

# Attitudes about Tobacco Policies among North Carolina Parents

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## Abstract

**Background:** While tobacco use reduction remains a major public health goal, little evidence exists on how citizens in North Carolina view policy issues related to tobacco control. This research examines attitudes toward tobacco policies among North Carolina parents.

**Methods:** Randomly selected North Carolina adults with a child living in his or her household were invited to participate in the Child Health Assessment and Monitoring Program (CHAMP) telephone survey. A sample of 3,973 parents or guardians was interviewed in 2005. Support for tobacco prevention and policies was analyzed by demographic characteristics.

**Results:** Of the 86% of initial respondents who were eligible to participate, 83% completed the 2005 CHAMP survey. Most parents in North Carolina (90.1%) support stronger policies for tobacco prevention. Parents also strongly support restrictions on tobacco in schools (85.6%) and recreational areas and fast food restaurants (83.9%). While many parents report being well prepared to talk to their children about smoking (97.6%) and report talking about the dangers of smoking monthly (84.7%), few report that their child currently smokes (3.9% of high school students and 0.6% of middle school students).

**Limitations:** Because the CHAMP survey is telephone-based, the results are limited to North Carolina parents who have a land-line telephone.

**Conclusions:** Despite the state's historical ties to tobacco, the overwhelming majority of North Carolina parents are in favor of stronger efforts at tobacco use prevention, including increased policy measures. These results suggest that prevention efforts should be expanded and that policy makers who take a stronger stance against tobacco will most likely receive broad support by North Carolina parents.

**Keywords:** parents, tobacco control, smoking restrictions, media campaigns

## Introduction

Smoking is the leading cause of preventable death in the United States and is attributable to over 400,000 deaths each year.<sup>1</sup> In North Carolina, it accounts for more than 11,500 deaths a year at a cost of \$1.9 billion in direct medical expenditures.<sup>2</sup> In 2002, North Carolina's Medicaid costs

associated with smoking were estimated to be more than \$940 million.<sup>3</sup> According to recent survey research conducted by the North Carolina State Center for Health Statistics, 22.6% of North Carolina residents over the age of 18 are current smokers, giving the state a higher adult smoking rate than two thirds of states nationwide.<sup>4</sup>

In an effort to combat death and disease attributable to cigarette

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smoking, the Centers for Disease Control and Prevention (CDC) recommends that each state establish a comprehensive tobacco control program.<sup>5</sup> Comprehensive programs should not only encourage youth and adults to quit, but they should also focus on youth prevention of tobacco use and eliminating exposure to secondhand smoke. Policy research shows that for every 10% increase in the price of cigarettes, a 3 to 5% decrease in cigarette consumption occurs among adults and even higher reductions in consumption are seen among youth;<sup>5</sup> mass media anti-smoking campaigns can reduce the number of teens smoking across the country;<sup>6</sup> and enacting 100% tobacco free school policies can significantly reduce environmental exposure to secondhand smoke in the school setting.<sup>7</sup> Despite the evidence supporting these (and similar) efforts across the United States, significant barriers exist to tobacco prevention, including preemption (state laws encouraged by the tobacco industry that prevent strong local regulations) and lack of funds to sustain tobacco-prevention programs.<sup>5</sup>

Stakeholders in tobacco farming and production also inhibit policy measures, particularly in tobacco-producing states.<sup>8</sup> Despite significant declines, North Carolina remains the largest tobacco-producing state in the country, employing approximately 13,000 people in tobacco-related jobs, including 4,100 tobacco farmers.<sup>9</sup> While the economic impact of tobacco farming in North Carolina has declined significantly, the impact from tobacco manufacturing remains substantial, representing over one half of all United States tobacco manufacturing activity.<sup>9</sup> It is no surprise then, that North Carolina policy makers have traditionally not supported strong regulations on tobacco use.<sup>8</sup> For example, in 1993 the North Carolina legislature passed a “preemption” law that required state-controlled buildings to have 20% of the indoor space allocated for smoking and eliminated the ability of local governments to ban smoking in most public places.<sup>3</sup> Until recently, North Carolina ranked 50th in the country in its tobacco excise tax rate.<sup>10</sup>

Within the last few years, support for the tobacco industry among policy makers in North Carolina has begun to decline, resulting in stronger support for state tobacco control policies. Legislation to raise the state tobacco excise tax from 5¢ to 30¢ passed the North Carolina legislature in 2005, with an additional increase of 5¢ taking effect in July 2006.<sup>10</sup> Within the last two years public health advocates successfully expanded the number of venues with the ability to eliminate tobacco use (ie, schools, health departments, hospitals, social service agencies, and the General Assembly).<sup>11</sup> Perhaps the most significant example of the state’s changing atmosphere is the decision to invest state tobacco settlement money into the prevention of tobacco use by adolescents.<sup>2</sup> From 2003 to 2004, the state, through its Health and Wellness Trust Fund, invested \$6.2 million in its teen tobacco use prevention and cessation programs, with an increased investment to \$15 million in 2005-2006. While this investment is far less than the CDC recommends for comprehensive state programs, the investment did move North Carolina from near the bottom nationally in state spending on tobacco control to near the middle within a short period of time.

