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Secondhand Smoke: Youth Exposure and Adult Attitudes

RESULTS FROM THREE NATIONAL SURVEYS



INTRODUCTION

Secondhand smoke consists of both exhaled smoke and smoke from the burning end of a tobacco product. Secondhand smoke contains more than 4,000 chemical substances, including several known human carcinogens (NCI, 2001).

Exposure to secondhand smoke can result in a range of negative health consequences, particularly for infants, children, and adolescents. In 2001, there were 263 smoking-attributable sudden infant death syndrome (SIDS) cases in the United States (American Legacy Foundation, 2004). Secondhand smoke places children of all ages at increased risk for asthma, ear infections, bronchitis, pneumonia, reduced lung function, respiratory infection, and other chronic respiratory symptoms (Cook and Strachan, 1997, 1999; USEPA, 1992; USDHHS, 2001). Declines in lung function resulting from secondhand smoke exposure may persist into adulthood and increase the risk of developing chronic lung disease (Dunn and Zeise, 1997). Children exposed to secondhand smoke miss more school days than children who are not exposed (Mannino et al., 1996, 2001b).

In the United States, more than 4 million youth between the ages of 12 and 17 are exposed to secondhand smoke in the home. The vast majority of this exposure is a result of parental smoking in the home. This report presents information about youth exposure to secondhand smoke, with special focus on exposure in the home. It explores prevalence of household restrictions on smoking, which can reduce secondhand smoke exposure. Finally, the report takes a brief look at what adults know about the effect of secondhand smoke on children.

DATA AND METHODS

DESIGN AND CONTENT

This report is based on data from the 1999 and 2003 Legacy Media Tracking Surveys (LMTS) and the 2003 American Smoking and Health Survey (ASHES). LMTS is a nationally representative telephone survey of youth aged 12 to 17 and young adults aged 18 to 24. Although designed primarily to monitor the progress of the American Legacy Foundation's *truth*[®] campaign, the survey also includes questions about exposure to secondhand smoke. The data presented in this report were collected in winter 1999 and fall 2003.

ASHES is a random-digit-dial survey designed to produce a nationally representative sample of adults aged 18 and older. ASHES produces prevalence estimates of tobacco use and a variety of other tobacco-related behaviors and beliefs among adults. The survey includes questions that measure knowledge of the effects of secondhand smoke and prevalence of smoking bans in the home. The data presented in this report were collected in spring 2003.

METHODS

This report presents prevalence estimates from 2003 and, when possible, comparative data from 1999. Youth data are reported by household smoking status and parental smoking status. All estimates in this report were calculated using sampling weights and controlled for the stratified survey design of the LMTS. Except where noted, only statisti-

cally significant results ($p < 0.05$) are discussed in this report. Additional data on this topic, including estimates by gender and race/ethnicity, are available on the American Legacy Foundation Web site at www.americanlegacy.org.

Youth exposure to secondhand smoke was measured by asking respondents the following questions: “During the past 7 days, on how many days were you in the same room with someone who was smoking cigarettes?” and “During the past 7 days, on how many days were you in the same car with someone who was smoking cigarettes?” These items were also used to measure daily secondhand smoke exposure in a room and/or in a car.

Exposure to secondhand smoke specifically occurring in the home was assessed by learning whether a young person lived with a smoker, then learning whether there were any smoking restrictions in their home. Respondents were asked, “Other than yourself, does anyone who lives in your home smoke cigarettes now?” and “What are the rules, if any, about smoking in your home?” Response options about home restrictions included no smoking at all (a complete ban), smoking only in certain rooms of the house (a partial ban), and no rules about smoking at home (no ban). Although we now know that smoking outdoors does not completely protect young people from exposure to toxic chemicals (Blackburn et al., 2003), for the purpose of this study, complete smoking bans in the home were considered protective from secondhand smoke exposure. Participants were considered to be exposed to secondhand smoke if they lived with a smoker and smoking was only partially banned or was not banned at all in the home. To estimate the total number of youth aged 12 to 17 who were exposed to household secondhand smoke in 2003, the prevalence of secondhand smoke exposure in the home was applied to population estimates of youth aged 12 to 17 living in the United States (U.S. Bureau of the Census, 2004).

