CITY OF BERKELEY HEALTH STATUS REPORT 2007

III. CHILD & ADOLESCENT HEALTH

Child health is of great importance to our community: today's children become tomorrow's parents and workers. Also, we now know that health in early life is the basis for health over the life span, and that adult health is influenced by socio-economic status during childhood.[74] An investment in early childhood well-being has great benefits for the overall health of our community.

This chapter summarizes the state of health of our children and adolescents: preventive health screenings and behaviors, overweight and obesity, use of alcohol, tobacco and other drugs, childhood immunizations, and specific health outcomes including mental health, children with special health needs, asthma, injuries, sexually transmitted diseases, dental health, lead poisoning, and anemia.

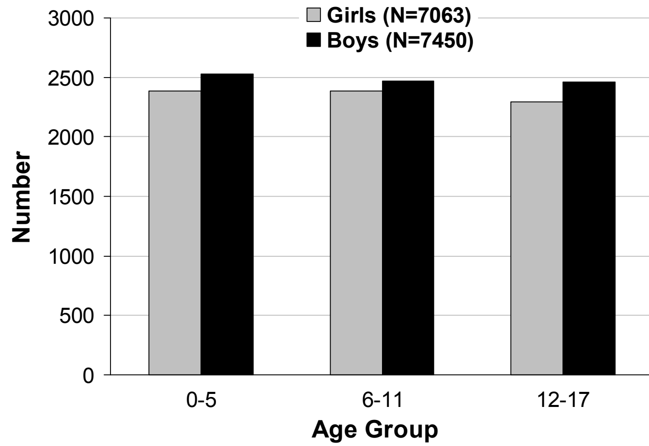
Highlights

- One-seventh of Berkeley's children live in poverty and a substantial number participate in programs for low-income families
- About 14% of adolescents report the use of tobacco, alcohol, marijuana and other drugs, and are exposed to violence.
- Asthma hospitalizations are high, particularly in African Americans and southwest Berkeley residents.
- Leading causes of injuries include attempted suicide, assault, motor vehicle accidents, falls, and reaction to prescription drugs

Demographics of Berkeley's Children

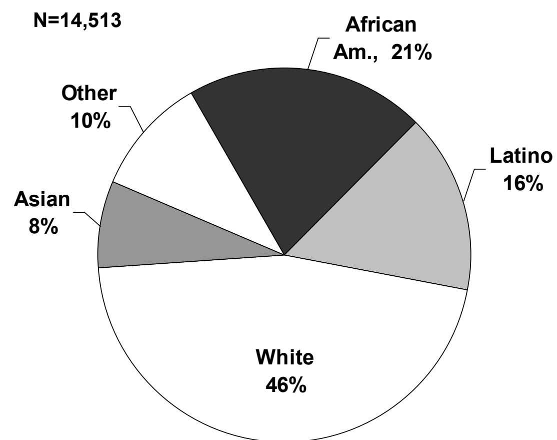
There are an equal number of children in ages that correspond to preschool, grade school and middle/high school.

Figure 3.1 – Number of Children 17 years of Age and Younger by Sex, Berkeley, 2000



Non-White racial and ethnic groups make up the majority of children.

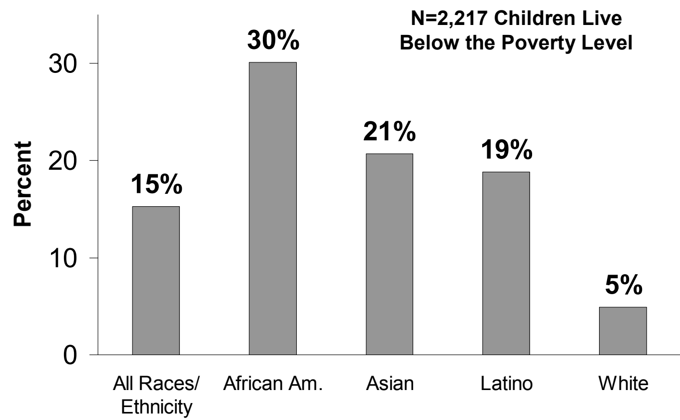
Figure 3.2 – Number of Children 17 Years of Age and Younger by Race/Ethnicity, Berkeley, 2000



Source: US Census, 2000

The poverty rate is 6 times higher for African American children and 4 times higher for Latino and Asian children than for White children.

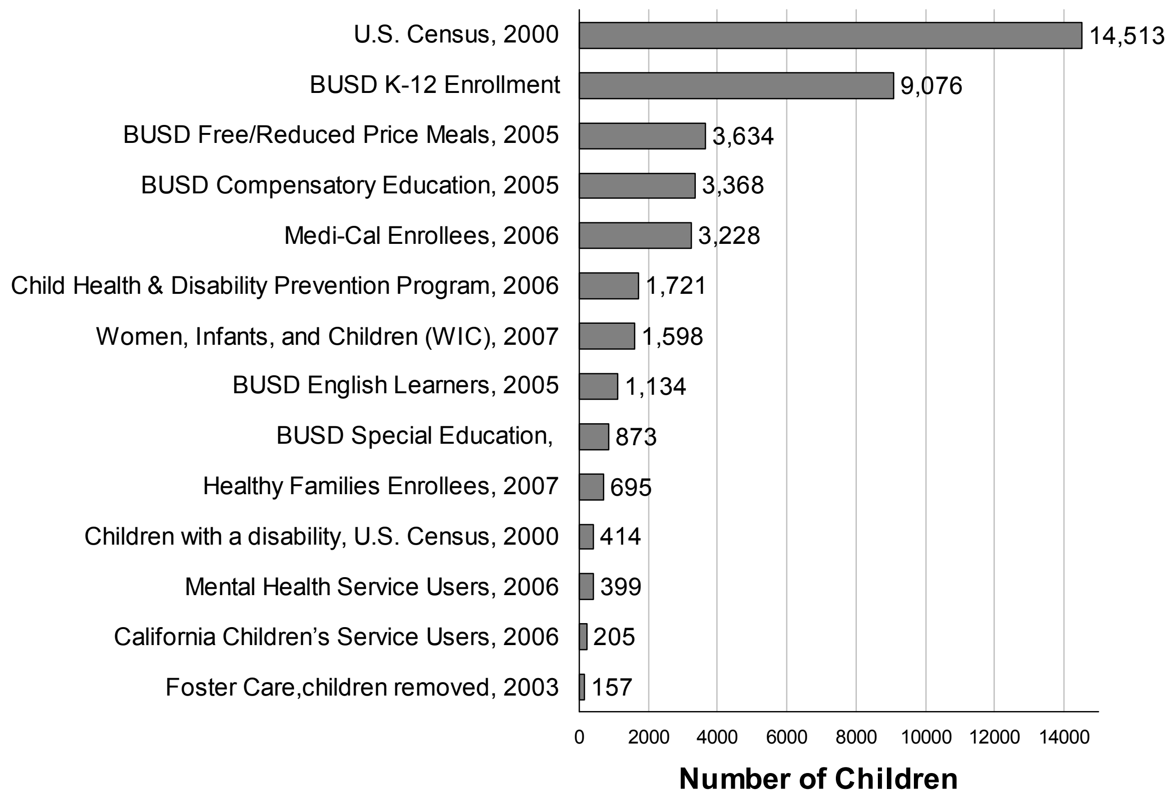
Figure 3.3 – Percent of Children 17 Years Old and Younger Living Below the Poverty Level by Race/Ethnicity, Berkeley, 1999



Source: US Census, 2000

A substantial percentage of Berkeley's children participate in health and social service programs. Approximately 22% of Berkeley's children less than 18 years of age receive health insurance through Medi-Cal. Over 10% of Berkeley's children receive preventive clinical services and screening for disabilities in the California Child Health and Disability Prevention Program. Several hundred children are enrolled in California and federally supported programs for serious medical conditions or disability or are in supervised foster care.

Figure 3.4 –Child Participation in Health and Social Service Programs, Berkeley, 2005-2006



Source: Child Health & Disability Prevention Program, Berkeley Unified School District, Medi-Cal, Managed Risk Medical Insurance Board , US Census

Nutrition and Physical Activity

Why Is This Important?

Poor childhood health behaviors such as sedentary lifestyles (very little activity and large amounts of sitting), unhealthy eating, overweight, and obesity increase risks of cardiovascular disease, diabetes, and other preventable diseases in adulthood.