Little data exists about the attitudes that North Carolina

citizens have toward tobacco policies and regulation. A recent North Carolina public opinion poll found that almost two thirds of those interviewed supported a statewide ban on smoking in public places, suggesting that the attitudes of many citizens may have shifted even more strongly than that of policy makers.<sup>12</sup> This study provides insight into how a random sample of approximately 4,000 North Carolina parents who have children under the age of 18 feel about various tobacco-related policy issues.

## Methods

This study uses data from the 2005 Child Health Assessment and Monitoring Program (CHAMP) survey conducted by the North Carolina State Center for Health Statistics (SCHS). The CHAMP survey is a follow-up to the North Carolina Behavioral Risk Factor Surveillance System (BRFSS), a random, telephone survey of noninstitutionalized adults 18 years of age and older. Telephone numbers are generated from a computer in groups of 100 consecutive phone numbers that contain at least one published household telephone number. The telephone number groups are then assigned to two strata: (1) high density or listed numbers and (2) low density or unlisted numbers. The listed numbers are sampled at a higher rate than unlisted numbers in an effort to lower cost and improve interviewer efficiency. Data collection for the BRFSS is ongoing throughout the year, with interviews conducted 7 days per week at varying times of the day.

While the BRFSS is a national surveillance system, the CHAMP survey is unique to North Carolina. The CHAMP survey allows all adult respondents in North Carolina who completed the BRFSS survey and have children living in their household to participate in a supplemental survey. One child in each household was randomly selected through a computerized randomization procedure and the adult identified during the BRFSS interview as most knowledgeable about the health of the selected child was interviewed in the follow-up CHAMP survey. Approximately one week after completion of the BRFSS interview, an SCHS interviewer would begin to attempt to contact the household for the CHAMP survey. During the 2005 data collection period, 86% of BRFSS households agreed to participate in the CHAMP survey, with 83% of those households completing the survey. The final CHAMP sample size was 3,973 North Carolina parents or guardians.

The purpose of the CHAMP survey is to measure the health characteristics of North Carolina children, ages 0 to 17. The survey measures a wide variety of health-related topics affecting children and parents, including breast feeding, early childhood development, access to health care, oral health, mental health, physical health, nutrition, physical activity, family involvement, and parent opinion on topics such as tobacco and childhood obesity. The majority of questions on the CHAMP survey originate from pre-existing telephone surveys from the National Center for Health Statistics.

The data presented in this report are population-weighted

responses to the tobacco-related questions, with corresponding 95% confidence intervals. The use of weighted data adjusts the results of the sample to better represent the entire population of North Carolina. Adjustments are made to account for the unequal probabilities of selection due to the disproportionate sampling method and due to people living in households with different numbers of residential telephone numbers and different numbers of children in the home, as well as unequal nonresponse rates among different demographic groups. The tobacco-related questions on the CHAMP survey reflect opinions about policy measures and initiatives that are currently being debated on a local and state level, as well as questions assessing parental knowledge of their child's cigarette use.

## Results

The demographics of the parents who answered the tobacco-related questions showed that approximately 11% were male, 71% were white, and 32% of households had at least one college graduate living in the home.<sup>a</sup>

Parents were asked about their children's smoking behavior and their own efforts to educate their children about the ill effects of smoking. When asked about whether or not their child had ever smoked cigarettes, 16.9% (95%, CI 14.2 to 20.0) of parents of high school aged students responded that their child had ever smoked, and only 3.9% (95%, CI 2.37 to 5.44) reported that their children currently smoked cigarettes. Parents of middle school students responded that 5.1% (95%, CI 3.4 to 7.5) of their children had ever smoked cigarettes, and only 0.6% (95%, CI 0.0 to 1.5) reported that their children currently smoked. Parents reported that they were well prepared to talk to their children about the dangers of tobacco use, with 97.6% (95%, CI 96.9 to 98.1) responding that they felt well prepared to talk to their children about ways to reduce their children's chances of smoking. A similarly high percentage, 84.7%, (95%, CI 82.7 to 86.6) reported talking to their children at least once a month about the dangers of tobacco use.

