

State Legislators' Attitudes and Voting Intentions toward Tobacco Control Legislation

ABSTRACT

Objectives. This study describes state legislators' knowledge, attitudes, and voting intentions with regard to tobacco-related issues.

Methods. A cross-sectional survey of state legislators was conducted in North Carolina, Texas, and Vermont in 1994.

Results. Most legislators agreed that secondhand smoke can cause lung cancer in nonsmokers, and a majority believed that smokers are addicted to nicotine. More than 75% stated that they would support a measure to enforce laws preventing tobacco sales to youth. A majority of Texas and Vermont legislators supported an increase in the state cigarette excise tax; 43% of North Carolina legislators would support an increase if revenues were directed toward tobacco farmer diversification.

Conclusions. State legislators believe tobacco to be addictive, and they support policies to protect youth from tobacco. Support for other legislative measures differs significantly across states. (*Am J Public Health*. 1997;87:1197-1200)

Adam O. Goldstein, MD, Joanna E. Cohen, MHSc, Brian S. Flynn, ScD, Nell H. Gottlieb, PhD, Laura J. Solomon, PhD, Greg S. Dana, Karl E. Bauman, PhD, and Michael C. Munger, PhD

Introduction

Tobacco use contributes to over 400 000 deaths annually in the United States.¹ Legislative initiatives to decrease tobacco use include increases in tobacco excise taxes, restrictions on smoking in public, and limiting tobacco sales to youth.^{2,3}

Currently, over 1200 state laws exist on tobacco issues.⁴ Despite public support, few states have established comprehensive tobacco control legislation. State legislators' attitudes about tobacco control legislation have not been systematically assessed, despite the fact that legislators ultimately shape legislation. We interviewed state legislators in three states to define state legislators' knowledge, attitudes, and voting intentions with regard to tobacco-related issues.

Methods

The study population included 529 state legislators serving in North Carolina, Texas, and Vermont during 1994. These states represented a spectrum of tobacco control laws, dependence on tobacco income, demographic composition, and health status measures.^{5,6} Adult smoking prevalence in the United States in 1993 was 25% (26% in North Carolina, 23% in Texas, and 22% in Vermont).⁷

State legislature interview advisory teams, consisting of legislators and public policy experts, advised on initial interview design. Questionnaire development was guided by two focus groups (in North Carolina) and semistructured interviews (in Texas and Vermont) with former legislators and lobbyists. The question-

naire was pilot-tested with state legislators in Georgia.

The questionnaire examined factors influencing legislators' voting decisions about tobacco, including knowledge, attitudes, and personal behaviors. Voting intention measures were based on literature that suggests legislators' votes on tobacco legislation can be explained, in part, by their intentions to support or oppose such legislation.^{8,9} Legislators were asked how likely they would be to vote for legislation affecting tobacco consumption. Responses were measured on a 5-point scale, anchored by 1, "very unlikely," and 5, "very likely."

Interviews were conducted between May and October 1994. Legislators were sent a letter outlining the project and were subsequently contacted at their business, legislative office, or home. They were encouraged to participate in face-to-face interviews, but a telephone interview was

Adam O. Goldstein is with the Department of Family Medicine and the Cecil G. Sheps Center for Health Services Research; Joanna E. Cohen is with the Department of Health Policy and Administration; Karl E. Bauman is with the Department of Health Behavior and Health Education; and Michael C. Munger is with the Department of Political Science, all at the University of North Carolina at Chapel Hill. Brian S. Flynn and Greg S. Dana are with the Office of Health Promotion Research, and Laura J. Solomon is with the Department of Psychology, at the University of Vermont, Burlington. Nell H. Gottlieb is with the Department of Kinesiology and Health, University of Texas at Austin.

Requests for reprints should be sent to Adam O. Goldstein, MD, CB 7595, Department of Family Medicine, University of North Carolina School of Medicine, Chapel Hill, NC 27599-7595.

