County of Los Angeles Public Health
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L.A. Health

SMOKING CESSATION EFFORTS AMONG ADULT SMOKERS

Introduction

Tobacco use remains the number one preventable cause of disease, disability, and premature death in the United States.[1,2] Each year, more than 435,000 Americans die from diseases caused by tobacco use, and ten percent of smokers alive today are living with a smoking-related illness.[3] Tobacco use is a major risk factor for cardiovascular disease, respiratory disease, and cancers of the lung, pharynx, mouth, esophagus, pancreas, bladder, and cervix. Smoking during pregnancy is associated with miscarriage, premature birth, low infant birth weight, and Sudden Infant Death Syndrome (SIDS).

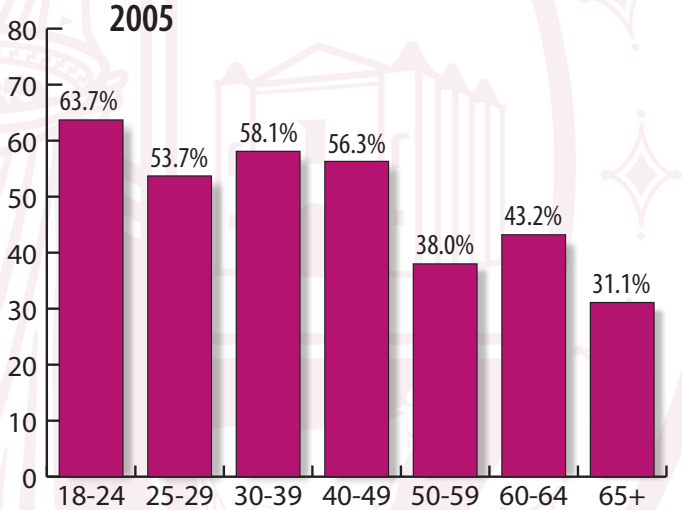
In addition to the individual health consequences of smoking, cigarette smokers expose their families and others to the toxic and deadly effects of secondhand smoke. Children's exposure to secondhand smoke can result in asthma, ear infections, and SIDS. Among adults, exposure to secondhand smoke can cause heart disease and lung cancer.[4,5]

In Los Angeles County, the top five causes of death (coronary heart disease, stroke, lung cancer, emphysema, and pneumonia/influenza) are responsible for half of all deaths, and all are associated with tobacco use. It is estimated that tobacco-related illnesses cost the county $4.3 billion dollars per year, of which $2.3 billion is in direct medical costs (1999 dollars).[1]

Who is trying to quit?

Results from the 2005 Los Angeles County Health Survey (LACHS) show that of the 15% (or 1,067,000) of adults in the county who currently smoke cigarettes, 51% attempted to quit smoking in the past year. A "quit attempt" was defined as a respondent having stopped smoking for at least one day because he/she was trying to quit smoking. Quit attempts were more common among those less than 50 years old compared to those 50 and older (Figure 1).

FIGURE 1 Percent of Smokers Who Made Quit Attempts (in the past year) by Age Group, 2005



Those with less education and lower incomes were also more likely to report quit attempts (Table 1). Latinos and African-Americans reported more quit attempts (57% in each group) than Asians/Pacific

1. *A Report for the County of Los Angeles Public Health Commission. Los Angeles County Department of Public Health, Tobacco Control and Prevention Program, May 25, 2006.*
2. *National Institutes of Health State-of-the-Science Conference Statement, Tobacco Use: Prevention, Cessation, and Control, June 14, 2006.*
3. *Centers for Disease Control and Prevention. Cigarette smoking-attributable mortality–United States 2000. Morbidity and Mortality Weekly Report 2003;52(35):842–44.*
4. *Proposed identification of environmental tobacco smoke as a toxic air contaminant. California Environmental Protection Agency (Cal EPA), Air Resources Board, Sacramento, CA 2005.*
5. *US Department of Health and Human Services (USDHHS). The health effects of involuntary exposure to tobacco smoke. Centers for Disease Control and Prevention, Rockville, MD 2006.*

Islanders (50%) or Whites (44%). However, racial/ethnic variation in quit attempts differed by gender (Figure 2). Among males, quit attempts were highest among Latinos, while among females quit attempts were highest among African-Americans. The percentage of adults who attempted to quit was highest in the South (59%) and Metro Service Planning Areas (58%).