Parents in this survey were also asked to give their opinions on various tobacco policies and initiatives in North Carolina (see Table 1). Parents reported that they were strongly in favor of making tobacco use prevention more of a priority in the state, with 90.1% (95%, CI 88.8 to 91.2) of North Carolina parents surveyed responding that it was very important for the state to take additional actions to prevent and reduce tobacco use among North Carolina youth. One such action, making their child's school 100% tobacco free, was strongly supported by 85.6% (95%, CI 84.3 to 86.9) of parents. Similarly, 83.9% (95%, CI 82.5 to 85.3) of the parents strongly supported making all indoor recreational areas and fast food restaurants tobacco free. An increase in the state excise tax on cigarettes, as a way to reduce youth tobacco use, was strongly supported by 67.2% (95%, CI 65.4 to 69.0) of the parents surveyed, with only 12.7% (95%, CI 11.4 to 14.0) of the parents reporting that

they did not support any increase in the state excise tax on cigarettes. While there was some variability across demographic categories, the majority of parents, regardless of the highest level of education in the household or age or race of their child, supported these policy measures (see Table 1).

Results from the CHAMP survey revealed that 58.4% (95%, CI 38.9 to 44.2) of the parents said they had seen or heard about the state-funded Tobacco.Reality.Unfiltered. (TRU) tobacco prevention media campaign at least once. Approximately one third, 36.0% (95%, CI 33.4 to 38.6), of the parents surveyed reported hearing about or seeing the campaign at least three times in the past year (see Figure 1).

## Discussion

In North Carolina and neighboring states, for most of the latter half of the 20th century, economic ties to tobacco farming and the tobacco industry have limited the extent of many public health initiatives against tobacco.<sup>8,13-15</sup> In the last few years, coincident with the declining influence of the tobacco industry, policy makers have begun to take stronger stances on tobacco regulation with legislative gains occurring in many areas of the country, even in historically strong tobacco-producing regions.<sup>11,13,14</sup> One study in a tobacco-producing state found that citizens in the state were more likely to support restrictions on smoking in public places than legislators.<sup>15</sup> Support for stronger tobacco regulation occurs at the same time as support grows for helping tobacco farmers diversify away from tobacco farming. In one national sample, 57% of respondents supported government involvement in helping tobacco farmers try new farming ventures.<sup>16</sup>

While North Carolina is still the nation's largest producer of tobacco, the results of this survey indicate that parents in the state have strong opinions about tobacco and its health effects. Although it is reassuring to know that over 8 out of 10 parents state that they talk about the dangers of tobacco use with their children on a monthly basis, North Carolina parents appear to dramatically underestimate or are unaware of the likelihood of their own children's use of cigarettes. Published surveys of North Carolina youth document that 5.8% of middle school students and 20.3% of high school students currently smoke cigarettes, rates much higher than that reported by parents in the CHAMP survey.<sup>17,18</sup> Previous research has indicated that parents do underestimate their children's cigarette use.<sup>19,20</sup> It is likely that if parents were more aware of their children's smoking behavior, support for tobacco prevention policy measures would be even higher than that reported in the CHAMP survey. Further research would also be useful to assess parental estimates about their child's use of other types of tobacco products, including spit tobacco (chewing tobacco or snuff). Currently, the CHAMP survey only assesses cigarette use. Since the children of the parents surveyed were not interviewed, additional studies are needed to explore the relationship between reports of

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a Demographics vary slightly across questions due to skip patterns in the survey or respondent's refusal to answer.

