral route. Hepatitis B (HBV) is spread mainly by sexual contact or contaminated blood or blood products. Hepatitis C (HCV) infection is most commonly acquired via blood, either from transfusion or injection drug use. Vertical transmission from mother to infant and sexual transmission can occur in HCV but, in contrast to HBV, is relatively rare.

In 1998, there were 102 cases of hepatitis C (chronic and acute), 57 cases of hepatitis B, and 20 cases of hepatitis A. HAV has declined from its peak in 1996, and acute HBV infections have continued to decline from 1991. HCV infections, however, show a sharp increase rising from 2 cases in 1994 to 102 cases in 1998. This is due to changes in the mandatory reporting requirements. HCV cases moved from 5th on the top ten list in 1997 to 2nd in 1998, an alarming trend in light of the fact that 75%-80% of hepatitis C cases are likely to become chronic.

Nationally, it is estimated that 4 million Americans are infected with HCV, approximately 1.5% of the population. This compares with approximately 1 million people in the U.S. infected with HIV. Alameda County is estimated to have 19,000 chronic carriers of HCV. HCV infection causes liver inflammation and can lead to cirrhosis, liver cancer and death. Each year 8-10,000 will die from HCV in the United States. About 15-25% of people infected with HCV completely eliminate the virus from their bodies during the acute period. The other 75-85% continue to carry the virus in the blood, and become chronic carriers. Approximately 10-20% of chronic carriers will develop cirrhosis and 1-5% will develop liver cancer. HCV is the leading cause of chronic liver disease and the leading cause of liver transplants. The treatment options for HCV are limited and estimated to cost $10-12,000 per patient per year.

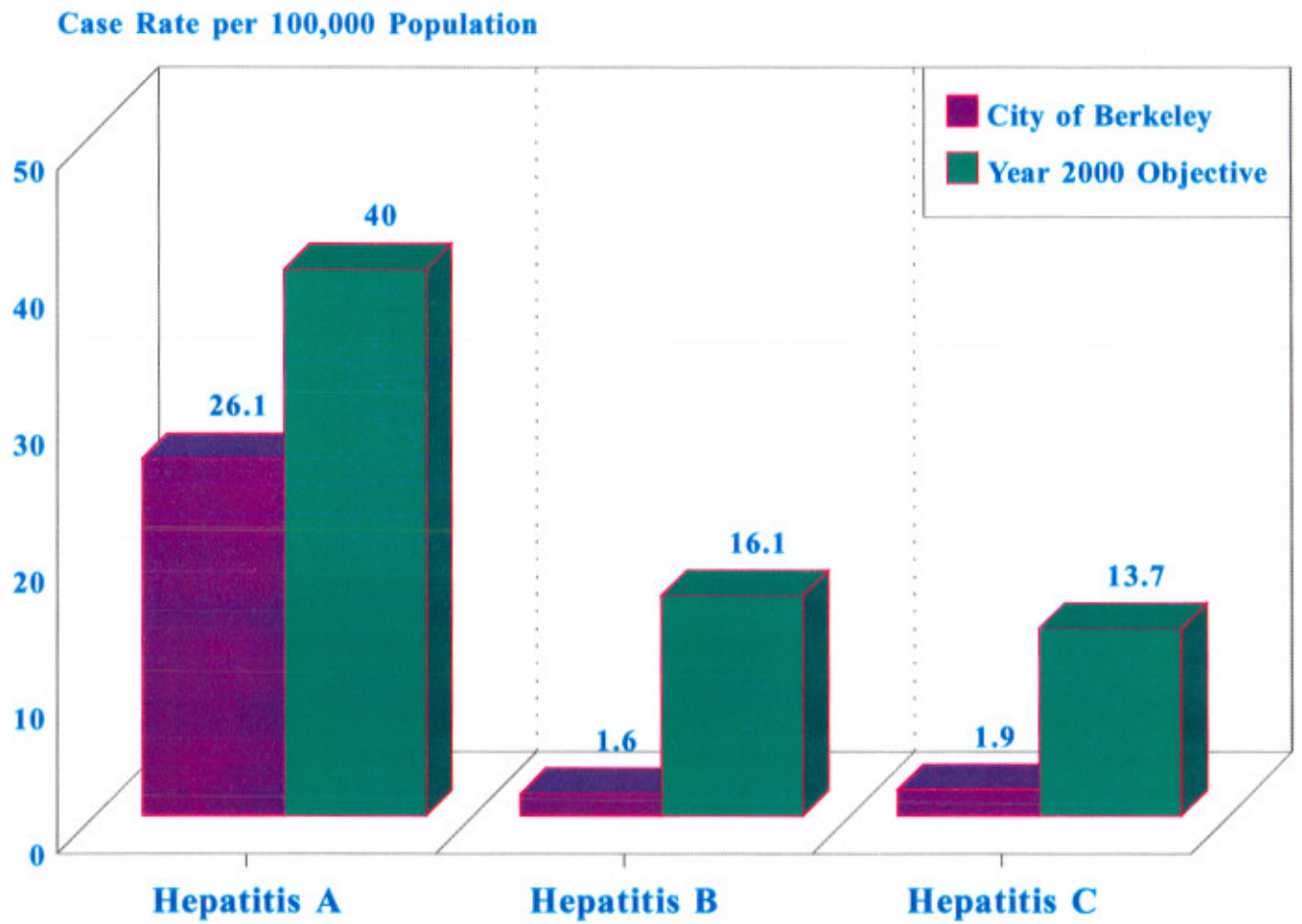
Substantial racial differences existed in the 1998 distributions of the hepatitis viruses in Berkeley. Whites accounted for 73.5% of the HAV cases (7 times as many as all other races). Asians accounted the smallest amount of HAV and HCV cases, but accounted for 59.4% of all HBV cases (twice as many as all other races), reflecting the endemic nature of HBV in Asia. African Americans were 2nd in terms of HAV and HBV rates, but accounted for 52.2% of HCV rates. Hispanics showed low rates of infection for all types of hepatitis.

Top Ten Communicable Diseases Reported
City of Berkeley, 1998



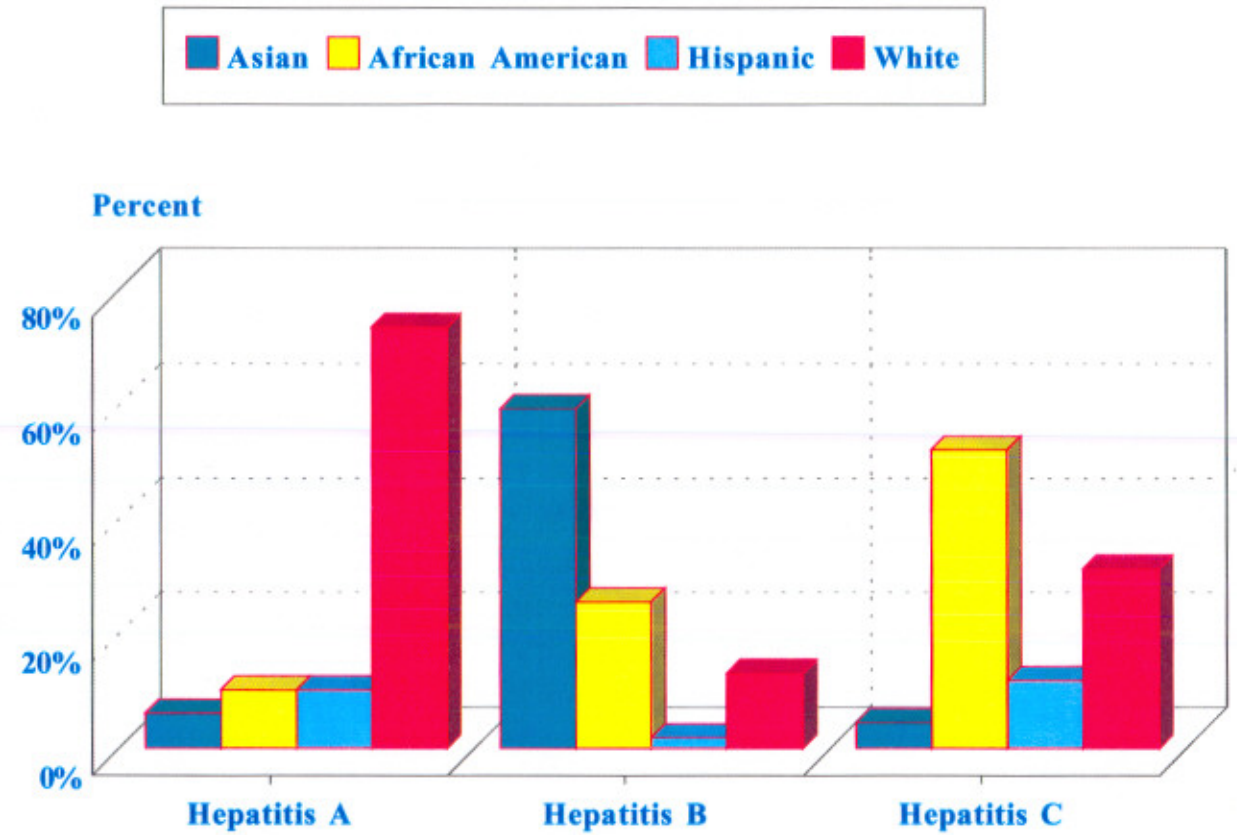
Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Morbidity Records

Hepatitis A, B and C Rates and Year 2000 Objective
City of Berkeley, 1996 - 1998 Average



Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Morbidity Records

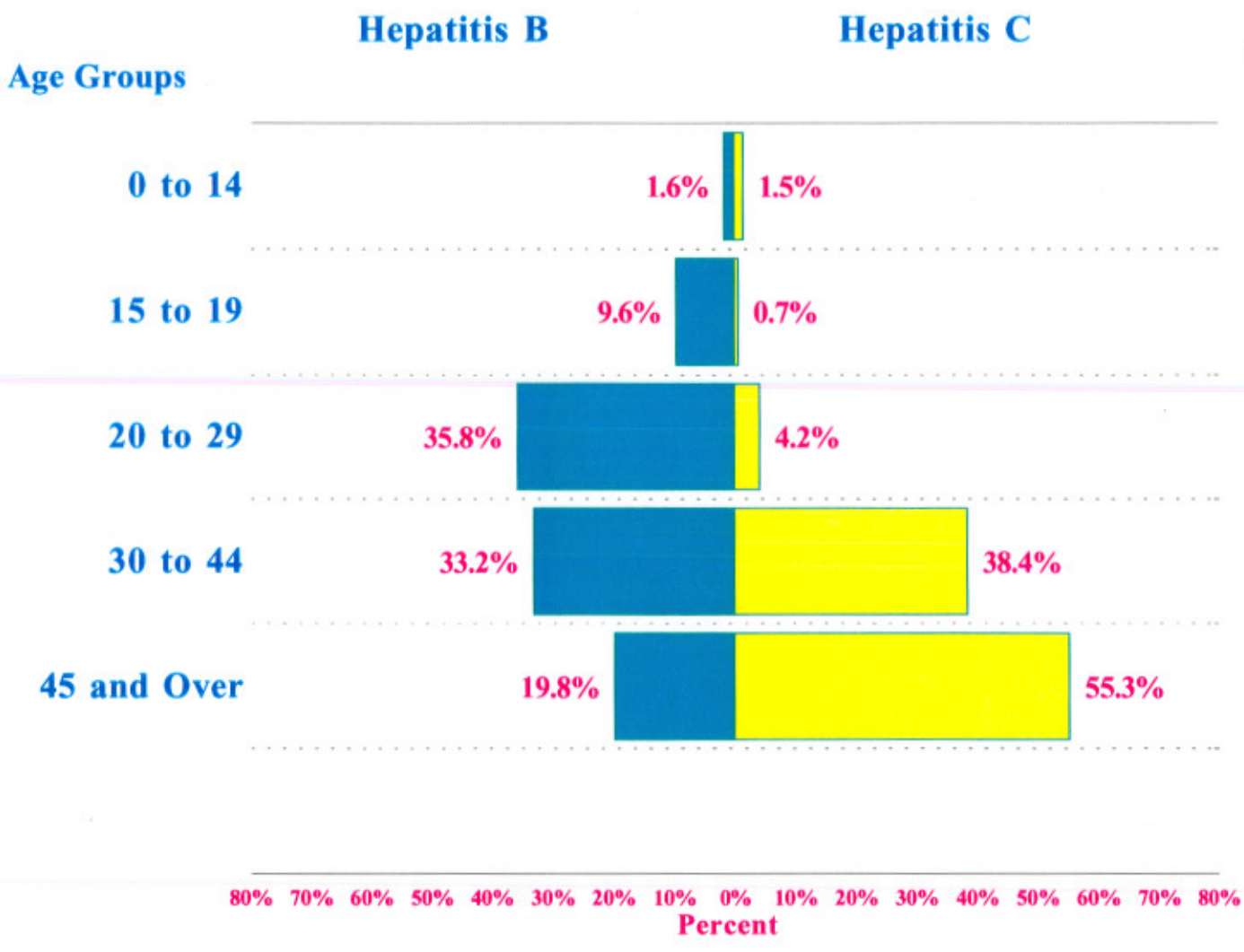
Hepatis A, B and C by Race/Ethnicity
City of Berkeley, 1993 - 1998



Asian	6.1%	59.4%	4.5%
African American	10.2%	25.6%	52.2%
Hispanic	10.2%	1.9%	11.9%
White	73.5%	13.1%	31.3%

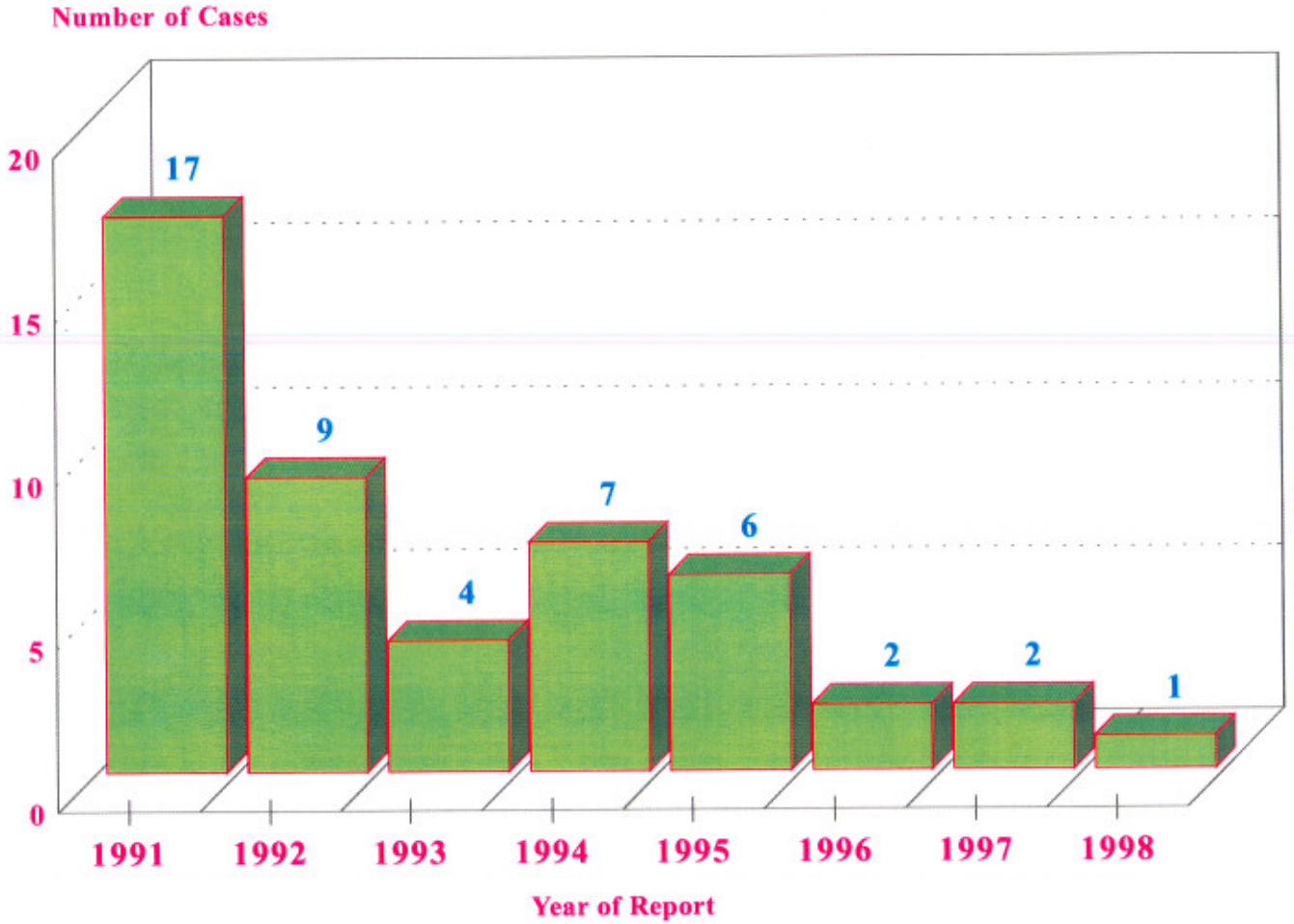
Source: City of Berkeley Vital Statiscs Unit, Epidemiology Section, Morbidity Records

Percent of Hepatitis B and C by Age Groups
City of Berkeley, 1994-1998



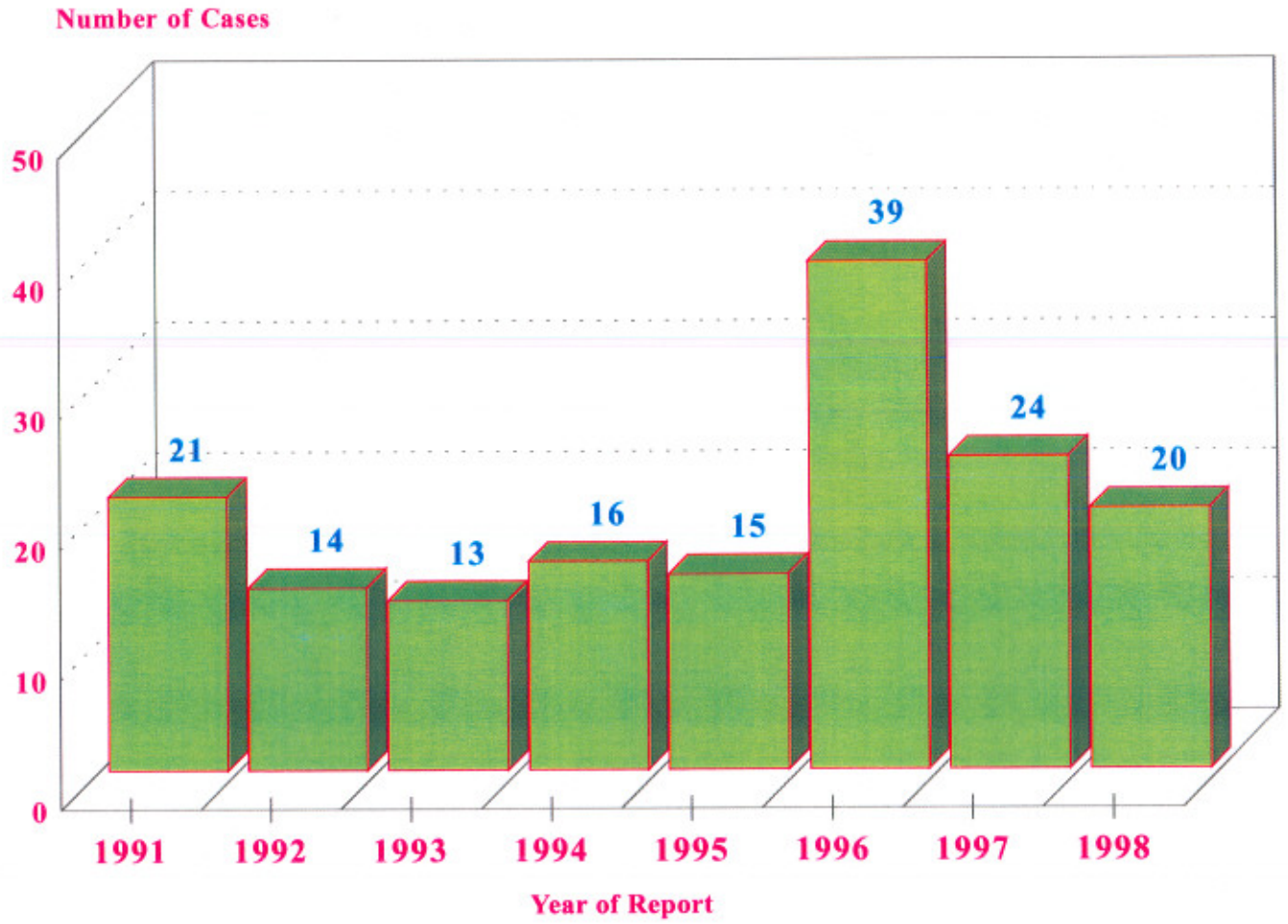
Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Morbidity Records

Acute Hepatitis B Cases by Year of Report
City of Berkeley, 1991-1998



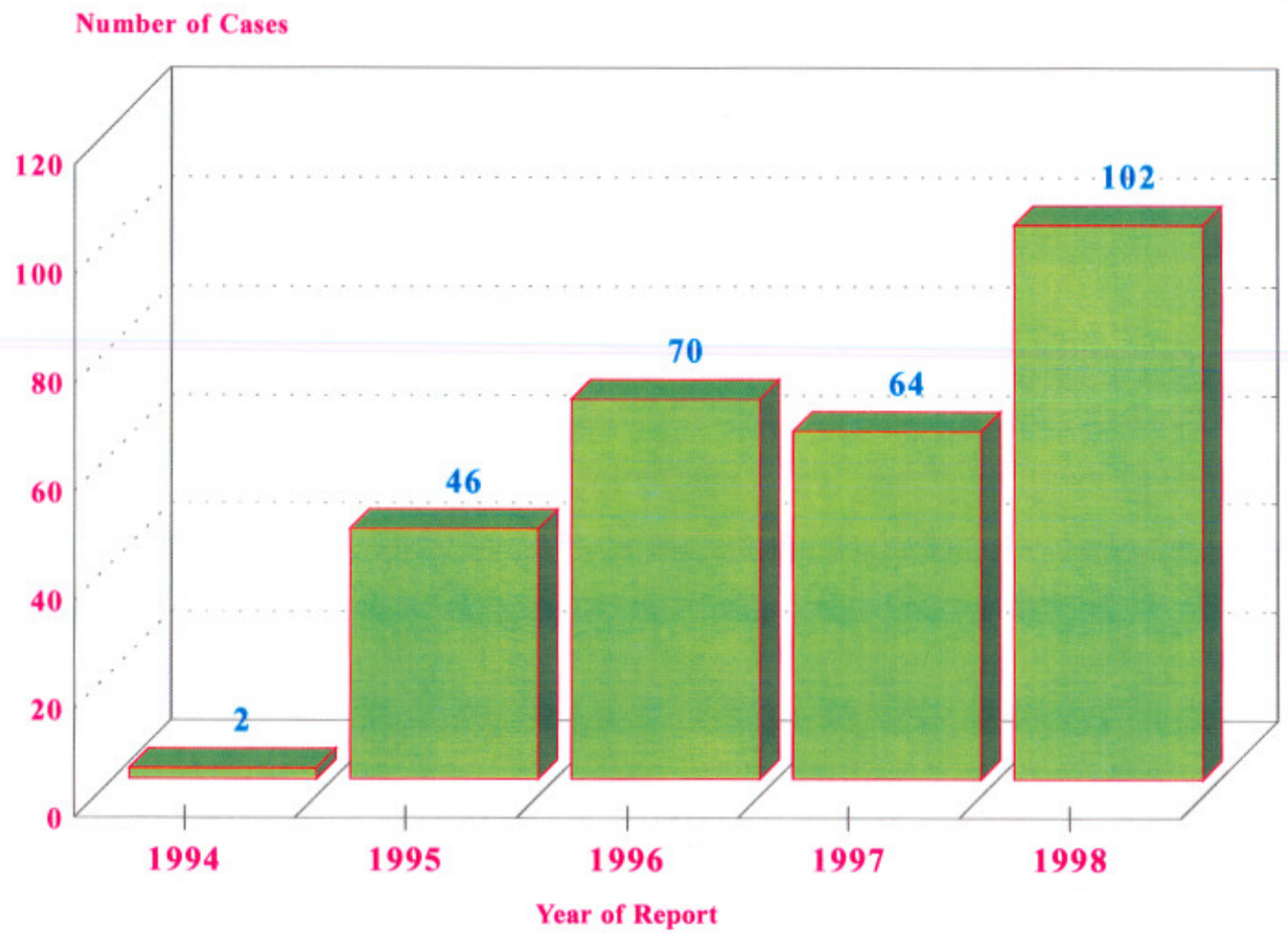
Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Morbidity Records

Hepatitis A Cases by Year of Report
City of Berkeley, 1991-1998



Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Morbidity Records

Hepatitis C Cases by Year of Report
City of Berkeley, 1994-1998



Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Morbidity Records

CHAPTER 7

WOMEN'S HEALTH

HIGHLIGHTS

- In 1997, the live birth rate in Berkeley was 9.6 births per 1,000 women compared to the California live birth rate of 15.9 births per 1,000 women.
- Late prenatal care is disproportionate among mothers in Berkeley by race/ethnicity: among African American women, 16% received late care in 1998. Among Whites, 5.4% received late prenatal care during this period.
- In 1997, the crude mortality rate for African American women was twice that of White women while the crude mortality rate of White women was two and one-half times that of Asian women.
- While the total number of deaths due to breast cancer have decreased since a high of 22 in 1995, the risk of dying of breast cancer is higher for African American women than it is for White women and for all other races/ethnicities combined.

WOMEN'S HEALTH

NATALITY

Up-to-date information on fertility patterns is critical to understanding population growth. We must anticipate changes in demography and the resultant need for public health and other city services. For example, the connection between age at childbirth and future socioeconomic status is of major significance. Women who delay childbirth often have higher education and income levels. In comparison, women who have children at very young ages increase the likelihood of poverty and associated health problems for themselves and their children.

DATA SOURCES AND LIMITATIONS

According to the California Department of Health Services Vital Statistics Section, reporting of births that occur in California is nearly 100 percent complete for 1998. Certain data recorded on the birth certificate such as mother's age and infant birth weight are considered to be accurate, whereas items relating to length of gestation or congenital malformations are often reported incorrectly or omitted altogether. The race/ethnicity of the infant is generally reported on birth certificates as that of the mother. Due to optional reporting, the race/ethnicity of approximately 20% of all births in Berkeley was not recorded and is therefore unknown.

BIRTHS TO BERKELEY RESIDENTS

In 1998 there were 1,017 total births to Berkeley women, yielding a crude birth rate (number of live births per total population) of 9.4 per 1,000 population. Total number of births has shown a slow downward trend since 1990. By comparison, the statewide live birth rate in 1997 was 15.9 per 1,000 total population.

- 44% of births (443) in Berkeley were to White mothers;
- 15% of births (148) were to African American mothers;
- 13% of births (133) were to Hispanic mothers; and
- 11% of births (115) were to Asian or Pacific Island mothers.
- An additional 18% of births (178) were to women of unknown or "other" racial or ethnic heritage.

The general fertility rate (GFR) is the number of live births per 1,000 women aged 15-44 in a given year. Berkeley's GFR has remained stable from 1993-1998. The GFR in 1998 was 33 per 1,000 women aged 15-44. This rate is significantly lower than the 1995 United States rate of 66 per 1,000 women aged 15-44 years. Fertility rates in Berkeley vary by race/ethnicity as follows:

- The GFR of Hispanic women in Berkeley is 42/1,000 women aged 15-44;
- The GFR of African American women is 31/1,000 women aged 15-44;
- The GFR of Asian/Pacific Island women is 28/1,000 aged 15-44; and
- The GFR of White women is 26/1,000 aged 15-44.

The majority of childbirth occurs while Berkeley women are between the ages of 20-34 years. However, 43% of White women and 32% of Asian/Pacific Islander women experienced childbirth when they were 35 years and older.

Since 1994, the city of Berkeley has had the lowest birth rate among adolescent women aged 15-19 years in the State of California. In 1998, there were a total of 10 births to adolescent women, less than 1% of total births. This 1998 figure represents a 50% decrease from the 1997 total of 20 births to adolescents or 2% of total births. The statewide average was 6.6% of total births to adolescent women during 1994-1996. The adolescent birth rate in Berkeley has decreased steadily since 1992, attributable mainly to the comprehensive health education, medical and mental health services available through the Berkeley High School Health Center.

PRENATAL CARE

Early initiation of prenatal care (care that begins in the first trimester or first three months of pregnancy) and adequate prenatal care are essentials for healthy babies. It permits the early identification of risks, allows for detection and treatment of pregnancy-related problems and allows for appropriate interventions. Early and appropriate prenatal care is critical to improving pregnancy outcomes. The proportion of Berkeley women who received adequate prenatal care in 1998 was 92.5%. These rates for adequate prenatal care have remained relatively unchanged at more than 90% since 1996, exceeding both state and national rates. However, in Berkeley, White and Hispanic women (96% each) were more likely to receive adequate prenatal care than African American women (83%). Again, late prenatal care (care which begins in the second or third trimester or no care at all) is disproportionate among mothers in the city of Berkeley by race/ethnicity. Among African American women, 16% received late care in 1998, as compared to 3% for Hispanics, 4% for Asians, and 5% for Whites. Entry to prenatal care during the first trimester of pregnancy by African American women has declined slightly since its high of 86% in 1996.

The Healthy People 2000 Objective is no fewer than 10% of women with late entry to prenatal care. The overall figure of 7% of resident women who did not receive care until after the first trimester means that Berkeley has met this Objective. However, when prenatal care is examined by race/ethnicity, significantly more African American women (17%) in Berkeley did not receive adequate prenatal care as compared to White or Hispanic women (4%).