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TABLE 1—Attitudes of State Legislators toward Tobacco and Tobacco Regulations, 1994

Belief	North Carolina	Texas	Vermont	Overall	P
People smoke cigarettes because they are addicted to nicotine (n = 436)	56	70	82	70	<.01*
Smoking in indoor public places is a personal right (n = 435)	22	5	3	10	<.01**
It is the role of the state governments to regulate tobacco (n = 437)	49	71	73	65	<.01**
The state legislature should be involved in regulations that affect tobacco use among adolescents (n = 438)	88	94	91	91	.20
Constituents think it is necessary to protect the public from environmental tobacco smoke exposure (n = 435)	29	45	56	44	<.01**
Raising cigarette taxes is unfair to people who smoke (n = 440)	40	34	18	30	<.01***

Note. Figures shown are percentages of legislators interviewed who agreed or strongly agreed with the statement.

*P < .01 for all three states.

**P < .01 for North Carolina vs Texas and Vermont.

***P < .01 for Vermont vs North Carolina and Texas.

TABLE 2—Voting Intentions of State Legislators toward Measures That Strengthen or Weaken Tobacco Control Laws, 1994

Measure	North Carolina	Texas	Vermont	Overall	P
To enforce the law preventing youth under the age of 18 from buying cigarettes ^a (n = 443)	77	91	78	82	<.01*
To prohibit the sale of cigarettes in all vending machines except in bars (n = 442)	30	52	60	48	<.01**
To eliminate indoor smoking at all work sites (n = 444)	21	48	58	43	<.01**
To preempt local communities from passing clean indoor air regulations stronger than the state law ^b (n = 441)	53	12	13

Note. Figures shown are percentages of legislators interviewed who said they were likely or very likely to vote for such a measure.

^aEnforcement was defined as unannounced annual inspections of all merchants, merchant education programs, and a fine of \$100 for failure to comply with the law.

^bIn Texas and Vermont, legislators' voting intentions were for proposed legislation. North Carolina passed a preemption bill in 1993; therefore, North Carolina legislators' voting intentions reflected support for the current preemption law.

*P < .01 for Texas vs North Carolina and Vermont.

**P < .01 for North Carolina vs Texas and Vermont.

offered if necessary. Assurances of confidentiality were given.

Attitude and voting intention items were measured on 5-point Likert scales,

which were dichotomized for analyses (e.g., agree/strongly agree vs neutral/disagree/strongly disagree). Differences between states were assessed with chi-

square statistics for categorical variables and analysis of variance techniques for continuous variables.

Results

Overall, 84% (444/529) of state legislators completed interviews (86% in North Carolina, 71% in Texas, and 95% in Vermont). Legislators' personal tobacco use patterns did not differ significantly among states, with 18% reporting some use of tobacco products (10% were current smokers, 3% used snuff or chewing tobacco, 9% smoked cigars or pipes, and 5% used several forms of tobacco). One of four current cigarette users claimed to have tried to quit smoking in the last year. One half of the legislators stated that they had had at least one close family member or friend who had died from a smoking-related disease ($P = .12$ between states).

Tobacco-Related Knowledge

Fifty-three percent of the legislators correctly answered "about 400 000" when asked how many deaths in the United States are caused by tobacco use (48% in North Carolina and Texas and 62% in Vermont, $P = .03$). Legislators from North Carolina were more likely to underestimate (32%) rather than overestimate (13%) the number of tobacco-related deaths by a factor of 10 or more, while Vermont legislators were more likely to overestimate than underestimate tobacco-related deaths (20% vs 15%). When asked whether tobacco causes more deaths, about the same, or fewer deaths than alcohol, 59% and 58% of legislators from Texas and Vermont, respectively, answered "more deaths," compared with only 27% of legislators from North Carolina ($P < .001$). Legislators' knowledge of tobacco-related deaths was not associated with their own tobacco use or having had a family member or friend die from tobacco use.

More legislators across states agreed than disagreed that environmental tobacco smoke exposure can cause lung cancer in nonsmokers. Seventy-nine percent of Vermont legislators agreed with this statement, compared with 65% of legislators from Texas and 42% from North Carolina ($P < .001$). Across states, legislators who did not use any tobacco products were more likely to agree with the statement

than were current tobacco users (68% vs 40%, $P < .001$).

