Key Indicators of Health



The City of Berkeley Public Health Division is pleased to provide you with the *Key Indicators of Health 2007*. This summary presents a snapshot of Berkeley's health status and community health needs. The numbers tell an important story that is both encouraging and distressing. The good news: many Berkeley residents are living longer, healthier lives. Life expectancy has increased over the last 10 years from 77-83 years. Berkeley has the lowest teen birth rate in the state. African-Americans and Latinos now have the same access to prenatal care as whites, a big improvement since 1999.

But despite these gains, we continue to see alarming disparities in many health outcomes based on income, race/ethnicity, neighborhood, education, and other social determinants of health. We need to re-double our efforts to eliminate these social inequities and other risk factors that contribute to poor health among some Berkeley residents. We propose to address health inequities in four priority areas for action:

- A healthy start for every child
- Healthy youth development
- Chronic illness prevention
- Public health preparedness

This work cannot be done by the Public Health Division alone – it will take a community-wide effort and partnerships among many City agencies and community-based organizations. It will take more than access to health care – we need to look at the many ways in which our social, economic, and physical environments shape our lives, and work together to create healthy environments for everyone in Berkeley.

I hope this summary will be helpful in understanding our health concerns so that we can invest wisely to improve the health and lives of our community and its residents.

Best of health.

Linda Rudolph, M.D., M.P.H. City of Berkeley Health Officer

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Public Health Division

How to Read This Report

"Key Indicators of Health" provides data on Berkeley's health status. It starts with the relationship between health and things like income and education level – the "social determinants of health". Then we look at health behaviors such as tobacco and alcohol use and weight and physical activity. Finally we look at health outcomes across the life course, from birth to death. We highlight "health inequities" – differences in health outcomes that are unfair and preventable. In each section, we provide short descriptions of some of our current work to address health issues.

Comparisons

We use arrows to compare Berkeley's health status to Alameda County and California.

- ↑ indicates that Berkeley has a better health status than Alameda County or California.
- ◆ indicates that Berkeley has a statistically worse health status than Alameda County or California.

We use a triangle (▼) to compare health status of Berkeley race/ethnic and income groups.

- __ (underline) indicates that the group has the best health status
- ▼ indicates that a particular group has a poorer health status than the group with the best health status (underlined).

Only differences that are statistically significant are marked with arrows or underlines. Differences that are not statistically significant reflect chance or year-to-year fluctuations.

Some Technical Notes about the Data

- Hospitalization rates, mortality rates, and cancer incidence rates have been age-adjusted.
- Percents have been rounded up or down to the nearest whole number, and may not always add to exactly 100%.
- Some risk factors and health outcomes occur infrequently or occur in small population groups; results based on fewer than 10 health outcomes are not presented.
- We have aggregated some data over several years for Latinos, Asians, and African Americans so that we can present reliable information that is still timely.
- Due to small numbers, Native Americans and multiracial groups are not presented separately, but are included in the Berkeley total.
- We have used the most recently available data for each risk factor or outcome of interest. The years represented in each table may not always be the same.

The Appendix includes a Resource Directory and Technical Notes. See the full *Health Status Report 2007* for more details, available at:

www.ci.berkeley.ca.us/publichealth/reports/reports.html

Social Determinants of Health Berkeley Social, economic, cultural, and environmental African American conditions impact the health of populations. Health **Alameda County Total Population** inequities are differences in health for particular groups of people that are unnecessary, avoidable, unfair, and unjust. These are the poor health California outcomes that cannot be changed simply by telling atino. White Asian people not to smoke, or by opening up more clinics. INDICATOR Race/Ethnicity • Percent of Berkeley population in 2000 Census 13 16 10 55 100 • Percent of non-White population in 2000 Census 41 51 41 • Percent of population less than 18 years of age in 2000 Census 22 7 23 12 14 25 27 • Percent of population 65 years and older in 2000 Census 19 8 3 10 10 10 11 Education • Percent of students in Berkeley public schools reading at grade level 20 ▼ 48 ▼ 28 ▼ 84 49 1 47 42 • Graduation rates of Berkeley High School students 82 ▼ 94 74 ▼ 91 86 90 87 • Percent of adults 25 or older with a college degree 20 ▼ 64 ▼ 40 ▼ 78 64 **^** 35 27 **Annual Income/Poverty** • Median annual family income (\$) in 1999 37,870 ▼ 46,786 ▼ 47,435 ▼ 95,571 70,434**↑** 65,857 53,205 • Percent of total population living below the federal poverty level 22 ▼ 35 ▼ 21 ▼ 12 20 ₩ 11 14 5 19 ▼ • Percent of children < 18 years old living below the federal poverty level 30 ▼ 21 ▼ 15 14 20 Mortality Rate per 100,000 by Race/Ethnicity and Poverty All Berkeley neighborhoods, 2002-2004 1203 ▼ 482 545 586 653 **^** 724 705 889 ▼ 364 494 484 • Richest neighborhoods (<7.5% of people living in poverty, 1999-2001) • Poorest neighborhoods (≥15% of people living in poverty, 1999-2001) 791 ▼ 812**▼**[†] 1131▼ 309 480