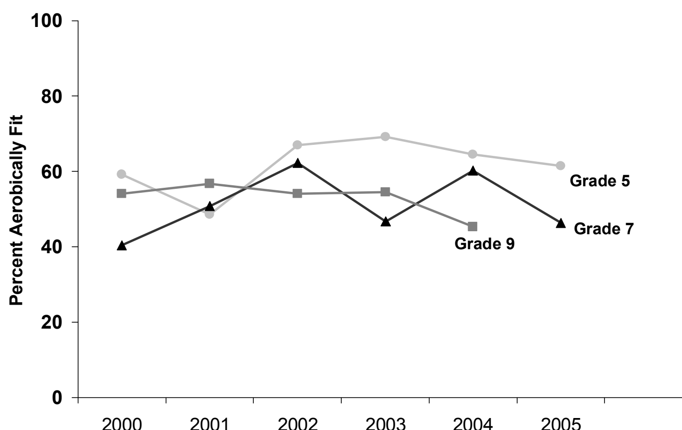
Children and youth are getting a large portion of their daily calories from snacks, are not eating breakfast as much as they used to,[75,76] and are not eating enough fruits and vegetables.[77] Physical activity has also decreased among children and adolescents with fewer enrolled in school physical education (PE) classes[78] and about 1/3 of 9th to 12th graders not receiving recommended levels of moderate or vigorous physical activity.[79] Changes in transportation patterns and activity levels are increasingly influenced by the built environment[80] and fewer children living close to school walk or bike there.[81]

In a recent California statewide study, children were actually vigorously active for only 4 minutes of an average 30-minute PE class.[82] For the past three decades PE time has been reduced in response to the pressure to raise academic test scores. Finally, PE instruction from trained professional PE teachers has shifted to instruction from regular classroom teachers.

Physical Fitness in Berkeley's Children

Between 30% and 60% of Berkeley grade schoolers (depending on the grade) cannot pass a standardized aerobic fitness test. Aerobic fitness is a measure of fitness of the heart and lungs.

Figure 3.5 – Aerobic Fitness of 5th, 7th, and 9th Graders, Berkeley Unified School District, 2000-2005



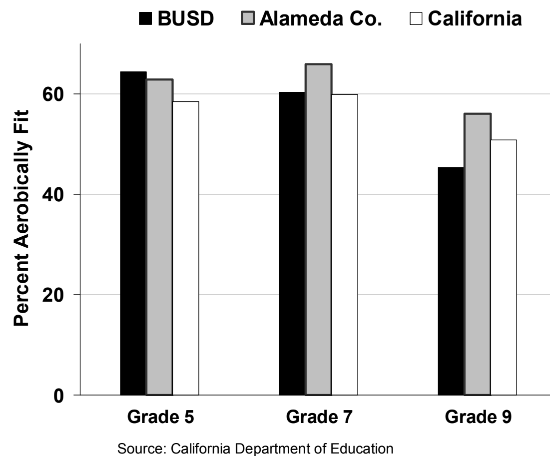
* Ability to briskly walk 1 mile (e.g. < 10 min. for 16 year old girls; <8.5 min for 16 year old boys. Source: California Department of Education

Program Highlight: Child & Youth Nutrition and Physical Activity Promotion

The San Pablo Park Steps to Wellness project aims to decrease childhood obesity rates in South and West Berkeley through creating an environment that supports healthy eating and physical activity. This is a Robert Wood Johnson Foundation funded partnership with the Department of Parks, Recreation and Waterfront and the Ecology Center Farm Fresh Choice Program. The project aims to include activities attractive to sedentary youth that don't identify themselves as athletic, including the installation of a Dance Dance Revolution Arcade game (see picture below) and tennis lessons. Healthy, inexpensive, tasty take-out meals from local restaurants are available for purchase one day a week as parents/caregivers pick up their children. The project also works with Ecology Center staff to replace soda with healthy beverages and increase healthy snack options and provides cooking classes for youth and parents.

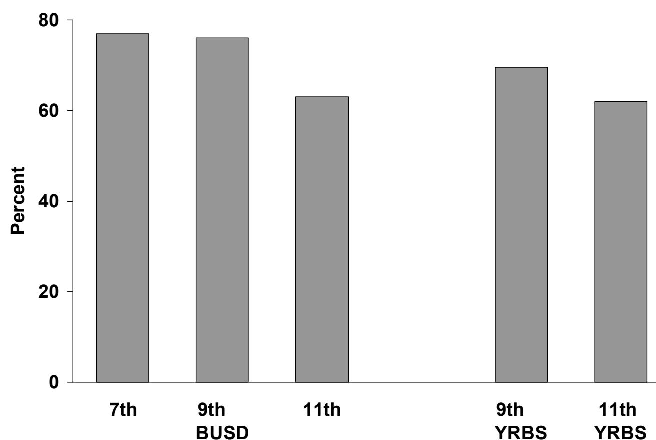
Aerobic fitness declines from 5th to 9th grade. 9th grade students in the BUSD lag behind their Alameda County and California counterparts in aerobic fitness.

Figure 3.6 – Aerobic Fitness of 5th, 7th, and 9th Graders, Berkeley Unified School District, Alameda County, and California, 2004



Over 75% of 7th and 9th grade students reported regular physical activity, decreasing to just 63% among 11th grade students. A similar decrease in regular physical activity also occurs nationally among 9th and 11th graders.

Figure 3.7 – "Participated in 20 minutes of vigorous activity at least 3 days" in Past 7 Days for 7th, 9th, and 11th Graders, Berkeley Unified School District, Spring 2006 compared to 2005 National Youth Risk Behavior Survey

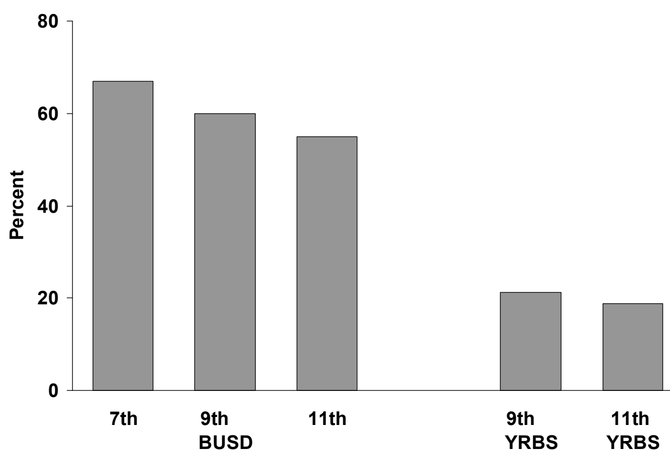


Source: California Healthy Kids Survey, Spring 2006; National Youth Risk Behavior Survey 2005

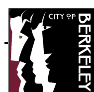
Healthy eating behaviors appear to decrease as students get older. Over two thirds of BUSD 7th graders ate 5 servings of fruits and vegetables the previous day, decreasing to 60% among 9th graders and 55% among 11th graders.

Compared to national averages, the rates are about 3 times higher among BUSD's 9th and 11th grade students.

Figure 3.8 – "Ate 5 Servings of Fruits and Vegetables" during the previous day for 7th, 9th, and 11th Graders, Berkeley Unified School District, Spring 2006 compared to 2005 National Youth Risk Behavior Survey



Source: California Healthy Kids Survey, Spring 2006; National Youth Risk Behavior Survey 2005



Obesity

Why Is This Important?

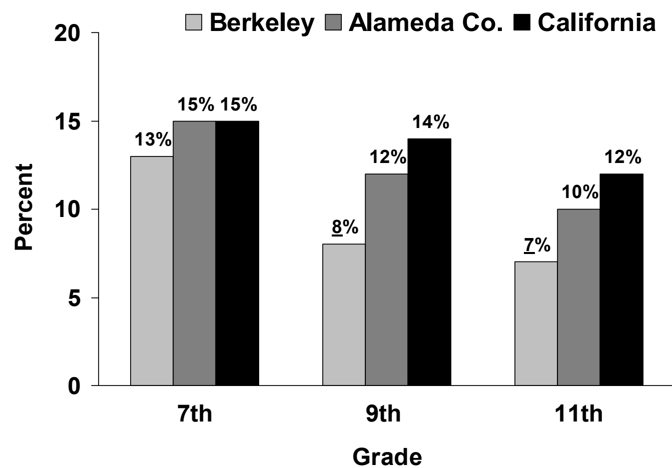
Obesity – defined as a body mass index at or above the 95th percentile - has more than doubled in U.S. children since 1971, and has tripled for children 6-11.[83,84] Rates are higher among African American, Latino and low income children.[85,86] Obese children are more likely to be overweight and obese adults, and to develop chronic conditions at earlier ages.[87] Pediatricians are starting to see adult chronic illnesses like hypertension and type 2 diabetes in children for the first time, conditions that increase the risk of cardiovascular disease.[88,89] Some experts predict that, as a result of obesity, today's children will be the first in the U.S. to have lower life expectancies than their parents.

Multiple factors contribute to the problem: children's increasingly sedentary lifestyles; reduced physical education time in schools; increased screen time watching TV and playing video games; extensive marketing by the food industry of high calorie foods with little nutritional value; increases in soda consumption; large portion size; and, particularly for many low-income children, limited access to healthy foods and safe places to play. As a result, children eat more high-fat, high-calorie foods and are not physically active, leading to an increase in the number of obese children.

