Health Risks and Health Risk Behaviors

Many risk factors for disease are behavioral in nature and can be modified. The health risks and health risk behaviors discussed in this chapter include tobacco, alcohol, and drug use; sexual risk behaviors; nutrition and fitness; and injury risk behavior.

Tobacco use, diet and physical activity patterns, alcohol and drug use, violence and injury are major contributors to the leading causes of death in the United States (see Figure 3.1). Promoting behavioral changes and the adoption of healthier practices and lifestyles is crucial to making lasting improvements in the health status of the population.

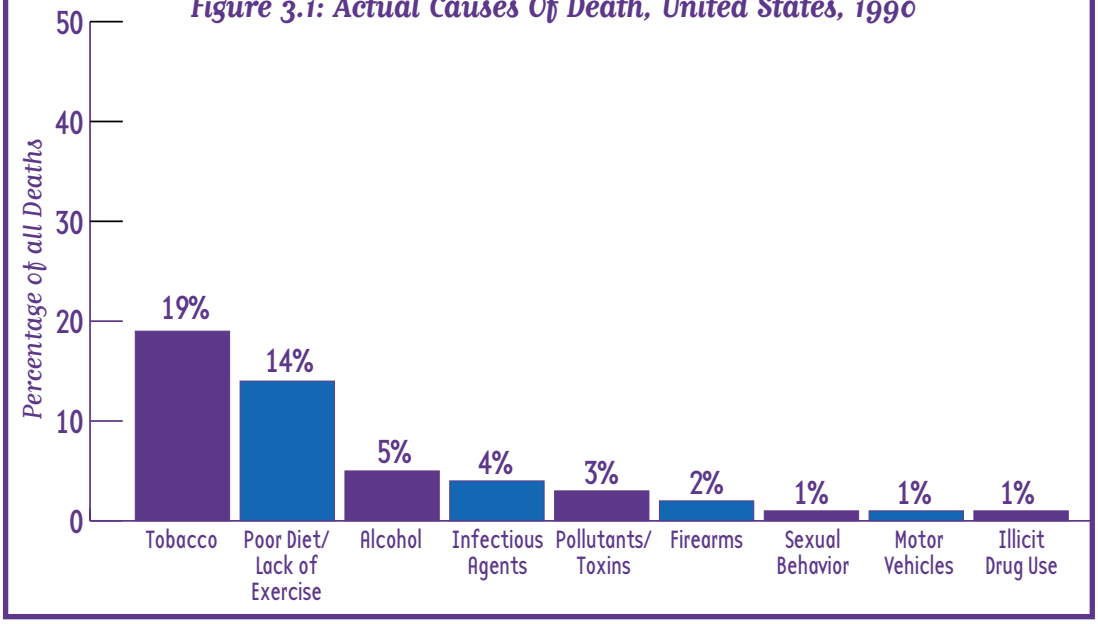
Tobacco, Alcohol and Drug Use

As shown in Figure 3.1, it is estimated that alcohol, tobacco, and drug use and abuse account for approximately one quarter of all deaths in the United States each year.[1] Health behaviors related to alcohol, tobacco, and drug use in Los Angeles County and in California are shown in Table 3.1.

Tobacco

Tobacco use is the leading cause of preventable death and illness in the United States, resulting in an estimated 430,000 deaths and more than $50 billion in direct health care expenditures each year.[2] In Los Angeles County, there were an estimated $3.1 billion in smoking-attributable medical expenditures for 1993.[3] Tobacco use is a major risk factor for cardiovascular disease, respiratory disease, cancers of the lung, esophagus, pancreas, bladder, and can lead to other illnesses such as respiratory infections and stomach ulcers.[4]

Figure 3.1: Actual Causes Of Death, United States, 1990



Source: McGinnis, JM, Foege, WH. Actual causes of death in the United States, JAMA 1993:270;2207-12.

Table 3.1: Health Behaviors: Alcohol, Tobacco, And Drug Use, Los Angeles County, California, Year 2000 Objectives

	L.A. City	L.A. County	California	HP 2000
Adult cigarette smoking prevalence[1]				
Male	*	22%	21%	15%
Female	*	14%	15%	15%
White	*	20%	20%	*
Latino	*	16%	14%	15%
African-American	*	20%	25%	18%
Asian/Pacific Islander	*	16%	15%	*
Adolescent (ages 12–17) cigarette smoking prevalence[2,3]	*	10%	11%	6%
White	*	10%	14%	*
Latino	*	12%	10%	*
African-American	*	6%	3%	*
Asian/Pacific Islander	*	6%	9%	*
Daily adult alcohol consumption				
Nondrinker[1,5]	*	42%	*	*
Light drinker (0<drinks/day<.42)[1,5]	*	37%	*	*
Moderate drinker (.42<drinks/day<2)[1,5]	*	14%	*	*
Heavy drinker (>2 drinks/day)[1,5]	*	5%	*	*
High school students who drank alcohol[4]				
Lifetime alcohol use[4,6]	78%	*	75%	*
Current alcohol use[4,7]	47%	*	47%	13%
Episodic heavy drinking[4,8]	26%	*	27%	28%
High school students who have injected illegal drugs in a lifetime[4,9]				
Total	2%	*	2%	*
Male	3%	*	2%	*
Female	2%	*	1%	*
High school students who used marijuana[4]				
Lifetime marijuana use[4,10]	46%	*	47%	*
Current marijuana use[4,11]	25%	*	26%	3%
High school students who used cocaine[4]				
Lifetime cocaine use[4,12]	12%	*	11%	*
Current cocaine use[4,13]	4%	*	4%	1%

1. 1997 Los Angeles County Health Survey (1997 LACHS), Los Angeles County Department of Health Services.

2. California Department of Health Services, Tobacco Control Section, California Tobacco surveys, Behavioral Factor Survey/California Adult and Youth Tobacco Surveys, 1996.

3. Cigarette smoking prevalence defined as having smoked at least once in the last 30 days.

4. Adolescents 12 to 17 years of age from Los Angeles Unified School District (LAUSD), Youth Risk Behavior Surveillance, United States 1997.

5. Based on National Institute on Alcohol Abuse and Alcoholism guidelines: a drink is considered one can or bottle of beer, one glass of wine or cocktail or shot of liquor.

6. Ever had at least one drink of alcohol.

7. Drank alcohol on >1 of the 30 days preceding the survey.

8. Drank five or more drinks of alcohol on at least one occasion on >1 of the 30 days preceding the survey.

9. Respondents were classified as injecting-drug users only if they reported injecting illegal drugs not prescribed by a physician.