TABLE 1 **Percent of Smokers who Made Quit Attempts (in the past year), 2005**

	Percent	95% CI	Estimated Numbers
Los Angeles County	51.1%	47.4-54.8	519,000
Gender			
Males	50.3%	45.8-54.9	305,000
Females	52.2%	46.1-58.3	214,000
Race/Ethnicity			
Latino	57.0%	51.0-63.0	187,000
White	43.7%	37.7-49.6	167,000
African-American	57.0%	47.5-66.4	96,000
Asian/Pacific Islander	50.1%	37.1-63.2	58,000
Education			
Less than high school	61.2%	53.5-68.9	127,000
High school	50.3%	43.6-57.0	133,000
Some college or trade school	49.6%	42.6-56.6	141,000
College or post graduate degree	46.0%	38.2-53.9	119,000
Federal Poverty Level$			
0-99% FPL	60.2%	52.2-68.1	147,000
100%-199% FPL	54.1%	46.6-61.7	142,000
200%-299% FPL	44.4%	36.6-52.3	81,000
300% or above FPL	45.6%	39.5-51.6	149,000
Service Planning Area			
Antelope Valley	47.0%	38.7-55.4	21,000
San Fernando	50.8%	42.4-59.2	107,000
San Gabriel	50.3%	41.5-59.2	83,000
Metro	57.8%	48.2-67.5	82,000
West	52.4%	34.7-70.1	35,000
South	59.2%	48.2-70.2	64,000
East	48.8%	37.5-60.1	45,000
South Bay	43.9%	35.4-52.4	81,000

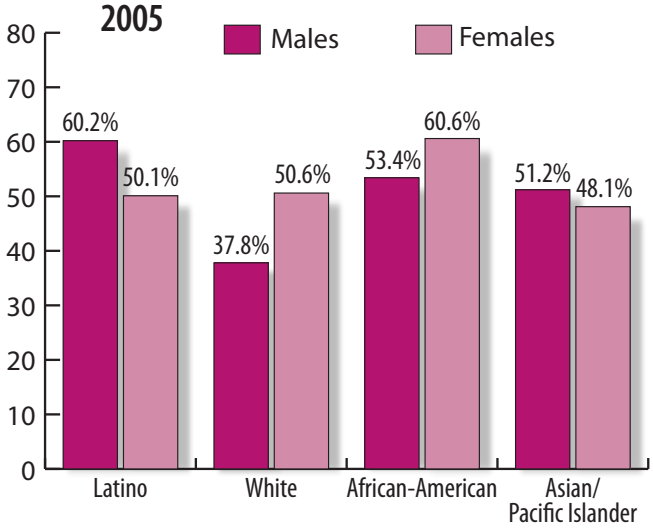
$ Based on U.S. Census 2003 Federal Poverty Level (FPL) thresholds which for a family of four (2 adult, 2 dependents) correspond to annual incomes of $18,700 (100% FPL), $37,300 (200% FPL) and $56,500 (300% FPL).

6. *U.S. Department of Health and Human Services. Women and Smoking. A Report of the Surgeon General. Rockville, MD. U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control, Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2001.*

Who wants to quit?