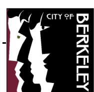
Obesity in Berkeley's Children

Overall, obesity is less frequent in Berkeley's middle and high school students than the Alameda County or California average.

Figure 3.9 – Percent Obesity (>95 percentile) in Secondary School Children in Berkeley Unified School District, 2005-6

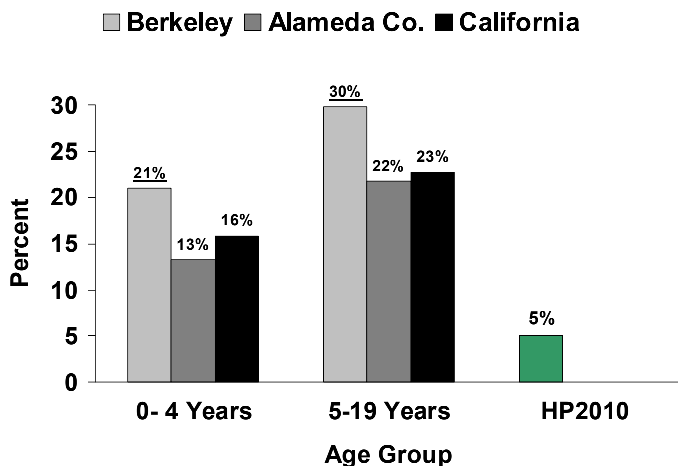


Source: California Healthy Kids Survey, 2005/6

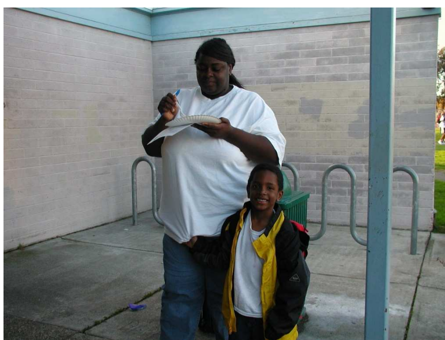


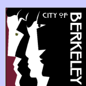
Low income children in Berkeley's CHDP program are more likely to be obese than their Alameda County and California counterparts.

Figure 3.10 – Percent Obesity (>95th Percentile) in Children in California Child Health & Disability Prevention Program, Berkeley, Alameda County, and California, 2005, and Healthy People 2010 Goal



Berkeley has a statistically higher percentage of obese children
Source: California Child Health & Disability Prevention Program, 2005



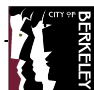


Program Highlight: Chronic Illness Prevention Program

IMPROVING CHILD NUTRITION AND PHYSICAL ACTIVITY

From 2004-2006, Chronic Illness Prevention staff worked at the Berkeley Alternative High School (now Berkeley Technology Academy) with peer educators, students, administrators, faculty, staff, and parents to develop youth centered environments that promote healthy behaviors. Strategies included advocating for tastier school lunches/snacks, universal breakfast, increased student purchases at the Farmers' Market, taste testing of healthy foods (see picture above), and weekly hip hop dance classes.

In Summer 2006, local youth surveyed local grocery outlets and corner markets for their availability of healthy foods and environmental barriers and supports to healthy eating such as advertising for junk food versus healthy foods. As a follow-up to this project, Chronic Illness Prevention staff and high school youth are working with local corner market stores near middle and high schools to begin offering healthier food options and "depromote" unhealthier choices.



Alcohol, Tobacco and Other Drugs
Why Is This Important?

Cigarette smoking remains the single most preventable cause of disease and death in the United States. Smoking results in more deaths than AIDS, alcohol, cocaine, heroin, homicide, suicide, motor vehicle crashes, and fires – combined! Thirty years of concerted public health efforts have led to great success with declines in smoking rates and related cancer deaths. But today's youth are now starting to smoke again. Tobacco companies target youth with advertising and promotional giveaways.[53] More than half of youth nationwide have tried cigarettes by 12th grade, and 25% of 12th graders are current smokers.[90] As early as 8th grade, more than 25% have tried cigarettes, and 10% has become a current smoker.[91] Teenagers who smoke are more likely to develop a stronger habit as adults and the dangers of smoking on human health are well-documented.[92, 93] Risk factors for youth smoking include low socioeconomic status, peer tobacco use, smoking by parents, accessibility of tobacco, lack of parental support or involvement, and low self-esteem.[94,95]

Today's youth grow up in an environment that encourages multiple forms of substance use and abuse, both legal and illegal. Nationwide, youth have high rates of alcohol and drug abuse and significant problems with binge drinking, although rates of drug use overall are decreasing.[91] Underage drinking is a factor in a host of serious problems including homicide, suicide, serious injury, crime, and high risk sex.[96,97]

Tobacco and Marijuana Use in Berkeley's Children

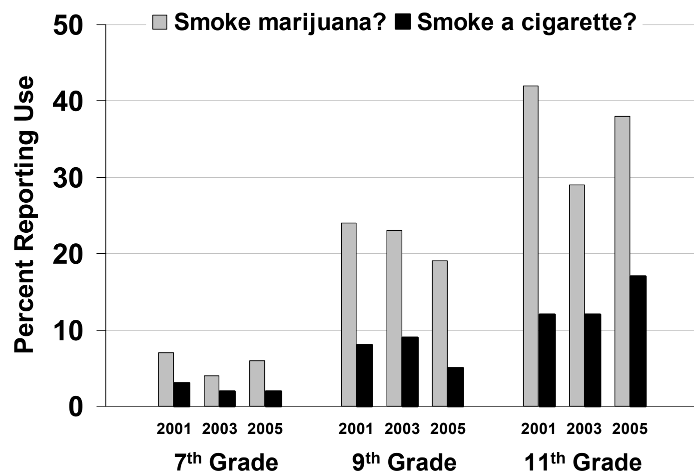
Berkeley Unified School District (BUSD) students* reported an increase from 7th to 11th grade of cigarette or marijuana use within 30 days. Nearly 40% reported using marijuana.

Of more than 1400 students screened at the Berkeley High School (BHS) Health Center in 2005, 12% had recently used tobacco.

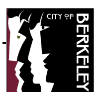
Of 800 BHS students surveyed in 2005, 25% of them reported that their families still allow smoking inside the home.

* The response in 2006 was 56% for students that were surveyed

Figure 3.11 – Use of Tobacco and Marijuana During Past 30 Days in 7th, 9th, and 11th Graders, Berkeley Unified School District, 2002-2006



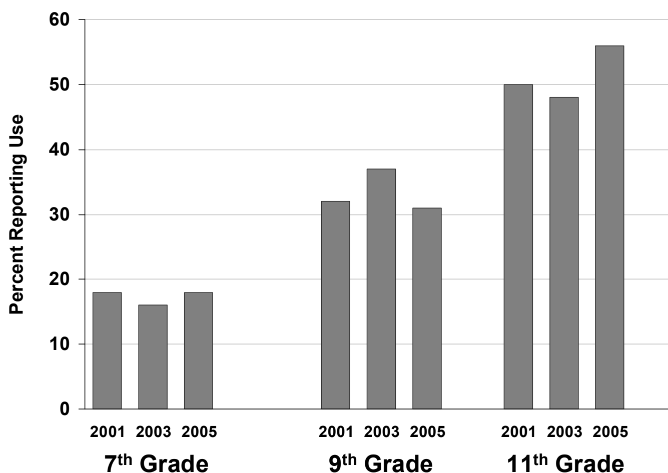
Source: California Healthy Kids Survey, 2001-2005



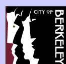
Alcohol Use in Berkeley's Children

In 2005, more than half of 11th graders reported using alcohol within 30 days.

Figure 3.12 – Use of Alcohol in 7th, 9th, and 11th Graders, Berkeley Unified School District, 2001-2005



Source: California Healthy Kids Survey, 2001-2005

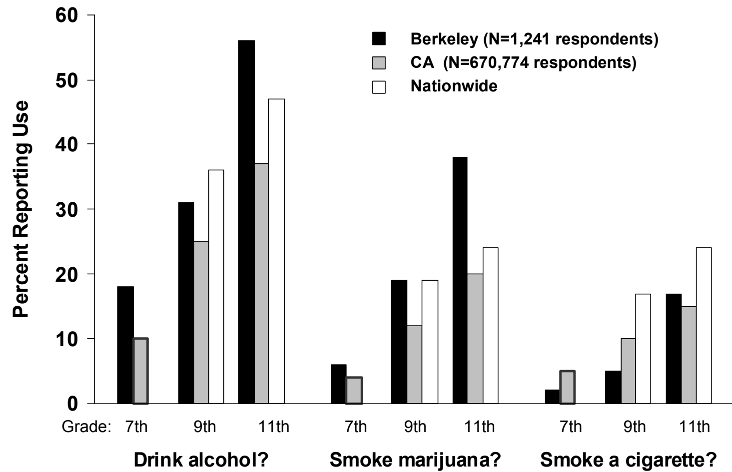


Program Highlight: Youth Tobacco Prevention

The Tobacco Prevention Program works to reduce youth access to tobacco through policy change requiring tobacco retailers to become licensed and by working with the Police Department to conduct tobacco sting operations. UC Berkeley and Berkeley High School students deliver interactive curricula to decrease second-hand smoke exposure and take action against the glamorization of tobacco – including blunts and hookahs -- in the entertainment industry. Student interns conduct projects and teach an academic class at UC Berkeley to increase smoking cessation rates and to reduce tobacco industry influence through research, funding and distribution of tobacco coupons.

