

L.A. Health

November 2000

Physical Activity Among Adults in Los Angeles County

Engaging in regular physical activity has long been regarded as important for health. The role of physical activity in the prevention of numerous chronic medical conditions is very well documented, while the beneficial effects of physical activity on quality of life and mental health are just beginning to gain recognition. Studies have demonstrated that physically active adults have a reduced risk for many chronic conditions, including coronary heart disease, hypertension, non-insulin dependent diabetes, osteoporosis, colon cancer, and anxiety and depression. Other studies have shown that chronically low levels of physical activity are associated with greater risk of premature death. Recent research confirms that it is not only vigorous activity but also moderate physical activity that provides substantial health benefits.¹

Despite this compelling evidence, more than 50% of Americans do not meet the recommended guidelines for physical activity. Current guidelines from the Centers for Disease Control and Prevention (CDC), the American College of Sports Medicine (ACSM), and the National Institutes of Health recommend that adults engage in 30 or more minutes of moderate intensity physical activity (defined as the effort expended by an average adult in walking 1.5 to 2 miles in half an hour) on most and preferably all days—either in a single session or accumulated in multiple bouts, each lasting at least 8–10 minutes (see Sidebar on page 4).

Local Findings

This report presents data from the 1999–2000 Los Angeles County Health Survey (LACHS), a telephone survey of 8,354 randomly-selected adults in Los Angeles County. Respondents were asked to report the number of days per week they engaged in vigorous physical activity, the amount of time they spent walking during the week and

1. Centers for Disease Control and Prevention (1995). *Physical Activity and Public Health—A Recommendation from the Centers for Disease Control and Prevention and the American College of Sports Medicine. Journal of the American Medical Association, 273, 402-407.*

The Los Angeles County Health Survey is a biennial, population-based telephone survey that collects information on sociodemographic characteristics, health status, health behaviors, and access to health services among adults and children in the county. The most recent survey was conducted for the Department of Health Services between September 1999 and April 2000 by Field Research Corporation. Support for the survey was also provided by the California Department of Health Services, the Los Angeles County Department of Public Social Services, and Los Angeles County Medicaid Demonstration Project.

The 1999 survey collected information on a random sample of 8,354 adults and 6,016 children. Interviews were offered in English, Spanish, Cantonese, Mandarin, Korean, and Vietnamese. Among households contacted and eligible for participation, the response rate was 55%. To adjust for differential rates of participation, results were weighted by selected demographic variables using 1998 census projections for the Los Angeles County population.

The findings in this report are subject to several limitations. In any survey that includes sampling, some degree of error (referred to as "sampling error") is introduced by chance alone, even when the sample is chosen randomly. In the present survey, if 50% of the overall sample of adults answered "yes" to a specific question, the sampling error would be plus or minus 1.2 percentage points at the 95% confidence level. This means that if all adults in the population were asked the above question, there is a 95% chance that the result would be between 48.8% and 51.2%. Because the sample sizes of subgroups are smaller than the overall sample, results for these subgroups have larger sampling errors and wider confidence levels. For all results presented in this report, confidence levels are available.

There are a number of other possible sources of error in any survey. For example, questions may be misunderstood, respondents may not provide accurate information, and errors may occur in the processing of data. All data were self-reported. Concern about the accuracy of self-reported exercise data have been raised in other studies, particularly among overweight individuals who tend to under report their body weight.² In addition we may not have accurately assessed physical activity levels for individuals who have physically demanding jobs if they did not understand to include these activities in their answers.

In addition, surveys administered by telephone miss those who are homeless and others without telephone service. The Los Angeles County Health Survey was also unable to examine or account for physical activity levels among disabled persons. The survey professionals working on this study made every effort to minimize these sources of error.

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whether they engaged in muscle strengthening and toning activities. Physical activity included work-related and recreational activity. Respondents were placed into two groups: those who met the recommended guidelines for physical activity and those who did not. The respondents who did not meet the guidelines were further divided into those who engaged in some activity during the week, ("irregular exercise") and those who reported no activity ("sedentary").