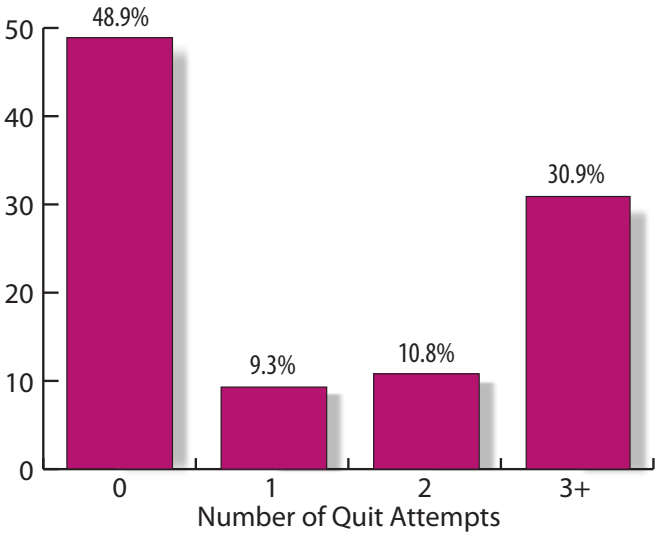
Multiple quit attempts are often a necessary part of the process of becoming tobacco-free; several failed quit attempts often precede successful smoking cessation. One study found that, on average, smokers made 8-11 quit attempts before finally succeeding.[6]

FIGURE 2 **Percent of Smokers who Made Quit Attempts (in the past year) by Gender & Race/Ethnicity, 2005**



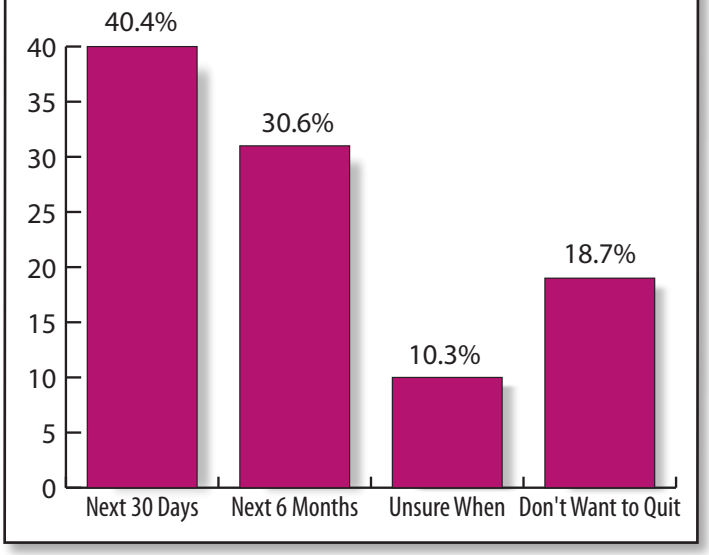
Data from the 2005 LACHS attest to the difficulty of smoking cessation. Among smokers surveyed, 9% tried to quit once during the past year, 11% tried twice, and 31% tried three or more times (Figure 3). Nearly half (49%) had not tried to quit smoking in the past year.

FIGURE 3 **Quit Attempts (in the past year) Among Smokers, 2005**



Research studies demonstrate that intention to quit smoking is a strong predictor of actual quit attempts.[7,8] Among county smokers, 40% planned to quit in the next 30 days, 31% thought about quitting in the next 6 months, and 10% reported wanting to quit but didn't know when (Figure 4). Nineteen percent of smokers reported that they did not want to quit smoking.

FIGURE 4 When Do Smokers Plan to Quit? (2005)



How are smokers trying to quit?

In order to successfully quit smoking, tobacco users must overcome physical addiction to nicotine as well as psychological dependence. Proven cessation strategies—such as counseling, telephone quitlines, and FDA-approved pharmacotherapies—can increase the odds of quitting and staying quit.[9]

Group cessation and individual counseling programs increase tobacco cessation rates, doubling or even tripling a smoker's chances of successfully quitting.[9,10,11] Both face-to-face counseling and interactive telephone counseling are more effective than services that only provide educational or self-help materials.[9-15] For example, a randomized study of California smokers found that cessation rates among users of the state's free quitline (1-800-NO-BUTTS) were twice as high as rates among those who used self-help methods alone.[13] Despite this demonstrated success, the LACHS found that only 5% of smokers who attempted to quit reported using a telephone quitline in the past year. The survey also found that only 4% of smokers utilized group counseling, only 11% received one-on-one counseling, and 18% utilized self-help materials to try to quit smoking.

