2006

Arkansas Adult Tobacco Survey

A Statewide Report

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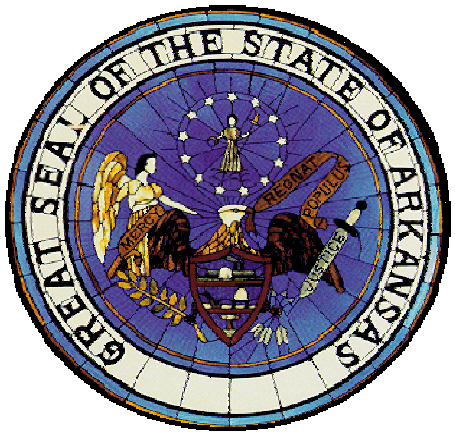
2006
Arkansas
Adult Tobacco Survey



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EXECUTIVE SUMMARY

Cigarette Use and Consumption among Adults

Current cigarette smoking prevalence

- The prevalence of current cigarette smoking among adults declined from 25.1% (±1.2%) in 2002 to 22.8% (±1.0%) in 2004 and showed a very slight rebound to 22.9% (±1.1%) in 2006. The decline in cigarette smoking from 2002 to 2004 amounts to a 9.1% reduction and there was virtualy no change from 2004 to 2006.
- Cigarette smoking was highest among young adults aged 18 to 24 years (30.6% ±5.2%), while older adults (65 years and above) smoked significantly at a lower rate (10.2% ±1.1%) than adults from all other age groups.
- Between 2002 and 2006, there appears to be a decreasing trend in current cigarette smoking among adults in the 25 to 44 years age group, and to a lower extent, among those in the 45-64 age group.
- Current cigarette smoking among Hispanic adults (13.4% ±5.5%) was significantly lower than the rates in white adults.
- Overall, adult males (24.8% ±1.8%) were more likely than adult females (21.2% ±1.3%) to report current cigarette smoking.
- No significant gender differences in current cigarette smoking were observed among whites; however, gender differences were significant among blacks, as males (25.2% ±5.5) smoked at a higher rate than females (16.0% ±2.7%).
- Gender differences in cigarette smoking were highly significant among Hispanic adults; males (18.2% ±8.3) smoked at a rate 3 times higher than that among females (5.4% ±3.3%).
- The prevalence of current cigarette smoking among all males significantly declined from 28.7% (±2.0%) in 2002 to 24.8% (±1.8%) in 2006.
- The declining trend among males was mirrored in whites, as 24.3% (±1.9%) of white males were current smokers in 2006, indicating a significant decrease since 2002 (28.6% ±2.2%).
- There were no significant differences in cigarette smoking among adult females overall, or by race/ethnicity, between 2002 and 2006.

- There was a significant decline in everyday cigarette smoking from 20.7% (±1.1%) in 2002 to 17.9% (±1.0%) in 2006, but no significant differences were observed in someday smoking for the same time period.

Cigarette smoking and self-reported health status

- Adults who have never smoked (53.9% ±1.7%) were significantly more likely to report an excellent health status than current smokers (37.6% ±2.8%) and former smokers (40.2% ±2.1%).

- Never smokers (0.9% ±0.2%) were significantly less likely to have ever been diagnosed with Chronic Obstructive Pulmonary Disease (COPD) than current smokers (3.4% ±0.8%) and former smokers (4.5% ±0.7%).

Cigarette consumption among current smokers

- Between 2002 and 2006, the mean number of cigarettes smoked per day by adult current smokers significantly decreased from 18.6 (±0.6) to 15.8 (±0.8) cigarettes, respectively.

- The significant reduction in the average number of cigarettes smoked per day in 2006 coincided with the Arkansas Clean Indoor Air Act (CIAA) that took effect in July 2006

- Although young adults 18 to 24 years were found to have the highest smoking prevalence amongst all age groups, they actually consumed the least number of cigarettes per day.

- Mean number of cigarettes smoked per day by white adult smokers (16.2 ±0.6) was significantly higher than that smoked by black adult smokers (9.8 ±1.4) and Hispanic adult smokers (8.5 ±4.8).

- The decreasing trend in average daily cigarette consumption among all adult smokers was also observed among white and black adult smokers.

Smoking Cessation

Intention and plans to quit

- The percentage of adult current smokers who were seriously considering stopping smoking within the next 6 months almost doubled between 2002 and 2006 (34.9% ±3.1% and 60.1% ±2.8%, respectively).

- In 2006, among adult current smokers who were seriously considering stopping smoking within the next 6 months, 50.1% (±4.1%) planned to stop smoking within the next 30 days, denoting a significant increase since 2002 (35.1% ±5.3%).

Clinician counseling

- In 2006, of adult current smokers who visited a physician in the 12 months preceding the survey, 63.0% (±5.1%) were asked about their smoking status. There was no significant change as compared to the 2002 value (55.0% ±5.6%).
- In 2006, 59.6% (±3.2%) of adult current smokers who visited a physician in the 12 months preceding the survey were advised to quit smoking. This rate has not significantly changed since 2002 (60.4% ±3.2%).
- In 2006, 45.9% (±4.1%) of adult current smokers who visited a physician in the 12 months preceding the survey were assisted in quitting smoking using a proven cessation method. There was no significant change from the 2002 value (45.1% ±4.0%).

Quit attempts

- The rate of quit attempts among adult current smokers in 2006 (42.5% ±2.8%) has not changed significantly since 2002 (46.9% ±2.5%).

Quit attempts using proven cessation methods

- Most adult current smokers (68.0% ±3.8%) who have made one or more quit attempts in the 12 months preceding the interview (including current smokers and recent quitters) did not use any type of assistance in their last quit attempt.

Sustained abstinence

- In 2006, 7.8% (±1.4%) of previous year smokers were abstinent at the time of the interview. Abstinence rate among previous year current smokers in 2006 has significantly decreased since 2002 (12.1% ±2.5%).

Current Smokeless Tobacco Use

- In 2006, about 6.4% (±0.7%) of adults in Arkansas were current users of smokeless tobacco. Although not statistically significant, the use of smokeless tobacco among adults has increased since 2002 (5.1% ±0.8%).
- White adults (7.2% ±0.8%) used smokeless tobacco at higher rate than their black (3.2% ±0.9%) and Hispanic (2.9% ±2.7%) counterparts.
- Gender differences in the use of smokeless tobacco were highly significant for overall, and across all racial/ethnic groups. Overall, males (12.7% ±1.3%) used smokeless tobacco at a significantly higher rate than females (0.6% ±0.2%), denoting a prevalence ratio of 21:1.

- Among white adult males, the use of smokeless tobacco significantly increased from 10.5% (±1.7%) in 2002 to 14.8% (±1.6%) in 2006. No significant differences were observed, however, among black adult males for the same time period.

- Between 2002 and 2006, there seems to be an increasing trend in the smokeless tobacco use rate among adult males aged 25 to 44 years from 12.8% (±2.5%) to 17.3% (±2.5%), and among those aged 45 to 64 from 7.8% (±2.7%) to 11.4% (±1.6%), respectively.

Secondhand Smoke Policies and Exposure

Voluntary smoke-free rules in homes

- Approximately 75.8% (±1.1%) of adults in Arkansas reported that smoking was not allowed anywhere inside their homes (not including decks, garages, or porches), indicating a significant increase since 2002 (63.7% ±1.5%).

Exposure to secondhand smoke

- The percentage of adults who reported exposure to secondhand smoke in the home significantly declined from 28.2% (±1.3%) in 2002 to 19.2% (±1.1%) in 2006.

- The percentage of adults who reported exposure to secondhand smoke in the vehicle significantly declined from 30.1% (±1.4%) in 2002 to 24.0% (±1.2%) in 2006.

- The percentage of adults who were employed indoors and reported exposure to secondhand smoke in the work area significantly declined from 20.2% (±2.0%) in 2002 to 10.0% (±1.3%) in 2006.

- The substantial decline in secondhand smoke exposure in workplaces observed in 2006 coincided with the Arkansas CIAA that took effect in July 2006.

Arkansas Clean Indoor Air Act (CIAA)

- Public support for smoking bans in public places and workplaces climbed sharply from 62.7% (±1.6%) in 2002 to 87.9% (±0.9%) in 2006. Support in the five months following the act significantly increased to 91.1%.

- Support for smoking ban anywhere in restaurants and bars significantly increased after passing the law.

- In the five months following the passage of the CIAA, more businesses officially adopted no smoking policies in indoor public or common areas and fewer employees reported that someone had smoked in their indoor work areas.

- Claims of potential negative economic impact on restaurants were unsubstantiated, as the percentage of all adults who reported that they would eat more in restaurants significantly increased from 17.7% to 24.0%, and those who would eat out less significantly decreased from 9.7% to 7.4% ($p < 0.0001$) before and after the law.

Mass Media and Anti-Tobacco Campaigns

Media messages on TV

- More than half (54.6% ±1.3%) of the adult population in Arkansas recalled seeing at least one anti-smoking media message on TV in the 7 days preceding the interview. More than two-thirds of those (68.0% ±2.8%) were current smokers.

- No significant differences in adult exposure to anti-smoking media messages on TV were observed by public health region, which suggests uniform geographic media coverage.

Public opinion about effective media messages

- Forty-four percent (44.3% ±1.3%) of adults preferred personal testimonials from family members or survivors as the best media message to promote smoking cessation, followed by media messages about the health risks to the smoker (19.4% ±1.0), the financial costs of smoking (15.1% ±0.9%), and lastly the health risks from secondhand smoke exposure (9.6% ±0.8%)

- More non-smokers (10.2% ±0.9%) considered the health risks from secondhand smoke exposure as the best media message to promote cessation than smokers (7.4% ±1.7%). This may suggest that many smokers still do not perceive the harm of secondhand exposure

- More smokers (20.1% ±2.3%) regarded media messages about the financial costs of smoking as most effective to promote cessation than non-smokers (13.7% ±1.0%).

Quitline media reach

- Public awareness of the Arkansas quitline cessation services was high, since almost three-quarters of adults (69.2% ±1.1%) recalled seeing a 1-800 quitline number on TV or elsewhere that someone can call to get information about quitting smoking. No racial/ethnic differences in public awareness of the quitline cessation services were noted.

- Cigarette smokers (77.6% ±2.4%) were significantly more likely to recall seeing a 1-800 quitline number than non-smokers (66.7% ±1.2%).

INTRODUCTION

Background

Following the signing of the historical Master Settlement Agreement (MSA) with the tobacco industry on November 23, 1998, many states that received settlement appropriations committed funding for tobacco prevention, education, and cessation activities. State health agencies were generally the recipients of these funds, by which comprehensive tobacco programs were established. The Centers for Disease Control and Prevention (CDC) took the leading role in guiding funded states in how to use these appropriations effectively, by implementing evidence-based tobacco prevention and health promotion programs, and efficiently, by providing the means and tools necessary to establish baselines for tobacco indicators, as well as evaluating the progress of such comprehensive programs and its outcomes in the population.

States implemented comprehensive tobacco control programs that adhere to the CDC-established four goals to reduce tobacco related morbidity and mortality. These goals are: preventing the initiation of tobacco use among young people; promoting quitting among young people and adults; eliminating nonsmoker's exposure to secondhand smoke; and identifying and eliminating disparities related to tobacco use and access to medical care for treatment of consequent diseases among different vulnerable populations.

Overview of Tobacco Control Surveillance and Evaluation

Public health surveillance is the ongoing, systematic collection, analysis, interpretation, and dissemination of data regarding a health-related event for use in public health action to reduce morbidity and mortality and to improve health[1]. Program evaluation is a constant approach to improve and account for public health actions by involving procedures that are useful, feasible, ethical, and accurate.[2] An effective surveillance and evaluation system monitors program accountability for Arkansas citizens, state policy makers, and others responsible for fiscal oversight. Program evaluation efforts build upon surveillance systems by linking statewide and local program efforts to progress in achieving short-term, intermediate, and primary outcome indicators.[3] The Arkansas comprehensive tobacco program draws from multiple surveillance sources to obtain key outcome indicators that are utilized in a goal-based evaluation model. The evaluation plan focuses on resources allocated and activities performed by the program and its partners (inputs and outputs), and initial, intermediate, and long-term outcomes to direct measurement activities.

Purpose of the Adult Tobacco Survey (ATS)

For many years, comprehensive tobacco control programs relied heavily on key adult tobacco-use outcome indicators collected in the Behavioral Risk Factor Surveillance System (BRFSS) to measure their progress. BRFSS, the world's largest continuously conducted telephone survey, is a major source of prevalence of chronic disease and risk behaviors among adults aged 18 years or older in the United States.

The BRFSS provides state-level data on adult tobacco use as it includes required (core) questions to determine cigarette smoking prevalence and optional (module) questions on cigarette smoking initiation and cessation, and use of other tobacco products. Since the BRFSS contains questions about many other topics besides smoking, it cannot include enough tobacco-related questions to provide detailed information on the full range of tobacco control topics, such as public knowledge, attitudes, and behaviors with respect to tobacco use, anti-tobacco media and advertising, secondhand smoke exposure reduction, and public support for smoking bans. Since these issues encompass essential short-term and intermediate indicators for comprehensive tobacco control programs, they ought to be monitored and evaluated.

To meet this need, CDC developed recommended questions and methodological guidelines for state adult tobacco surveys. These questions and guidelines increase data comparability and data quality. At the same time, states can add questions that are specific to their own concerns and programs, and can field the survey at times of their own choosing. These abilities provide the flexibility needed to address programs and issues specific to individual states.

Arkansas has successfully conducted the ATS in 2002, 2004, and 2006, and the 2008 study is underway. The 2006 ATS was a joint effort by the Arkansas Department of Health-Epidemiology Branch and the Office on Smoking and Health at the Centers for Disease Control and Prevention. Arkansas planned, coordinated, and implemented the survey, whereas CDC assisted with data processing, quality control, and data management.

This report highlights findings of the 2006 Arkansas ATS, acknowledges areas of progress since 2002, and identifies critical areas for improvement.

METHODOLOGY

Instrument

The 2006 Arkansas ATS questionnaire collected data on six adult tobacco-related topics: (1) cigarette use and consumption, (2) cessation and quit attempts, (3) smokeless tobacco use, (4) risk perceptions and social influences, (5) secondhand smoke policies and exposure, and (6) mass media coverage and anti-tobacco media campaigns.

Sample Selection and Description

Data collected for the 2006 Arkansas ATS is a representative sample of all adults 18 years old and above in the state. The sample was selected using the "list-assisted" Random Digit Dial (RDD) method, and was stratified by two levels: geographic and density stratification.

At the first level, monthly samples of telephone numbers were selected using a geo-stratified sampling method by the five Arkansas public health regions (Figure 1). Regional samples were randomly selected so that each geostratum yielded more than 2,500 residential telephone numbers, ceding a statewide sample of 12,734 completed interviews (Table 1).

Figure 1. Arkansas public health regions

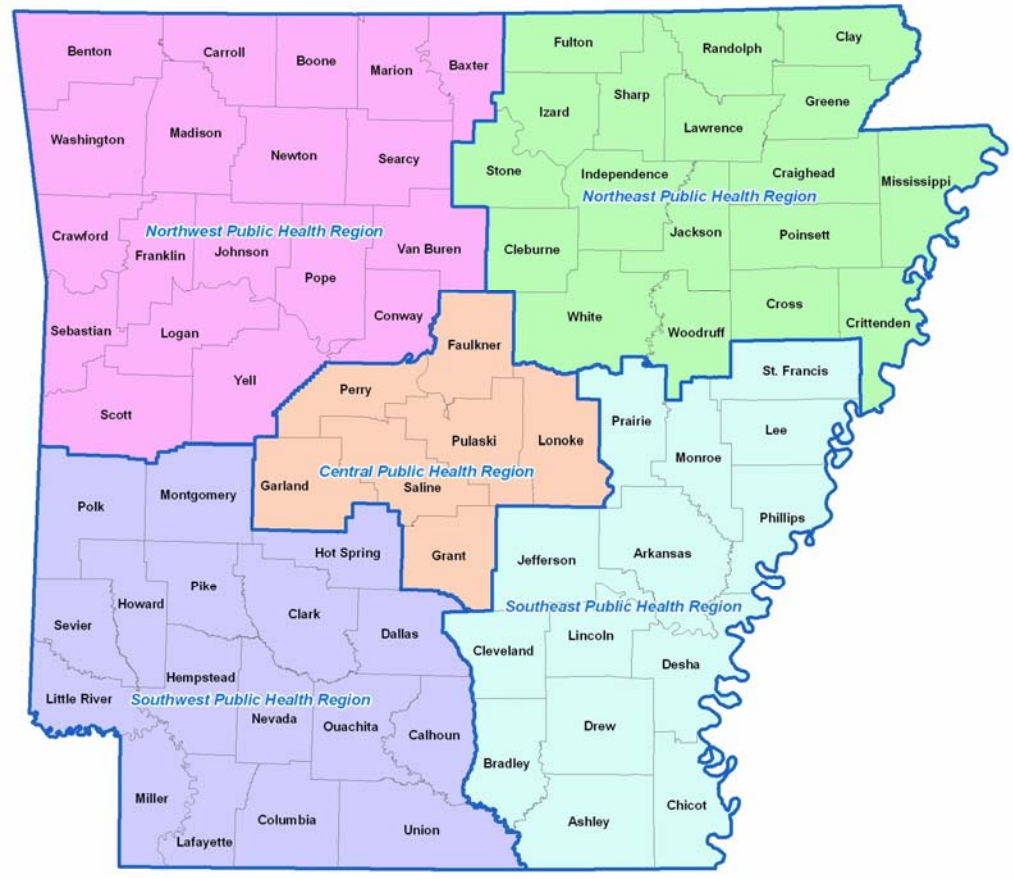


Table 1. 2006 Arkansas Adult Tobacco Survey samples by public health region

	Frequency	Unweighted Percentage[◉]	Weighted Percentage[▪]
Northwest	2,594	20.4%	30.9%
Southwest	2,560	20.1%	14.4%
Central	2,504	19.6%	25.8%
Northeast	2,570	20.2%	19.3%
Southeast	2,506	19.7%	9.6%

[◉] Percentage of study respondents

[▪] Percentage of Arkansas adult population (≥ 18 years) based on the CDC's National Center for Health Statistics 2006 postcensal population estimates

At the second level, a density stratification method was employed based on whether telephone numbers were listed or not listed in the telephone directory. Listed numbers were selected at 1½ times the rate of non-listed numbers. A disproportionate stratification method was used because listed numbers have higher probability of being residential numbers. Such a method increases efficiency since listed numbers take less time to complete, therefore, cost less than processing non-listed numbers.

Data Collection and Quality Assurance

Between June 1, 2006 and January 24, 2007, the Arkansas ATS data collection contractor received monthly samples of telephone numbers from CDC, carried out the interviews, and submitted the data to CDC for processing. It was the responsibility of Arkansas to perform error checking and data edits before the monthly data were submitted to CDC. ATS data quality was subject to stringent CDC protocols. For example, all errors found in the monthly collected data had to be resolved before submission. Resolving such errors required contacting interviewers, or calling back the respondents.

Data Analysis

Data collected for the 2006 Arkansas ATS were weighted to adjust for non-response and unequal probabilities of selection. SAS® statistical software version 9.1, which corrects for complex sampling design, was used to generate 95% confidence intervals. Differences between estimates were considered statistically significant at the $p = 0.05$ level if the 95% confidence intervals did not overlap.

DEMOGRAPHICS

Frequency, unweighted percent, and weighted percent distributions for demographic characteristics of the 2006 Arkansas ATS participants are shown in Table 2 below.

Table 2. Demographic characteristics of respondents (n = 12,734) to the 2006 Arkansas Adult Tobacco Survey

	Frequency	Unweighted Percentage[◉]	Weighted Percentage[▪]
Age (years)			
18-24	461	3.6%	13.6%
25-34	1,315	10.3%	17.5%
35-44	1,782	14.0%	18.5%
45-54	2,498	19.6%	17.7%
55-64	2,554	20.1%	13.6%
≥ 65	3,835	30.1%	19.1%
Missing	289	2.3%	—
Years of education			
< 12	1,791	14.1%	12.2%
12	4,382	34.4%	35.3%
13-15	3,277	25.7%	27.6%
≥ 16	3,054	24.0%	24.9%
Missing	230	1.8%	—
Income ($)			
< 10,000-14,999	1,508	11.8%	10.2%
15,000-24,999	2,179	17.1%	19.2%
25,000-49,999	3,474	27.3%	33.0%
≥ 50,000	3,481	27.3%	37.6%
Missing	2,092	16.4%	—
Gender			
Male	4,802	37.7%	48.2%
Female	7,932	62.3%	51.8%
Race/ethnicity			
White non-Hispanic	9,912	77.8%	79.7%
Black non-Hispanic	1,883	14.8%	11.7%
Hispanic	328	2.6%	4.9%
American Indian or Alaska Native	180	1.4%	1.8%
Asian or Pacific Islander	50	0.4%	0.5%
Other	169	1.3%	1.4%
Missing	212	1.7%	—

[◉]Percentage of study respondents

[▪]Percentage of Arkansas adult population (≥ 18 years) based on the CDC's National Center for Health Statistics 2006 postcensal population estimates

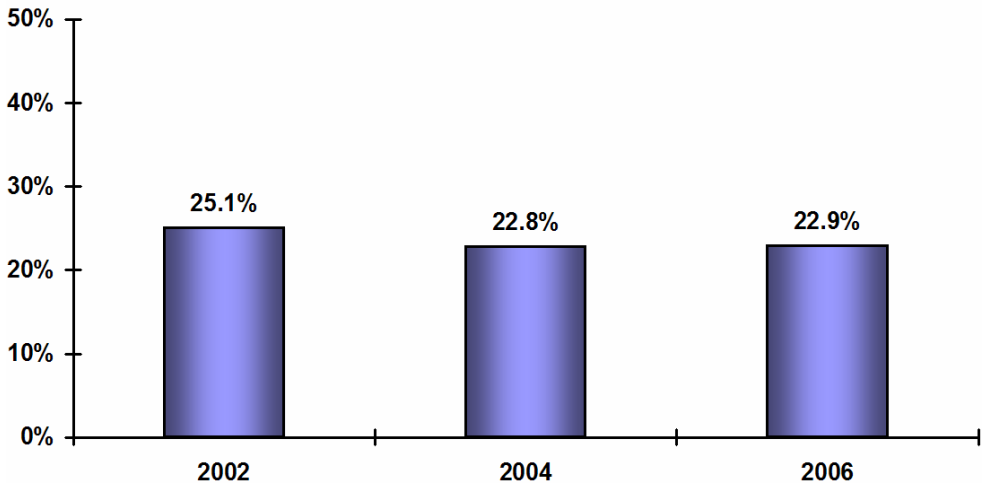
Cigarette Use and Consumption among Adults

Current Cigarette Smoking Prevalence

Definition Current cigarette smoking among adults is defined as smoking ≥ 100 cigarettes in a lifetime, and currently smoking on everyday or some days.

