

Kelly L. Kandra,¹ PhD; Leah Ranney,² PhD; Adam O. Goldstein,² MD, MPH; Anna McCullough,² MSW, MSPH

1. Department of Psychology, Benedictine University, Lisle, Illinois, USA

2. Tobacco Prevention and Evaluation Program, Department of Family Medicine, UNC School of Medicine, Chapel Hill, North Carolina, USA

Background

- The tobacco industry spends billions of dollars on advertising and promotion annually, including distribution of free samples, t-shirts, lighters, hats and more.
- The tobacco industry continues to claim that they do no market products or giveaways to youth.
- North Carolina youth tobacco prevention efforts do not include activities recommended to counter tobacco industry marketing.
- Data from the North Carolina Youth Tobacco Survey (YTS) show that industry youth prevention, or “societal alignment” strategies do not prevent youth from being reached by tobacco promotion efforts.
- We developed a risk profile to assess the impact of industry promotion and other factors on susceptibility to smoking cigarettes among current non-smokers.

Methods

- Data came from the North Carolina Youth Tobacco Survey (NCYTS), a biannual paper-based public and charter school-based survey of students in grades 6-12. Data presented here focus only on NC high school students. A multi-stage cluster sample design with corresponding sampling weights is used to produce representative data of high school (9th – 12th grade) students for all of North Carolina.
- Participation was voluntary and anonymous and school parental permission procedures were followed. All data were analyzed using SAS survey procedures.

Table 1: North Carolina Youth Tobacco Survey High School Participation Response Rates (RR)

Survey Year	High School District RR	High School Student RR	Overall High School RR	High School Total N
2005	100%	83.3%	83.3%	1,134
2007	97%	81.6%	78.3%	3,364
2009	95.7%	82.8%	79.2%	3,301