Nicotine withdrawal symptoms often hinder cessation attempts. By reducing these symptoms with nicotine replacement therapy (NRT), smokers who want to quit can double their likelihood of achieving success.[9,16] The U.S. Public Health Service and Agency for Healthcare and Research Quality (AHRQ) Clinical Practice Guideline on Smoking Cessation recommend NRT for all smokers except pregnant women and people with heart or circulatory diseases.[17] Despite its proven efficacy, only 18% of LA County smokers utilized NRT (in patch, gum, or inhaler form) in their quit attempts.

Bupropion (marketed as Zyban) is an anti-depressant medication approved by the FDA for use as a smoking cessation aid. Studies have demonstrated that smokers who use bupropion are up to twice as likely to successfully quit smoking.[18,19] Only 7% of surveyed smokers in LA County reported using anti-depressant medication to quit smoking during the past year.

Additionally, in the past year, 79% of county smokers tried to quit smoking cold turkey, without any cessation aid. While some of these smokers made other quit attempts using cessation aids, in the past year almost half (48%) of LA County smokers tried quitting *only* by going cold turkey.

7. *U.S. Department of Health and Human Services. Reducing tobacco use: a report of the Surgeon General. Atlanta, GA: Centers for Disease Control and Prevention; 2000.*
8. *Hellman R, Cummings KM, Haughey BP, Zielezny MA, O'Shea RM. Predictors of attempting and succeeding at smoking cessation. Health Education Research. 1991;6(1):77–86.*
9. *Fiore MC, Bailey WC, Cohen SJ, Dorfman SF, Goldstein MG, Gritz EG, Heyman RB, Jaén CR, Kottke TE, Lando HA, Mecklenburg RE, Mullen PD, Nett LM, Robinson L, Stitzer ML, Tommasello AC, Villejo L, Wewers ME. Treating tobacco use and dependence: clinical practice guideline. Rockville, MD: U.S. Department of Health and Human Services; 2000.*
10. *Stead LF, Lancaster T. Group behavior therapy programmes for smoking cessation. Cochrane Database of Systematic Reviews. 2002;(3):CD001007.*
11. *McAfee T, Sofian N, Wilson J, Hindmarsh M. The role of tobacco intervention in population-based health care. American Journal of Preventive Medicine 1998;14:46–52.*
12. *Stead LF, Lancaster T, Perera R. Telephone counselling for smoking cessation. Cochrane Database of Systematic Reviews. 2003;(1):CD002850.*
13. *Zhu SH, Anderson CM, Tedeschi GJ, Rosbrook B, Johnson CE, Byrd M, Gutierrez-Terrell E. Evidence of real-world effectiveness of a telephone quitline for smokers. New England Journal of Medicine. 2002;347(14):1087–93.*
14. *Task Force on Community Preventive Services. The guide to community preventive services: tobacco use prevention and control. American Journal of Preventive Medicine. 2001;20(Suppl 2):1–88.*
15. *National Cancer Institute. Population-based smoking cessation: proceedings of a conference on What Works to Influence Cessation in the General Population. Smoking and Tobacco Control Monograph No. 12. Bethesda, MD: National Cancer Institute; 2000. NIH Publication No. 00-4892.*
16. *A Guide to Quitting Smoking, American Cancer Society*
17. *Fiore MC, Bailey WC, Cohen SJ, Dorfman SF, Goldstein MG, Gritz EG, Heyman RB, Jaén CR, Kottke TE, Lando HA, Mecklenburg RE, Mullen PD, Nett LM, Robinson L, Stitzer ML, Tommasello AC, Villejo L, Wewers ME. Treating tobacco use and dependence: clinical practice guideline. Rockville, MD: U.S. Department of Health and Human Services; 2000. http://www.surgeongeneral.gov/tobacco/treating_tobacco_use.pdf*
18. *Hurt, RD, Sachs, DPL, Glover, ED, et al. A Comparison of sustained-release buproprion and placebo for smoking cessation. N Engl J Med 1997; 337:1195*
19. *Jorenby, DE, Leischow, SJ, Nides, MA, et al. A controlled trial of sustained-release bupropion, a nicotine patch, or both for smoking cessation. N Engl J Med 1999; 340:685*

What Can Be Done?