Source of Payment for Child Birth

The largest single source of payment for childbirth and delivery was prepaid medical insurance such as an HMO (e.g. Kaiser) or other form of group insurance. In line with national healthcare trends, this method of insurance payment has grown from 33% in 1992 to 49% in 1998. More specifically, 49% of all births (499) to Berkeley women were paid for by a prepaid medical plan. This represents a 5% increase from 1997 and a more than 10% increase since 1996. The percentage of deliveries covered by Medi-Cal has declined steadily since 1994, encompassing less than one-fourth or 22% (220) of births. Private insurance paid for 27% of the total births (271). Three percent (25 births) of Berkeley resident mothers had no insurance at all which is an increase from 2% (19 births) in 1997.

Communicable Diseases

Among the top 10 communicable diseases reported for women in Berkeley are 113 cases of chlamydia, 38 cases of gonorrhea, 37 hepatitis C carriers and 28 Hepatitis B carriers. This is the first year that the Public Health Status Report has considered communicable disease rates by gender. Rates for some diseases, i.e. chlamydia, are generally under-reported and under-diagnosed and affect adolescent and young adult women at higher rates than older adult women.

Of the 43 AIDS cases diagnosed among women since 1987, 49% are among African American women, 39.5% are among White women and 9.3% are among Hispanic women.

Mortality among Women

In 1997, the average number of years of life for an individual living in Berkeley was 77 years. However, women on average live to be 82 years while men on average live to be 72 years. The leading cause of death for Berkeley women is cancer, followed by heart disease and stroke. These three causes account for 53% of deaths to all women.

The crude mortality rate reflects all the causes of death, unadjusted for age. Using 1997 data, the total crude mortality rate for both males and females was 670 per 100,000. The crude mortality rate for women varies by race/ethnicity. In 1997, the crude mortality rate for African American women (1,268 per 100,000) was approximately twice that of White women (680 per 100,000) while the probability of dying for White women is almost 2.4 times that of Asian/Pacific Islander women (289).

Table 1
Crude Mortality Rates for Women by Race/Ethnicity
Berkeley, 1997

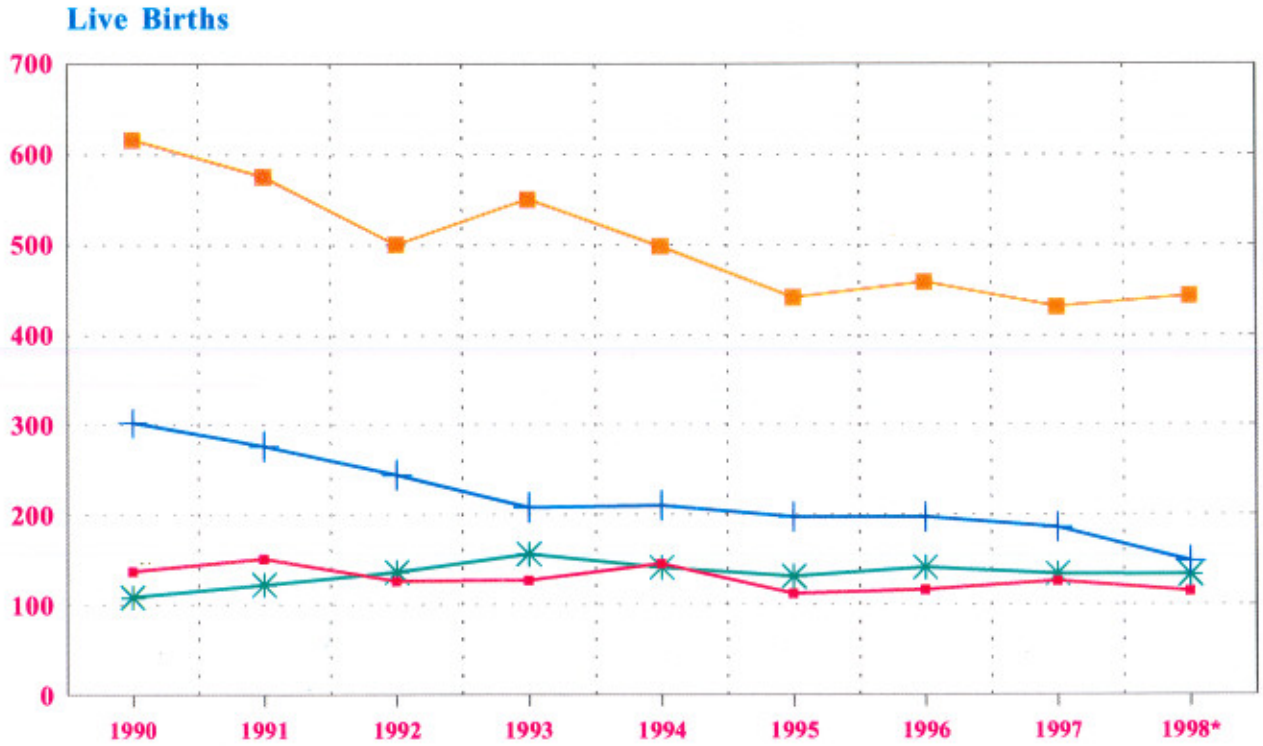
Race/Ethnicity	Rate*
African American	**1,268**
White	**680**
Asian/Pacific Islander	**289**
Hispanic	**198**

***Per 100,000 population**

FEMALE BREAST CANCER

As discussed in the Mortality Section, breast cancer is the second leading cause of cancer deaths in Berkeley for 1996 and 1997. The total number of deaths due to breast cancer has decreased since a high of 22 deaths in 1995. The risk of dying of breast cancer is higher though for African American women (48 per 100,000) than it is for White women (34 per 100,000). It is also higher for African American women than it is for all other races/ethnicities combined (30 per 100,000). This local data corroborates national data reported by the Centers for Disease Control and Prevention (CDC). According to the CDC, nationally, African American women have a higher death rate from breast cancer than any other racial or ethnic population.

Number of Live Births by Mother's Race/Ethnicity
City of Berkeley, 1990 - 1998



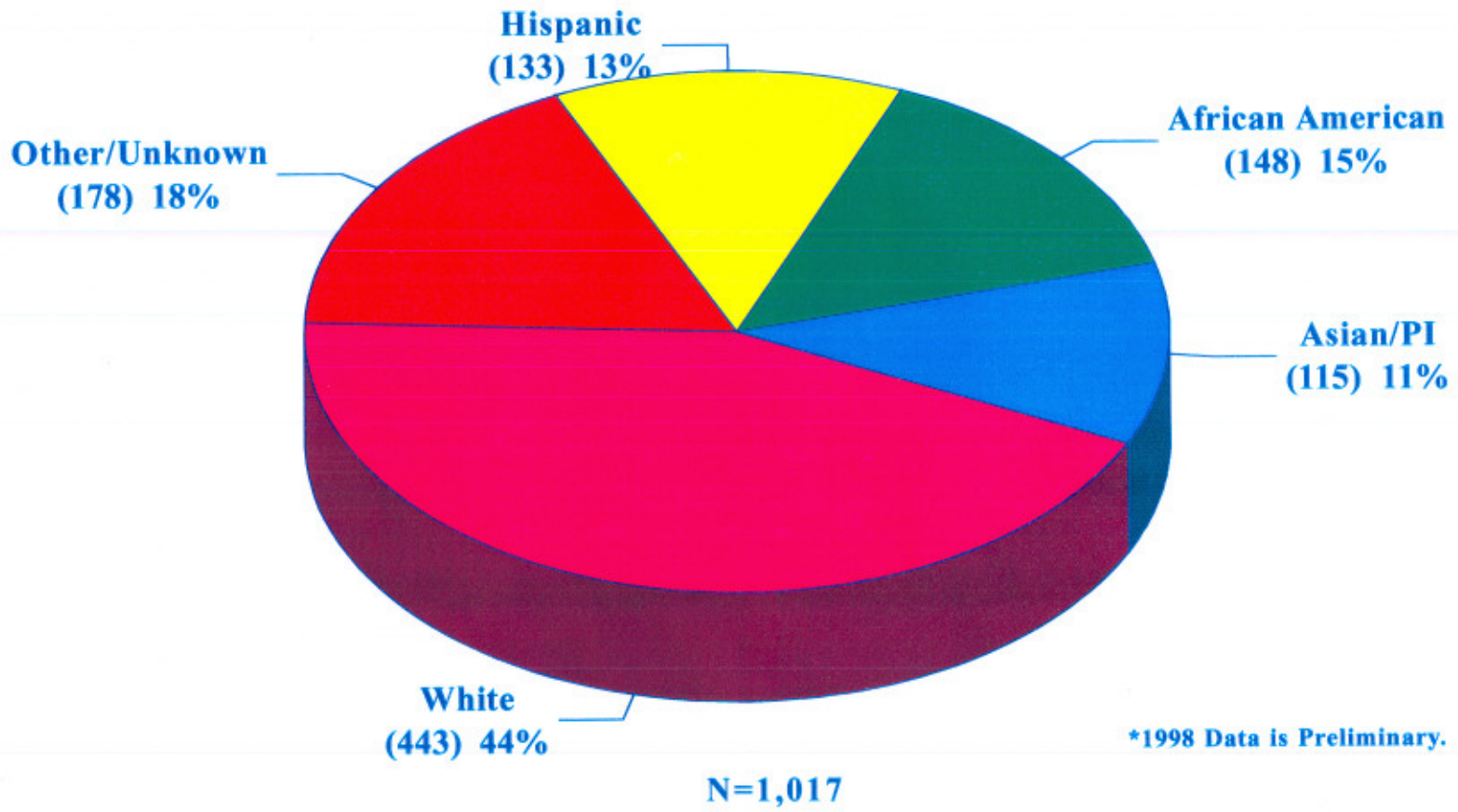
	1990	1991	1992	1993	1994	1995	1996	1997	1998*
Asian	137	151	126	127	145	112	116	126	115
African American	302	276	244	208	210	197	197	186	148
Hispanic	108	122	136	156	141	131	141	134	133
White	616	575	500	550	498	441	458	431	443

Year of Birth

Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Birth Records

* 1998 data is preliminary

Number of Births By Mother's Race/Ethnicity
City of Berkeley, 1998

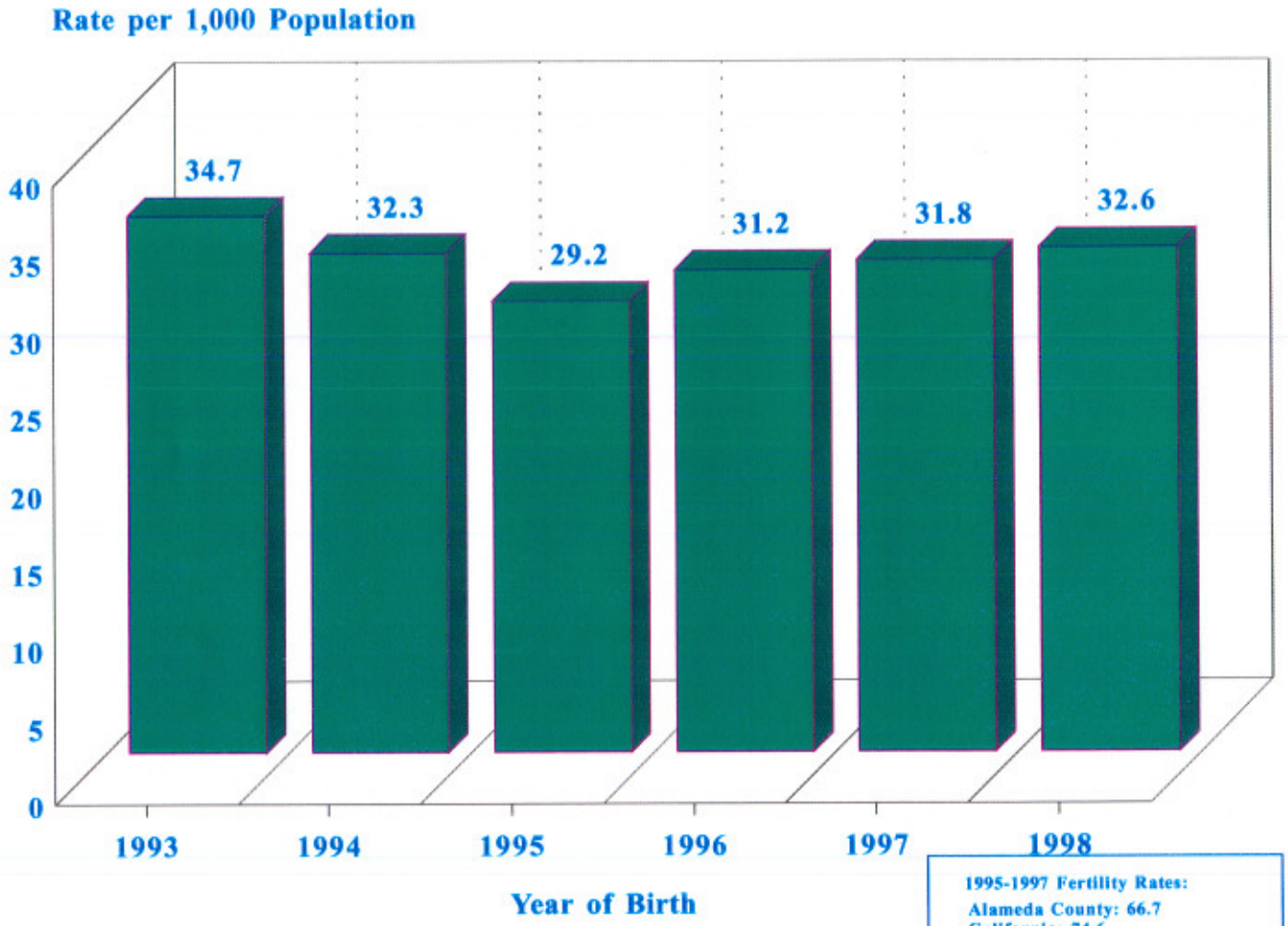


*1998 Data is Preliminary.

N=1,017

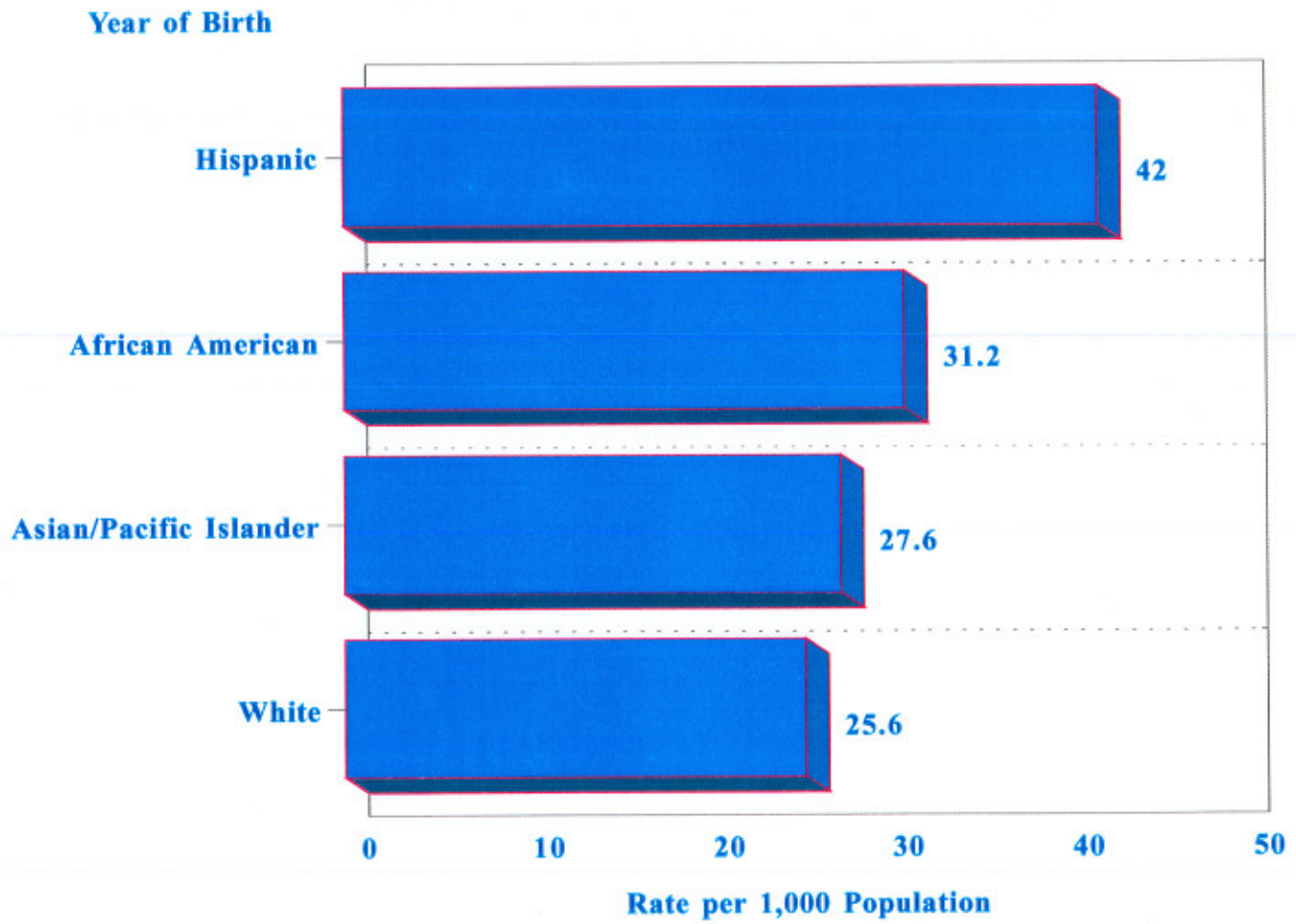
Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Birth Records

General Fertility Rate, Females 15 to 44 Years of Age
City of Berkeley, 1993 - 1998



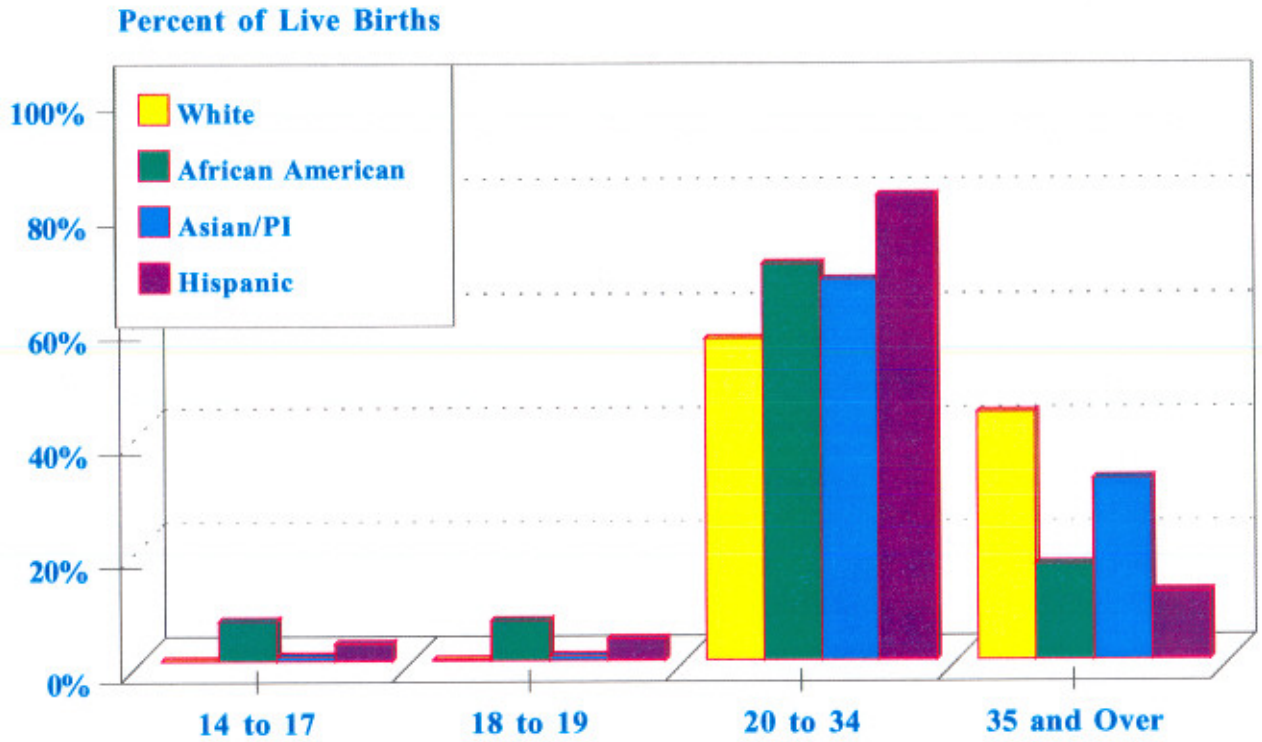
Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Birth Records

General Fertility Rate, Females 15 to 44 Years by Race/Ethnicity
City of Berkeley, 1997



Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Birth Records

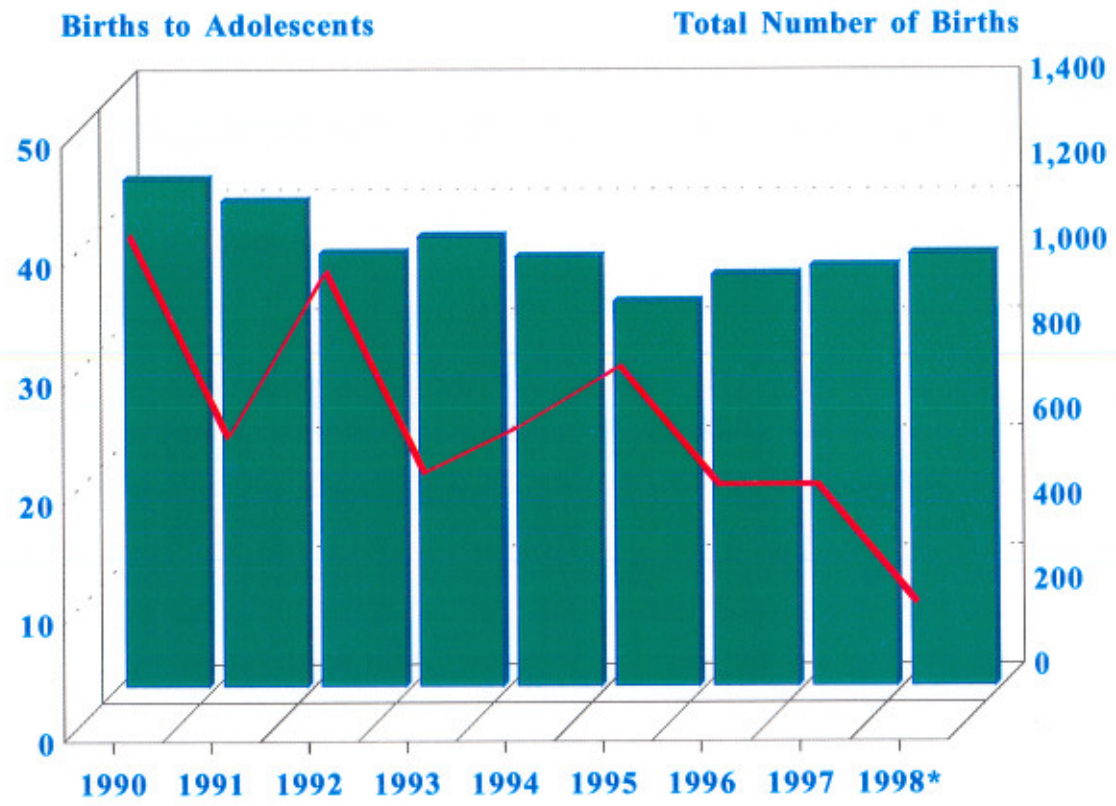
Proportion of Live Births by Mother's Age and Race/Ethnicity
City of Berkeley, 1997



White	0%	0.2%	56.4%	43.4%
African American	7%	7%	69.4%	16.7%
Asian/PI	0.8%	0.8%	66.7%	31.7%
Hispanic	3%	3.7%	81.3%	11.9%

Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Birth Records

Total Number of Births and Births to Adolescents Under 18 Years
City of Berkeley, 1990 - 1998

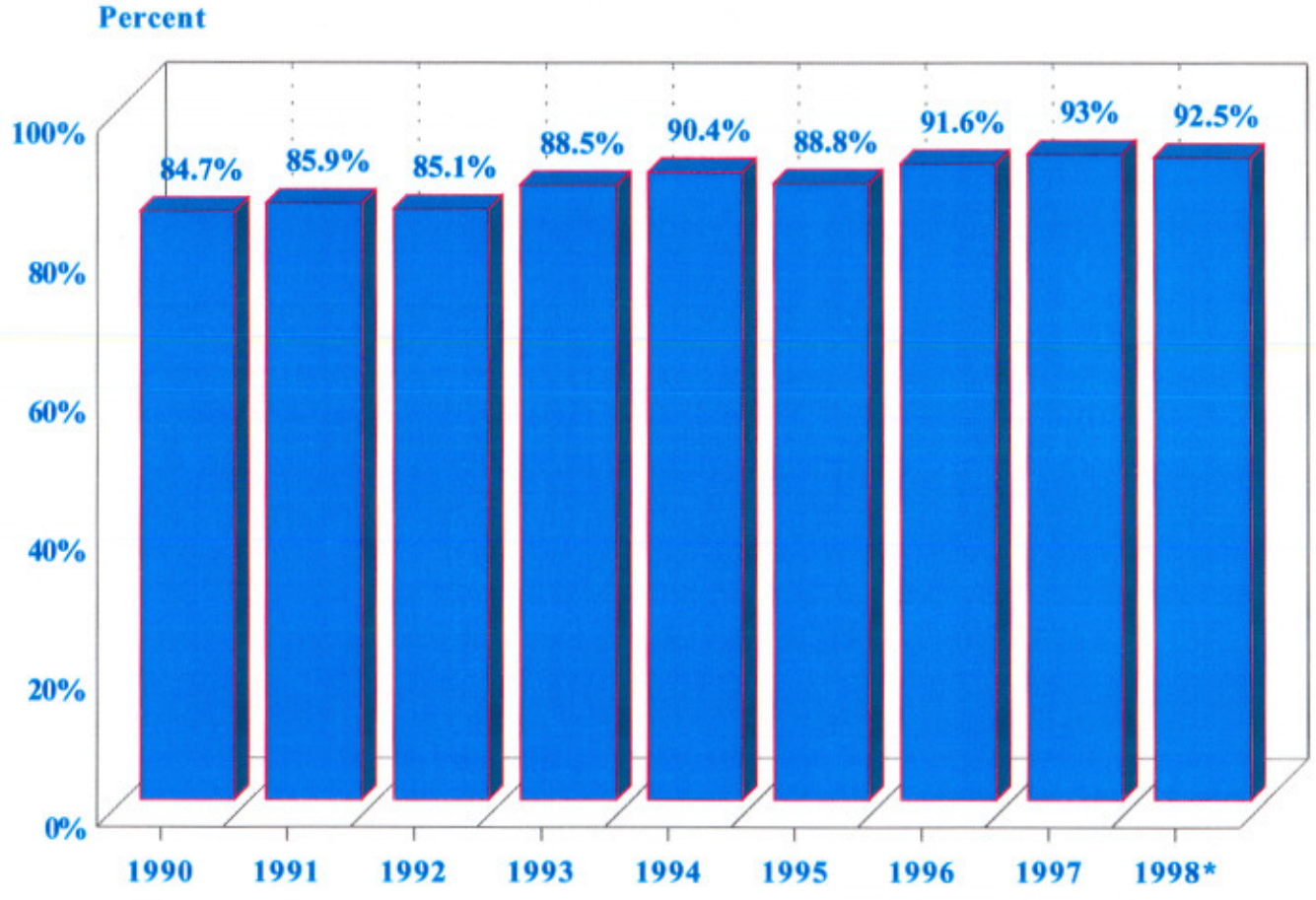


	1990	1991	1992	1993	1994	1995	1996	1997	1998*
Births to Adolescents	41	24	38	21	25	30	20	20	10
Total Births	1,193	1,142	1,020	1,058	1,010	905	969	988	1,017

*1998 data is preliminary

Source: City of Berkeley Vital Statistics Unit, Epidemiology and Health Statistics, Birth Records.