**Table 1.**  
**Support Among North Carolina Parents for Strengthening Tobacco-Related Policies Affecting Youth**

	<i>How important do you think it is for North Carolina to take additional actions to prevent and reduce tobacco use among our youth?</i>	<i>To what degree do you support a 100% tobacco free policy in your child's school?</i>	<i>To what degree do you support a tobacco free policy in indoor recreational areas and fast food restaurants?</i>	<i>To what degree would you support increasing the tax on cigarettes in North Carolina to reduce youth access</i>
	<b>% very important (95% CI)</b>	<b>% strongly support (95% CI)</b>	<b>% strongly support (95% CI)</b>	<b>% strongly support (95% CI)</b>
Total	90.1% (88.8 – 91.2%)	85.6% (84.3 – 86.9%)	83.9% (82.5 – 85.3%)	67.2% (65.4 – 69.0%)
Gender of child				
Male	90.2% (88.4 – 91.7%)	85.5% (83.5 – 87.3%)	83.7% (81.6 – 85.6%)	67.1% (64.5 – 69.6%)
Female	90.0% (88.1 – 91.5%)	85.8% (83.8 – 87.6%)	84.2% (82.1 – 86.1%)	67.4% (64.7 – 69.9%)
Age groups				
Under 5	89.7% (87.2 – 91.8%)	88.5% (86.0 – 90.6%)	86.6% (83.9 – 88.9%)	66.9% (63.3 – 70.4%)
5 – 10	89.9% (87.7 – 91.8%)	84.9% (82.3 – 87.2%)	84.3% (81.7 – 86.6%)	70.2% (67.0 – 73.2%)
11 – 13	90.9% (87.7 – 93.4%)	85.9% (82.3 – 88.8%)	83.5% (79.9 – 86.6%)	66.9% (62.4 – 71.1%)
14 – 17	90.0% (87.4 – 92.1%)	83.1% (80.0 – 85.8%)	80.5% (77.3 – 83.4%)	63.4% (59.5 – 67.0%)
Race of child				
White	88.7% (87.2 – 90.2%)	84.7% (83.0 – 86.3%)	83.9% (82.2 – 85.5%)	64.9% (62.7 – 67.1%)
Black	92.3% (89.8 – 94.3%)	86.7% (83.6 – 89.2%)	84.0% (80.7 – 86.8%)	70.0% (66.0 – 73.7%)
Other	93.6% (89.8 – 96.0%)	89.8% (85.4 – 93.0%)	83.7% (78.7 – 87.7%)	77.7% (72.3 – 82.4%)
Highest education achieved in household				
Less than high school	93.2% (88.7 – 96.0%)	85.8% (79.7 – 90.3%)	82.3% (76.0 – 87.3%)	73.0% (66.0 – 79.0%)
High school	89.2% (86.3 – 91.5%)	82.7% (79.5 – 85.5%)	78.8% (75.3 – 81.9%)	58.9% (54.9 – 62.8%)
Some college	91.5% (89.2 – 93.4%)	81.2% (78.1 – 84.0%)	78.8% (75.6 – 81.7%)	61.2% (57.4 – 64.8%)
College graduate	89.1% (87.1 – 90.8%)	89.5% (87.6 – 91.1%)	89.6% (87.7 – 91.2%)	73.8% (71.2 – 76.3%)

parental awareness of their children's smoking behavior and children's actual smoking behaviors.

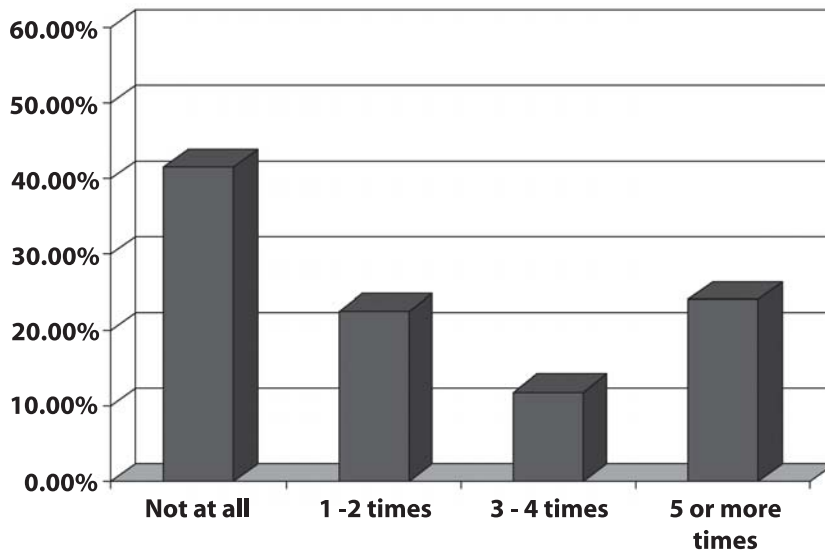
The CHAMP data indicate that parental opinions extend from its effects on their own children to statewide public policy. Parents indicate strong support for policy makers to take increased steps to regulate tobacco products, decrease exposure to secondhand smoke, and spend more funds to accomplish both. These policy actions include increasing the state's tobacco excise tax, adopting regulatory measures for 100% tobacco-free schools, and adopting regulatory measures for 100% smoke-free environments in restaurants and recreational facilities. Strong support for policy actions was shown across the board and did not depend on the highest level of education in the household, race, or age of child.