10. Ever used marijuana.

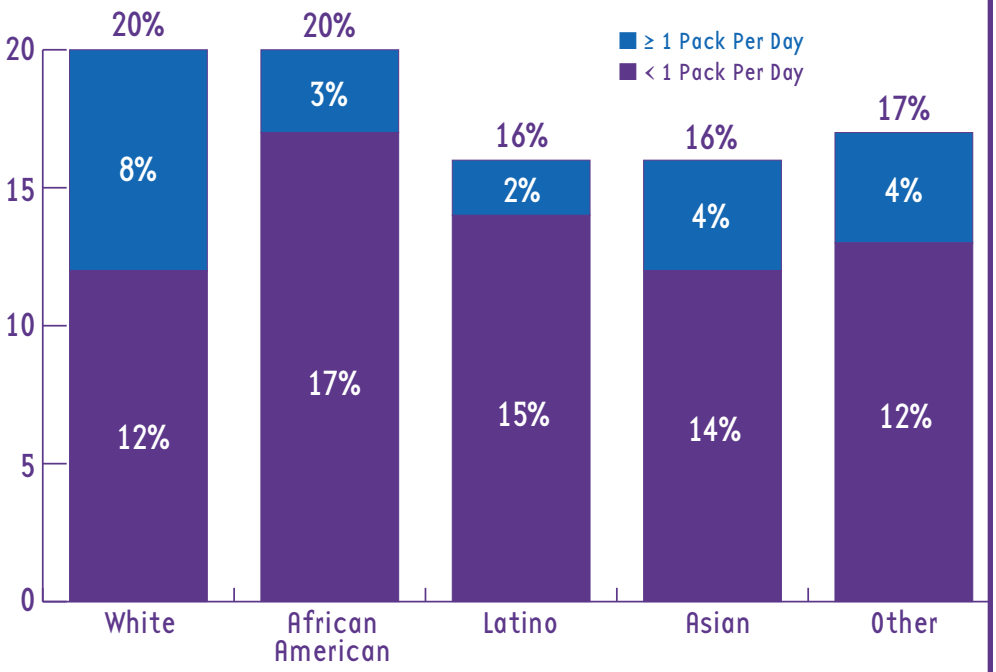
11. Used marijuana one or more times during the 30 days preceding the survey.

12. Ever tried any form of cocaine, including powder, "crack," and "freebase."

13. Used cocaine one or more times, during the 30 days preceding the survey.

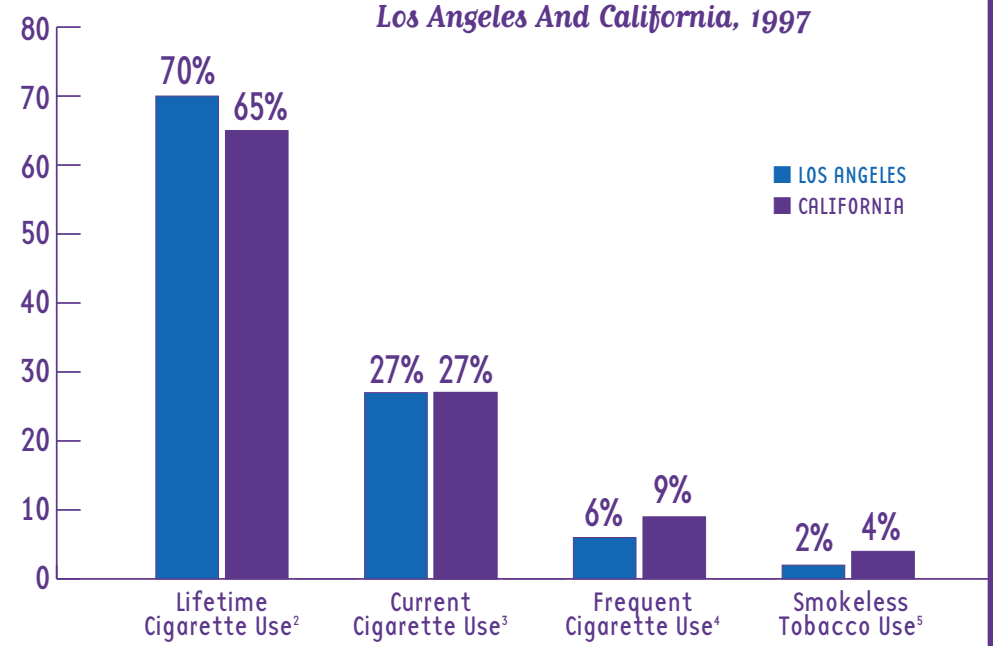
* *Data not available*

Figure 3.2: Prevalence Of Smoking Among Adults, 18+, By Race/Ethnicity, Los Angeles County, 1997



Source: 1997 LACHS.

Figure 3.3; Tobacco Use By High School Students[1], Los Angeles And California, 1997



1. Adolescents 12 to 17 years of age from Los Angeles Unified School District (LAUSD).
2. Ever tried cigarette smoking, even one or two puffs.
3. Smoked cigarettes on ≥1 of the 30 days preceding the survey.
4. Smoked cigarettes on ≥20 of the 30 days preceding the survey.
5. Used chewing tobacco or snuff on ≥1 of the 30 days preceding the survey.

Source: Youth Risk Behavior Surveillance, United States, 1997.

- ➜ 20% of the Los Angeles County adult population use tobacco, 18% smoke cigarettes and 2% use tobacco in the form of cigars, smokeless tobacco, and pipes.
- ➜ More males (22%) than females (14%) smoke cigarettes. More white and African-American (20% each) adults smoke than do Latino and Asian groups (16% each), as shown in Figure 3.2.
- ➜ The number of cigarettes smoked per day varies by race/ethnicity. Among smokers, 40% of whites, 24% of Asians, 14% of African-Americans, and 10% of Latinos smoke one pack or more per day.

Tobacco use is a significant problem among adolescents. In 1996 an estimated 10% of adolescents (12 to 17 years old) had smoked at least once in the last 30 days as reported by the California Tobacco Survey. This smoking prevalence represents a nearly 3% increase since 1990. Among California's counties and regions, Los Angeles County moved from 17th in adolescent cigarette smoking prevalence in 1990 to 14th in 1996. Never-smoked prevalence fell 3% during this period.

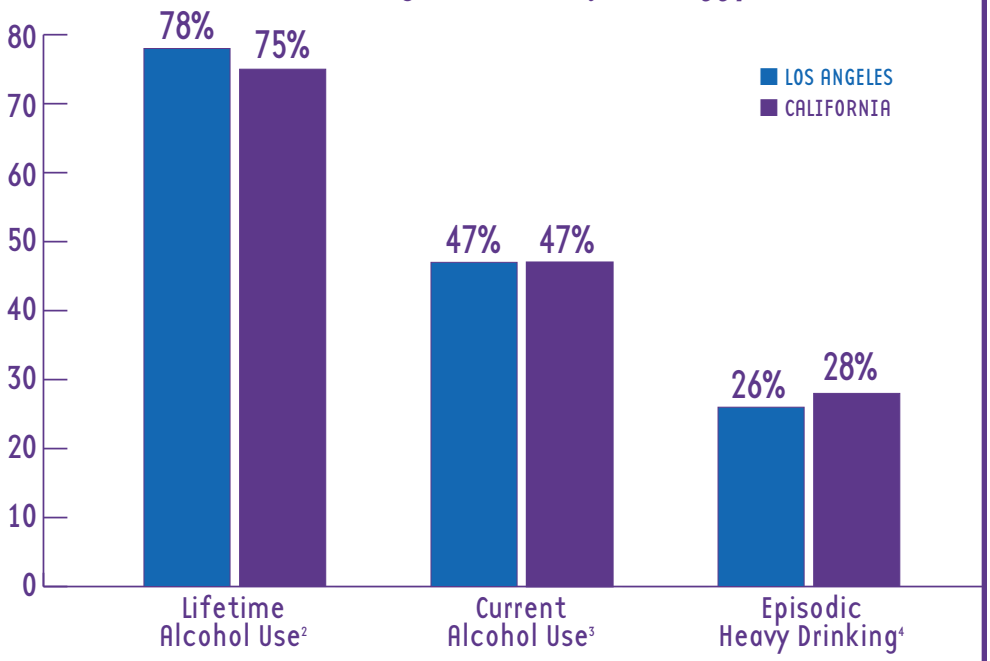
Alcohol

Alcohol use and abuse cause approximately 100,000 deaths in the United States annually by contributions to cirrhosis of the liver, cancers, motor-vehicle crashes, intentional and unintentional injuries at home and work, and drowning. In addition, alcohol abuse is responsible for numerous other mental health, social, and economic ills. Alcohol-related hospital discharges in Los Angeles County averaged 10,000 per year from 1991 to 1995. There were also 81,208 alcohol-related arrests (98% misdemeanor and 2% felony offenses) among adults in Los Angeles County in 1997. Important adverse health outcomes related to alcohol abuse are reported in the mortality and injury sections of Chapter Four.