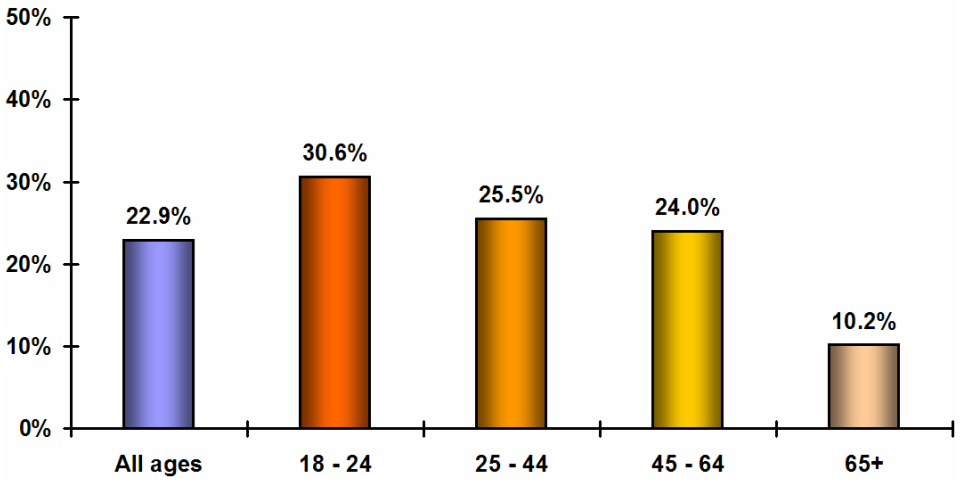
- The prevalence of current cigarette smoking among adults declined from 25.1% (±1.2%) in 2002 to 22.8% (±1.0%) in 2004 and showed a very slight rebound to 22.9% (±1.1%) in 2006. The decline in cigarette smoking from 2002 to 2004 amounts to a 9.1% reduction and there was virtualy no change from 2004 to 2006.

Figure 2. Percentage of adults who were current cigarette smokers, Arkansas Adult Tobacco Survey 2002, 2004, & 2006



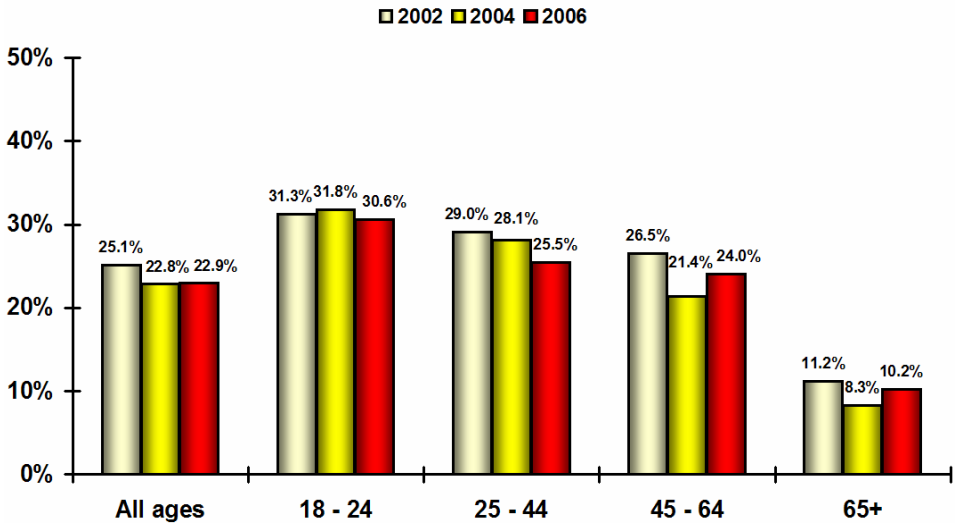
- Depicted in Figure 3, the prevalence of current cigarette smoking among adults decreased as age increased.
- Current cigarette smoking was highest among young adults aged 18 to 24 years (30.6% ±5.2%).
- Cigarette smoking among older adults 65+ years (10.2% ±1.1%) was significantly lower than that observed in adults from all other age groups.

Figure 3. Percentage of adults who were current cigarette smokers by age group, Arkansas Adult Tobacco Survey 2006



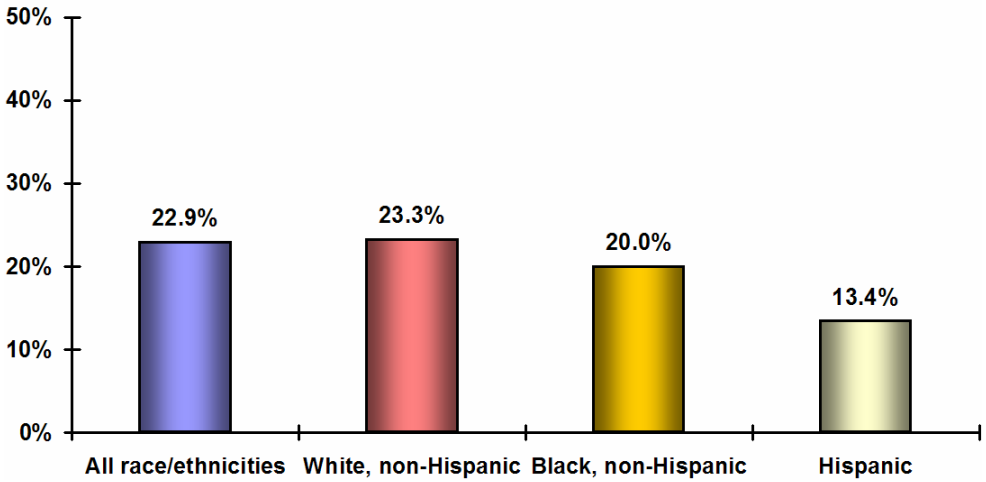
- There were no statistically significant differences in cigarette smoking prevalence by age group over time. However, as shown in Figure 4, there appears to be a decreasing trend among adults in the 25 to 44 years age group, and to a lower extent, among those in the 45-64 age group.

Figure 4. Percentage of adults who were current cigarette smokers by age group, Arkansas Adult Tobacco Survey 2002, 2004, & 2006



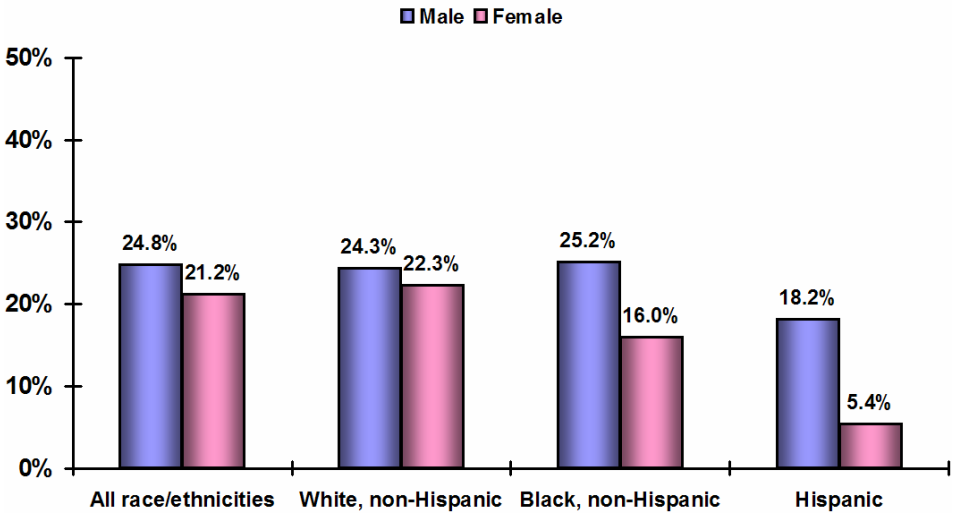
- In 2006, there was no statistically significant difference in cigarette smoking between white adults (23.3% ±1.2%) and black adults (20.0% ±2.9%). However, the rate among Hispanic adults (13.4% ±5.5%) was significantly lower than the rates in white adults (Figure 5).

Figure 5. Percentage of adults who were current cigarette smokers by race/ethnicity, Arkansas Adult Tobacco Survey 2006



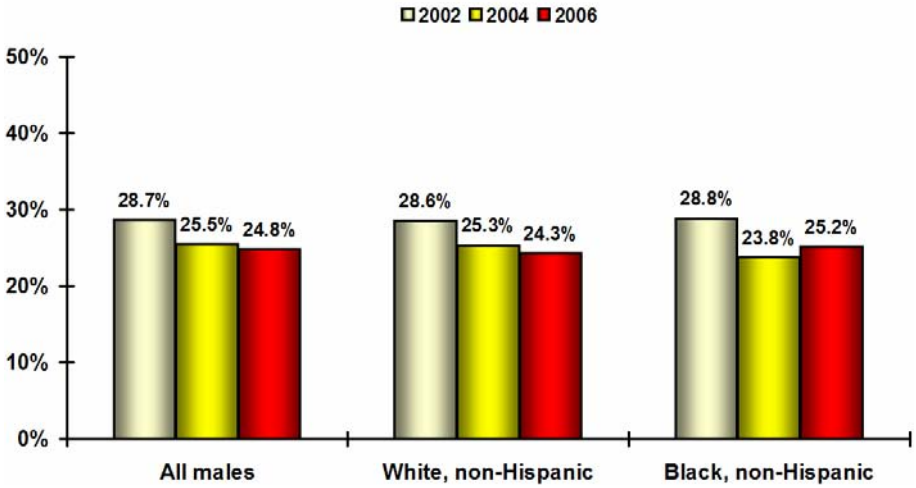
- Overall, adult males (24.8% ±1.8%) were more likely than adult females (21.2% ±1.3%) to report current cigarette smoking (Figure 6).
- No significant gender differences were observed in the prevalence of current cigarette smoking among white adults. Nonetheless, gender differences were significant among black adults, as males (25.2% ±5.5) smoked at a higher rate than females (16.0% ±2.7%).
- Gender differences in cigarette smoking were highly significant among Hispanic adults; males (18.2% ±8.3) smoked at a rate 3 times higher than that among females (5.4% ±3.3%).

Figure 6. Percentage of adults who were current cigarette smokers by race/ethnicity and gender, Arkansas Adult Tobacco Survey 2006



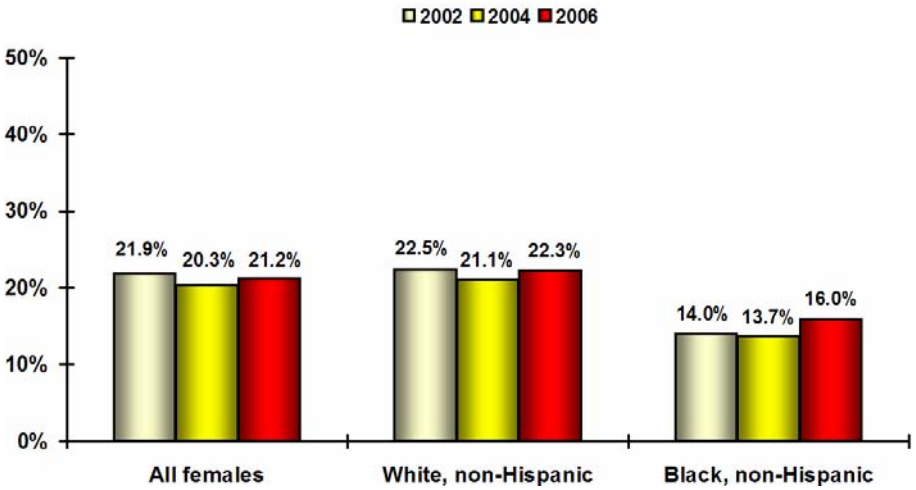
- As seen in Figure 7, the prevalence of current cigarette smoking among all males significantly declined from 28.7% (±2.0%) in 2002 to 24.8% (±1.8%) in 2006.
- The declining trend among all males was mirrored in whites, as 24.3% (±1.9%) of white males were current smokers in 2006, indicating a significant decrease since 2002 (28.6% ±2.2%).
- Among black males, however, no significant differences were observed for the same time period (28.8% ±6.8% in 2002 vs. 25.2% ±5.5% in 2006).

Figure 7. Percentage of adult males who were current cigarette smokers by race/ethnicity, Arkansas Adult Tobacco Survey 2002, 2004, & 2006



- Unlike adult males, there were no significant differences in current cigarette smoking among adult females for overall, or by race/ethnicity, between 2002 and 2006 (Figure 8).

Figure 8. Percentage of adult females who were current cigarette smokers by race/ethnicity, Arkansas Adult Tobacco Survey 2002, 2004, & 2006

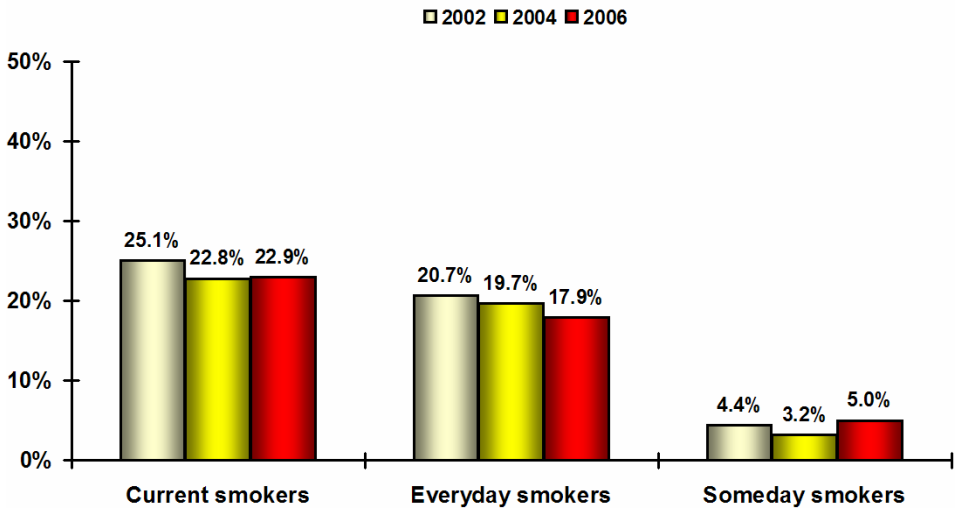


Note Limitation on sample sizes for Hispanic males and females makes it unreliable to examine and document a trend in this racial/ethnic group, and hence, the rates were not displayed. See Appendix A for more information.

Smoking frequency: everyday vs. someday cigarette smoking

- Although the majority of adult current cigarette smokers are daily smokers, many adults only smoke on some days (Figure 9).
- In 2006, 17.9% (±1.0%) of adults reported everyday cigarette smoking, while 5.0% (±0.6%) reported someday smoking.
- There was a significant decline in everyday smoking from 20.7% (±1.1%) in 2002 to 17.9% (±1.0%) in 2006, but no significant differences were noted in someday smoking.

Figure 9. Percentage of adults who were current, everyday, and someday cigarette smokers, Arkansas Adult Tobacco Survey 2002, 2004, & 2006



Cigarette Smoking and Self-Reported Health Status

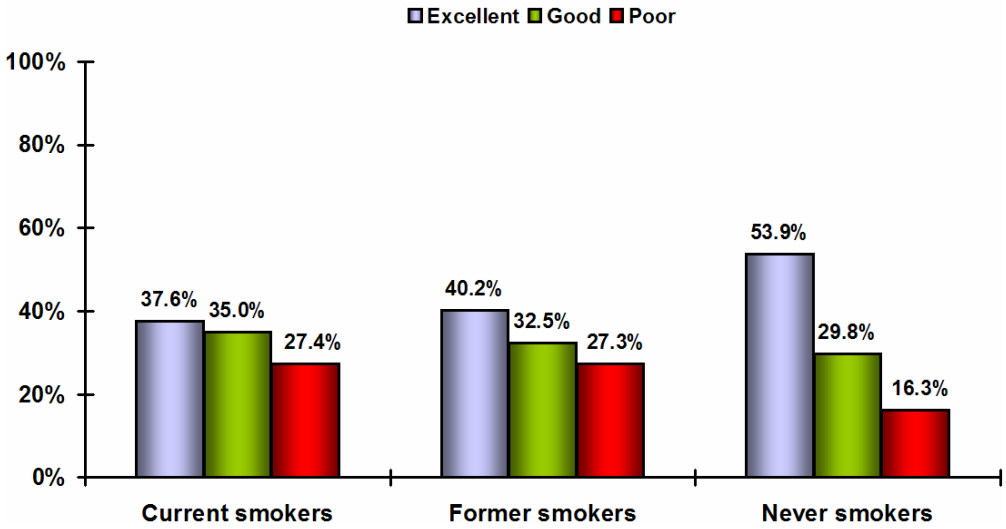
General health status

Respondents to the 2006 Arkansas ATS were asked to self-rate their general health as excellent, good, or poor. The self-reported health status in the adult population was assessed based on smoking status as whether an adult was current, former, or never smoker.

- As depicted in Figure 10, adults who have never smoked (53.9% ±1.7%) were significantly more likely to report an excellent health status than current smokers (37.6% ±2.8%) and former smokers (40.2% ±2.1%).
- Correspondingly, never smokers (16.3% ±1.1%) were significantly less likely to report a poor health status, as compared to current smokers (27.4% ±2.5%) and former smokers (27.3% ±1.8%).

- No significant differences in the self-reported health status were observed, however, between current and former smokers.

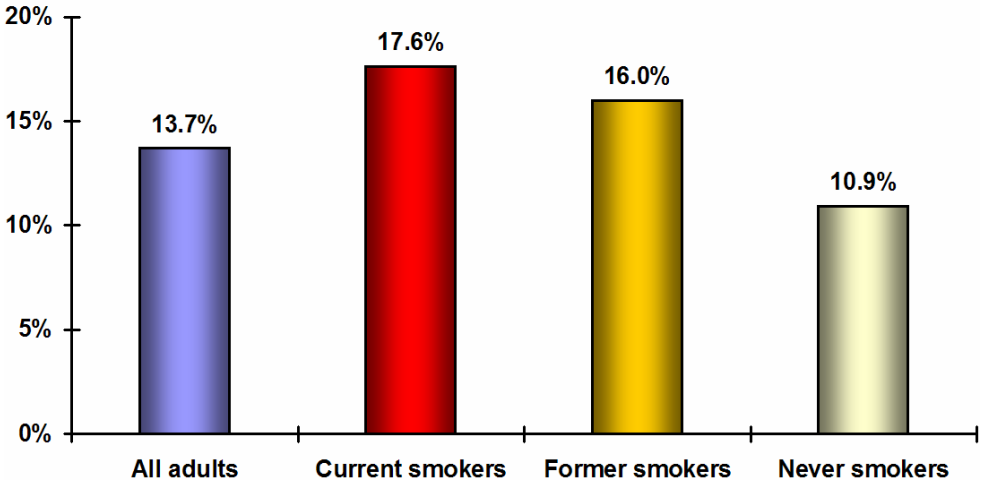
Figure 10. Self-reported general health status by smoking status, Arkansas Adult Tobacco Survey 2006



Presence of some form of lung disease

Participants in the 2006 Arkansas ATS were also asked if they have ever been told by a doctor or other health care professional that they had some form of lung disease, such as asthma, chronic bronchitis, or emphysema. Results were also compared by smoking status, as shown in Figure 11 below.

Figure 11. Percentage of adults who reported having some form of lung disease by smoking status, Arkansas Adult Tobacco Survey 2006

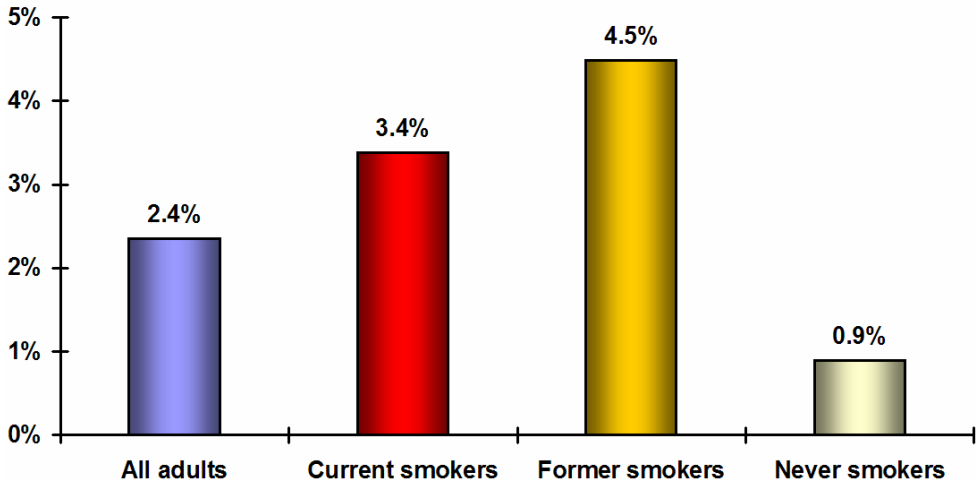


- Overall, 13.7% (±0.8%) of adults in Arkansas have ever been told by a doctor or other health care professional that they had some form of lung disease.
- Adults who were never smokers (10.9% ±1.0%) were significantly less likely to have ever been told that they had some form of lung disease than current smokers (17.6% ±2.0%) and former smokers (16.0% ±1.5%).
- However, no significant differences were noted between current and former smokers.

Presence of Chronic Obstructive Pulmonary Disease (COPD)

Additionally, subjects in the 2006 Arkansas ATS were asked if they have ever been told by a doctor or other health care professional that they had chronic obstructive pulmonary disease (COPD). Responses by smoking status are illustrated in Figure 12.

Figure 12. Prevalence of chronic obstructive pulmonary disease (COPD) among adults by smoking status, Arkansas Adult Tobacco Survey 2006



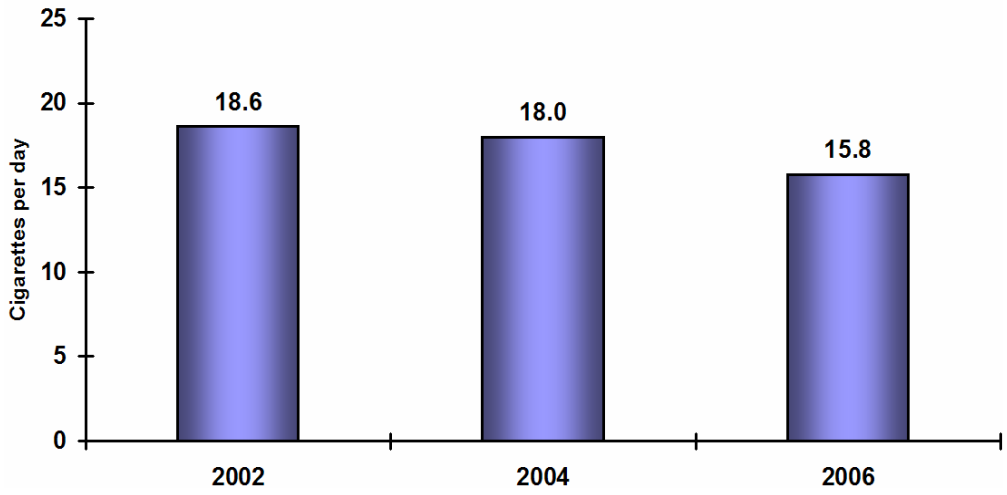
- In 2006, the self-reported prevalence of COPD among adults was 2.4% (±0.3%).
- Never smokers (0.9% ±0.2%) were significantly less likely to have ever been diagnosed with COPD than current smokers (3.4% ±0.8%) and former smokers (4.5% ±0.7%).
- Although not statistically significant, former smokers were more likely to have ever been diagnosed with COPD than current smokers.