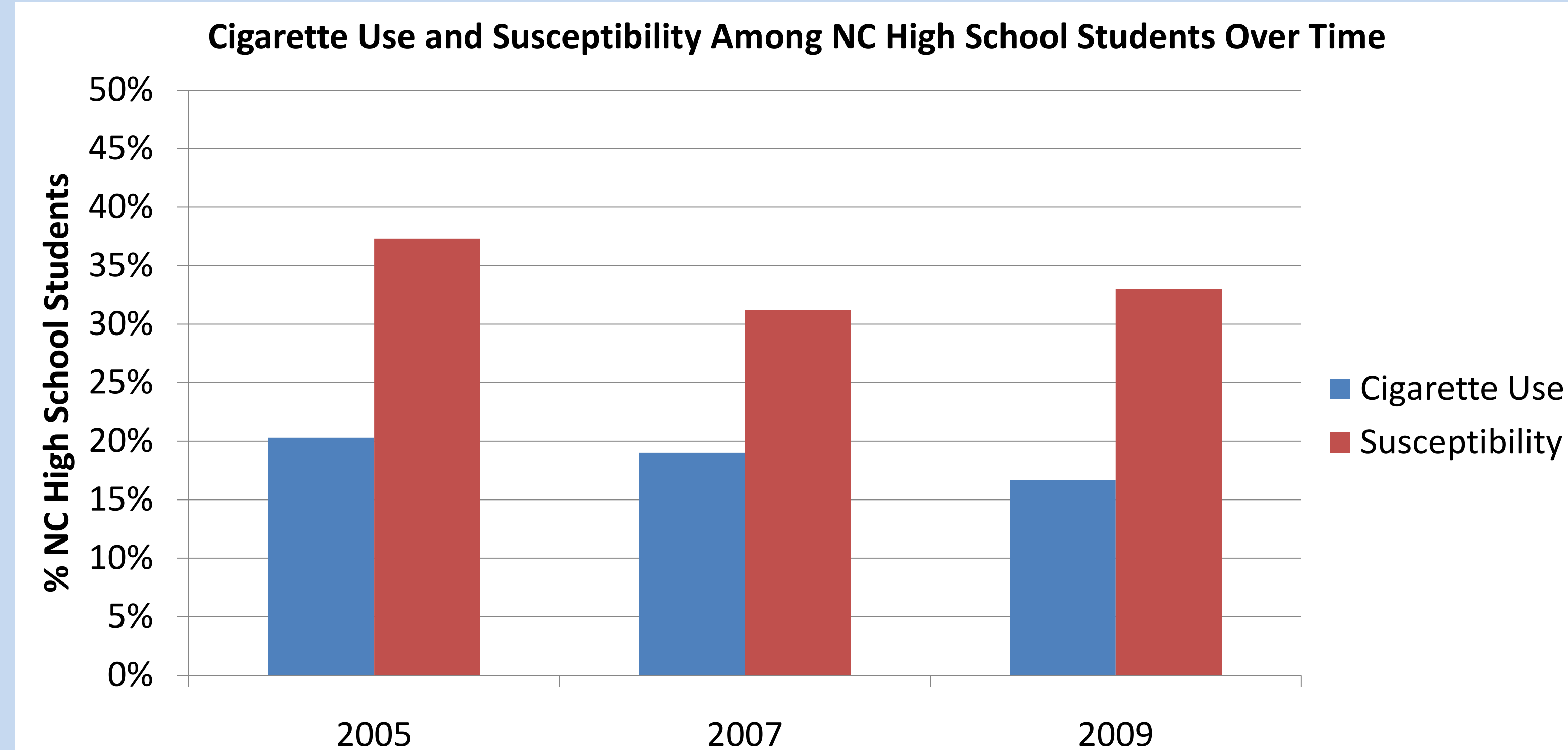
Susceptibility Variable

Susceptibility to smoking cigarettes determined by non-smoking students' responses to the following questions:

1. Do you think you will smoke a cigarette at anytime in the next year?;
2. Do you think you will be smoking cigarettes 5 years from now?;
3. If one of your best friends offered you a cigarette, would you smoke it?

Susceptibility is defined by answering “yes, probably yes, or probably not” to any of the three items.

Results



* Susceptibility rate for 2007 is significantly lower than 2005, $p < .05$.

Table 2: Predictor variables for susceptibility to smoking cigarettes

Survey Questions	Responses	Outcome Variable: Susceptibility to Smoking Cigarettes		
		2005 OR (95% CI)	2007 OR (95% CI)	2009 OR (95% CI)
Number of close friends who smoke		1.50 (1.29, 1.73)	1.40 (1.23, 1.59)	1.40 (1.21, 1.62)
Number of days in room with smoker		NS	1.21 (1.09, 1.35)	NS
Live with someone who smokes	Yes	NS	0.64 (0.49, 0.85)	NS
	No		1.00	
Smoking makes you look cool or fit in	Yes	2.23 (1.12, 4.44)	2.73 (1.53, 4.88)	2.52 (1.74, 3.65)
	No	1.00	1.00	1.00
Young people who smoke have more friends	Yes	2.30 (1.49, 3.56)	NS	NS
	No	1.00		
Safe to smoke for a year or two if you quit after that	Yes	5.63 (3.12, 10.16)	NS	7.43 (3.94, 14.03)
	No	1.00		1.00
Tobacco is as addictive as cocaine or heroin	Yes	NS	0.57 (0.36, 0.90)	NS
	No		1.00	
Buy/Receive tobacco company item	Yes	1.82 (1.34, 2.48)	1.93 (1.11, 3.33)	NS
	No	1.00	1.00	
Wear/Use tobacco company item	Yes	1.88 (1.14, 3.11)	1.83 (1.22, 2.73)	3.07 (2.06, 4.57)
	No	1.00	1.00	1.00

Conclusions and Recommendations

- Tobacco industry marketing continues to reach youth susceptible to smoking through strategies such as promotional item giveaways, despite Master Settlement Agreement prohibitions against youth marketing.
- Susceptible NC high school students also continue to be influenced by the perceived “coolness” of smoking and smoking among their close peer networks.
- Tobacco prevention programs must work to deglamorize tobacco industry promotions. North Carolina youth tobacco prevention efforts do not include activities recommended to counter tobacco industry marketing.
- Prevention efforts that focus on refusal skills have been shown to be ineffective with youth*. Formative research is needed to inform novel prevention strategies to target susceptible high school students to:
 - Promote autonomy related to decisions about smoking
 - Counteract perceptions about the “coolness” of smoking

Limitations

- Descriptive results from a cross-sectional survey preclude conclusions about causality.
- Self-reported data are subject to honesty of student respondents.
- Results are specific to North Carolina and may not generalize to youth in other locales.



References

*Farrelly MC, Heaton C, Davis K, et al. Getting to the Truth: Evaluating National Tobacco Counter-marketing Campaigns. Am J Public Health 2002;92:901-908. PMID: 12036775

*Image from www.trinketsandtrash.com

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