County of Los Angeles
Department of Health Services
Public Health

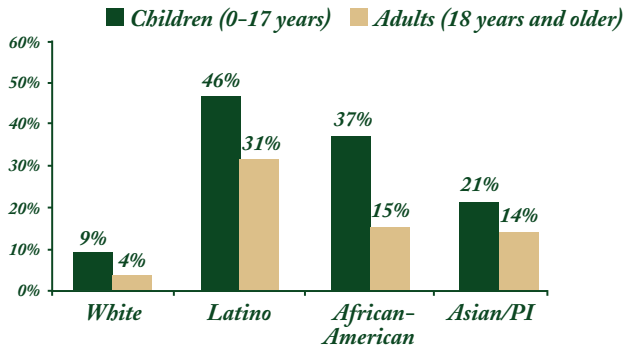
Recent HEALTH TRENDS IN LOS ANGELES COUNTY

June 2002

During the past decade, important gains were made in the health of the county population based on mortality indices. Between 1991 and 2000, average life expectancy increased 2.6 years and overall mortality (as measured by age-adjusted mortality rates) decreased by 26%. Large declines in mortality were observed for most of the leading causes of death.

Figure 1. Life Expectancy at Birth, Total and by Gender, Los Angeles County, 1991 and 2000

Figure 2. Percentage of Population Living in Poverty by Race/Ethnicity and Age Group, Los Angeles County, 1999-2000



Source: Los Angeles County Health Survey

While these mortality trends are encouraging, there has been a rise in the percentage of adults living with chronic health conditions such as heart disease, cancer, diabetes, arthritis, and mental illness. In addition, large racial and ethnic disparities in health status persist and appear to be increasing. The highest rates for many diseases are found in the African-American population. Finally, many of the behaviors (e.g., smoking, alcohol abuse, physical inactivity, poor nutrition and sexual risk behavior) and social conditions (e.g., poverty) that can lead to illness are present at high levels in the county population.

This report describes key health trends in the county population over the past decade. The information is important for prioritizing and planning health care services, identifying potentially valuable health policy initiatives, and developing population-based disease prevention and health promotion strategies.

COUNTY OF LOS ANGELES
DEPARTMENT OF HEALTH SERVICES
Public Health

June 2002

Health Officer's Message to Los Angeles County Residents on Key Health Trends

During the 1990s, our County made strides in reducing mortality from heart disease, lung and other cancers, and injuries. Overall, death rates declined more than 25%. Both lifestyle changes and advances in medical care for some conditions contributed to these gains.

Despite the overall favorable picture, recent trends are cause for concern. Large racial and ethnic disparities persist, and in some cases have worsened, with African-Americans disproportionately impacted by high rates of mortality. In addition, rapidly increasing diabetes mortality rates are cause for action.

Chronic conditions represent an enormous burden to individuals and health care systems. Some conditions, depression, arthritis, alcohol and drug use, for example, significantly impact disease burden yet are not readily captured in the overall mortality statistics. People are also living longer with chronic conditions, fueling a steady demand for medical care and disease management services over the past decade.

The pattern of reduced mortality, continued high rates of serious health problems, and growing health disparities have implications for all organizations whose missions include disease prevention and health improvement. Declining revenues in public and private health systems underscore the importance of investing in prevention and more effective clinical services. Such investments must be selected to maximize returns, by targeting those conditions with the greatest burden, and for which cost-effective and proven interventions are available.

Examples of worthwhile investments include: First, efforts to change behaviors that are harmful—physical inactivity, poor nutrition, violence, use of tobacco, excessive use of alcohol, and use of illicit drugs—and those to encourage more healthful behaviors. Second, provide timely and effective care to those in need to reduce suffering, rates of complications, and death. Third, improve social and economic conditions in communities to address factors that greatly contribute to health disparities, such as poverty, and lack of job and educational opportunities. Last, enact and enforce public policies that create healthier and safer environments, such as those to increase opportunities for physical activity, and those that reduce the availability of tobacco, alcohol, and other drugs to children, and those that control emissions of air pollutants from motor vehicles and industry.

Jonathan E. Fielding

Jonathan E. Fielding, M.D., M.P.H.
Director of Public Health and Health Officer

Recent declines in mortality

During the 1990s, substantial progress was made in reducing mortality associated with most of the leading causes of death in the county population.

