Public Attitudes Toward Smoking Bans in a Tobacco-producing County

Richard Wilson, DHSc, MPH, David F. Duncan, DRPH, and Thomas Nicholson, PhD, MPH

Objectives: Allen County, KY, is a rural county with a population of approximately 18,000. The county has a tobacco crop and is in a state in which tobacco interests are influential. The tobacco control program at the public health department developed a goal to reduce environmental tobacco smoke by restricting smoking in public places. To progress toward that goal, a public opinion poll was conducted to determine citizens’ views regarding smoking restrictions in the county courthouse.

Methods: A telephone survey was conducted using the Allen County telephone directory as a sampling frame. The survey instrument included questions on support for smoking restrictions in the courthouse, restaurants, and workplaces as well as support for increasing Kentucky’s cigarette tax. Interviews with 374 individuals—53.6% of the initial sample—were completed.

Results: Banning all smoking in the Allen County Courthouse was supported by 163 (43.4%) of the respondents. Designated smoking areas were supported by 168 (44.7%) of the respondents. Twenty-four (6.4%) of the respondents opposed any smoking restrictions at the courthouse. Women were more likely to support a ban on all smoking at the courthouse (45.4% compared with 40%). Males were more likely to support designated smoking areas (46.2% of males versus 43.8% of females). There was a small association between opposition to smoking restrictions at the courthouse and smoking by the respondent. An increase in Kentucky’s cigarette tax was supported by 132 (35.1%) of the respondents and opposed by 184 (48.9%). There was no association between ownership of a tobacco-farming allotment and opinion regarding any of the tobacco control measures.

Conclusions: Most Allen County residents support some form of restriction on smoking in public places (including the county courthouse and restaurants) and in workplaces. Only approximately one-third, however, supported an increase in the cigarette tax, perhaps reflecting a general antitax feeling. Ownership of tobacco allotments does not appear to be an important factor in determining attitudes on smoking control issues.

Key Words: Clean Indoor Air Act, environmental tobacco smoke, secondhand smoke, smoking, smoking ban, tobacco allotments

Smoking tobacco is the cause of more deaths each year in the United States than any other preventable cause of disease and death. It results in more than 430,000 deaths each year—more than the combined number of deaths as a result of AIDS; alcohol, cocaine, and heroin abuse; homicide; suicide; motor vehicle crashes; and fires. This represents more than 5 million years of potential life lost. The direct medical costs attributable to smoking total at least $50 billion per year.

In 1996, 23% of all deaths in Kentucky were attributable to cigarette smoking, compared with 19.5% nationally. Annual health care expenditures in Kentucky directly related to smoking are $1 billion.

After years of steady decline, rates of smoking among adults seem to have leveled off in the 1990s. At the same

Key Points

• A majority of respondents supported either a smoking ban (43.4%) or restricted smoking areas (44.7%) in the Allen County Courthouse.
• Women were more likely than men to support a ban on all smoking in the courthouse.
• Smokers were more likely to oppose smoking restrictions in the courthouse than were non-smokers, but 88.1% supported some restriction.
• A majority of respondents supported restricted smoking areas in both restaurants and workplaces.
• An increase in Kentucky’s cigarette tax was supported by 35.1% of the respondents and opposed by 48.9%.
• Ownership of a tobacco allotment was not significantly associated with opinions on any of these issues.
time, smoking among adolescents has increased—every day, an estimated 3,000 young people start smoking. Almost one-half of these new smokers who continue smoking will eventually die as a result of a smoking-related illness.\textsuperscript{2} Kentuckians have the highest rates of smoking of all states, at 30.8\% of adults and 47\% of adolescents, as compared with national rates of 22.9 and 36.4\%.\textsuperscript{2}

In addition to the risks for the smoker, smoking also presents hazards for those around the smoker. Secondhand smoke, also known as environmental tobacco smoke (ETS), is a dilute mixture of “mainstream” smoke exhaled by smokers and “sidestream” smoke from the lit end of a tobacco product. It contains the same carcinogenic compounds as the smoke inhaled by smokers.\textsuperscript{5} Exposure to secondhand smoke is responsible for an estimated 3,000 lung cancer deaths each year among adult nonsmokers.\textsuperscript{7} It also increases the risk of heart disease and serious lung conditions, especially asthma and bronchitis in children.\textsuperscript{2,6}

Kentucky’s children have a higher rate of exposure to secondhand smoke than do the children of any other state. Approximately one-third (34\%) of children and adolescents in Kentucky have significant exposure to secondhand smoke.\textsuperscript{7}