- 39% of adults countywide met the recommended criteria for physical activity.
- 61% of adults did not get enough weekly physical activity to meet the recommended guidelines: 41% were sedentary and 20% engaged in only irregular activity (Table 1).

Table 1. Level of Physical Activity, Adults 18 And Older, 1999

	Percent (±95% CI)†		Estimated Number	Percent (±95% CI)†		Estimated Number
	Irregular Exercise			Sedentary		
Los Angeles County	20%	±1	1,392,000	41%	±1	2,858,000
Antelope Valley	20%	±4	44,000	44%	±5	95,000
San Fernando Valley	20%	±2	289,000	37%	±2	533,000
East Valley	20%	±4	65,000	38%	±5	122,000
Glendale	19%	±5	49,000	40%	±6	106,000
San Fernando	22%	±4	63,000	30%	±5	86,000
West Valley	19%	±3	112,000	38%	±4	220,000
San Gabriel Valley	20%	±2	266,000	42%	±3	555,000
Alhambra	24%	±5	68,000	37%	±6	106,000
El Monte	23%	±5	72,000	43%	±5	133,000
Foothill	16%	±4	36,000	44%	±6	102,000
Pasadena	18%*	±7	19,000	45%	±9	48,000
Pomona	18%	±4	72,000	43%	±5	167,000
Metro	20%	±3	167,000	44%	±3	358,000
Central	21%	±5	43,000	48%	±6	100,000
Hollywood/Wilshire	17%	±3	63,000	41%	±4	152,000
Northeast	26%	±5	61,000	45%	±6	106,000
West	22%	±3	112,000	31%	±3	162,000
South	21%	±3	131,000	50%	±4	302,000
Compton	27%	±6	47,000	45%	±6	78,000
South	23%*	±7	24,000	50%	±9	51,000
Southeast	16%*	±7	14,000	66%	±10	59,000
Southwest	19%	±4	46,000	47%	±6	114,000
East	20%	±2	187,000	44%	±3	417,000
Bellflower	21%	±5	57,000	41%	±6	110,000
East LA	19%	±6	27,000	50%	±8	73,000
San Antonio	21%	±4	59,000	47%	±5	132,000
Whittier	18%	±5	42,000	42%	±6	102,000
South Bay	18%	±2	196,000	39%	±3	436,000
Harbor	22%	±7	32,000	35%	±8	51,000
Inglewood	15%	±4	44,000	46%	±6	135,000
Long Beach	19%	±4	63,000	37%	±5	123,000
Torrance	17%	±3	58,000	37%	±4	127,000

† Confidence interval * Estimate based on small sample size (n<30) and should be viewed with caution

Source: Los Angeles County Health Survey

→ There was substantial variation in physical activity levels across the various Service Planning Areas (SPAs) in the county. The proportion of sedentary individuals was highest in the South SPA (50%) and lowest in the West SPA (31%) (See Table 1).

→ The percent sedentary increased with age through age 64 (Figure 1).