The leading causes of death in Los Angeles County in 2000 are shown below in Table 1. From 1991 to 2000, age-adjusted mortality rates decreased for most of the leading conditions:

- Coronary heart disease deaths decreased by 36%
- Stroke deaths decreased by 24%
- Lung cancer deaths decreased by 26%
- Unintentional injury deaths decreased by 29%
- Cirrhosis/other chronic liver disease deaths decreased by 18%
- Homicides decreased by 51%
- Suicides decreased by 34%
- HIV/AIDS deaths decreased by 77%

A notable exception is diabetes—a 48% increase in mortality from diabetes was observed in the 1990s. Deaths from pneumonia/influenza and emphysema/other chronic respiratory diseases remained relatively stable during this time period.

Table 1. Trends in the Leading Causes of Death, Los Angeles County, 1991-2000

Cause of death	*Rate[1] (per 100,000) 1991*	*2000*	*Percent change*
Coronary heart disease	290.6	187.4	-35.5%
Stroke	64.1	48.9	-23.8%
Pneumonia/influenza	42.9	40.6[2]	-5.3%
Lung cancer	49.8	36.9	-25.8%
Emphysema/other chronic lower respiratory tract diseases	34.1	32.7	-4.0%
Diabetes	14.6	21.7	+48.2%
Unintentional injuries	29.2	20.8	-28.6%
Cirrhosis/other chronic liver diseases	15.4	12.7	-17.5%
Homicide	20.1	9.8	-51.3%
Suicide	11.5	7.6	-34.3%
HIV/AIDS	23.2	5.3	-77.1%
Alzheimer's disease	3.7	4.8[2]	+28.3%

[1] *Rates are age-adjusted to the 2000 U.S. population.*
[2] *The 1998 rate is reported because the 1999 and 2000 rates were distorted by the change from ICD-9 to ICD-10 disease classifications.*

ACKNOWLEDGEMENTS:

Recent Health Trends in Los Angeles County is a publication of the Office of Health Assessment and Epidemiology.

Paul Simon, MD, MPH, Director
Frank Sorvillo, Dr.PH, Chief, Data Collection and Analysis Unit
Cheryl Wold, MPH, Chief, Health Assessment Unit

Contributors included:
Valerie Ulene, MD, MPH
Alex Ho, MD, MPH
Louise Rollin, MS
Amy Lightstone, MPH
Aida Angelescu, MS
Arun Narayanan, MPH

This report can be found on our website at
www.lapublichealth.org/ha

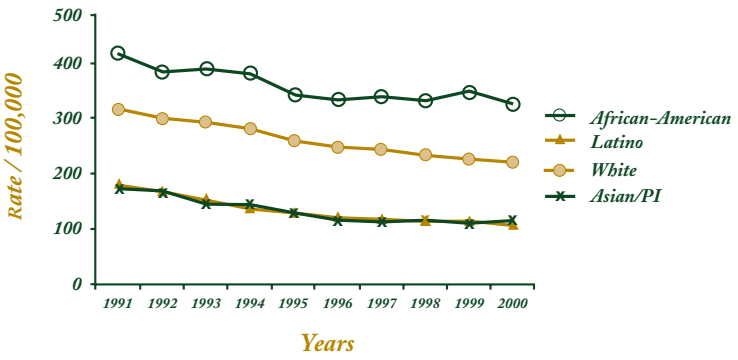
County of Los Angeles
Department of Health Services
Public Health

313 North Figueroa Street, Room 127
Los Angeles, California 90012
Phone: (213) 240-7785
Website: www.lapublichealth.org

Treatment advances and reductions in risk behaviors responsible for much of the decline

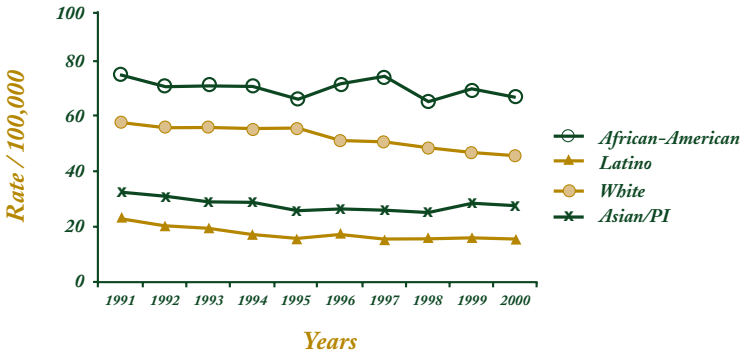
A variety of factors influence mortality rates and are responsible for the observed trends.