Cigarette Consumption among Current Smokers

Prevalence estimates of cigarette smoking reveal "how often" but not "how much" adults are smoking. Research shows that changes in cigarette consumption in the population are often detectable before changes in smoking prevalence. A recent study conducted across the 50 states found a strong association between higher smoking prevalence and higher level of dependence; each additional percentage point in cigarette smoking prevalence was associated with 1.2% more "heavy" everyday smokers who smoked 21-40 cigarettes per day.[4]

Methods Calculating cigarette consumption among *current everyday smokers* was straightforward, as members of this group reported the average number of cigarettes they smoked per day. However, for *current someday smokers*, average daily cigarette consumption was calculated based on the reported frequency and consumption patterns in the 30 days preceding the interview. We multiplied the number of days they smoked during the past 30 days by the average number of cigarettes smoked on these days, then divided the product by 30. Results were as follows:

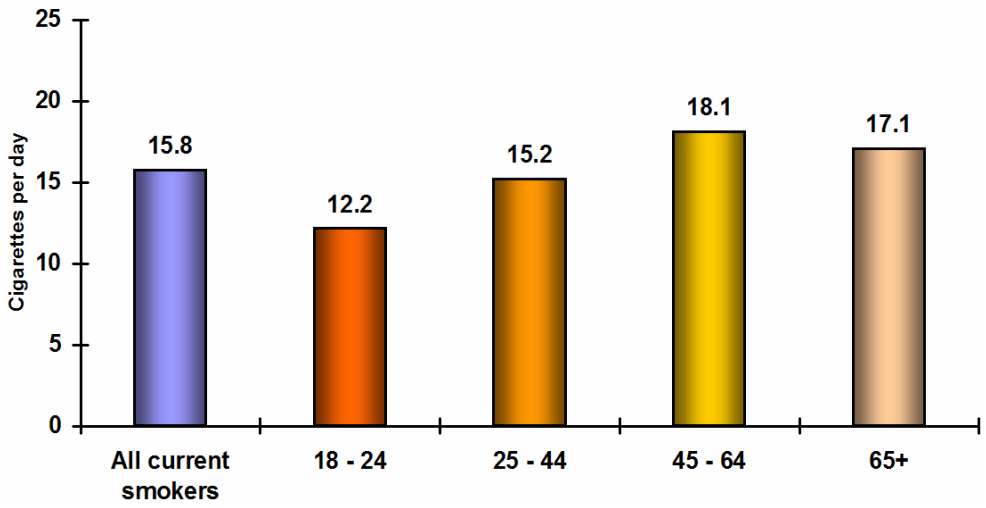
Figure 13. Average daily cigarette consumption among adult current smokers, Arkansas Adult Tobacco Survey 2002, 2004, & 2006



- Between 2002 and 2006, the mean number of cigarettes smoked per day by adult current smokers significantly declined from 18.6 (±0.6) cigarettes to 15.8 (±0.8) cigarettes, respectively.
- Several studies[5-12,15] have reported lower cigarette consumption in states that passed comprehensive clean indoor air laws. The significant drop in the average number of cigarettes smoked per day in 2006 coincided with the CIAA that was effective July 2006.

- Careful monitoring of cigarette consumption in future surveillance studies is warranted in order to accurately assess persistent decline.

Figure 14. Average daily cigarette consumption among adult current smokers by age group, Arkansas Adult Tobacco Survey 2006



- Although young adults 18 to 24 years were found to have the highest smoking prevalence amongst other age groups (Figure 3), they actually consumed the least number of cigarettes per day (Figure 14).

- Mean daily number of cigarettes smoked by young adults (12.2 ±2.2 cigarettes) was significantly lower than that smoked by adults 45 to 64 years (18.1 ±0.8 cigarettes) and older adults 65+ (17.1 ±1.7 cigarettes).

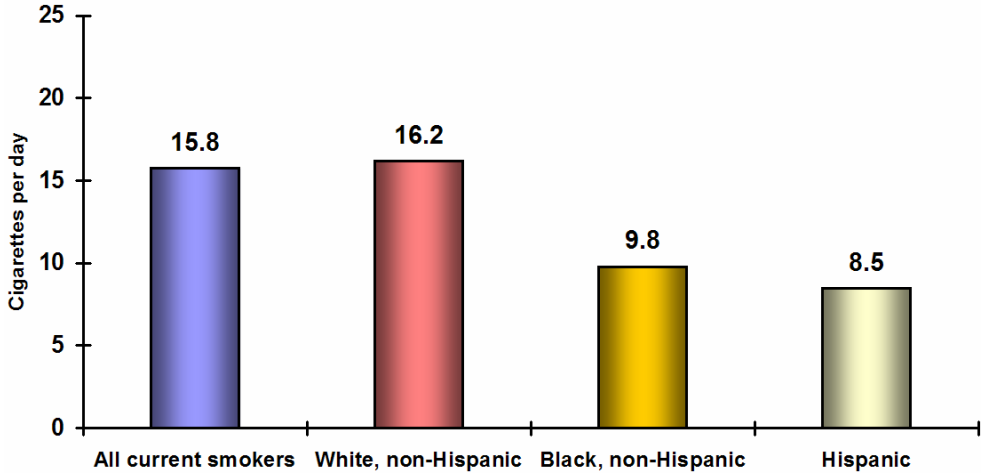
- However, no significant difference in daily cigarette consumption between young adults18 to 24 years and adults aged 25 to 44 years was observed.

- Average daily cigarette consumption among adults aged 45 to 64 years (18.1 ±0.8 cigarettes) was significantly higher than that among adults aged 25 to 44 years (15.2 ±1.4 cigarettes).

- As shown in Figure 15, racial/ethnic differences in average daily cigarette consumption were noticeable.

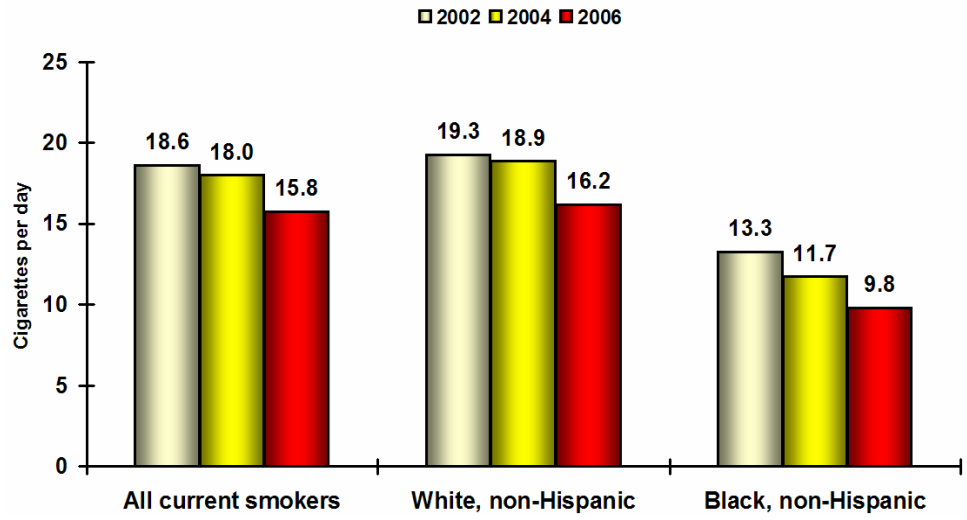
- Mean number of cigarettes smoked per day by white adult smokers (16.2 ±0.6 cigarettes) was significantly higher than that smoked by black adult smokers (9.8 ±1.4 cigarettes), and Hispanic adult smokers (8.5 ±4.8 cigarettes).

Figure 15. Average daily cigarette consumption among adult current smokers by race/ethnicity, Arkansas Adult Tobacco Survey 2006



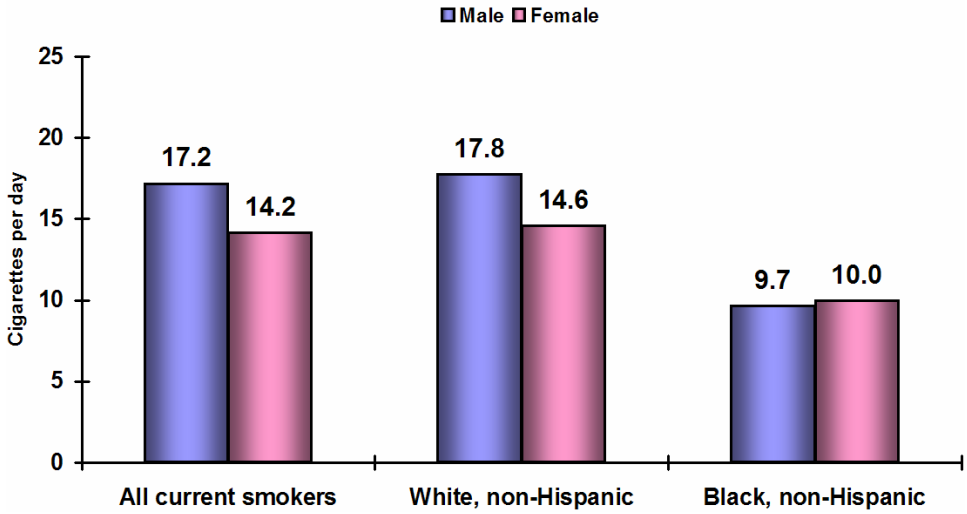
- As seen in Figure 16, the decreasing trend in average daily cigarette consumption observed in all adult smokers was noted among both white and black adult smokers, albeit at different degrees.

Figure 16. Average daily cigarette consumption among adult current smokers by race/ethnicity, Arkansas Adult Tobacco Survey 2002, 2004, & 2006



- Mean daily number of cigarettes smoked by white adult smokers significantly decreased from 19.3 (±0.7) cigarettes in 2002 to 16.2 (±0.6) cigarettes in 2006, marking a 16% reduction.
- Meanwhile, average daily consumption level among black adult smokers significantly decreased from 13.3 (±1.7) cigarettes to 9.8 (±1.4) cigarettes, indicating a drop by 26% for the same time period.

Figure 17-a. Average daily cigarette consumption among adult current smokers by race/ethnicity and gender, Arkansas Adult Tobacco Survey 2006



- As seen in Figure 17-a, gender differences in average daily cigarette consumption were noticeable.
- Overall, mean daily number of cigarettes smoked by adult male smokers (17.2 ±1.3 cigarettes) was significantly higher than that smoked by adult female smokers (14.2 ±0.6 cigarettes).
- A similar pattern of gender differences was observed among whites; however, no gender differences in average daily cigarette consumption were noted among blacks.
- Among all males who were current cigarette smokers (Figure 17-b), average daily cigarette consumption leveled off between 2002 (19.3 ±1.0 cigarettes) and 2004 (19.4 ±0.9 cigarettes), and then dropped in 2006 to 17.2 (±1.3) cigarettes. This drop was not statistically significant.
- This trend among all male current smokers was paralleled in whites, as no change in cigarette consumption was noted between 2002 (20.2 ±1.1 cigarettes) and 2004 (20.6 ±1.0 cigarettes), followed by a significant drop in 2006 (17.8 ±1.0 cigarettes).
- The direction of the trend in cigarette consumption observed among all males, as well as that noted in white males (who are the largest consumers) of a plateau between 2002 and 2004 followed by a significant drop in 2006 coincided with the Arkansas CIAA that was effective midyear 2006.
- Among black males who were current smokers, daily consumption level steadily declined in the period between 2002 (13.2 ±2.4 cigarettes) and 2006 (9.7 ±1.9 cigarettes). This decline, however, was not statistically significant.

Figure 17-b. Average daily cigarette consumption among adult male current smokers by race/ethnicity, Arkansas Adult Tobacco Survey 2002, 2004, & 2006

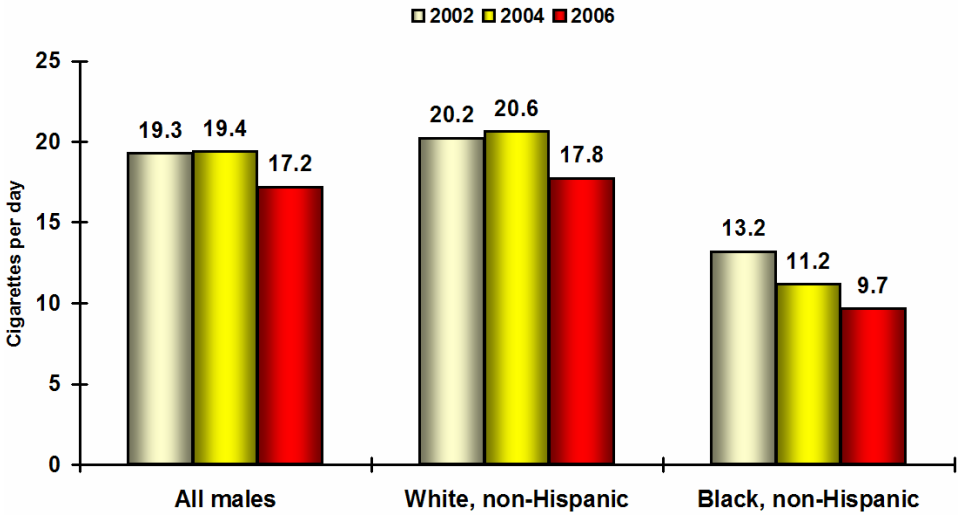
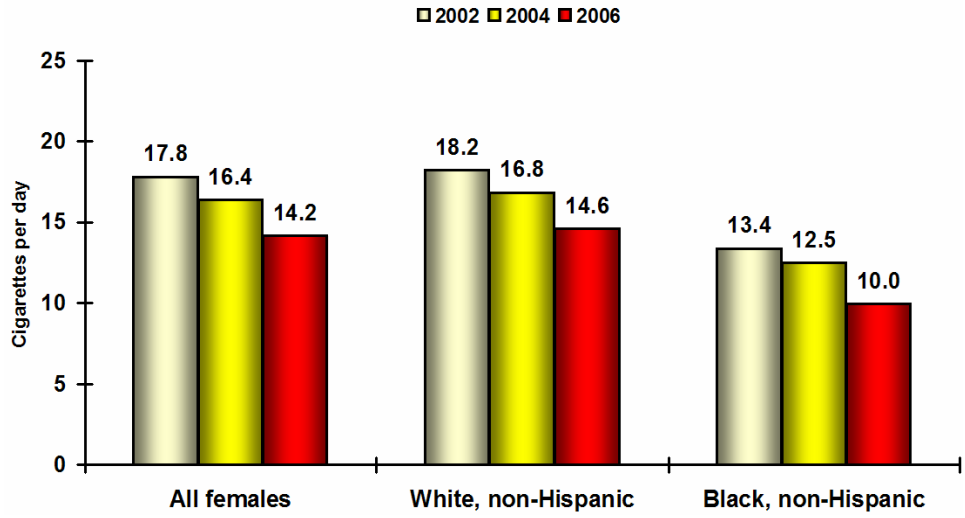


Figure 17-c. Average daily cigarette consumption among adult female current smokers by race/ethnicity, Arkansas Adult Tobacco Survey 2002, 2004, & 2006



- As shown in Figure 17-c, the average daily number of cigarettes smoked by adult female smokers progressively and significantly declined between 2002 (17.8 ±0.7 cigarettes) and 2006 (14.2 ±0.6 cigarettes).
- This overall trend in female cigarette consumption was mirrored in both white and black females.
- Nevertheless, the observed decrease in average daily cigarette consumption among black female current smokers from 13.4 (±2.2) cigarettes in 2002 to 10.0 (±1.9) cigarettes in 2006 was not statistically significant.

Smoking Cessation

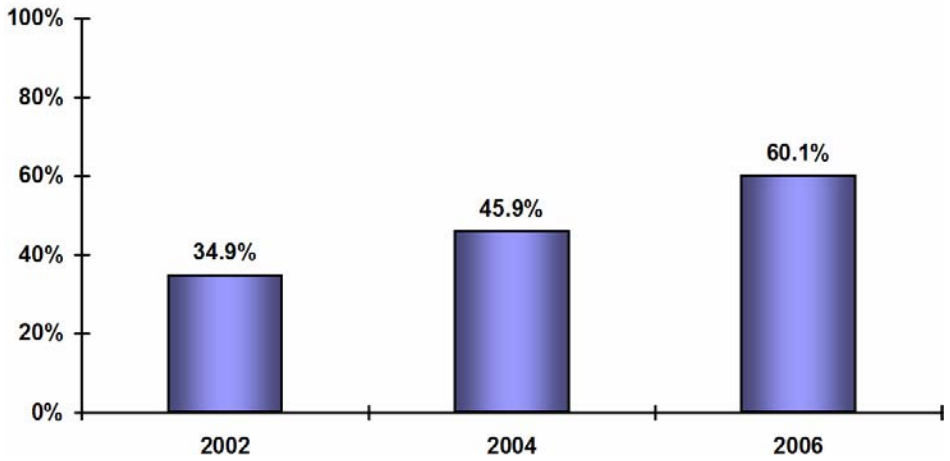
Cessation can reduce the risk of tobacco-related disease, even among those who have used tobacco for decades.[13,14] An increase in either adult tobacco users who make quit attempts, or in the success rate for such attempts can lead to a higher overall cessation rate.[15]

Traditional cessation programs have adopted a clinical-based rather than population-based approach to cessation intervention.[16] The Arkansas comprehensive tobacco control program, however, employs a public health-oriented strategy to cessation; that is, one which is concerned not only with the cessation rate of smokers who seek help to quit (through the program-funded quitline centers), but also with that of all tobacco users in the population (i.e., through statewide anti-tobacco media campaigns, cessation referral services, and partnerships with employers and health care providers). Using this approach, cessation becomes an integral component of the statewide comprehensive tobacco control efforts by making help available to those who seek it, and by actively promoting cessation in the general population.

Intention and Plans to Quit

- As shown in Figure 18, the percentage of adult current smokers who were seriously considering stopping smoking within the next 6 months almost doubled between 2002 and 2006 (34.9% ±3.1% and 60.1% ±2.8%, respectively).

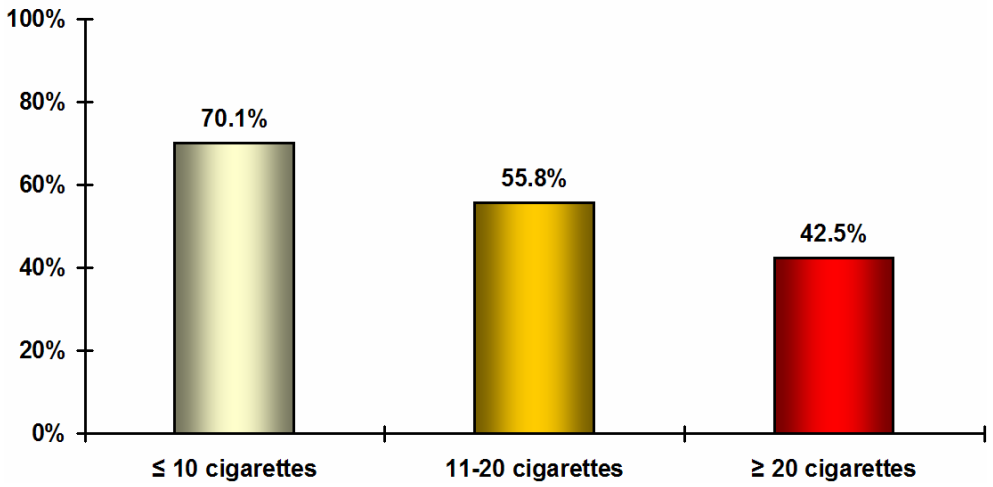
Figure 18. Percentage of adult current smokers who were seriously considering stopping smoking within the next 6 months, Arkansas Adult Tobacco Survey 2002, 2004, & 2006



- Research suggests that the intensity of nicotine dependence (i.e., smoking frequency and level of cigarette consumption), self-efficacy (the belief that one could be successful in quitting smoking if she/he wanted to), and intention to quit are strong predictors of the propensity to quit and/or successful cessation.[17]

- Figure 19 below depicts the association between intention to quit within the next 6 months and adult current smokers' average daily cigarette consumption level.

Figure 19. Percentage of adult current smokers who were seriously considering stopping smoking within the next 6 months by average daily cigarette consumption, Arkansas Adult Tobacco Survey 2006



- The percentage of adult current smokers who were seriously considering stopping smoking within the next 6 months increased as the average daily number of cigarettes smoked decreased.

- About 70.1% (±4.6%) of smokers who smoked 10 or less cigarettes per day were considering stopping smoking within the next 6 months, whereas 55.8% (±4.1%) of the 11-20 cigarettes per day smokers, and 42.5% (±6.7%) of the 1 pack or more per day smokers were considering to do so.

- In 2006, among adult current smokers who were seriously considering stopping smoking in the next 6 months, 50.1% (±4.1%) planned to stop smoking in the next 30 days (Figure 20). This is a significant increase since 2002 (35.1% ±5.3%).

- Unlike next 6 months quit intention, rates of current cigarette smokers planning to stop smoking within the next 30 days did not differ significantly by the average daily number of cigarettes smoked (Figure 21).