Along with education and smoking cessation programs, policy interventions can reduce secondhand smoke exposure in the population. Among the most successful policy approaches have been bans on smoking in work sites, retail establishments, and other public places, including enactment of clean indoor air laws and vigorous enforcement of these restrictions. There is considerable variation in the specifics of these bans, with regard to which public places are covered, and whether the ban is total or requires only the designation of nonsmoking and smoking areas. While the debate over smoking bans has largely focused on public accommodations such as restaurants and bars, an increasing number of bans have covered public meeting places and government offices. The current broad ban on smoking in indoor places in New York City, for instance, covers city courthouses and other such public buildings.\textsuperscript{8}

Public education campaigns and local community efforts to limit smoking in public places in California and Massachusetts have been associated with reported reductions in the exposure of both adults and children to secondhand smoke.\textsuperscript{9,10} Furthermore, such bans not only protect the health of non-smoking adults and children but also play an important role in reducing tobacco consumption and promoting cessation among smokers.\textsuperscript{3}

For this reason, Healthy People 2010 set a national objective to “establish laws on smoke-free indoor air that prohibit smoking or limit it to separately ventilated areas in public places and worksites.”\textsuperscript{11} The Kentucky Cabinet for Health has adopted as a health objective for Kentucky an increase to 100\% of the proportion of work sites that prohibit smoking or limit it to separately ventilated areas. This compares with a 1999 baseline of 71.9\% of all manufacturing facilities in the state.\textsuperscript{3}

Another important policy approach to reducing the prevalence of smoking is to increase the cigarette tax. It has been estimated that a 10\% increase in the price of cigarettes would reduce overall smoking among adults by approximately 4\%.\textsuperscript{11,12} A review by the General Accounting Office of the U.S. Congress predicted that for every 10\% increase in the price of cigarettes, there would be a 7.6 to 12\% decrease in teen smoking.\textsuperscript{13} A proposal currently before the Kentucky Legislature that would increase the cigarette tax by $0.42 faces substantial opposition.

The fact that Kentucky is a tobacco producing state is an important consideration in any public policy approach to smoking control. In the words of Healthy Kentuckians 2010, States where tobacco growing is a major activity have been less likely to adopt strong tobacco use prevention policies and programs. For example, the average cigarette tax in the six major tobacco-growing states is 7 cents per pack, while the average in the other states is more than 30 cents per pack higher. In 1999, Kentucky’s cigarette tax is 3 cents per pack, compared with the national average of 38.9 cents per pack. Kentucky requires minimal to moderate restrictions on smoking in state and local governmental facilities, and does not limit workplace smoking in the private sector, compared with 23 states that mandate workplace smoking restrictions.\textsuperscript{3}

Allen County, KY, is a small, rural county with a population of approximately 18,000.\textsuperscript{14} The county is substantially dependent on agriculture and includes many tobacco growers. Like many similar counties in Kentucky, Allen County has done relatively little to reduce smoking by youth and adults, at least in part because of the influence of tobacco farmers and their partners in the cigarette industry. In recent years, however, the county health department and Allen County/Scottsville schools have been redoubling their efforts to reduce the initiation of smoking among youth and to encourage current smokers to quit. Despite these efforts, Allen County still has high rates of youth and adult smoking.

The exact prevalence of smoking in Allen County is not easy to estimate. However, several indicators are available. In 2000, a survey of adult smoking was conducted at the Allen County Fair (data available from the Allen County Health Department). This was a nonrepresentative convenience sample of adults 18 and older attending the annual fair that year. The sample included 4,490 people (53.1\% female). Approximately 37\% of the sample were current tobacco users, and 80\% of those individuals were cigarette smokers.

In 2000, a drug use survey was conducted in the Allen County Middle School and High School (data available from the Allen County Health Department). School personnel, using instrumentation provided by the Kentucky Division of Substance Abuse, Cabinet for Health Services, administered the survey. Questionnaires were administered to all students
present on the day that surveying was conducted. Approximately 33% of 10th graders and 42% of 12th graders had used cigarettes within the 30 days preceding survey completion. In Kentucky as a whole, 36.5% of 10th and 12th graders had used cigarettes within the past 30 days.\textsuperscript{15} Nationwide, 25.7% of 10th graders and 34.6% of 12th graders had used cigarettes within the past 30 days in that same year.\textsuperscript{16}

It is clear that smoking is a significant problem in Allen County. Environmental strategies are needed in addition to direct education and communication techniques for current and potential smokers. At present, the tobacco control program at the health department has developed a goal to reduce environmental tobacco smoke by restricting smoking in public places. One place of particular focus is the county courthouse. This facility is important in civic life in the county, because almost all citizens must enter the building from time to time for various kinds of government business.