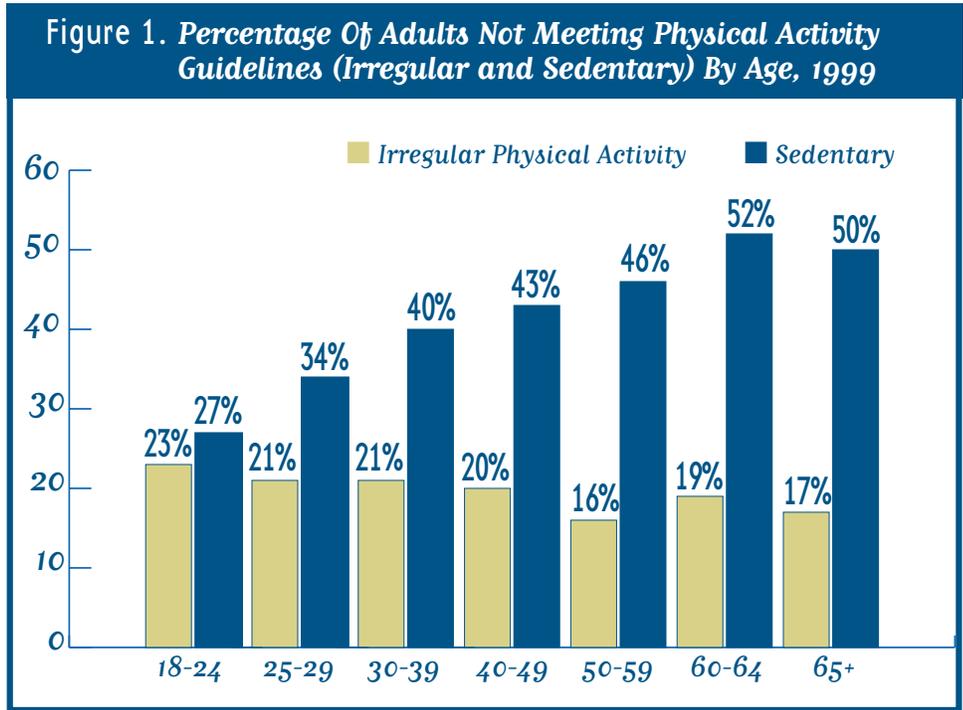
→ The percent sedentary was higher among Latinos (46%) than other racial/ethnic groups. Rates of irregular exercise were similar by race/ethnicity. (Figure 2).

→ Females (49%) were more likely to be sedentary than males (33%). This difference was consistent across the various racial/ethnic groups: Latinas (57% sedentary), Latinos (35% sedentary), Asian/Pacific-Islander females (51% sedentary), Asian/Pacific-Islander males (29% sedentary), African-American females (47% sedentary), African-American males (31% sedentary), white females (41% sedentary), and white males (32% sedentary).

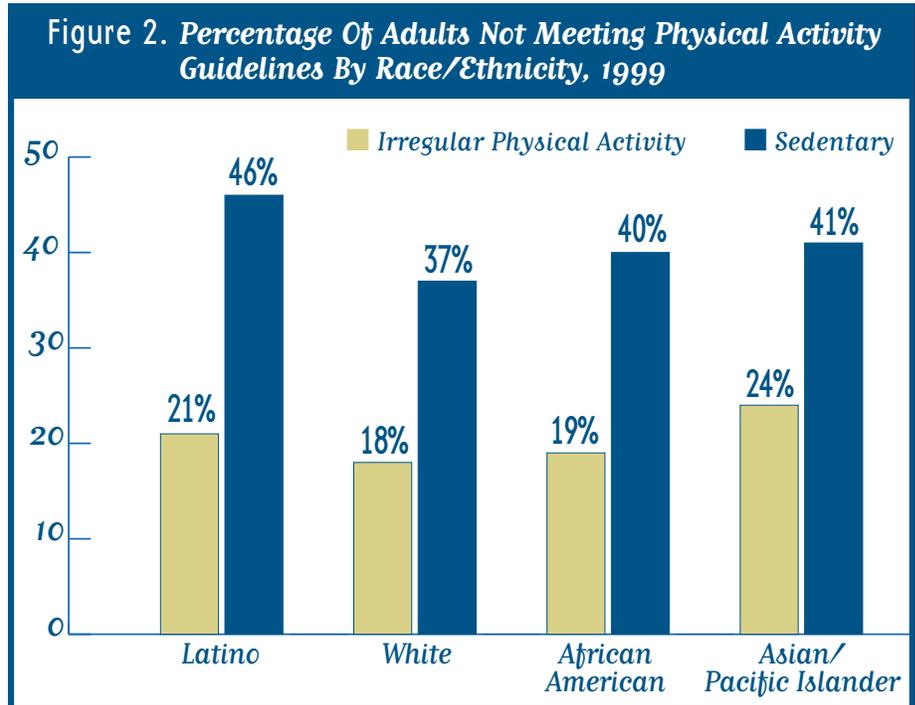
→ Latinos and Asian/Pacific Islanders, but not African-Americans, were more likely to be sedentary than whites after controlling for the influence of education, income, age and gender in the analysis.