Figure 20. Percentage of adult current smokers who were planning to stop smoking within the next 30 days, Arkansas Adult Tobacco Survey 2002, 2004, & 2006

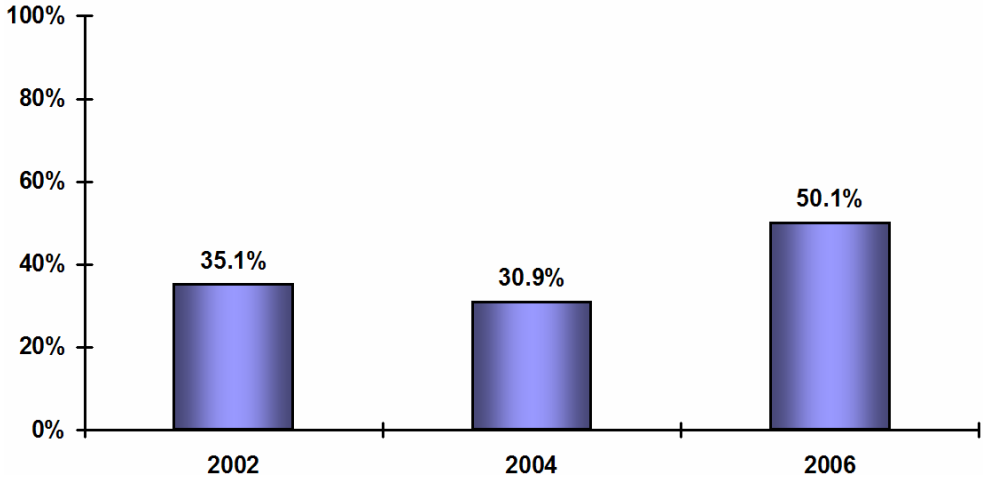
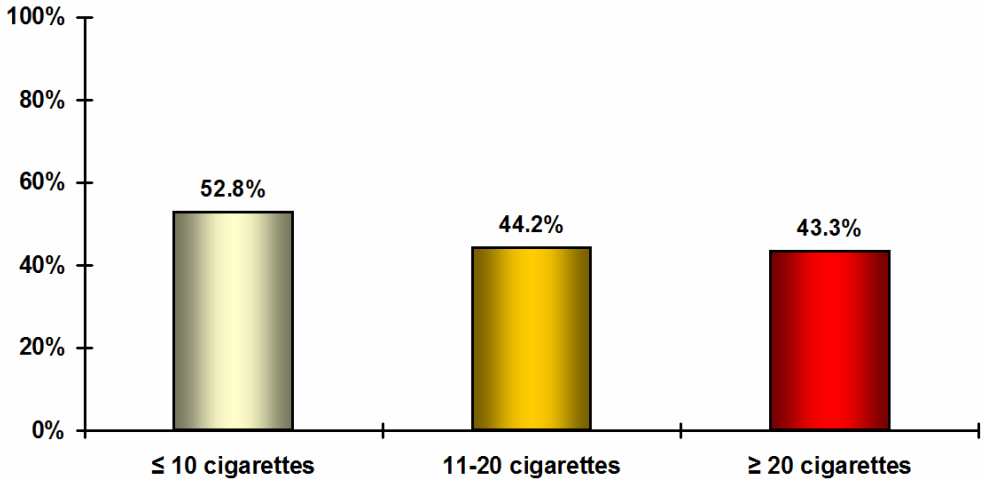


Figure 21. Percentage of adult current smokers who were planning to stop smoking within the next 30 days by average daily cigarette consumption, Arkansas Adult Tobacco Survey 2006



Clinician Counseling

An increase in the number of health care providers and health care systems that follow the Public Health Service (PHS) guidelines on how to reduce tobacco use in primary care settings is a key tobacco cessation strategy.[18] *The Clinical Practice Guideline: Treating Tobacco Use and Dependence* was the result of an extraordinary partnership among federal government and nonprofit organizations. The publication was produced by a panel of cessation experts who employed an explicit, science-based methodology

and expert clinical judgment to develop recommendations on the treatment of tobacco use and dependence.[19]

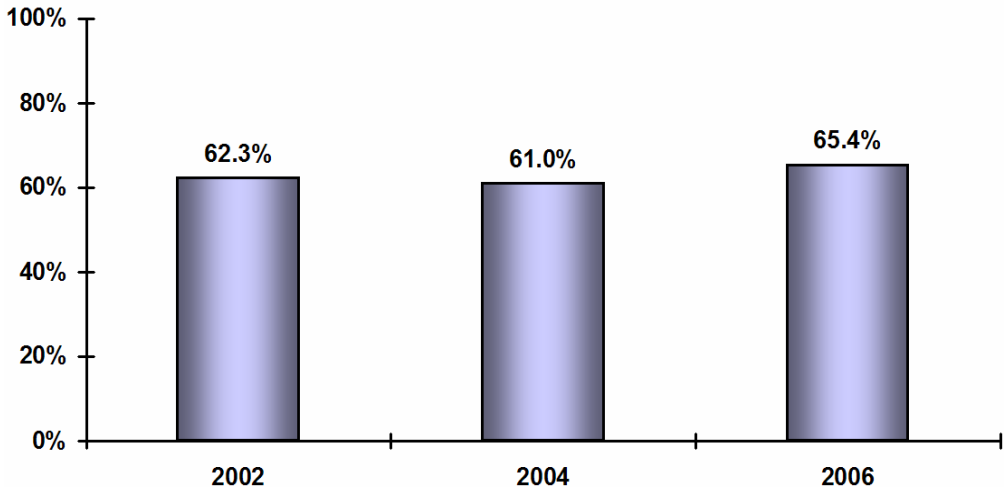
According to the guidelines, a primary care provider, such as a physician, nurse, physician assistant, or nurse practitioner, must be prepared to intervene with tobacco users who show willingness to quit. Clinician counseling for tobacco cessation should be a standard practice in primary health care, wherein clinicians apply five major steps (the "5 A's"): **A**sk, **A**dvise, **A**ssess, **A**ssist, and **A**rrange. The Arkansas ATS collected data on three of these clinician counseling outcome indicators (ask, advise, and assist) in the 2002, 2004, and 2006 study years. Findings are summarized as follows:

Ask

Health care providers begin by asking their patients about their smoking status, and systematically identifying tobacco users at every visit.

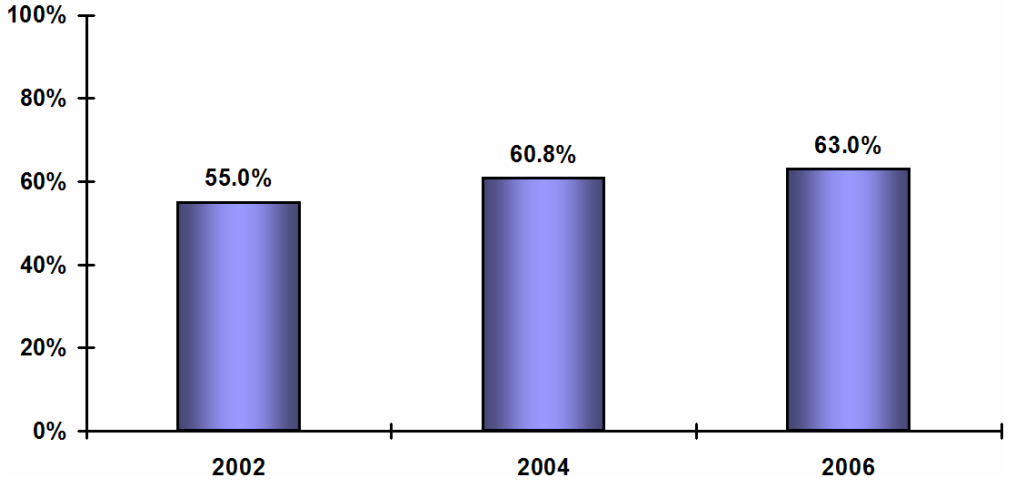
- In 2006, 65.4% (±1.3%) of all adults who visited a physician in the 12 months preceding the survey were asked about their smoking status (Figure 22). This rate has not significantly changed since 2002 (62.3% ±2.4%).

Figure 22. Percentage of <u>all adults</u> who visited a physician in the 12 months preceding the survey and were *asked* about their smoking status, Arkansas Adult Tobacco Survey 2002, 2004, & 2006



- Furthermore, of adult current smokers who visited a physician in the 12 months preceding the survey in 2006, 63.0% (±5.1%) were asked about their smoking status (Figure 23). There was no significant change as compared to the 2002 value (55.0% ±5.6%).

Figure 23. Percentage of adult current smokers who visited a physician in the 12 months preceding the survey and were *asked* about their smoking status, Arkansas Adult Tobacco Survey 2002, 2004, & 2006

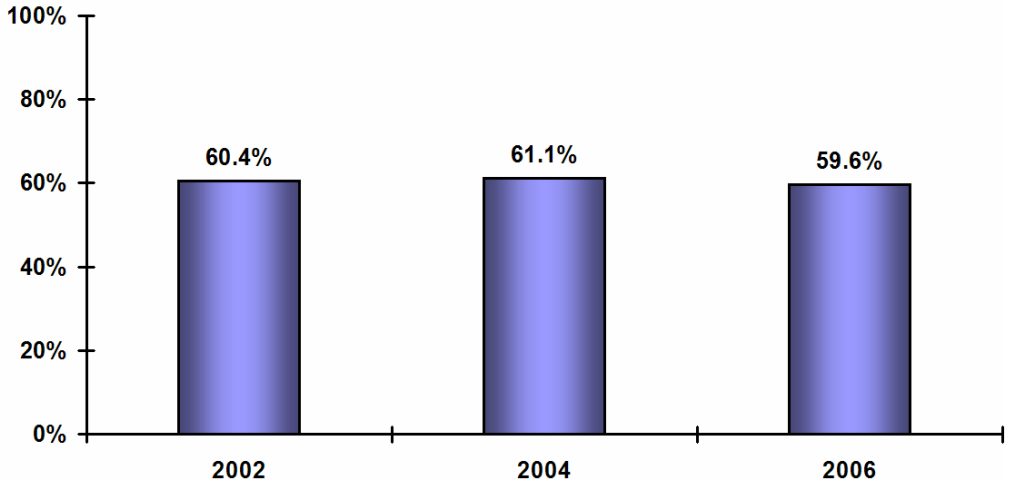


Advise

The clinical practice guidelines for treating tobacco use and dependence recommends that clinicians advise or strongly urge "in a clear, strong, and personalized manner" all smokers to quit.

- In 2006, 59.6% (±3.2%) of adult current smokers who visited a physician in the 12 months preceding the survey were advised to quit smoking (Figure 24). This rate has not significantly changed since 2002 (60.4% ±3.2%).

Figure 24. Percentage of adult current smokers who visited a physician in the 12 months preceding the survey and were *advised* to quit smoking, Arkansas Adult Tobacco Survey 2002, 2004, & 2006

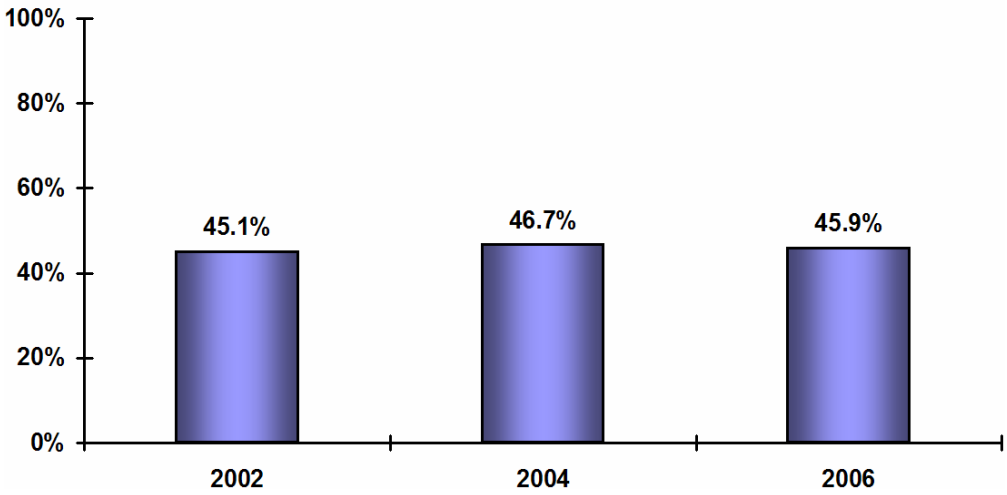


Assist

Assisting smokers with quitting by helping them set a quit date, discussing medication, or recommending any other proven cessation method is also a recommended practice.

- Proven cessation methods include FDA-approved pharmacotherapies, such as Nicotine Replacement Therapy (NRT) and prescription bupropion, in-person individual counseling, counseling from telephone quitlines, and/or stop-smoking classes.
- In 2006, 45.9% (±4.1%) of adult current smokers who visited a physician in the 12 months preceding the survey were assisted in quitting smoking using a proven cessation method (Figure 25). There was no significant change from the 2002 value (45.1% ±4.0%).

Figure 25. Percentage of adult current smokers who visited a physician in the 12 months preceding the survey and were *assisted* in quitting smoking using a proven cessation method, Arkansas Adult Tobacco Survey 2002, 2004, & 2006

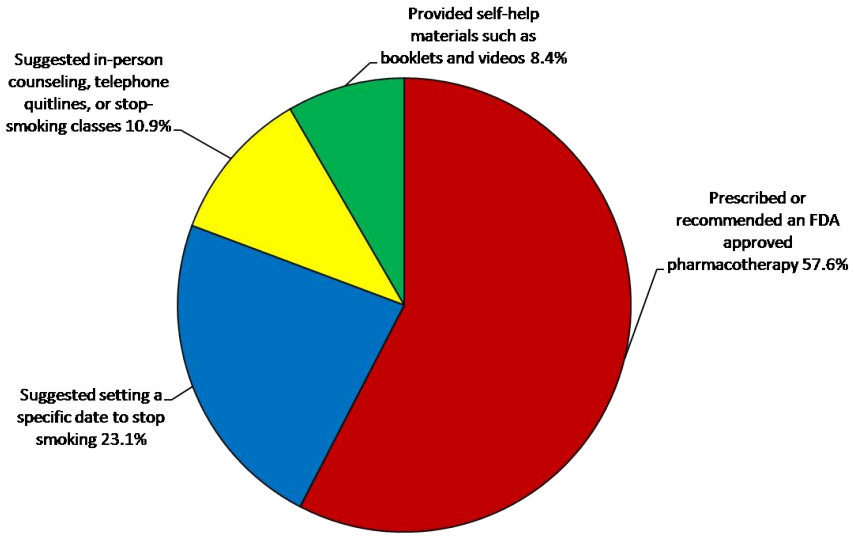


Cessation methods recommended by health care providers

- As presented in Figure 26, an FDA-approved pharmacotherapy, such as NRT (i.e., nicotine patch, gum, lozenge, nasal spray, and inhaler), or prescription medication such as bupropion (a.k.a. Wellbutrin® or Zyban®) was the most common cessation method (57.6% ±5.9%) recommended by health care providers to help adult current smokers quit in 2006, followed by helping patients set a quit date (23.1% ±4.9%).

- Remaining cessation methods were: suggesting in-person counseling, telephone quitlines, or stop-smoking classes (10.9% ±4.1%), and providing self-help materials, such as booklets and videos (8.4% ±3.1%).

Figure 26. Types of cessation methods recommended by health care providers to help adult current smokers quit, Arkansas Adult Tobacco survey 2006

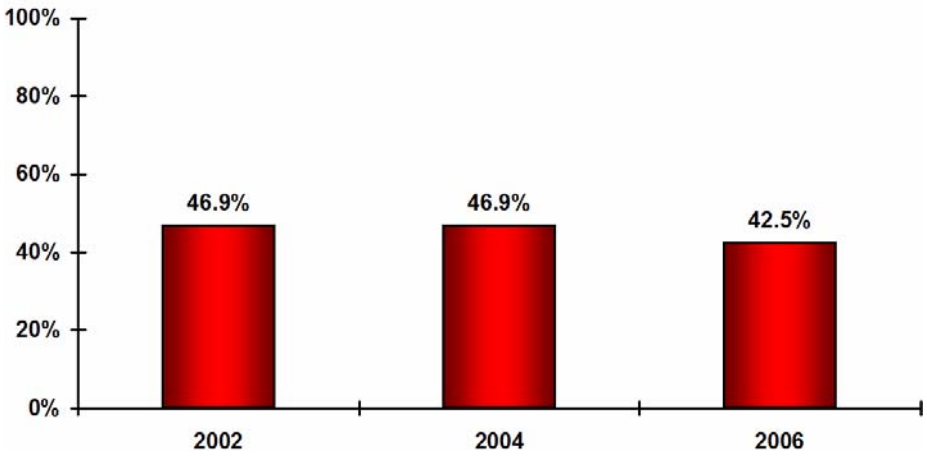


Quit attempts

Smokers usually attempt to quit cigarette smoking several times before they are finally able to quit for good, and hence, an increase in quit attempts is an intermediate step to increasing cessation in the population. A quit attempt is defined as stopping smoking for one day or longer regardless of the outcome (i.e., success or failure) at least once in the past 12 months in an attempt to quit smoking.

- As depicted in Figure 27, the rate of quit attempts among adult current smokers in 2006 (42.5% ±2.8%) has not changed since 2002 (46.9% ±2.5%).

Figure 27. Percentage of adult current smokers who have made ≥ one quit attempt in the past 12 months, Arkansas Adult Tobacco Survey 2002, 2004, & 2006

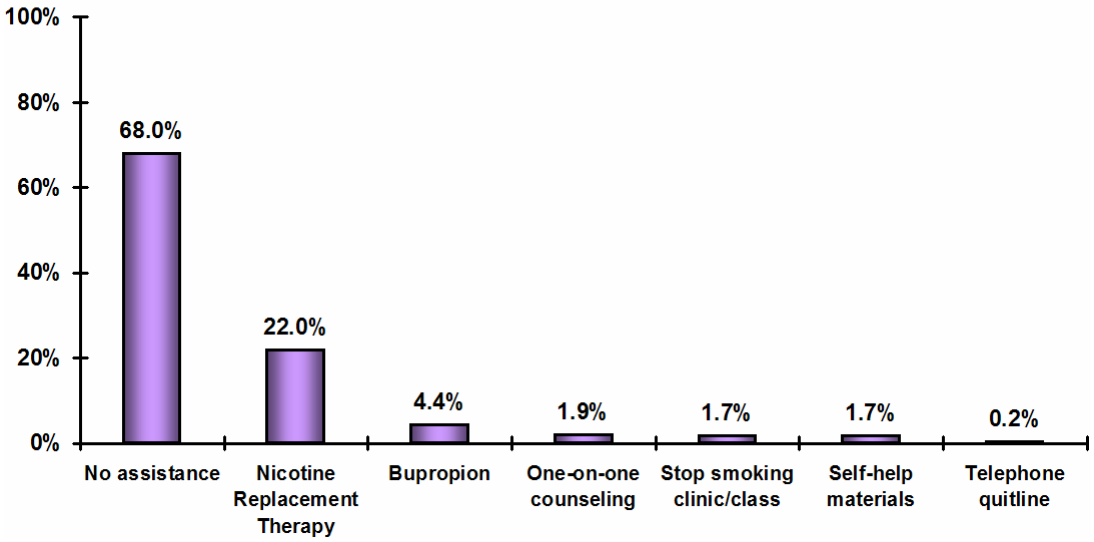


Quit attempts using proven cessation methods

Cessation methods used by smokers who attempted to quit (past 12 months)

- As seen in Figure 28, most adult smokers (68.0% ±3.8%) who have made one or more quit attempts in the 12 months preceding the interview (including current smokers and recent quitters) did not use any type of assistance in their last quit attempt.

Figure 28. Cessation methods used by adult current smokers who have made ≥ one quit attempt in the past 12 months, Arkansas Adult Tobacco Survey 2006

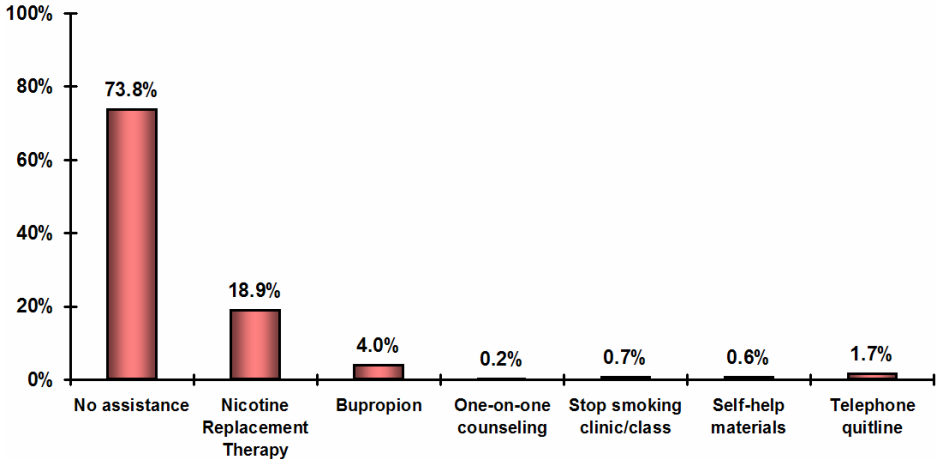


- Of the remaining 32.0% who used formal smoking cessation methods to help them quit in their last attempt, 22.0% (±3.2%) used NRT, 4.4% (±1.7%) used bupropion, 1.9% (±1.1%) used one-on-one counseling, 1.7% (±1.1%) used stop smoking clinic or class, 1.7% (±1.2%) used self-help material (i.e., booklet or video), and 0.2% (±0.2%) used a telephone quitline.

Cessation methods used by former smokers (past 5 years)

- A similar utilization pattern of cessation resources was observed among adult former smokers who quit smoking for good within the past 5 years, as shown in Figure 29.

Figure 29. Cessation methods used by adult former smokers who quit smoking within the past 5 years, Arkansas Adult Tobacco Survey 2006

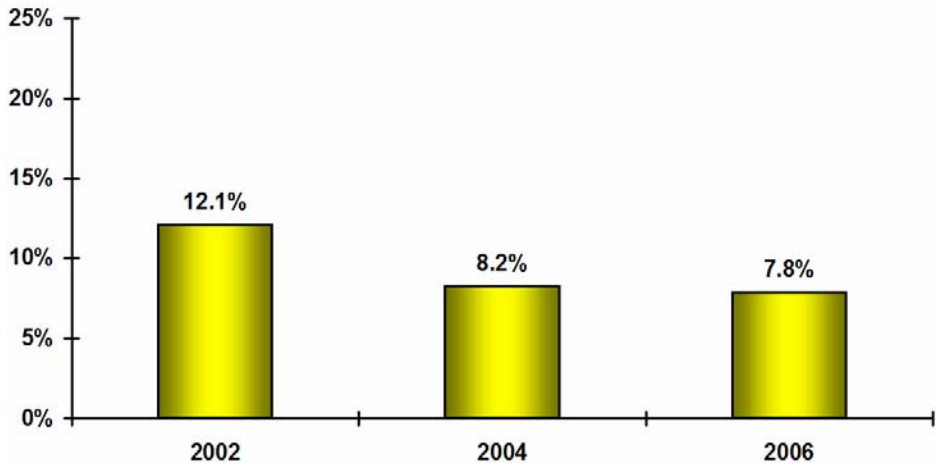


Sustained Abstinence

Sustained abstinence (or recent successful quit attempts) is a long-term outcome of increasing quit attempts. A recent quitter is defined as a person who smoked ≥ 100 cigarettes in a lifetime, reported current smoking status as "not at all" at the time of the interview, and stopped smoking regularly within the past 12 months.[20]

- In 2006, 7.8% (±1.4%) of previous year smokers were abstinent at the time of the interview (Figure 30). Successful cessation rate among previous year smokers in 2006 has significantly decreased since 2002 (12.1% ±2.5%).