- ➜ An estimated 5% of Los Angeles County adults are heavy drinkers. More than 8% of men and 2% of women report heavy drinking (1997 Los Angeles County Health Survey).
- ➜ More than 26% of high school students in the Los Angeles Unified School District (LAUSD) reported heavy, or binge (more than five drinks in a row), drinking on at least one occasion in the 30 days preceding the survey.

During the five-year period

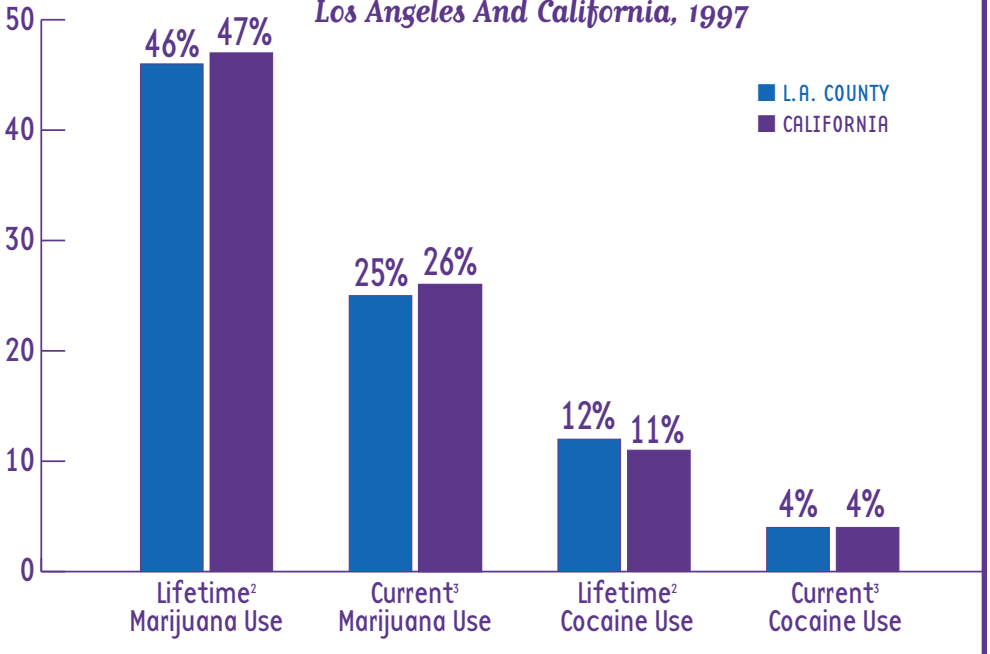
Figure 3.4: Alcohol Use By High School Students,[1] Los Angeles And California, 1997



1. Adolescents 12–17 years of age from Los Angeles Unified School District (LAUSD)
2. Ever had at least one drink of alcohol.
3. Drank alcohol on ≥1 of the 30 days preceding the survey.
4. Drank ≥5 drinks of alcohol ≥1 of the days preceding the survey.

Source: Youth Risk Behavior Surveillance, United States, 1997.

Figure 3.5: Illegal Drug Use By High School Students' Los Angeles And California, 1997



1. Adolescents 12–17 years of age from Los Angeles Unified School District (LAUSD)
2. Ever used.
3. Used one or more times during the 30 days preceding the survey.

Source: Youth Risk Behavior Surveillance, United States, 1997.

between 1991 and 1995, the number of alcohol-involved traffic incidents (fatal and nonfatal) decreased by approximately one-third in Los Angeles County. In addition, the percentage of total fatal traffic incidents involving alcohol declined from 40% in 1991 to 23% in 1995.

Drugs

Drug use and abuse causes approximately 20,000 deaths in the United States annually due to homicide and injuries, overdose, suicide, pneumonia, HIV infection, Hepatitis, and endocarditis. In addition, approximately 60% of all California and Los Angeles County 1996 adult arrestees in 1996 were using at least one illicit drug within a three-day period before their arrest.[5] In addition to the increased criminal activity and involvement with the criminal justice system among those who use and traffic in drugs, the economic and social losses due to drug use and abuse are immense.

- ➜ Of total drug treatment admissions to programs administered by Los Angeles County in the fourth quarter 1996, heroin accounted for 53%, alcohol for 20%, cocaine for 14%, and methamphetamine for 6%; marijuana admissions decreased slightly to 4% during the same period.[6]
- ➜ Of the drug-related hospital discharges among Los Angeles County residents in 1996, approximately 26% were related to cocaine, 25% to heroin or opiates, and 6% to marijuana.
- ➜ The number of persons who misuse other forms of illicit medication in Los Angeles County is unknown.
- ➜ In 1997, the percentage of high school students in Los Angeles who reported ever using marijuana was 49% for males and 43% for females. In addition, 28% of males and 23% of females reported using marijuana on one or more occasions during the 30 days preceding the 1997 YRBS Survey. The prevalence rates of marijuana use were similar among high school students surveyed in California (see Figure 3.5).
- ➜ 12% of both males and females reported using cocaine at some point in their lives, while 5% of males and 3% of females reported using cocaine on one or more occasion in the 30 days preceding the survey.

Tobacco, Alcohol and Drug Use—Data Sources

1. Los Angeles County Department of Health Services, Tobacco Control Program

2. California Department of Health Services, Tobacco Control Section

3. Los Angeles County Department of Health Services—Public Health
   Office of Health Assessment and Epidemiology
   1997 Los Angeles County Health Survey

3. California Department of Health Services
   California Behavioral Survey, CATI Unit

4. United States Department of Health Services
   Centers for Disease Control and Prevention
   Epidemiology Program Office, MMWR Series

5. UCLA Drug Abuse Research Center
   Neuropsychiatric Institute

See Appendix for complete references on these and other data resources.

Sexual Behavior

Many sexual behaviors and practices impact the health of the population. For example, consistent use of contraceptives, including condoms, prevents the occurrence of unplanned pregnancies. Use of condoms also prevents the spread of HIV and other sexually transmitted diseases (See Maternal and Infant Health, Chapter Three, for more about birth outcomes including teen births). This chapter focuses primarily on failure to use condoms and other behavior practices among adults and youth that increase the risk for sexually transmitted diseases. Data on sexual practices and health outcomes are limited to surveillance systems that track the incidence of specific diseases and health interview surveys that collect self-reported information on sexual practices.

- ➜ In 1998 the majority of AIDS cases in Los Angeles County (67%) were attributed to sexual transmission of HIV.
- ➜ The results of the 1997 Los Angeles County Health Survey (1997 LACHS), indicate that approximately 6% of all adults in Los Angeles County were at increased risk for HIV or another sexually transmitted disease based on having had more than one sexual partner during the previous year and not always using a condom.
- ➜ Among men who had sex with a man in the past 12 months, 34% had more than one sexual partner in the past 12 months and reported not always using a condom (1997 LACHS).
- ➜ Among men who had sex with a woman in the past 12 months, 7% had sex with more than one female partner in the past 12 months and did not always use a condom.
- ➜ Among women who had sex with a man, 3% had sex with more than one male partner in the past 12 months and did not always use a condom.
- ➜ Among sexually active high school students, 50% of females and 60% of males used condoms when they last had sexual intercourse (1997 YRBS-Los Angeles Unified School District).
- ➜ Approximately 13% of high school students (19% of males and 7% of females) had four or more sexual partners in the year preceding the administration of the 1997 Los Angeles Youth Risk Behavior Survey (LAUSD).