This data, combined with results from a recent statewide poll, support the conclusion that citizens in the state are increasingly likely to demand more attention be paid to decreasing involuntary exposure to secondhand smoke.<sup>12</sup> One recent study of seventh and eighth graders in North Carolina public schools found that 15% of the asthma cases reported were caused by exposure to secondhand smoke.<sup>21</sup> A positive

development is that in the last two years an increasing amount of North Carolina public school districts have adopted 100% tobacco-free school policies.<sup>7</sup> With the United States Surgeon General recently reporting that there is no safe level of exposure to secondhand smoke, the complete elimination of exposure to secondhand smoke in schools and public venues is a justified concern of all parents.<sup>22</sup> While statewide legislation can achieve significant reductions in secondhand smoke exposure, in North Carolina, the state's preemptive smoking law needs to be repealed in addition to policy makers adopting a comprehensive measure.<sup>22,23</sup>

North Carolina policy makers have already decided to invest significant resources into youth tobacco use prevention and cessation through the North Carolina Health and Wellness Trust Fund and its teen tobacco programs.<sup>24</sup> A major component of that program is a statewide media campaign, *Tobacco.Reality.Unfiltered.* or TRU. The CHAMP data indicate that parents have tuned in to this statewide television campaign to prevent youth tobacco use. The TRU campaign began television advertisements targeting youth across the state in 2004 and features real stories from North Carolina youth about

**Figure 1.**  
**How frequently in the last year have you heard about or seen the North Carolina Tobacco.Reality.Unfiltered. (TRU) media campaign?**



tobacco experiences, illnesses, and diseases of their loved ones. While the campaign is directed at youth, the stories featured in the ads are also the stories known by North Carolina parents. The CHAMP survey suggests that the ads do reach parents, and thus, the ads may have a positive effect on parental attitudes against tobacco use by their children. Future research could assess the degree to which the TRU campaign may affect adult as well as youth tobacco attitudes.

A couple of limitations to the data and analysis exist. Despite parents reporting that they were strongly in favor of increased policy measures for tobacco prevention, these questions were asked in isolation. It is possible that if parents were asked to

compare the priority for tobacco prevention to other policy issues in the state, the results may be different. It is also possible that parents' smoking status may be related to support for policy measures. Unfortunately, the data collection methods of the BRFSS and CHAMP surveys prohibit this relationship from being explored. While smoking status is assessed on the BRFSS, there is no guarantee that the person who responded to the BRFSS survey is the same person who participated in the CHAMP survey as the person most knowledgeable about their child's health. A final limitation is one common to all telephone surveys—the pool of respondents is limited to only those who have

a land-line telephone. Even though the telephone numbers are randomly selected and the data is weighted to represent all North Carolina parents, there are some limits to its generalizability as a result. While this is the first CHAMP survey of parental attitudes of tobacco policies in North Carolina, its findings clearly indicate that most North Carolina parents have moved beyond traditional pro-tobacco attitudes and are in favor of tobacco use prevention for their children and increased policy measures for the state. Current parental attitudes about tobacco suggest that policy makers who take a stronger stance against tobacco use will likely receive broad parental support in the state. **NCMJ**

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## Appendix A. Questions Used in Analysis

### Parent Opinon

1. How important do you think it is for North Carolina to take additional actions to prevent and reduce tobacco use among our youth? Very important / Somewhat important / Not at all important
2. To what degree do you support a tobacco free policy in your child's school so that no one, not students, nor teachers, staff or visitors, could smoke or use other tobacco products on the school grounds at any time? Strongly support / Moderately support / Do not support
3. To what degree do you support a tobacco free policy in indoor recreational areas (skating rinks, bowling alleys) and fast food restaurants where your child plays, works or eats? Strongly support / Moderately support / Do not support
4. To what degree do you support increasing the tax on cigarettes in North Carolina to reduce youth access to tobacco in our state? Strongly support / Moderately support / Little support / Don't support
5. Do you feel well prepared to talk with (CHILD) about reducing the chances of smoking? Yes / No / Don't know or Not Sure

### Tobacco Indicators

1. How often have you discussed the dangers of tobacco use with (CHILD) in the last 12 months? Once a day / Once a week / Once a month / Once a year / Don't know or not sure / Never
2. To your knowledge, has (CHILD) ever smoked cigarettes? Yes / No / Don't know or not sure
3. To your knowledge, does (CHILD) currently smoke cigarettes? Yes / No / Don't know or not sure
4. How frequently in the last year have you heard about or seen (on TV, from your children, or in other media) the North Carolina *Tobacco.Reality.Unfiltered.* (TRU) media campaign directed to preventing tobacco use among youth? Not at all / Once or twice in the last year / Three or four times / Five times or more / Don't know or not sure