Figure 3. Coronary Heart Disease Mortality by Race/Ethnicity, Los Angeles County, 1991-2000



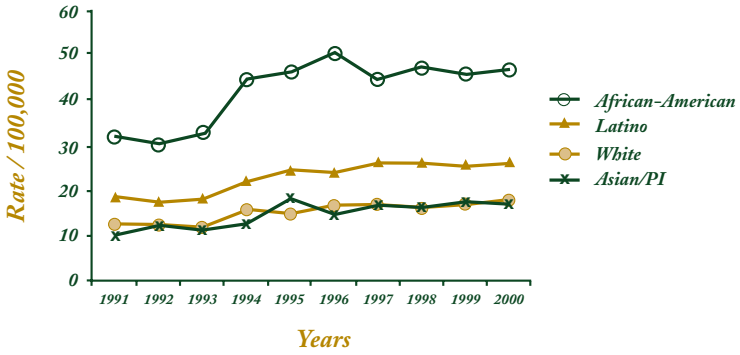
Coronary heart disease and stroke. Declines in mortality from coronary heart disease and stroke are partly due to advances in the medical and surgical treatments of these conditions. Changes in major risk factors, due to a combination of lifestyle changes and medical treatments, have also played a major role. Over the past several decades, there has been a substantial reduction in the rate of smoking in Los Angeles County. In addition, national surveys have documented declines in serum cholesterol levels and rates of hypertension.

Figure 4. Lung Cancer Mortality by Race/Ethnicity, Los Angeles County, 1991-2000



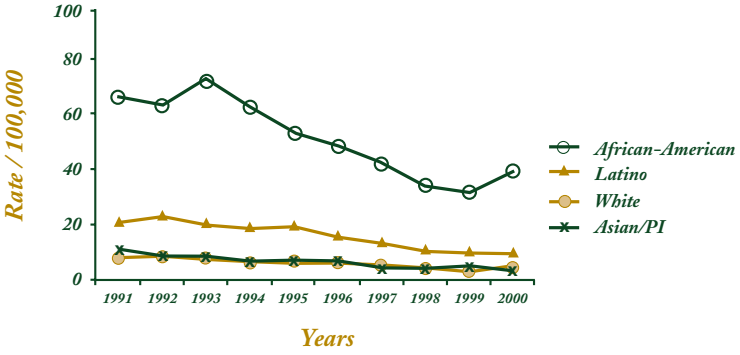
Lung cancer. The decline in lung cancer incidence and mortality over the past 10 years is almost entirely due to sustained decreases in smoking rates following the 1965 release of the Surgeon General's report on smoking. In 1989, California instituted one of the most active smoking control programs in the country, resulting in ongoing declines in smoking rates in Los Angeles County and the rest of the state. A recently reported study by the Centers for Disease Control and Prevention indicated that this program has contributed to a more rapid decline in lung cancer rates in California than in other parts of the nation.

Figure 5. Diabetes Mortality by Race/Ethnicity, Los Angeles County, 1991-2000



Diabetes. The rise in mortality from diabetes is in large part related to the growing epidemic of overweight and obesity and the low levels of physical activity in the county population. Reduced access to medical care and inadequate disease management for diabetics in care may also play a role.

Figure 6. Homicide Rate by Race/Ethnicity, Los Angeles County, 1991-2000



Homicide. The factors responsible for the substantial decline in homicide rates during 1991-2000 are not well understood but may relate to the strong economy and increased employment during much of this period, and an increase in community-based violence prevention programs. Optimism regarding this decline should be tempered, however, by the recent increase in violence. Los Angeles Police Department statistics, for example, indicate a 42% increase in homicides in the city of Los Angeles during the first four months of 2002 compared to the same time period in 2001.