More Berkeley students report using alcohol and marijuana than their statewide counterparts, but fewer report smoking cigarettes. At the 11th grade, more Berkeley students use alcohol and marijuana compared to teens nationwide.

Figure 3.13 – Cigarette, Alcohol, and Marijuana Use in Last 30 Days of 7th, 9th, and 11th Graders, Berkeley Unified School District, California (CSS), and U.S. Comparisons (YRBS), 2005



Source: California Healthy Kids Survey, 2001-2005

Program Highlight: Community Advocacy for Alcohol Policy

Availability of alcohol, tobacco and other drugs is recognized as a problem in Berkeley and is thought to be higher than the State average.[98] To help change the community norms on underage drinking and strengthen enforcement of laws to limit access to minors of alcohol and other drugs, the South and West Berkeley Community Action Team co-authored and testified in support of tougher City policies in partnership with a local coalition, the Berkeley Alcohol Policy Advisory Coalition (BAPAC). Through this involvement, they achieved success in the adoption of a city ordinance that will serve to limit underage drinking.

Sexually Transmitted Infections

Why Is This Important?

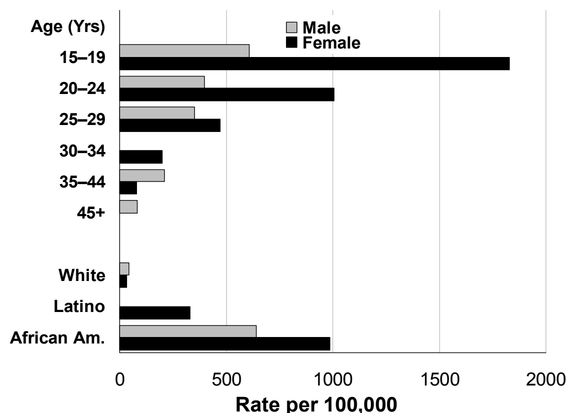
Sexually Transmitted Infections (STIs) are an indicator of high-risk sexual activity, and increase the risk for HIV infection. Untreated Chlamydia increases the risk of Pelvic Inflammatory Disease, potentially fatal ectopic pregnancy (pregnancy outside the uterus) and infertility in women. Gonorrhea is related to fertility problems in both men and women. Together, Chlamydia and gonorrhea account for the majority of reportable sexually transmitted infections in adolescents and young adults.[99]

Sexual Transmitted Infections in Berkeley's Adolescents

In 2005, two thirds of the Chlamydia infections and almost half of the gonorrhea infections reported by health care providers to the Berkeley Public Health Division occurred in youth aged 15 to 24 years of age. African American females had the highest rate of Chlamydia infection and African American males had the highest rates of gonorrhea infection. Berkeley's Chlamydia infection rate is below that of Alameda County and the California average.

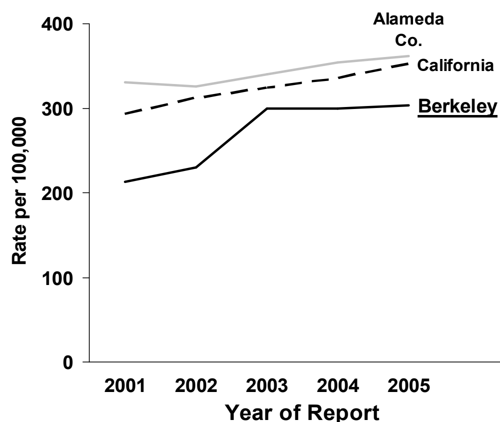
Of more than 1400 students screened at the Berkeley High School Health Center in 2005, over half were sexually active. Of sexually active students, 71% were screened for sexually transmitted infections; of these, 5% tested positive for Chlamydia.

Figure 3.14 – Chlamydia Rates by Gender, Age, and Race/Ethnicity, Berkeley, 2005



Source: California Department of Health Services, SDT Control Branch

Figure 3.15 – Chlamydia Rates, Berkeley, Alameda County, California, 2000-2005



Source: California Department of Health Services, SDT Control Branch

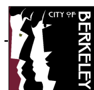
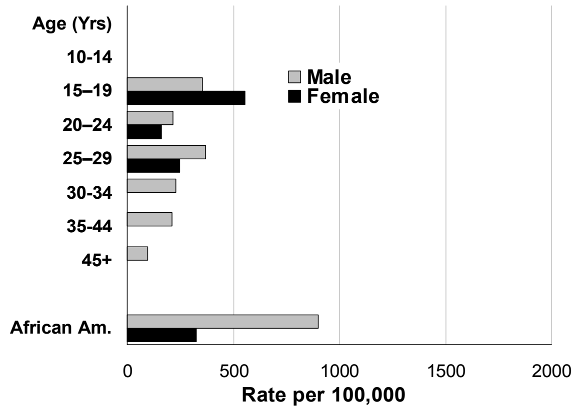
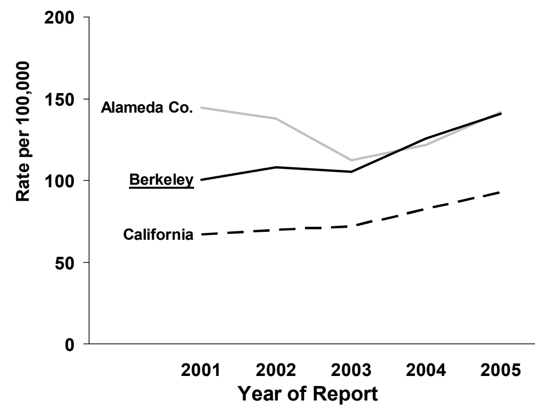


Figure 3.16 – Gonorrhea Rates by Gender, and Age, Berkeley, 2005

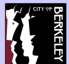


Source: California Department of Health Services, SDT Control Branch

Figure 3.17 – Gonorrhea Rates, Berkeley, Alameda County, California, 2000-2005

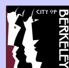


Source: California Department of Health Services, SDT Control Branch



Program Highlight: Enhanced Gonorrhea Surveillance Program

Every Berkeley resident testing positive for gonorrhea is called to answer a short telephone survey. This program is an ongoing, surveillance activity that improves the understanding of gonorrhea transmission throughout California and helps to develop appropriate and targeted interventions.



Program Highlight: Safer Sexual Practices Among Youth and Young Adults

Various programs at the Berkeley High School Health Center and the Public Health Division work to increase education and outreach for youth and young adults to change social norms to promote safer sexual practices. Messages encourage youth to delay the onset of sexual activity, insist upon the correct and consistent use of condoms, and limit their number of sexual partners.

Immunizations

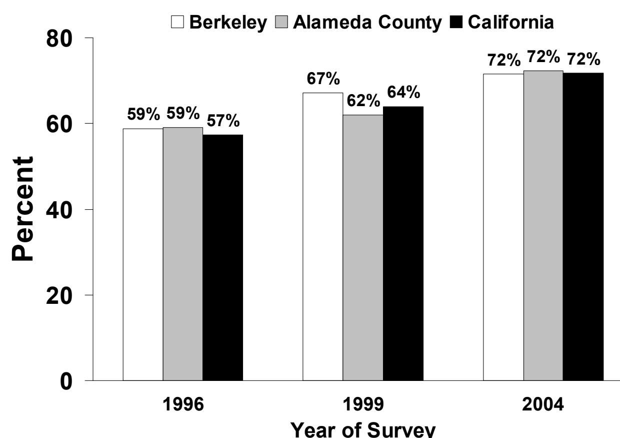
Why is This Important?

Immunization is one of the most significant public health achievements of the 20th century; polio is a scourge of the past, and once common childhood illnesses like mumps and measles are now rare. Nationally, childhood immunization rates are high.[100] However, children living in poverty and minority children have lower rates of immunization.[101] This disparity is of great concern in large urban areas with underserved populations because of the potential for outbreaks of vaccine-preventable diseases. A small percentage of parents sign personal belief exemptions (PBE) due to fear that vaccines are harmful and cause bad side effects such as illness and death and that vaccines overload the immune system and are not needed when there are very low or no cases of the diseases in the U.S. When these PBEs are included in the number of children not vaccinated, the PBEs lower overall immunization rates.

