The Role of Peer Crowds and other Insights for Tailoring Youth Anti-Vaping Campaigns: A Survey of New Hampshire Teens

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Abstract

Introduction

Electronic vapor product use (vaping) is highly prevalent among youth and is known to vary by demographic characteristics. This study examines vaping prevalence among youth in New Hampshire by peer crowd as well as other protective and risk factors related to vaping.

Methods

In 2019, a cross-sectional, online survey was conducted among a statewide convenience sample of youth, 13-18 years of age, residing in New Hampshire.

Results

A total of 2,220 eligible youth completed the survey. Vaping was highly prevalent, with 53% (95% CI: 51% to 55%) reported having done so at least once in the past 30 days. Teens were diverse, with 10-20% identifying with Country, Mainstream, Preppy/Popular, Hip Hop, and Alternative crowds. Vaping was common in all peer crowds, ranging from 48% to 61% of youth. Males were significantly more likely to vape compared to females (61% vs. 42%) but the degree varied by peer crowd. Over 70% of youth who reported suffering symptoms of a major depressive episode in the past year vaped. Those who perceived they lived with someone who used alcohol or drugs, were highly likely to have vaped, notably Mainstream youth. Less acceptance of vaping was strongly associated with lower likelihood of vaping (32% vs. 69%).

Conclusion

Public health programs should focus youth vaping prevention campaigns broadly to increase awareness of risks and reduce acceptance of vaping while also targeting and tailoring campaigns

to youth segments with greater risk factors (experience with depression, household substance use, and by peer crowd).

SUMMARY BOX

What is already known on this topic? Tobacco use, including vaping, varies by demographics, peer crowd, depression, and perception of in-home substance use.

What is added by this report? Teens were diverse, with 10-20% identifying with Country, Mainstream, Preppy/Popular, Hip Hop, and Alternative crowds. Vaping was common but varied by peer crowd, as did risk factors. County and Preppy/popular youth had greater risk awareness and lower rates of vaping; Mainstream youth who perceived in-home substance use were more likely to vape.

What are the implications for public health practice? Prevention campaigns can be designed to appeal to multiple peer crowds to increase risk awareness broadly. Campaigns can also be targeted and tailored to youth segments who are more likely to vape.

Introduction

The 2016 Surgeon General's Report: *E-Cigarette Use Among Youth and Young Adults* reported that youth and young adults are uniquely vulnerable to long-term consequences of exposing the brain to nicotine, and concludes that youth use of nicotine in any form is unsafe[1]. According to the 2019 New Hampshire Youth Risk Behavior Survey (YRBS)[2], adolescent use of electronic vapor products (vaping) is skyrocketing. Fifty percent of high school youth had ever used a vaping product (34% in the past 30 days, up from 24% in 2017[3]); in comparison, only 5.5% were currently smoking cigarettes.

Peer groups or peer crowds are social reference groups, or subgroups of a population that share normative beliefs/behaviors[4]. This concept posits that although each individual has a local peer group they socialize with, both the person and the peer group belong to a larger "peer crowd" that shares significant cultural similarities, including values, activities, aspirations, and/or style[5]. Social norms refer to values, beliefs, attitudes, and/or behaviors shared by a group of people. They are often based on what people believe to be normal, typical, or appropriate. Social norms can function as unspoken rules for how people behave, and for how people are expected to behave. People generally follow social norms because they want to fit in with the people around them[6].

Social marketing campaigns have successfully designed messages and imagery for peer crowds that influences norms and behavior around alcohol and nicotine use, including vaping. These campaigns have built upon established approaches for naming and defining specific peer crowds[7,8]. Understanding which peer crowds are more likely to engage in vaping have informed targeted social marketing campaigns. In 2018, the authors conducted formative research for a social marketing campaign called #SaveYourBreathNH. This paper describes our research on

peer crowds, vaping, and risk and protective factors for vaping.

Methods

Target Population and Study Design

A cohort of 2,220 youth aged 13 to 18 years old who were residents of New Hampshire (based on self-reported zip code) completed the online survey. The survey was fielded from June - October, 2019. Youth were recruited by placing ads on Facebook and by promoting the survey through youth serving community partners who shared the survey link (n=2,183). The online survey was created using Qualtrics software. There were 17 middle-school aged youth who completed the survey while attending events at community-based organizations. Members of the study team administered those few surveys.

The evaluation plan was reviewed by the JSI Institutional Review Board (IRB #18-37 OHRP IRB00009069 John Snow, Inc.) and the study was deemed non-research and exempt from full IRB review. Youth were provided an explanation of the survey, who was sponsoring it (New Hampshire Department of Health and Human Services), and who was fielding it (JSI Research &Training Institute, Inc.). Assurance of anonymity and confidentiality of responses was also provided in the explanation. Youth then provided assent before starting the survey. Those who completed the survey were offered a $5 electronic gift card and entry into a raffle for an iPad mini or GoPro camera. In order to keep personally identifiable information out of the survey data set, respondents were forwarded to another survey application to provide their email address to obtain the incentive.