→ Sedentary behavior decreased as levels of education increased. The percent who were sedentary was highest among those with less than a high school education (55%), followed by those who had graduated from high school (42%), those with some college (35%), and those with a college or post graduate degree (31%).

→ The percent who were sedentary was highest among persons with incomes below 100% of poverty (53%),



Source: Los Angeles County Health Survey



Source: Los Angeles County Health Survey

“An active lifestyle does not require a regimented vigorous exercise program. Instead, small changes that increase daily physical activity will enable individuals to reduce their risk of chronic disease and may contribute to enhanced quality of life”
—CDC

The most recent CDC-ACSM (American College of Sports Medicine) guidelines recommend that all adults perform 30 or more minutes of moderate intensity physical activity on most and preferably all days—either in a single session or accumulated throughout the day in multiple bouts. Each activity should last at least 8-10 minutes. The 2000 Dietary Guidelines for Americans also recommend that Americans engage in 30 minutes of moderate intensity physical activity on all, or most days of the week. Additional activities to increase strength and muscle tone should also be performed at least twice per week.

followed by those between 100% and 200% of poverty (47%), those between 200% and 300% of poverty (41%), and those above 300% of poverty (32%).

- Perceptions of neighborhood safety may also influence physical activity levels. Respondents who reported being fearful about outdoor activities during daylight hours in their neighborhood on “some” or “all days” were more likely to be sedentary (58%) than those who reported “never” being concerned to go outdoors during the daytime (48%).
- 19% percent of county adults reported concerns for safety, which ranged from 33% in the South SPA to 11% in the Antelope Valley.

Activities that strengthen and tone muscles, for example push-ups, sit-ups, and weight lifting, are also important for health. Overall, 35% of respondents reported engaging in such activities during a regular week. Sixty-six percent of these respondents met the criteria for physical activity, and 34% exercised irregularly. By definition, none of the sedentary group reported engaging in strengthening and toning activities.

Work-related activity was included in the physical activity criteria. In addition, employed respondents characterized the type of work they perform in terms of its level of activity. Most respondents (65%) reported that their work involved mostly sitting or standing, 25% reported that their work involved walking, and 11% reported heavy labor/physically demanding work. There was little variation in levels of physically-demanding work by race/ethnicity, however, more Latinos (36%) reported work that involved walking than African-Americans (23%), Asian/Pacific Islanders (19%), and whites (15%).

Quality of Life

A growing body of literature demonstrates that participation in various forms of physical activity is associated with positive mental health and reduced anxiety and depression.^{2,3} In addition, physical activity and fitness may be linked to a more positive perception of one’s health and improved quality of life.⁴

- In Los Angeles County, sedentary individuals were more than twice as likely to report poor or fair health status than those who exercised regularly and met the recommended physical activity guidelines.
- Respondents reported the number of days out of the past 30 their physical health was not good. Regular exercisers reported fewer days of poor health (an average of 4 days) compared to sedentary individuals (an average of 6 days) (Figure 3).
- Regular exercisers also reported fewer poor mental health days during the past 30 (an average of 4 days) compared to sedentary individuals (an average of 6 days) (Figure 3).
- When asked “How many days during the past 30 days did poor physical or mental health keep you from doing your usual activities?” again, regular exercisers reported significantly fewer days (an average of 2 days) compared

2. Fox, Kenneth R. (1999). *The Influence of Physical Activity on Mental Well-Being*. *Public Health Nutrition*, 2, (3a) 411-418.