Immunization of Berkeley's Children

Childhood immunization rates for diphtheria, tetanus, whooping cough, polio, measles, mumps, and rubella have steadily increased over the last decade and are on par with Alameda County and statewide averages.

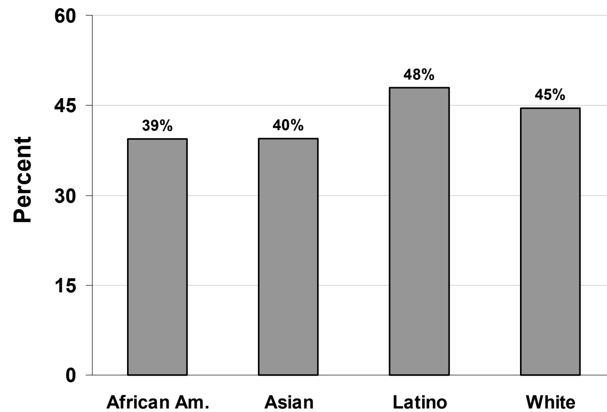
Figure 3.18 – Percent of Two-Year Olds Immunized Against 7 Childhood Diseases, Berkeley, Alameda County, and California, 1996, 1999, and 2004



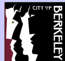
Source: California Department of Health Services, Kindergarten Retrospective Survey
Diphtheria, tetanus, whooping cough, polio, measles, mumps, rubella (4:3:1)

Although a high percentage of Berkeley children are immunized against diphtheria, tetanus, whooping cough, polio, measles, mumps, and rubella, many are not yet immunized against hepatitis B, Haemophilus influenza, and chicken pox, for which vaccines are available.

Figure 3.19 – Percent of Two-Year Olds Immunized Against 10 Childhood Diseases by Race/Ethnicity, Berkeley, 2004



Source: Kindergarten Retrospective Survey, 2004
Diphtheria, tetanus, whooping cough, polio, measles, mumps, rubella, hepatitis B, Haemophilus influenza, chicken pox (4:3:1:3:3:1)



Program Highlight: Immunization Program

This program works to improve immunization rates for all Berkeley residents across the life span. Special efforts are targeted at the African American and Latino children under two years of age by collaborating with WIC; public and private preschools; licensed family childcare homes; medical providers; and through community outreach, education and encouraging participation in the immunization registry among medical providers.

Mental Health

Why Is This Important?

The future of our City and community depends on the mental health and strength of our young people. When untreated, mental health disorders can lead to school failure, family conflicts, drug abuse, violence, and even suicide. Nationally, one of every five children and adolescents has a mental disorder, and 10% have a serious emotional disturbance that affects daily functioning. But 80% of children who need mental health services do not receive them. Childhood and adolescence are critical periods for promoting social and emotional development and preventing mental disorders — many major mental health disorders now are recognized to have their onset in childhood.[102]

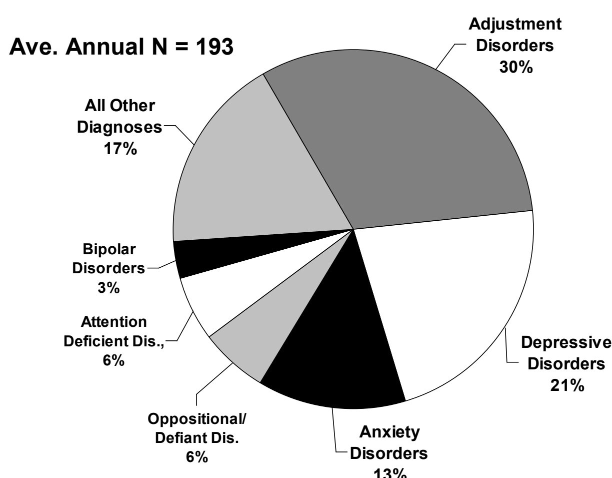
Mental Health of Berkeley's Children

In 2006, children under the age of 18 years accounted for 21% of Berkeley residents receiving services from Berkeley Mental Health Division. Each year, about 193 children and adolescents received mental health services.

Adjustment disorders occur in about 1/3 and are most commonly caused by trouble coping 3 months after a stressful event. One-third had depression or anxiety disorders.

In 2006, the Berkeley High School Health Center saw 202 youth as mental health clients, a total of 1,079 visits. In the latter half of that year, 44% of the youth had depression or anxiety disorders.

Figure 3.20 – Leading Diagnoses in Clients Less than 18 years of Age, Berkeley Mental Health Division, Berkeley, 2002-2006



Source: Alameda County Behavioral Health Services , 2002-2006

Program Highlight:

Berkeley High School Mental Health Services

The Health Center provides crisis intervention, long-term and short-term therapy, and support groups on a variety of student-related issues (family issues, substance use, grief and loss, and violence prevention). It also promotes positive youth development opportunities.

Program Highlight:

Mental Health Division's Family, Youth and Children's Services

The Division offers counseling and treatment services for children with serious emotional disorders and their immediate family members, and Crisis Services for both children and youth.

Children with Special Health Care Needs

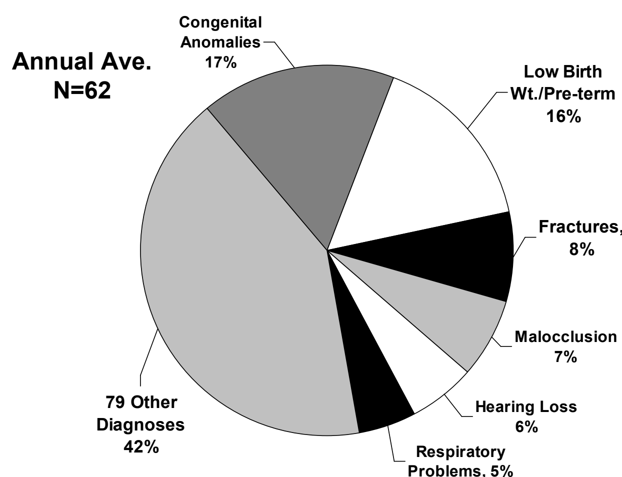
Why is This Important?

Children with Special Health Care Needs are: "…those who have or are at increased risk for a chronic physical, developmental, behavioral, or emotional condition and who also require health and related services of a type or amount beyond that required by children generally."[103] Nearly 20% of families in the U.S. have a child with special health care needs.[104] Children with special health care needs who meet strict eligibility criteria are able to access medical and developmental services through state-funded programs such as California Children's Services, Early Intervention, or Mental Health. But many children with special health care needs are not eligible for these services and their needs remain unmet.

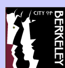
Berkeley's Children with Special Health Care Needs

Congenital anomalies, prematurity and low birth weight account for one-third of the diagnoses of Berkeley children receiving medical services in the California Children's Services program.

Figure 3.21 – Leading Diagnoses of Children in California Children's Services, Berkeley, 2003-2006



Source: Alameda County Children's Medical Services , 2003-2006

 **Program Highlight: Child Health and Disability Prevention Program (CHDP)**

CHDP improves health care access for Medi-Cal and low-income children in Berkeley by providing outreach and education regarding available services. CHDP providers provide physical check-ups which include immunizations, development and dental assessments, vision and hearing screening, health education and appropriate lab test for infants, children and teens with Medi-Cal. Periodic preventive health services are available to non-eligible children.

Asthma

Why Is This Important?

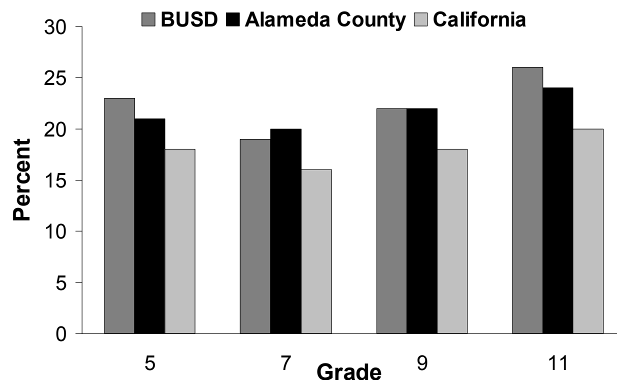
Asthma is the leading cause of hospital stays in children and the #1 cause of school absences.[105] Asthma triggers include air pollution, tobacco smoke, dust, pollen, and cockroaches, which are often worse in poor neighborhoods near freeways and with substandard housing. The percentage of children with asthma has been increasing. In California, the percentage of children ages 1-17 diagnosed with asthma rose from 14.1 percent in 2001 to 16.1 percent in 2005.[106]

African Americans are more likely to be hospitalized for asthma attacks and to die from asthma.[107,105] Hospitalization rates tell us about the burden of asthma in the community due to environmental and household triggers, access to medical care, and the quality of disease management for asthma.[108]

Asthma in Berkeley's Children

Over twenty percent of 5th graders in the Berkeley Unified School District report being told by a parent or other adult that they had asthma. The prevalence of asthma at all grades is consistently higher than the state average. Of more than 1400 students screened at the Berkeley High School Health Center in 2005, 12% had asthma.