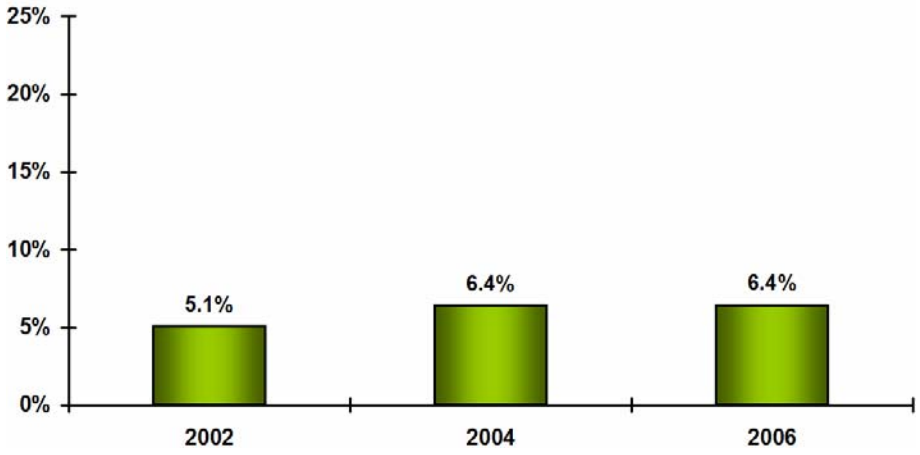
Figure 30. Percentage of previous year adult smokers who stopped smoking within the past 12 months and were still not smoking at the time of the interview, Arkansas Adult Tobacco Survey 2002, 2004, & 2006



Current Smokeless Tobacco Use

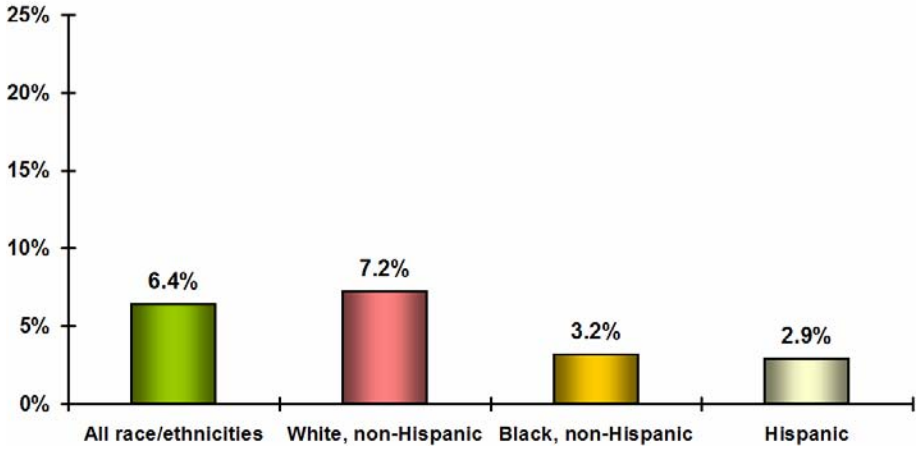
Definition Current smokeless tobacco use among adults is defined as the use of chewing tobacco or snuff on everyday or some days.

Figure 31. Percentage of adults who were current users of smokeless tobacco, Arkansas Adult Tobacco Survey 2002, 2004, & 2006



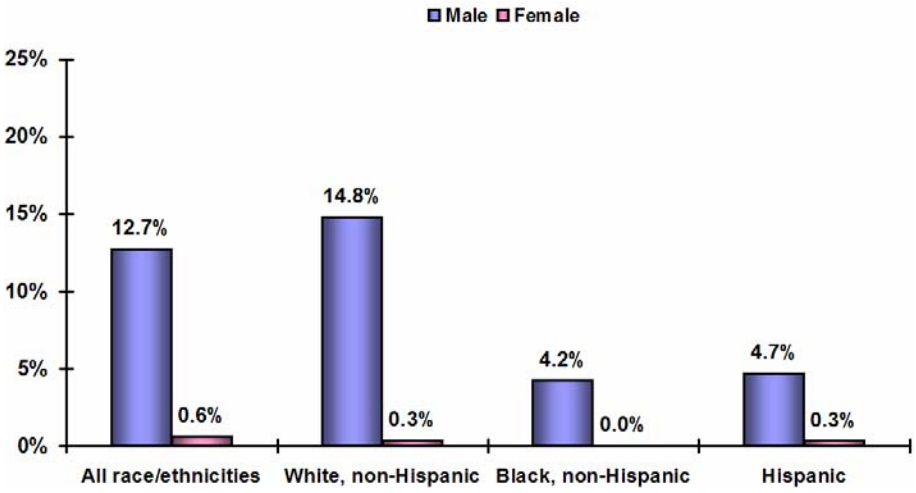
- As shown in Figure 31, 6.4% (±0.7%) of adults in Arkansas were current users of smokeless tobacco in 2006.
- Although not statistically significant, the use of smokeless tobacco among all adults has increased since 2002 (5.1% ±0.8%).

Figure 32. Percentage of adults who were current users of smokeless tobacco by race/ethnicity, Arkansas Adult Tobacco Survey 2006



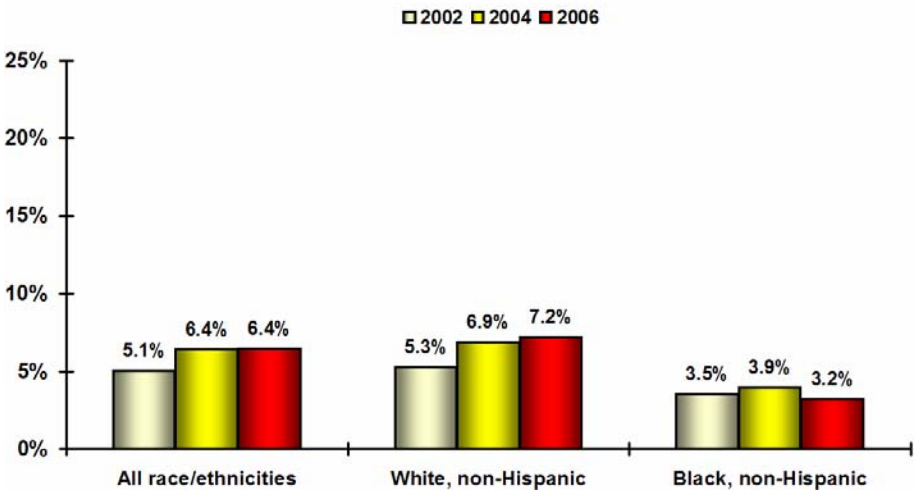
- As depicted in Figure 32, racial/ethnic differences in the use of smokeless tobacco were significant.
- White adults (7.2% ±0.8%) used smokeless tobacco at higher rate than their black (3.2% ±0.9%) and Hispanic (2.9% ±2.7%) counterparts.
- Gender differences in the use of smokeless tobacco were highly significant for overall, and across all racial/ethnic groups (Figure 33).

Figure 33. Percentage of adults who were current users of smokeless tobacco by race/ethnicity and gender, Arkansas Adult Tobacco Survey 2006



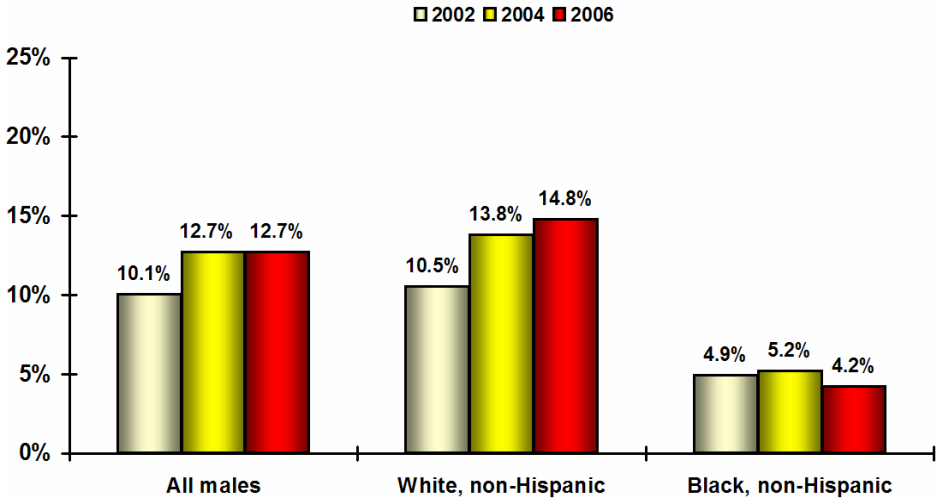
- Adult males (12.7% ±1.3%) used smokeless tobacco at a significantly much higher rate than adult females (0.6% ±0.2%), indicating a prevalence ratio of 21:1.

Figure 34. Percentage of adults who were current users of smokeless tobacco by race/ethnicity, Arkansas Adult Tobacco Survey 2002, 2004, 2006



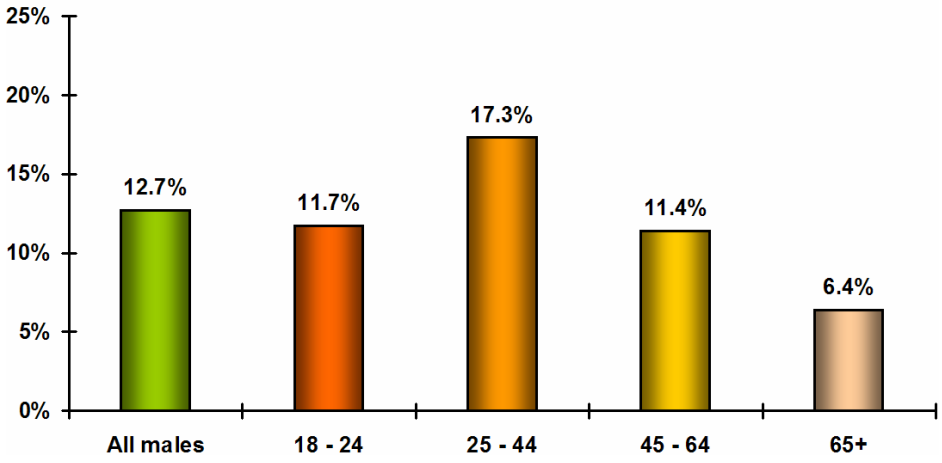
- The prevalence of smokeless tobacco use significantly increased among white adults from 5.3% (±0.9%) in 2002 to 7.2% (±0.8%) in 2006, but remained unchanged among black adults (Figure 34).

Figure 35. Percentage of adult males who were current users of smokeless tobacco by race/ethnicity, Arkansas Adult Tobacco Survey 2002, 2004, & 2006



- Between 2002 and 2006, the rate of smokeless tobacco use among all adult males increased from 10.1% (±1.5%) to 12.7% (±1.3%); though, this increase was not statistically significant (Figure 35).
- Among white adult males, the use of smokeless tobacco significantly increased from 10.5% (±1.7%) in 2002 to 14.8% (±1.6%) in 2006. No significant differences were observed, however, among black adult males for the same time period.

Figure 36. Percentage of adult males who were current users of smokeless tobacco by age group, Arkansas Adult Tobacco Survey 2006

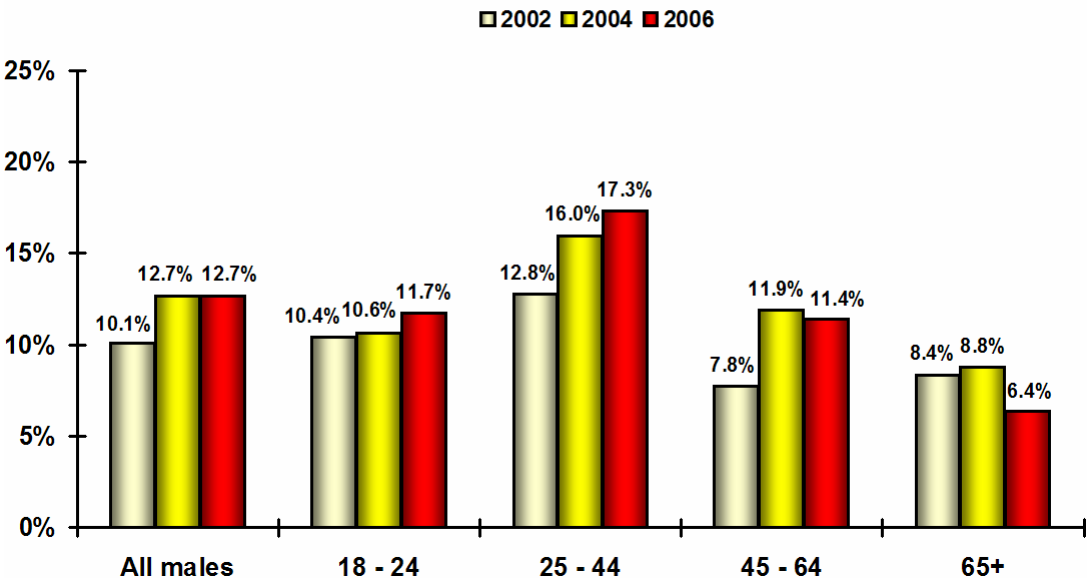


- As seen in Figure 36, no significant difference in smokeless tobacco use rate was noted between young adult males aged 18 to 24 years (11.7% ±5.0%) and any other age group.

- The prevalence of smokeless tobacco use among adult males 25 to 44 years was highest amongst all age groups.

- The smokeless tobacco use rate in adult males in the 25 to 44 age group was significantly higher than the rate among adult males aged aged 45 to 64 (11.4% ±1.6%), and older adult males 65+ (6.4% ±1.5%).

Figure 37. Percentage of adult males who were current users of smokeless tobacco by age group, Arkansas Adult Tobacco Survey 2002, 2004, & 2006



- Among men in all age groups (Figure 37), no statistically significant changes in the prevalence of smokeless tobacco use were observed between 2002 and 2006.

- However, there seems to be an increasing trend in the smokeless tobacco use rate among adult males aged 25 to 44 years from 12.8% (±2.5%) to 17.3% (±2.5%), and among those aged 45 to 64 from 7.8% (±2.7%) to 11.4% (±1.6%), between 2002 and 2006, respectively.

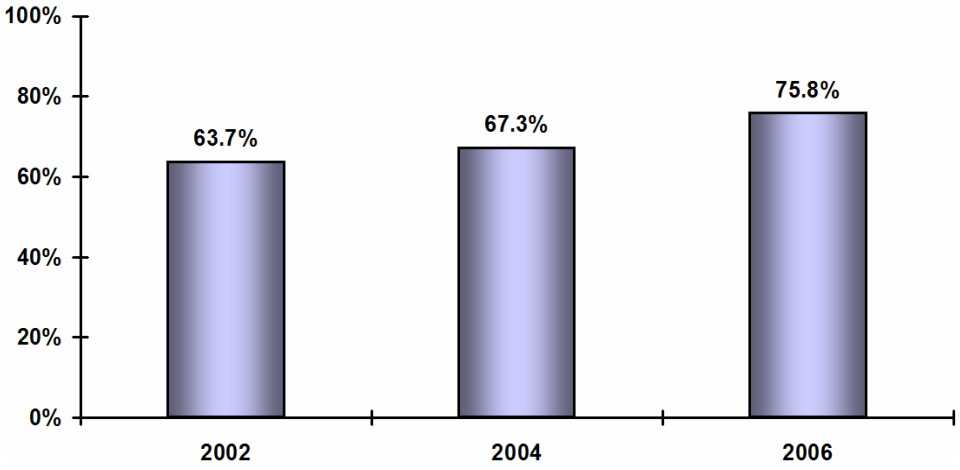
Secondhand Smoke Policies and Exposure

Voluntary Smoke-free Rules in Homes

Studies show that children living in households where smoking is not allowed anywhere inside the home are exposed to much lower amounts of secondhand smoke than children not protected by such rules.[21,22] Additionally, smoke-free homes change social norms, especially among young people[23], due to the evident family and peer group influences on youth smoking initiation and behavior. In fact, data from the 2005 Arkansas Youth Tobacco Survey[24] showed that current young smokers in middle and high schools were significantly more likely to be living with someone who smoked cigarettes than never smokers (65.9% vs. 34.5%, respectively).

- As seen in Figure 38, a little more than three-quarters (75.8% ±1.1%) of adults in Arkansas reported that smoking was not allowed anywhere inside their homes (not including decks, garages, or porches), indicating a significant increase since 2002 (63.7% ±1.5%).

Figure 38. Percentage of adults who reported that smoking was not allowed anywhere inside their homes, Arkansas Adult Tobacco Survey 2002, 2004, & 2006



- Smoke-free rules in homes differed by smoking status (Figure 39). Non-smokers (86.6% ±0.9%) were significantly more likely to report that smoking was not allowed anywhere inside their homes than did smokers (38.8% ±2.8%).

- As seen in Figure 40, adults living in households with children ≤ 17 (79.6% ±1.7%) were significantly more likely to report that smoking was not allowed anywhere inside their homes than did adults not living with children ≤ 17 (73.1% ±1.4%).

Figure 39. Percentage of adults who reported that smoking was not allowed anywhere inside their homes by smoking status, Arkansas Adult Tobacco Survey 2006

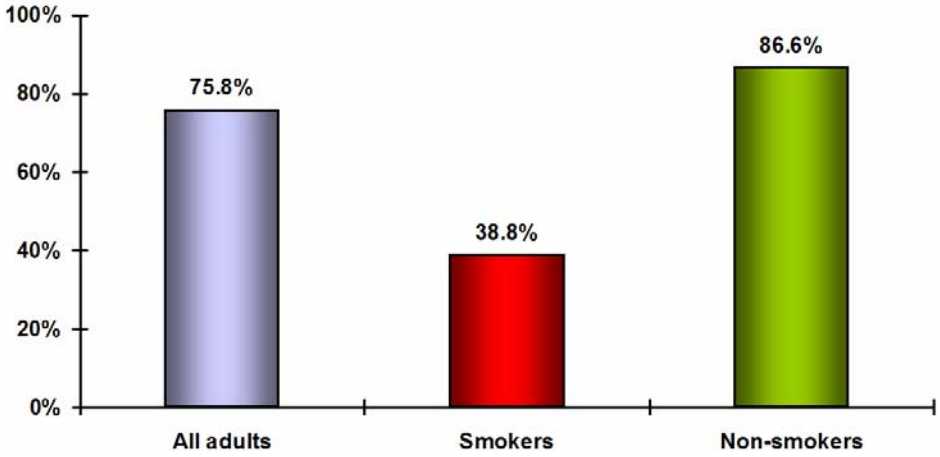
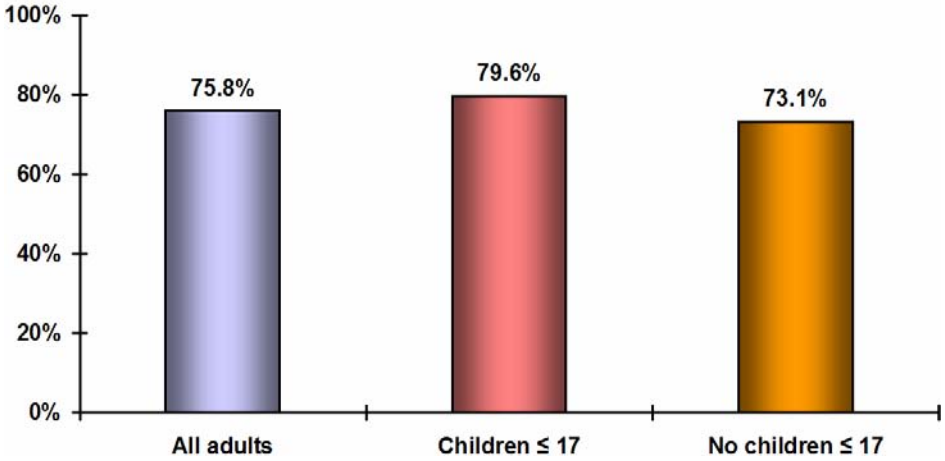


Figure 40. Percentage of adults who reported that smoking was not allowed anywhere inside their homes by the presence or absence of children ≤ 17 living in the household, Arkansas Adult Tobacco Survey 2006



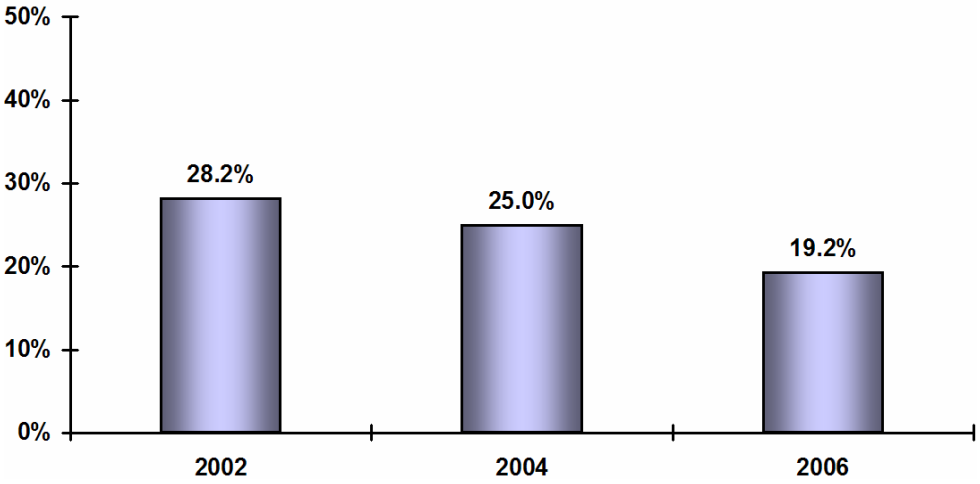
Exposure to Secondhand Smoke

At home

Secondhand smoke exposure in the home is defined as reporting that someone (including the respondent her or himself) had smoked cigarettes, cigars, or pipes inside the home at least once during the 7 days preceding the interview.

- As shown in Figure 41, the percentage of adults who reported exposure to secondhand smoke in the home significantly declined from 28.2% (±1.3%) in 2002 to 19.2% (±1.1%) in 2006.

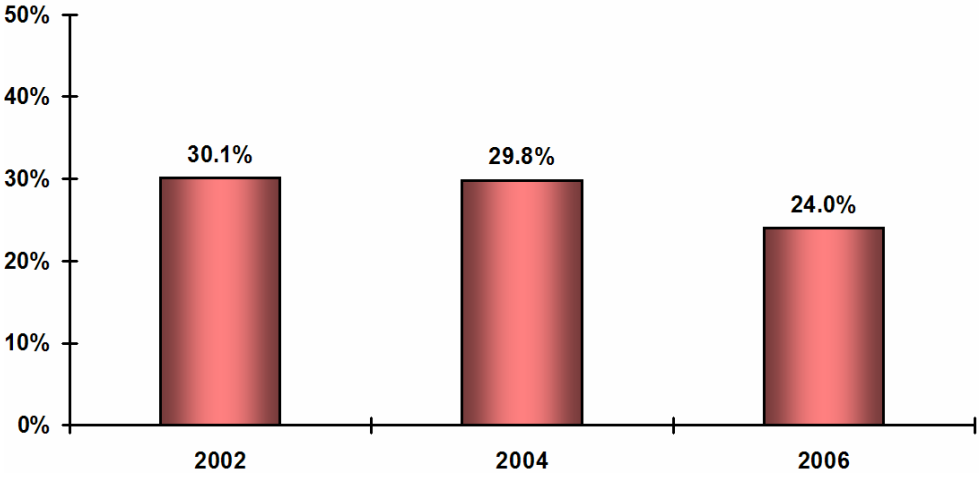
Figure 41. Percentage of adults who reported exposure to secondhand smoke in the home, Arkansas Adult Tobacco Survey 2002, 2004, & 2006



In vehicles Secondhand smoke exposure in the vehicle is defined as riding in a car with someone who was smoking during the 7 days preceding the interview.

- As seen in Figure 42, the percentage of adults who reported exposure to secondhand smoke in the vehicle significantly declined from 30.1% (±1.4%) in 2002 to 24.0% (±1.2%) in 2006.

