

TACKLE SMOKING PROJECT

**First and Goal: Wins and Losses for
Tobacco-Free School Policies in North Carolina**



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OVERVIEW: TACKLE SMOKING PROJECT

Tobacco-Free School (TFS) Policies: Tobacco-Free School (TFS) policies are designed to reduce tobacco use and exposure to secondhand smoke, to make tobacco use socially undesirable and inconvenient, and promote cessation.¹⁻³

A TFS policy as defined by the Centers for Disease Control and Prevention (CDC) prohibits tobacco use by students, staff, parents, and visitors on school property, in school vehicles, and at school-sponsored functions away from school property.⁴

In 2001, the NC Tobacco Prevention and Control Branch began implementing a comprehensive plan based on CDC's Best Practices. A major policy and programmatic objective of the branch has been to increase the number of TFS districts.⁵⁻⁶

What do we know about TFS Policies in NC? In the fall of 2001, we conducted the *School Tobacco Policy Study* to examine the process of adopting and implementing a TFS policy. We conducted interviews with 40 key informants from the 14 NC school districts with TFS policies. We also met with our advisory board and monitored all NC newspapers for any articles regarding TFS policies. A recurrent theme was that some schools failed to adopt or enforce a TFS policy because of fears that people would not comply with the bans on tobacco use at high school sporting events.⁷

*"School officials say it's nearly impossible to enforce the policy at athletic events, especially football games where fans frequently light up in the stands."
Wilmington Star – December 26, 2002*

During the fall of 2002 we conducted a pilot study at 11 TFS and 11 Non-TFS schools to investigate concerns about the tobacco use behavior of people attending high school football games. The pilot findings suggested that: 1) having a TFS policy was associated with fewer instances of smoking at high school football games, and 2) schools with a TFS policy, signs, and announcements had the fewest instances of smoking. The pilot study findings warranted conducting a larger study to examine the issue of compliance with TFS policies at high school football games.

The TACKLE SMOKING PROJECT: The purpose of the TACKLE SMOKING PROJECT was to work with high school students to assess the impact of Tobacco-Free School (TFS) policies in North Carolina. During the fall of 2003, the TACKLE SMOKING PROJECT assessed the amount of smoking at the high school football games of schools with and without a TFS policy. This report presents findings from 132 football games at 66 schools representing 31 of NC's 117 school districts.

"By doing the TACKLE SMOKING PROJECT at two of our home games I learned a lot about the people in the area. I did not realize that so many people were so inconsiderate of others by smoking in public crowded places." High School Student at a Non-TFS School

METHODOLOGY

Study Design: The TACKLE SMOKING PROJECT employed observational methods to compare the amount of smoking at the football games of TFS and Non-TFS schools. Schools were selected based on our recruitment of students interested in participating in the TACKLE SMOKING PROJECT. We recruited and trained 154 students from 77 schools (52 TFS and 25 Non-TFS) to serve as data collectors. All together, 132 students at 66 schools (45 TFS and 21 Non-TFS) successfully completed the data collection phase of the project by assessing the amount of smoking at two of their home football games.

Data collection: The trained data collectors followed a systematic protocol and recorded any observed instances of smoking at the following prescribed intervals: 1) pregame, 2) 1st quarter, 3) 2nd quarter, 4) halftime, 5) 3rd quarter, 6) 4th quarter, and 7) postgame. The pregame and postgame assessments included examining areas both outside and inside the stadium. All other observational periods were limited to the inside of the stadium. For each instance of smoking, the data collectors noted: 1) if the smoker was an adult or a student, and 2) whether the smoking was within 5 feet of an infant/baby/child. The data collectors also assessed any signage and/or announcements pertaining to tobacco use.



Above: High school students at the TACKLE SMOKING trainings

As part of the project evaluation, public support for TFS policies was measured at 10 of the TFS schools. UNC graduate students conducted brief interviews with spectators as they exited the stadium. Exit interviews were completed with 646 spectators to evaluate the level of support for TFS policies among people attending high school football games.

Reliability Assessment: The reliability of the data collected by high school students was evaluated against data collected by teams of UNC graduate students. During the trainings, high school students were told that UNC graduate students would be attending some of the same football games to verify the reliability of the data collected for the project. Data collected by UNC graduate students at 16 games served as the standard by which to evaluate the reliability of the data collected by high school students. UNC graduate students reported more instances of smoking than the high school students, differing by an average of 9 instances of smoking per game. Although the high school students' assessments may actually *underestimate the amount of smoking*, it does not affect the primary purpose of the project which was to compare the amount of smoking at the games of TFS versus Non-TFS schools.