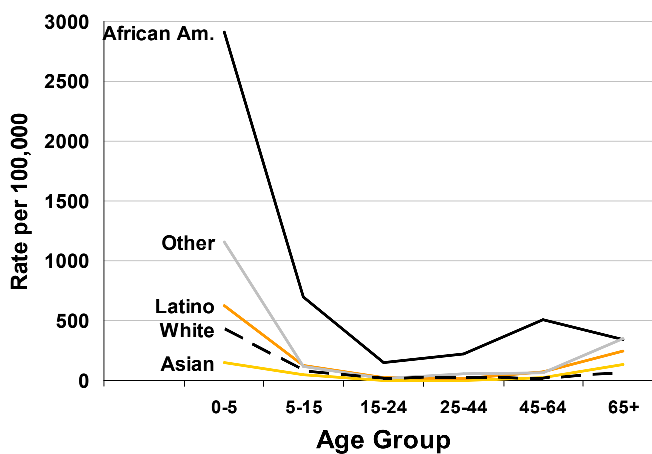
Figure 3.22 – Self-Reported Asthma Prevalence in BUSD Grade Students, Berkeley, 2005-6



Source: California Healthy Kids Survey, 2005-6

Annually, there are over 60 asthma hospitalizations in Berkeley children less than 15 years of age. Children account for about half of the 124 asthma hospitalizations that occur each year in Berkeley residents of all ages. African American children less than 5 years of age had over 5 times the rate of asthma hospitalization as White children of the same ages, and Latino children less than 5 years of age had 1.5 times the rate as White children.

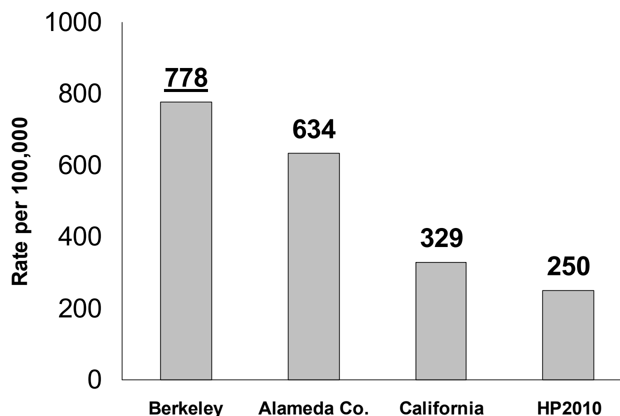
Figure 3.23 – Average Annual Asthma Hospitalization Rate by Age and Race/Ethnicity, Berkeley, 2000-2005



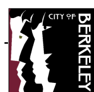
Source: Office of Statewide Health Planning and Development, U.S.Census, 2000

For children under age 5, the rate of asthma hospitalization in Berkeley and Alameda County is significantly higher than the California rate.

Figure 3.24 – Asthma Hospitalization Rate of Children < 5 Years of Age, Berkeley, Alameda County, California, 2001-2003

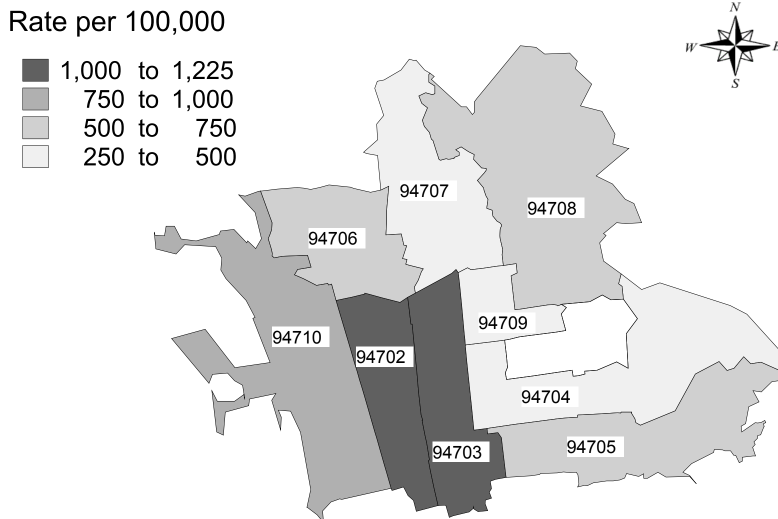


Berkeley's rate is statistically higher than California's rate
Source: Office of Statewide Health Planning and Development, U.S.Census, 2000



The highest rates of asthma hospitalization for children under 5 years of age occur in west and south Berkeley. The high hospitalization rates may be due to a higher number of children with asthma, high exposure to asthma triggers, lack of access to appropriate medications and primary care, inadequate primary care asthma management, or a combination of these factors. While the Public Health Division participates in regional coalitions on this issue, COB does not currently have any program activities that specifically address asthma.

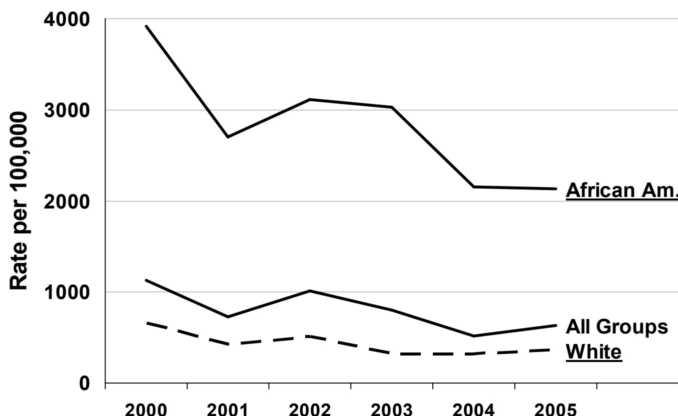
Map 3.1 – Asthma Hospitalization Rate of Children < 5 Years of Age by Zip Code, Berkeley/Albany, 2000-2005



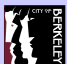
Source: Office of Statewide Health Planning and Development, U.S. Census, 2000

From 2000 to 2005, the rate of asthma hospitalization in African American children less than 5 years of age decreased. However, in 2005, the rate was still 4 times higher than that of White children.

Figure 3.25 – Asthma Hospitalization Rate of Children < 5 Years of Age by Race/Ethnicity and Year of Hospitalization, Berkeley, 2000-2005



Source: Office of Statewide Health Planning and Development, U.S.Census, 2000



Program Highlight: Secondhand Smoke Prevention

The Tobacco Prevention Program conducts community education and awareness campaigns aim to reduce children's smoke exposure (a known trigger for asthma) in homes and cars to help families develop smoke-free policies. The Smokefree Babies Project offers prevention services and cessation programs to pregnant mothers and their families to reduce exposure.

UC Berkeley students conducted surveys among over 800 Berkeley High School students in 2005 on their families' practices of allowing or restricting smoking within their family home and cars. Students reported that 25% of their families still allow smoking in their homes and 23% of the students reported that their families still allow smoking in their car.

Childhood and Adolescent Injuries

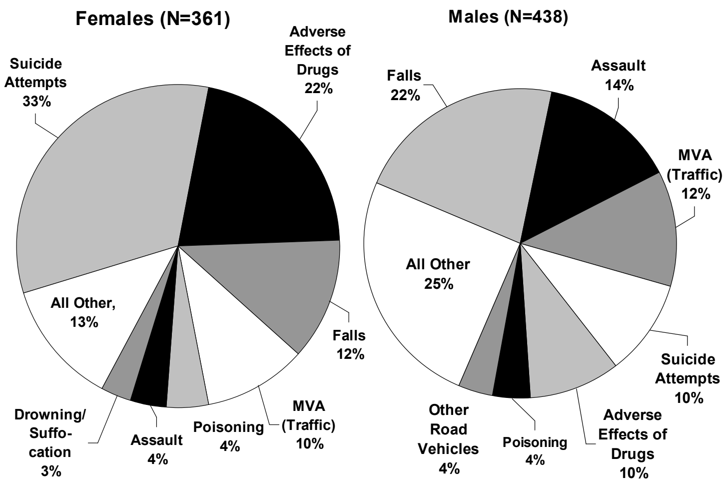
Why Is This Important?

