

## **Monitoring outdoor tobacco policies of Virginia colleges: A descriptive analysis.**

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### Abstract

**Purpose:** The purpose of this study was to monitor current outdoor tobacco policies of colleges within the state of Virginia.

**Methods:** The tobacco policies of 2-year public colleges, 4-year public colleges, and 4-year private non-profit colleges in Virginia were located online. The policies were then categorized according to the types of tobacco products that were prohibited (Smoking Policies, Tobacco Policies, and E-cigarette Policies) and where those products were prohibited outdoors (No Policy, Entrance Policy, Perimeter Policy, Designated Smoking Areas Policy, All Grounds Policy).

**Findings:** From a final sample of 62 college policies, 2 (3%) had No Policy, 29 (47%) had an Entrance Policy, 12 (19%) had a Perimeter Policy, 10 (16%) had a Designated Smoking Areas Policy, and 9 (15%) had an All Grounds Policy.

**Conclusions:** The far majority of colleges do not meet national recommendations for outdoor tobacco policies. Practical implications and suggestions for future research are discussed in the article.

### Introduction

Tobacco use on college campuses is an important public health issue. Various studies suggest that anywhere from 11% to 34% of college students who smoke were enrolled in college when they initiated smoking (Bernat, Klein, & Forster, 2012; Choi, Harris, Okuyemi, & Ahluwalia, 2003; Everett, Husten, Kann, Warren, Sharp, & Crossett, 1999; Tercyak, Rodriguez, & Audrain-McGovern, 2007; Wechsler, Rigotti, Gledhill-Hoyt, & Lee, 1998; Wetter, Kenford, Welsch, Smith, Fouladi, Fiore, & Baker, 2004). According to the National College Health Assessment, the nation's college students are current users of several types of tobacco, including cigarettes (9.7%), electronic cigarettes (e-cigarettes) (4.9%), hookah (4.6%), cigars, little cigars or cloves (4.4%), and smokeless tobacco (2.5%) (American College Health Association, 2016). Both qualitative (Cho & DeVaney, 2010; Seitz, Strack, Rice, DuVall, Moore, & Wyrick, 2012) and quantitative (Fallin, Roditis, & Glantz, 2015; Lechner, Meier, Miller, Wiener, & Fils-Aime, 2012; Mason, Lust, Sanem, Golden, Kingsbury, & Rudie 2014) research findings indicate that secondhand smoke exposure is also a problem outdoors at colleges that do not have strict tobacco policies. For example, in one study, 45% of students reported that secondhand smoke was difficult to avoid while outdoors on campus (Mishra, Thind, Gokarakonda, Lartey, Watkins, & Chahal, 2011). Likewise, from a separate study, 77% of students reported being bothered by outdoor secondhand smoke (Garg, Fradkin, Moskowitz, 2011).

Due to the negative health effects of tobacco use, the American College Health Association, the American Lung Association, and the U.S. Department of Health and Human Services' Tobacco-Free College Campus Initiative recommend that colleges implement policies that prohibit the use of all types of tobacco products, as well as e-cigarettes, on all campus grounds, including the outdoors (American College Health Association, 2012; American Lung

Association, 2017; Tobacco-Free College Campus Initiative, 2017). The peer-reviewed literature supports this recommendation, as findings indicate that campus-wide policies are associated with decreased secondhand smoke exposure (Fallin et al., 2015; Figueroa & Wolfersteig, 2014; Lechner et al., 2012; Lee, Ranney, & Goldstein, 2013; Mason et al., 2014), positive changes in tobacco use behavior (Czart, Pacula, Chaloupka, & Wechsler, 2001; Lechner et al., 2012; Mason et al., 2014; Meier, Lechner, Miller, & Wiener, 2013; Seo et al., 2011),

improved attitudes and beliefs among students about tobacco (Lechner et al., 2012; Seo, Macy, Torabi, & Middlestadt, 2011), and positive attitudes towards tobacco-free campus policies (Fallin et al., 2015; Lechner et al., 2012; Seo et al., 2011).

Given the effectiveness of outdoor campus tobacco policies, it is important to maintain a detailed surveillance of these policies. The World Health Organization recommends that public health professionals utilize the MPOWER strategy for tobacco control, in which the “M” of the mnemonic represents “monitor tobacco use and prevention policies” (World Health Organization, 2017). Specifically, by monitoring outdoor college campus tobacco policies, health professionals can determine strengths and needs of policies, as well as improvements over time.