The sampling design was a convenience sample. A target sample size of 2,300 NH youth between the ages of 13 and 18 years was determined in order to accurately estimate (with 95% confidence, margin of error in the 3-5% range) the size of the peer crowds as well as the prevalence of vaping use in each group. Our sample size model used peer crowd estimates and vaping prevalence from a similar survey we completed in 2017 among Vermont's young adults[9]. By attaining 96% of the target sample size, accuracy goals were met.

Some respondents tried to take the survey repeatedly in order to claim incentives. We monitored the incentive survey closely for repeat or questionable IP and email addresses; in those cases, we removed actual surveys from the main data set that had the same finish date/time stamp as the start of the incentive survey.

Data Collection

The survey consisted of 51 questions for those who never vaped and 59 questions for those who vaped at least once. The time to complete the survey ranged from 10 to 15 minutes.

Peer crowd assessment. A common approach for evaluating social media campaigns measures peer crowd affiliation using a photo selection and ranking exercise[10,11]. The photos represent different peer crowds, based on the dress/accessories and poses taken by the actors, and the background details in the photos. Over time, researchers have developed different names and definitions of specific peer crowds, but recent studies typically include five of them[10,11]: "mainstream", "alternative", "popular" (aka "preppy"), and more recently, "hip hop" and "country".

For this survey, we created a series of 35 photos representing these 5 peer crowds. Based on our prior work, we customized the photos for the New Hampshire context in two ways: (1) there were 7 images for each peer crowd – 3 male, 3 female, and 1 gender neutral image; (2) outdoor backgrounds and poses that would be familiar to New Hampshire youth were incorporated (e.g., campfire, woods, New England-type urban settings). The images were pre-tested with 4 focus groups of New Hampshire youth. Focus group members were shown groups of photos for each peer crowd and asked to select a label to assign the group and describe that group's reputation. Once the images were finalized, we designed survey questions as follows: one image from each peer crowd was placed into seven questions (so 5 images per question).

Survey respondents were asked to select the one image from each question they most identified with. Once seven images were selected, the respondent was shown their selected images again and asked to rank them in terms of the ones they most to least identified with. Ranking several selected photos helped reliably align data to true peer crowd affiliations.

Respondents were assigned to a peer crowd based on this algorithm: (1) examine the top 3 ranked choices and assign to the peer crowd that had 2 or 3 choices in the top three; (2) if no peer crowd was assigned based on the first rule, pick the peer crowd with the most photos selected; (3) if neither the first or second rule was met, the respondent was categorized into a sixth group called multiple peer crowd-identifying (MPCI).

Prevalence of vaping. We employed the same questions as on the 2017 New Hampshire YRBS[12]. Specifically, ever-use was ascertained with the question: "Have you ever used an electronic vapor product?" (yes/no). Current use was ascertained among ever-users with the question: "During the past 30 days, on how many days did you use a vaping device?" (0 days/1

or 2 days/3 to 5 days/6 to 9 days/ 10 to 19 days/20 to 29 days/all 30 days). For this analysis, current users were defined as those who used 1 or 2 days or more in the past 30 days; not current users were defined as those who have never used, or used in the past but had 0 vaping days in the past 30 days.

Risk awareness, knowledge of health effects, and acceptance of vaping. We included a series of 15 questions from which we computed 3 scale scores. To create a risk awareness scale, we used one question from the Youth Tobacco Survey[13]: "do you believe that using a vaping device is…?" (less addictive/equally addictive/more addictive as smoking), 3 questions from the Monitoring the Future annual survey[14]: "How much do you think people risk harming themselves (physically or in other ways) if they… use a vaping device regularly; vape a liquid containing nicotine occasionally; vape a liquid containing nicotine regularly?" (not at all/some/a great deal). We added another similar question: "…vape a liquid without nicotine". Summing the number of responses of equally/more addictive and some/a great deal of risk resulted in a scale ranging from zero (less understanding of risk) to 5 (greater understanding of risk).

To create a knowledge of health effects scale, we included 5 true/false questions based on the 2016 Surgeon General's Report fact sheet[1]: "Vaping liquids usually contain nicotine; nicotine can affect teenagers' brains in a bad way; vaping liquids contain harmful chemicals; vaping does not hurt lungs; breathing in the cloud exhaled by someone vaping is harmful to your health." Summing the number of correct responses resulted in a scale ranging from zero (less knowledge) to 5 (greater knowledge).

Finally, to create an assessment of how acceptable vaping is to respondents, we included 5 questions based on the attitudinal construct regarding disapproval of social smoking[15], adapting

the wording from smoking to vaping: “It’s okay to vape socially when I’m out with my friends; If you only vape when out with friends, you are not really a vaper; Borrowing an e-cigarette, JUUL, vaping device is a great way to start a conversation with someone; People look cool when they vape; It’s not a big deal if my friends vape” (strongly disagree/disagree/neither agree nor disagree/agree/strongly agree). Reverse coding and summing the number of strongly disagree or disagree responses resulted in a scale ranging from zero (more accepting) to 5 (less accepting).