Health Care System Interventions

Health care professionals play an important role in smoking cessation efforts – evidence shows that quit rates increase when clinicians advise their patients to stop using tobacco. Health care providers can increase cessation efforts among patients by following the "5A's" of intervention: Asking about and documenting tobacco use at every visit, Advising every tobacco user to quit, Assessing if patients are ready to quit, Assisting those smokers who are ready to make a quit attempt by prescribing cessation aids, and Arranging for follow up, since one brief intervention may not be sufficient to help every patient quit successfully.[9,14,17]

The AHRQ guidelines recommend that clinicians routinely screen patients for tobacco use, provide brief (less than 3 minutes) behavioral counseling to smokers, and prescribe pharmacotherapy for those willing to make a quit attempt. These guidelines also stress that system changes—such as implementing a tobacco-use screening system, providing clinician training and feedback, and designating staff to be responsible for the treatment program—are critical to the overall success of cessation interventions. Model programs in large managed care plans show that full implementation of the AHRQ-sponsored guidelines, in conjunction with efforts to minimize access and cost barriers to cessation treatment, increase the use of proven treatments and decrease smoking prevalence.[20]

Insurance Coverage for Tobacco Cessation Treatment

In addition to being the leading preventable cause of morbidity and mortality, smoking is costly to employers both in terms of smoking-related medical expenses and lost productivity. Insurance benefits that include tobacco cessation treatments have been shown to increase use of available treatments and the number of successful quitters. The Public Health Service and the AHRQ recommend that all insurers provide tobacco cessation benefits that do the following:

1) Pay for counseling and medications, together or separately.

2) Cover at least 4 counseling sessions of at least 30 minutes each including proactive telephone counseling and individual counseling.

3) Cover both over-the-counter nicotine replacement medication and prescription bupropion.[9,21,22]

4) Eliminate or minimize co-pays or deductibles for counseling and medications, as even small co-payments reduce the use of proven treatments.[21,22]

BENEFITS OF QUITTING

20 Minutes After Quitting – your heart rate is lowered.

12 Hours After Quitting – carbon monoxide level in your blood drops to normal.

2 Weeks to 3 Months After Quitting – your heart attack risk begins to drop and your lung function begins to improve.

1 to 9 Months After Quitting – your coughing and shortness of breath decrease.

1 Year After Quitting – your added risk of coronary heart disease is half that of a smoker's.

5 Years After Quitting – your stroke risk is reduced to that of a non-smoker's 5-15 years after quitting.

10 Years After Quitting – your lung cancer death rate is about half that of a smoker's. Your risk of cancers of the mouth, throat, esophagus, bladder, kidney and pancreas decrease.

15 Years After Quitting – your risk of coronary heart disease is back to that of a non-smoker's.

20. *Thompson RS, Taplin SH, McAfee TA, et al. Primary and secondary prevention services in clinical practice. Twenty years' experience in development, implementation, and evaluation. JAMA 1995;273(14):1130–5.*
21. *Schauffler HH, McMenamin S, Olsen K, Boyce-Smith G, Rideout JA, Kamil J. Variations in treatment benefits influence smoking cessation: results of a randomized controlled trial. Tobacco Control 2001;10:175–80.*
22. *Hopkins DP, Briss PA, Ricard CJ, et al. Task Force on Community Preventive Services. American Journal of Preventive Medicine 2001;20(2 Suppl):16*66.*

These recommendations make sound health and economic sense as tobacco cessation is the single most cost-effective health insurance benefit for adults—more cost effective than other commonly provided clinical preventive services, including mammography, colon cancer screening, PAP tests, treatment of mild to moderate hypertension, and treatment of high cholesterol.[23-26]

Individual Smokers

Want to quit smoking?