Adequacy of Prenatal Care by Kessner Index
City of Berkeley, 1990 - 1998

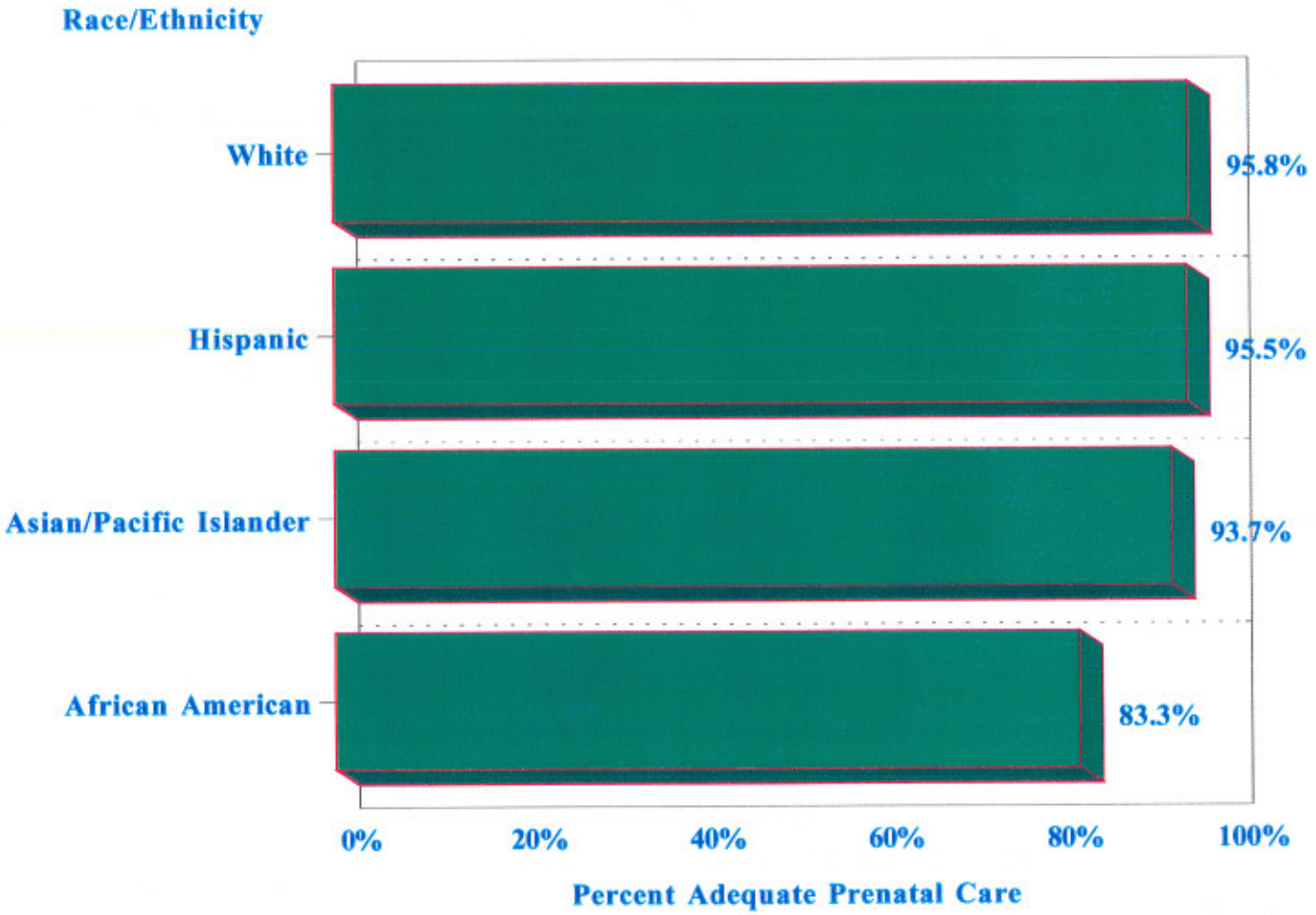


* 1998 data is preliminary.

Kessner Index: Measures the adequacy of prenatal care by combining the month prenatal care begins and the number of visits, adjusting for length of gestation.

Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Bith Records.

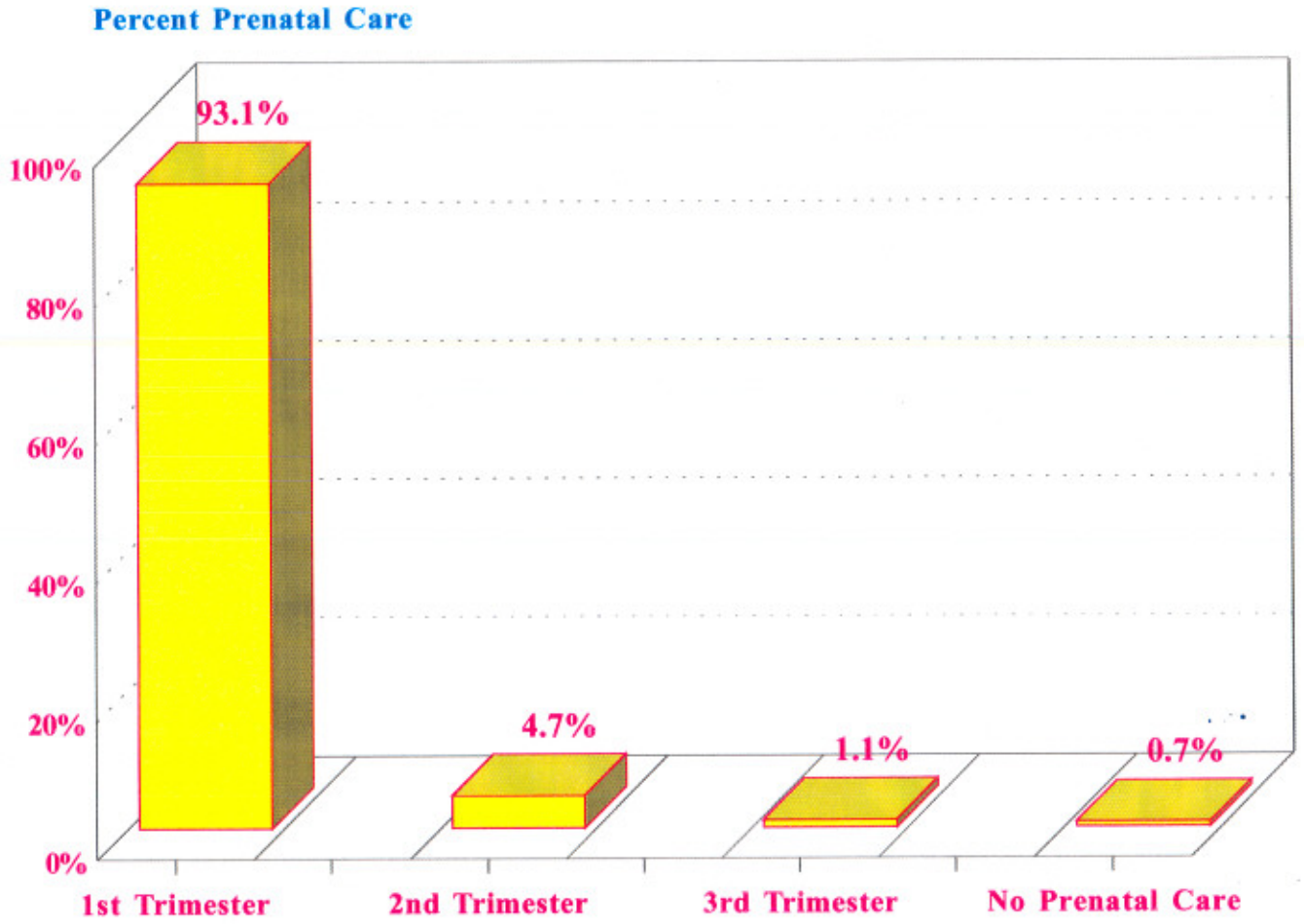
Percentage of Adequate Prenatal Care (Kessner Index) by Race/Ethnicity
City of Berkeley, 1997



Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Bith Records

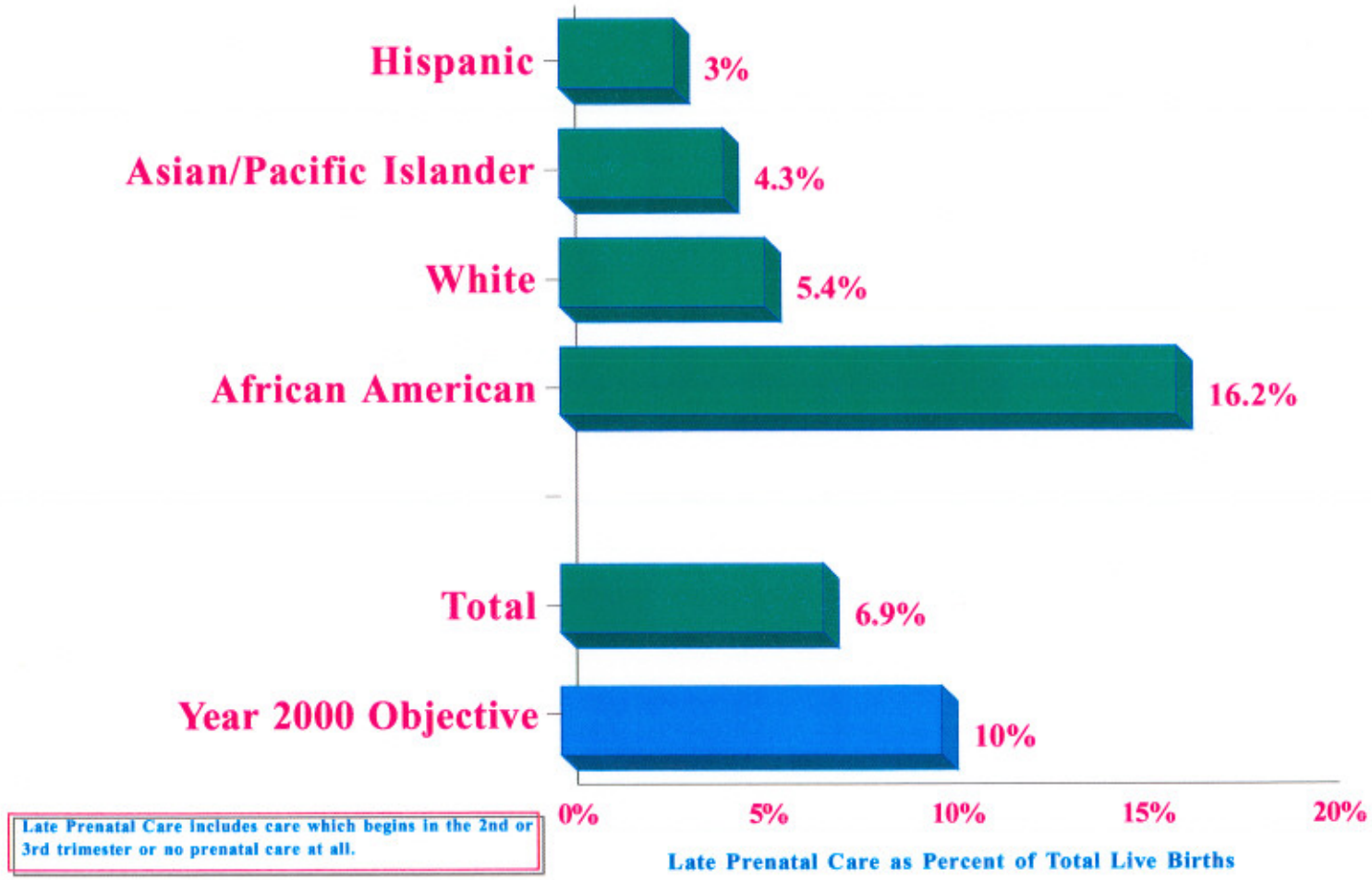
Kessner Index: Measures the adequacy of prenatal care by combining the month prenatal care begins and the number of visits, adjusting for length of gestation.

Trimester Prenatal Care Began
City of Berkeley, 1998



Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Birth Records

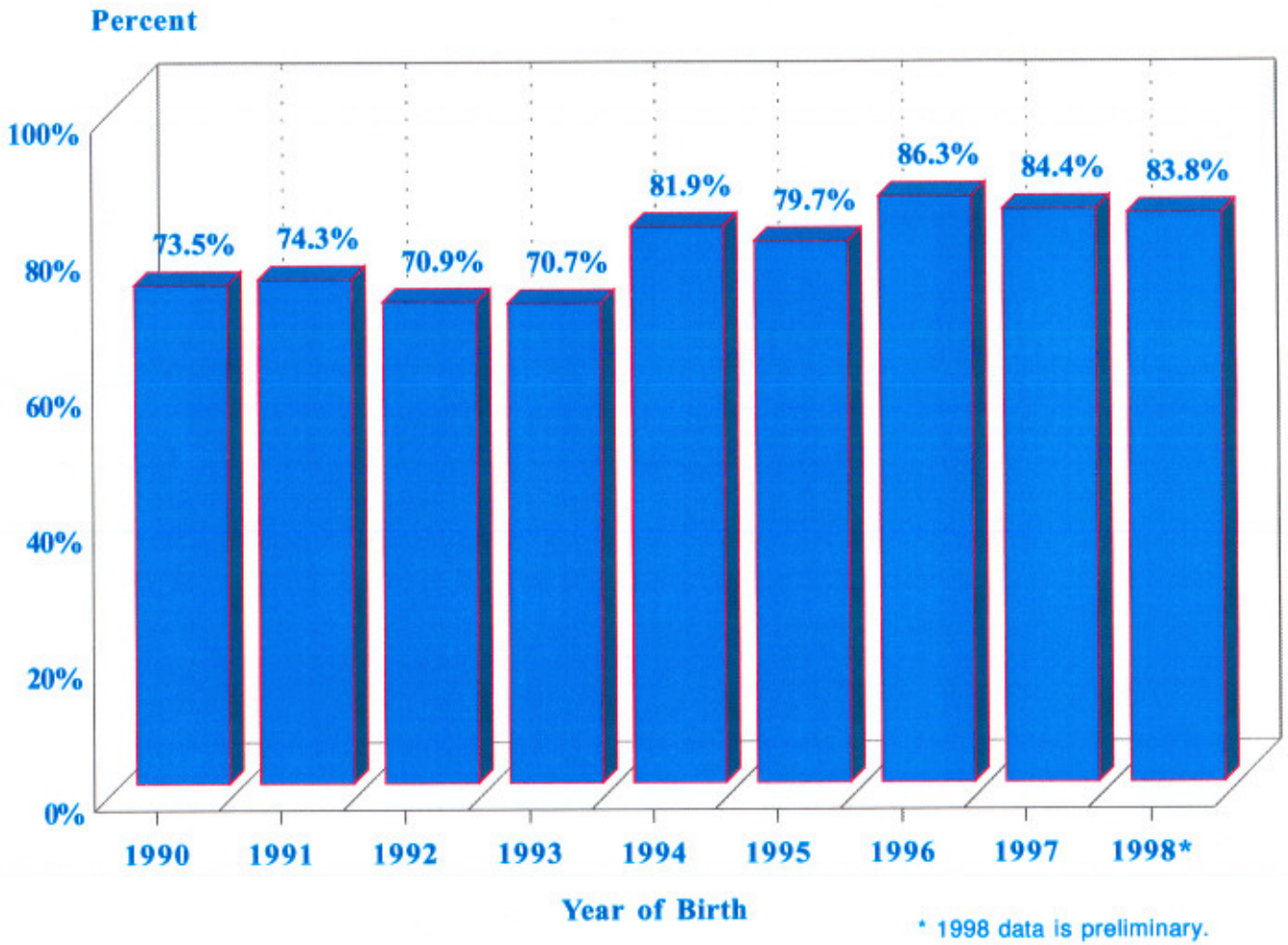
Late Prenatal Care by Race/Ethnicity
City of Berkeley, 1998



Late Prenatal Care includes care which begins in the 2nd or 3rd trimester or no prenatal care at all.

Source: City of Berkeley Vital Statistics Unit, Epidemiolgy Section, Birth Records

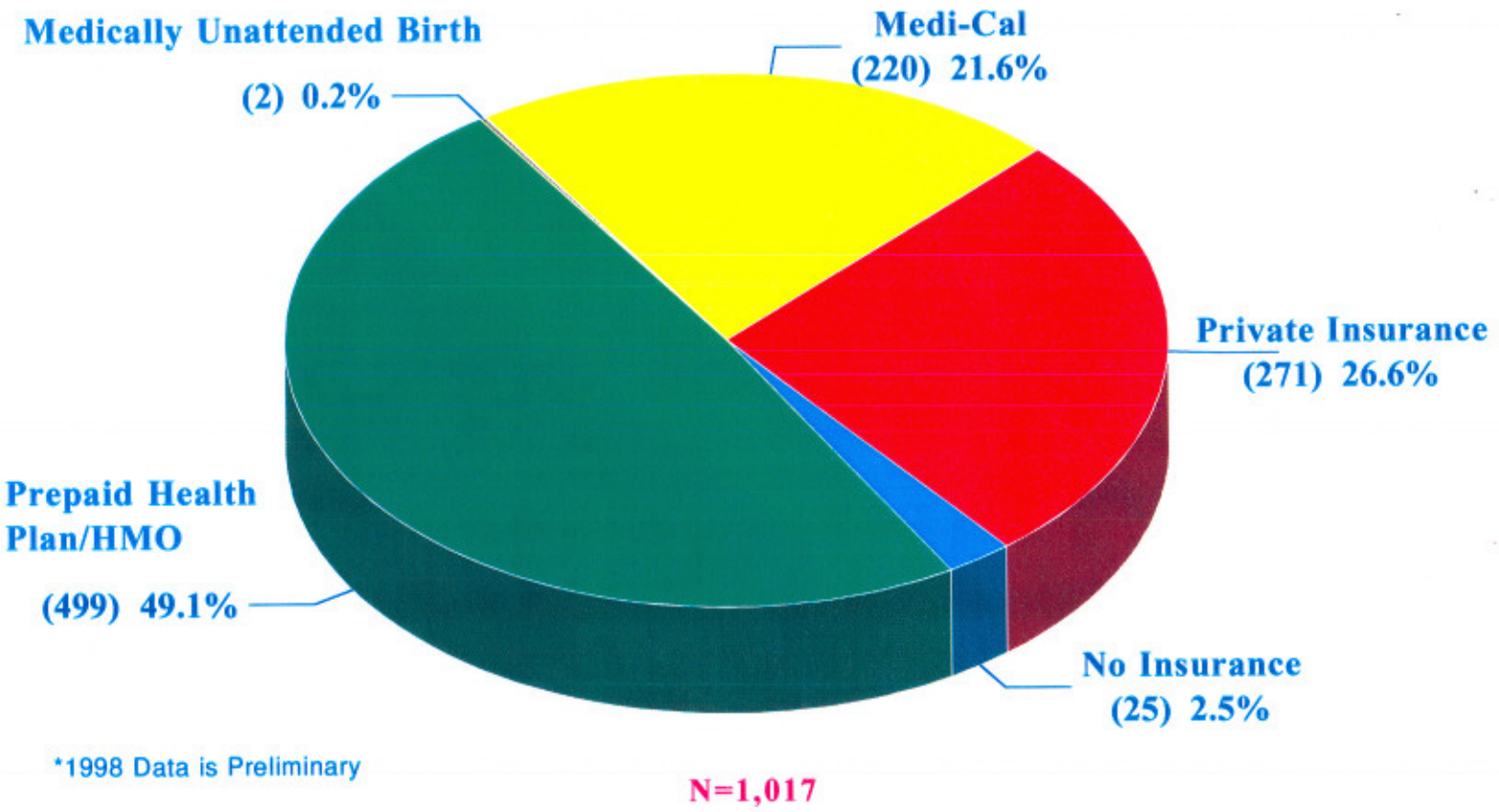
Prenatal Care in the First Trimester of Pregnancy for African American Women
City of Berkeley, 1990 - 1998



* 1998 data is preliminary.

Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Birth Records

Principal Source of Payment for Delivery
City of Berkeley, 1998

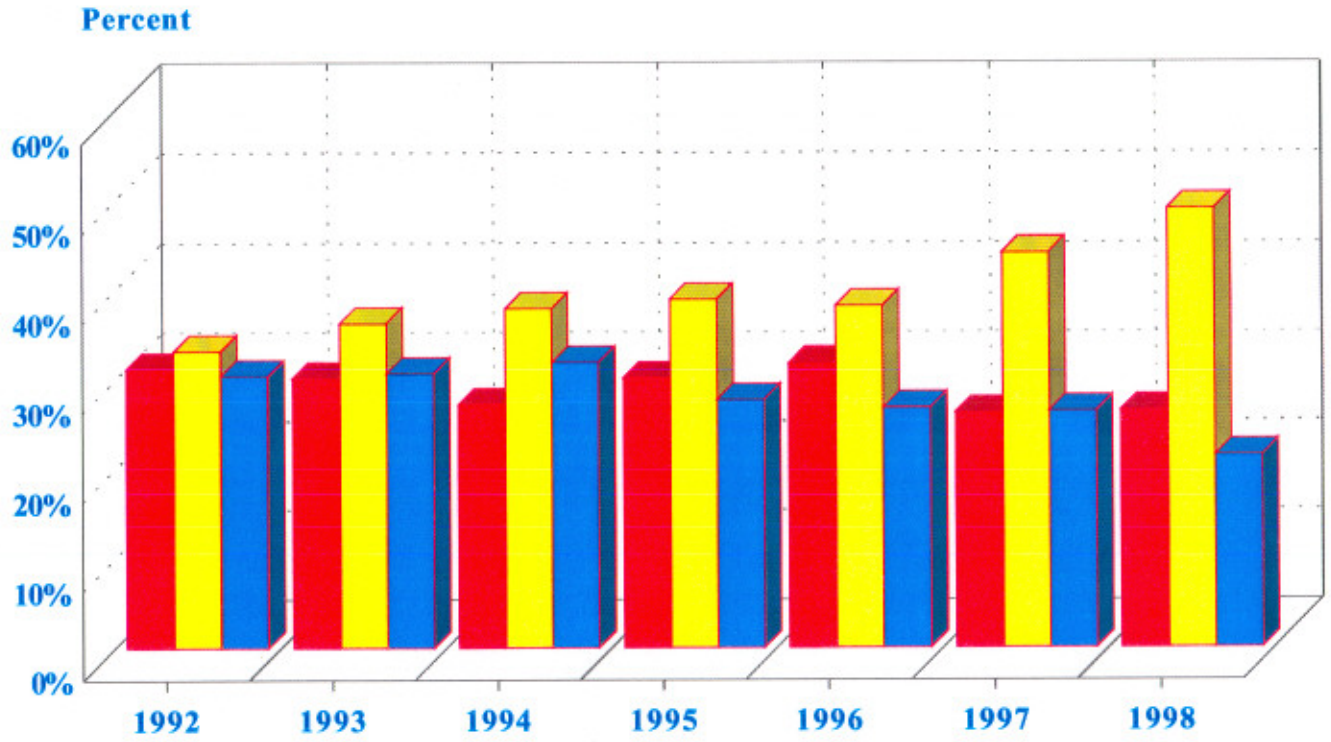


*1998 Data is Preliminary

N=1,017

Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Birth Records

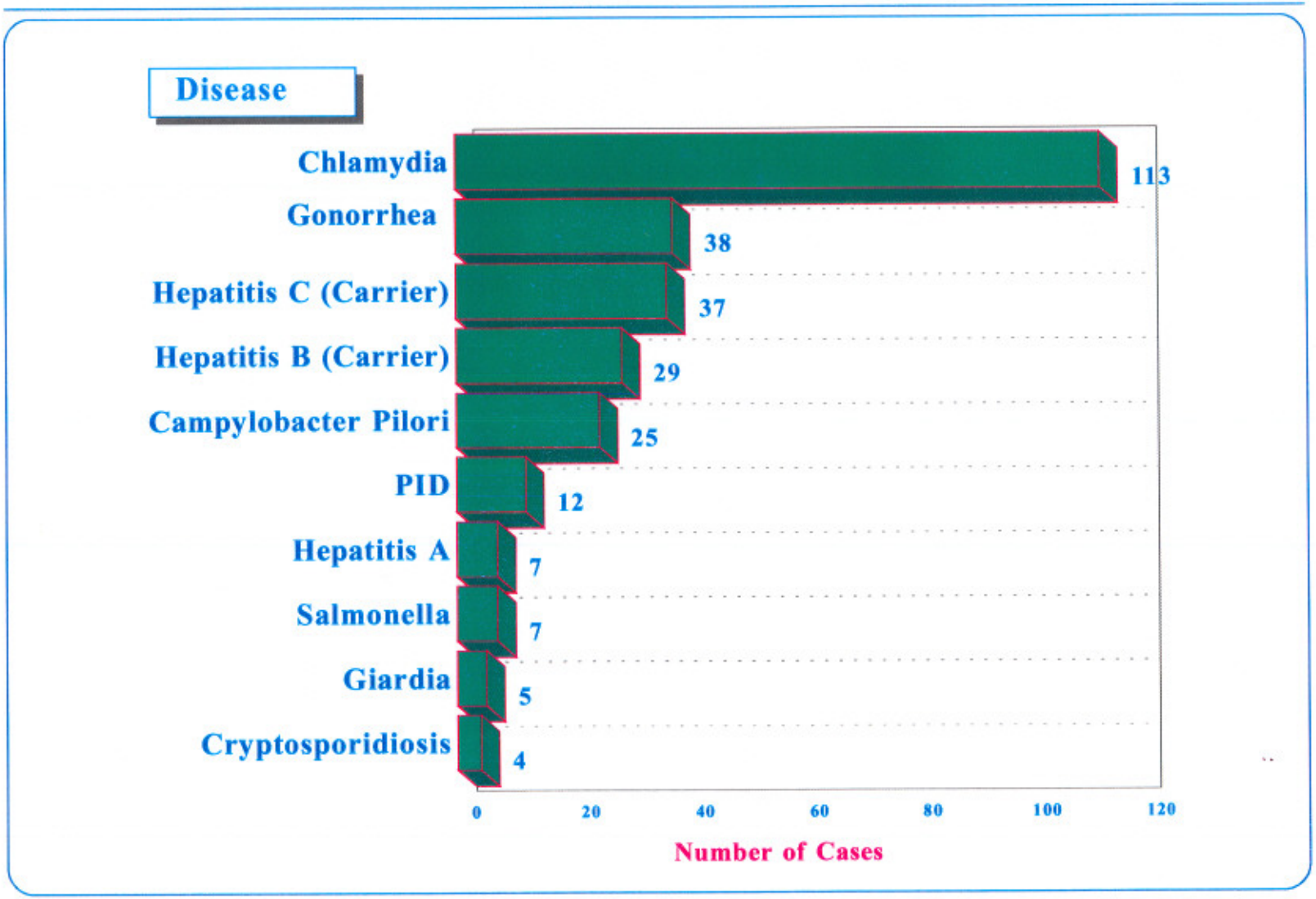
Source of Payment for Delivery by Year
City of Berkeley, 1992 - 1998



	1992	1993	1994	1995	1996	1997	1998
Private	31.3%	30.2%	27.3%	30.2%	31.9%	26.3%	26.6%
Pre-Paid	33.3%	36.4%	38%	39%	38.3%	44.2%	49.1%
Medi-Cal	30.5%	30.8%	32%	27.8%	26.9%	26.5%	21.5%

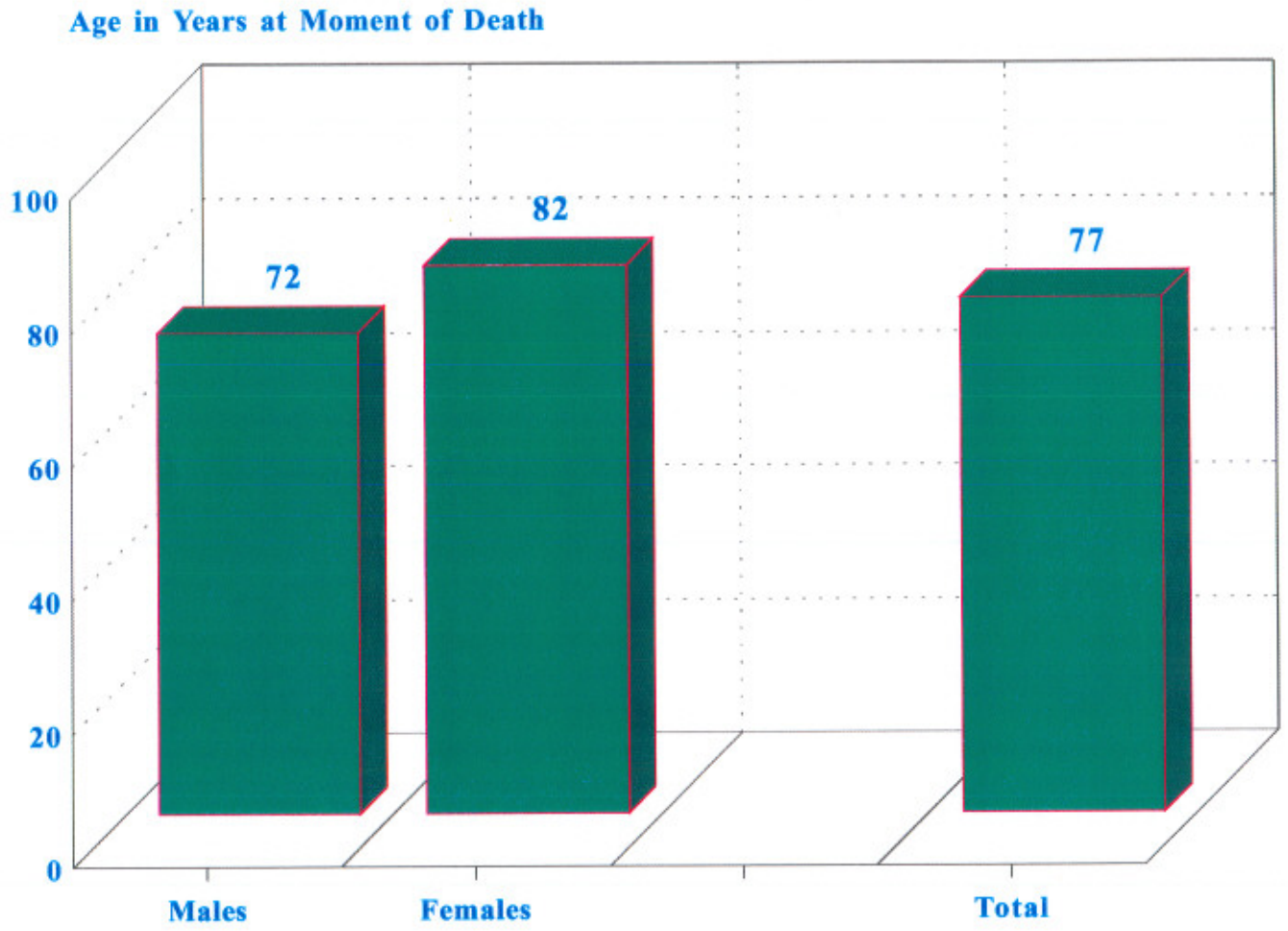
Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Birth Records