Children and adolescents are at high risk for many injuries that can lead to death or disability. Among youth ages 13-20, homicides and suicides are top causes of injury hospitalization both in Alameda County and in California.[109] In 2004 in California and Alameda County, car crashes, bicycle collisions, and pedestrian injuries were responsible for 3 out of 5 leading causes of hospitalized nonfatal injuries for children.[109] The risk of motor vehicle crashes is higher among 16-19 year olds than among any other age group.[110] Compared with other age groups, teens have the lowest rate of seat belt use and the lowest usage rates are among African American and Latino students.[79] Drinking while driving is deadly – 25% of young drivers who died in motor vehicle crashes in 2003 had a high Blood Alcohol Concentration.[111]

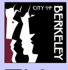
Injuries in Berkeley's Children and Adolescents

From 2000 to 2005, there were 799 injuries in Berkeley youth less than 25 years of age serious enough to require hospitalization. For girls and young women, self-inflicted injury, adverse effects of medications and illicit drugs, and falls were the leading injuries. For boys and young men, falls, assault, and motor vehicle traffic collisions were the leading causes of injury.

Figure 3.26 – Leading Causes of Injury Hospitalization in Youth Under 25 Years of Age by Sex, Berkeley, 2000-2005



Source: Office of Statewide Health Planning and Development

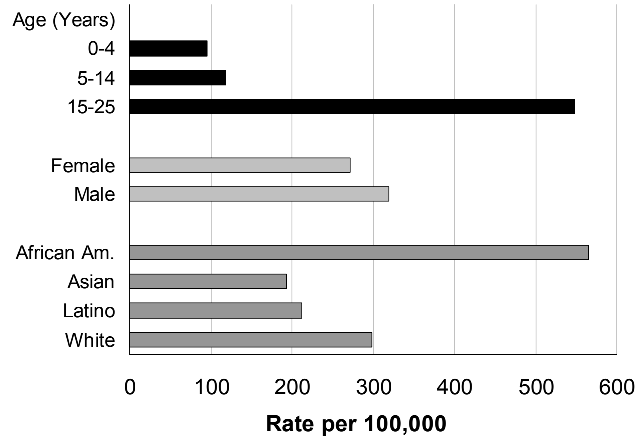


Program Highlight: Injury Prevention Program

This is a community education program aiming to reduce bicycle, pedestrian and automobile injuries among youth in Berkeley by focusing on the prevention of drunk/drugged driving, risk reduction and safe travel habits. The program utilizes multiple intervention methods including comprehensive outreach, peer education, seminar-style education and services for children and families throughout Berkeley. Program activities include a high school peer education youth program, the Annual San Pablo Park Bike Rodeo (see picture on previous page), helmet and seat belt usage surveys, interactive educational programs for elementary-aged children, and the provision of free and low-cost helmets. The program is developing a peer-based youth violence prevention program. The program recently received an award from the California Office of Traffic Safety for its innovative peer youth education programs (see picture below).

Injury hospitalization rates are higher in males than females and increase rapidly in late teens. Injury hospitalization rates in African American youth are nearly double that of White youth.

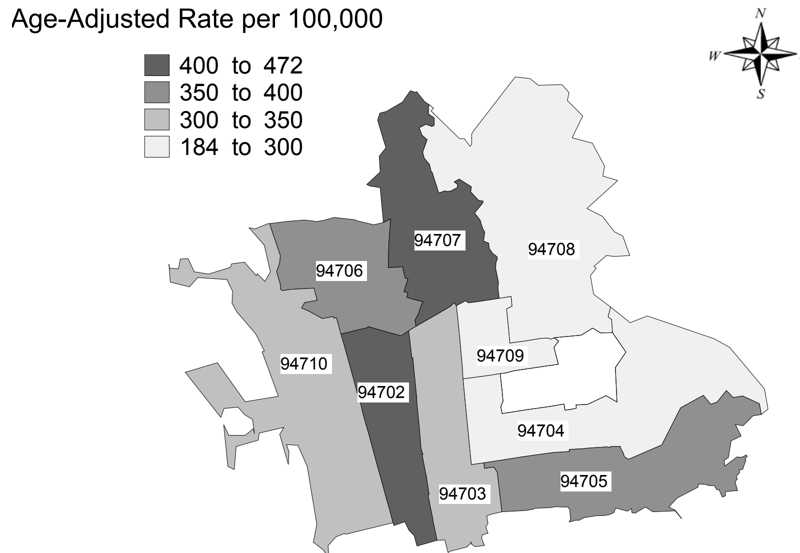
Figure 3.27 – Injury Hospitalization Rates in Youth Under 25 Years by Age, Sex, and Race/Ethnicity, Berkeley, 2000-2005



Source: Office of Statewide Health Planning and Development

Injury hospitalization rates are highest in west Berkeley zip code 94702 and north Berkeley zip code 94707.

Map 3.2 – Injury Hospitalization Rate of Youth < 25 Years of Age by Zip Code, Berkeley/Albany, 2000-2005

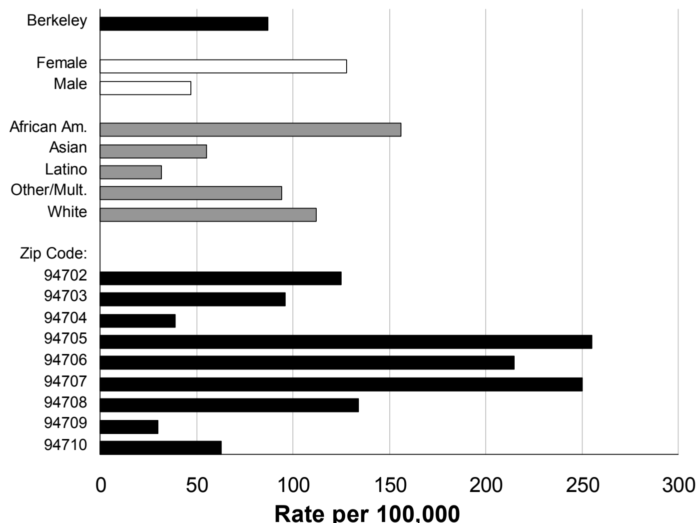


Source: Office of Statewide Health Planning and Development, U.S. Census, 2000

Self-Inflicted Injuries/Attempted Suicide

Girls and young women are 2.5 times more likely to be hospitalized for a self-inflicted injury than boys and young men. African Americans and Whites have increased risks for a self-inflicted injury. Youth in zip codes of southwest (94705) and northeast Berkeley (94706, 94707) have the highest rates of hospitalization for self-inflicted injury.

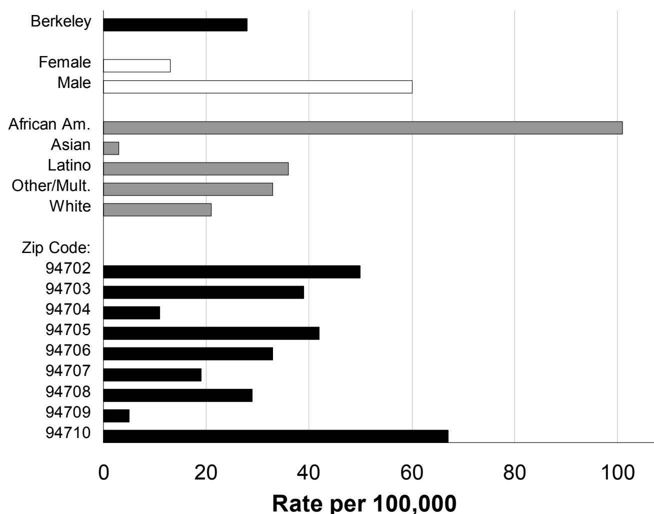
Figure 3.28 – Self-Inflicted Injury Hospitalization Rates in Youth 15-24 Years by Sex, Race/ Ethnicity, and Zip Code, Berkeley, 2000-2005

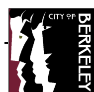


Assault and Youth Violence

The male hospitalization rate due to assault was five times greater than that of females. The hospitalization rate of African Americans was 4 times greater than Whites, 3 times greater than Latinos, and 20 times greater than Asian youth. Youth living in zip codes of south and west Berkeley have the highest rate of assault hospitalizations.

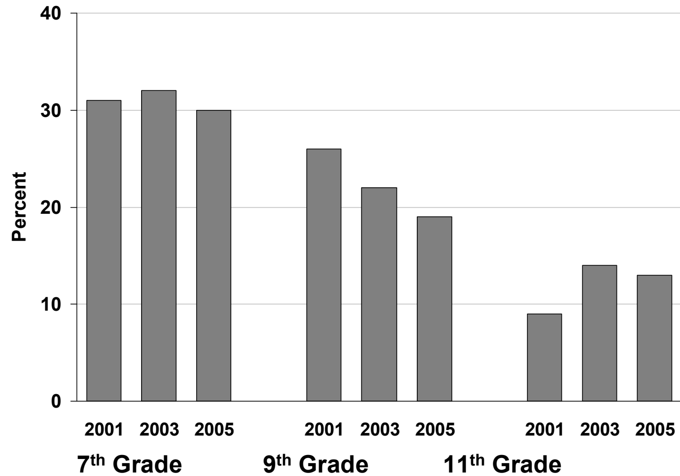
Figure 3.29 – Assault Hospitalization Rates in Youth < 25 Years by Sex, Race/Ethnicity, and Zip Code, Berkeley, 2000-2005





Nearly one third of BUSD 7th graders surveyed between 2001 and 2005 reported having been in a physical fight within the past 12 months. Self-reported fighting decreases as students get older.