Figure 42. Percentage of adults who reported exposure to secondhand smoke in the vehicle, Arkansas Adult Tobacco Survey 2002, 2004, & 2006

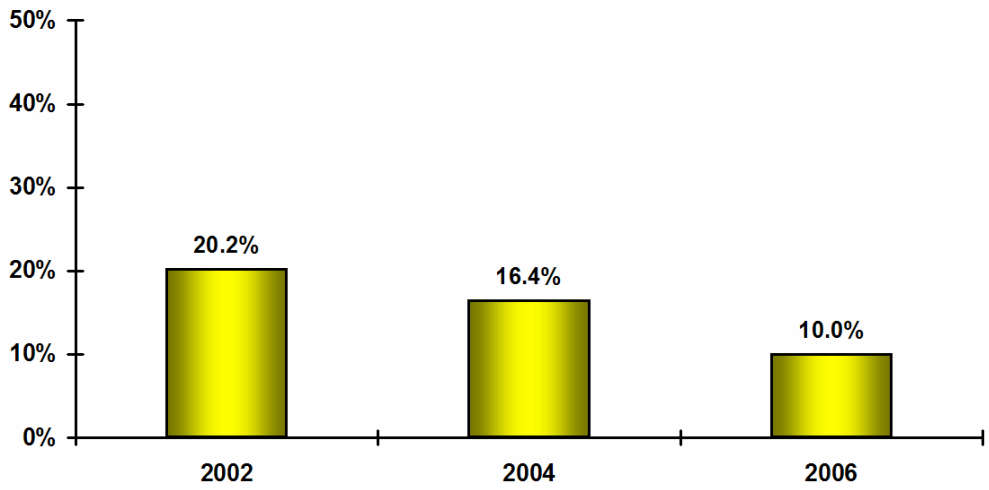


At work

Secondhand smoke exposure in the work area was ascertained if a respondent: (1) was employed for wages, part-time or full-time, (2) worked indoors most of the time, and (3) reported that someone had smoked in her/his work area during the 7 days preceding the interview.

- As illustrated in Figure 43, the percentage of adults who were employed indoors and reported exposure to secondhand smoke in the work area significantly declined from 20.2% (±2.0%) in 2002 to 10.0% (±1.3%) in 2006.

Figure 43. Percentage of employed adults who reported exposure to secondhand smoke in indoor work areas, Arkansas Adult Tobacco Survey 2002, 2004, & 2006



- The substantial decline in secondhand smoke exposure in workplaces in 2006 coincided with the Arkansas CIAA that took effect on July 21, 2006.

The Arkansas Clean Indoor Air Act (CIAA)

Background

In April 2006, Arkansas lawmakers passed the Arkansas Clean Indoor Air Act (CIAA) to protect the health of both the public and employees by reducing their exposure to secondhand smoke. The smoke-free law, which took effect on July 21, 2006, prohibited smoking in common indoor areas in workplaces, most public places including classrooms, conference rooms, and all other enclosed areas, as well as restaurants and bars. Exemptions were given to hotels/motels with fewer than 25 rooms, restaurants and bars that do not admit individuals less than 21 years, and workplaces with less than 3 employees, given that the work setting is not open to the public.

Methods

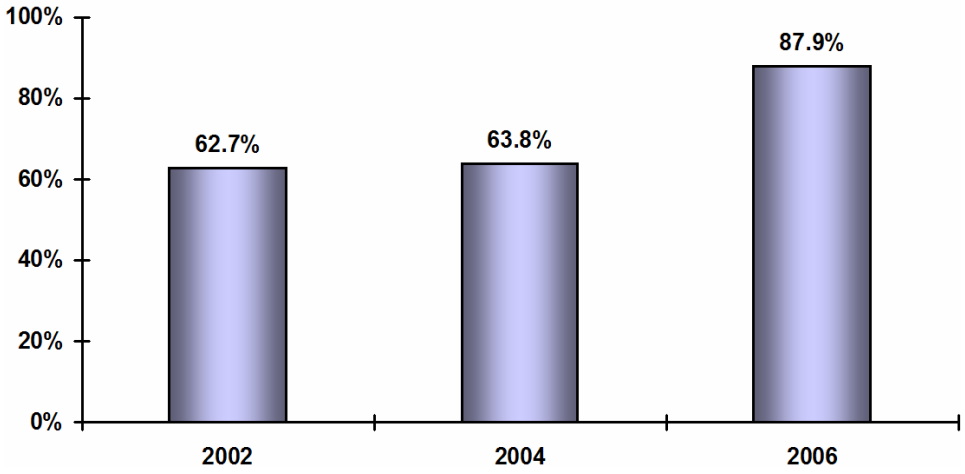
Collected between June 1, 2006 and January 24, 2007, data from the 2006 Arkansas ATS was employed in a separate-group pretest-posttest evaluation design to examine any immediate changes in public attitudes, and to assess the economic impact of the law on restaurants. The statewide sample (n = 12,734) was split into two groups: interviews completed before the statewide smoke-free ordinance took effect (n = 3,113) and interviews completed after 21 July 2006 (n = 9,621).

Comparisons were performed on 3 subjects: (1) support for prohibiting smoking in indoor dining areas of restaurants, bars and cocktail lounges, indoor public places and workplaces, (2) employer compliance with the smoke-free law, and (3) the economic impact of the law on restaurants (by asking respondents whether the law would affect their decisions to eat out in restaurants). The design-adjusted Rao-Scott chi-square test was used to measure the significance of differences in proportions of responses in the before and after groups.

Results

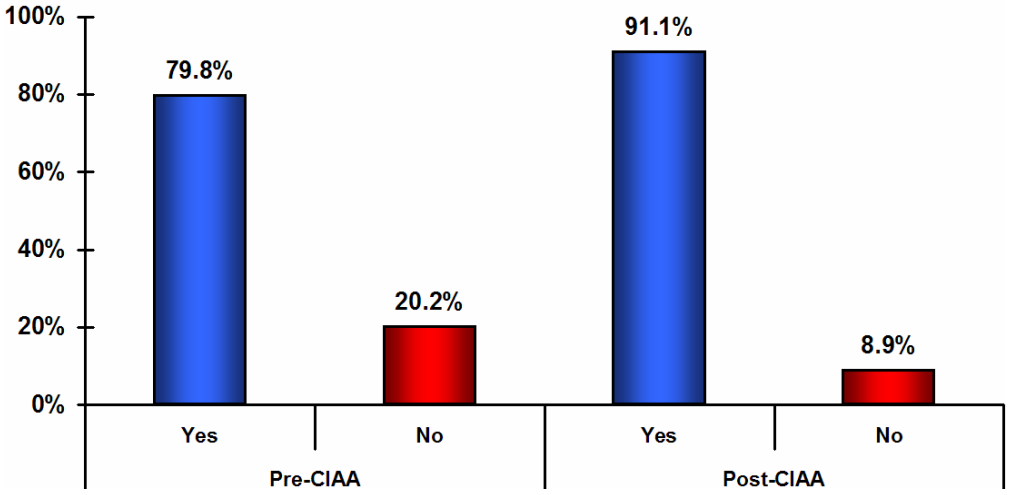
Public support for smoke-free policies

Figure 44. Percentage of adults who supported smoking bans in indoor public places and workplaces, Arkansas Adult Tobacco Survey 2002, 2004, & 2006



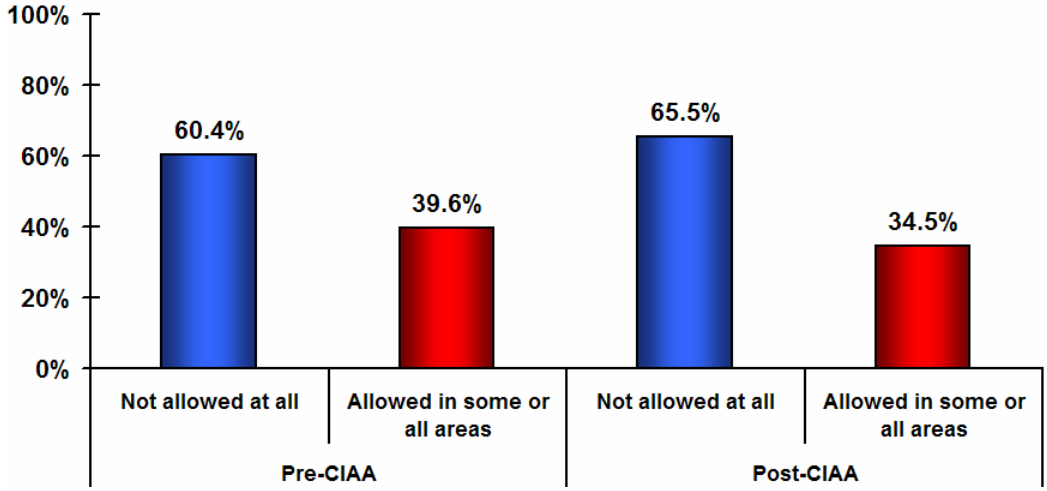
- As shown in Figure 44, there was a mounting public support for smoke-free policies in Arkansas, as the percentage of adults who supported smoking bans in indoor public and work places significantly increased from 62.7% (±1.6%) in 2002 to 87.9% (±0.9%) in 2006.
- In the pretest-posttest analysis, the percentage of adults who supported smoking bans in indoor public and work places significantly increased yet even further from 79.8% to 91.1% ($p < 0.0001$) before and after the Arkansas CIAA. (Figure 45).

Figure 45. Percentage of adults who supported smoking bans in indoor public places and workplaces before and after the Clean Indoor Air Act (CIAA), Arkansas Adult Tobacco Survey 2006



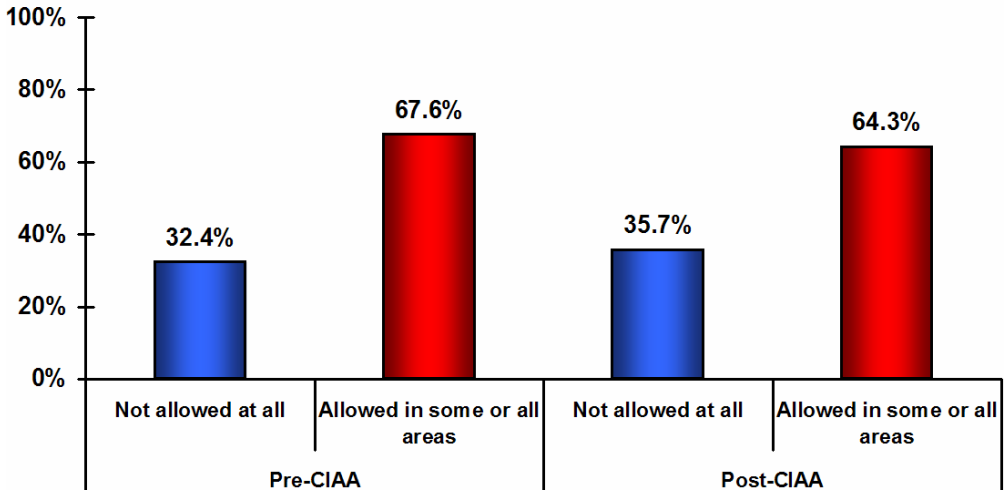
- As depicted in Figure 46, the percentage of adults who thought that smoking should not be allowed at all in indoor dining areas in restaurants significantly increased from 60.4% to 65.5% (p = 0.0003) before and after the Arkansas CIAA.

Figure 46. Public opinion of smoking in indoor dining areas of restaurants before and after the Clean Indoor Air Act (CIAA), Arkansas Adult Tobacco Survey 2006



- Additionally, the percentage of adults who thought that smoking should not be allowed at all in bars and cocktail lounges significantly increased from 32.4% to 35.7% (p = 0.0116) before and after the Arkansas CIAA. (Figure 47).

Figure 47. Public opinion of smoking in bars and cocktail lounges before and after the Clean Indoor Air Act (CIAA), Arkansas Adult Tobacco Survey 2006



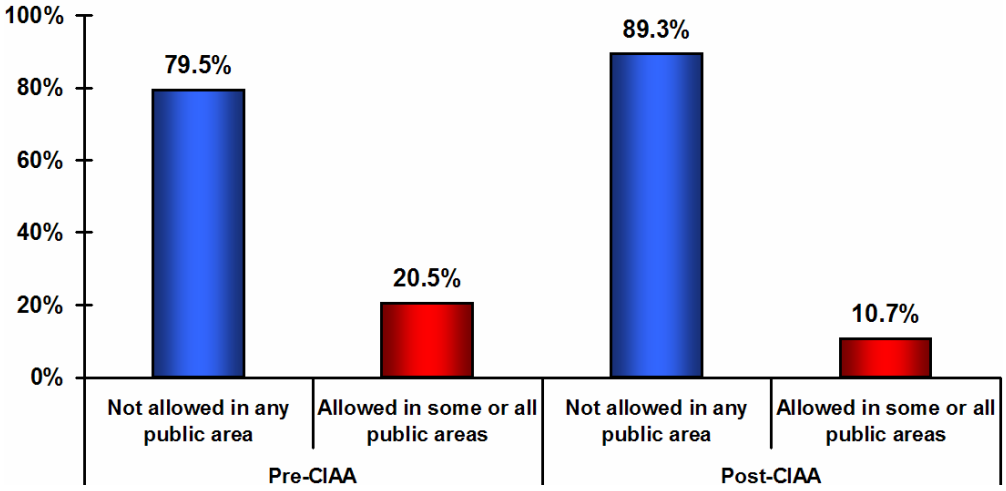
Employer compliance

CDC recommends three outcome indicators necessary to evaluate employer compliance with smoke-free public policies: (1) perceived compliance with tobacco-free policies in workplaces, (2) perceived compliance with tobacco-free policies in indoor public places, and (3) the proportion of public places observed to be in compliance with tobacco-free policies.[25]

At present, surveillance mechanisms available in Arkansas allow only the measurement of compliance with tobacco-free policies in workplaces (through the ATS). Starting in 2008, ATS will include state-added questions that record data on compliance with tobacco-free policies in indoor public places. Data on the proportion of public places observed to be in compliance, however, can not be collected through standard tobacco control surveillance systems. It is rather measured by direct observation of employees' and patrons' behavior. Before and after results related to the perceived compliance with tobacco-free policies in workplaces were as follows:

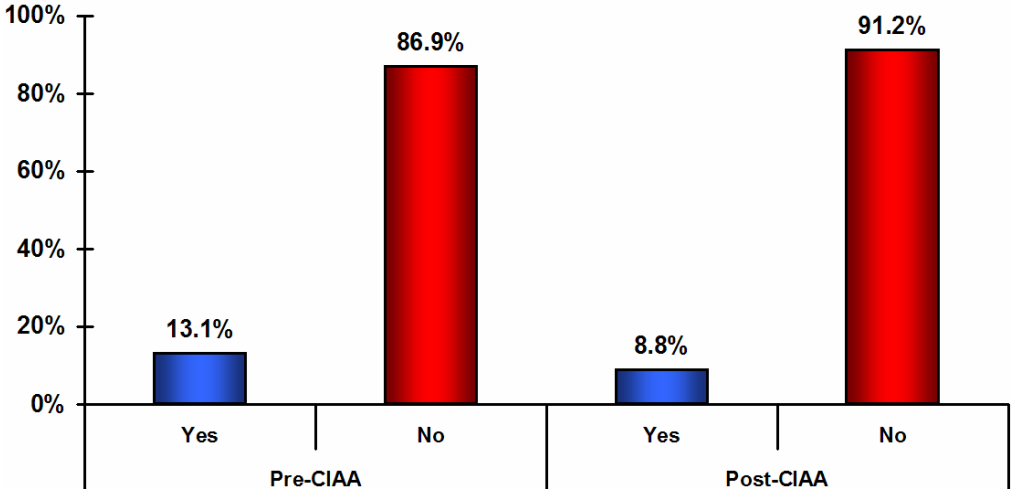
- As illustrated in Figure 48, the percentage of employed adults who reported an official smoking policy in indoor public or common areas in the workplace (i.e., lobbies, restrooms, and lunchrooms) significantly increased from 79.5% to 89.3% (p < 0.0001) before and after the Arkansas CIAA.

Figure 48. Percentage of employed adults who reported an official smoking policy in *indoor public or common areas* in the workplace before and after the Clean Indoor Air Act (CIAA), Arkansas Adult Tobacco Survey 2006



- Additionally, the percentage of employed adults who reported that someone had smoked in their work areas in the 7 days preceding the interview significantly decreased from 13.1% to 8.8% (p = 0.0043) before and after the Arkansas CIAA (Figure 49).

Figure 49. Percentage of employed adults who reported that someone had smoked in their work areas in the 7 days preceding the interview before and after the Clean Indoor Air Act (CIAA), Arkansas Adult Tobacco Survey 2006



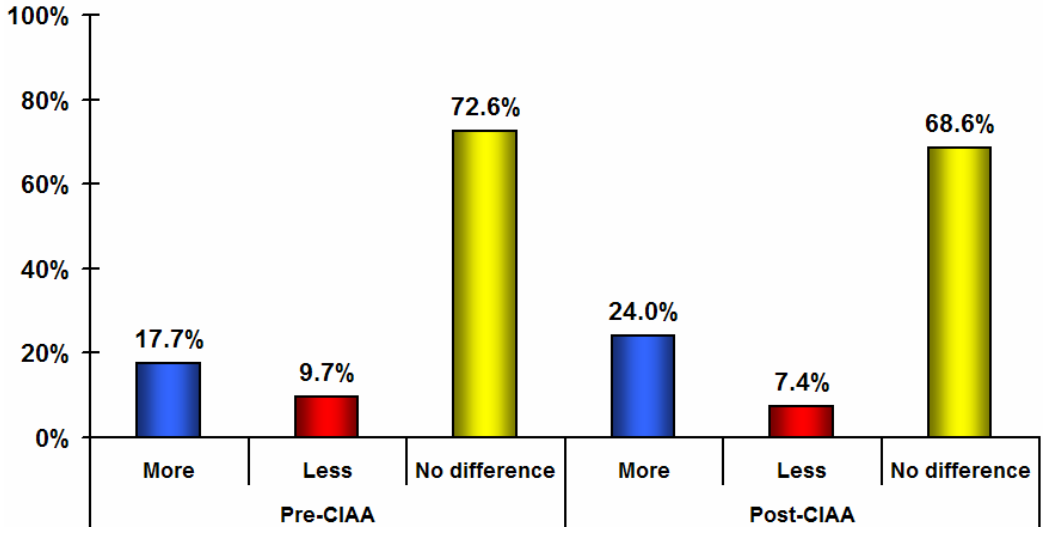
Economic impact on restaurants

During the public health advocacy and policy planning, and immediately following the passage of smoke-free public policies, local restaurant and bar industries typically raise concerns regarding potential loss of revenue. Quite the opposite, before and after studies conducted in states and localities that passed clean indoor air acts showed compelling evidence of positive economic impact on restaurants and bars after passing such laws.

For example, a Colorado telephone survey of adult consumers (Market Perceptions, Inc., April 2006) found that 32% of all respondents were more likely to eat out in a restaurant, and 23% were more likely to go out to a bar after the smoke-free law took effect. Data released by the University of Florida (Bureau of Economic and Business Research, June 2004) showed that restaurant sales were up 7% within one year after the smoke-free law. Moreover, analysis of California revenue and workforce data (California Labor Force Statistics, November 2003) found that bar and restaurant industry grew adding approximately 200,000 positions within 6 years of passing a smoke-free law. Analysis of Arkansas data showed similar positive economic impact, and are summarized as follows:

- As seen in Figure 50, the percentage of all adults who reported that they would eat-out more often in restaurants significantly increased from 17.7% to 24.0%. The percentage of all adults who would eat-out less often significantly decreased from 9.7% to 7.4% ($p < 0.0001$) before and after the Arkansas CIAA.

Figure 50. Percentage of <u>all adults</u> who would eat out more, less, or were neutral to dining out in restaurants before and after the Clean Indoor Air Act (CIAA), Arkansas Adult Tobacco Survey 2006



- Similar attitudes were observed among both smokers (p = 0.0306) and non-smokers (p < 0.0001), as shown in Figures 51 and 52, respectively.

Figure 51. Percentage of adult current smokers who would eat out more, less, or were neutral to dining out in restaurants before and after the Clean Indoor Air Act (CIAA), Arkansas Adult Tobacco Survey 2006

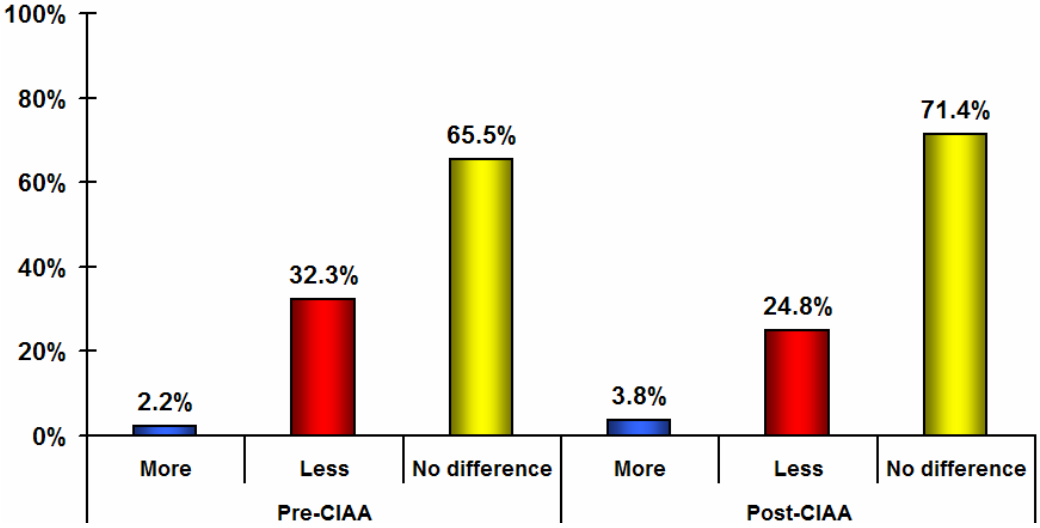
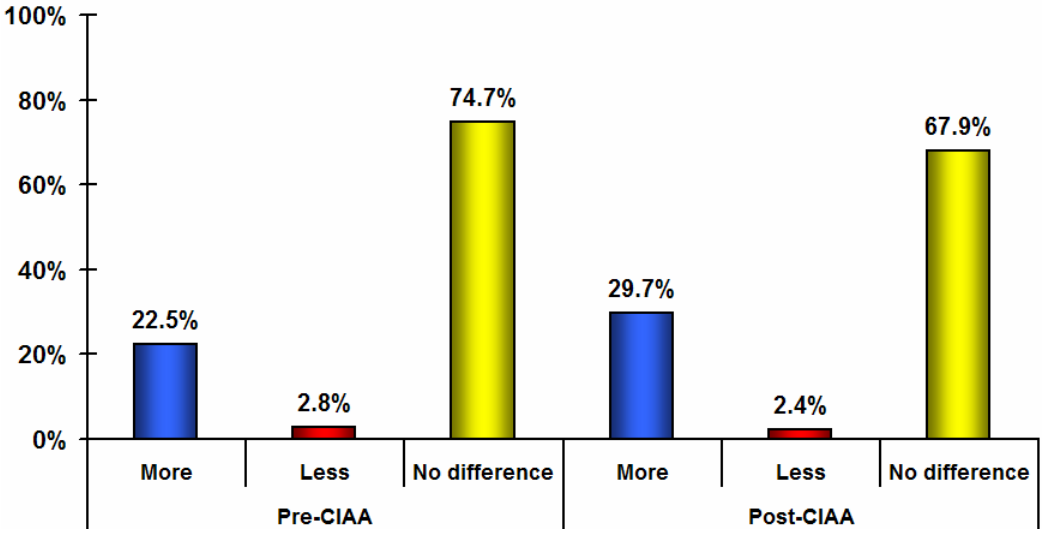


Figure 52. Percentage of adult non-smokers who would eat out more, less, or were neutral to dining out in restaurants before and after the Clean Indoor Air Act (CIAA), Arkansas Adult Tobacco Survey 2006



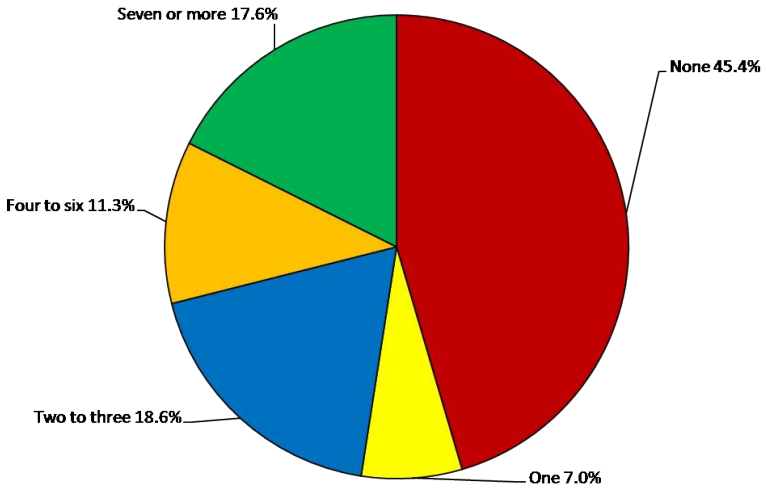
Mass Media and Anti-Tobacco Campaigns

The tobacco industry spends billions of dollars annually to make tobacco use appear to be attractive, as well as an accepted and established part of the American culture[25]. *Health Communication Intervention*, one of the CDC-recommended best practices for establishing statewide comprehensive tobacco control programs, strongly endorses sustained anti-tobacco media campaigns in order to effectively counter-market the tobacco industry pervasive pro-tobacco influences. When combined with other interventions, anti-tobacco media campaigns are effective in reducing tobacco use in the population.[26,27]

Although evaluating the effectiveness of a statewide anti-tobacco media program requires special media tracking surveys that are message-specific, the flexibility of the ATS allows the inclusion of general mass media questions to assess the extent of media coverage in the population. For example, it can provide a profile of the adult population who report minimal or no exposure to anti-tobacco media messages on TV, radio, or other types of media outlets. Such knowledge helps in making informed decisions on the best media to use in order to reach target populations at high risk of tobacco use (i.e., TV channels or radio stations that target viewers or listeners of certain age groups, race/ethnicities, special interests, or other attributes).