3. Rejeski, W. Jack, PhD., Brawley, Lawrence R., PhD., Shumaker, Sally A., PhD. “Physical Activity and Health-related Quality of Life”

4. Karvonen, Martti J. (1996). *Physical Activity for a Healthy Life*. *Research Quarterly for Exercise and Sport*, 67 (2), 213-215.

with sedentary individuals (an average of 4 days) (Figure 3).

Being overweight is a risk factor for numerous chronic health conditions. Physical activity offers a means of losing excess weight and improving self-perception through fat loss and improved muscle tone.² Body mass index (BMI), a ratio of weight to height, is the most common measure used to define overweight (BMI of 25–29) and obesity (BMI of 30 or higher).

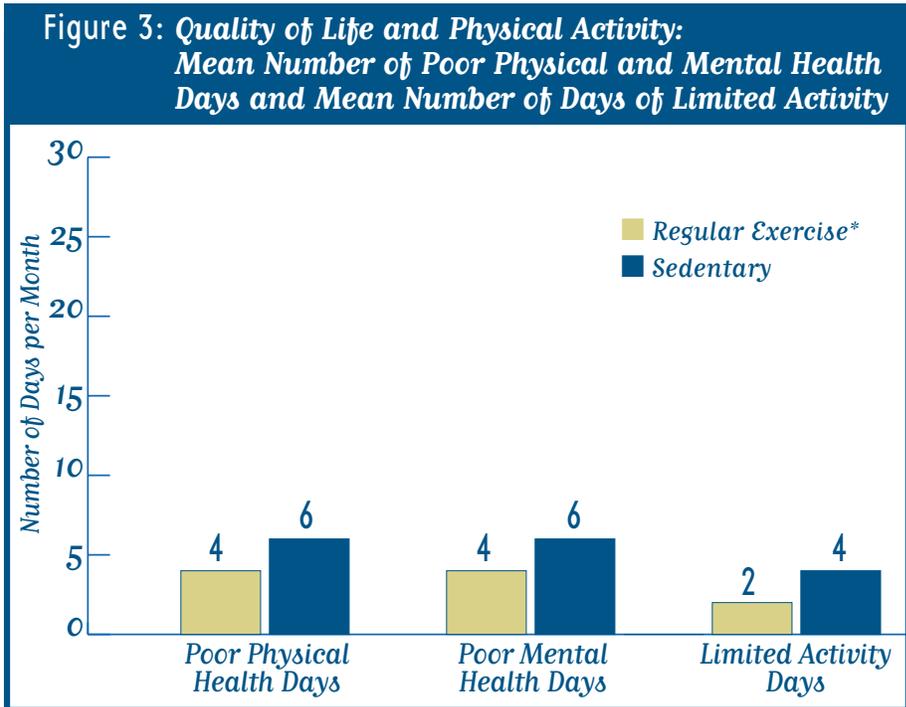
→ The prevalence of obesity was higher among those who were sedentary (22%) than among those who exercised regularly (13%).

Discussion

Overall, the results of the survey are consistent with national data reported from the CDC.¹ While 39% of county adults met the recommended guidelines for physical activity, over 60% did not. Women were less active than men, activity levels declined with advancing age except among those over age 65, and the Latino population was less active than other racial/ethnic groups. In addition, sedentary behavior was higher among those with less education and lower incomes.

Studies estimate that approximately 300,000 deaths in the U.S. each year are attributable to physical inactivity and poor diet.⁵ If Americans who lead sedentary lives adopted a more active lifestyle, there would be enormous benefit to the public's health and to individual well being.

The current low rate of physical activity may be due, in part, to the perception that in order to gain health benefits, one must engage in vigorous, sustained exercise. This perception is incorrect. Scientific evidence clearly demonstrates that regular, moderate-intensity physical activity (e.g. walking, dancing, gardening, etc.) yields substantial health benefits.¹ In addition, small changes that increase daily physical activity (e.g. taking the stairs instead of the elevator) enable individuals to reduce their risk of chronic disease and enhance their quality of life.