Top Ten Communicable Diseases Reported Among Females
City of Berkeley, 1998



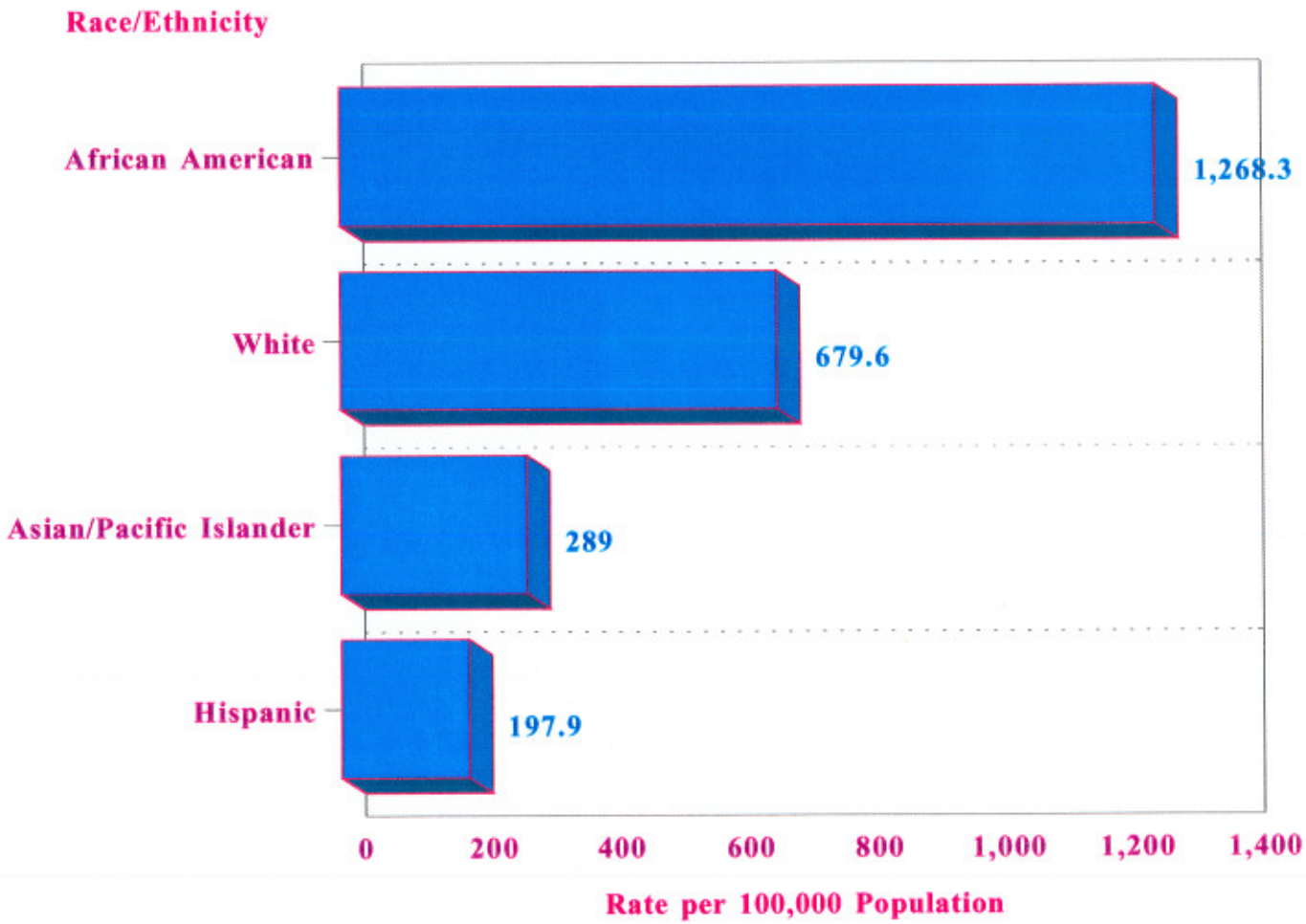
Source: City of Berkeley Vital Statistics Unit, Epidemiolgy Section, Morbidity Records

Average Number of Years of Life
City of Berkeley, 1997



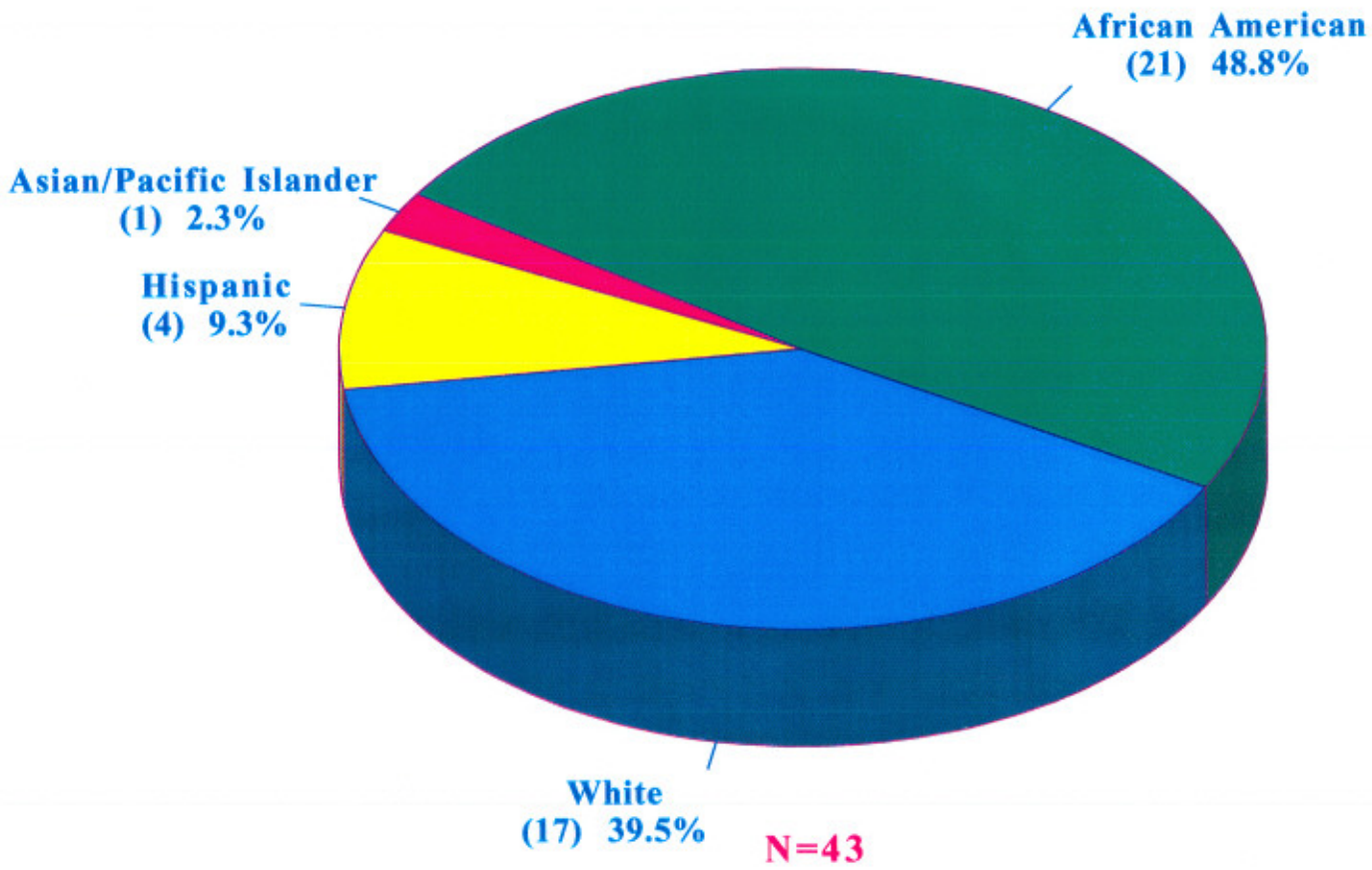
Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Mortality Records

Crude Mortality Rate For Females by Race/Ethnicity
City of Berkeley, 1997



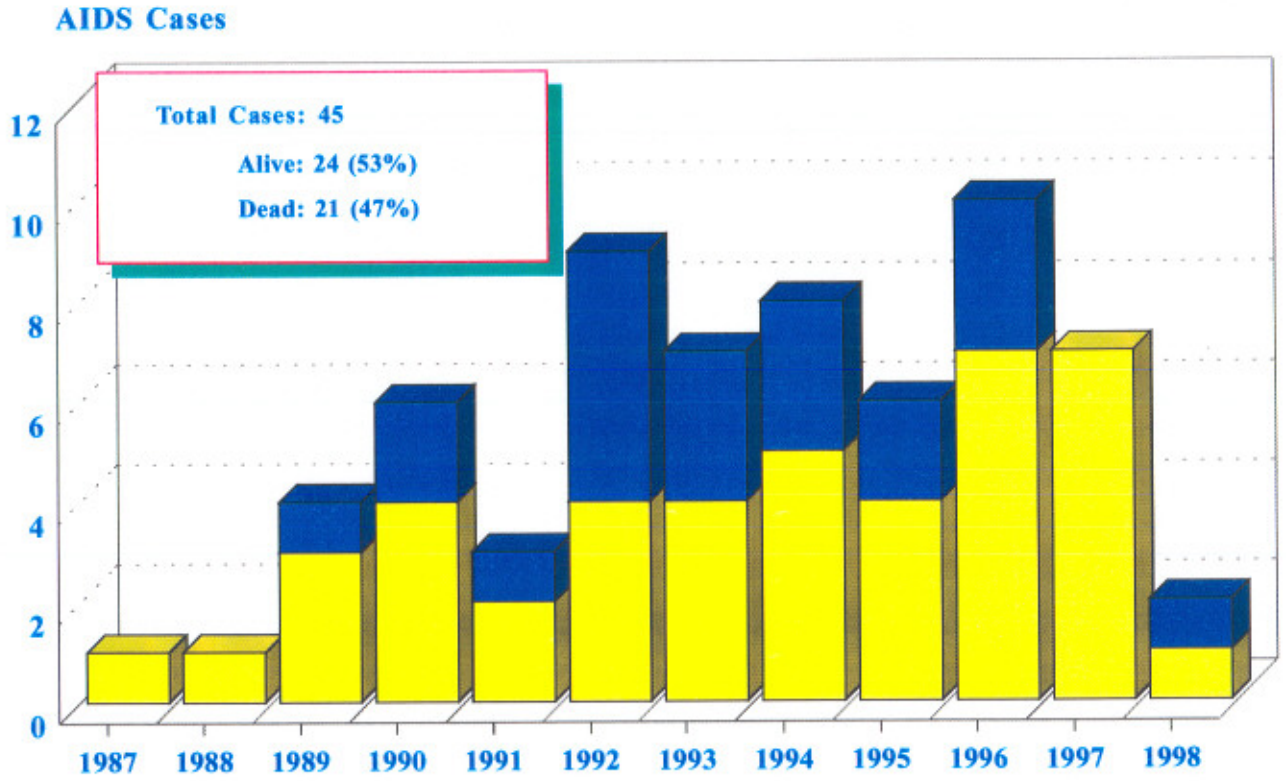
Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Mortality Records

Cumulative AIDS Cases Among Females by Race/Ethnicity
City of Berkeley, 1983-1998



Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, AIDS Registry

AIDS Cases Among Females by Vital Status
City of Berkeley, 1987 - 1998

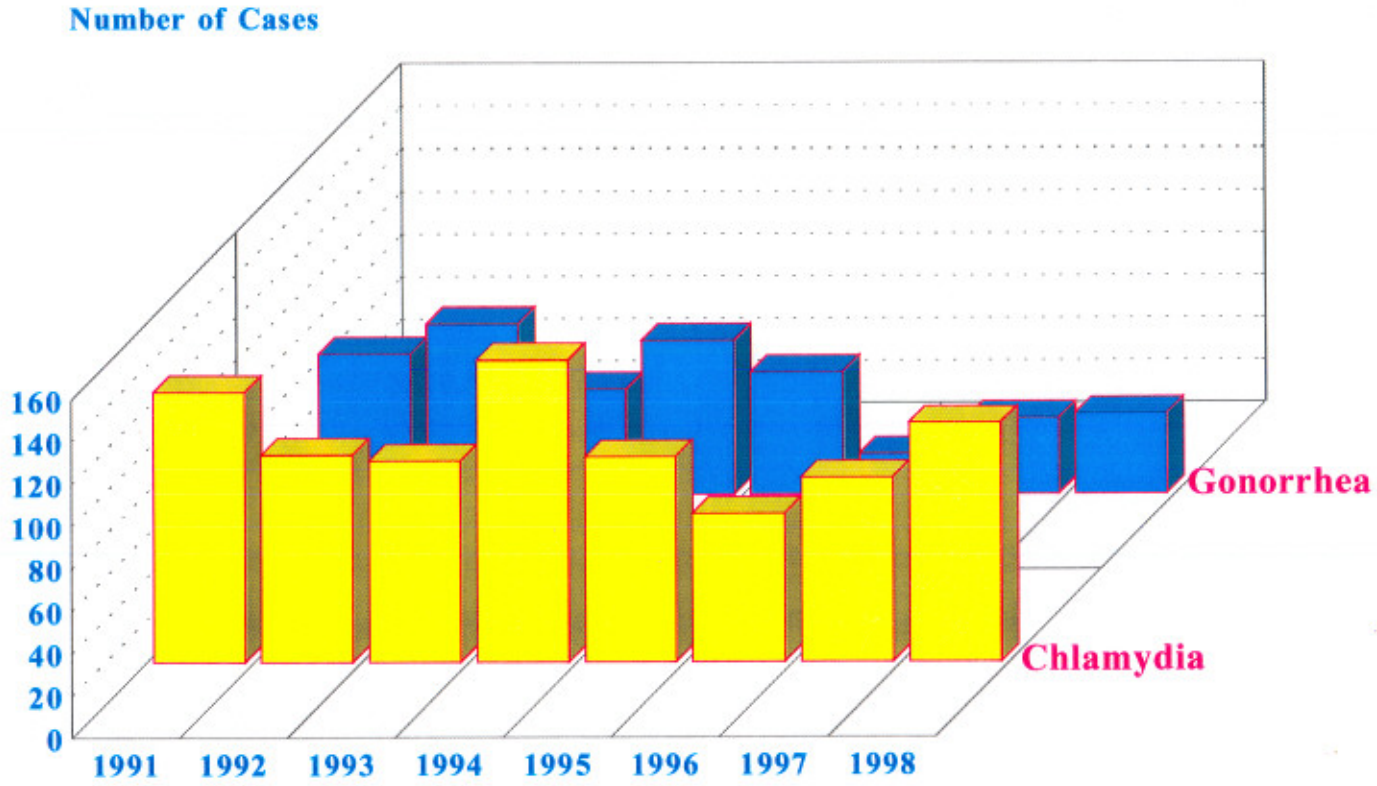


	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Deaths			1	2	1	5	3	3	2	3	0	1
AIDS Cases	1	1	3	4	2	4	4	5	4	7	7	1

Year of Diagnosis

Source: City of Berkeley Health and Human Services Department, Division of Public Health, Vital Statistics Division; AIDS Registry.

Chlamydia and Gonorrhea Cases Among Females by Year of Report
City of Berkeley, 1991 - 1998

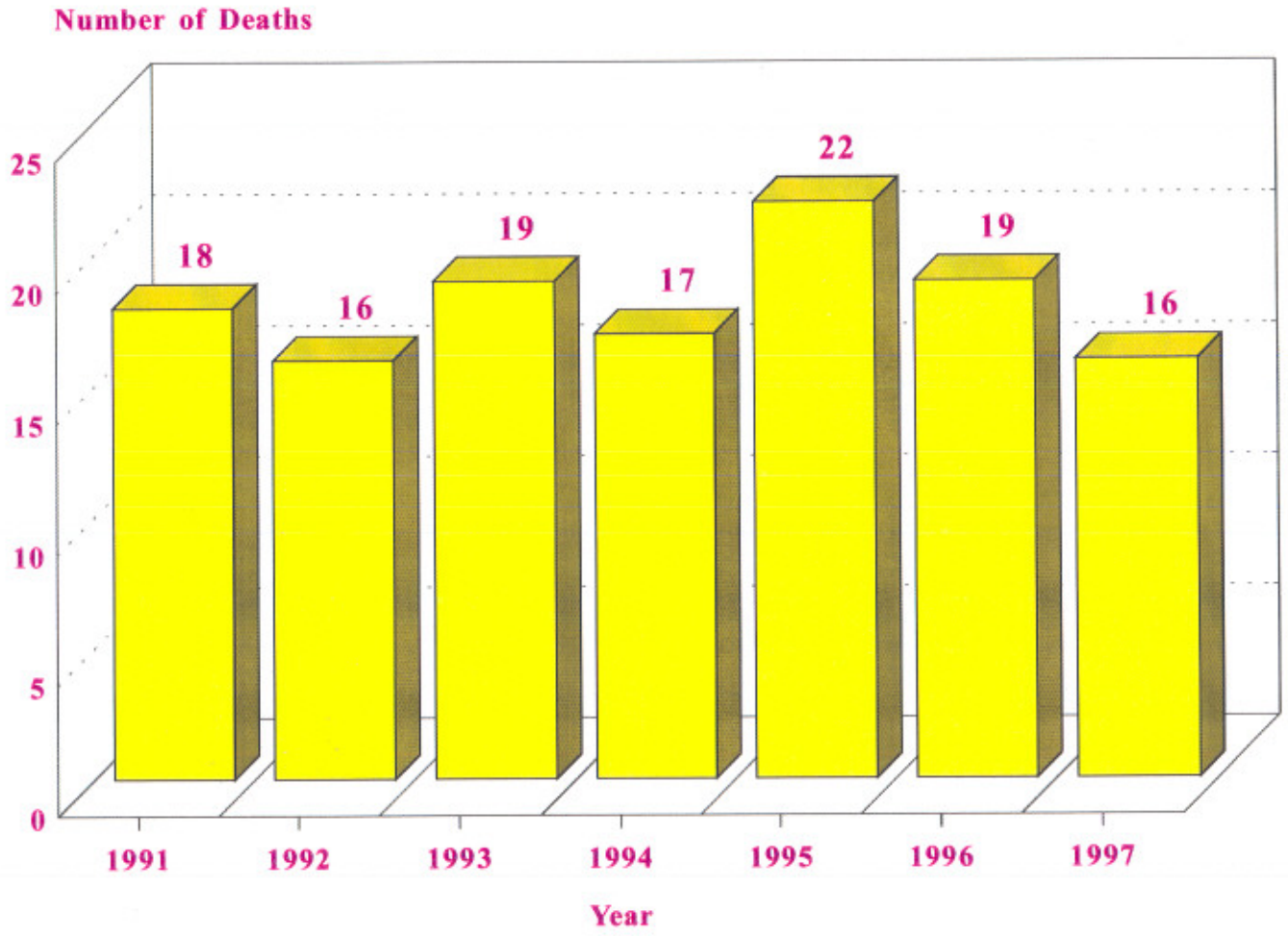


	1991	1992	1993	1994	1995	1996	1997	1998
Gonorrhea	67	81	50	73	58	19	36	38
Chlamydia	128	98	95	143	97	70	87	113

Year of Report

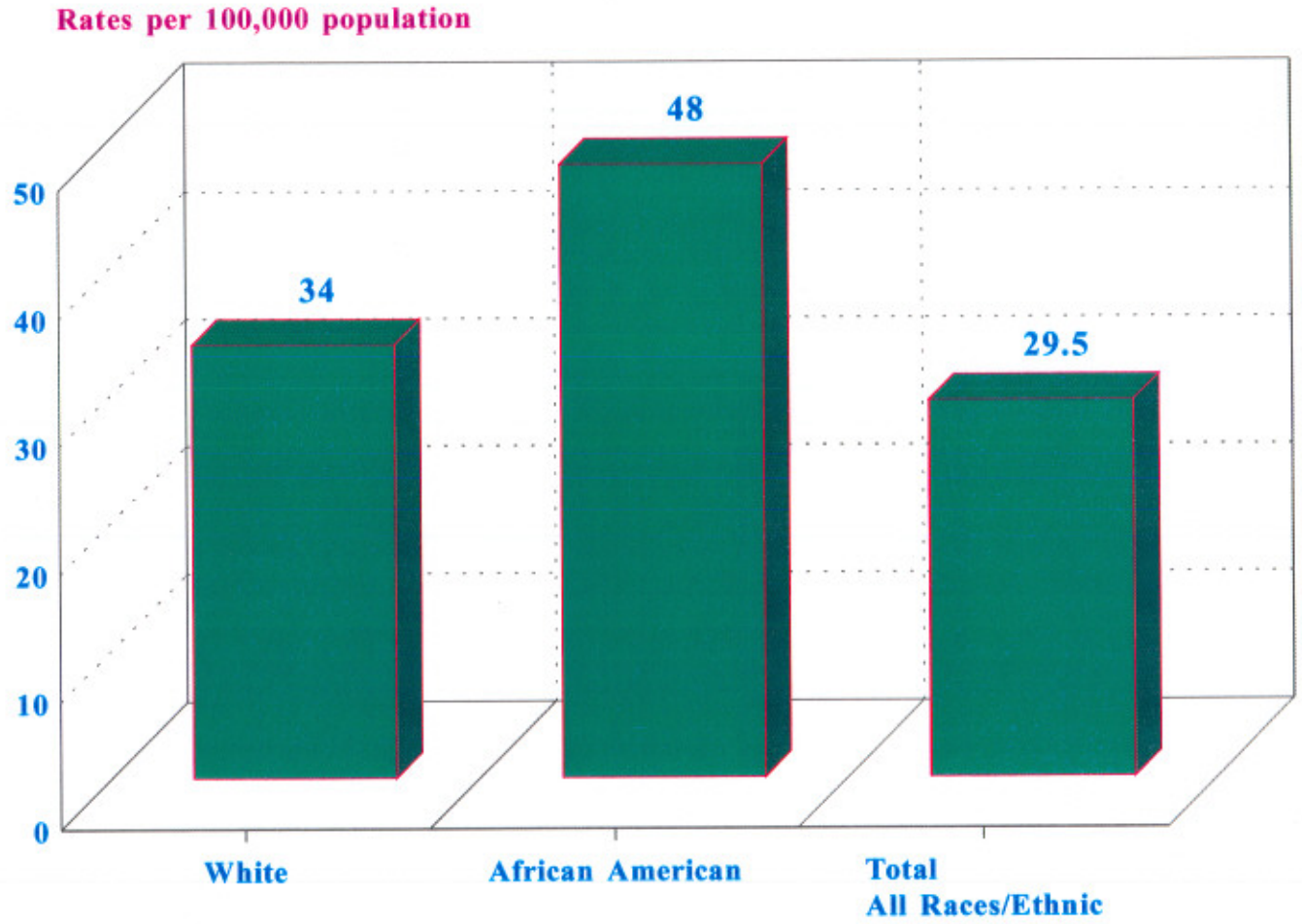
Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Morbidity Records

Female Breast Cancer Deaths by Year
City of Berkeley, 1991-1997



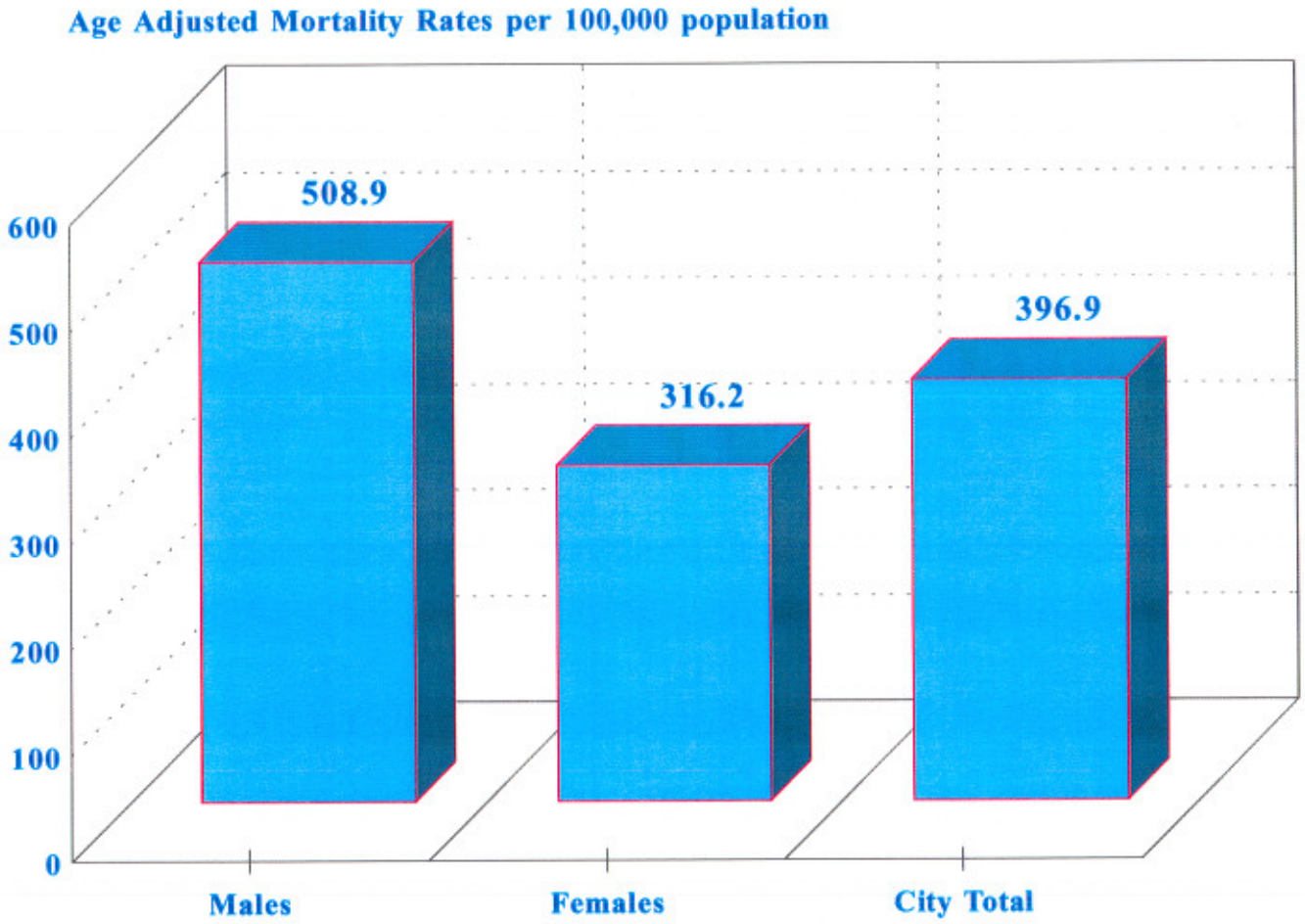
Source: City of Berkeley Vital Statistics Unit, epidemiology Section, Mortality Records

Crude Mortality Rate for Female Breast Cancer by Race/Ethnicity
City of Berkeley, 1997



Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Mortality Records

Age Adjusted Mortality Rate (Deaths Due to all Causes) by Gender
City of Berkeley, 1997



Rates are age-adjusted using the 1940 US standard population.

Source: City of Berkeley Health and Human Services Department, Division of Public Health, Vital Statistics Unit; Mortality Records.

CITY OF BERKELEY SERVICES AND PROGRAMS
DISTRICT PUBLIC HEALTH NURSING CASE MANAGEMENT

The City of Berkeley public health nurses provide traditional district case management that offers coordination of a continuum of care for the families they serve. Referrals come from the Nurse of the Day (Advice Nurse), physicians, managed care plans, other Berkeley public health programs, city and county agencies, hospitals. Some referrals come directly to the nurse from members of her/his district. The public health nurses offer nursing assessments that are family focused and evaluate the family's strengths. Assistance is provided to families in prioritizing their health needs and nurses advocate as needed to help them obtain health care and services. Because of their district involvement, shelters, meal sites, child care centers, and individual care providers are known by the district nurse as well as schools, clinics, churches, and businesses that can offer support to families.

WALK THE WALK COMMUNITY OUTREACH PROGRAM

The "Walk the Walk" program, initiated in November, 1997 is a community outreach program designed to engage West and South Berkeley residents in active participation concerning their health, their families, their neighborhoods and their communities.

Every week Community Health Workers from the Public Health Department walk South and West Berkeley neighborhoods knocking on doors, returning to the same blocks two to three times a year. They listen and write down resident concerns and ask about their health needs. Written health education information is also given with an explanation and an opportunity to talk about the content. Finally referrals are made to services such as senior nutrition programs, tobacco cessation, childcare, domestic violence services, etc. Through this program the community provides input on health issues and the Department responds to community driven concerns.

CHAPTER 8

ADOLESCENT HEALTH

HIGHLIGHTS

- In the past 3 years, the birth rate for 15-17 year olds has dropped 60% from over 22 births per 1,000 in 1994 and 1995 to 8.8 births per 1,000 in 1998.
- Chlamydia case rates have doubled over the past two years for females ages 15-19 from 511 in 1996 to 1,029 in 1998.
- Almost 80% of 500 Berkeley High School and Continuation High School students surveyed said it was fairly or very easy to buy tobacco at Berkeley stores.

ADOLESCENT HEALTH

Adolescent health issues have many unique attributes due to the transition from childhood to adulthood. Many health problems of adolescents are the result of preventable behaviors such as alcohol and other drug use, failure to wear seatbelts, unprotected sex and exposure to violence. In addition, behaviors established during adolescence such as tobacco use, physical inactivity and unhealthy diet choices contribute to heart disease, cancer, obesity and stroke in later years. While individual behaviors impact adolescent health, equally important are the environmental and social factors that influence those behaviors as evidenced by the power of tobacco advertising, media violence and gun availability.

DATA SOURCES AND LIMITATIONS

A major problem with data collection and analysis for adolescent indicators is the lack of standardized age increments. Current adolescent age categories range from 10 through 25 years old with data groupings that vary from ages 15-19, 15-17 and 12-21. In addition, since most of the data sources used in this report of Berkeley health do not specifically measure adolescent behaviors or adolescent health concerns, information specific to this age group is limited.