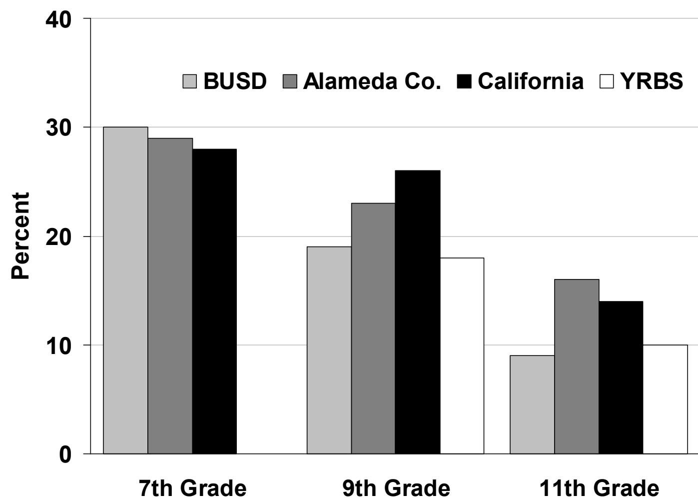
Figure 3.30 – "Been in a Physical Fight" in Last 12 Months of 7th, 9th, and 11th Graders, Berkeley Unified School District, 2001, 2003, 2005



Source: California Healthy Kids Survey, 2001-2005

Older BUSD students surveyed between 2001 and 2005 were less likely to be in a physical fight than their Alameda County or California counterparts.

Figure 3.31 – "Been in a Physical Fight" in Last 30 Days of 7th, 9th, and 11th Graders, Berkeley Unified School District, Alameda County, California, and Youth Risk Behavioral Surveillance, 2005



Source: California Healthy Kids Survey, 2001-2005

Dental Health

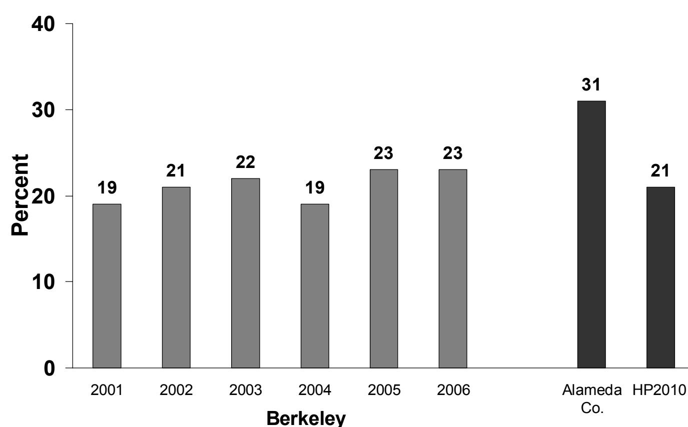
Why is This Important?

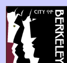
Dental caries are the single most common chronic disease of childhood.[112] Increased use of dental sealants, toothbrushing with fluoridated toothpaste, community water fluoridation, and sound dietary practices are needed to reduce tooth decay.[113] Untreated cavities cause pain that affects children's school performance.[114]

Dental Health of Berkeley's Children

On average, 21% of Berkeley's elementary school children have untreated tooth decay. This is a lower rate than Alameda County and matches the HP2010 goal of 21%.

Figure 3.32 – Untreated Tooth Decay in Second and Fifth Grade Students, Berkeley, Alameda County, and Healthy People (HP) 2010 Objectives





Program Highlight: Oral Health Program

This program aims to decrease dental decay and increase overall health and well being of children in the Berkeley schools. It provides free dental screenings and sealants to 2nd and 5th grade children in all elementary schools.

Childhood Lead Poisoning

Why Is This Important?

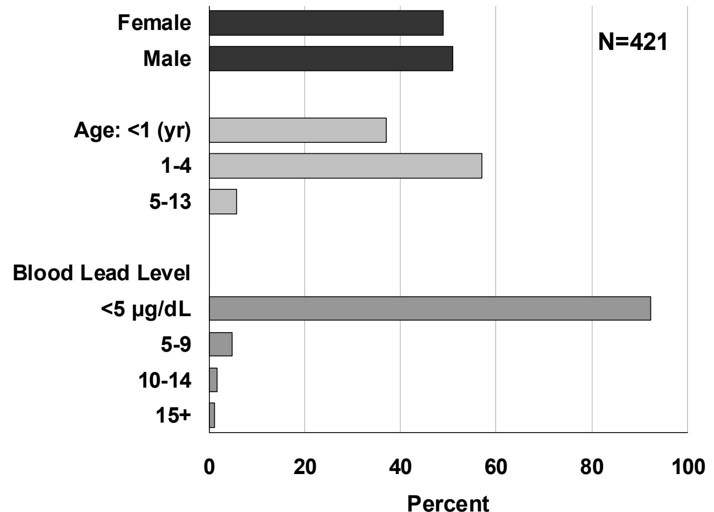
Lead poisoning (a blood lead level greater than 10 micrograms of lead per deciliter of blood) is a serious problem among young children that can go undetected because it typically has no obvious symptoms.[115] Lead exposure at low levels can cause learning disabilities and behavioral problems, and at very high levels can result in seizures, coma and even death. All high-risk children should be tested for lead at 12 and 24 months of age.

Children at greatest risk of lead poisoning are those under the age of 6 who are poor and reside or spend long amounts of time in pre-1978 housing (when lead was removed from house paint), childcare centers, or buildings that have chipping or peeling paint.[116, 115] The major source of lead exposure among U.S. children is lead-based paint and lead-contaminated dust found in poorly-maintained buildings. About 94% of Berkeley's housing units were built before 1979.[117] Other exposure sources include imported lead-glazed pottery, children's toys and jewelry, vinyl products, and take-home exposure from adults who work with lead (house painting, demolition, radiator repair).

Children Tested for Blood Lead

In 2006, 421 Berkeley children aged 0 to 13 years were screened for lead. Twelve children had elevated lead levels (>10µg/dl) that needed medical monitoring and follow-up. Eight of the 12 children lived in census tracts of southwest Berkeley, 2 lived in central Berkeley, and 2 lived in the Berkeley Hills.

Figure 3.33 – Children with Laboratory-Reported Blood Lead Tests, Berkeley, 2006



Source: California Department of Health Services, Laboratory Branch

Program Highlight: Childhood Lead Poisoning Prevention Program

This program provides medical case management for families of children with elevated blood lead levels, education, and technical assistance to medical providers, and increases awareness of the hazards of lead poisoning from painting and remodeling pre-1978 housing. Staff works closely with counterparts at the County to provide in-home consultations and self-testing kits for Berkeley property owners.

Anemia

Why Is This Important?

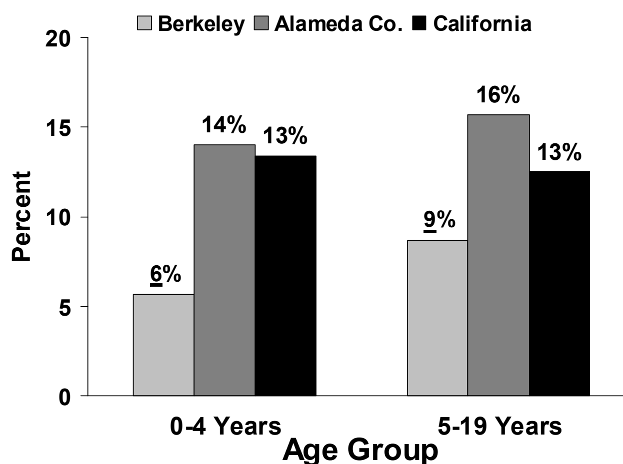
Anemia is often a marker of poor nutrition. Iron deficiency is the most common cause of anemia, though sickle cell disease is also a significant cause in some racial/ethnic groups. Untreated, anemia can lead to fatigue and poor growth. Risk factors for anemia in young children include poverty, prematurity, and birth to an iron-deficient woman.

Childhood Anemia in Berkeley

Nine percent of children screened in the Child Health & Disability Prevention Program had anemia.

The occurrence of anemia in Berkeley's CHDP enrollees is less than the Alameda County and state average.

Figure 3.34 – Anemia in Children in California Child Health & Disability Prevention Program, Berkeley, Alameda County, and California, 2005



Source: California Child Health & Disability Prevention Program, 2005