HIV/AIDS. The dramatic decline in HIV/AIDS mortality during the 1990s reflects major advances in medications to treat HIV infection. These treatments became widely available in 1996 and their introduction was followed by a substantial decline in AIDS diagnoses and deaths. Unfortunately, this decline has recently begun to level off.

In addition, there is evidence that high rates of risky sexual behavior and associated HIV infection are continuing in some segments of the population, especially among some groups of men who have sex with men.

Disparities in health status persist

Despite these reductions in mortality, significant disparities in health status still exist in the county population. In 2000, age-adjusted mortality was nearly three times higher in African-Americans (1,142 per 100,000) and nearly two times higher in Whites (738 per 100,000) than in Latinos (430 per 100,000) and Asians/Pacific Islanders (429 per 100,000).

Table 2. Trends in Mortality by Gender, Race/Ethnicity, and SPA, Los Angeles County, 1991–2000

Gender and race/ethnicity[2]	*Rate*[1] *(per 100,000)* 1991	2000	*Percent change*
Male	1,106	784	-29.1%
White	1,165	861	-26.1%
Latino	779	538	-31.0%
African-American	1,697	1,416	-16.6%
Asian/Pacific Islander	717	534	-25.5%
Female	709	552	-22.2%
White	763	633	-17.1%
Latina	456	345	-24.2%
African-American	990	941	-5.0%
Asian/Pacific Islander	448	347	-22.6%
Service Planning Area (SPA)			
Antelope Valley	927	751	-18.9%
San Fernando Valley	829	681	-17.9%
San Gabriel Valley	820	618	-24.6%
Metro	868	556	-35.9%
West	770	602	-21.8%
South	1,153	876	-24.1%
East	841	607	-27.9%
South Bay	912	662	-27.4%

[1] *Rates are age-adjusted to the 2000 U.S. population.*
[2] *American Indians/Alaska Natives were not included because the number of reported deaths was too small to provide reliable estimates of trends.*

In fact, racial/ethnic health disparities based on mortality appear to be increasing. During the period 1991-2000, mortality rates declined by only 11.5% in African-Americans compared to 21.4% in Whites, 24.2% in Asians/Pacific Islanders, and 27.7% in Latinos. (Trends could not be assessed for Native Americans and Alaska Natives because of the relatively small number of reported deaths.)

Chronic disease remains the leading cause of premature death and disability

Despite major declines in chronic disease mortality over the past decade, chronic diseases remain the leading cause of premature death and disability in Los Angeles County.

Disability-adjusted life years (DALYs) measure disease burden by combining the number of years lost when a person dies prematurely and the number of years lived with temporary or permanent disability. One DALY equals one year of healthy life lost.

The Los Angeles County Department of Health Services (DHS) conducted a recent study to assess disease and injury burden in the county population using DALYs. Overall, the leading causes of DALYs (or years of healthy life lost) in the county population in 1998 were:

- Coronary heart disease (70,000 years of healthy life lost annually)
- Alcohol dependence (63,000 years of healthy life lost annually)
- Depression (45,000 years of healthy life lost annually)
- Diabetes (42,000 years of healthy life lost annually)
- Arthritis (37,000 years of healthy life lost annually)
- Homicide and nonfatal violence (36,000 years of healthy life lost annually)
- Stroke (32,000 years of healthy life lost annually)
- Alzheimer's disease and other dementia (31,000 years of healthy life lost annually)
- Lung cancer (29,000 years of healthy life lost annually)
- Drug overdose and other intoxications (28,000 years of healthy life lost annually)

Figure 7. Prevalence of Asthma Among Children by Race/Ethnicity, Los Angeles County, 1999-2000