BIRTH RATE

Pregnancy and childbearing among adolescents have adverse health and socioeconomic consequences for both the parents and their children. Adolescent mothers are more likely to drop-out of high school, live in poverty, receive inadequate prenatal care and experience labor and delivery complications. Babies born to young mothers are at an increased risk of low birth weight, preterm birth and newborn anemia.[16]

The city of Berkeley continues to be successful in its campaign to lower the birth rate among adolescent females ages 15-19 years of age. Since 1994, Berkeley has had the lowest rate of any health jurisdiction in California with decreasing rates each year, primarily due to comprehensive teen services available on site at the Health and Human Services Department's Berkeley High School Health Center. Preliminary 1998 data shows a rate of 7.2 births per 1,000 population, far below the Healthy People 2000 Objective of 50 per 1,000. In the past 3 years, the rate for 15-17 year olds has dropped 60% from over 22 births per 1,000 in 1994 and 1995 to 8.8 births per 1,000 in 1998. This remarkable success is a tribute to the quality of services we, as a community, offer to our most vulnerable adolescents. Despite these gains, we need to continue this focus on young adolescents in pregnancy prevention programs and services in order to maintain these rates.

[16] National Center for Health Statistics, U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention

COMMUNICABLE DISEASES

Communicable diseases reported for adolescents ages 13-19 in Berkeley continue to be dominated by sexually transmitted diseases (STDs). As noted in the STD section of this report, chlamydia case rates have doubled over the past two years for females ages 15-19 from 511 reported cases in 1996 to 1,029 reported cases in 1998.

Other significant diseases among teens included Campylobacter and Hepatitis B. Since this is the first year that communicable diseases have been analyzed specific to adolescents, no comparison data is available indicating increases or decreases.

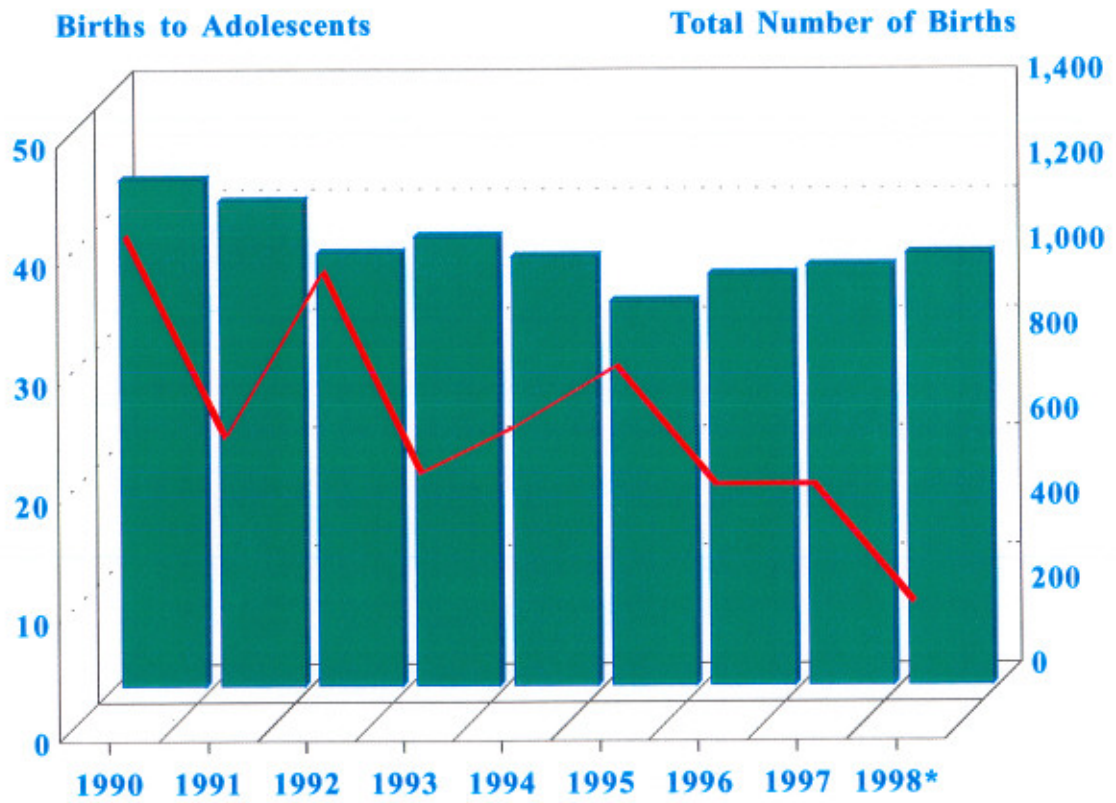
While low in numbers compared to STDs, the 5 cases of tuberculosis among teens is also significant since this is not a recognized group at risk for tuberculosis.

Finally, AIDS does not appear on the list of the top ten communicable diseases among adolescents. This is partially due to the delay in the progression from HIV infection to AIDS and the fact that Berkeley has had no reported pediatric cases of AIDS which reflects no transmission of HIV perinatally. However, the high rates of chlamydia and gonorrhea indicate significant levels of unprotected sex among teens. Thus risk for AIDS remains a potential health problem for young people.

TOBACCO USE

Tobacco use has significant health consequences for both adolescents and adults. While available data for Berkeley youth is limited, the Berkeley Tobacco Prevention Program conducted a tobacco access survey of over 500 youth in June, 1998 at Berkeley High School and the Alternative High School. This data indicated that smoking risks are well known with 82% indicating they thought smoking had great risk and only 1.3% thought there was no risk. However, 30.2% of the youth stated they had smoked a cigarette at some time and 35% reported that they never had. 24% of students surveyed reported smoking during the previous month although the daily smoking rate was only 8%. In addition, almost 80% of the youth said it was fairly or very easy to buy tobacco at Berkeley stores. Since we know that tobacco addiction can be avoided if adolescent exposure to tobacco is eliminated, we need to continue and strengthen the effective programs and ordinances in place that protect our youth.

Total Number of Births and Births to Adolescents Under 18 Years
City of Berkeley, 1990 - 1998

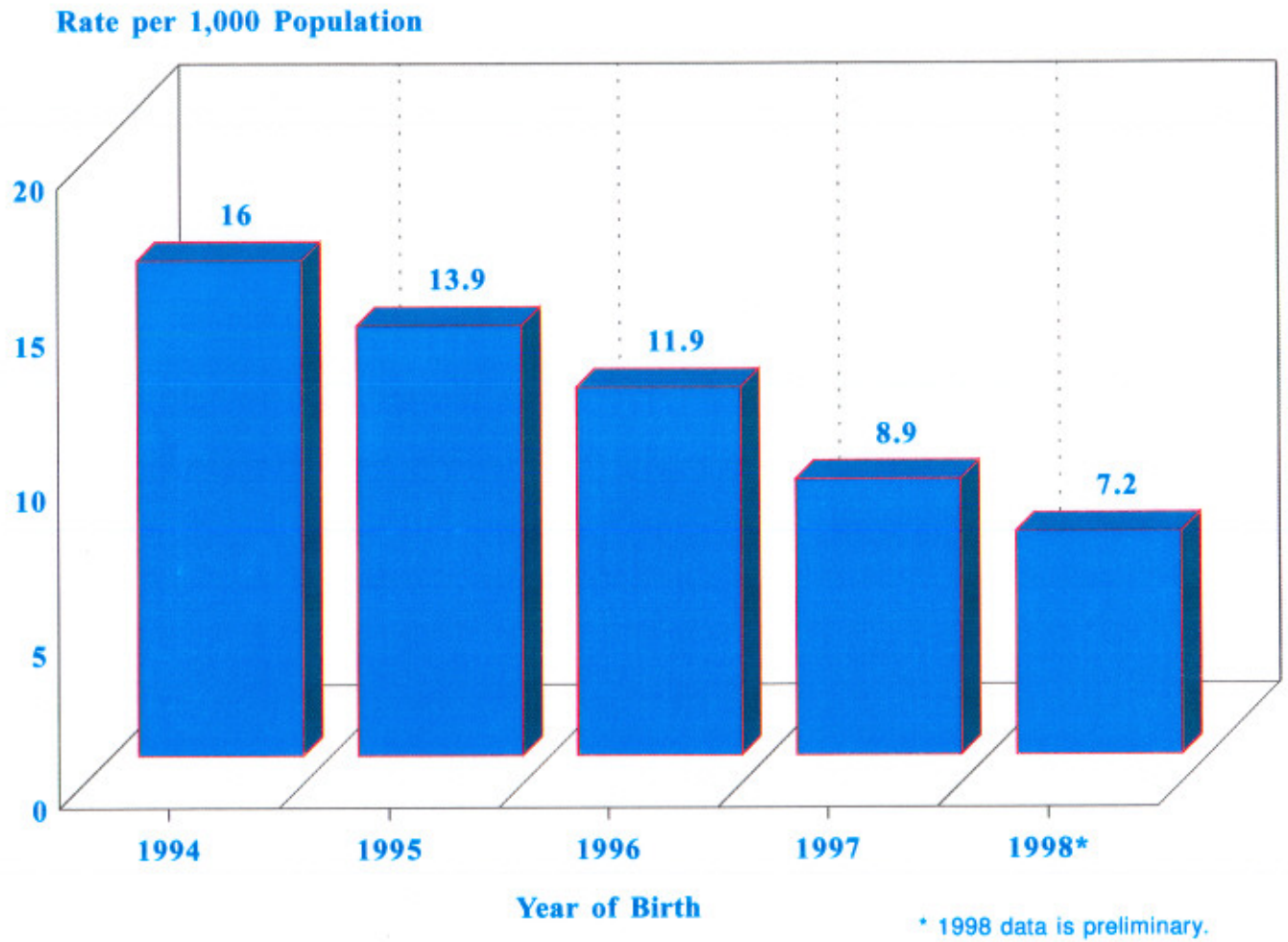


	1990	1991	1992	1993	1994	1995	1996	1997	1998*
Births to Adolescents	41	24	38	21	25	30	20	20	10
Total Births	1,193	1,142	1,020	1,058	1,010	905	969	988	1,017

*1998 data is preliminary

Source: City of Berkeley Vital Statistics Unit, Epidemiology and Health Statistics, Birth Records.

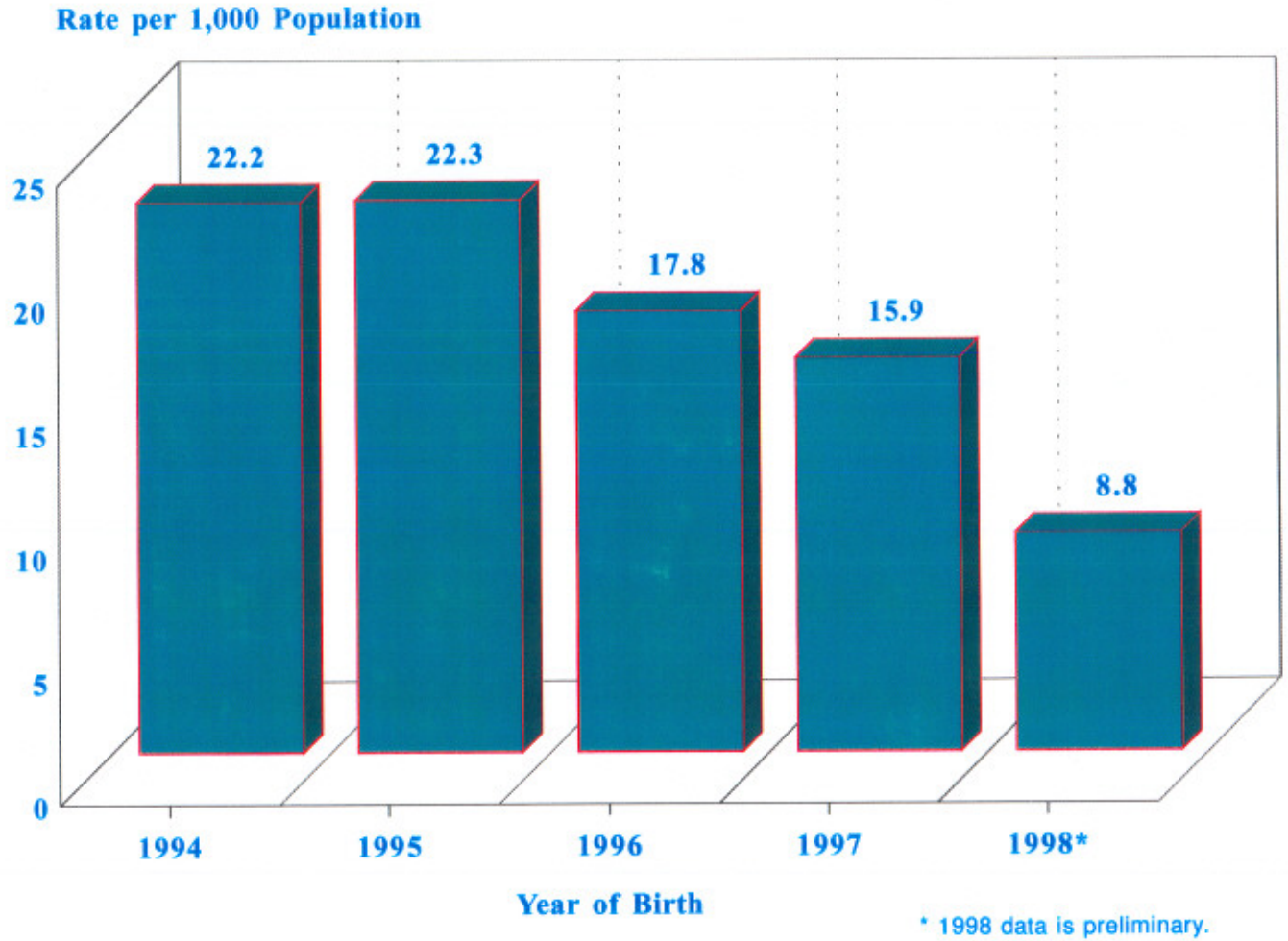
Birth Rate in Adolescents 15 to 19 Years of Age
City of Berkeley, 1994 - 1998



* 1998 data is preliminary.

Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Birth Records

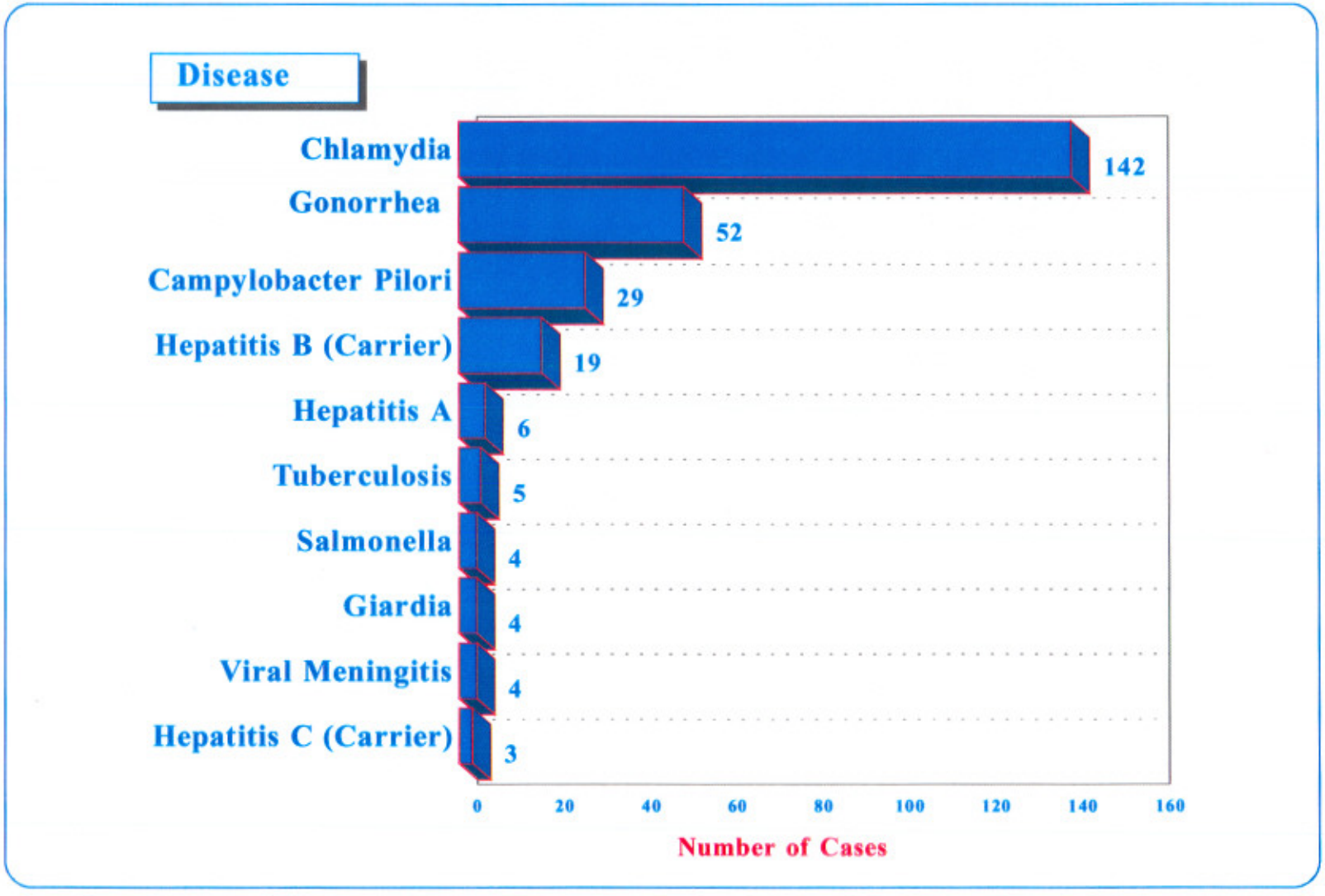
Birth Rate Among Adolescents 15 to 17 Years
City of Berkeley, 1994 - 1998



* 1998 data is preliminary.

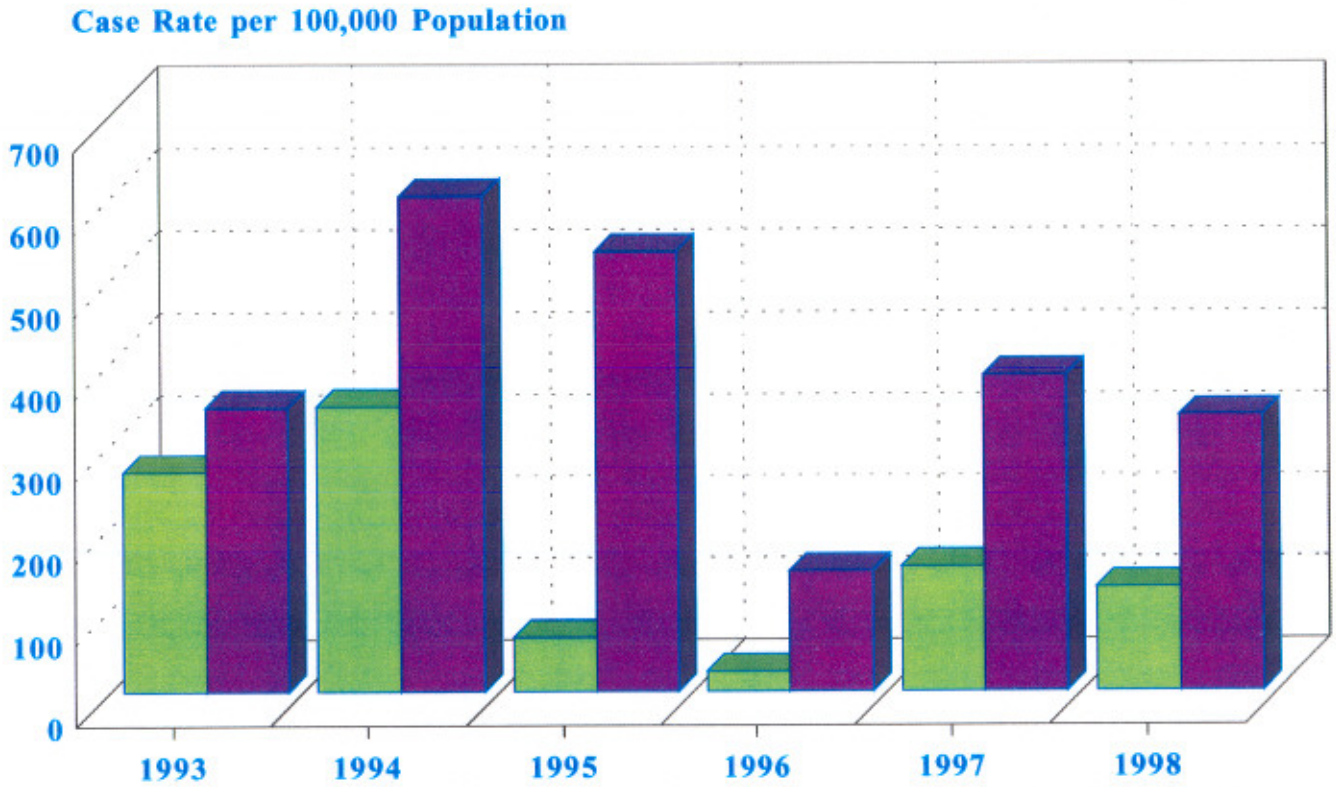
Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Birth Records

Top Ten Communicable Diseases Reported Among Adolescents 13 to 19 Years
City of Berkeley, 1996-1998



Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Morbidity Records

Gonorrhea Case Rate Among Adolescents 15 to 19 Years by Gender
City of Berkeley, 1993 - 1998

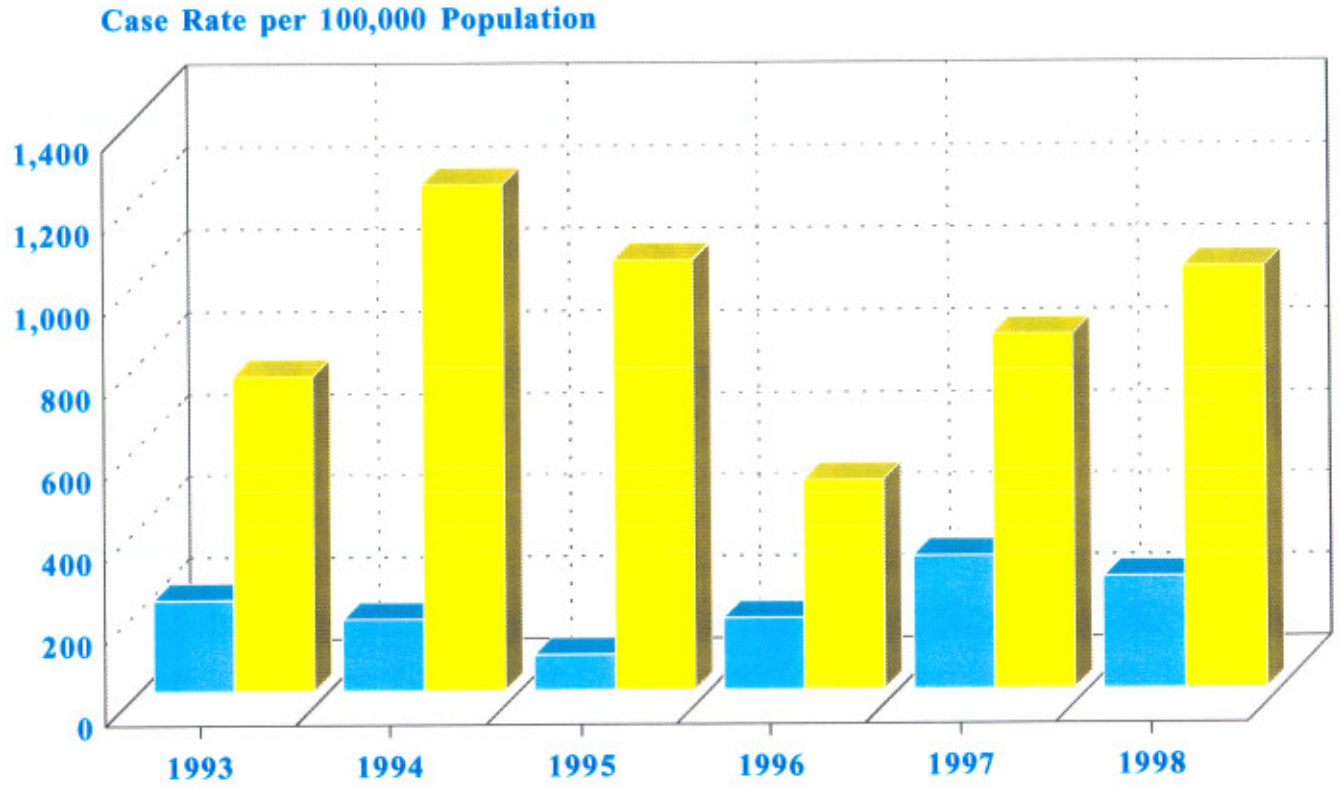


	1993	1994	1995	1996	1997	1998
Males	267.9	348.6	65.8	24.3	151.6	125.9
Females	347	604	536.2	146.2	384.8	335

Year

Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Morbidity Records

Chlamydia Case Rate Among Adolescents 15 to 19 Years of Age by Gender
City of Berkeley, 1993 - 1998



	1993	1994	1995	1996	1997	1998
Males	223.2	174.3	87.8	175.2	324.8	272.9
Females	768	1,233	1,048	510.8	865.8	1,029

Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Morbidity Records

Berkeley High School
Tobacco Access Survey
June 1998

Gender	
Males	*41.2%*
Females	*53.3%*
Race/Ethnicity	
African American	*47.1%*
Latino	*8.4%*
Asian/Pacific Islander	*10.5%*
White	*14.3%*
Other/Multiracial	*19.7%*
Age	
11 to 15 years	*15.4%*
16 to 19 years	*80.6%*
20 to 24 years	*1.6%*
Smoked a Cigarette Within the Last 30 Days	
Yes	*22.0%*
No	*78.0%*
Ever Smoked at least 10 Cigars in Your Life	
Yes	*33.1%*
No	*66.9%*
Perception of Risk of Smoking	
No Risk	*1.3%*
Slight Risk	*2.2%*
Moderate Risk	*9.0%*
Great Risk	*81.6%*
Don't Know	*5.8%*
Ever Bought Tobacco in Berkeley	
Yes	*29.0%*
No	*71.0%*
Difficult or Easy to Buy Tobacco from Store in Berkeley	
Impossible	*3.3%*
Very Difficult	*3.3%*
Fairly Difficult	*13.7%*
Fairly Easy	*45.3%*
Very Easy	*34.4%*

N=255

Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Tobacco Control Program.

CITY OF BERKELEY SERVICES AND PROGRAMS

TOBACCO PREVENTION PROGRAM

The Tobacco Prevention Program has a focus on reducing and preventing tobacco use among Berkeley's youth. The program employs and trains Berkeley High School students and UC Berkeley students to plan and conduct tobacco prevention activities for Berkeley youth and Cal students. Youth and college students engage in activities such as conducting educational visits with Berkeley tobacco merchants, staffing informational booths at community fairs, conducting presentations for younger students in Twilight Basketball and camps programs, for private schools. These youth have been featured in television and documentary interviews, have made presentations at conferences and to the City Council on tobacco issues and have assisted in on-going evaluations of all our programs.

CHAPTER 9

INFANT AND CHILDREN'S HEALTH

HIGHLIGHTS

- In 1998, 8.2% of births to Berkeley resident women were low birth weight (less than 2,500 grams), an increase from 7.5% of births in 1997. This proportion is higher than the Healthy People 2000 Objective of low birth weight births comprising no more than 5% of total births
- For the years 1990-1998, including multiple births, the rate of low birth weight babies for African American women was 14.8%. The comparable rate for Whites was 4.7%.
- The Berkeley childhood immunization rate of 67.1% is higher than the California rate of 63.9% and represents a 14% increase in immunization rates since 1996.
- The immunization rate for Hispanic children in Berkeley improved from 44% in 1996 to 73% in 1999.

INFANT AND CHILDREN'S HEALTH

DATA SOURCES AND LIMITATIONS

INFANT MORTALITY

Infant mortality is one of the most readily calculated and widely used community health indicators. It is expressed as the number of deaths to babies prior to their first birthday per 1,000 live births. However, due to the small number of infant deaths in Berkeley, the rate can be unstable.

The infant mortality rate in Berkeley is lower than that of Alameda County, the state of California and the Healthy People 2000 Objective of 7 infant deaths per 1,000 live births. The infant mortality rate in Berkeley, averaged over a three-year period, was 5 infant deaths per 1,000 live births during 1993-1995 and 6.1 infant deaths per 1,000 live births during the period 1996-1998. Since 1996, the infant mortality rate has decreased steadily from 8.3 infant deaths per 1,000 live births to 3.9 infant deaths per 1,000 live births in 1998. Due to the relatively low number of births in Berkeley, the infant mortality rate is unstable and small changes in the number of infant deaths can alter the rate significantly.

LOW BIRTH WEIGHT INFANTS

In Berkeley, low birth weight is a more telling indicator of overall infant health than infant mortality. A low birth weight (LBW) infant weighs less than 2,500 grams (about 5.5 pounds) at birth. Maternal risk factors for having an LBW infant include either very young or older maternal age, certain behaviors such as smoking or other factors, including chronic high blood pressure, late prenatal care and multiple births. During the period of 1993-1995, there were 213 low birth weight infants born to Berkeley resident women and 219 low birth weight infants during the period of 1996-1998.

The Healthy People 2000 Objective for LBW is no more than 5% of total births. Since 1990, the proportion of low birth weight infants was at its lowest in 1992 in Berkeley at 6.3% of births.