Attitudes and Intentions

A majority of legislators in each state (including 57% of current cigarette users and 82% of smokers who tried to quit in the past year) agreed that people who smoke cigarettes continue to do so mainly because of tobacco's addictive properties (Table 1). Overall, 75% did not believe that smoking in indoor public places was a personal right. The majority of legislators agreed that their legislatures should be involved in regulations that might affect adolescent tobacco consumption. As expected, attitudes differed significantly by state.

Across states, legislators stated that they would vote to enforce their state laws preventing youth from buying tobacco products (Table 2). The enforcement mechanisms described included unannounced annual inspections of all merchants, merchant education programs, and a fine of \$100 for failure to comply with the law. Strong support for enforcement was seen among Republicans (78%) and Democrats (85%), men (77%) and women (89%).

Intentions to ban vending machine cigarette sales, as well as to eliminate indoor smoking at all work sites, varied by state, with legislators from Vermont demonstrating the most support and legislators from North Carolina the least. Democratic legislators and female legislators were significantly more likely to vote for these measures than their Republican or male counterparts.

Legislators' support for increasing state tobacco excise taxes, assuming a need to raise revenue, varied significantly by state and tax scenario (Figure 1). Voting options included raising the cigarette excise tax by 5, 10, or 25 cents per pack; raising the tax 10 cents per pack and dedicating the additional revenue to state health care reform efforts; raising the state tax even if the federal tax were increased; and raising the state tax on smokeless tobacco. Across states, legislators who were female, affiliated with the Democratic party, or nonusers of tobacco were significantly more likely to vote for an increase.

More Vermont legislators reported that they would vote to increase their cigarette tax by 25 cents per pack (46%) than would oppose this measure (37%). Texas legislators stated that they would vote to raise their state's cigarette tax by 5