ASHES data were used to corroborate the youth perspective on home smoking restrictions. Adult respondents were asked, “Is anyone allowed to smoke cigarettes inside your home?” If so, they were asked, “What are the rules about where they can smoke cigarettes?” To measure overall concern about secondhand smoke, adult participants were asked, “How concerned are you about the possible effects your smoking cigarettes could have on the health of those around you?” Participants were also asked the degree to which they agreed or disagreed with the following statements:

- It is harmful to a person’s health if they live in a house where a smoker smokes tobacco indoors.
- Inhaling someone else’s cigarette smoke can cause lung cancer in nonsmokers.
- Children who live with a tobacco smoker are just as likely to develop asthma or other respiratory problems as children who do not live with a tobacco smoker.
- Smoking cigarettes around a baby increases the chance it will die of sudden infant death syndrome.

Sample sizes for analyses in this report are presented in Appendix Tables A-1 and A-2.

MAIN FINDINGS

YOUTH EXPOSURE TO SECONDHAND SMOKE

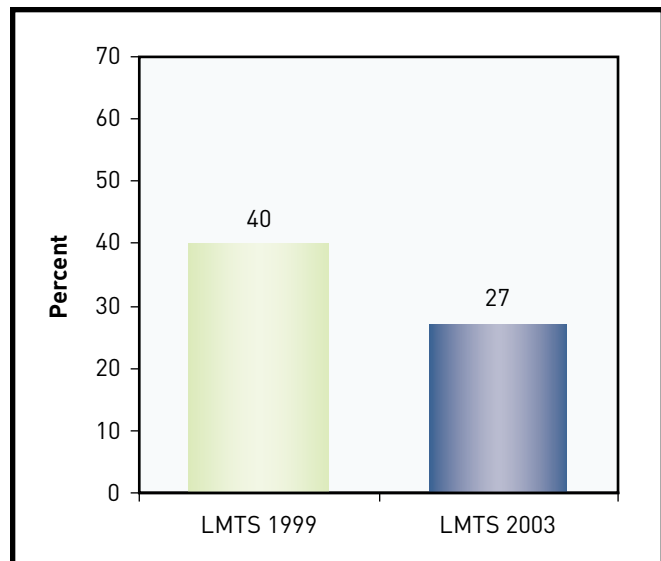
Thirteen percent of youth aged 12 to 17 are exposed to secondhand smoke daily as a result of being in the same room with someone who was smoking cigarettes. About half as many youth (7 percent) report daily exposure to secondhand smoke in a car.

From 1999 to 2003, the proportion of youth who report daily exposure to secondhand smoke as a result of being in the same room with a smoker decreased by 42 percent. The percentage of youth who report no weekly exposure from being in a room with a smoker remained constant during this period. Rates of daily exposure in cars declined from 1999 to 2003 by 37 percent among youth. During this period, there was a 22 percent increase in the proportion of youth who report that they were not exposed to secondhand smoke in cars at all in the past week.