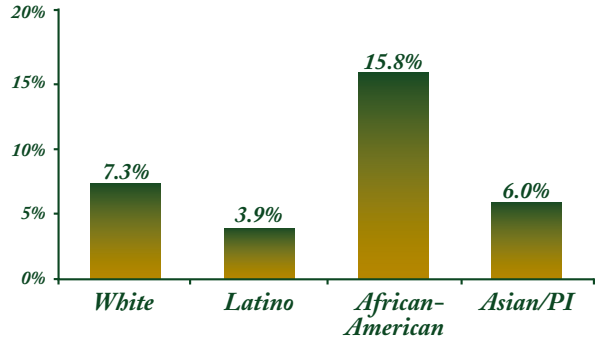


Figure 8. Leading Causes of DALYs Among Men in Los Angeles County, 1998

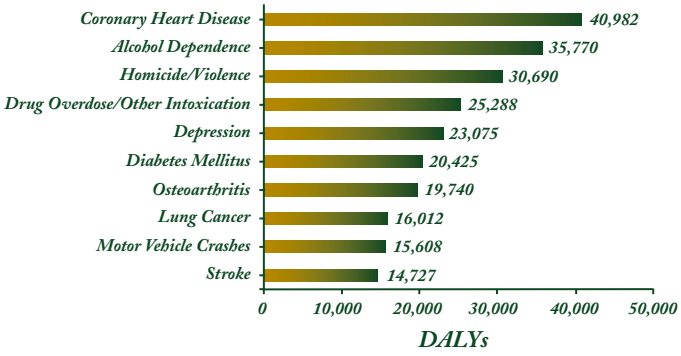
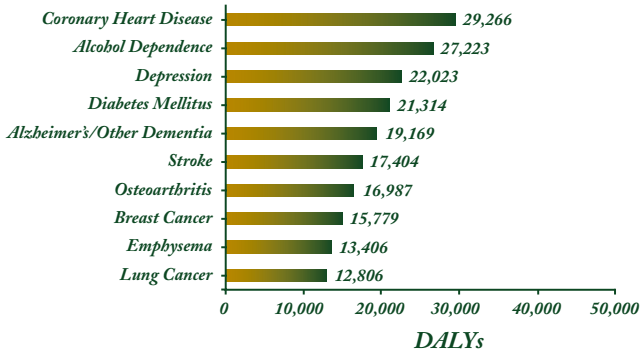


Figure 9. Leading Causes of DALYs Among Women in Los Angeles County, 1998

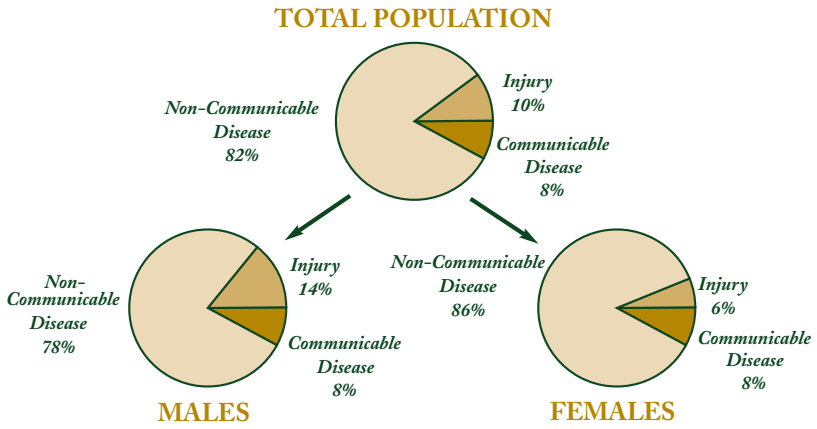


Although asthma was not among the leading causes of years of healthy life lost in the county population as a whole, it was the eighth leading cause among African-Americans. In addition, asthma is a leading cause of chronic illness among children. In 1999, the percentage of children with asthma in Los Angeles County was 6.1%; the rate was more than twice as high in African-American children (15.8%) than in Whites (7.3%), Asians/Pacific Islanders (6.0%), and Latinos (3.9%).

Significant differences were observed between men and women in the rank order of leading causes of years of healthy life lost. These differences stem largely from the greater impact of violence and drug use on men and the larger impact of breast cancer on women. Homicide and nonfatal violence resulted in 31,000 years of healthy life lost among men compared to 5,000 among women; drug intoxication and overdose resulted in 25,000 years of healthy life lost among men compared to 3,000 among women. Breast cancer, on the other hand, resulted in 16,000 years of healthy life lost among women.