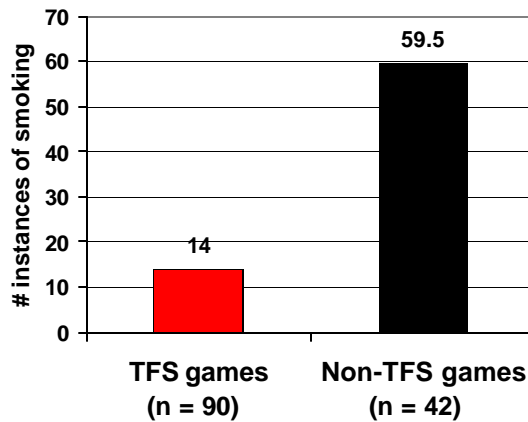
RESULTS

Key Finding 1: TFS schools have fewer instances of smoking

The following results are based on 132 football games at 66 schools that participated in the fall 2003 TACKLE SMOKING PROJECT. Based on paid attendance, there was an average of 492 spectators at each of the games.

Overall, TFS schools had far fewer instances of smoking at their games than Non-TFS schools. The number of observed instances of smoking ranged from: 0 to 355 at the games of TFS schools and 0 to 300 at games of Non-TFS schools.

Figure 1: Median* number of observed instances of smoking by policy status for all games (n=132)



Key Finding 2: Poor compliance with TFS policies at some schools

Although having a TFS policy was generally associated with fewer instances of smoking, we still observed fairly high levels of noncompliance at the games of some TFS schools. There were more than 50 instances of smoking at 12.2% (11 of the 90) of the games at TFS schools.

Table 1: Number of instances of smoking at the games of TFS schools (n=90)

Number of instances of smoking	Percent of games (# of games)
Zero	6.6% (n=6)
1 –9	32.3% (n=29)
10 – 49	48.9% (n=44)
50 or more	12.2% (n=11)

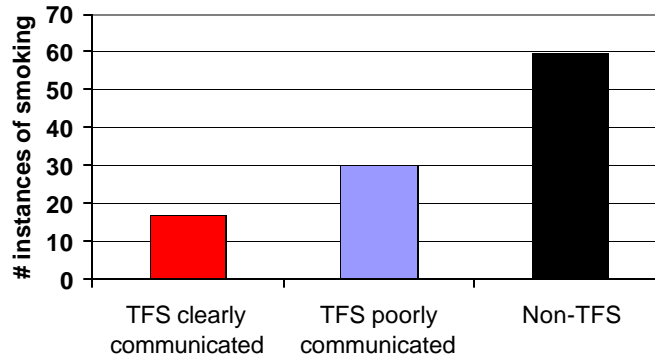
Schools achieved perfect compliance or no observed instances of smoking at only 6 of the 90 football games. The amount of smoking observed at the games of TFS schools indicates that many schools need to do a better job of communicating and enforcing their policy.

* Medians are reported because of the influence of extreme values on the mean. The median is the middle of a distribution: half the scores are above the median and half are below the median

Key Finding 3: Communication is essential for policy compliance

The schools with the fewest instances of smoking had a clearly communicated TFS policy. Clearly communicated policies were defined as having signage at all stadium entrances, and two or more public announcements about the TFS policy during the game.

Figure 2: Median number of observed instances of smoking by policy status and level of communication

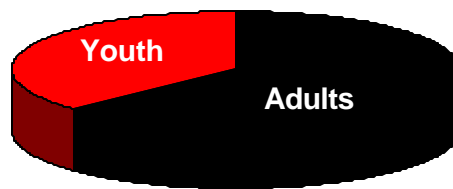


Policies can only be effective when they are adequately communicated and enforced. The findings from the TACKLE SMOKING PROJECT demonstrate that policy communication (i.e., signs and announcements) is associated with fewer instances of smoking.

Key Finding 4: Adults account for most of the smoking at games

In North Carolina, high school football games are significant social events that bring together youth and adults from multiple communities. Adults attending football games should serve as role models by not smoking and by abiding with all school policies. Smoking at high school football games exposes fans to secondhand smoke and undermines the legitimacy of TFS policies.

Figure 3: The percentage of instances of smoking by youth and adults at high school football games

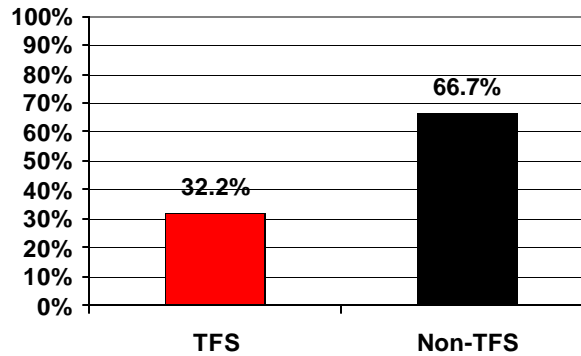


There were a total of 5,865 instances of smoking observed at the 132 high school football games. Overall, adults accounted for 62.8% of all smoking at the games. When students see people smoking at football games it contradicts the tobacco use prevention education that they receive in the classroom. TFS policies are most effective at reducing tobacco use when students perceive that the policies are consistently enforced.