Media Messages on TV

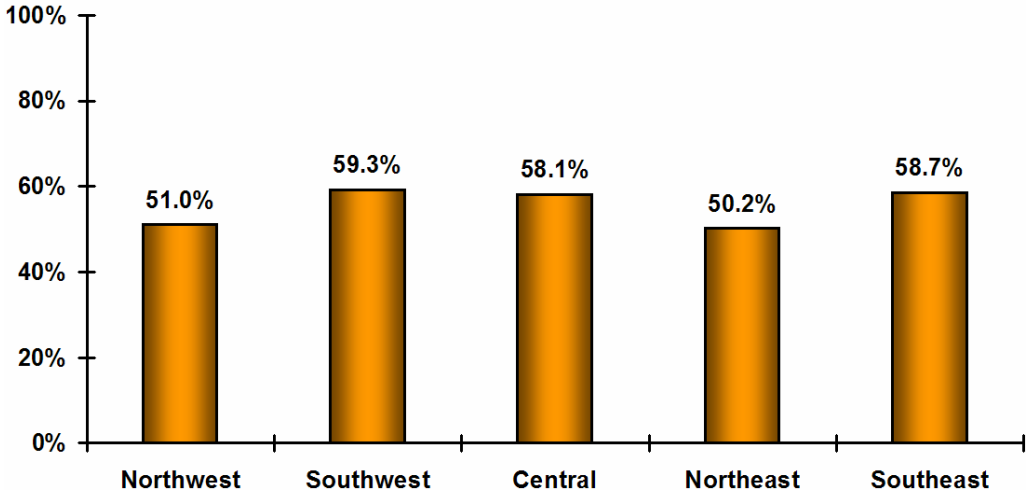
Figure 53. Number of anti-smoking media messages seen by adults on TV in the 7 days preceding the interview, Arkansas Adult Tobacco Survey 2006



- In 2006, more than half (54.6% ±1.3%) of the adult population in Arkansas recalled seeing at least one anti-smoking media message on TV in the 7 days preceding the interview (Figure 53).

- Among all respondents:
  7.0% (±0.7%) reported seeing only one, 18.6% (±1.0%) reported seeing 2 to 3,
  11.3% (±0.9%) reported seeing 4 to 6, and
  17.6% (±1.1%) reported seeing 7 or more messages.

Figure 54. Percentage of adults who have seen at least one anti-smoking media message on TV in the 7 days preceding the interview by public health region, Arkansas Adult Tobacco Survey 2006



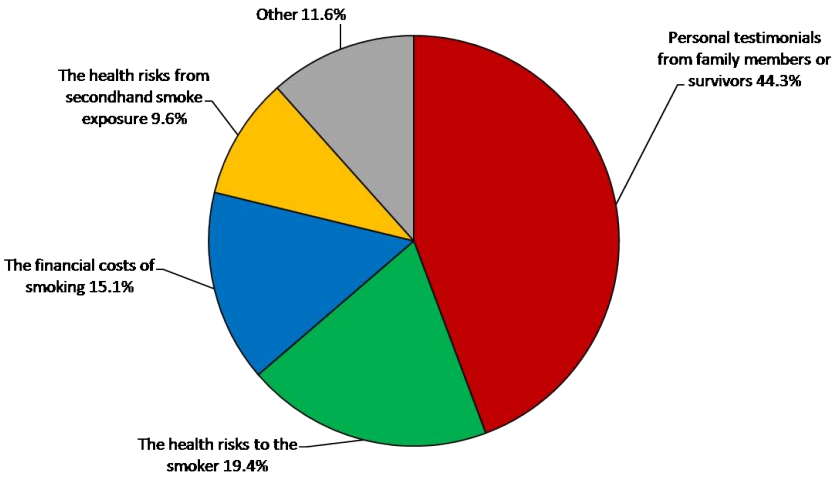
- Statewide, 54.6% (±1.3%) of all adults reported seeing at least one anti-smoking message on TV in the 7 days preceding the survey (Figure 53).

- As presented in Figure 54, no significant differences in adult exposure to anti-smoking media messages on TV by public health region were observed, which suggests equal geographic media coverage.

Public Opinion about Effective Media Messages

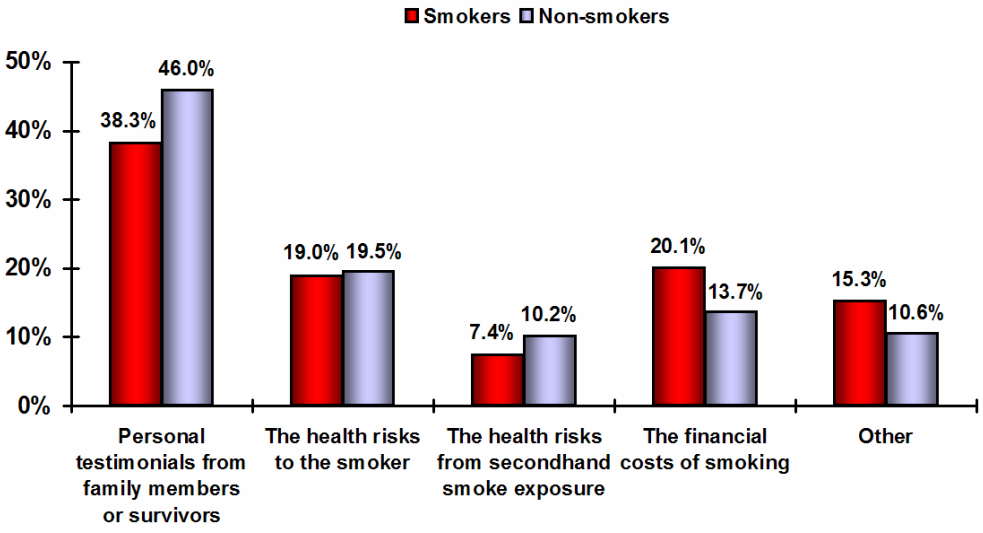
- As illustrated in Figure 55, 44.3% (±1.3%) of all adults preferred personal testimonials from family members or survivors as the best media message to promote smoking cessation, followed by media messages about the health risks to the smoker (19.4% ±1.0), the financial costs of smoking (15.1% ±0.9%), and lastly the health risks from secondhand smoke exposure (9.6% ±0.8%).

Figure 55. Public opinion about the best media message to promote smoking cessation, Arkansas Adult Tobacco Survey 2006



- Figure 56 displays public opinion regarding the best media message to promote cessation by smoking status.

Figure 56. Public opinion about the best media message to promote smoking cessation by smoking status, Arkansas Adult Tobacco Survey 2006



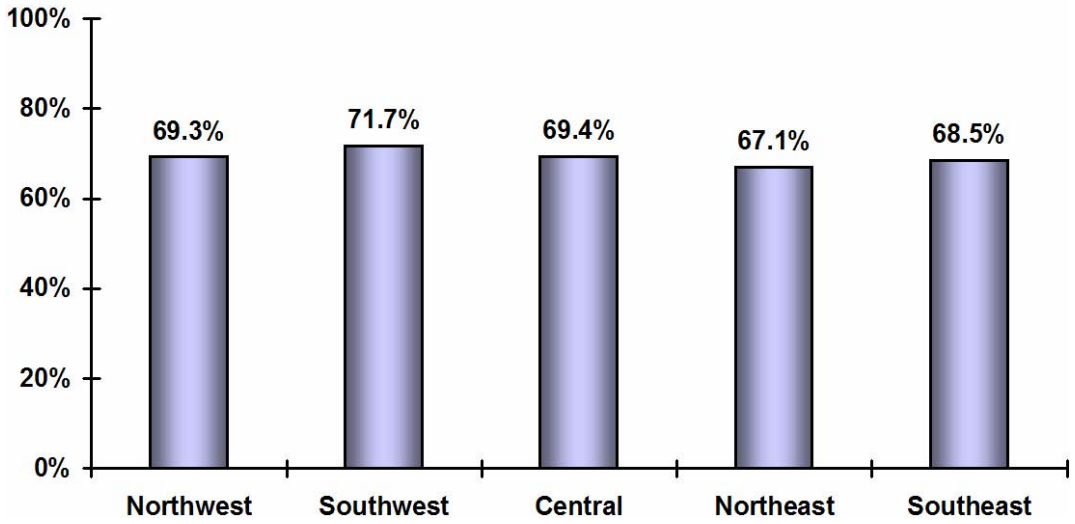
- It is worthy of note that significantly more non-smokers (10.2% ±0.9%) selected the health risks from secondhand smoke exposure as the best media message to promote cessation than smokers (7.4% ±1.7%). This may suggest that many smokers still do not perceive the harm of secondhand smoke exposure.

- It was also interesting to find that significantly more smokers (20.1% ±2.3%) believed that media messages about the financial costs of smoking are most effective to promote cessation than non-smokers (13.7% ±1.0%).
- This difference might be due to the fact that non-smokers are less sensitive to the financial costs of smoking, as they do not incur any.
- More importantly, however, this distinction confirms that increasing tax on tobacco products reduces tobacco consumption and prevalence,[5, 23] especially among the most price-sensitive populations (i.e., young people).

Quitline Media Reach

- Data from the 2006 ATS indicate that public awareness of the Arkansas quitline cessation services was high, since almost three-quarters of adults (69.2% ±1.1%) recalled seeing a 1-800 quitline number on TV or elsewhere that someone can call to get information about quitting smoking.

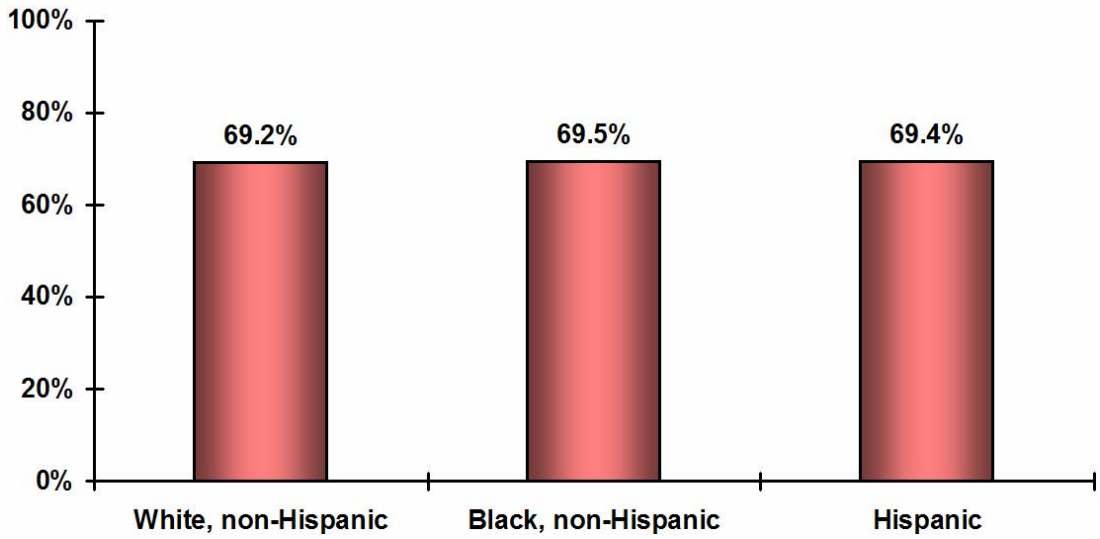
Figure 57. Percentage of adults who recalled seeing a 1-800 quitline number by public health region, Arkansas Adult Tobacco Survey 2006



- As portrayed in Figure 57, no significant differences in the awareness of Arkansas quitline cessation services were observed by public health region, which confirms balanced and uniform anti-tobacco media coverage throughout the state regions.

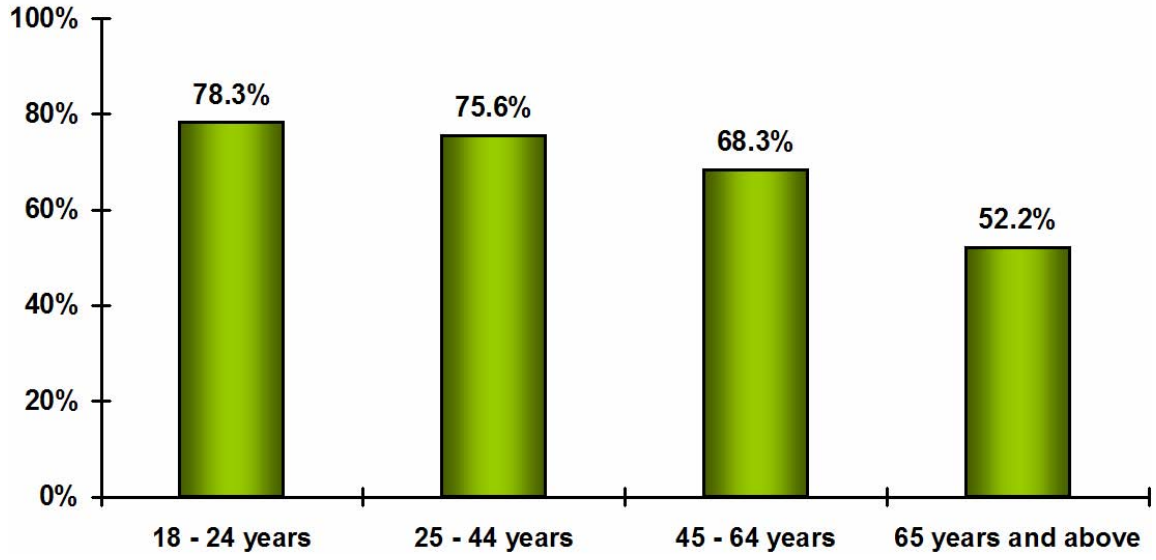
- Additionally, no racial/ethnic differences in public awareness of the quitline cessation services were noted (Figure 58).

Figure 58. Percentage of adults who recalled seeing a 1-800 quitline number by race/ethnicity, Arkansas Adult Tobacco Survey 2006



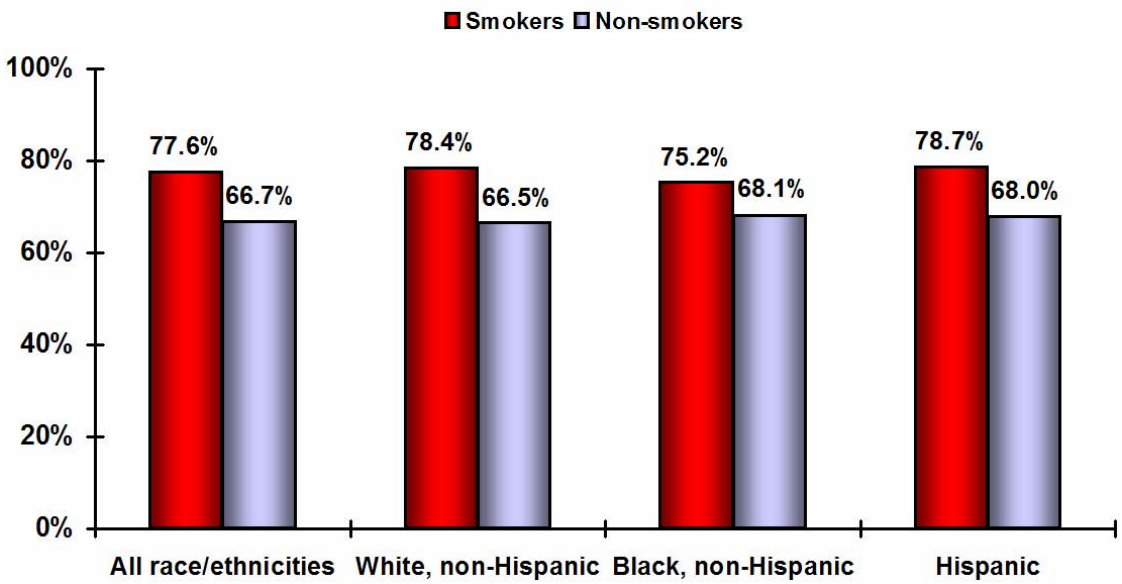
- As shown in Figure 59, no significant differences in the awareness of quitline cessation services were observed by age group, except for older adults 65 years and above. Older adults (52.2% ±1.9%) recalled seeing a 1-800 quitline number on TV or elsewhere at a significantly lower rate than adults from other age groups.

Figure 59. Percentage of adults who recalled seeing a 1-800 quitline number by age group, Arkansas Adult Tobacco Survey 2006



- Overall, cigarette smokers (77.6% ±2.4%) were significantly more likely to recall seeing a 1-800 quitline number than non-smokers (66.7% ±1.2%), and a parallel pattern was observed among whites (Figure 60).
- Although similar patterns were observed among blacks and Hispanics, the differences were not statistically significant.

Figure 60. Percentage of adults who recalled seeing a 1-800 quitline number by race/ethnicity and smoking status, Arkansas Adult Tobacco Survey 2006



Conclusions and Program Implications

Cigarette Smoking and Consumption among Adults

Findings from the 2006 Arkansas ATS provided important new information about adult tobacco use and behavior. Though subtle, current cigarette smoking prevalence in Arkansas appears to be following a decreasing trend between 2002 and 2006. This trend was corroborated by data from the Arkansas Behavioral Risk Factor Surveillance System (BRFSS), which revealed a continuing decline in adult cigarette smoking (22.4% ±1.5%) in 2007 (unpublished data).

The progress made in reducing cigarette smoking in 2006 was not equally shared among adults from the different age, gender, or racial/ethnic populations. Among adult males, the declining trend of cigarette smoking prevalence from 2002 to 2006 was statistically significant. On the other hand, female smoking rate has not changed since 2002. Additionally, the decline observed among all males can be attributed in large part to the significant drop in smoking prevalence among white males, which was not observed among black males. Yet, white males consumed roughly twice the average daily number of cigarettes as did black or Hispanic males.

Not only were fewer adult Arkansans smoking in 2006, but those who continued to smoke were smoking fewer cigarettes than they did in 2002. The significant decline in the average daily number of cigarettes smoked by current smokers was observed for both white and black adults. Moreover, current smokers were also smoking less frequently in 2006, as the rate of everyday current cigarette smoking has significantly declined since 2002.

Smoking Cessation

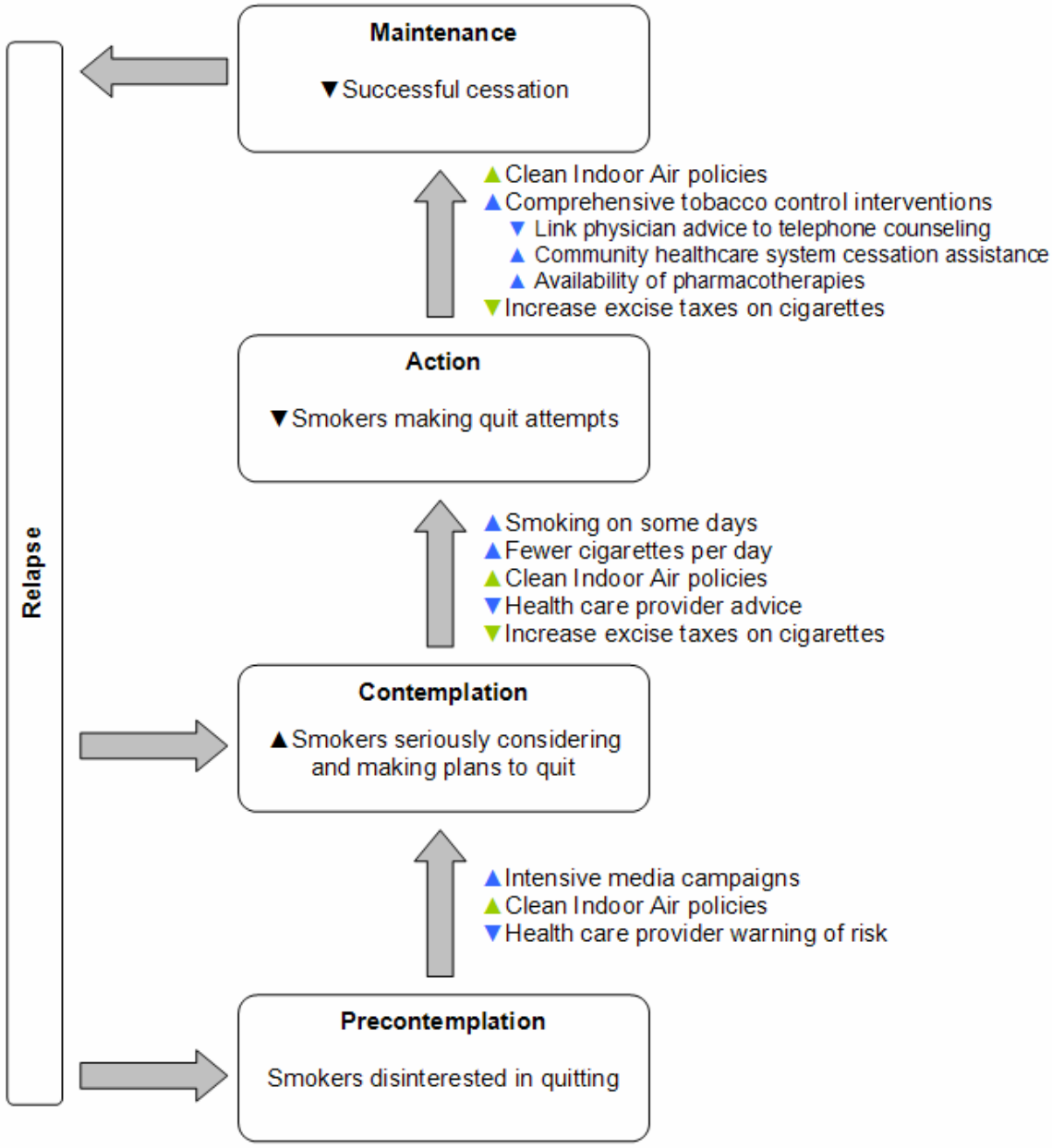
Framework for assessing population-based smoking cessation

The concept behind a comprehensive approach to tobacco prevention and cessation is that multiple components involving a wide range of coordinated tobacco control efforts work in tandem in order to realize a meaningful reduction in adult smoking prevalence in the population. Evidently, this can only be accomplished through an increase in sustained abstinence or successful cessation rate among current smokers who attempt to quit.