Overall, chronic non-infectious diseases accounted for an estimated 82% of all years of healthy life lost in the county population in 1998. Injuries and infectious diseases accounted for 10% and 8%, respectively. However, use of the DALYs measure may underestimate the true burden of infectious diseases because it does not address important

Figure 10. Relative Burden (Based on DALYs) of Communicable Diseases, Non-Communicable Diseases and Injuries, Los Angeles County, 1998



disease interactions (e.g., the link between infection with the human papillomavirus and cervical cancer) and does not fully attribute some categories of death to the underlying infectious agent (e.g., hepatitis C infection as a major cause of death from liver disease). The continued importance of infectious diseases is highlighted by the growing problem of antibiotic resistance seen with many common infections. In addition, there has been a recent resurgence of some important communicable diseases (e.g., syphilis).

Recent trends in key health behaviors

A variety of behavioral factors have been clearly shown to impact health. Tobacco use, for example, accounts for approximately 20% of all deaths each year in Los Angeles County. An estimated 14% of deaths are attributable to poor diet and lack of exercise, and 5% of deaths to alcohol use. These behaviors also contribute substantially to the burden of chronic illness and reduced health-related quality of life.

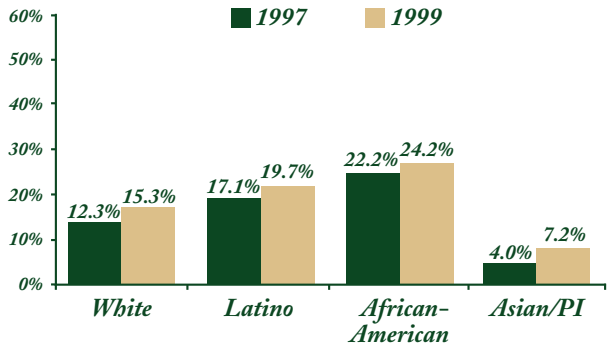
Smoking rates in the county have declined over the past decade, including a recent decline among youth.

The rate of smoking among adults in Los Angeles County decreased from 21.8% in 1990 to 18.1% in 1999, resulting in 250,000 fewer smokers countywide.

- In 1999, the rate of smoking was significantly higher in men than women (22.1% vs. 14.2%).
- The smoking rate was lower among Latinas (8.7%) and Asian/Pacific Islander (8.8%) women than African-American (21.0%) and White (18.9%) women in 1999.
- In men, smoking rates were similar across racial/ethnic groups (23.0% in Whites, 22.1% in Asians/Pacific Islanders, 21.8% in African-Americans, and 21.7% in Latinos).

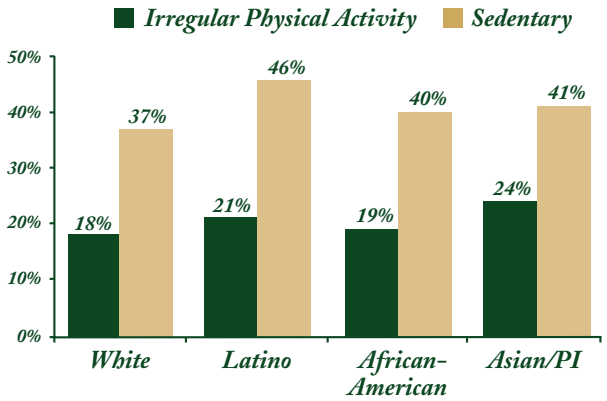
Results of the Youth Risk Behavior Survey indicate that among students in grades 9-12 in the Los Angeles Unified School District, smoking prevalence decreased from 26.5% in 1997 to 14.5% in 2001. This relatively short-term trend should be viewed with caution given that youth smoking rates statewide increased during the early- to mid-1990s.

Figure 11. Prevalence of Obesity[1] Among Adults (≥18 years old) by Race/Ethnicity, Los Angeles County, 1997 and 1999



[1] *Defined as body mass index of 30 and greater.*

Figure 12. Percentage of Adults Not Meeting Physical Activity Guidelines by Race/Ethnicity, Los Angeles County, 1999



Obesity on the rise

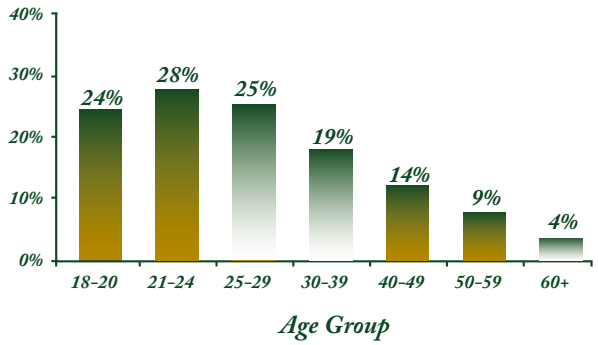
The prevalence of obesity among adults residing in Los Angeles County appears to be increasing. Between 1997 and 1999, the prevalence of obesity increased from 14.3% to 16.7%. This increase was observed in both men and women and in the four major race/ethnic groups.