- In 1998, 8.2% of births to Berkeley resident mothers were LBW, up from 7.5% in 1997.
- A three-year average of LBW births during the period 1995-1997 was 6.8%, comparable to the Alameda County average during the same period of 6.9% and higher than the California average of 6.1%.
- The city of Berkeley ranks among the 5 health jurisdictions in the state of California with the highest proportion of LBW infants, slightly behind Alameda County (7%) and tied with San Francisco (6.8%).

LOW BIRTH WEIGHT BY MOTHER'S RACE/ETHNICITY

The proportion of LBW infants in Berkeley varies by mother's race/ethnicity. A 1997 study published by CityMatCH, a national maternal and child health organization, highlighted the problem of LBW in Berkeley. Among cities of comparable size (100,000-150,000 residents), Berkeley had the 3rd highest proportion of LBW births among African American infants in the entire United States.

- While LBW infants born to African American women have declined slowly from a high of 16.7% of births in 1994 to 14.5% of births in 1997, the racial disparity between Whites and African Americans for this health indicator is serious. In 1997, the percentage of LBW infants to Whites was 5.6%; to African Americans was 14.5%.

Three-year aggregate data demonstrates low birth weight for African American mothers as a critical health issue for the City of Berkeley to address. The City of Berkeley, Maternal Child and Adolescent Health Program has begun to take significant steps to identify the etiology of LBW in Berkeley and to address the issue in the community and in Public Health programs and services.

- Low birth weight infants born to Asian and Pacific Islander mothers have increased from 3.4% of births to 8.7% of births;
- The percentage of LBW infants born to Hispanic women has remained fairly constant since 1994, and was 4.5% of births in 1998, lower than the Healthy People 2000 Objective of no more than 5% of births.

CHILDHOOD IMMUNIZATION RATES

A 1999 California Department of Health Services "Expanded Kindergarten Retrospective Survey" sampled 277 children from 4 public schools and 1 private school in Berkeley. Most of these children who began school during the Fall of 1998 were born in 1993. They were 2 years old in 1995. Based on these survey results, 67.1% of these children were current on their full immunization series (3 Polio, 4 DTP, and 1 MMR) by the time of their second birthday.[17] This figure represents a 14% increase from the 1996 childhood immunization rate of 58.8%. The MCAH program identified low childhood immunization rates as the first priority to address in 1995. This wonderful success of boosting the 2 year old immunization rate by 14% is a tribute to the efforts of the Childhood Immunization Program within the City of Berkeley Public Health Department. The Berkeley childhood immunization rate of 67.1% is higher than the California rate of 63.9% and is now comparable to immunization rates elsewhere in the Bay Area.

CHILDHOOD IMMUNIZATION RATES BY RACE/ETHNICITY

[17] 1999 Kindergarten Retrospective Survey Results and 1999 City of Berkeley Expanded Kindergarten Retrospective Survey, California Department of Health Services

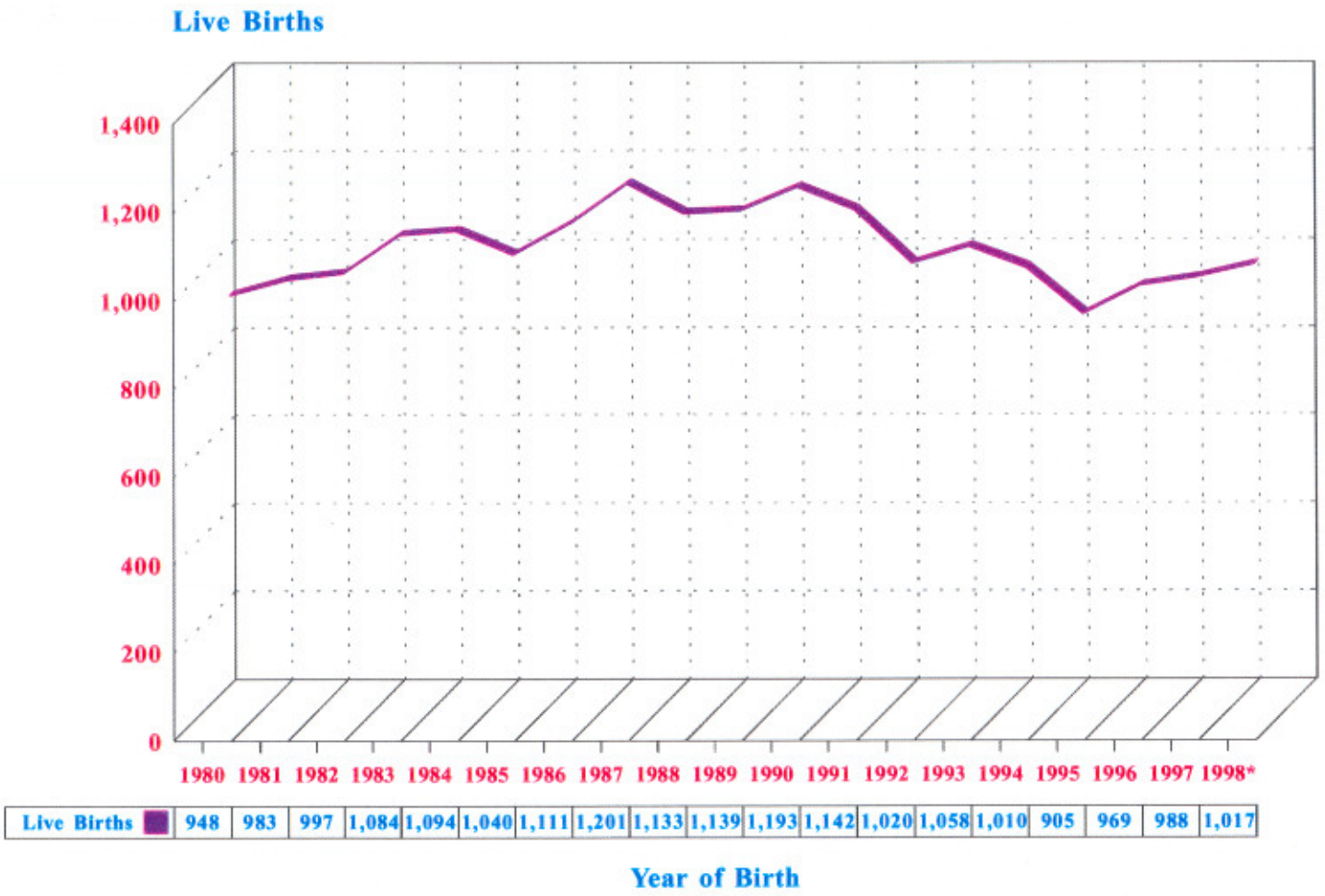
The total percent of up-to-date immunizations among all children in Berkeley is 67%. There are some differences in immunization rates among children by race/ethnicity; however, rates for all children have increased since 1996. Most notable, is the significant increase in up-to-date full immunization series among Hispanic children, increasing from 44% of children in 1996 to 73% in 1999.

Table 1
Kindergarteners' Full Immunization Series Up-to-Date by Second Birthday, by Race/Ethnicity
Berkeley, 1996 and 1999

Race/Ethnicity	1996	1999	Percent Change
White	70%	73%	+3%
African American	49%	60%	+11%
Hispanic	44%	73%	+29%
Asian/Pacific Islnd.	50%	61%	+11%
Other	65%	60%	-5%
Total	**59%**	**67%**	**+8%**

Furthermore, with the exception of childhood immunization rates among Asians/Pacific Islanders, all of the rates in Table 1 are higher than similar rates in California by race/ethnicity.

Total Number of Live Births
City of Berkeley, 1980 - 1998

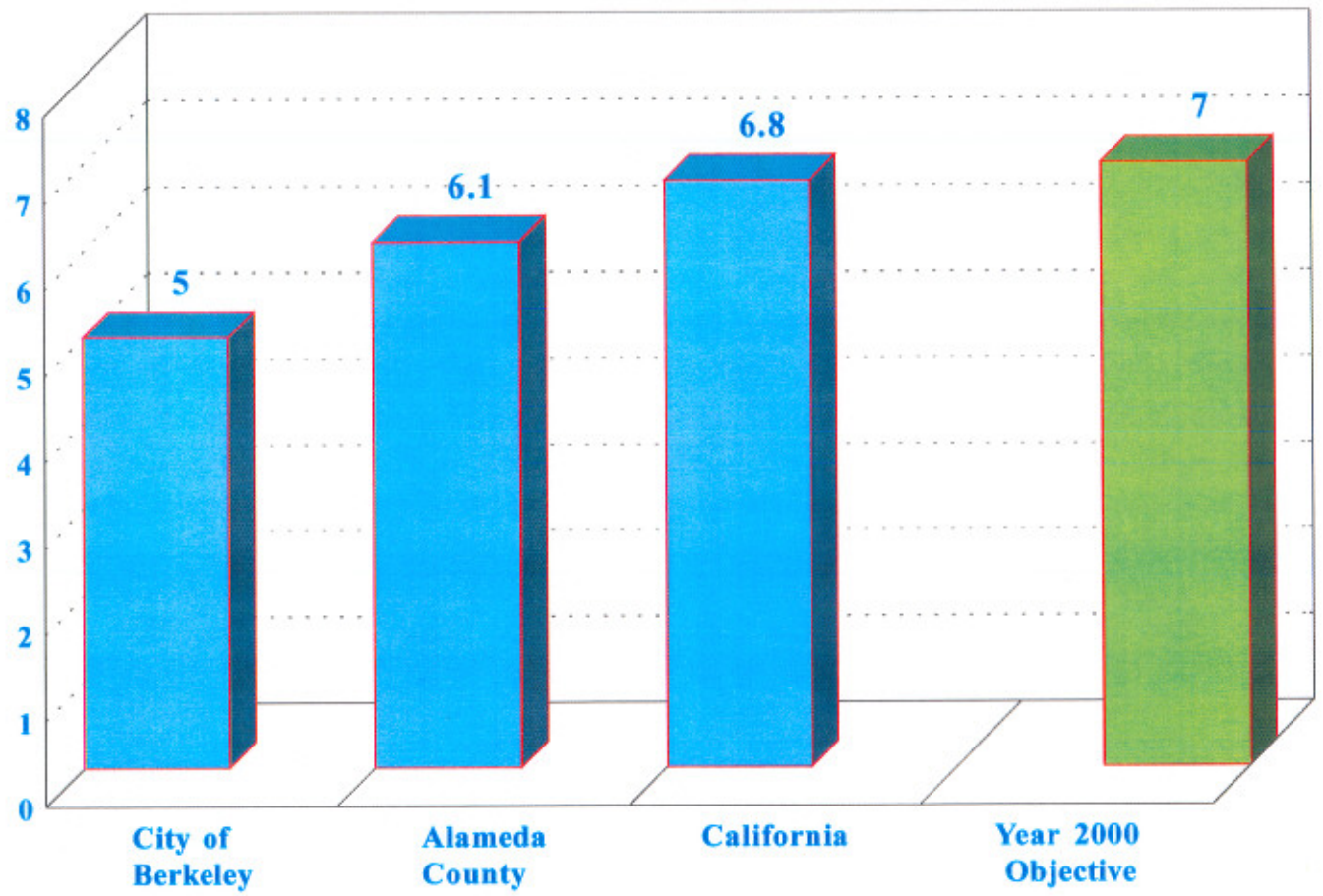


Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Birth Records

* 1998 data is preliminary

Infant Mortality Rate
1993-1995 Average

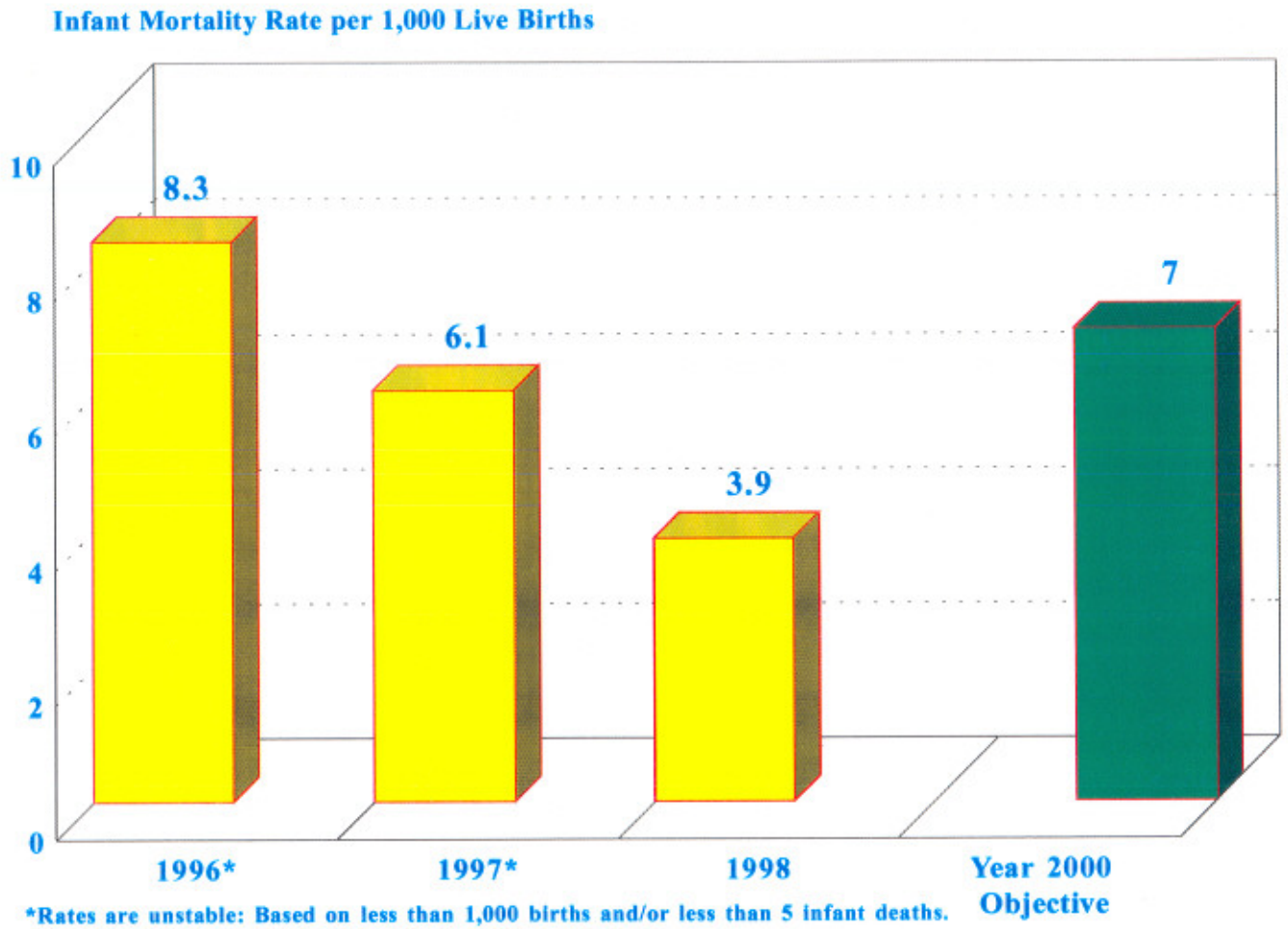
Infant Mortality Rates per 1,000 Live Births



*1998 data is preliminary.

Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Birth and Death Records

Infant Mortality Rate
City of Berkeley, 1996-1998

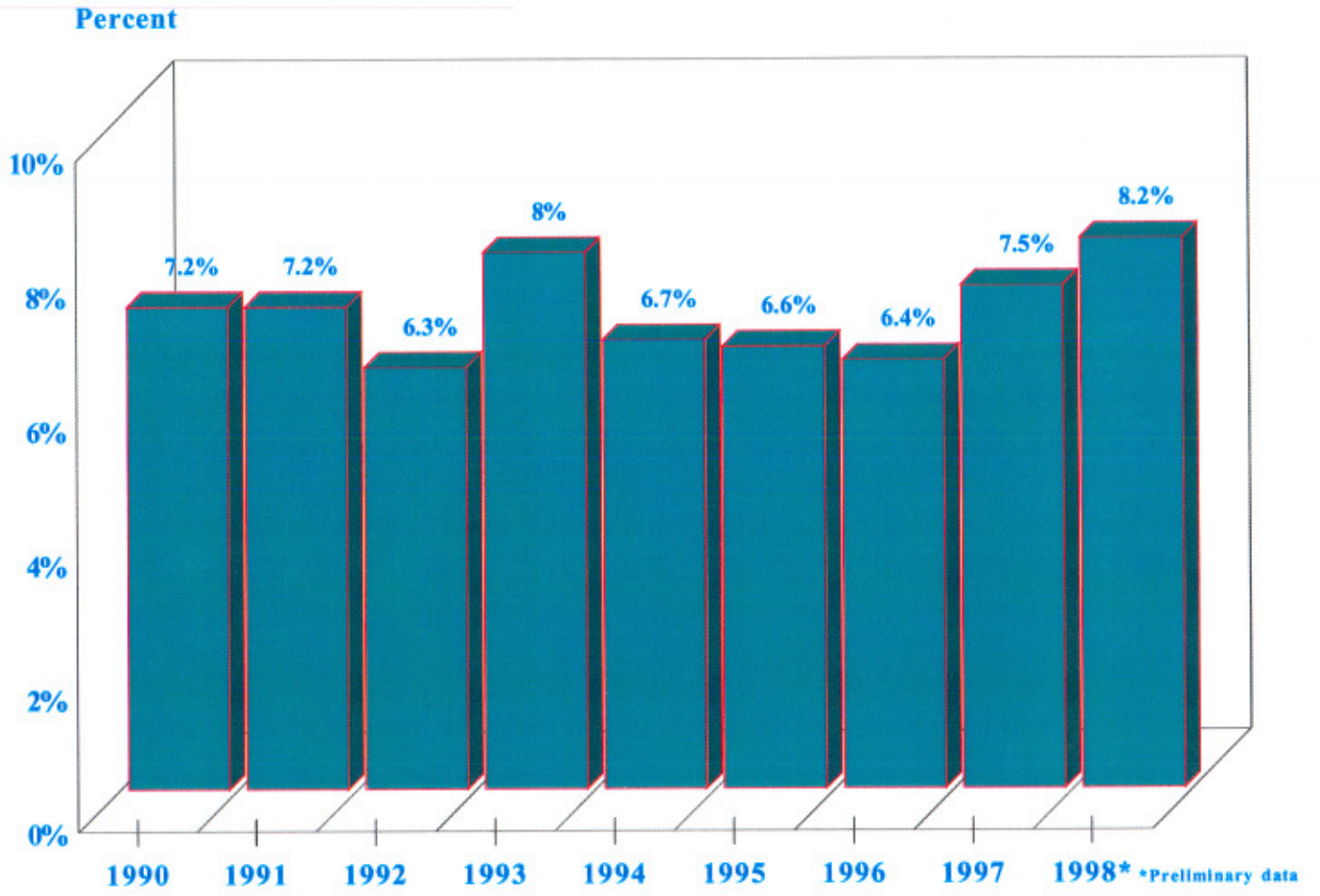


*Rates are unstable: Based on less than 1,000 births and/or less than 5 infant deaths.

Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Birth and Death Records

1998 data is preliminary.

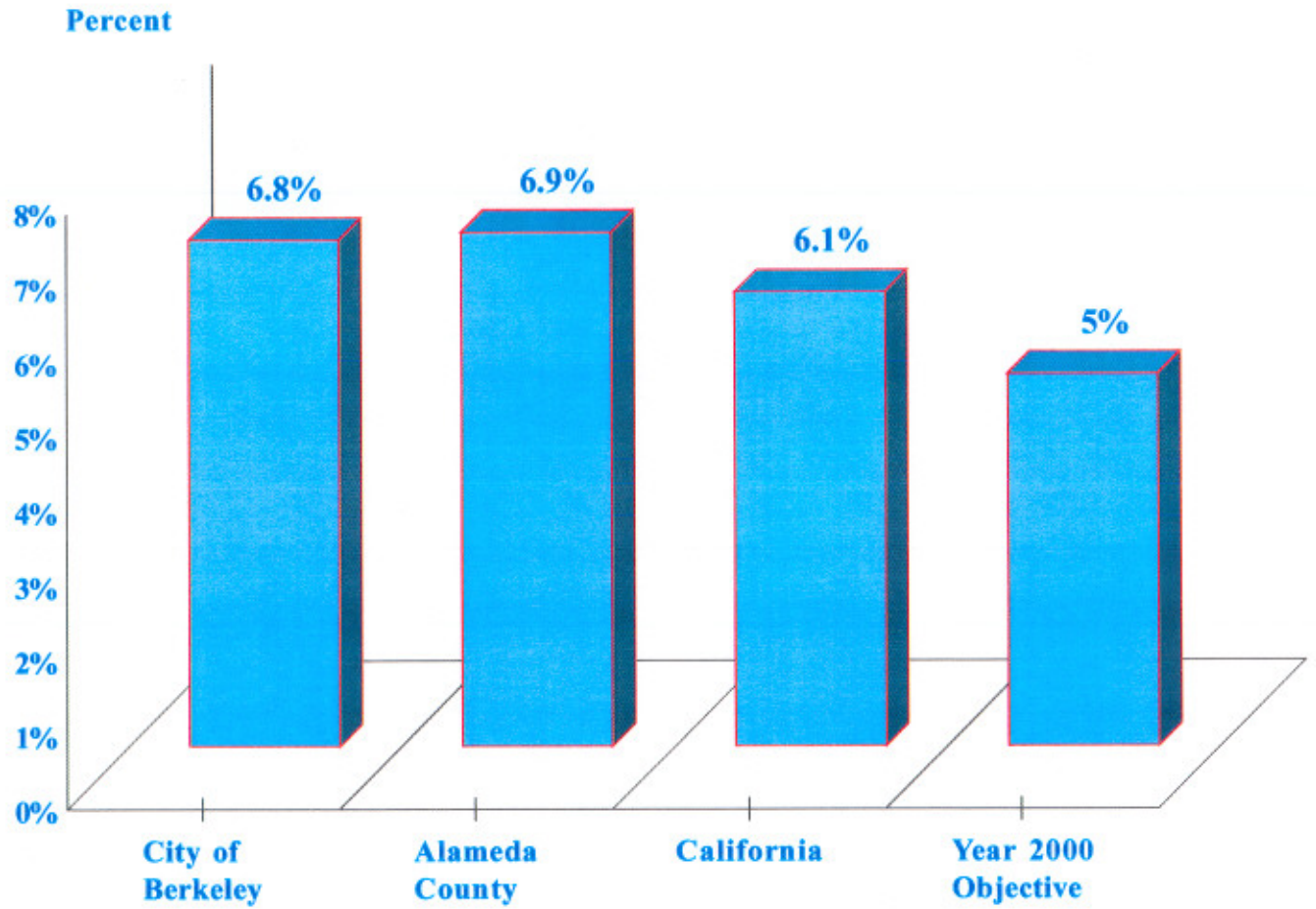
Proportion of Low Birth Weight
City of Berkeley, 1990 to 1998



Low birthweight is less than 2,500 grams (about 5.5 pounds).

Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Birth Records

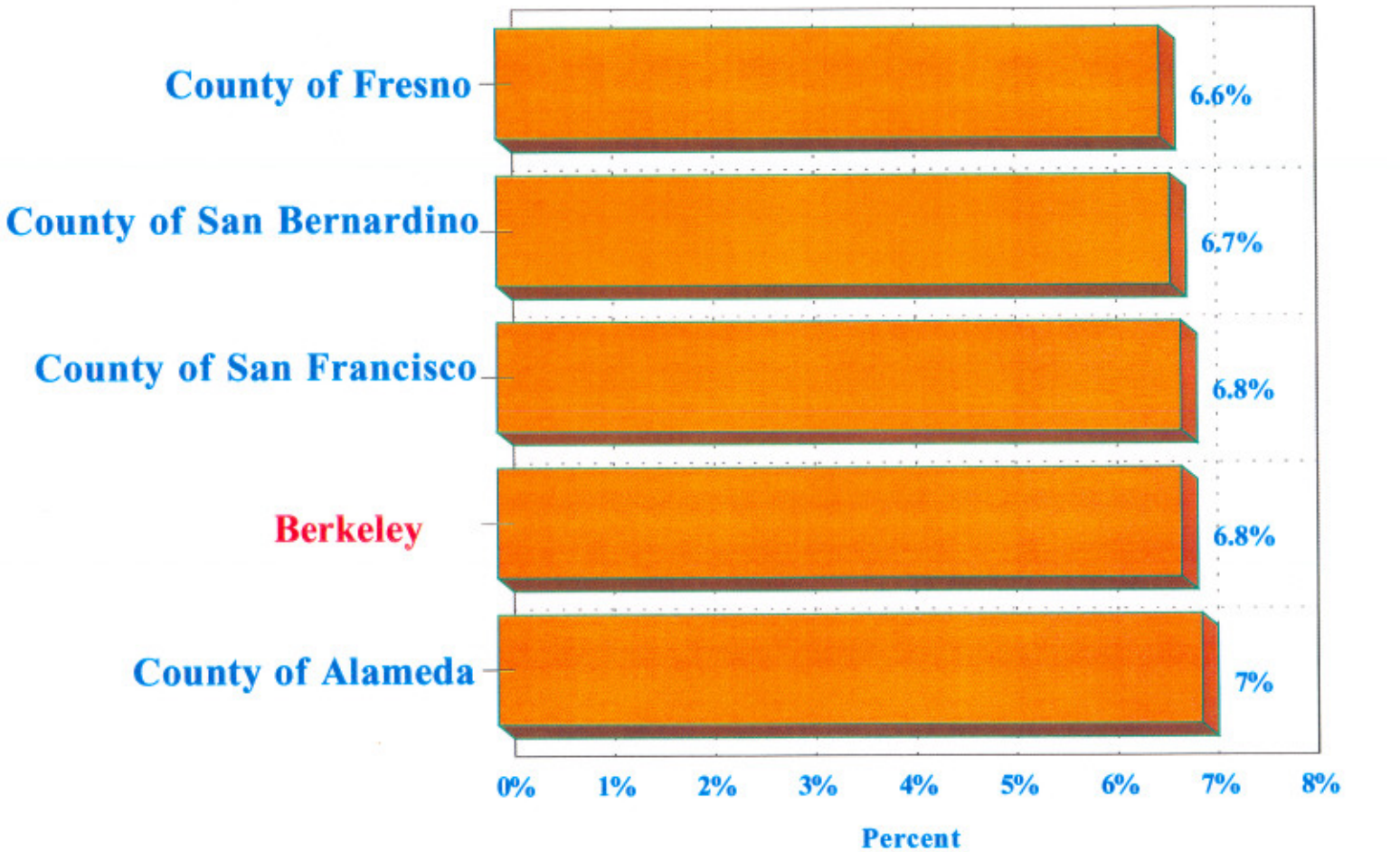
Three Year Average Low Birth Weight
City of Berkeley, 1995-1997



Source: City of Berkeley Health and Human Services Department, Public Health Division, Vital Statistics Unit, Birth Records.

Low birthweight is less than 2,500 grams (about 5.5 pounds).

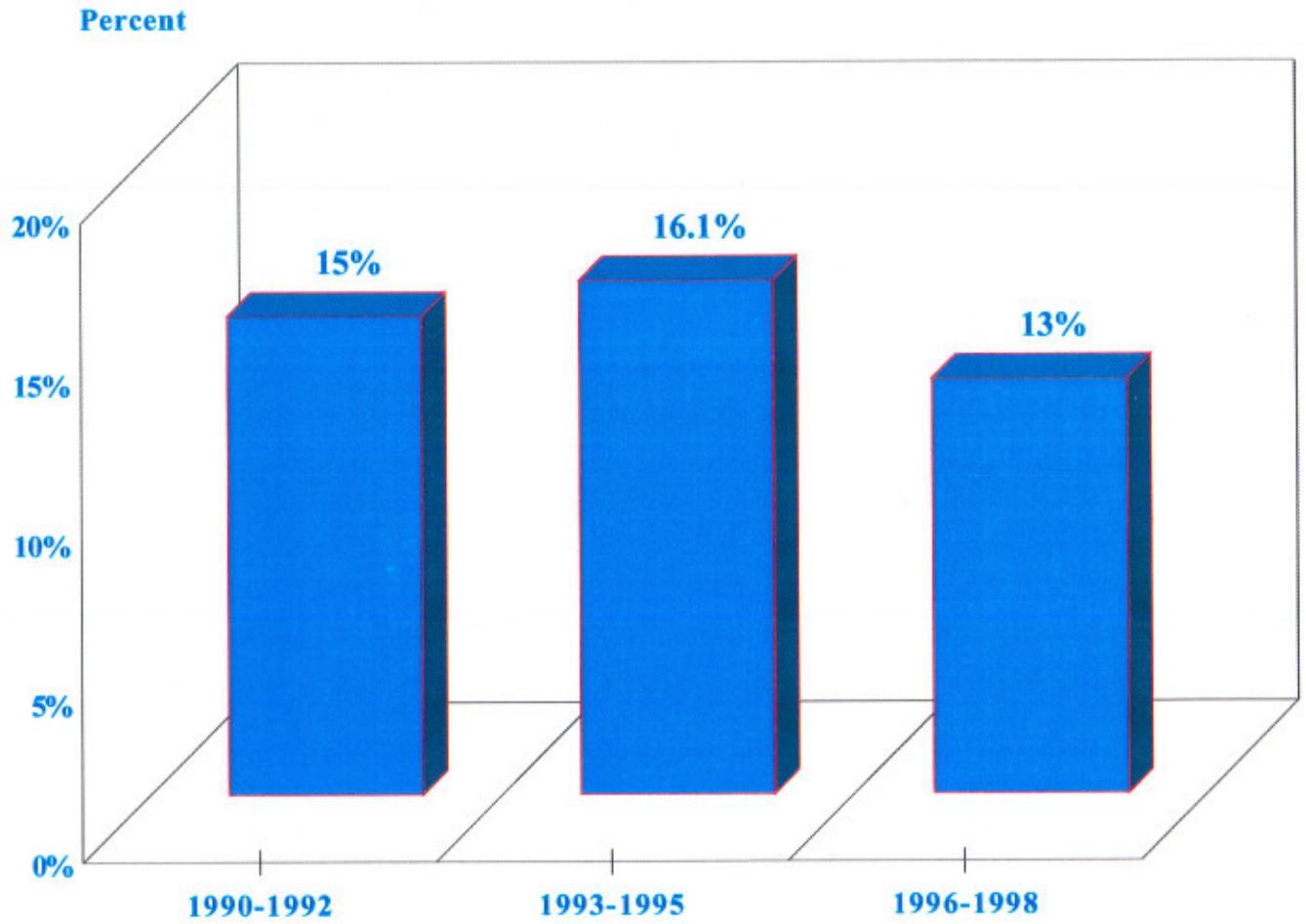
Health Jurisdictions with the Highest Proportion of Low Birth Weight Infants in California
City of Berkeley, 1995-1997 Average



Low birthweight is less than 2,500 grams (about 5.5 pounds).