Currently, the American Lung Association and the Americans for Nonsmokers’ Rights monitor which colleges in the United States have tobacco-free outdoor policies. Unfortunately, these organizations only list colleges that are completely smoke-free or tobacco-free outdoors, without monitoring colleges that have other types of outdoor tobacco policies (American Nonsmokers’ Rights Foundation, 2017). By simply tallying the number of tobacco-free colleges, the American Lung Association and the Americans for Nonsmokers’ Rights are not monitoring the complete range of policy types among colleges. For example, research indicates that common outdoor tobacco policies include prohibiting tobacco use: a certain distance from building entrances, a certain distance from building perimeters, on the entire campus except for designated smoking areas, or prohibiting smoking on the entire campus (Fallin-Bennett, Roditis, & Glantz, 2017; Lee et al., 2013; Seitz et al., 2012).

Therefore, the purpose of the study described in this article was to collect and analyze the current outdoor tobacco policies of the state of Virginia’s colleges. Specifically, we focused on 2-year public colleges, 4-year public colleges, and 4-year private non-profit colleges.

#### Methods-Data Collection

Prior to conducting the study, the Institutional Review Board determined that the study was exempt, since all policies retrieved were freely available online and data was not collected from human participants.

During March of 2017, the government's National Center for Education Statistics' "College Navigator" website (<http://nces.ed.gov/collegenavigator/>) was used to locate Virginia's 2-year public colleges, 4-year public colleges, and 4-year private non-profit colleges. College Navigator gives users the option to filter colleges based upon state location, public or private college status, and length of degree options (e.g., 4-year degree, 2-year degree) (National Center for Education Statistics, 2017).

From College Navigator, we included every 2-year public college, 4-year public college, and 4-year private non-profit college from Virginia. We only included these colleges, since in 2014, of all 481,768 undergraduate students in Virginia, 92% were enrolled in 2-year public colleges, 4-year public colleges, and 4-year private non-profit colleges (National Center for Education Statistics, 2015). We excluded colleges that did not have a physical campus (i.e., online colleges) or that did not list student enrollment. In an electronic document, we copied and pasted each college's name, website hyperlink, and student enrollment. We then used the search pane of each college's website using a combination of the following terms: smoking, tobacco, policy. If the website did not produce the college's tobacco policy, we used the same search terms on the Human Resources webpage, policy listing webpage, and the most current student and faculty handbooks.

Tobacco policies were copied and pasted into an electronic document for analysis. If we were unable to locate the tobacco policy, it was listed as "not available" in the study's results, since it was assumed that if members of a college community could not easily locate a tobacco policy on the internet, then they might not contact administrators to determine the official campus tobacco policy.

## Analysis

The outdoor policies were categorized based on the types of tobacco products being prohibited, including smoking policies, tobacco policies, and/or e-cigarette policies. Policies were categorized as "Smoking Policy" if the wording included "smoking" in general or more specific wording against all types of burning tobacco, such as cigarettes, cigars, cigarillos, cloves, hookah, and so on. Policies were categorized as "Tobacco Policy" if the wording was clear that "tobacco" included smoking and smokeless products, such as chew, dip, or snus. Policies were categorized as "E-cigarette Policy" if the wording was specific against e-cigarettes, vapes, or non-FDA approved products that mimic smoking.

The outdoor policies were further categorized based upon where smoking or tobacco use was prohibited on campus as follows: “No Policy” (did not prohibit smoking anywhere outdoors), “Entrance Policy” (prohibited smoking/tobacco use a certain distance from building entrances), “Perimeter Policy” (prohibited smoking/tobacco use a certain distance from the perimeter of buildings), “Designated Smoking Areas Policy” (prohibited smoking/tobacco use everywhere except for a number of designated areas), and “All Grounds Policy” (prohibited smoking/tobacco use everywhere outdoors).

## Results

There was a total of 70 colleges filtered from the College Navigator website. Of those, we could not locate the tobacco policy of 7 colleges and there was 1 college that did not provide student enrollment, giving us a final sample of 62 colleges. There were 22 (35%) 2-year public colleges, 14 (23%) 4-year public colleges, and 26 (42%) 4-year private non-profit colleges.

The colleges had a variety of outdoor policies that prohibited a range of tobacco products (Table 1). There were 2 (3%) colleges that did not prohibit tobacco use outdoors. Of the remaining 60 colleges, 29 (47%) colleges (with a total enrollment of 341,606 students) had an Entrance Policy, ranging from 20 feet to 100 feet (Mdn = 25 feet). There were 12 (19%) colleges (with a total enrollment of 26,801 students) that had a Perimeter Policy, which ranged from 25 feet to 50 feet (Mdn = 25 feet). There were 10 (16%) colleges (with a total enrollment of 33,132 students) that had a Designated Smoking Areas Policy, which ranged from 4 designated areas to 13 designated areas. However, it should be noted that 6 of the colleges did not specify the number of designated areas. Finally, there were 9 (15%) colleges (with a total enrollment of 28,749 students) that had an All Grounds Policy.

The college policies prohibited different types of tobacco products (Table 1). From the sample of college policies, 16 (26%) had a Smoking Policy, 22 (35%) had a Smoking Policy and E-cigarette Policy, 9 (15%) had a Tobacco Policy, and 13 (21%) had a Tobacco Policy and E-cigarette Policy.