- Talk to a health care professional about quitting and the use of safe, effective options—consider NRT in combination with bupropion, as well as counseling or consultation with the California quitline (see on the web).
- If you have health insurance, find out which cessation aids your plan covers.
- Prepare by reviewing what did and did not work in past quit attempts, then set a quit date and rid the environment of ALL cigarettes and ashtrays.
- Avoid others who smoke, or ask them not to smoke around you.
- Find support and encouragement through family, friends, and co-workers.
- Be prepared for difficult situations, including weight gain, and learn new skills and behaviors to cope.

Do not become discouraged if you are not successful in your first few quit attempts as many smokers need multiple attempts before they quit.

Mark Twain said,

"Quitting smoking is easy. I've done it a thousand times."

23. *Warner KE. Cost effectiveness of smoking-cessation therapies. Interpretation of the evidence and implications for coverage. Pharmacoeconomics 1997;11(6):538–49.*
24. *Cummings SR, Rubin SM, Oster G. The cost-effectiveness of counseling smokers to quit. Journal of the American Medical Association 1989;261(1):75–79.*
25. *Coffield AB, Maciosek MV, McGinnis JM, et al.. Priorities among recommended clinical preventive services. American Journal of Preventive Medicine 2001;21(1):1–9.*
26. *Tsevat J. Impact and cost-effectiveness of smoking interventions. Am J Med 1992;93:43S–47S.*
27. *Cromwell J, Bartosch WJ, Fiore MC, et al. Cost-effectiveness of the clinical practice recommendations in the AHCPR guidelines for smoking cessation. JAMA 1997;278:1759–66.*

on the web

County of Los Angeles Department of Public Health (DPH), Tobacco Control and Prevention Program (TCPP) is the local tobacco control agency of Los Angeles County. The goal of TCPP is to establish policies, health services, public education, and media campaigns that support the reduction of tobacco use and the associated disease, disability, and mortality.

www.lapublichealth.org/tob/

Department of Health Services (DHS), Tobacco Control Section (TCS) seeks to achieve a tobacco-free California and to reduce illness and premature deaths attributable to tobacco by implementing programs to reduce tobacco use and exposure to secondhand tobacco smoke.

www.dhs.ca.gov/tobacco/

Centers for Disease Control and Prevention (CDC), Office on Smoking and Health (OSH) leads and coordinates strategic efforts to prevent tobacco use among youth, promote smoking cessation among youth and adults, protect nonsmokers from secondhand smoke, and eliminate tobacco-related health disparities.

www.cdc.gov/tobacco/

American Legacy Foundation is a national public health organization dedicated to building a world where young people reject tobacco and anyone can quit using tobacco. The two main goals are to arm all young people with the knowledge and tools to reject tobacco and to eliminate disparities in access to tobacco prevention and cessation services.

www.americanlegacy.org, www.smokeclinic.com

Campaign for Tobacco-Free Kids is a national non-governmental program designed to free America's youth from tobacco and to create a healthier environment by altering the public's acceptance of tobacco. Focus areas include deglamorizing tobacco use, countering tobacco industry marketing, and changing public policies at federal, state, and local levels.

www.tobaccofreekids.org/

California Smoker's Helpline offers free telephone (1-800-NO-BUTTS) and Web-based smoking cessation services.

www.californiasmokershelpline.org

LastDragLA.com is a referral source for smoking cessation services targeted to the lesbian, gay, bisexual, transgender community.

Quick Reference Guide for Clinicians offers a how-to-guide for physicians on implementing the Treating Tobacco Use and Dependence Clinical Practice Guideline.

www.surgeongeneral.gov/tobacco/clinpack.html

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The Los Angeles County Health Survey is a periodic, 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 in 2005 for the Los Angeles County Department of Public Health by Field Research Corporation and was supported by grants from First 5 LA, the California Department of Health Services, and the Public Health Response and Bioterrorism Preparedness federal grant.

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For additional information about the L.A. County Health Survey, visit: www.lapublichealth.org/ha

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