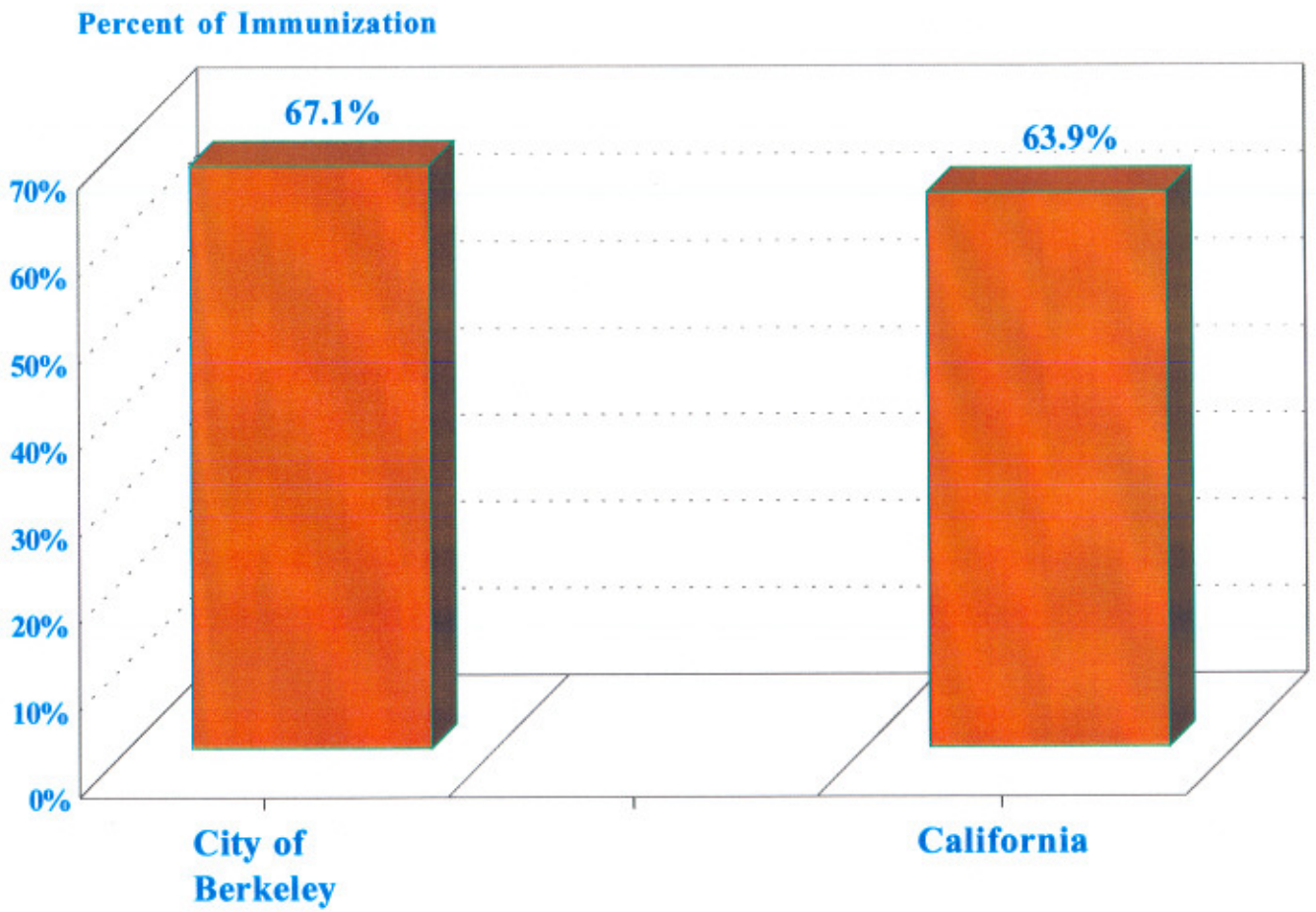
Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Birth Records
County Health Status Profiles, 1999, CDHS.

Low Birth Weight for African Americans
City of Berkeley, 1990 to 1998 Average



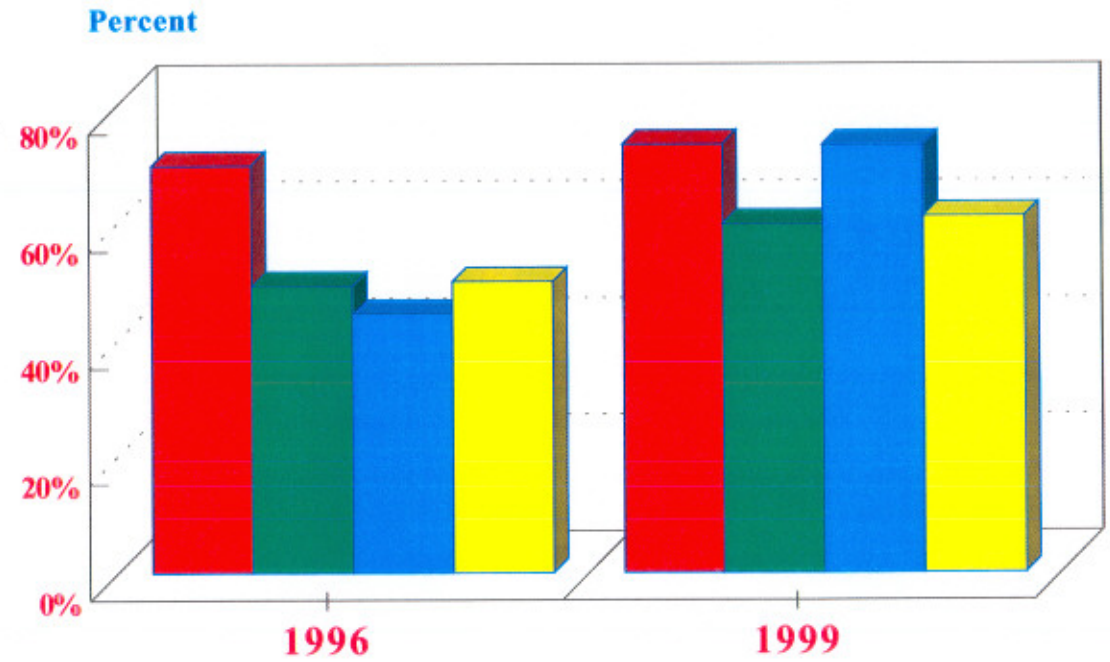
Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Birth Records

Full Immunization Series at Second Birthday
City of Berkeley and State of California, 1999



Source: City of Berkeley Vital Statistics Unit, Epidemiology Section
Immunization Program, Retrospective Survey

Full Immunization Series at Second Birthday by Race/Ethnicity
City of Berkeley, 1996 and 1999

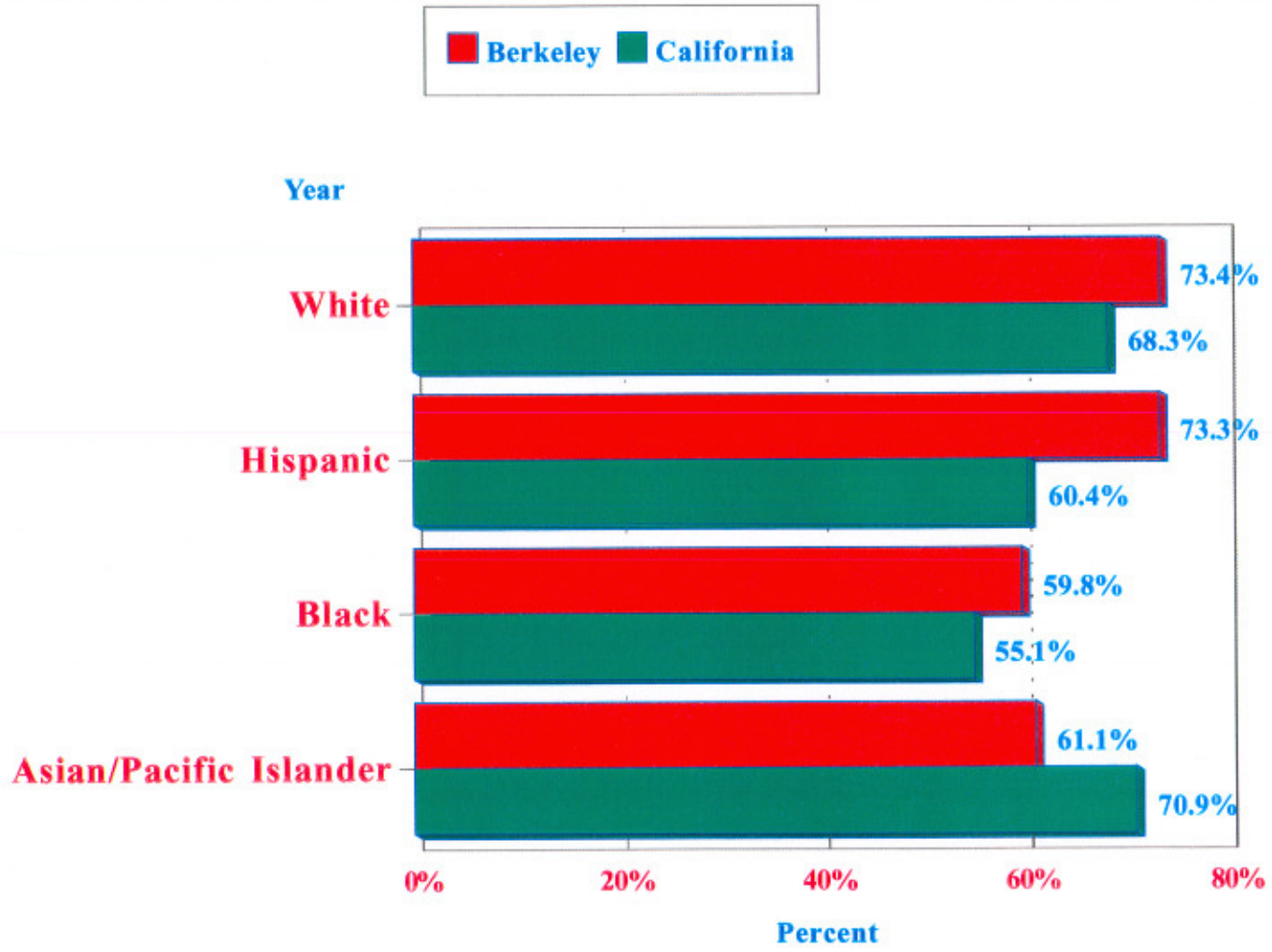


	1996	1999
White	69.9%	73.4%
African American	49.3%	59.8%
Hispanic	44.4%	73.3%
Asian/Pacific Islander	50%	61.1%

Year

Source: City of Berkeley Vital Statistics Unit, Epidemiology Section
Immunization Program, Retrospective Survey

Full Immunization Series at Second Birthday by Race/Ethnicity
City of Berkeley and California, 1999



Source: City of Berkeley Vital Statistics Unit, Epidemiology Section
Immunization Program, Retrospective Survey

CITY OF BERKELEY SERVICES AND PROGRAMS

Maternal, Child and Adolescent Health Program

The City of Berkeley's Maternal, Child and Adolescent Health Program is an education, outreach and referral program for health conditions related to pregnancy, birth, early childhood and youth development. The program goals follow guidelines from the U.S. Surgeon General to eliminate health status disparities by the year 2010. Therefore, most of the activities are geared toward the poor and medically uninsured.The program includes Comprehensive Perinatal Outreach, Childhood Lead Poisoning Prevention, Immunization Assistance, Women, Infants and Children Supplemental Food Program (WIC), Child Health and Disabilities Program (CHDP), and the Berkeley High School Health Center. All of these programs and activities are on going.

The focus of our work across all programs stems from the commitment to eliminate disparities and is two fold: 1) analyze the serious racial disparity in rates of low birth weight babies, which includes interviewing new mothers, and 2) community capacity building to develop health indicators, identified by residents themselves, in order to have a long range impact on health status.

Immunization Assistance Program

The Immunization Assistance Program provides education and outreach to a multiethnic population regarding the advantages of immunizations to infants, children, youth and adults. The program educates physicians and other providers on new rules and regulations as well as new immunizations. A part of this program is Hepatitis B Immunization in Schools that has been in place for four years and provides immunizations to all children in the 6th grade in public schools. The program also provides free Influenza shots to the elderly and city staff in the fall of each year.

INJURY PREVENTION PROGRAM

The City of Berkeley's Injury Prevention Program (IPP) is a community education campaign to reduce the rates of bicycle, pedestrian and motor vehicle-related traffic collisions. The program provides workshops on bicycle, pedestrian and child passenger safety and conducts a low-cost helmet distribution program. In collaboration with the Berkeley Police Department, the program sponsors a bicycle citation alternative for youth who receive a citation for non-helmet use.

CHAPTER 10

INTENTIONAL INJURIES

HIGHLIGHTS

- During 1997-1998, 1,830 domestic violence physical and related non-physical incident reports were filed with the Berkeley Police Department, Domestic Violence Prevention Unit.
- Women were named as the victim in 84% of the 1,830 domestic violence reports.
- 23% of reported domestic violence involved drug or alcohol use.
- The domestic violence perpetrator was arrested in 29% of all domestic violence and domestic incident cases from 1997-1998.
- 23% of reported domestic violence occurred between individuals who reported having already left the relationship.
- Suicide and homicide represent the 8th and 9th leading causes of death to Berkeley residents in 1997.

INTENTIONAL INJURIES

DATA SOURCES AND LIMITATIONS

Data for this Section was obtained from the Berkeley Police Department (BPD), Domestic Violence Prevention Unit (DVPU) and the 1997 BPD Annual Report. There are certain limitations to using police reporting data, particularly with respect to domestic violence and family violence. Domestic violence, defined as physical, emotional or sexual abuse by one partner in an intimate relationship towards another, is a very under-reported crime. It is estimated that only 1 in 18 incidents of domestic violence are ever reported to local law enforcement nationwide. Therefore, the data described here is defined as "reported domestic violence". Family violence is defined by the BPD as an assault or other form of abuse by one family member related by blood to another family member. While child abuse and elder abuse cases have been reported for years, "family violence" is a relatively new area of law that is being reported in increasing numbers to the DVPU. However, if one or more of the individuals involved in the incident is under the age of 18, the police report may be routed directly to Youth Services and will never be reviewed by the DVPU and not entered into the database used for analysis in this Report.

Some items recorded in the database directly from the police report may be inaccurate. These items include whether children were present during the incident, the race/ethnicity of either the victim or the perpetrator and whether alcohol and/or drugs were involved. Domestic violence data was included in the Health Status Report for the first time in 1998. In this second year of reporting this data, comparisons are still limited. The number of domestic violence and domestic incident reports from 1997 and 1998 were aggregated in order to improve the statistical significance of the data.

DOMESTIC VIOLENCE

Domestic violence, also known as intimate partner violence, relationship abuse, battering, spousal abuse and teen dating violence is defined here as *"abuse committed against an adult or fully emancipated minor who is a spouse, former spouse, cohabitant, or person with whom the suspect or aggressor has had a child or is having or has had a dating or engagement relationship"*. The language used throughout this Section to describe the abuser and the victim in an abusive relationship include aggressor, perpetrator or batterer and victim or survivor. Not included in this legal definition are emotional, psychological and other coercive tactics used by one partner to control the other.

During the period of 1997 and 1998, 1830 domestic violence (physical assaults) and domestic incidents (threatened physical violence, harassment and related non-physical domestic violence) were reported to the Berkeley Police Department. Approximately 50% of these reports were characterized as domestic violence (907) and 50% as domestic incident (923) reports.

Reported Domestic Violence by Gender

Consistent with national statistics, women were named as victims in 84% of all reported domestic violence or intimate partner violence. While intimate partner violence occurs at similar rates between gay, lesbian, bisexual or transgendered partners as it does between heterosexual partners, it is likely to be very under-reported in law enforcement data.

Of all female victims of reported domestic violence, 98% (1,496) were victimized by a male partner and 2% (37) were victimized by a female partner. Of the 297 men (16%) reported as victims of domestic violence, 10% (30) of these men were victimized by a male partner and 90% (267) were victimized by a female partner.

Victims' Age

The age of victims of partner violence reported to the BPD during the period from January 1997-December 1998 ranged from 15-85 years as follows:

- 5% of cases (88) reported to the BPD involved victims under the age of 20, often referred to as teen dating violence;
- Persons at greatest risk for domestic violence are between the ages of 20 – 40 years (66% of reported cases); and
- 8% (142) of reported cases involved victims over 50 years old, 19% (23) of these cases were victims greater than 65 years old.[18]

Table 1
Victims' Age, Reported Domestic Violence
Berkeley, January 1997-December 1998

Age	Total # of cases	% of Total
Less than 20 years	**88**	**5%**
20-30 years	**613**	**34%**
31-40 years	**579**	**32%**
41-50 years	**365**	**20%**
51-65 years	**119**	**7%**
Greater than 65 years	**23**	**1%**

Perpetrators' Age

[18] In analyzing the database, it is possible that some of these cases are actually elder abuse, abuse of an older person by an adult child or other caretaker.

The age of the aggressor or perpetrator in reported domestic violence cases during the period from January 1997 – December 1998 ranged from 17 – 81 years, slightly older than the victims in reported cases during the same period.

Table 2
Perpetrators' Age, Reported Domestic Violence
Berkeley, 1997-1998

Age	Total # of cases	% of Total
Less than 20 years	**35**	**2%**
20-30 years	**548**	**31%**
31-40 years	**656**	**38%**
41-50 years	**382**	**22%**
Over 50 years	**130**	**7%**

Type of Relationship

Domestic violence occurs between current or former married couples, dating relationships between adults or adolescents or relationships between two people who have a child together. The type of relationship most commonly reported between the aggressor and the victim during the period of 1997 – 1998 was as follows (see page 2):

- 22% (410) of reported domestic violence occurred between spouses;
- 21% (378) of reported domestic violence occurred between cohabitants;
- 19% (349) of reported domestic violence occurred between individuals who were former dating partners and reported having already ended the relationship;
- 18% (323) of reported domestic violence was between two persons who reported sharing a child in common;
- 13% (243) of reported domestic violence occurred in current dating relationships; and
- 4% (78) of reported domestic violence occurred between former spouses.

Substance Use

One of the common misperceptions about domestic violence is that drugs and alcohol are the primary cause of domestic violence. Drug or alcohol use by either victim or perpetrator was reported in less than one quarter or 23% (426 cases) of domestic violence cases. Perpetrators of domestic violence were twice as likely as victims to report using drugs or alcohol at the time of the arrest or when the police report was filed. Despite the low proportion of alcohol involvement in cases, the use of alcohol does increase the likelihood of physical violence.

- Of the 23% who reported drug or alcohol use, 88% (375 cases) involved alcohol and 12% (51) involved other drugs including crack, cocaine, heroin or other drug use;

- 10% of victims (183) were reported by the BPD police report to have been using drugs or alcohol at the time of the incident compared to 20% (363) of perpetrators; and
- The aggressor was 60% more likely to use physical violence against his/her partner if drugs or alcohol were involved.

Weapons Use

The use of a weapon or means of physical aggression was reported in 54% (979 cases) of the total number of cases during January 1997-December 1998. This is somewhat greater than the proportion of domestic violence to domestic incident cases. Of those, 86% (838) of all domestic violence where a weapon was reported indicated that the perpetrator's hands and/or feet were the most frequent weapon reported.

- 4% (36) of reports involved a knife or other cutting object as a weapon;
- 2% (16) of reports indicated use of a firearm; and
- 9% (89) of reports indicated that another type of weapon was used.

Criminal Justice Interventions

Emergency Protective Orders

An Emergency Protective Order (EPO) is a temporary protection order issued by law enforcement officers which is good for 5 business days and prohibits the abuser from contacting the victim in any way. The reporting officer is required to contact an on-call judge for approval of all EPOs. During the period of January 1997-December 1998, 319 EPOs were issued.

- 293 EPOs were requested by the victim: 284 were issued, and 3% (9) victim requests for an EPO were denied; and
- 35 EPOs were issued even though the victim did not request a protective order.

Arrests

The domestic violence perpetrator was arrested in 29% (530) of all combined domestic violence and domestic incident cases reported during 1997-1998.

Domestic Violence Reports: 49% (449 of 923) of the aggressors in domestic violence cases were arrested; EPOs were requested in 29% (265) and issued in 32% (291) of domestic violence cases.

Domestic Incident Reports: 9% (81 of 907) of the aggressors in domestic incident cases were arrested; EPOs were requested and issued in 3% (28 of 907) of domestic incident cases.

Repeat Offenses

During the period of January 1997-December 1998, 51% or 933 of 1830 cases of reported domestic violence and domestic incident cases showed a repeat street address as the location of occurrence. The number of repeat offenses ranged from 2 to 15 separate reports filed at the same address.

CHILDREN WITNESSING DOMESTIC VIOLENCE

Children were reported present during 25% (463) of the 1830 domestic violence and domestic incident reports. The perpetrator of the violence was 85% more likely to be arrested if children were present during the incident.

Of the 463 cases where children were present at the time of the incident, EPOs were issued in 26% (119) of cases. These numbers are very similar to the arrest data. In comparison, EPOs were issued in 15% (200) of cases where children were not present.

FAMILY VIOLENCE

In 1997 and 1998, 74 cases of family violence were reported to the Domestic Violence Prevention Unit (DVPU) of the Berkeley Police Department.[19]

- Women and girls were reported as victims in 82% (61) of the cases; and
- The aggressor was male in 60% (44) of cases and female in 40% (30) of reported cases. The proportion of women who are the aggressor in family violence is much higher than in reported domestic violence where women were the aggressor in 16% of reports.

Children were reported present during 20% (15) of family violence incidents. It is unclear from the data if this figure also includes children who may have been the reported victim of the violence.

Victims' Ages

The age range of the victims of family violence differs from domestic violence cases. The age of the victims ranged from 8 years old to 77 years old (see Table 3). The more vulnerable age range includes family members under the age of 20 or over the age of 50 years; in fact, 40% of victims of family violence were in these two groups.

[19] Most relationships were noted in the database as "immediate family member".

Table 3
Victims' Ages, Reported Family Violence
Berkeley, January 1997 – December 1998

Age	Total # of cases	% of Total
Less than 20 years	**11**	**15%**
20-30 years	**21**	**29%**
31-40 years	**8**	**11%**
41-50 years	**14**	**19%**
Greater than 50 years	**18**	**25%**

Perpetrators' Ages

The age of the perpetrators ranged from 14 – 72 years old. The majority of perpetrators of reported family violence (74%) are between the ages of 20-50 years. Fifteen percent are less than 20 years old.

Table 4
Perpetrators' Ages, Reported Family Violence
Berkeley, 1997-1998

Age	Total # of cases	% of Total
Less than 20 years	**11**	**15%**
20-30 years	**16**	**22%**
31-40 years	**18**	**25%**
41-50 years	**20**	**27%**
Over 50 years	**7**	**10%**

Substance Use

Drug and/or alcohol use was reported in 22% of reported family violence cases. Victims reported substance use in 5% (4) of cases and the aggressor reported substance use in 19% (14) of cases.

Weapons Use

Use of a weapon or other form of physical aggression was reported in 65% of the total number of family violence cases during the period of January 1997-December 1998. The most frequent

weapon reported was hands/feet (57%). Knives or firearms (3%) and use of other weapons (5%) were also reported.

CRIMINAL JUSTICE INTERVENTIONS

Arrests and Emergency Protective Orders

The aggressor was arrested in 30% (22) of cases. Emergency Protective Orders were requested in only 12% (9) of cases and issued in 14% (10) of cases.

OTHER FORMS OF VIOLENT CRIME

Homicide and Suicide

Suicide and homicide are ranked as the 8th and 9th leading causes of death in Berkeley in 1997 and continue to be an important public health issue. Deaths due to intentional injuries (homicide and suicide) disproportionately affect males versus females in Berkeley. For example, in 1997, 8 males were victims of homicide compared to 2 females and 10 males committed suicide compared to 2 females.

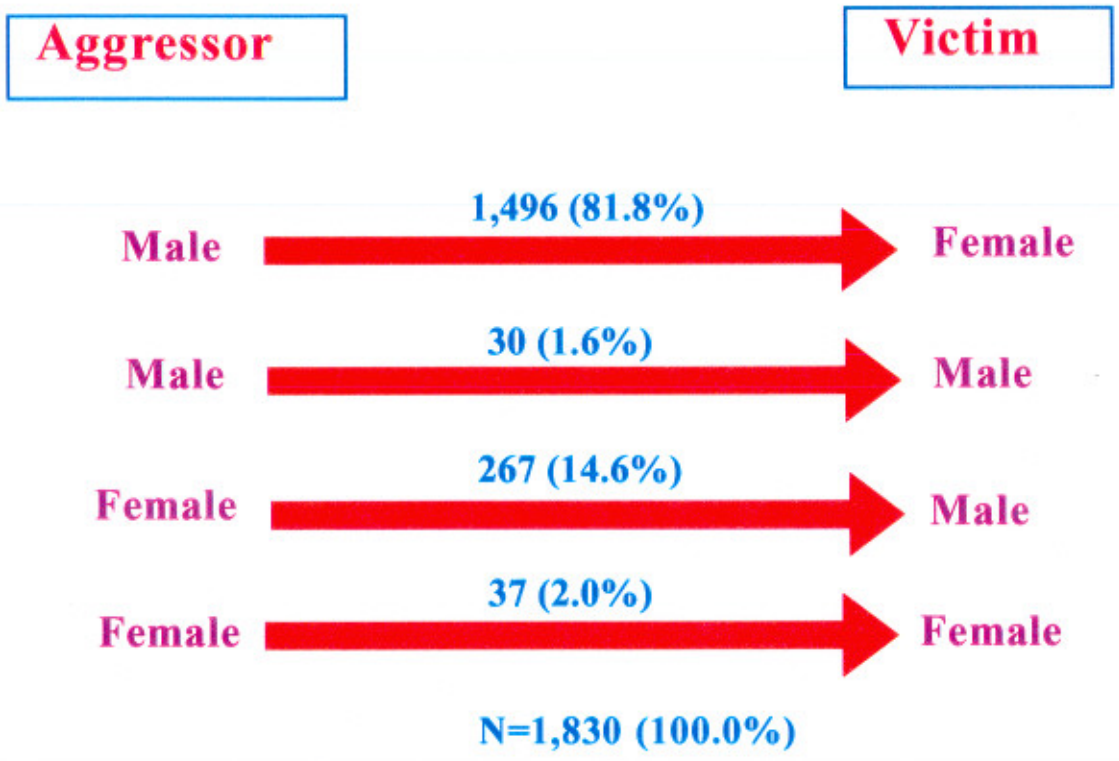
Table 1
Suicide and Homicide as a Leading Cause of Death
Berkeley, 1995-1997

	1995		1996		1997	
	Number of Deaths	Rank	Number of Deaths	Rank	Number of Deaths	Rank
Homicide	16	9th	6	10th	10	9th
Suicide	18	8th	13	9th	12	8th

The YPLL or years of potential life lost (premature death) due to homicides and suicides increased from 1996 (315 years of potential life lost) to 1997 (350 years of potential life lost). In both 1996 and 1997, homicide and suicide were the third greatest source of YPLL behind cancer and unintentional injuries such as drowning and motor vehicle accidents.