## Discussion

The purpose of this study was to monitor the outdoor tobacco policies of Virginia colleges. Using the College Navigator website, we were able to locate each 2-year public, 4-year public, and 4-year private non-profit colleges in Virginia. From this, we assessed outdoor tobacco policies by searching the colleges' websites. Overall, the findings indicate that very few of Virginia's colleges are meeting national recommendations. It is important to reflect on these findings and discuss the implications for practice and future research.

There is a gap between the American College Health Association's recommended outdoor tobacco policies at colleges and the policies currently implemented at Virginia colleges. To date, only nine (15%) colleges in Virginia implement an All Grounds Policy. However, only two of those fully implemented the policy recommendations given by the American College Health Association by including smokeless tobacco and e-cigarettes as a prohibited products. To better serve the students attending Virginia colleges with an All Grounds Policy, campus administrators should consider prohibiting all types of tobacco products.

Unfortunately, most colleges in Virginia implemented tobacco policies that are often associated with non-compliance. Specifically, there were a total of 41 (68%) Virginia colleges (with a total enrollment of 368,407 students) that had an Entrance Policy or Perimeter Policy. While these types of policies seem logical to help prevent second-hand smoke exposure, several studies have indicated that smokers on college campuses do not comply with these types of policies (Amerando, Becker, & Johnson, 2010; Cho & DeVaney, 2010; Harris, Stearns, Kovach, & Harrar, 2009; Lee, Ranney, & Goldstein, 2013; Seitz et al., 2012). For example, Amerando and colleagues (2010) surveyed the compliance of 102 smokers of students, faculty of a policy that prohibited smoking 25-feet away from college building perimeters. They found that 50% of smokers complied with the policy "none of the time," 40% complied "some of the time," and only 10% complied "all of the time" (Amerando et al., 2010). In a different study, Harris and colleagues (2009) observed 265 smokers on campus during a one-week period, finding that only 88 (33%) complied with the policy.

Given the growing popularity and public health concern of e-cigarettes, it is important to discuss e-cigarettes in college tobacco policies. Our study found that 35 (56%) policies included e-cigarettes as a prohibited product. The vapors from e-cigarettes contain several potentially harmful chemical agents, traces of carcinogens, and addicting levels of nicotine (U.S. Department of Health and Human Services, 2016). According to the 2015 Youth Risk Behavioral Survey, 24% of high school students were current users of e-cigarettes (Kann et al., 2016), which is a 900% increase since 2011 (U.S. Department of Health and Human Services, 2016). The prevalence of e-cigarette use among these age groups resulted in a major report and call to action from the United States' Surgeon General (U.S. Department of Health and Human Services, 2016). By prohibiting e-cigarettes on campus, administrators can help to prevent use of this product as high school students make the transition to college.

#### Limitations

There were several limitations to our study. First, our search terms may not have resulted in finding the colleges policies, resulting in a lower sample size. Second, the colleges' publicly displayed tobacco policies may not have been up to date. Third, we did not include two-year for-profit colleges and four-year for-profit colleges, since the enrollment of these institutions makes up a small percentage of overall college students; however, by excluding these colleges, our findings cannot be generalized to all types of institutions.

#### Recommendations

We recommend that public health professionals in the state of Virginia advocate to legislators for a state-wide policy that would require all colleges to become tobacco-free. For example, the states of Arkansas, Illinois, Iowa, and Louisiana have implemented state-wide policies that prohibit tobacco products at state public colleges (American Nonsmokers' Rights Foundation, 2017). Ultimately, the implementation of such a policy would create a healthier learning environment, in which there would be a decrease in secondhand smoke exposure of over 400,000 students in the state.

As mentioned previously, organizations like Americans for Nonsmokers' Rights keep a count of colleges with completely tobacco-free outdoor policies; however, there is a lack of monitoring for other types of outdoor tobacco policies (e.g., No Policy, Entrance Policy, Perimeter Policy, Designated Smoking Areas Policy). In the spirit of the World Health Organization's MPOWER strategy, there should be monitoring for each type of campus tobacco policies on an ongoing basis, as this would allow health professionals to better gauge the strengths and needs of policies over the span of time. As such, future research should continue to monitor the outdoor tobacco policies of college campuses.

Table 1. Frequency of various tobacco policies implemented at colleges in Virginia

Type of policy	Entrances (%)	Perimeters (%)	Designated Areas (%)	All Grounds (%)
S	10 (16)	4 (6)	2 (3)	0 (0)
S & E	14 (23)	4 (6)	4 (6)	0 (0)
T	0 (0)	1 (2)	1 (2)	7 (11)
T & E	5 (8)	3 (5)	3 (5)	2 (3)

*Note.* S = Smoking Policy; T = Tobacco Policy; E = E-cigarette Policy

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