* Meets criteria for physical activity

Source: Los Angeles County Health Survey



5. McGinnis, Michael J., Foegle, William H. (1993). Actual Causes of Death in the United States. *Journal of the American Medical Association*, 280, 18 2207-2212.

Physical Activity Promotion

Your health department is here to help you develop a healthier lifestyle. Collaborating with Community Health Council's REACH 2010 Project and the American Heart Association, our Office of Chronic Disease Prevention and Health Promotion is working with community-based organizations countywide to enhance wellness. Organizations willing to support their staff/ members/clients to adopt healthier lifestyles are provided free training and consultation. Topics include nutrition, physical activity, depression, stress management, and weight control. Six training sessions are conducted by a health educator at work sites and other venues to teach people how to integrate healthier eating and physical activity into their daily routines. We will structure programs for any social, religious, or other setting. Examples of skills include learning how to incorporate 10-minute exercise breaks into the work day or at gatherings, and canvassing local restaurants and grocers for healthy food options. A representative from each participating organization is identified to champion the group's wellness efforts and attend quarterly training sessions to enhance continued wellness practices. For more information, call Angela Merlo or Dr. Eloisa Gonzalez at (213) 351-5091 or (213) 351-5264.

High rates of sedentary behavior combined with poor nutritional practices have contributed to the marked increase in the prevalence of obesity in adults nationally. In addition, national surveys have found that the average American consumes more saturated fat, cholesterol and sodium, and less fiber than recommended.⁶

Physical environments can greatly influence physical activity. The variation in levels of activity across the county's SPAs may be in part due to demographic composition but also to disparities in the availability of recreational facilities and parks, and perceptions of neighborhood safety. Preliminary findings from an asset mapping study found that the only recreational facilities available in comparable numbers between more and less affluent areas were basketball courts, which are utilized primarily by young males.⁷ In addition, results from the survey found that respondents who feared engaging in outdoor activities during daylight hours were more likely to be sedentary than those who did not express such fear, a relationship that held true across the county's SPAs.

Although this report did not include data on children and adolescents, the most recent data from the National Health and Nutrition Examination Survey found that nearly 13% of persons ages 6–17 are seriously overweight,⁸ nearly double the prevalence of 30 years ago.⁹ In addition, several studies have documented declining rates of participation in physical activity and school-based physical education.^{10,11} Taken together, these data suggest that physical inactivity and poor nutrition for many may begin very early in life and that health promotion efforts must be extended to children and adolescents to adequately address this emerging public health problem.

Physical Activity Web Sites

Shape Up America! Web site, a site created by C. Everett Koop, MD: <http://www.shapeup.org/fitness/index.htm>

American Heart Association page on exercise: http://www.americanheart.org/catalog/Health_catpage9.html and its subsidiary website: <http://www.justmove.org/home.cfm>

Authoritative general advice on physical activity and other fitness-related activities, by an association that certifies fitness instructors: <http://www.acefitness.org/>

Physical activity recommendations summarized by the CDC: <http://www.cdc.gov/nccdphp/dash/00binaries/phactaag.pdf>

6. Brevard, Patricia B. PhD., R.D., Ricketts, Crystal D. PhD., R.D., (1996). Residence of College Students Affects Dietary Intake, Physical Activity, and Serum Lipid Levels. *Journal of the American Dietetic Association*, 96, (1) 35-38.

7. Sloane, David PhD. "Building Healthy Communities: Assessment Statistics for Change in South Los Angeles." DRAFT REPORT, prepared for Community Health Councils.

8. Centers for Disease Control and Prevention, National Center for Health Statistics, Health, United States, 1999.

9. Centers for Disease Control and Prevention, Guidelines for School Health Programs to Promote Lifelong Healthy Eating. *MMWR* 1997;45(RR-9), 1-33.