Comparisons within Berkeley race/ethnic groups: a difference that is statistically poorer (▼) than the underlined reference group (best outcome)

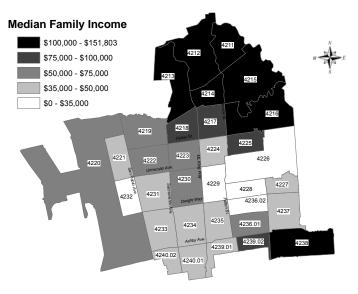
A City of Berkeley health indicator that is statistically poorer (♥) or better (♠) than Alameda County and California

[†] The mortality rate of Berkeley residents living in the poorest neighborhoods is significantly higher than those living in neighborhoods with less poverty.



^{*} Data not statistically reliable or unavailable

- Berkeley's population is stable at around 105,000 people.
- Adolescents and young adults comprise 25% of the population – a high number due to the university. The number of residents aged 45 years and older, especially baby boomers, is increasing.
- People living in the Berkeley Hills have the highest average income; people in South and West Berkeley (and some neighborhoods with high numbers of students near UC) have the lowest average incomes.



Source: U.S. Census, 2000

- There were fewer low- and middle-income African American and White households in 2000 than 1990. The number of the poorest and richest households increased.
- The 15% of the population with the highest incomes account for 50% of all income, both in California and Berkeley,



- Education, health care, and professional, scientific, and arts and entertainment industries account for six out of every 10 jobs. Few jobs are available in traditional, "blue-collar" industries such as manufacturing and construction.
- Most Berkeley residents drive to work; only 20% use mass transit. Over 40% spend 30 or more minutes commuting to work, and 30% work outside Alameda County.
- Over 30% of Berkeley households speak primarily a non-English language.
- In 2003, a survey of homelessness estimated between 500-800 Berkeley adults and up to 50 children were homeless on the day of the interview.



Data Highlights

Residents living in the poorest Berkeley neighborhoods die at nearly twice the rate as those living in the richest neighborhoods.

African Americans living in affluent neighborhoods die at rates similar to Whites living in the poorest neighborhoods.

Health Behaviors Berkeley Lack of physical activity, unhealthy diet, use of tobacco, alcohol and other drugs, violence, and unsafe sex are related to nearly African American Alameda County **Total Population** 1/2 of all deaths in Berkeley. We know that the physical and social environment that people live in effects their behaviors. People need access to safe places to play or walk, and to stores that sell fruits, vegetables, and whole grains. Youth need safe California and healthy places to gather. Our community needs to ensure atino healthy environments, promote healthy lifestyles, and help reduce White sian the stress that makes it hard for some to adopt healthy behaviors. INDICATOR Tobacco Use Percent of adults who smoke every day or on some days, 2001 19.5 12.9 15.9 16.5 13.8 13.9 7.2 * Percent of middle & high school students who smoked cigarettes, 2006[†] 8.0 9.4 Alcohol and Other Drugs, 2006 Percent of middle and high school students who had an alcoholic drink[†] 34.9₩ 21.9 22.4 Percent of middle and high school students who smoked marijuana[†] 20.9₩ 11.1 11.1 Diet 62.1▼ 19.8 Percent of adults not eating five daily servings of fruits/vegetables, 2001 41.7 23.0 30.8↑ 48.4 49.3 Exercise 36.2▼ 27.2 • Percent of adults who do NOT get moderate or vigorous exercise, 2001 11.2 **17.7↑** 27.0 24.8 Overweight/Obesity 24.1₩ • Percent of low income children who are obese, 2005 14.6 18.2 • Percent of adults who are overweight or obese, 2001 52.8▼ 20.7 55.9▼ 33.8 33.7♠ 51.5 54.4 **Violence** 20.8₩ 23.0 23.5 Percent of grade school children reporting being in physical fight, 2006[†]