Additional information about sexual risk behaviors can be found in Table 3.2.

Sexual Behavior—Data Sources

1. Los Angeles County Department of Health Services—Public Health
   Office of Health Assessment and Epidemiology
   1997 Los Angeles County Health Survey

2. California Department of Health Services
   CATI Unit
   California Behavioral Risk Factor Survey

3. United States Department of Health Services
   Centers for Disease Control and Prevention
   Epidemiology Program Office, MMWR Series

4. Los Angeles County Department of Health Services
   HIV Epidemiology Program

See Appendix for complete references on these and other data resources.

Table 3.2: Sexual Behavioral Risk Factors, 1997, Los Angeles County, California, Year 2000 Objectives

	L.A. County	California	HP 2000
Condom use in the last 12 months among sexually active adults, 18 years and older[1]			
Total	43%	*	*
Male	48%	*	*
Female	37%	*	*
High school students who used condom during last sexual intercourse among sexually active high school students[2,3,4]			
Total	54%	56%	*
Male	60%	63%	75%[5]
Female	50%	50%	60%[5]
More than one sexual partner in the last 12 months among adults, 18 years and older[1]			
Total	10%	*	*
Male	15%	*	*
Female	4%	*	*
High school students who have had four or more sexual partners during lifetime[2,3,4]			
Total	13%	12%	*
Male	19%	15%	*
Female	7%	9%	*
AIDS cases diagnosed by risk of transmission in 1997:[6,7]			
Males			
Male-male sexual contact	64%	*	*
Male-male sexual contact/IDU	5%	*	*
IDU	7%	*	*
Male heterosexual contact[8]	3%	*	*
Females			
IDU	25%	*	*
Female heterosexual contact[8]	45%	*	*
HIV test administered in past 2 years, adults 18 years and older[1]			
White	30%	*	*
Latino	43%	*	*
African-American	47%	*	*
Asian	26%	*	*
High school students who received HIV/AIDS prevention education in school[2,3,4]			
Total	85%	92%	*
Male	88%	92%	*
Female	83%	91%	*
High school students who have talked about HIV/AIDS with parents or adult family members[2,3,4]			
Total	59%	61%	*
Male	54%	57%	*
Female	64%	64%	*

* *Data not available*

1. 1997 LACHS, Los Angeles County Department of Health Services.

2. Weighted data from Los Angeles Unified School District (LAUSD).

3. Unweighted California data did not include students from the LAUSD.

4. Youth Risk Behavior Surveillance(YRBS)-United States, 1997, MMWR, CDC.

5. Sexually active males and females 15–19 years of age.

6. Advanced HIV disease (AIDS) cases diagnosed in 1997.

7. Los Angeles County Department of Health Services, HIV Epidemiology Program, Advanced HIV Disease (AIDS) Quarterly Surveillance Summary, Issued January 15, 2000.

8. Heterosexual contact with a person who is HIV-infected or at increased risk for HIV.

Nutrition

Nutrition and physical activity patterns are strongly linked to optimal health and well-being. Studies have shown that poor nutrition plays a key role in the onset of numerous diseases and medical conditions. Dietary practices are associated with the prevention of conditions including cardiovascular disease, cancer, and cerebrovascular disease.[7] Furthermore, obesity is a major risk factor for diabetes, hypertension, and coronary artery disease.[8] Consumption of saturated fats can raise cholesterol levels, block arteries and thus increase the risk for coronary artery disease.[9]

On the other hand, consuming a lowfat diet that is also high in fruits, vegetables, and whole grains is clearly associated with a variety of health benefits, including a reduction in the risk for a number of diseases.[10] In addition, adequate consumption of specific nutrients will help prevent certain health conditions. For example, increased calcium intake reduces the risk for osteoporosis[11,12] and increased consumption of folic acid lowers the risk for heart disease. By following the recommended guidelines for nutrition and fitness, Angelenos have the opportunity to reduce their risk of chronic disease and other conditions.

- ➜ California residents on average eat 3.8 servings of fruit and vegetables per day, lower than the Healthy People 2000 goal of 5.0 servings per day (see Table 3.3).
- ➜ According to California statistics, of those people eating at least one meal out on a daily basis, 48% of them ate at a fast food restaurant.[13]

Table 3.3: Nutrition

		L.A. County	California	HP 2000
Daily average number of servings of fruit and vegetables		*	3.8[1]	5.0
Daily percent of people who ate at least one meal out		*	41.0%[1]	*
Daily percentage of people who ate at a fast food restaurant while eating at least one meal out		*	48.0%[1]	*
High school students who had eaten five or more servings of fruits and vegetables[2]	Total	30.5%	32.5%	*
	Male	34.6%	35.4%	*
	Female	27.0%	30.1%	*
Overweight	Total	47.0%[3]	*	20.0%
	Mild/moderate overweight[4]	33.0%	*	*
	Severe overweight[5]	14.0%	*	*
	Male	55.0%[3]	*	20.0%
	Female	39.0%[3]	*	20.0%

1. California Dietary Practices Survey: Focus on Fruits and Vegetables, 1989–1997, California Department of Health Services, Sacramento, CA, 1998.

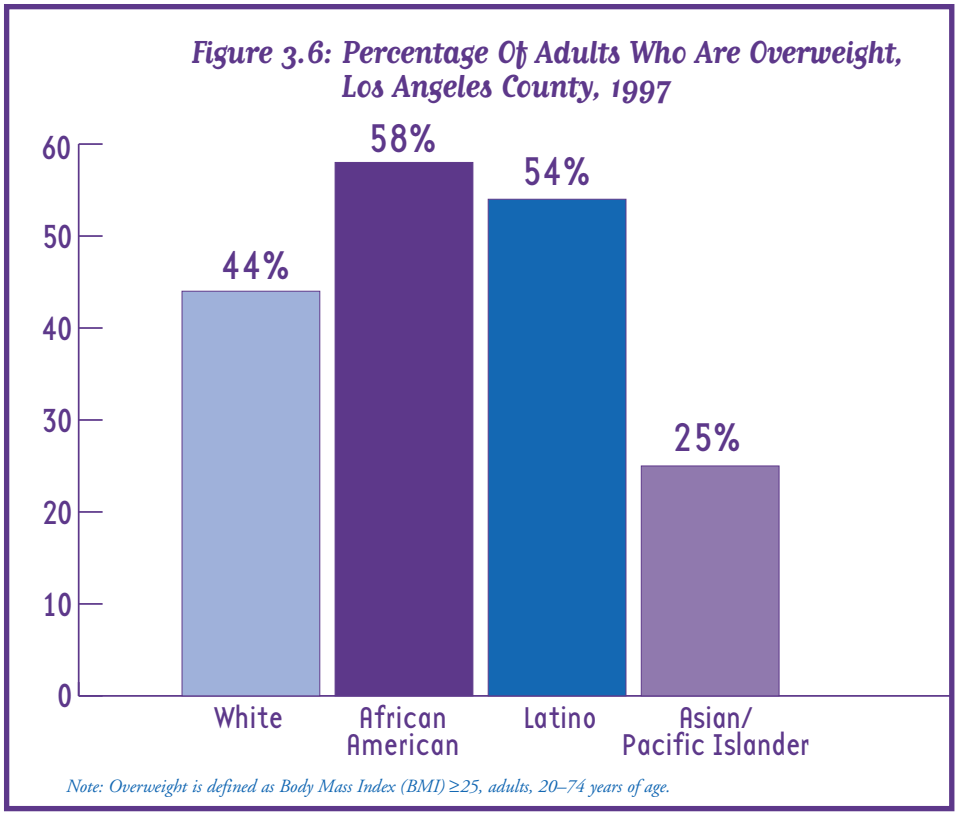
2. Students who had eaten ≥5 servings during day preceding the survey, 1997 YRBS, MMWR, CDC.