Currently, there is no prohibition of smoking in the county courthouse. The county judge executive indicated that he would support a smoke-free courthouse or perhaps restricted smoking areas if it could be demonstrated that this was the will of the people. Consequently, to make progress toward the goal of reducing environmental tobacco smoke, an objective was developed to conduct a public opinion poll in Allen County to determine the views of the citizens regarding smoking restrictions in the county courthouse. The survey also solicited opinions regarding smoking bans for restaurants and in workplaces as well as an increase in the state's cigarette tax.

There is strong evidence of growing public support for bans on smoking in at least some public places. A November 29, 2000, national survey by The Gallup Organization found that 95% of Americans favored either a total ban on smoking in restaurants or limiting smoking to separate sections.\textsuperscript{17} A total ban on smoking in restaurants was supported by 47% of the respondents, whereas 48% favored separate smoking areas. Support for a total ban was strongest among nonsmokers, 54% of whom supported a total ban.

Restrictions on smoking in the workplace had nearly equal support from the respondents to the Gallup survey. A total ban on smoking in the workplace was favored by 37% of the respondents, with another 57% saying smoking should be permitted only in separate areas.

It has been suggested that attitudes in Kentucky are less supportive of smoking restrictions than is true nationally.\textsuperscript{18} It is noted that Kentucky is a major tobacco-producing state, has the highest smoking rate in the nation, and has the second-lowest cigarette tax in the United States, behind only Virginia. Some argue that because so many Kentuckians smoke and because so many receive income from tobacco allotments or by their employment in the tobacco industry, Kentuckians will not support restrictions on smoking in public places such as the Allen County Courthouse.

Mainous\textsuperscript{19} and Lacchetti et al\textsuperscript{20} provide support for the above assumption that smokers will be less supportive of smoking restrictions. In both studies, data were collected by conducting telephone surveys. Mainous examined data from the Kentucky Health Survey, finding that the strongest predictor of perceived risk from secondhand smoke was smoking status. Significantly fewer smokers than nonsmokers reported thinking that secondhand smoke was harmful to health. Addressing the present issue more directly, Lacchetti et al found that in Ontario, support for smoking restrictions was lower among tobacco-dependent individuals but that a majority of them still supported some restrictions on public smoking.

Also relevant is a Gallup Poll conducted July 9 to 11, 2002, which found that smokers were generally tolerant of increased restrictions on smoking in public places.\textsuperscript{21} This survey found that only 39% of smokers felt "unjustly discriminated against" by such bans. The majority (58%) of smokers said the restrictions are justified. By contrast, a majority of smokers expressed resentment about increasing cigarette taxes. Approximately four (79%) of every five smokers reported thinking that cigarette taxes are too high, but the majority of nonsmokers thought that they were either about right (31%) or too low (34%). Approximately two-thirds (68%) of the smokers said that they felt unjustly discriminated against by increases in cigarette taxes, whereas just 29% thought that the increases were justified.

Hahn and Rayens\textsuperscript{22} surveyed 116 (84%) of the legislators serving in the 1998 to 1999 Kentucky General Assembly regarding their support for various tobacco policy options. They sought to identify regional differences in such support. They found that support for an increased cigarette tax was lowest in western Kentucky and highest in Jefferson County. They found that legislators' positions tended to reflect the mean tobacco production in their region, which was highest in central Kentucky, second highest in western Kentucky, and lowest in Jefferson County (the county comprising Louisville). They found no pattern of influence based on legislators' owning or leasing tobacco allotments.

No research seems to have addressed whether owning a tobacco allotment influenced citizen opinions regarding tobacco policies, but Mainous\textsuperscript{18} touched on this point indirectly. In a survey of Kentuckians, the second most significant predictor of perceived risk from secondhand smoke was farm residence. Sixty-eight percent of farm residents thought that secondhand smoke was hazardous, whereas 87% of nonfarm residents thought so. Given the prominence of tobacco in Kentucky agriculture, Mainous assumed that this difference was due to respondents who lived on a farm having an economic stake in tobacco sales. There was no attempt, however, to distinguish respondents who lived on tobacco farms from those living on other types of farms.

Materials and Methods

Data were collected by conducting telephone interviews. An interview schedule of 10 closed-ended questions was de-
veloped specifically for this study. The interview schedule included questions assessing support for smoking restrictions in the Allen County Courthouse, restaurants, and workplaces as well as support for an increase in Kentucky’s cigarette tax. People also were asked about their smoking habits, tobacco allotment ownership, date of birth, and gender. Ethnicity was not examined, because the population of Allen County is 98% white. Socioeconomic status was not examined, because of both the greater reluctance the researchers expected regarding respondents’ willingness to answer such questions and the health department’s lack of interest in this variable. Likewise, employment issues were not examined for the same reasons. These omissions of possible variables were also due to a desire to keep the questionnaire as short as possible to achieve a reasonable response rate. Telephone interviewers received brief, survey-specific training from the researchers.