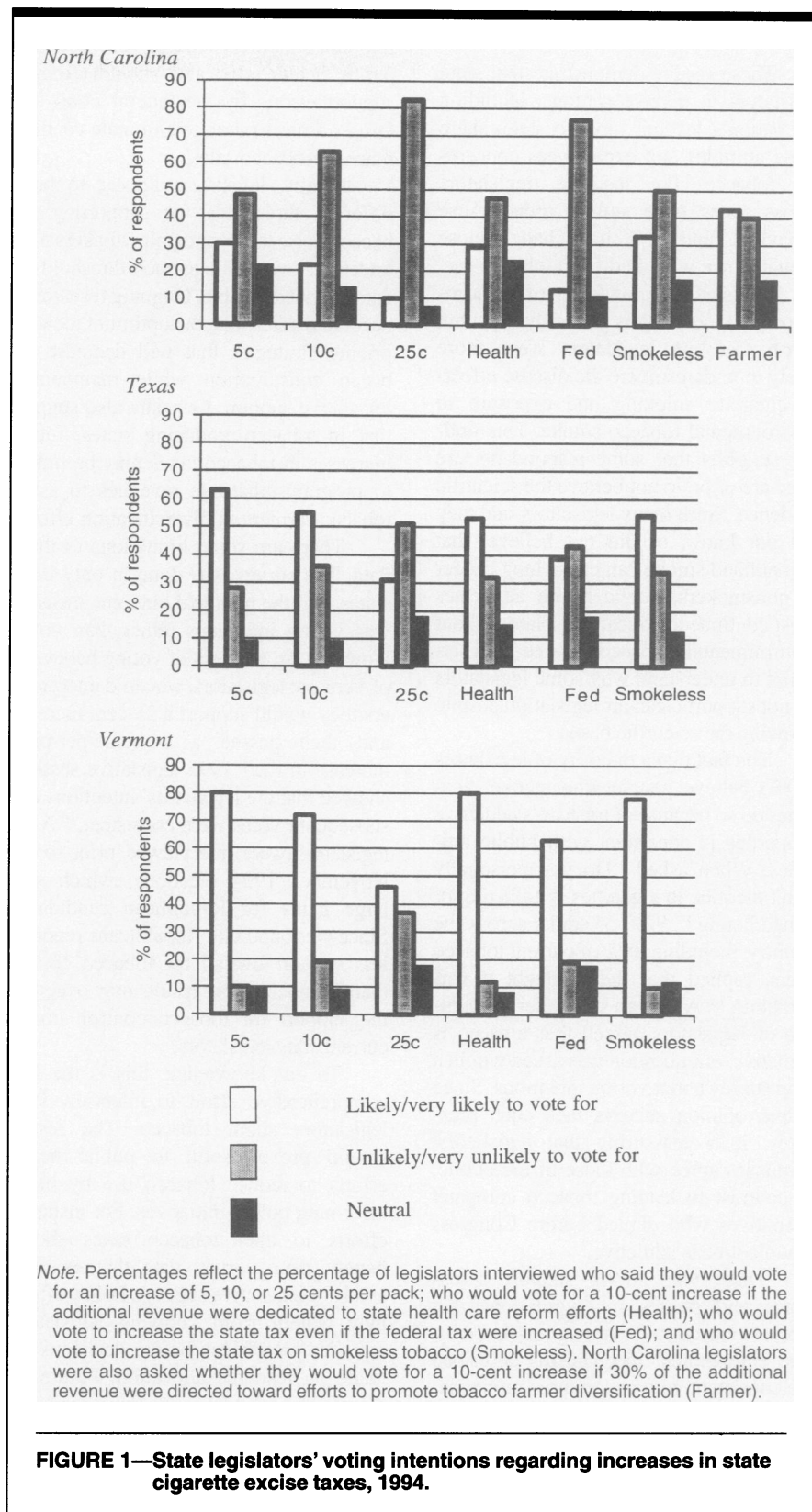


FIGURE 1—State legislators' voting intentions regarding increases in state cigarette excise taxes, 1994.

or 10 cents but not 25 cents per pack. While a majority of North Carolina legislators stated that they would not vote for any general increase in their state's cigarette tax, 43% said they would vote to

increase the tax by 10 cents per pack if 30% of the additional revenue were directed toward efforts to promote tobacco farmer diversification (compared with 40% who opposed such a move).

Discussion

These results demonstrate that state legislators in diverse settings, including the nation's leading tobacco state, share some attitudes and experiences concerning tobacco. For instance, legislators across states have similar tobacco use behaviors, and 50% have had a close acquaintance who died from tobacco use.

Legislators' knowledge of tobacco-associated mortality is generally high, but North Carolina legislators were more likely to underestimate the disease effects of cigarette smoking and exposure to environmental tobacco smoke. This finding suggests that some respondents are unaware of or do not believe the scientific evidence. Since many legislators said they did not know, or did not believe, that secondhand smoke can cause lung cancer in nonsmokers, public health advocates must continue to educate legislators about environmental tobacco smoke and attempt to understand why some legislators do not support clean air legislation despite knowing the scientific basis.

The fact that a majority of legislators (70%) believe people who smoke cigarettes do so because of tobacco's addictive properties is consistent with public attitudes. When asked "Do you personally think nicotine in cigarettes is addicting or nonaddicting?" 92% of adults across the country, including 88% of current tobacco users, replied that they thought it was addicting.¹⁰ Although a smaller percentage of legislators agreed that tobacco is addicting, our question was asked within a long survey about voting intentions. Since public opinion surveys lack such pressures, it is reassuring that legislators' responses agree with those of the public, in contrast to leading tobacco company executives who denied before Congress that nicotine is addictive.¹¹

There was strong support across states and parties for regulations that affect tobacco use among adolescents. The enforcement mechanisms described are consistent with national recommendations to limit tobacco sales to youth.^{12,13} Since tobacco use among adolescents is increasing, strengthening and more active enforcement of state laws to restrict tobacco sales to youth may be linked to future reductions in adolescent tobacco consumption.^{1,3,14}

Support for increasing restrictions on tobacco sales to youth does not, however, lead to support for vending machine bans, despite knowledge that young people have universal access to tobacco through

such machines.¹⁵ Since many legislators may not support a vending machine ban, public health advocates should strongly support efforts by the federal Food and Drug Administration to eliminate vending machine tobacco sales.

Finally, legislators appear to have different thresholds for supporting tobacco excise taxes, and policymakers may under- or overestimate such thresholds if data are not available. Ongoing research is needed to determine the optimum tobacco pricing strategies that will decrease tobacco consumption while maintaining legislative support. Our data also suggest that in tobacco-producing states, future increases in tobacco taxes may be linked to programs that use revenues to assist tobacco farmers in diversification efforts.