Key Finding 5: Infants/babies/children are exposed to secondhand smoke

Over 40,000 nonsmokers die each year as a result of exposure to secondhand smoke. Infants, babies, and children are particularly susceptible to secondhand smoke, which is associated with Sudden Infant Death Syndrome (SIDS) and both the onset and exacerbation of asthma, and respiratory illnesses.⁸ To assess secondhand smoke exposure among this particularly vulnerable population, data collectors noted any smoking within 5 feet of an infant, baby, or a child during the game.

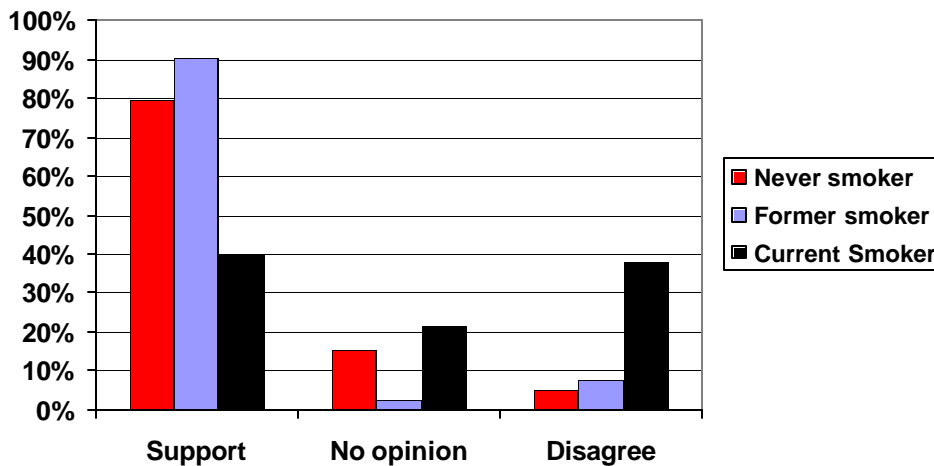
Figure 4. Percentage of games where infants/babies/children were exposed to secondhand smoke by policy status



Key Finding 6: Strong Public Support for Tobacco-Free Schools

Public support is essential to the adoption, implementation, and compliance with a policy. To assess support for TFS policies at NC schools, UNC graduate students conducted exit interviews with 646 spectators at 10 games at 10 different TFS schools. The majority of spectators interviewed expressed support for TFS policies irrespective of their smoking status. Overall, 76% of all respondents indicated that they supported TFS policies. The majority of smokers (61.9%) either support or have no opinion about TFS policies.

Figure 5: Spectators support for TFS policies by smoking status* (n=646)



* Never smoker = never smoked cigarettes

** Former smoker = smoked >100 cigarettes in lifetime but doesn't currently smoke

*** Current smoker = smoked some days or every day

KEY FINDINGS

1. Schools with a Tobacco-Free School (TFS) policy had significantly fewer instances of smoking at their high school football games than schools without a TFS policy.
2. There was poor compliance with TFS policies at many football games.
3. TFS policy compliance was highest when schools clearly communicated their policy.
4. Overall, adults were responsible for the majority of smoking at high school football games. Smoking by adults sends the wrong message to students and undermines the legitimacy of TFS policies.
5. A significant number of infants/babies/or children were exposed to secondhand smoke at high school football games.
6. There is strong public support for TFS policies among spectators at the football games of TFS schools.

RECOMMENDATIONS

1. All school districts in NC should adopt, implement, and enforce TFS policies. Whether inside or outside there is no known safe level of exposure to secondhand smoke.⁹ Schools are responsible for providing a safe learning and teaching environment for students, staff, and visitors – a safe environment is a smokefree environment. The TACKLE SMOKING PROJECT provides evidence that the schools with TFS policies had fewer instances of smoking than Non-TFS schools.
2. Districts and schools should not be deterred by unsubstantiated claims that people will not comply with TFS policies at high school sporting events. Critics may argue against adopting a policy because there was not perfect compliance at many TFS games. However, several games had perfect compliance and schools that clearly communicated their policy had substantially fewer instances of smoking.
3. Any policy, to be effective, must be continuously communicated and consistently enforced. At a minimum, all schools with a TFS policy should:
 - a. Have signage outside the stadium, at all entrances to the stadium, near the home and visitor stands, and at restroom entrances.
 - b. Have announcements about the policy read over the public address system at the beginning of the 1st quarter, 2nd quarter, halftime, and 4th quarter.
 - c. Security personnel, staff, and police officers should be asked to enforce the policy. Enforcement requires informing smokers or anyone getting ready to light a cigarette that the school has a TFS policy that prohibits *tobacco use anywhere, anytime, by anyone* on the campus and at school events.

Tobacco-Free School policies when communicated and enforced can protect our students, staff, and visitors from the harmful effects of secondhand smoke.



ACKNOWLEDGEMENTS

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