LIVING WITH A SMOKER

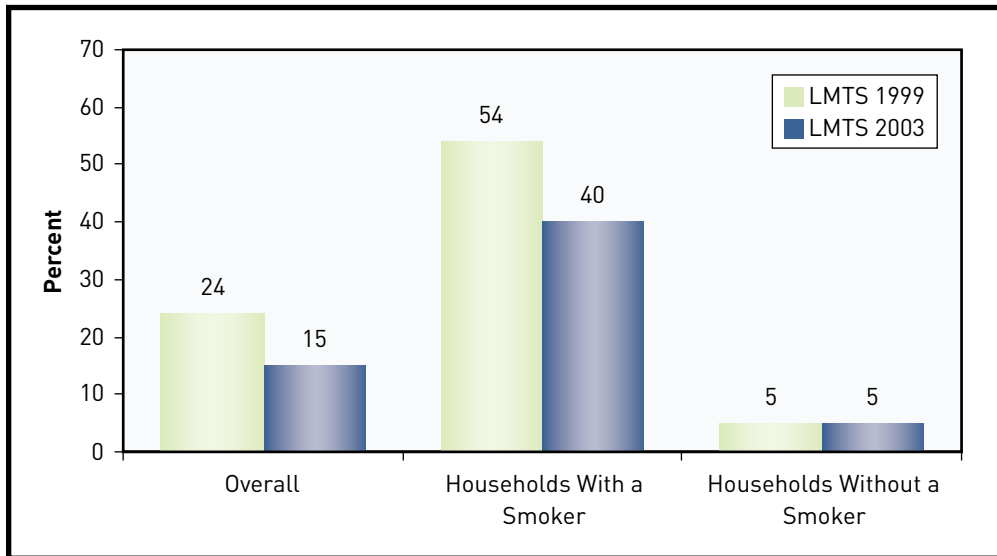
As illustrated in Figure 1, 27 percent of youth live in a household with at least one smoker. This represents a decline of 32 percent from 1999 to 2003.

Figure 1. Prevalence of Youth Living in a Household with At Least One Smoker



Youth exposure to secondhand smoke is often a result of living with a smoker. As shown in Figure 2, eight times more youth who live with a smoker are exposed to daily secondhand smoke in a room and/or in a car than those who live in a nonsmoker household (40 percent vs. 5 percent). Among youth living in households without any smokers, the prevalence of daily secondhand smoke exposure remained constant from 1999 to 2003. However, among youth living in households with smokers, a 26 percent decline occurred.

Figure 2. Daily Secondhand Smoke Exposure in a Room and/or in a Car by Household Smoking Status

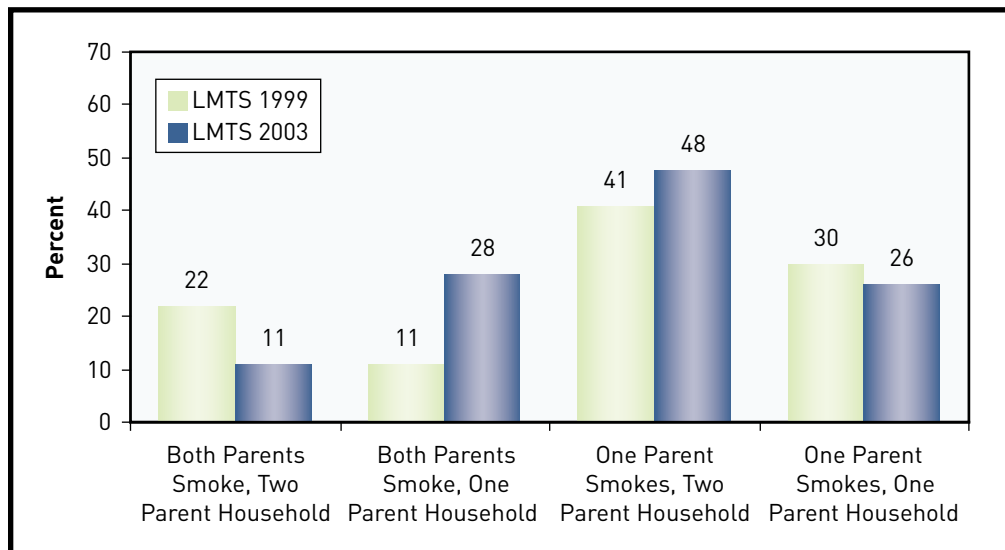


In 82 percent of the cases where a young person lives with a smoker, that smoker is a parent. About 5.6 million young people between the ages of 12 and 17 currently live in a household with at least one parent who smokes; of these youth, 1.3 million live in a household with two smoking parents. The number of youth living with a smoking parent has declined from 1999 to 2003, by an estimated 1 million among those who live with one smoking parent and 1.2 million among those who live with two smoking parents. Because parental smoking is a major factor contributing to smoking initiation, young people who live with a smoking parent are at increased risk for health problems caused not only by secondhand smoke exposure but also from active smoking.