3. Overweight is defined as Body Mass Index (BMI) ≥25, adults, 20–74 years of age, 1997 Los Angeles County Health Survey (1997 LACHS).

4. Mild/moderate overweight is defined as Body Mass Index (BMI) ≥25 and >30, adults, 20–74 years of age, 1997 LACHS.

5. Severe overweight is defined as Body Mass Index (BMI) ≥30, adults, 20–74 years of age, 1997 LACHS.

* *Data not available*

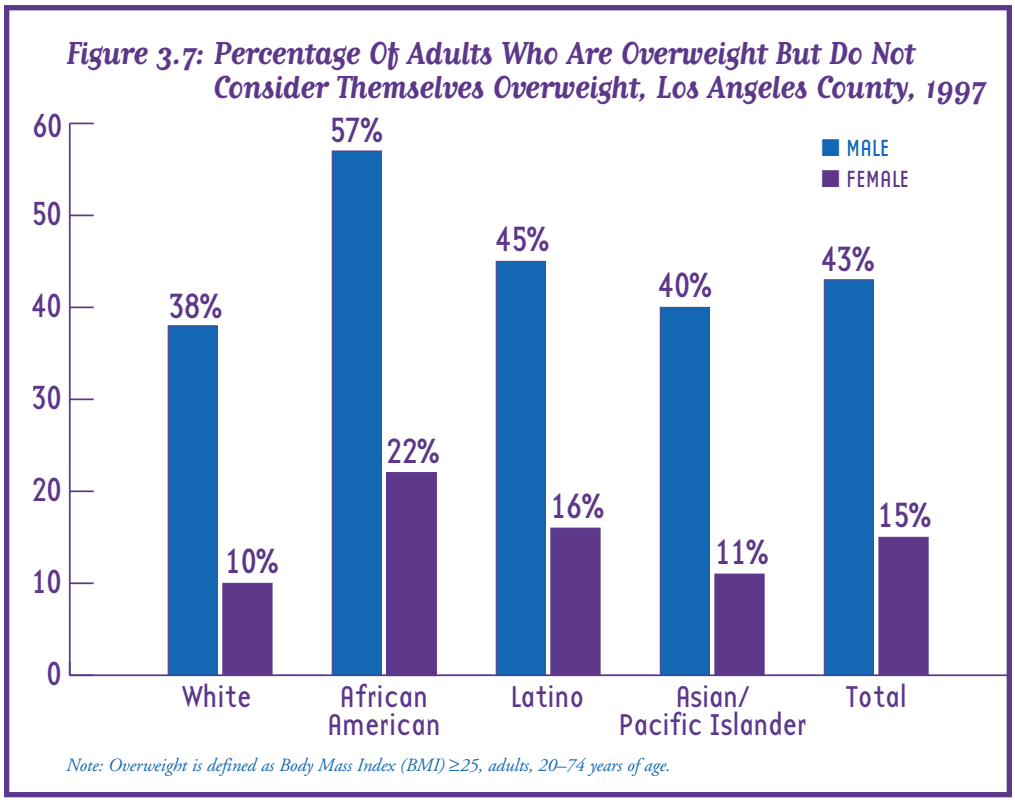


Source: 1997 LACHS, Los Angeles County Department of Health Services.

- 1997 California Dietary Practices Survey found that 53% of Californians report drinking milk on any given day. Latinos reported the highest rate (61%) followed by whites (55%) and African-Americans (32%).[14]
- 59% of Californians agree that the reason they are not eating more fruits and vegetables is because they are hard to get at work, and 57% report that they are hard to buy in restaurants.[15]
- 85% of Californians report that they are not eating a low-fat diet because they are not in the habit of doing so.

Overweight

- Overweight is a significant problem in Los Angeles County, affecting nearly one-half of the adult population (see Table 3.3). Further analyses show that the prevalence of overweight varies across racial and ethnic groups (see Figure 3.6). Therefore, cultural and environmental factors should be considered when developing intervention programs to change dietary practices.



Source: 1997 LACHS, Los Angeles County Department of Health Services.

- 43% of men and 15% of women who are overweight based on their body mass index (BMI) do not consider themselves to be overweight. These percentages vary by race/ethnicity (see Figure 3.7). This group of individuals is likely to benefit from weight loss but may not make the effort to lose weight because they do not recognize or acknowledge their overweight status.

Physical Activity

- ➜ 20% of men and 23% of women in California do not exercise outside of work (see Table 3.4). Physical inactivity is a major risk factor for cardiovascular disease while moderate to high levels of physical activity are associated with a lower risk of premature mortality.[17,18]
- ➜ 35% percent of students in Los Angeles walked or bicycled for at least 30 minutes on five or more of the seven days preceding the survey, i.e. moderate physical activity, compared to 26% in all of California (see Table 3.4).
- ➜ Latinos and African-Americans had the highest proportions of adults who do not exercise outside of work compared to other groups. Among Latinos, 42% of males and 39% of females do not exercise outside of work. In comparison, among African-Americans, 32% of females and 28% of males do not exercise outside of work (see Figure 3.8).

Table 3.4: Physical Activity

	L.A. City[2]	L.A. County	California	HP 2000
Adults who do not exercise outside of work.[1]				
Total	*	*	21.4%	15.0%
Male	*	*	20.3%	*
African-American	*	*	27.7%	20.0%
Latino	*	*	41.5%	25.0%
Female	*	*	22.5%	*
African-American	*	*	31.9%	20.0%
Latino	*	*	39.0%	25.0%
High school students who participated in moderate physical activity[3]				
Total	34.6%	*	26.0%[5]	*
Male	36.3%	*	27.6%[5]	*
Female	33.1%	*	24.6%[5]	*
High school students who participated in vigorous physical activity[4]				
Total	60.8%	*	65.2%[5]	75.0%
Male	69.7%	*	73.8%[5]	*
Female	53.0%	*	57.9%[5]	*

1. California Behavioral Risk Factor Survey, 1995

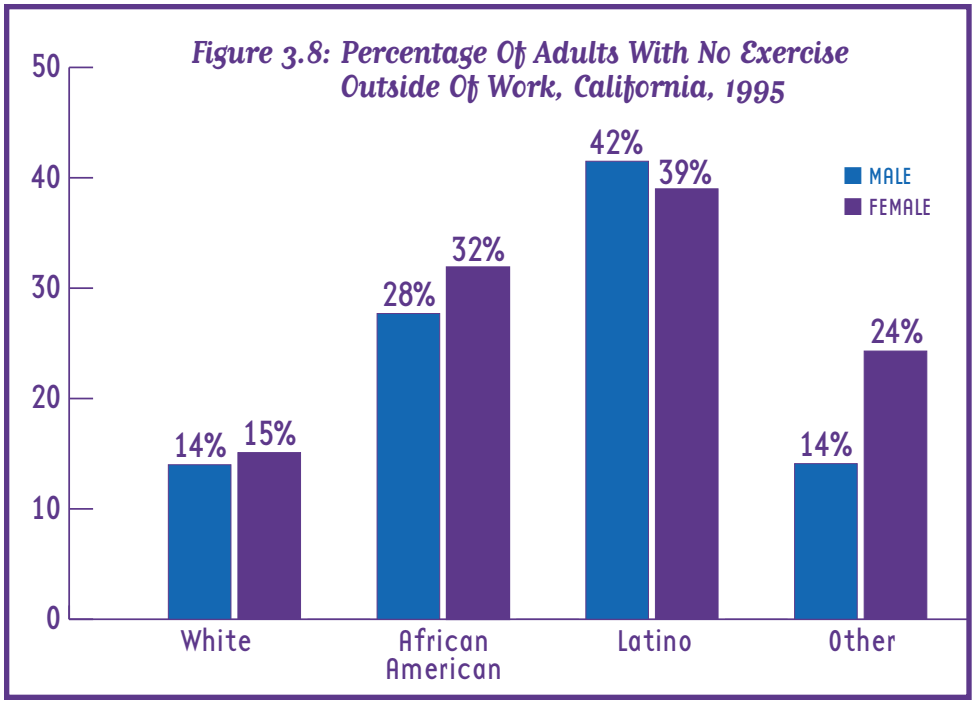
2. Kann L, Kinchen, SA, Williams BI, et.al. Youth Risk Behavior Surveillance-United States, 1997. In: CDC Surveillance Summaries, Aug. 14, 1998. MMWR. 1998;47(no. SS-3). Note: Weighted data provided for Los Angeles includes only city-wide statistics.