Comparisons within Berkeley race/ethnic groups: a difference that is statistically poorer (▼) than the underlined reference group (best outcome)

A City of Berkeley health indicator that is statistically poorer (Ψ) or better (\uparrow) than Alameda County and California

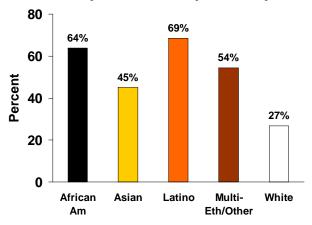


[†] Past 30 days; * Data not statistically reliable or unavailable



• Poverty, no health insurance, high school or less education, smoking, binge drinking, no exercise, low intake of fruits and vegetables, and obesity occur together more in African American and Latino adults than in other race/ethnic groups.

Adults with 3 or More Risk Factors for Poor Health Outcomes by Race/Ethnicity, Berkeley, 2001



Source: California Health Interview Survey, 2001



Program Highlight: Youth Tobacco Prevention

When youth can easily buy tobacco, they are more likely to smoke. The Public Health Division 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. New law prohibits smoking in Berkeley commercial areas, parks, or near schools, child care, and health care facilities



Data Highlights

Low-income children in Berkeley are more likely to be obese than their Alameda County and California counterparts.

Latinos are the most likely to eat their daily serving of fruits and vegetables yet have the highest rates of obesity compared with other groups.

Berkeley middle and high school students use alcohol and marijuana more often their Alameda County and the California counterparts.

Health Outcomes	Berkeley					nty	
Chronic diseases such as heart disease, stroke, and cancer account for 80% of Berkeley deaths. Violence impacts everyone in our community. Chronic diseases, intentional injuries, and Infectious diseases are largely preventable. Health and development in early childhood influence health and education outcomes throughout the life course. INDICATOR	African American	Asian	Latino	White	Total Population	Alameda County	California
Pregnancy and Birth							
Teen birth rate per 1,000 in women aged 15-19 years, 2002-2004	49.2 ▼	0.6	22.9▼	2.2	8.6 ↑	28.4	39.2
 Percent of live births getting prenatal care in the 1st trimester, 2003-2005 	92	95	93	93	94 ↑	91	87
 Percent of births having a low birth weight (< 5.5 lbs.), 2002-2004 	11.9 ▼	6.3	6.1	<u>5.4</u>	6.7	6.9	6.6
 Percent of premature births (<37 weeks of pregnancy), 2002-2004 	15.6 ▼	8.7	8.6	8.3	9.5	*	*
Percent of WIC infants exclusively breast fed at 6 months, 2006	20 ▼	50	46	<u>57</u>	38	*	*
Child & Adolescent Health							
 Percent of 2-year olds immunized against 7 childhood diseases, 2004 		76	76	<u>75</u>	72	72	72
Asthma hospitalizations per 100,000 children 0-5 years old, 2000-2005		*	628	<u>431</u>	778 ↓	634	<u>329</u>
 Injury hospitalizations per 100,000 children under 25 years, 2000-2005 		<u>190</u>	199	256	267	*	*
Chlamydia cases per 100,000 population, 2005	834 ▼	*	*	<u>40</u>	303	361	352
Adult Health							
 Percent of adults reporting doctor-diagnosed high blood pressure, 2001 	43▼	15	*	<u>14</u>	17₩	23	22∱
 Coronary heart disease hospitalizations per 100,000 adults, 2000-2005 		<u>338</u>	456	410▼	542	*	*
 Stroke hospitalizations per 100,000 adults, 2000-2005 	716▼	<u>282</u>	327	346			
 Diabetes hospitalizations per 100,000 adults, 2000-2005 	668▼	<u>52</u>	203▼	60	132		
Breast cancer cases per 100,000 women, 1998-2002		134	121	162	157 ↑	135	134
Prostate cancer cases per 100,000 men, 1998-2002		<u>89</u>	*	179▼	196 ↑	164	162
Lung cancer cases per 100,000 population, 1998-2002		<u>38</u>	*	41	47 ₩	62	60
AIDS cases per 100,000 population aged 13 or more years, 2002-2004		*	*	*	13.0	16.4	13.7
 Traffic injury rate per 100,000 population, 2002-2005 	1490▼	<u>416</u>	493	532▼	659	*	*
 Police reports for domestic violence per 100,000 adults, 2000 	2193▼	<u>105</u>	317▼	139	378	*	*
 Psychosis hospitalizations per 100,000 adults, 2000-2005 	1607▼	<u>168</u>	258▼	517▼	541	*	*
 Percent of women self-reporting symptoms of depression, 2001 	24	40	*	27	30	*	*