Smoking cessation indicators collected in the ATS were utilized to build a framework for examining population-based smoking cessation influences and success. This framework is based on an integrative model of behavioral change[28], in which smokers are theorized to go through stages of change in the cessation cycle: precontemplation, contemplation, action, and maintenance, or relapse (Figure 61).

In the precontemplation stage, smokers deny having a problem and are disinterested in quitting. In the contemplation stage, smokers begin considering and planning on quitting. The action stage involves making a quit attempt that may result in success (maintenance) or failure (relapse). A relapse to smoking may be followed by a period of disinterest in cessation or consideration of an additional quit attempt.

Figure 61. The process of population-based smoking cessation and forces that drive progression through the cessation cycle



Legend

Arkansas 2002-2006

▲Progress in tobacco control interventional cessation influences
▲Progress in external environmental cessation influences
▲Progress in cessation outcome indicators
▼Worsening or no progress in interventional influences
▼Worsening or no progress in environmental influences
▼Worsening or no progress in cessation outcome indicators

Individual components in a comprehensive tobacco control program may affect the cessation process at different stages. As shown in Figure 61, each stage has its own influences that trigger smokers to progress toward the next stage. Mass-media and anti-tobacco campaigns, as well as warnings about the risk of smoking from health care providers, prompt the progress from disinterest to contemplating a cessation attempt. Research shows that physician advice seems to have a significant impact on the likelihood of a smoker moving to the action stage (making a quit attempt), but slight effect on successful quitting.[15] Instead, comprehensive tobacco control interventions were found to have the greatest influence in assisting smokers who are attempting to quit attain the maintenance stage (long-term success) by linking them to cessation treatments and services. These services include facilitating the availability of FDA-approved pharmacotherapies (i.e., NRT or prescription medication), telephone or in-person counseling, and clinic-based cessation assistance.

In addition to these interventional measures that focus primarily on the individual smoker, tobacco control efforts must be synchronized with external factors that change the environment within which the smoker smokes, and more likely to affect a broader spectrum of the population. These environmental influences are mainly imposing restrictions on where people can smoke through smoke-free public policies, creating or facilitating mechanisms to lower or eliminate the cost of cessation treatments and pharmacotherapies to the tobacco user[29], and increasing the cost of tobacco by raising tobacco excise taxes.

The status of smoking cessation in Arkansas

Data collected in the Arkansas ATS paint a potentially promising picture of smoking cessation efforts and successes in the adult population, particularly, the emergence of signs of readiness among current smokers that are necessary prerequisites for population-based interventions. Efforts must be increased to take advantage of this reduction in days and quantities smoked in order to improve rates of successful cessation.

There was a significant increase in adult current smokers moving from precontemplation to contemplation stage in the smoking cessation cycle. Current smokers who were seriously considering stopping smoking within the next 6 months almost doubled, and those who were planning to stop smoking within the next 30 days increased by more than 40% between 2002 and 2006. Furthermore, adult current smokers in Arkansas are now ready more than ever to make serious and successful quit attempts, demonstrated by significant declines in both average daily cigarette consumption and smoking frequency. These four outcome indicators are essential precursors to any structured cessation undertaking in the population.

Additionally, the passage of the Arkansas CIAA in July 2006 added important leverage, as an experimentally-validated public policy for which a substantial body of evidence exists to define its effectiveness in reducing cigarette consumption and increasing quit attempts.[5,7,15]

While signs of improvement in the progression of smokers from precontemplation to contemplation stage were evident, no advancement to the action stage (quit attempts), and consequently to the ultimate outcome, was observed.

A goal of Healthy People 2010 is to increase to at least 75% the proportion of primary care and oral health care providers who routinely advise cessation and provide assistance and follow-up for all of their tobacco-using patients.[30] In Arkansas, however, interventions by health care providers in asking, advising, and assisting adult current smokers in quitting have been stagnant, as 59.6% (±3.2%) of smokers were advised to quit smoking and 45.9% (±4.1%) were assisted in quitting in 2006, indicating no changes since 2002 (60.4% ±3.2% and 45.1% ±4.0%, respectively).

In 2006, 62.7% (±3.0%) of adult smokers in Arkansas reported visiting a physician in the past 12 months (rate is around 70% nationally). Smokers view clinicians as credible and persuasive authorities, and recent studies produced strong evidence of the association between clinician counseling intensity (i.e., high intensity counseling > 10 minutes) and successful treatment outcomes.[19] As research suggests that advice from health care providers has strong impact on quit attempts, and with no progress in clinician cessation counseling, it was not surprising to find that the rate of quit attempts has not changed since 2002. In fact, quit attempts among current smokers declined from 46.9% (±2.5%) in 2002 to 42.5% (±2.8%) in 2006, though not a statistically significant decline.

In 2006, of current smokes who made at least one quit attempt in the 12 months prior to the interview, more than two-thirds did so using willpower alone (i.e., using no formal cessation methods). Evidence demonstrates that attempting to quit without assistance is the least effective means of aiding smoking cessation. A systematic literature review of prospective studies on relapse curves and prolonged abstinence for self-directed quit attempts found that most relapse occurs in the first 8 days, while only 3-5% of self-quitters sustain abstinence for 6-12 months after a given quit attempt.[31]

Additionally, utilization of quitline services was low, even though 8 out of 10 adult current smokers indicated that they were aware of such services in Arkansas. Perhaps as a consequence, the successful cessation rate among adult current smokers significantly dropped from 12.1% (±2.5%) in 2002 to 7.8% (±1.4%) in 2006.

From a public policy perspective, the state of Arkansas has not raised excise taxes on cigarettes since 2003, despite the compelling evidence of the effect of increasing the cost of cigarettes through taxation on reducing tobacco consumption and prevalence[5,23], as well as increasing state tax revenue.[25] Since 2003, 31 states have increased their excise taxes on cigarettes; five of them more than once.[32]

In conclusion, the significant decline in cigarette consumption and frequency; the significant increase in quit intention and plans to quit; and the enactment of the CIAA are all factors that set up an opportunity for comprehensive tobacco control efforts in Arkansas to capitalize on, by delivering well-structured and cohesive population-based cessation programming.

One important area for improvement in Arkansas is to encourage health care professionals to provide cessation advice and assistance to their patients. More current smokers in Arkansas must be encouraged to use available cessation services. Only 10.9% of adult current smokers who had visited a doctor in the past 12 months indicated that their health care provider recommended a telephone quitline (combined with in-person counseling and stop-smoking classes). Providers must be made aware of quitline services and encouraged to refer their patients who are current smokers to these services.

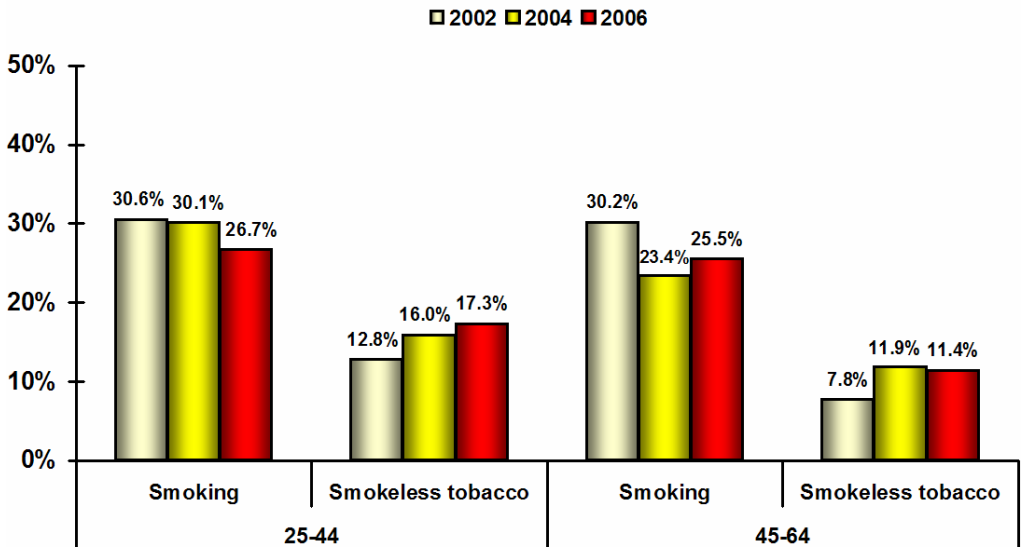
Although most capitated managed care health plans do not cover cessation services in Arkansas, certain populations are eligible for such services, including: (1) recipients of Arkansas Medicaid, who are eligible for both medications and counseling, (2) Medicare beneficiaries, especially those who exhibit symptoms of smoking-related chronic disease, (3) insured state and public school system employees, and (4) recipients of primary care services through federally-qualified community health care centers (funded by HRSA). These four groups combined represent an ample segment of Arkansas' adult population, but many of them may not be aware of the existence of compensated cessation services. Special awareness campaigns must be planned to target these groups.

Smokeless Tobacco Use

From 2002 to 2006 the smokeless tobacco use rate among all adults increased. More importantly, prevalence estimates of smokeless tobacco use among adult males, who constitute more than 95% of all users, has significantly increased. In 2006, white males (14.8% ±1.6%) were significantly more likely to report current smokeless tobacco use than their black counterparts (4.2% ±1.7%), yielding a prevalence ratio of 3.5:1. Smokeless tobacco use rate among white males significantly increased from 10.5% (±1.7%) in 2002 to 14.8% (±1.6%) in 2006, an increase by 41%.

Analysis of data from the 2002, 2004, and 2006 ATS on the use of smokeless tobacco among males by age revealed a tendency for an increasing trend in age groups 25 to 44 and 45 to 64 years (Figure 37). Stated earlier in this report was the apparently decreasing trend in cigarette smoking prevalence among all adults in these two age groups (Figure 4). Analysis of cigarette smoking rates among adult males in these age groups also revealed a decreasing trend. Even though these trends are not statistically significant, the divergence is a cause of concern. To visually illustrate, a graphic presentation of cigarette smoking rates alongside smokeless tobacco use rates for males in the two age groups is shown in Figure 62.

Figure 62. Cigarette smoking and smokeless tobacco use among adult males aged 25-44 and 45-64 years, Arkansas Adult Tobacco Survey 2002, 2004, & 2006



Observing these differing trends, one could hypothesize that men ages 25 to 64 years who were quitting cigarette smoking might be switching to using smokeless tobacco products. Studies and reviews of published papers in Sweden between 1976 and 2002 reported that around 30% of male former smokers have switched to using snus (moist snuff).[33,34]

The Arkansas CIAA, which restricts smoking in workplaces and public places, may further promote such switching behavior, mainly among those employed indoors. This will need to be followed closely in Arkansas.

Secondhand Smoke Policies and Exposure

Data from the 2006 ATS revealed sizeable reductions in Arkansas population exposure to secondhand smoke in homes, vehicles, and workplaces. Not only was a significant decrease in exposure to secondhand smoke observed, but homes with no smoking rules were also on the rise. An increase in smoke-free homes is likely to contribute to the reduction in cigarette smoking through shifting social norms and increasing motivation for quitting.

Moreover, an increase in households maintaining no smoking rules has been linked to substantial reduction in cigarette smoking initiation and use among adolescents. In fact, recent findings from the 2007 Arkansas Youth Tobacco Survey (unpublished data) revealed a significant drop in smoking prevalence among high school students (20.4% ±2.5%) in 2007 down from 26.3% (±4.1%) in 2005 and 35.8% (±4.9%) in 2000, which may be attributed in part to increasing smoke-free homes.

The Arkansas CIAA of 2006 was a milestone accomplishment in protecting the public and employees from secondhand smoke exposure. Smoke-free public policies not only protect non-smokers from the harm of secondhand smoke, but change social norms and were directly linked to reducing cigarette smoking prevalence, frequency, and consumption among smokers and increasing quit attempts.[5,7,15]

Support for the smoking ban in public places and workplaces climbed sharply from 62.7% to 87.9% between 2002 and 2006. Public support in the five months following the Act reached an unprecedented level of 91.1%. Support for smoking bans anywhere in restaurants and bars significantly increased after passing the law. On the employer side, more businesses officially adopted no smoking policies in indoor public or common areas, and fewer employees reported that someone had smoked in their indoor work areas during the five months following the law. Additionally, signs of positive economic impact on Arkansas hospitality industry were detected, as more adults indicated that they will eat out more in restaurants in the five months following the act.

Mass Media and Anti-Tobacco Campaigns

Carefully planned anti-tobacco messages and appropriately-targeted media campaigns are essential elements in comprehensive tobacco control because of their well-established association with motivating smokers who are not interested in smoking cessation to consider quitting.[15] More than half (54.6% ±1.3%) of the adult population in Arkansas recalled seeing at least one anti-smoking media message on TV in the 7 days preceding the interview. More than two-thirds of those (68.0% ±2.8%) were current smokers.

Geographic and racial/ethnic coverage of anti-smoking media messages was balanced. More smokers and non-smokers indicated their preference of personal testimonials from family members or survivors as the best media message to promote smoking cessation, while more smokers than non-smokers expressed their preference of media messages about the financial costs of smoking as most effective to promote quitting. In Arkansas, messages that depict these testimonial advertisements, as well as messages that target smokeless tobacco users may be most useful.

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Appendix A: Summary Tables

Table A1. Current cigarette smoking among adults by selected demographics, Arkansas Adult Tobacco Survey 2002, 2004, & 2006

Definition	2002		2004		2006	
Percentage of adults aged ≥ 18 years who report having smoked ≥ 100 cigarettes in their lifetime and were current smokers on every day or some days	%	95% CI	%	95% CI	%	95% CI
Overall	**25.1%**	**±1.2%**	**22.8%**	**±1.1%**	**22.9%**	**±1.1%**
Age group (years)						
18-24 years	31.3%	±4.4%	31.8%	±4.6%	30.6%	±5.2%
25-44 years	29.0%	±2.1%	28.1%	±2.1%	25.5%	±1.9%
55-64 years	26.5%	±2.1%	21.4%	±1.6%	24.0%	±1.4%
≥ 65 years	11.2%	±1.9%	8.3%	±1.2%	10.2%	±1.1%
Gender						
Male	28.7%	±2.0%	25.5%	±1.9%	24.8%	±1.8%
Female	21.9%	±1.4%	20.3%	±1.3%	21.2%	±1.3%
Race/ethnicity						
White non-Hispanic	25.4%	±1.3%	23.1%	±1.2%	23.3%	±1.2%
Black non-Hispanic	20.3%	±3.4%	18.2%	±2.6%	20.0%	±2.9%
Hispanic	23.3%	±8.3%	31.4%	±10.0%	13.4%	±5.5%
Income ($)						
< 10,000-14,999	33.3%	±4.5%	32.6%	±4.0%	30.7%	±4.3%
15,000-24,999	30.3%	±3.1%	28.8%	±2.8%	30.0%	±2.9%
25,000-49,999	27.5%	±2.2%	25.3%	±2.1%	24.8%	±2.2%
≥ 50,000	18.6%	±2.2%	15.1%	±1.7%	15.9%	±1.6%

Table A2. Quit attempts among adult current smokers by selected demographics, Arkansas Adult Tobacco Survey 2002, 2004, & 2006

Definition	2002		2004		2006	
Percentage of adult current smokers who have made ≥ one quit attempt for one day or longer in the past 12 months	%	95% CI	%	95% CI	%	95% CI
Overall	**46.9%**	**±2.5%**	**46.9%**	**±2.5%**	**42.5%**	**±2.8%**
Age group (years)						
18-24 years	62.2%	±5.8%	57.8%	±7.7%	47.0%	±10.3%
25-44 years	46.9%	±3.8%	46.5%	±3.7%	45.1%	±4.4%
55-64 years	40.2%	±3.9%	41.8%	±3.5%	38.7%	±3.3%
≥ 65 years	40.6%	±8.5%	42.3%	±6.9%	35.1%	±5.5%
Gender						
Male	48.4%	±3.7%	47.4%	±3.7%	37.2%	±4.2%
Female	45.1%	±3.2%	46.3%	±3.2%	48.3%	±3.5%
Race/ethnicity						
White non-Hispanic	45.2%	±2.7%	45.0%	±2.7%	40.7%	±3.0%
Black non-Hispanic	60.8%	±8.2%	57.8%	±7.3%	56.3%	±8.0%
Hispanic	40.5%	±17.3%	42.9%	±15.9%	56.0%	±22.3%
Income ($)						
< 10,000-14,999	54.3%	±7.3%	45.6%	±7.0%	50.4%	±9.0%
15,000-24,999	45.0%	±5.3%	48.8%	±5.1%	46.4%	±5.8%
25,000-49,999	46.8%	±4.2%	46.1%	±4.3%	42.9%	±5.1%
≥ 50,000	40.1%	±5.7%	43.8%	±5.3%	37.9%	±5.3%

Table A3. Smokeless tobacco use among adult males by selected demographics, Arkansas Adult Tobacco Survey 2002, 2004, & 2006

Definition	2002		2004		2006	
Percentage of adult males aged ≥ 18 years who were current users of chewing tobacco or snuff on every day or some days	%	95% CI	%	95% CI	%	95% CI
Overall	**10.1%**	**±1.5%**	**12.7%**	**±1.6%**	**12.7%**	**±1.3%**
Age group (years)						
18-24 years	10.4%	±4.3%	10.6%	±4.6%	11.7%	±5.0%
25-44 years	12.8%	±2.5%	16.0%	±3.1%	17.3%	±2.5%
55-64 years	7.8%	±2.7%	11.9%	±2.5%	11.4%	±1.6%
≥ 65 years	8.4%	±3.8%	8.8%	±3.2%	6.4%	±1.5%
Race/ethnicity						
White non-Hispanic	10.5%	±1.7%	13.8%	±1.9%	14.8%	±1.6%
Black non-Hispanic	4.9%	±3.4%	5.2%	±2.8%	4.2%	±1.7%
Hispanic	7.5%	±7.3%	10.1%	±10.1%	4.7%	±4.2%
Income ($)						
< 10,000-14,999	10.3%	±5.2%	11.8%	±5.7%	8.4%	±3.2%
15,000-24,999	10.1%	±4.4%	15.2%	±4.6%	13.9%	±3.8%
25,000-49,999	12.1%	±2.5%	14.1%	±3.0%	10.0%	±2.0%
≥ 50,000	10.0%	±3.1%	10.8%	±2.7%	15.9%	±2.4%

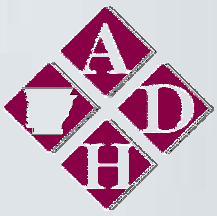
Table A4. Secondhand smoke exposure in the home among adults by selected demographics, Arkansas Adult Tobacco Survey 2002, 2004, & 2006

Definition	2002		2004		2006	
Percentage of adults aged ≥ 18 years who reported that someone, including him or herself, had smoked cigarettes, cigars, or pipes inside their homes at least once during the 7 days preceding the survey	%	95% CI	%	95% CI	%	95% CI
Overall	**28.2%**	**±1.3%**	**25.0%**	**±1.2%**	**19.2%**	**±1.1%**
Age group (years)						
18-24 years	36.2%	±4.8%	35.6%	±5.0%	27.1%	±5.1%
25-44 years	29.2%	±2.2%	26.3%	±2.1%	17.6%	±1.7%
55-64 years	30.3%	±2.3%	25.6%	±1.8%	22.4%	±1.4%
≥ 65 years	17.8%	±2.5%	14.4%	±2.0%	11.9%	±1.2%
Gender						
Male	29.4%	±2.1%	27.0%	±2.1%	20.0%	±1.7%
Female	27.2%	±1.6%	23.1%	±1.4%	18.6%	±1.2%
Race/ethnicity						
White non-Hispanic	26.9%	±1.4%	24.3%	±1.3%	19.3%	±1.1%
Black non-Hispanic	32.9%	±4.4%	28.4%	±3.5%	20.8%	±2.7%
Hispanic	30.5%	±10.9%	22.7%	±8.9%	8.2%	±4.7%
Income ($)						
< 10,000-14,999	37.7%	±4.8%	37.4%	±4.3%	31.7%	±4.2%
15,000-24,999	34.8%	±3.4%	30.1%	±3.0%	28.1%	±2.8%
25,000-49,999	30.9%	±2.4%	28.6%	±2.4%	22.0%	±2.1%
≥ 50,000	18.4%	±2.2%	15.2%	±1.9%	10.3%	±1.4%

Appendix B: Regional Highlights

Table B. Selected tobacco use key outcome indicators among adults by public health region, Arkansas Adult Tobacco Survey 2006

Indicator	Northwest		Southwest		Central		Northeast		Southeast	
	%	95% CI	%	95% CI	%	95% CI	%	95% CI	%	95% CI
Current cigarette smoking	22.8%	±2.4%	23.5%	±2.2%	21.3%	±2.2%	25.2%	±2.4%	22.3%	±2.2%
Quit attempts by adult cigarette smokers	42.5%	±6.0%	41.9%	±5.4%	43.7%	±6.1%	38.6%	±5.6%	49.2%	±5.6%
Smokeless tobacco use among males	12.6%	±2.6%	16.2%	±2.9%	10.0%	±2.6%	13.9%	±3.0%	12.6%	±2.9%
Secondhand smoke exposure in the home	17.9%	±2.3%	21.3%	±2.2%	16.4%	±2.1%	23.2%	±2.3%	19.9%	±2.0%



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