There are some limitations to these data. The survey was done in only three states, and the principal outcome measure was voting intentions rather than votes. However, an analysis of voting behaviors of Vermont legislators, who told interviewers they would support a 25-cent increase and then passed a 24-cents-per-pack increase in their 1995 legislative session, showed that the legislators' intentions and subsequent votes were consistent.¹⁶ Also, legislators were interviewed prior to the November 1994 elections, which saw large gains for Republican candidates. Since we found that Republicans reported less support overall for tobacco control than Democrats, our results may overstate the support for tobacco control among current state legislators.

To our knowledge, this is the first comprehensive effort to interview state legislators about tobacco. The results should prove useful to public health efforts to reduce tobacco use by better informing policy initiatives. For instance, efforts to alter tobacco taxes should benefit from survey data that examine levels of legislative support. Policy efforts may benefit from knowing legislators' attitudes on tobacco before decisions are made on resource allocation. Future research should focus on translating our results into appropriate field-based protocols for collecting and using data on legislators' voting intentions. □

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References

1. *Preventing Tobacco Use among Young People: A Report of the Surgeon General*. Atlanta, Ga: Centers for Disease Control and Prevention, Office on Smoking and Health; 1994.
2. Emont SL, Choi WS, Novotny TE, Giovino GA. Clean indoor air legislation, taxation, and smoking behavior in the United States: an ecological analysis. *Tobacco Control*. 1993;13-17.
3. Jason LA, Ji PY, Anes MD, Birkhead SH. Active enforcement of cigarette control laws in the prevention of cigarette sales to minors. *JAMA*. 1991;266:3159-3161.
4. Shelton DM, Alciati MH, Chang MM, et al. State laws on tobacco control—United States, 1995. *MMWR Morb Mortal Wkly Rep*. 1995;44:1-28.
5. Bearman NS, Goldstein AO, Bryan DC. Legislating clean air: politics, preemption and the health of the public. *N C Med J*. 1995;56:14-19.
6. O'Connor T. How important is tobacco in NC? Facts belie public perception. *N C Med J*. 1995;56:28-32.
7. Giovino GA, Schooley MW, Zhu BP, et al. Surveillance for selected tobacco use behaviors. United States, 1990-1994. *MMWR Morb Mortal Wkly Rep*. 1994;43(SS-3):1-43.
8. Fishbein M, Ajzen I. *Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research*. Reading, Mass: Addison-Wesley; 1975.
9. Ajzen I. The theory of planned behavior. *Organ Behav Hum Decision Processes*. 1991;50:1-33.
10. Strouse R, Hall J. *Robert Wood Johnson Youth Access Survey: Results of a National Household Survey to Assess Public Attitudes about Policy Alternatives for Limiting Minors' Access to Tobacco Products*. Princeton, NJ: Mathematica Research; 1994.
11. *Tobacco and Health: You Decide* [videotape]. Atlanta, Ga: National Center for Chronic Disease Prevention and Health Promotion, Office of Smoking and Health; 1995.
12. Lynch BS, Bonnie RJ, eds. *Growing Up Tobacco Free: Preventing Nicotine Addiction in Children and Youths*. Washington, DC: National Academy Press; 1994.
13. *No Sale: Youth, Tobacco and Responsible Retailing. Developing Responsible Retail Sales Practices and Legislation to Reduce Illegal Tobacco Sales to Minors*. Washington, DC: National Association of Attorneys General; 1994.
14. Cummings KM, Shah D, Shopland DR. Trends in smoking initiation among adolescents and young adults—United States, 1980-1989. *MMWR Morb Mortal Wkly Rep*. 1995;44:521-525.
15. Cohen JE, Stanley LC, Martin JD, Goldstein AO. Illegal sales of cigarettes to minors in North Carolina. *N C Med J*. 1995;56:59-63.
16. Flynn BS, Dana GS, Goldstein AO, et al. State legislators' intentions to vote and subsequent votes on tobacco control legislation. *Health Psychol*. In press.