Program Highlight: Black Infant Health Program

This program aims to improve birth outcomes for African American women in Berkeley through intensive prenatal outreach and education, prenatal and postpartum peer support groups, and community/family education about current health issues and how to navigate social service systems to improve health care access, parenting skills, and self-improvement techniques. Women need interconceptional care (health care between pregnancies) to reduce risk factors, in addition to screening and comprehensive services for substance abuse problems.





Program Highlight: Chronic Illness Prevention Program

The Public Health Division works with many groups in our community to increase access to healthy foods – such as at Spiral Gardens or the Ecology Center's Farm Fresh Choice stands. Eat Well Berkeley offers local restaurants assistance in offering healthy options. With Parks and Recreation, we piloted a "healthy take-out" program at San Pablo Park, where we also work to promote physical activity, for example with the recently installed Dance, Dance Revolution game.

One of the best ways to increase physical activity in a community is to make sure that people can walk or bike safely, and that they can reach services like groceries, health care, beauty and barber shops, and restaurants without having to get in their car.



Data Highlights

African Americans adults are more likely be hospitalized for cardiovascular disease and diabetes as compared to other race/ethnic groups.

Berkeley has maintained the lowest birth rate among adolescent mothers compared to all other California health jurisdictions since 1994.

Low birth weight declined in African Americans during the 1990s but has increased again in recent years.

Between 30% and 60% of Berkeley grade schoolers cannot pass a standardized aerobic fitness test.



Health Outcomes

If poverty and racial and ethnic inequities could be eliminated, the annual number of deaths would be reduced by at least one-third.

вегкејеу						
African American	Asian	Latino	White	Total Population	Alameda County	California
70.8▼	<u>85.3</u>	84.7	83.1	81.5 ↑	79.2	79.4
1203▼	<u>482</u>	545	586	653 ↑	724	705
234▼	<u>99</u>	*	109	129 ↑	152	165
104▼	*	*	50	60	58	52
273▼	<u>133</u>	*	144	160 ↑	172	164
134▼	<u>21</u>	29▼	38▼	46	*	*

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Comparisons within Berkeley race/ethnic groups: a difference that is statistically poorer (▼) than the underlined reference group (best outcome)

A City of Berkeley health indicator that is statistically poorer (\checkmark) or better (\uparrow) than Alameda County and California

Years of potential life lost per 1000 population, annual ave. 2002-2004

• Coronary heart disease deaths per 100,000 population, 2002-2004



INDICATOR Deaths

Data Highlights

Years of life expectancy at birth, 2001-2003
Deaths per 100,000 population, 2002-2004

Stroke deaths per 100,000 population, 2002-2004
Cancer deaths per 100,000 population, 2002-2004

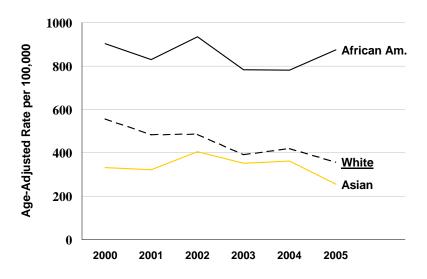
African Americans on average live 10 to 15 years less than any other racial/ethnic group.

African Americans are more likely to die due to coronary heart disease, strokes, and cancer than other racial/ethnic groups.

^{*} Data not statistically reliable or unavailable

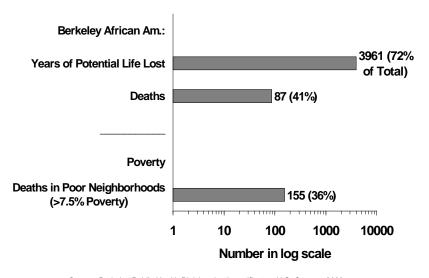
[†] Years between 75 and actual age at death for those dying younger than 75 years of age

 Coronary heart disease hospitalization rates for Whites and Asians have decreased over the last 6 years, while rates for African Americans – which are more than twice as high as for whites – have remained stable.