3. Walked or bicycled for at least 30 minutes on ≥5 of the 7 days preceding the survey. Note: Not mutually exclusive from vigorous physical activity.

4. Activities that caused sweating and hard breathing for at least 20 minutes on ≥3 of the 7 days preceding the survey. Note: Not mutually exclusive from moderate physical activity.

5. Unweighted data for California does not include high school students from the LAUSD.

** Data not available.*



Source: California Behavioral Risk Factor Survey, 1995.

Nutrition, Overweight and Physical Activity—Data Sources

1. Los Angeles County Department of Health Services—Public Health
   Nutrition Program

2. Los Angeles County Department of Health Services—Public Health
   Office of Health Assessment and Epidemiology
   1997 Los Angeles County Health Survey

3. California Department of Health Services
   Cancer Prevention and Nutrition Program
   Research Unit

4. California Department of Health Services
   Cancer Surveillance Section
   CATI Unit
   California Behavioral Risk Factor Survey

5. United States Department of Health and Human Services
   Centers for Disease Control and Prevention
   Epidemiology Program Office
   MMWR Series

See Appendix for complete references on these and other data resources.

Injury Risk Behavior

This section addresses some of the behavioral risk factors associated with injuries. Chapter Four shows data on injury outcomes in Los Angeles County. Injuries are often classified on the basis of the intent and the behaviors of the people involved, thus, unintentional or intentional. Unintentional injuries, formerly referred to as "accidents," include those due to motor vehicle-related injuries, falls, poisoning, and drowning. Intentional injuries include homicide and suicide, and injuries from physical assaults or weapons. From 1993 through 1995, injuries accounted for 51,695 deaths, ranking them as the third leading cause of death in California.

Injuries occur as a result of complex interaction between behavioral, psychological, social, and physical factors. Many of these factors are potentially modifiable and, therefore, injuries are largely preventable occurrences with identifiable risk factors. For example, driving while intoxicated on alcohol is a major risk factor for motor vehicle crashes, and not wearing a seat belt is a major risk for injury in a crash.[19] In order to reduce injury-related morbidity and mortality, injury prevention efforts must address these and other risk factors at the individual and population levels (i.e. personal counseling and public education campaigns) and in the policy arena (i.e. policies, laws, and regulations that create safer environments and mandate safer behaviors).

This section presents data on selected behaviors associated with increased risk for intentional and unintentional injuries. Because of the limited data available at the county level, this section should not be viewed as a complete accounting of injury risk factors.

Table 3.5: Injury Risk Behavior

		L.A. County	California
Seat belt use, adults 18+		89%[1]	85%[2]
Adults, 18+, who reported not always using seat belts.[1]	Men	14%	*
	Women	9%	*
	18–29 years	14%	*
	30–39 years	10%	*
	40–49 years	9%	*
	50+ years	11%	*
Children, 0-17, whose parents reported not always using seat belts or child car seat.[1]	<4 years	2%	*
	5–12 years	6%	*
	13–17 years	6%	*
Children and youth, under 18, whose parents reported always using seat belts or child car seats.		95%[1]	*
Driving under the influence[4] (arrests per 100,000)		17.6	19.7
	Total number of juvenile arrests	13.0	108.0
	Total number of adult arrests	1,654.0	6,256.0
Adults, 18+, who reported having guns in the home.		20%[1]	30%[3]

1. 1997 LACHS, Los Angeles County Department of Health Services.
2. California Behavioral Risk Factor Survey, 1995.
3. CDHS, EPIC, EPIC Gram, Gun Ownership in California, 1998.
4. 1996 California Department of Justice, Division of Criminal Justice Information Services.
** Data not available*

➜ Episodic consumption of alcohol is associated with violent behavior and alcohol-impaired driving, thereby increasing the risk for intentional and unintentional injury.[20] In 1996, there were 17.6 arrests for driving under the influence of alcohol per 100,000 Los Angeles County drivers (see Table 3.5).

Among public high school students in the city of Los Angeles:

➜ 36.7% reported riding in a vehicle at least one or more times within the last month with a driver who had been drinking (see Table 3.5A).

➜ 17% reported carrying a weapon including a gun, knife, or club, within the last 30 days (see Table 3.5A).

➜ Within the last 12 months, 23.2% of students in Los Angeles reported having considered attempting suicide (see Table 3.5A).

➜ Within the last 12 months, 12.6% of students in Los Angeles reported having attempted suicide compared to 8.3% in the rest of the state (see Table 3.5).

Table 3.5A: Injury Risk Behavior Among High School Students, 1997

	L.A. City[1]	California[2]
High school students who reported always wearing seat belts when riding in a car or truck driven by someone else	91.8%	93.9%
High school students who rarely or never wore motorcycle helmets among those that rode motorcycles in the past 12 months	46.7%	26.4%
High school students who reported driving after drinking alcohol	9.3%	9.8%
High school students who rode with a driver who had been drinking alcohol. (one or more times within last thirty days)	36.7%	29.8%
High school students who reported carrying a weapon within last 30 days	17%	16.7%
High school students who carried a weapon on school property within last 30 days	5.8%	7.4%
High school students who carried a gun	6%	4.7%
High school students who reported being in a physical fight in the past year	36.7%	28.6%
High school students who reported having considered attempting suicide (within last 12 months)	23.2%	22.3%
High school students who reported attempting suicide (within last 12 months)	12.6%	8.3%

1. Weighted data provided for Los Angeles includes only city-wide statistics.
2. Unweighted data for California does not include high school students from the LAUSD.

Source: Kann, L, Kinchen, SA, Williams, BI, et al. Youth Risk Behavior Surveillance-United States, 1997. In: CDC Surveillance Summaries, Aug. 14, 1998. MMWR. 1998; 47 (no. SS-3).

➜ Having access to loaded household firearms is a risk factor for firearm-related injuries.[21,22,23] Among Los Angeles County residents who reported having a gun in the home, 28% were white, followed by African American (22%), Asian (18%), and Latino (12%). These survey results should be considered minimum estimates of gun ownership. Overall, these numbers are influenced by self-reporting bias since response to this particular question may be influenced by many factors. For example, a respondent may be hesitant to admit to purchasing a gun, especially if the purchase was illegal or not appropriately registered with local authorities. Low-income individuals may resort to buying cheap handguns through illegal means, further adding to underestimation of the prevalence of handguns in the home (see Figure 3.9).