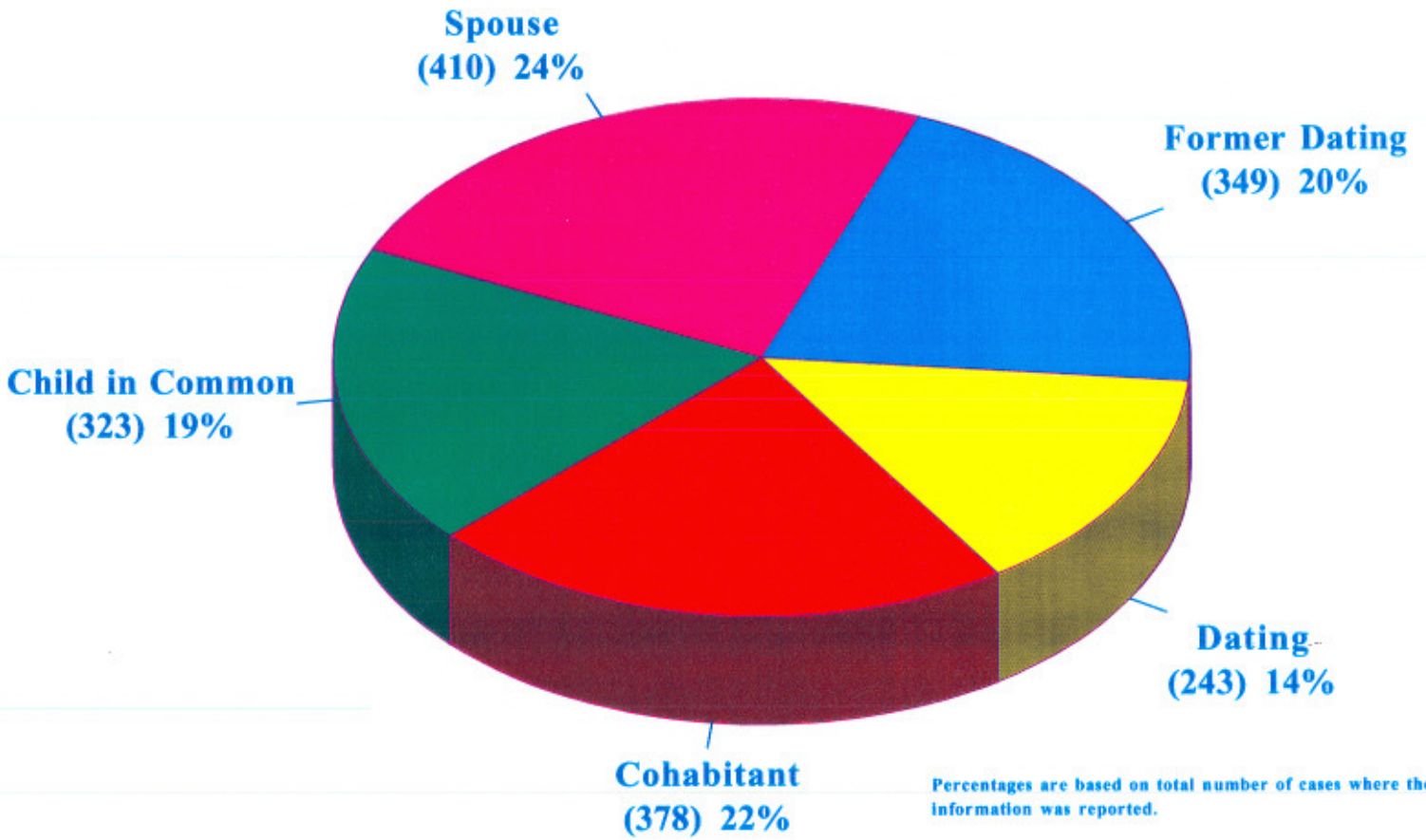
From 1995-1997 there were 32 total deaths due to homicide alone. Both Public Health and Berkeley Police Department data show that intentional injury adversely affects the African American community living in Berkeley primarily. Seventy percent of deaths during this three-year period were African Americans compared with 21% Whites, 6% Asian/Pacific Islanders and 3% Hispanics. This data contains only mortality data and not morbidity data such as hospitalizations due to firearms or other intentional injuries.

Aggressor and Victim in Domestic Violence by Gender
City of Berkeley, 1997-1998



Source: City of Berkeley Vital Statistics Unit, Epidemiology Section;City of Berkeley Police Departm
Domestic Violence Prevention Unit.

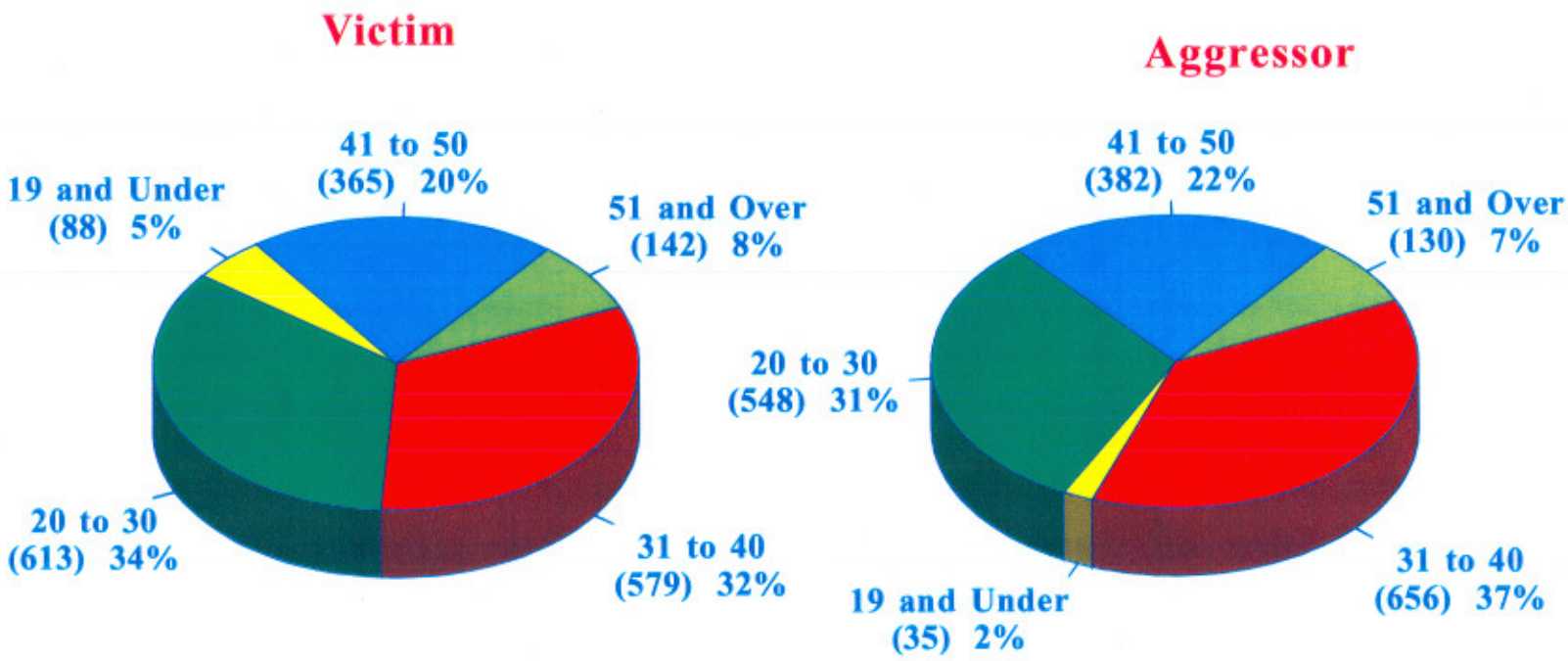
Domestic Violence by Relationship of Victim and Aggressor
City of Berkeley, 1997-1998



Percentages are based on total number of cases where the information was reported.

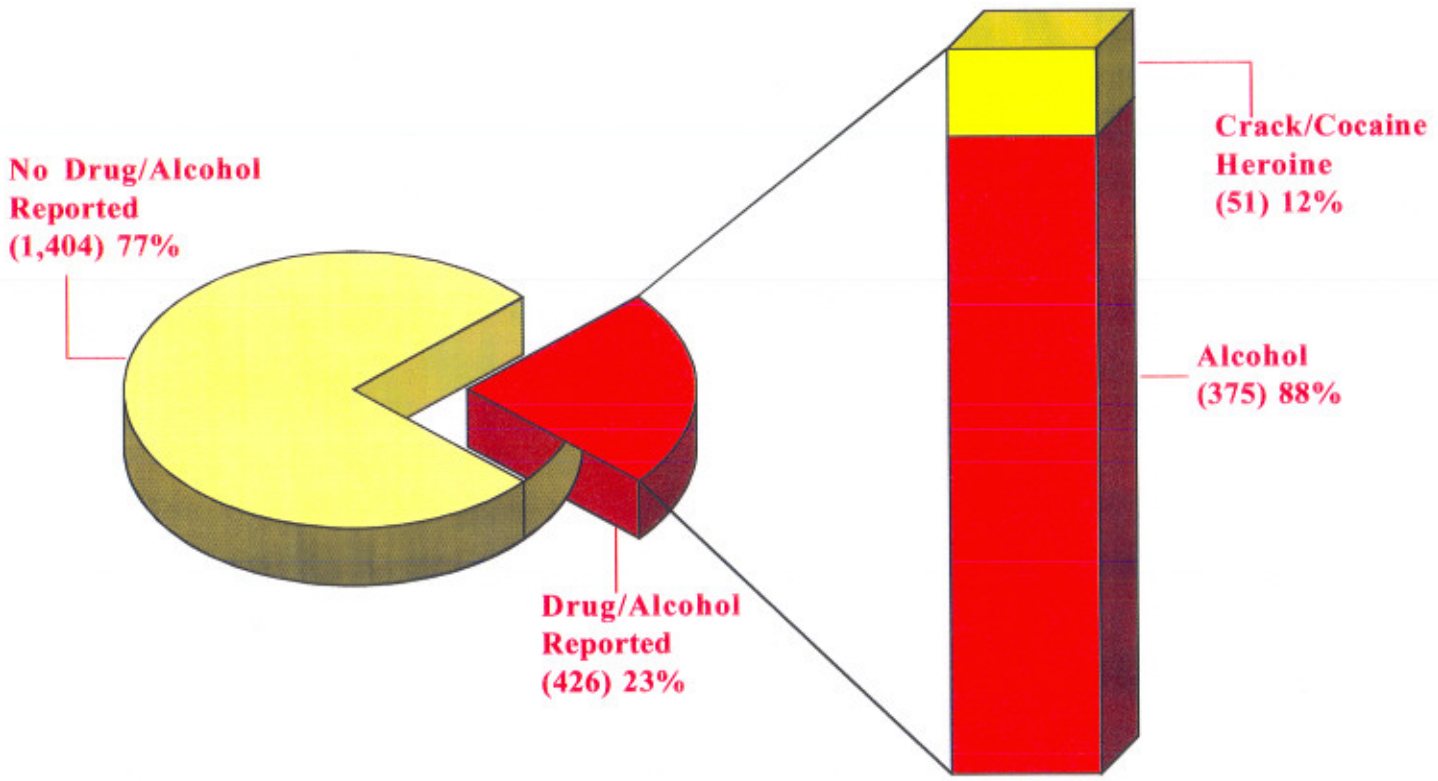
Source: City of Berkeley Vital Statistics Unit, Epidemiology Section
City of Berkeley Police Department, Domestic Violence Prevention Unit

Domestic Violence by Age of Victim and Aggressor
City of Berkeley, 1997-1998



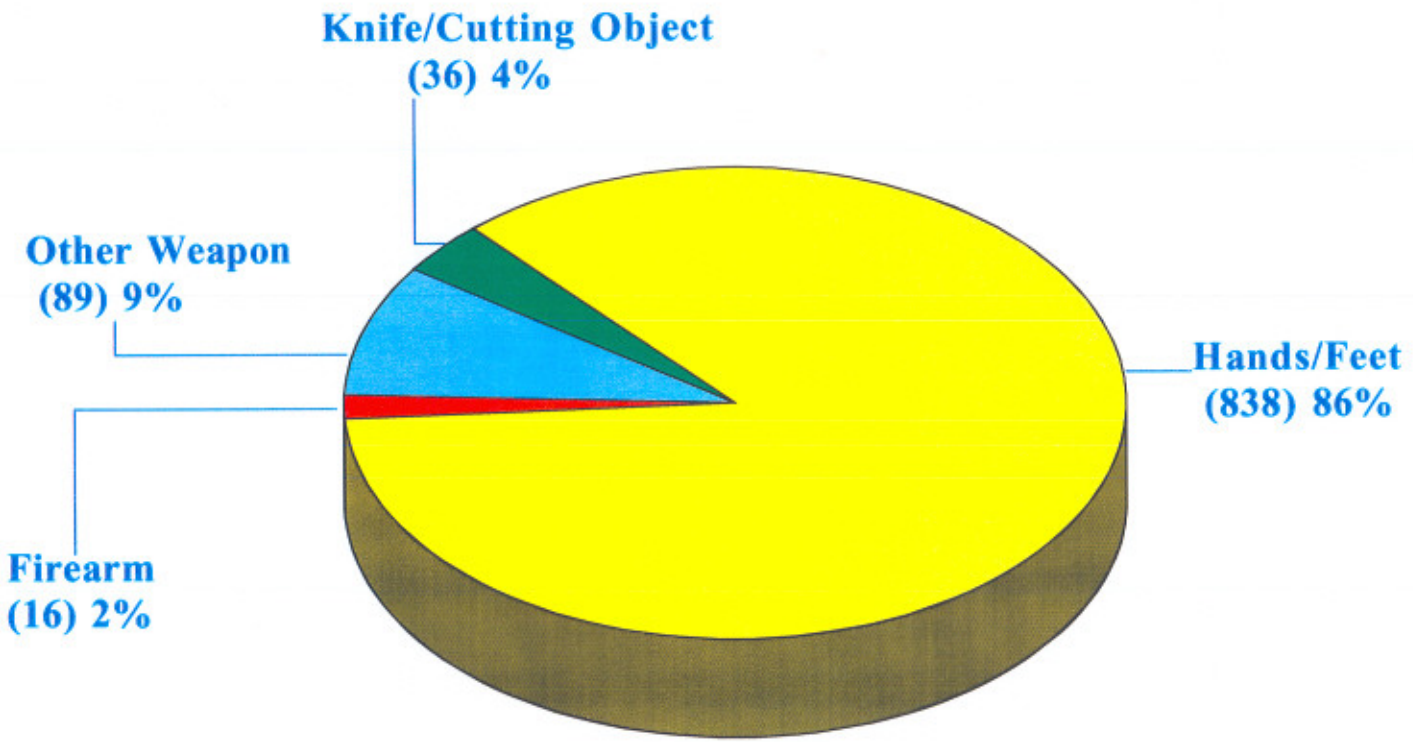
Source: City of Berkeley Vital Statistics Unit, Epidemiology Section
City of Berkeley Police Department, Domestic Violence Prevention Unit

Drugs/Alcohol Used in Domestic Violence
City of Berkeley, 1997-1998



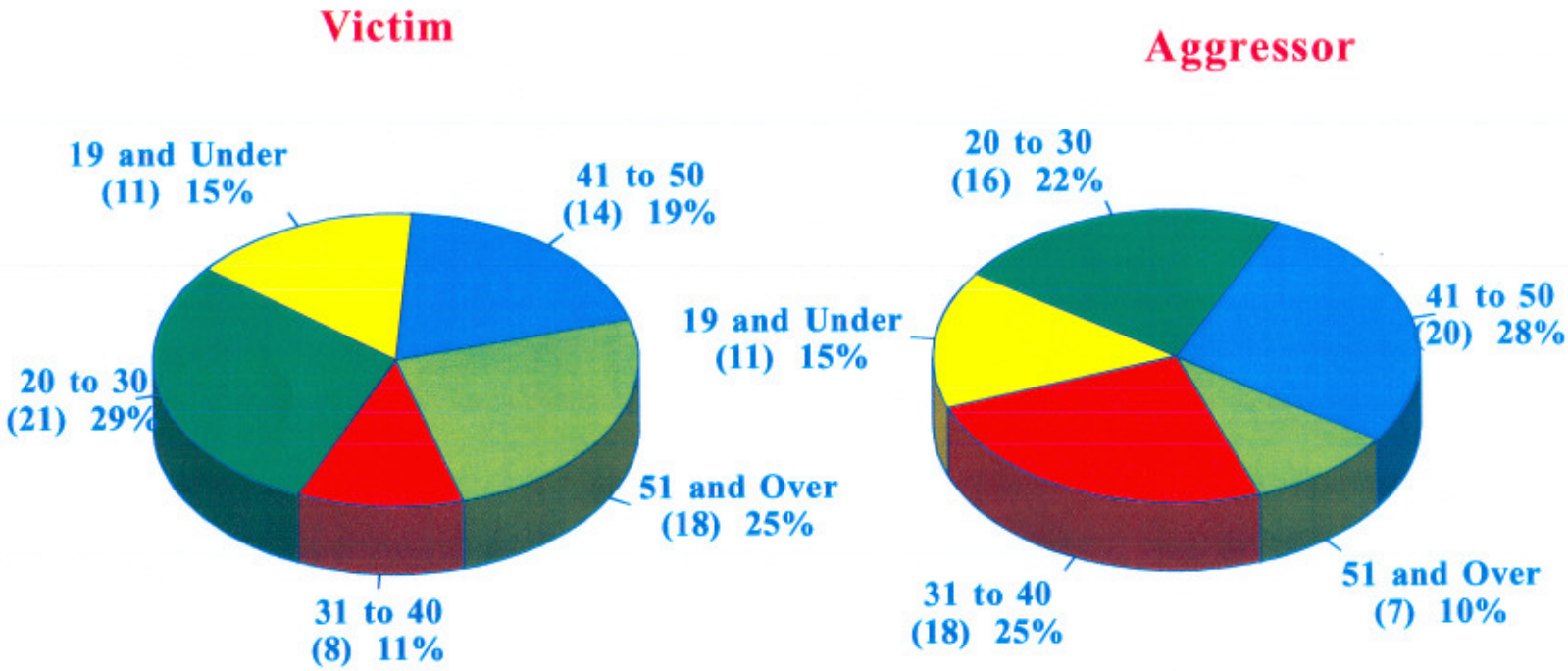
Source: City of Berkeley Vital Statistics Unit, Epidemiology Section
City of Berkeley Police Department, Domestic Violence Prevention Unit

Type of Weapon Used in Domestic Violence
City of Berkeley, 1997-1998



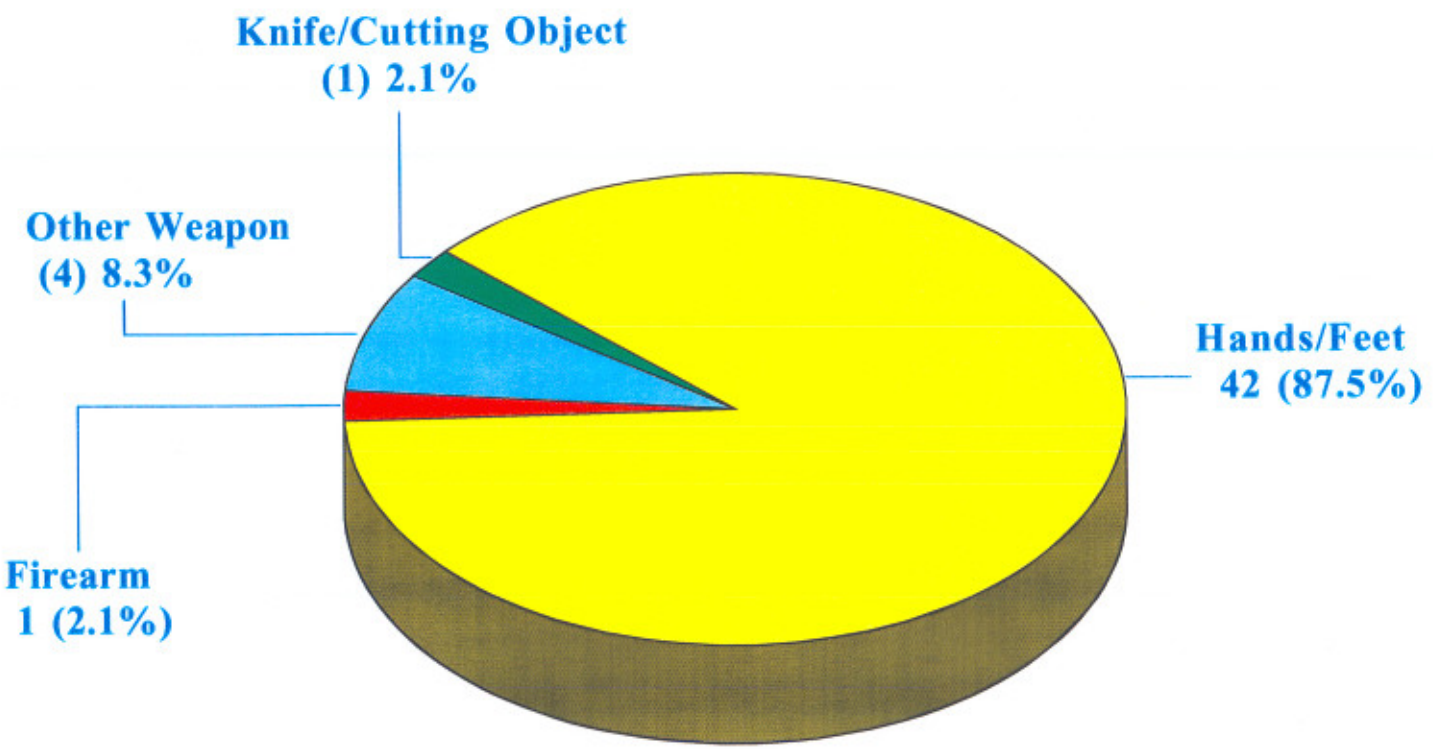
Source: City of Berkeley Vital Statistics Unit, Epidemiology Section
City of Berkeley Police Department, Domestic Violence Prevention Unit

Family Violence by Age of Victim and Aggressor
City of Berkeley, 1997-1998



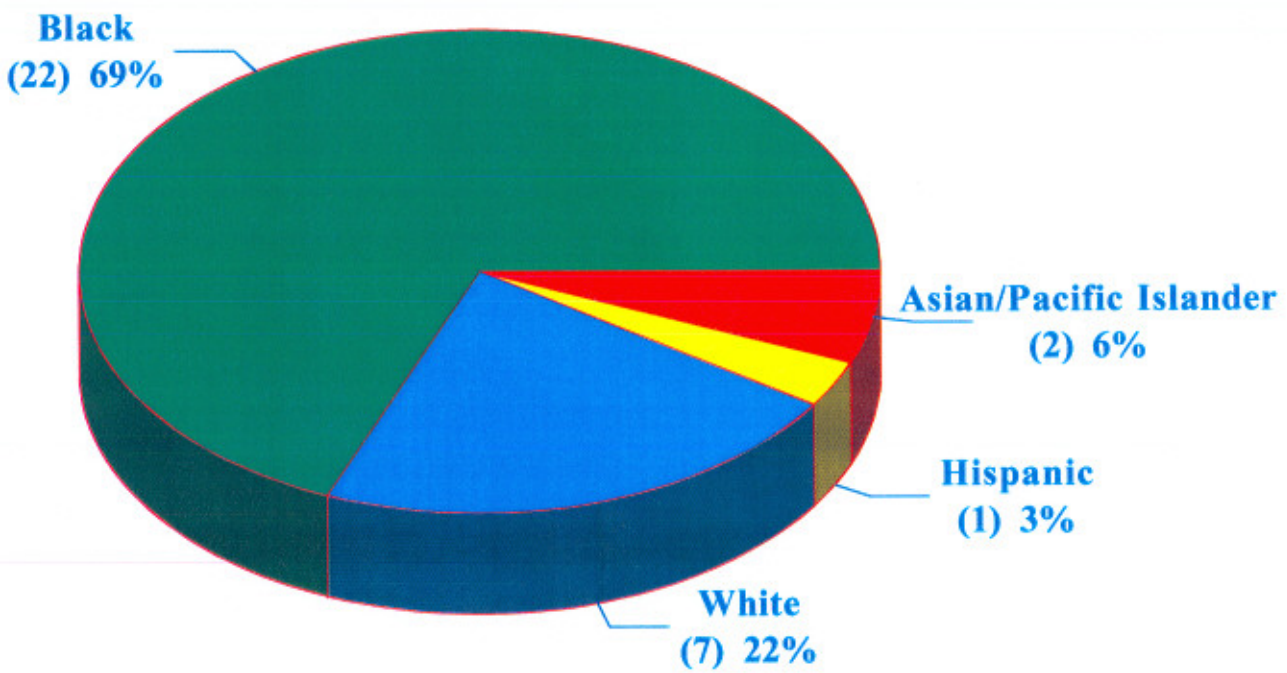
Source: City of Berkeley Vital Statistics Unit, Epidemiology Section
City of Berkeley Police Department, Domestic Violence Prevention Unit

Type of Weapon Used in Family Violence
City of Berkeley, 1997-1998



Source: City of Berkeley Vital Statistics Unit, Epidemiology Section
City of Berkeley Police Department, Domestic Violence Prevention Unit

Homicides by Race/Ethnicity
City of Berkeley, 1995-1997



N=33

Source: City of Berkeley Vital Statistics Unit, Epidemiology Section, Mortality Records

TECHNICAL NOTES

TECHNICAL NOTES

DATA SOURCES

The numbers and rates presented in this report were obtained from a variety of databases and registries, the majority of them collected by the City of Berkeley Public Health Department:

Vital Statistics: is the data collected from ongoing recording and registration of all vital events and is probably the main source of information about the health of a population. Birth and death indicators were calculated using birth and death records for residents of the City of Berkeley only, regardless of the place of birth or death. Birth and death records are based on complete counts.

1990 United States Census:
The U.S. Census data from 1990 was used as the basis for the Demographic Profile section. Population estimates and projections used in this report as denominators to calculate rates and proportions were based on this census data.

AIDS\HIV Registry:
The statistics presented in the AIDS and HIV section were obtained using the AIDS cases reported to the City of Berkeley Public Health Department as part of the confidential AIDS Surveillance System. HIV databases were obtained from the anonymous and confidential HIV testing sites of the Public Health Clinic and the HIV seroprevalence surveys at the sexually transmitted disease clinic.

TB Registry:
TB rates were calculated using the TB cases diagnosed and reported by the City of Berkeley Public Health Department. Cases and rates are presented by ***count year***, which is the date when the TB case is verified and reported to the State Health Department.

Communicable Diseases:
Communicable disease data compiled by the City of Berkeley Public Health Department through the confidential morbidity reports.

Domestic Violence:
These data are collected by the City of Berkeley Police Department, Domestic Violence Prevention Unit, and are based on domestic violence cases or domestic incidence reported to the Police. It is estimated nationwide that only 1 of every 19 domestic violence physical incidents is ever reported to local law enforcement; the high rate of under-reporting is an issue to be taken into consideration in interpreting this data.

Hospital Discharge Database:
This database contains information for every hospital discharge in the state. Data on patient's records are abstracted and can be obtained by patients' place of residence regardless of place of hospitalization.

Welfare Data:
This data comes from the Alameda County Social Services Agency and contains demographic information about all Berkeley residents on welfare as of May 1999.

Immunization Retrospective Survey:
The 1999 City of Berkeley Expanded Kindergarten Retrospective Survey sample consisted of a sample of 277 children, selected from 5 schools (4 public and 1 private). These children began kindergarten in fall 1998, and most were born in 1993, turning 2 years of age in 1995. The survey looked retrospectively for full immunization series (3 Polio, 4 DPT and 1 MMMR) among these children at second birthday.

Berkeley Unified School District Data:
All school data is from the annual reports of the Berkeley Unified School District. Educational outcome data is from the Diversity Project , *Facts on the Whole 9th Grade Class,* SASI data as of 3/1/97 and from the State of California, California Basic Educational Data System (CBEDS).

DEFINITIONS:

Rates: The number of events divided by the population at risk. Measures the probability that the event occurs during a specific period of time in the population.

Relative Standard Error (RSE): Measures rate variability. In this report, a rate is considered statistically unreliable when the RSE is greater than 30%.

Adolescent Birth Rate: The number of live births among adolescents, 15 to 19 years old, divided by the estimated female population in the same age group per 1,000 population.

Crude Mortality Rate: the number of all deaths in one year divided by the mid-year estimated population per 100,000 population. The crude death rate represents the probability of dying during a specified period of time for persons in the entire population.

Age-Adjusted Mortality Rate: is a statistically transformed rate in which the effect of age in the population has been taken into account so that comparisons across populations can be made.

Domestic Violence: abuse committed against an adult or fully emancipated minor who is a spouse, former spouse, cohabitant, former cohabitant, or person with whom the suspect or aggressor has had a child or is having or has had a dating or engagement relationship.

Family Violence: When the act of violence occurs among immediate family members.

Fertility Rate: number of live births divided by total population of women between the ages of 15 and 45.

Infant Mortality Rate: the number of deaths under 1 year of age divided by the number of live births occurring in the same year per 1,000 births.

Kessner Index: Measures the adequacy of prenatal care (adequate to not adequate) by combining the month prenatal care begins and the number of visits, adjusting for length of gestation.

Late or no Prenatal Care: Care which begins in the 2nd or 3rd trimester of pregnancy or no prenatal care at all.

Low Birth-weight: Live birth weighing less than 2,500 grams or 5.5 pounds.

Injuries: Physical infliction induced by an external cause. In this report we use two classifications of injuries:

Intentional: Includes those injuries or deaths caused by a person with the intention to kill or injure (homicides and suicides).

Unintentional: Includes those injuries or deaths caused by an unanticipated event (motor vehicle crashes, falls, etc.).

Poverty: Federal Poverty Guidelines were used as published in the *Federal Register* for the appropriate years.

RACE/ETHNICITY

The following race/ethnic groups and their definitions are used in this report:

Asian/Pacific Islander:	Includes Chinese, Japanese, Vietnamese, Cambodian, Thai, Laotian, Asian Indian, Filipino, Asian Unspecified, Hawaiian, Guamanian, Samoan, and other Pacific Islander.
African-American:	Includes Blacks, non-Hispanics.
Hispanic:	Includes Mexican/Mexican-American/Chicano, Puerto Rican, Cuban, Central/South American, other Spanish/Hispanic (born outside U.S.), other Spanish/Hispanic (born in the U.S).
Native-American:	Includes American Indian, Eskimo, and Aleut.
White:	Includes Whites, non-Hispanics.
Other/Unknown:	Includes unspecified or unknown race/ethnicity.

ICD-9 Codes Used For Leading Causes of Death

For the definition of the ten leading causes of death, we use the standard diagnostic categories of the International Classification of Diseases, Ninth Revision, 1975 (ICD-9):

All Causes of Death	000-E999
All Cancers	140-208
Female Breast Cancer	74
Lung Cancer	62.2-162.9
Ischemic Heart Disease	410-414
Cerebrovascular Disease	430-438
COPD	490-496
Motor Vehicle Crashes	E810-E825
Unintentional Injuries	E800-E949
Homicides	E960-E969
Suicides	E950-E959
Diseases of heart	390-398, 402, 404-429
Coronary Heart Disease	402, 410-414, 429.2
Pneumonia and Influenza	480-487
Diabetes Mellitus	250
Prostate Cancer	185
Stomach Cancer	151