Recent Trends in Cigarette Smoking Among High School Students in Los Angeles: A Cause for Concern?

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> BACKGROUND

Tobacco use is the leading preventable cause of death in the United States, resulting in over 440,000 deaths each year.

Cigarette smoking almost always begins in adolescence—about 80% of adult smokers started smoking before the age of 18.

Youth smoking is associated with heavier use, greater likelihood of adult smoking, and more difficulty quitting. Almost one-third of the approximately 4,000 young people under the age of 18 who start smoking every day will die prematurely because of smoking.

Consequently, adolescent smoking is a prime focus of tobacco control efforts, which include active surveillance of youth smoking rates.

> OBJECTIVE

The objective of this study is to examine recent trends in cigarette smoking among public high school students in Los Angeles.

> METHODS

Trend data are based on CDC's Youth Risk Behavior Survey (YRBS) conducted in Los Angeles high schools (grades 9-12) in 1997 (n=1763), 2001 (n=1295) and 2003 (n=1063).

YRBS is a two-stage cluster sampling design (first schools, then classrooms) with students completing anonymous, self-administered surveys.

The study sample (combined across 3 surveys) was 51% female, predominantly Latino (66%), and disproportionately 9th (35%) and 10th (28%) graders.

Logistic regression, controlling for gender, race/ethnicity, grade, and varying survey intervals, was used to estimate linear and nonlinear smoking trends for lifetime, current, and frequent use.

> RESULTS

Logistic regression results show statistically significant decreasing linear trends for lifetime (1997—69.8%; 2001—59.7%; 2003—54.7%), current (1997—26.3%; 2001—14.3%; 2003—14.4%) and frequent smoking (1997—6.0%; 2001—2.7%; 2003—2.2%).

A significant nonlinear trend was also found for current smoking, indicating that the rate of decline in smoking had slowed.

> CONCLUSIONS

Current and frequent smoking decreased about 50% between 1997 and 2001.

However, evidence that current smoking among adolescents may be stabilizing at about 14% is concerning as it is well above the 2005 goal of 4% set by the California Tobacco Education and Research Oversight Committee.

Recommendations include closely monitoring youth smoking rates and reviewing adolescent tobacco control efforts such as media campaigns, depictions of smoking in entertainment media, cigarette prices, adult modeling, youth access, school- and community-based programs, and cessation services.

**Figure 1. Trend in Lifetime Smoking* Prevalence Among High School Students: Los Angeles YRBS, 1997–2003**

69.8%	59.7%	54.7%
1997	2001	2003
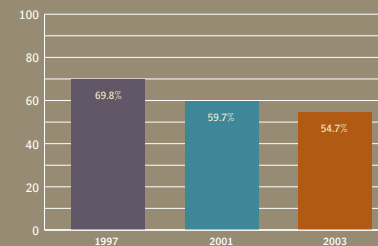
*Lifetime: Ever smoked. **Results of logistic regression, controlling for gender, race/ethnicity, grade, and varying survey intervals, indicate a statistically significant decreasing linear trend for lifetime smoking (p<.0001).

Figure 2. Trend in Current Smoking* Prevalence Among High School Students: Los Angeles YRBS, 1997–2003

26.3%	14.3%	14.4%
1997	2001	2003
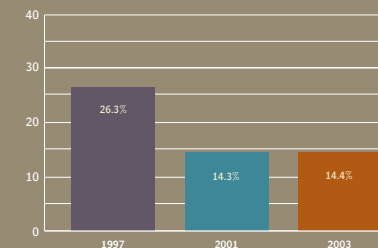
*Current: smoked ≥ 1 in last 30 days. **Results of logistic regression, controlling for gender, race/ethnicity, grade, and varying survey intervals, indicate a statistically significant decreasing linear trend for current smoking (p<.0001).

Figure 3. Trend in Frequent Smoking* Prevalence Among High School Students: Los Angeles YRBS, 1997–2003

6.0%	2.7%	2.2%
1997	2001	2003
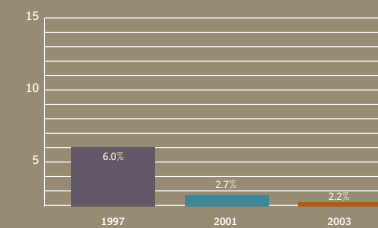
*Frequent: Smoked ≥ 20 in last 30 days. **Results of logistic regression, controlling for gender, race/ethnicity, grade, and varying survey intervals, indicate a statistically significant decreasing linear trend for frequent smoking (p<.0001).

Figure 4. Combined Demographic Characteristics of High School Students: Los Angeles YRBS, 1997-2003.

	Percent (Number*)
Gender	
Female	50.7%
Male	49.3%
Race/Ethnicity	
American Indian/Alaska Native	0.4%
Asian/Native Hawaiian/Pacific Islander	6.0%
Black/African American	12.1%
Hispanic/Latino	66.0%
White	11.0%
Multiple race	4.6%
Grade	
9th grade	34.7%
10th grade	27.5%
11th grade	20.4%
12th grade	17.3%
Ungraded or other grade	0.1%

*Weighted sample size. Numbers were rounded to the nearest integer.