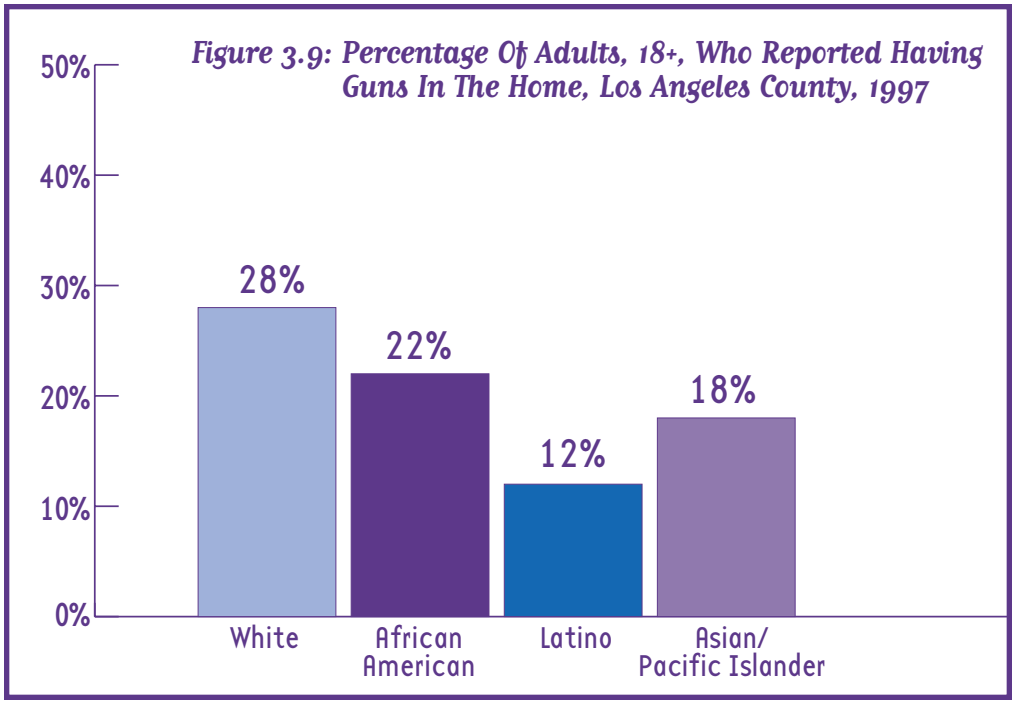


Figure 3.9: Percentage Of Adults, 18+, Who Reported Having Guns In The Home, Los Angeles County, 1997

Source: 1997 LACHS, Los Angeles County Department of Health Services.

Injury Risk Behavior—Data Sources

1. Los Angeles County Department of Health Services—Public Health
   Injury and Violence Prevention Program

2. Los Angeles County Department of Health Services—Public Health
   Office of Health Assessment and Epidemiology
   1997 Los Angeles County Health Survey

3. California Department of Health Services
   Cancer Surveillance Section
   CATI Unit
   California Behavioral Risk Factor Survey

4. United States Department of Health and Human Services
   Centers for Disease Control and Prevention
   Epidemiology Program Office
   MMWR Series

See Appendix for complete references on these and other data resources.

Environmental Health Indicators

Health and human well-being depend heavily on the quality of the local environment such as the housing in which we live and the services in our community, as well as the absence of pollution in the air, water, and land. Environmental hazards can pose unique threats to the health of individuals and communities by producing disorders such as lung disease or cancers and increasing the risk of transmission of infectious diseases. Environmental health data is needed to assess health risks to the public from air pollution, pesticide and other chemical contamination of food, drinking water, and consumer products. Moreover, these data are essential in order to promote health and quality of life by preventing and controlling disease, birth defects, disability, and death resulting from interactions between people and their environment.

Air Quality

Air pollution is a risk factor for a variety of illnesses varying from watery eyes and fatigue to respiratory diseases and some cancers. Pollutants measured include the concentration of particulate matter (PM10), ozone (O3), carbon monoxide (CO) and nitrogen oxide (NO2). Exposure to these pollutants at high concentrations and for extended periods can cause deleterious health effects and contribute to lung disease, asthma, and other illnesses, particularly in children. Sources of air pollution include emissions from motor vehicles, planes, ships, trains, and industrial facilities.

In greater Los Angeles County, the concentrations of most harmful pollutants increase during the day, level off in the evening, and decrease at night because the presence of sunlight and heat causes specific chemical reactions to occur. In addition, certain areas in Southern California tend to concentrate pollutants more because of the geography of the area, e.g., mountains, valleys. Thus, some monitoring stations will show that standards have been exceeded a greater percentage of days annually than other stations. Air quality is usually measured as the number of days that a certain pollutant exceeded the federal or state safety standard.

Air samples are monitored by the South Coast Air Quality Management District (SCAQMD) in 13 different locations throughout Los Angeles County. Data from the SCAQMD show the following:

- ➜ Overall, the air quality of the Los Angeles County region has improved considerably due to more strict regulations of pollution caused by automobile exhaust. The worst offenders of clean air in this region are ozone, total suspended particulate, and carbon monoxide. No areas exceed standards for nitrogen dioxide, sulfur dioxide, lead or sulfate.
- ➜ Ozone is perhaps the most harmful pollutant. Nearly all monitoring areas exceeded the state ozone standards on at least one day in 1997 for both eight hour and one hour peak concentration measurements. Areas exceeding the ozone standard were the East and West San Gabriel Valleys, East and West San Fernando Valleys, Pomona and Walnut Valleys, and Santa Clarita Valley.
- ➜ Three areas exceeded the state regulations for carbon monoxide in 1997. In South Central Los Angeles County, the state standard was exceeded on 18 days, in South West Coastal Los Angeles County on one day, and in West San Fernando Valley on one day.
- ➜ The areas with the most number of days exceeding the standard for total suspended particulate were East and West San Gabriel Valleys, East and West San Fernando Valleys, Pomona and Walnut Valleys, and Santa Clarita Valley.

Lead

Lead poisoning is an important health problem throughout communities in the United States. Due to the high rate of childhood lead poisoning, the federal government views it as the primary environmental health hazard facing American children (CDC, 1991). Children between ages zero and six are at a greater risk for exposure to lead. Normal hand-to-mouth activities in the infant and toddler years facilitate the ingestion of lead. Exposure to deteriorating lead-based paint and lead contaminated dust found in the home are the primary sources of lead poisoning for children. There is no safe blood lead level for children. A level of 10 ug/dL or above is considered an "elevated blood lead level." If a child's blood lead level is 20 ug/dL or remains at 15 ug/dL after two tests, CDC requires case management by local health professionals.

Lead poisoning in children can result in growth inhibition, reduced cognitive function, delayed mental development, and neurological disabilities. Although elevated blood levels in adults also have adverse health effects such as anemia, hypertension, decreased fertility, and nervous system dysfunction, children most often suffer more permanent health damage. In addition, children up to age six do not store lead in their bones as efficiently as adults, causing lead to circulate more freely. Thus adequate nutrition for children is important in the prevention of the harmful effects of lead.

The focus of lead poisoning prevention has primarily been concentrated on children. Fortunately, lead poisoning in children is a preventable public health problem. Childhood lead poisoning prevention programs such as periodic screening, environmental interventions, as well as educational and nutritional campaigns have had a tremendous impact on reducing the occurrence of lead poisoning.

A variety of work and hobby environments expose people to lead and may result in lead exposures for their families. Occupational lead exposure accounts for approximately 90% of adult lead poisoning cases. Occupations in which a worker is potentially exposed include smelting and refining industries, battery manufacturing plants, gasoline stations, construction and residential painting. Hobbies and activities such as furniture remodeling and refinishing, home renovations, making stained glass and pottery, and using indoor firing ranges are also highly associated with lead exposure.