Rates of physical activity low

In 1999, only 39% of adults countywide met recommended national guidelines for physical activity. Of the 61% who were not meeting these guidelines, two-thirds were sedentary and one-third engaged in only irregular activity.

- Women (49%) were more likely to be sedentary than men (33%).
- The percent sedentary was slightly higher among Latinos (46%) than other racial/ethnic groups (37% in Whites, 40% in African-Americans, and 41% Asians/Pacific Islanders).

Figure 13. Percentage of Adults Who Report Binge Drinking by Age Group, Los Angeles County, 1999



Binge drinking worrisome

In 1999, 54% of adults reported recent alcohol consumption (defined as 1 or more drinks in the past month).

- Nearly 16% of adults reported recent binge drinking (consuming 5 or more drinks on one occasion in the past month). Binge drinking was most prevalent among young adults: 24% of those ages 18-20 and 28% of those ages 21-24 reported binge drinking.
- 24% of men and 7% of women reported binge drinking.
- Binge drinking was most prevalent among Latinos (20%) followed by Whites (15%), African-Americans (12%) and Asians/Pacific Islanders (10%).

Conclusion

Recent statistics indicate that county residents are living longer and that mortality associated with many of the leading causes of death is declining. Diabetes serves as a notable exception, with rapidly increasing mortality rates. Also, large health disparities persist in the county population, and African-Americans continue to suffer a disproportionate burden of disease and injury. Finally, a variety of chronic conditions—many of them preventable—contribute significantly to the leading causes of premature death and disability.

In a climate of declining revenues, investments in the public health system must be selected with an eye toward maximizing returns. Those health conditions that account for the greatest burden of reduced health and for which cost-effective interventions are available need to be identified and become a major focus of future public health activities. Programs aimed at reducing the high prevalence of obesity and low levels of physical activity in the population, for example, are needed to combat diabetes. Coupled with more aggressive screening and treatment interventions, significant reductions in diabetes-related morbidity and mortality would likely be achieved at a reasonable cost. The disease burden from depression, alcoholism and substance abuse, on the other hand, would likely be reduced by better integrating mental health and alcohol/drug treatment services into the primary health care delivery system.

Policies to improve the public's health by creating healthier and safer social and physical environments can be a powerful complement to thoughtful programs and services. See the "Health Officer's Message" in conjunction with this report for more information and ideas about investments in the future health of Los Angeles County residents.

Los Angeles County
Department of Health Services
313 N. Figueroa St., Room 127
Los Angeles, CA 90012

Summary

RECENT HEALTH TRENDS IN LOS ANGELES COUNTY

- Recent statistics indicate that county residents are living longer and that mortality associated with many of the leading causes of death is declining.

- Between 1991 and 2000, average life expectancy increased 2.6 years and overall mortality (as measured by age-adjusted mortality rates) decreased by 26%. Large declines in mortality were observed for most of the leading causes of death.

- One notable exception to the decrease in mortality was the large increase in mortality from diabetes, up 48% over the same time period. Lack of physical activity and obesity are both major risk factors for Type II diabetes. In 1999, only 39% of adults in Los Angeles County met recommended national guidelines for physical activity and the prevalence of obesity rose from 14.3% to 16.7% between 1997 and 1999.

- Despite the encouraging mortality trends, racial and ethnic disparities persist in the county. For example, age-adjusted mortality rates were nearly three times higher in African-Americans and two times higher in Whites than in Latinos and Asians/Pacific Islanders.

- Chronic disease remains the leading cause of premature death, disability, and diminished quality of life. In 1998, the five leading causes of premature death and disability were coronary heart disease, alcohol dependence, depression, diabetes, and arthritis.