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

• If inequities between Whites and African Americans and high and low poverty were eliminated, annually there would be 41% fewer deaths in African Americans and 36% fewer deaths in the poorest neighborhoods.



Source: Berkeley Public Health Division death certificates, U.S. Census, 2000



Program Highlight: Berkeley Hypertension Program

In partnership with Lifelong Medical Center, this program focuses on community-based health promotion and environmental changes to 1) encourage healthy eating and physical activity; 2) increase access to hypertension screening and treatment; 3) to improve the quality of care for hypertension patients and help people with hypertension manage medications; and 4) train Community Health Workers in a program focused on outreach, education, and intensive counseling and support. A highlight of the program is the weekly drop-in Hypertension Clinic that provides free blood pressure screenings and education to everyone, and provides treatment to uninsured residents with hypertension.

Health Status

Health is a state of physical, mental, and social well-being, and not merely the absence of disease. How people perceive their health and level of function is a strong predictor of life expectancy and health care utilization. Poor health effects people's ability to work, go to school, socialize with friends and family, or engage in community and political activity.

• Percent of adults who reporting their health to be fair to poor, 2001

Percent of adults whose social activities were limited due to a health or

Percent of adults needing special equipment for their disability, 2001

• Percent of BUSD students K-12 with special education needs, 2006

	Berkeley					
African American	Asian Latino White		Total Population	Alameda County	California	
16.6	9.0	17.2	10.3	11.5 ↑	19.4	19.2
19.5	<u>7.8</u>	*	21.3▼	17.7↓	18.9	<u>16.3</u>
18.6	*	*	6.9	6.6	6.6	6.0
17.4▼	<u>7.0</u>	10.6	7.3	9.6	*	*

Special Needs of Children

emotional problem in past month, 2001

Comparisons within Berkeley race/ethnic groups: a difference that is statistically poorer (▼) than the underlined reference group (best outcome)

A City of Berkeley health indicator that is statistically poorer (Ψ) or better (Λ) than Alameda County and California



INDICATOR

Disability

Perceived Health

Activity Limitations

^{*} Data not statistically reliable or unavailable

Health Care Access

Insurance coverage is one of the determinants of timely, reliable access to health care services. People with limited or no access to health insurance are significantly less likely to receive regular care from a medical provider who can help manage a chronic illness and facilitate access to preventive care.

INDICATOR

Health Coverage							
Percent of adults aged 21 to 64 without health insurance, 2001	*	16.6	31.2	7.7	12.1 ↑	10.9	<u>18.2</u>
Screening for Breast Cancer							
 Percent of women 40 years and older screened in past 24 months, 2001 	65.6	56.3	*	79.7	75.2	80.4	<u>76.1</u>
Screening for Cervical Cancer							
 Percent of women 18 and older with a Pap test in last 3 years, 2001 	85.9	72.4	80.4	88.7	84.1	85.2	84.2

African American

Berkeley

Latino

Asian

White

Comparisons within Berkeley race/ethnic groups: a difference that is statistically poorer (▼) than the underlined reference group (best outcome) A City of Berkeley health indicator that is statistically poorer (Ψ) or better (Λ) than Alameda County and California



Data Highlights

In adults, Latinos were most likely to be without health insurance.

Although Asians as a whole have high rates of health coverage, Asian women 18 and older are screened for cervical cancer less often than any other racial/ethnic group.

County

Alameda

California

Total Population

^{*} Data not statistically reliable or unavailable

Public Health Services Directory*

Berkeley High School Health Center

High school students in the Berkeley Unified School District are provided free medical, mental health, and health education services. Phone: 644-6965. Hours: M-F: 8-30a-12:15p and 1:15-4:30p

Berkeley Public Health Clinic

Provides family planning, immunizations, TB skin test, and Sexually-Transmitted Infection/HIV prevention and testing services. Phone: (510) 981-5350.

HIV and AIDS Programs

Provides assistance accessing approved drug treatment for individuals with HIV and AIDS who have a prescription from their physician and are income eligible. Provides public health nursing follow-up and case management. Phone: (510) 981-5300.

El Centro

Provides health insurance information, assistance with Healthy Families and Medi-Cal Applications, and health information. Phone: 981-5370. Hours: Tues 1-4p walk-in.