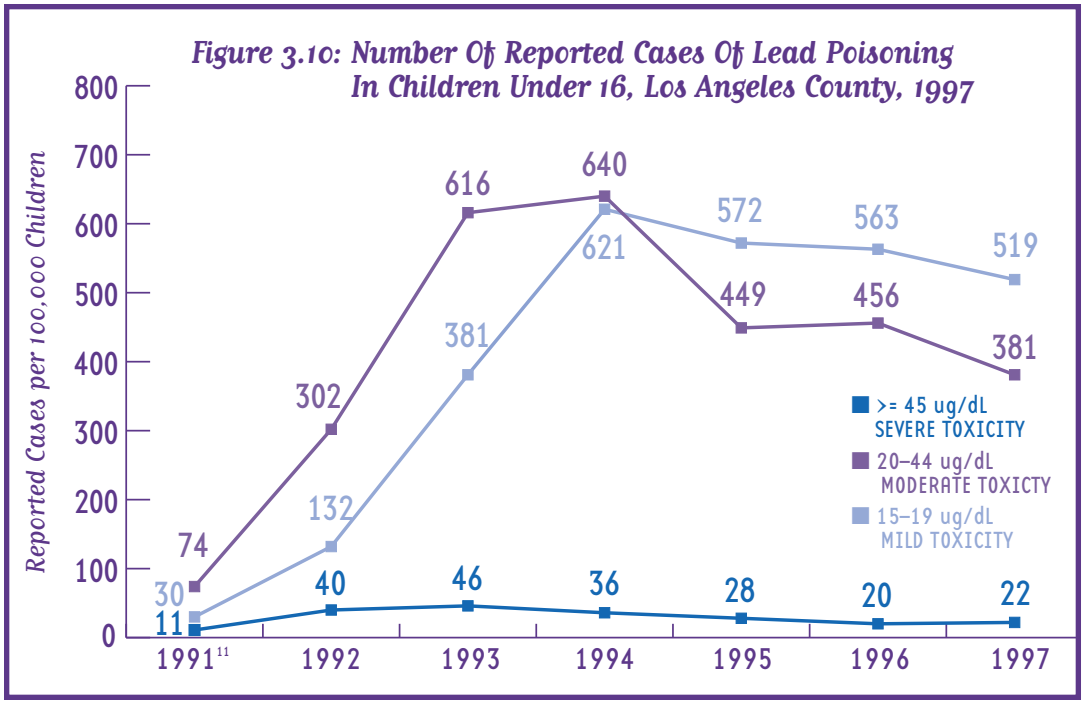
- ➜ There has been a steady decline in the number of severe toxic lead poisoning cases in children under 16. However, there has not been a significant change in the number of mild lead toxicity cases (see Figure 3.10).

Under California state law, laboratories are required to report blood lead levels of 25 ug/dL and above.

- ➜ From 1991 to 1996 there was a significant increase in the number of blood lead screenings. However, between 1996 to 1997 there was nearly a 50% decrease in the number of blood lead screenings (see Figure 3.11).
- ➜ Incidence of blood lead poisoning is highest among infants aged zero to two.
- ➜ Latino children had the highest number of reported lead poisoning cases in Los Angeles County, followed by African-Americans, whites, and Asians.

Food Safety

Food safety is an important factor affecting health. Annually, 9,000 Americans die and millions more become ill as the result of contaminated food. As a result, the



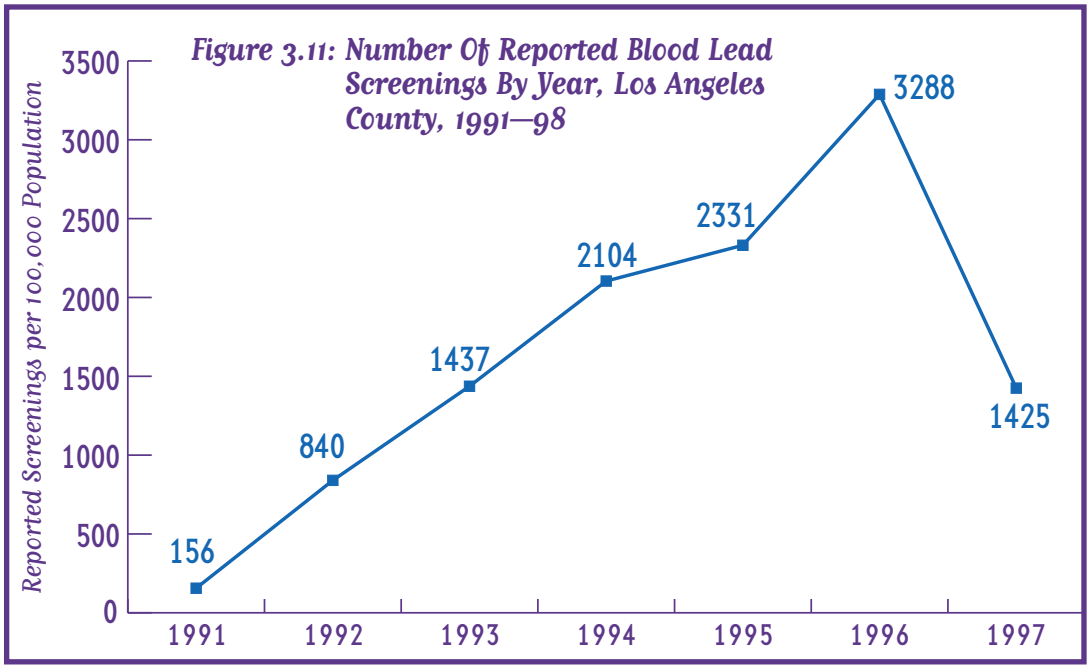
Source: Los Angeles County Department of Health Services, Childhood Lead Poisoning Prevention Program, Epidemiology Unit.

Department of Health Services has taken a lead role in promoting appropriate food handling practices in preventing food-borne illness.

Los Angeles County Department of Health Services recently established prevention programs, surveillance activities, and set standards to protect and improve the public's health. It has recently established a classification system that grades restaurants and other retail food handling facilities through periodic inspections. The purpose of the grading system is to create public awareness about food handling, hygiene, and sanitation practices in restaurants. Points are taken off for everything from minor violations such as broken tiles and employees not wearing appropriate attire, to larger violations such as inappropriate food storage temperatures, unsafe food handling practices by employees, and poor sanitary conditions.

The following is a summary of the findings for the six-month period of January 1 through June 30, 1998:

➜ The average inspection score for food establishments has increased from 88 to 92 (from a B to an A). The average score was 90.3.



Source: Los Angeles County Department of Health Services, Childhood Lead Poisoning Prevention Program, Epidemiology Unit.

➜ The average number of violations found per inspection has decreased from 4.6 to 3.7.

➜ The percentage of restaurant closures as a result of inspections has decreased from 5% to 2%.

➜ The inspection frequency has increased slightly to a little over two inspections per year per facility.

The overall positive trends in food inspection results are most likely attributable to factors such as restaurant operators' increased attention to food sanitation principles, enhanced educational materials, and food sanitation training activities for employees. Increased public awareness of the system has played a critical role in prompting restaurant owners to improve the conditions of their restaurants.

Environmental Health Indicators Data Sources

1. South Coast Air Quality Management District (SCAQMD)

2. Los Angeles County Department of Health Services—Public Health
   Lead Programs, Epidemiology Information

3. United States Department of Health and Human Services
   Centers for Disease Control and Prevention
   Lead Poisoning Prevention Program
   Division of Environmental Hazards and Health Effects
   National Center for Environmental Health

4. Los Angeles County Department of Health Services—Public Health
   Environmental Health

See Appendix for complete references on these and other data resources.

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