Acknowledgements

LA Health is a publication of the Office of Health Assessment and Epidemiology, Los Angeles County Department of Health Services, Public Health

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Special thanks to our contributing authors Antronette Yancey, MD, MPH, William McCarthy PhD, and Mark Weber, PhD

Funding for the survey was provided by the Los Angeles County Department of Health Services, the California Department of Health Services, the Los Angeles County Medicaid Demonstration Project, and the Los Angeles County Department of Public Social Services.

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Technical Note

Respondents were placed into groups based on the frequency, duration and type of physical activity they reported. Individuals classified as "regular exercisers" reported vigorous activity on three to seven days per week for greater than 20 minutes, or vigorous activity on five to seven days per week for any amount of time with the addition of walking for at least 30 minutes or strength training. Respondents classified as "irregular exercisers" reported vigorous physical activity on one to three days and walking for less than 30 minutes on a typical day or strength training. While the irregular exercise group had some form of physical activity, it was not deemed sufficient to meet current recommendations. The final group consisted of sedentary individuals who reported no form of weekly physical activity.



10. Centers for Disease Control and Prevention, Fact Sheet: Youth Risk Behavior Trends for CDC's 1991, 1993, 1995, and 1997 YRBS Surveys. Atlanta GA:USDHHS, 1999.

11. Centers for Disease Control and Prevention, Youth Risk Behavior Survey 1997. MMWR 1999;47:SS-3, August 14, 1998.

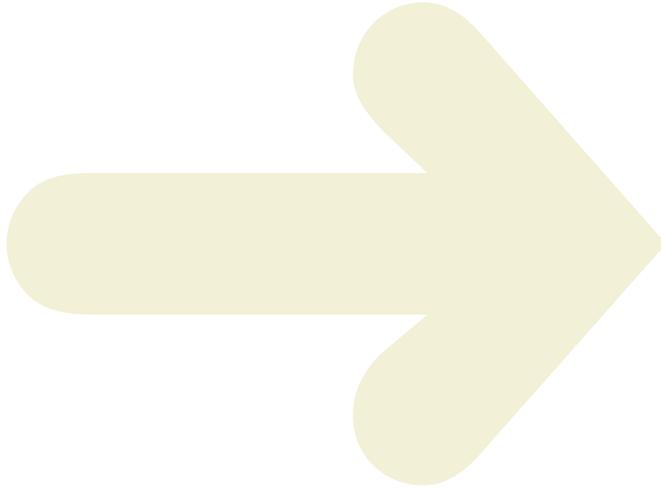
12. Jakicic, John M., Polley, Betsy A., Wing, Rena R. (1998). Accuracy of Self-Reported Exercise and the Relationship with Weight Loss in Overweight Women. Journal of the American College of Sports Medicine, 634-638.



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Summary:

LOS ANGELES COUNTY HEALTH SURVEY

Issue 2

- 41% of Los Angeles County residents are completely sedentary, and another 20% do not perform enough weekly physical activity to meet the recommended national guidelines.
- Females (49%) were more likely to be sedentary than males (33%). This difference was consistent across the major racial/ethnic groups.
- The percent sedentary decreased as levels of education increased, and was highest among those with less than a high school education (55%), followed by those who graduated from high school (42%), those with some college (35%), and those with a college or post graduate degree (31%).
- In Los Angeles County, sedentary individuals are more than twice as likely to report fair or poor health status than those who meet the recommended physical activity guidelines (30% vs. 13%).
- Respondents reported the number of days out of the past 30 their mental health was not good. Regular exercisers reported significantly fewer poor mental health days during the past 30 (4 days) compared to sedentary individuals (6 days).
- Walking is by far the most important leisure activity of the general population. New research indicates that several short bouts of activity a day are just as effective as one longer session.