The survey sample was selected from listings in the Allen County telephone directory. Each interviewer was assigned certain specific letters of the alphabet and was instructed to call nonbusiness listings under that alphabetical listing, skipping every alternate (ie, second) listing. This resulted in an initial sample of 698 households that were contacted.

Specific interview subjects were selected on the basis of the most recent birthday method. The identified subject was then asked to participate, and the person’s residence in Allen County was confirmed. One respondent was eliminated as a nonresident of the county. This resulted in a data-producing sample of 374 people. This is 53.6% of the initial sample and constitutes a reasonably satisfactory response rate in today’s atmosphere of negativism toward telemarketers who sometimes pretend to be conducting surveys.

The 374 respondents included 130 males (35.1%) and 240 females (64.9%) with missing data on four respondents. Respondents’ year of birth ranged from 1908 to 1984 with a median of 1953 (age approximately 49), with three missing cases. A majority (266 or 70.7%) of the respondents were nonsmokers. Twenty-seven (7.2%) smoked less than one pack per day and 82 (21.8%) smoked one pack or more per day. Eighty-three respondents (22.1%) reported owning a tobacco allotment.

Interviewers rated each respondent’s apparent understanding of the questions. They rated 230 (68.9%) respondents understanding as excellent, 87 (26%) as good, and 16 (4.8%) as fair. Only one respondent (0.3%) was rated as having a poor understanding of the questions.

Results

Courthouse

Banning all smoking in the Allen County Courthouse was supported by 163 (43.4%) of the respondents. Setting aside certain areas for smoking was supported by 168 (44.7%) of the respondents. Twenty-four (6.4%) of the respondents opposed any smoking restrictions at the Allen County Courthouse. (Missing data = 2)

Women were more likely to support a ban on all smoking at the Allen County Courthouse than were men (45.4% compared with 40%), while males were more likely to support designated smoking areas (46.2% of males versus 43.8% of females) or no restrictions (11.5% of men versus 3.8% of women). These gender differences were statistically significant ($\chi^2 = 12.1, df = 3, P = 0.007$) however, as indicated above, the differences were quite small.

The oldest quartile of respondents was significantly more likely to support a complete ban on smoking in the courthouse than were younger respondents ($\chi^2 = 30.8, df = 9, P = 0.004$). This difference also was small and accounted for only a miniscule portion of the variance in attitudes.

There was a small but statistically significant ($\chi^2 = 23.7, df = 9, P = 0.005$) association between opposition to smoking restrictions at the Allen County Courthouse and smoking by the respondent. Eleven nonsmokers (4.1%) and 13 smokers (11.9%) opposed any smoking restrictions. Similar percentages of smokers and nonsmokers supported smoking areas (44.9% of smokers and 44.7% of nonsmokers) or a total ban on smoking (42.2% versus 43.6%). There was no association between ownership of a tobacco allotment and opinion regarding smoking restrictions for the Allen County Courthouse.

Restaurants

Banning all smoking in restaurants was supported by 99 (26.3%) of the respondents. Setting aside certain areas for smoking was supported by 243 (64.6%) of the respondents. Twenty-three (6.1%) respondents opposed any smoking restrictions in restaurants (missing data = 3). Opposition to any smoking restrictions in restaurants was proportionately more common among men (11.5%) than women (2.9%) with a smaller preponderance of women over men in support of smoking areas (66.3% of women and 61.5% of men) or of a ban on all smoking (28.3 versus 23.1%). These gender differences were statistically significant ($\chi^2 = 12.2, df = 3, P = 0.007$). Smokers were significantly more likely to oppose smoking restrictions in restaurants than were nonsmokers ($\chi^2 = 50.9, df = 9, P = 0.000$). There was no association between ownership of a tobacco allotment and opinion regarding smoking restrictions in restaurants.