Nurse of the Day Program

For assistance with referrals or accessing of needed health services, call (510) 981-5300. Hours: M-F: 8a-12p and 1-5p. In-person, visit 1947 Center Street, 2nd Floor. Hours: M-F 8a-12p and 1-5p.

Vital Records Office

Birth and death certificates are available. Certificate request forms to print and mail in are available online at: http://www.cityofberkeley.info/publichealth/vitalstatistics/default .html. See website for more information. Phone: 981-5300.

Office hours are Mon-Fri, 9am-4pm except holidays. Location: 1947 Center Street, 1st Floor.

Women, Infants and Children Program

Provides nutrition education, free food vouchers and breastfeeding support. Phone: 981-5360. Hours: M-Th 9a-12p and 1-5p.

Tobacco Prevention Program

Information and education regarding the prevention of tobacco use, including smoking cessation classes. Phone: (510) 981-5330.

* For a full listing of Health & Human Services Department programs and services, please visit: http://www.ci.berkelev.ca.us/hhs/

Websites of Interest

Healthy People 2010 (www.healthypeople.gov/) is a set of health objectives for the United States to help develop and evaluate programs to improve health. Healthy People is sponsored by the U.S. Department of Health and Human Services.

<u>Healthfinder (www.healthfinder.gov/)</u> Guide to prevention and health information, sponsored by the U.S. Department of Health and Human Services.

<u>Centers for Disease Control and Prevention</u>
(<u>www.cdc.gov</u>) is source of health information for individuals, health care providers, researchers, policy makers, and students and educators on a wide range of health topics.



Technical Notes

DATA SOURCES

The 2000 U.S. Census¹ was the source of information on the size and characteristics of Berkeley's population, including age, sex, race/ethnicity, educational attainment, and poverty level. Birth certificates at the City of Berkeley Vital Statistics Office were the source of information on low birth weight. The Vital Statistics Office also compiles death certificates, which are the source of information on deaths. A special survey² of Berkeley school children was the source of information on the use of alcohol, tobacco, and other drugs. The Berkeley Unified School District provided data on children with special needs and results of the standardized test scores for reading proficiency at or above grade level.³ A sample of encounter forms in the California Child Health & Disability Prevention Program was the source of obesity information for Berkeley low-income children. A special survey of Berkeley adults⁴ provided self-reported information on exercise, nutrition, and obesity, hypertension, cancer screening, perceived health, and activity limitations. The Kindergarten Retrospective Survey⁵ was the source of information on immunization against diphtheria, tetanus, whooping cough. polio, measles, mumps, and rubella. Hospitalization data was provided by the California Office of Statewide Health Planning and Development.⁶ Cancer incidence data was provided by the Greater Bay Area Cancer Registry. Data on AIDS and communicable diseases were provided by the City of Berkeley Vital Statistics Office. Traffic injury data was provided by the California Highway Patrol and the Berkeley Police Department. 8

Key Definitions

Race/ethnicity in census data is classified using federal system based on five categories of race (White, Black or African American, American Indian or Alaska Native, Asian, and Native Hawaiian or Other Pacific Islander) and 1 category of ethnicity (Hispanic). Poverty was defined in Census data using federal guidelines, which create income thresholds ("poverty line") that are compared to a family's pre-tax income and family size. In 1999, the threshold was \$16,995 for a two-parent family with 2 children. Obesity was defined as a Body Mass Index (BMI) of 25 or greater. BMI was calculated from self-reported height and weight.

Age Adjustment of Rates

Health status is often expressed as a rate, which is the number of health outcomes per 100,000 population. Age adjustment is a statistical technique that makes it possible to compare health outcomes of populations that have different age profiles. The rate is calculated in specific age groupings. Then each rate is multiplied (weighted) by the proportion of individuals in that age group estimated to be in the U.S. population in 2000. ¹¹ These weighted rates are summed to make a weighted average (age-adjusted rate).

Statistical Methods

Given that some health outcomes are based on small numbers or a sample, differences between two (or more) rates may be the result of random variation rather than other explanations. Statistical tools were applied to help assess whether differences in rates were a likely or unlikely consequence of random fluctuation. "Statistical significance" is a technical term that indicates that the difference between two rates or proportions is not likely to be due to chance, or random fluctuation.

The Los Angeles County Department of Health Services is gratefully acknowledged for the design concepts for Key Indicators of Health.

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