HOUSEHOLD RESTRICTIONS ON SMOKING IN THE HOME

Youth reports indicate that although 70 percent of all households in the United States completely ban smoking, among households in which a smoker lives, only 46 percent have rules against smoking in the home. Therefore, the households with the lowest prevalence of complete bans continue to have the highest potential for secondhand smoke exposure. Furthermore, as illustrated in Figure 3, among households with a smoker, the prevalence of complete smoking bans in the home is greater where one parent is a smoker and the other is a nonsmoker (48 percent) than in two parent households where both parents smoke (11 percent), one parent households where both parents smoke (28 percent), and single parent households where the parent smokes (26 percent). These results suggest that the presence of a nonsmoking parent in the household may be influential in implementing complete smoking bans.

Figure 3. Prevalence of Households with Complete Home Smoking Bans by Number of Parents Who Smoke and Number of Parents in Household



Adult data from ASHES closely reflect these findings. Seventy-one percent of adults report that no smoking is allowed in their home. Eighty-one percent of nonsmokers — compared with 37 percent of smokers — report that no one is allowed to smoke in their home.

EXPOSURE TO SECONDHAND SMOKE IN THE HOME

About 4 million youth (16 percent of all youth) are exposed to secondhand smoke in their home. This is a 40 percent decline from 1999, when 26 percent of youth were exposed to secondhand smoke in the home. As a result, approximately 2.2 million fewer youth are exposed to secondhand smoke in the home.

ADULT BELIEFS ABOUT SECONDHAND SMOKE

Most adults believe that it is harmful to a person's health to live in a house where smoking is allowed indoors. However, this belief is stronger among nonsmokers (92 percent) than among smokers (70 percent). Ninety percent of adults who do not smoke and 60 percent of adults who smoke agree that inhaling secondhand smoke can cause lung cancer in nonsmokers.

Despite agreeing that secondhand smoke can be harmful, many adults are unclear about the harmful effects that secondhand smoke has on children. Although research demonstrates the negative effect of secondhand smoke exposure on asthma and other respiratory problems, 57 percent of adults agree that children who live with a smoker are just as likely to develop asthma or other respiratory problems as children who do not live with a smoker. Adults are also generally unclear about the role secondhand smoke plays in SIDS. Only 48 percent of adults agree that smoking cigarettes around a baby increases the chance the baby will die of SIDS. Fifty percent of nonsmokers and 37 percent of smokers agree with the statement. Notably, one-third (33 percent) of adults responded that they were neutral or had no opinion when asked about the relationship between secondhand smoke and SIDS.

SUMMARY

This report provides prevalence estimates for youth exposure to secondhand smoke in the United States and highlights the progress that has been made in reducing secondhand smoke exposure among youth from 1999 to 2003. Declines in exposure could be explained by reductions in the proportion of households with smokers and by the adoption of complete household smoking bans. The decrease in the prevalence of youth living in a household with smokers may reflect the decreasing trend in adult smoking and the more dramatic decline in youth smoking in recent years. The prevalence of complete home smoking bans increased, particularly among households with smokers, which highlights the improvement that has been made in protecting youth from secondhand smoke exposure in households where it is needed most.

Although improvements have been made in positively changing the household smoking environment and reducing secondhand smoke exposure among youth, more than 4 million youth aged 12 to 17 continue to be exposed to secondhand smoke in their homes. The prevalence of complete household smoking bans in smoker households remains lower than in nonsmoker households and remains lower in households where both parents smoke than in households where only one parent smokes. Tobacco control efforts should continue to promote the adoption of household smoking bans to further reduce the number of youth exposed to secondhand smoke.