Workplace

Ninety-four (25%) respondents favored banning smoking in all areas of the workplace. Restricting smoking in some areas was supported by 230 (61.2%) of the respondents. Thirty-seven (9.8%) respondents opposed any restriction of smoking in the workplace (missing data = 15). Opposition to any smoking restrictions in the workplace was proportionately

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more common among men (16.2%) than women (6.7%) with a smaller preponderance of women over men in support of smoking areas (63.8% of women and 56.9% of men) or of a ban on all smoking (25.8% versus 23.1%). These gender differences were statistically significant ($\chi^2 = 8.4, df = 3, P = 0.037$). Surprisingly, opposition to smoking restrictions in the workplace was greater among nonsmokers (33.1%) than among smokers (5.5%). Support for a total ban on smoking in the workplace was more common in smokers (16.5%) than in nonsmokers (7.1%). These differences were significant at the 0.001 level ($\chi^2 = 50.2, df = 9$). There was no association between ownership of a tobacco allotment and opinion regarding smoking restrictions in the workplace.

**Cigarette Tax**

An increase in Kentucky’s cigarette tax was supported by 132 (35.1%) respondents and opposed by 184 (48.9%). Sixty (15.9%) were undecided or expressed some other alternative. Men were significantly ($\chi^2 = 9.3, df = 2, P = 0.009$) more likely than women to oppose an increase in the state cigarette tax (59.2 versus 43.8%). Nonsmokers were significantly ($\chi^2 = 87.9, df = 6, P = 0.000$) more likely (44.7%) to support an increase in the tax than were smokers (11%). There was no association between ownership of a tobacco allotment and opinion regarding an increase in the state cigarette tax.

**Discussion**

The most striking finding would seem to be the fact that 88% of the respondents supported restrictions on smoking in the Allen County Courthouse. Even among smokers, 87% supported restrictions. Respondents also gave strong support for smoking restrictions in restaurants and workplaces. This in an area where smoking rates are high and tobacco production and sales are a major part of the local economic base. These findings seem to reflect broad support for smoking restrictions by the American public regardless of smoking status or economic interest in tobacco.

Nearly one-half of the respondents opposed an increase in the state cigarette tax and slightly more than one-third supported such an increase. This finding seems inconsistent with the strong general support for the other tobacco control measures examined. It is also puzzling given that Kentucky has the lowest overall tax rate on cigarettes in the nation. In part, this may reflect an antitax bias on the part of the public. It is also possible that the respondents may misperceive the level of tax currently imposed on tobacco in Kentucky. Future studies should directly address additional factors that may influence people’s attitudes toward tobacco taxation.

The major determinant of attitudes toward a smoking ban and cigarette tax increase was the respondent’s smoking status. Gender was also a significant variable in attitude toward banning smoking in the Allen County Courthouse but accounted for only a small amount of the variance. Age also was significant for attitude toward a courthouse ban but accounted for an even smaller proportion of the variance in attitude. Ownership of a tobacco allotment did not prove to be a determining variable for any of the attitudes under study.

Greater support by smokers for a workplace smoking ban than by nonsmokers may seem surprising to some but we believe that it is understandable. Smokers may perceive such bans as a reasonable accommodation compared with more pervasive limits such as bans on smoking everywhere on company property including outside areas and not just within the workplace. Some smokers may also see such a ban as a support for their own efforts to quit or cut down on smoking. The possibility exists that smoking status and approval of a workplace smoking ban are confounded with place and type of employment. A social desirability bias may also be involved in the responses but it seems more likely that this would result in denial of smoking than in endorsement of a smoking ban. These suggestions must remain purely speculative since no basis for evaluating them exists within this data set.

Generalization of these results to the population of Allen County must be tempered by an awareness of some of the characteristics of the sample. A nonresponse rate of 46.4% limits generalizability of these results. However, such rates of nonresponse are not uncommon in telephone surveys. In an era of telemarketing, much of the public appears to have become less willing to answer questions for strangers on the telephone. It is also important to know that the data-producing sample differs from the Allen County population in terms of gender and age. The sample was 64.9% female and 35.1% male, compared with the Allen County population aged 18 and older, which is 51.7% female and 48.2% male. The median age of our sample was 49, compared with 36.2 for the county.14

These findings should be encouraging for advocates of the public’s health. There is evidence in them of broad public support for environmental restrictions on smoking. Support for a tax increase as a tobacco control measure is somewhat inexplicably weaker but the proportion of undecided respondents is large enough to give hope of winning public support. This study furthers the argument for continued expansion of harm reduction through reasonable environmental restrictions on smoking. Similar data are not currently available for other communities with a strong economic interest in tobacco production and processing and surveys in such communities could help replicate the results of this study and help answer questions raised by this survey. We were not able to find any such studies in the literature.

**References**


17. Saad L. *Gallup Poll In-Depth Analyses: Tobacco and Smoking* (August 2002). Available at: http://www.gallup.com/subscription/?m=f&c_id=9956


The only ultimate disaster that can befall us... Is to feel ourselves to be at home here on Earth.

—Malcolm Muggeridge