In addition, tobacco control efforts need to further educate parents on the dangers of secondhand smoke exposure. Most parents agree that it is harmful to a person's health to live in a house where smoking is allowed indoors and that secondhand smoke exposure can increase the risk of cancer in nonsmokers, yet they still do not have a clear understanding of the adverse health effects of exposure on children despite what has been established in published scientific research.

A strong, comprehensive tobacco control program, such as California's Tobacco Control Program, can influence population norms, including those of smokers, with respect to where smoking should not be allowed (Gilpin, Lee, and Pierce, 2004). For instance, there were greater increases in support for smoke-free venues even among smokers in California, as compared to the rest of the United States, which likely reflects the influence of the California Tobacco Control Program (Gilpin, Lee, and Pierce, 2004).

As part of a comprehensive tobacco control program, media campaigns have been effective in raising adults' awareness of the adverse health effects of secondhand smoke exposure on children. Independent evaluations of California's Tobacco Control Program indicated that adults who saw media campaign advertisements were more likely to believe that secondhand smoke is harmful to nonsmokers, especially children, compared with adults who did not see the media campaign. In addition, results showed that the media campaign increased adults' awareness of the dangers of secondhand smoke and the likelihood that they would ask another person not to smoke around them (California DHS, 2004; Pierce et al., 1994; Independent Evaluation Consortium, 1998). Further research is needed to understand how media messages that have raised awareness of the dangers of secondhand smoke exposure ultimately lead to the adoption of household smoking bans.

Aside from smoking cessation, smoking bans continue to be the most effective way to protect youth from the adverse health effects of secondhand smoke exposure. While parents can reduce their child's exposure in the home by eliminating smoking in the home, eliminating youth exposure to other sources of secondhand smoke, such as in restaurants and other public venues, requires community-level interventions (Mannino et al., 2001a). In addition, banning smoking in the home, even when parents smoke, as well as public smoking restrictions, gives a clear message to teenagers about the unacceptability of smoking (Wakefield et al., 2000).

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APPENDIX A: SAMPLE SIZES FOR ANALYSES

Table A-1. Sample Sizes from LMTS

	LMTS 1999	LMTS 2003
Daily Secondhand Smoke Exposure in a Room		
Overall	3,424	3,452
Households With a Smoker	1,252	905
Households Without a Smoker	2,171	2,539
Daily Secondhand Smoke Exposure in a Car		
Overall	3,431	3,457
Households With a Smoker	1,255	905
Households Without a Smoker	2,175	2,545
Daily Secondhand Smoke Exposure in a Room and/or a Car		
Overall	3,433	3,463
Households With a Smoker	1,256	905
Households Without a Smoker	2,176	2,546
Living with a Smoker		
Overall	3,433	3,453
Both Parents Smoke	3,433	3,453
One Parent Smokes	3,433	3,453
Household Restrictions on Smoking in the Home		
<i>Both Parents Smoke</i>		
Two Parent Household	230	136
One Parent Household	47	21
<i>One Parent Smokes</i>		
Two Parent Household	468	449
One Parent Household	296	145
Exposure to Secondhand Smoke in the Home		
Overall	3,408	3,435

Table A-2. Sample Sizes from ASHES 2003

	Smokers	Nonsmokers
Is anyone allowed to smoke cigarettes inside your home?	625	2,122
It is harmful to a person's health if they live in a house where a smoker smokes tobacco indoors.	622	2,126
Inhaling someone else's cigarette smoke can cause lung cancer in nonsmokers.	615	2,109
Children who live with a tobacco smoker are just as likely to develop asthma or other respiratory problems as children who do not live with a tobacco smoker.	599	2,090
Smoking cigarettes around a baby increases the chance it will die of sudden infant death syndrome.	567	1,900