Experience of depression and of substance use in the home. Experience of a possible major depression episode was ascertained using the question from the 2017 New Hampshire YRBS[12]: “During the past 12 months did you ever feel so sad or hopeless almost every day for 2 weeks or more in a row that you stopped doing some of your usual activities?” (yes/no). We also ascertained perception of substance use in the home using 2017 New Hampshire YRBS question: “have you ever lived with anyone who had a problem with alcohol or drugs?” (yes/no/not sure). For this analysis, we collapsed responses to this latter question into two categories: yes and no/not sure.

Demographics. Age and grade were ascertained. Race and Hispanic ethnicity were ascertained using questions from the 2017 NH YRBS. The question on sexual orientation was taken from Vermont’s 2017 YRBS[16] (“Which of the following best describes you, check all that apply”: heterosexual (straight), gay or lesbian, bisexual, not sure) and adapted to include two response options of “other” and “prefer not to say”. We also adapted Vermont’s YRBS two questions regarding gender into one question (“What is your gender?” female, male, transgender, other, prefer not to say). For this analysis, respondents were then classified as either LGBTQ (responding transgender or other to the gender question and/or gay/lesbian, bisexual, not sure, or

other to the sexual orientation question) or as heterosexual (responding male or female and heterosexual/straight).

Interests and activities. The survey included a series of check-all-that apply questions, asking youth about their favorite activities, school subjects, and music. These descriptive data informed the campaign and are not analyzed here.

Statistical Analysis

We computed estimates of vaping prevalence, overall, and by various strata, as well as 95% confidence intervals for these estimates (large-sample, binomial method). We identified significant differences between strata by the presence of non-overlapping confidence intervals; we gave more interpretative weight to significant results from strata with larger sample sizes to improve generalizability. We used logistic regression to examine the effect of multiple risk and protective factors on the odds of current vaping. Models were created for each of the six peer crowds in our study, as well as an overall model with all peer crowds combined. We gave more interpretative weight to significant modeling results (lower limit of 95% CI >1.0) that were also substantive (OR >= 2.0). All analyses were performed using SAS 9.4.

Results

A total of 2,220 eligible youth completed the survey, of whom 59% were males (39% females, 3% transgender). Most were high-school aged (82% aged 15 and 18 years, 28% aged 12-14 years[17]). About 60% identified as white, not-Hispanic, and 40% as a person of color (African-American, Asian, Hawaiian/Pacific Islander, American Indian/Alaska native, with or without

Hispanic ethnicity). About 80% identified as heterosexual (20% as gay, lesbian, bisexual, unsure).

In our sample, vaping was highly prevalent. Overall, 60% (95% CI: 58% to 62%) reported having ever vaped, and 53% (95% CI: 51% to 55%) reported having done so at least once in the past 30 days (current vaping). The frequency of current vaping varied substantially. Nine percent (n=107) vaped 2 or less days/month; the majority vaped occasionally (3-9 days/month, 62.7%, n=729,). Frequent (10-19 days/month, 19.7%, n=229) and near daily (20-30 days/month, 8.5%, n=99) was less common.

We were able to classify 81% of youth into one of the five peer crowds. Country (n=472, 21%) and Mainstream (n=452, 20%) were the most commonly selected. Hundreds of teens also identified as Alternative (n=228, 10%), Hip Hop (n=288, 13%), and Preppy/Popular (n=368, 17%). The 19% of youth (n=412) who were not classified were retained in a sixth category--multiple peer crowd-identifying (MPCI). These youth selected images from more than one peer crowd, with no one peer crowd predominating.

Vaping was common in all peer crowds, ranging from 48% to 61% of youth (Table 1). Current vaping was significantly relatively less common among Country (48%) and Preppy/Popular (48%) groups. In terms of demographic categories (Table 1), males were significantly more likely to vape compared to females (61% vs. 42%), as were older teens compared to younger teens (55% vs. 47%). Vaping prevalence did not vary by whether someone identified as LGBTQ or heterosexual/binary, nor by identifying as white or person of color. Youth depression and household substance use were statistically significantly associated with exceptionally high vaping prevalence (Table 1). Over 70% of youth who reported suffering symptoms of a major

depressive episode in the past year, and 76% of youth who perceived they lived with someone who used alcohol or drugs, vaped.

About half of all youth correctly answered 4 out of 5 questions about the risk of "some or a lot" of harm with regards to smoking cigarettes and using vaping devices, and the risk of addiction from both activities. About half knew of specific health effects of vaping, correctly answering 3-5 out of 5 questions. Most youth were accepting of vaping, with about half disagreeing with at most only one social aspect of vaping (Table 2). The prevalence of current vaping was significantly higher among those with less risk awareness, less knowledge of harm, and more acceptance of vaping (Table 2). Interestingly, less acceptance of vaping was strongly associated with lower likelihood of vaping (32% vs. 69%).

We used logistic regression to bring together all factors into a single model, estimating the odds of current vaping. Single models were created for each of the 6 peer crowd groups (Table 3) and overall. There were commonalities and differences across the peer crowds. Across the groups, a recent depressive episode, or the perception of someone in the household using substances increased the likelihood of vaping. This was particularly true for household substance use among youth in the Mainstream and Preppy/Popular (Odds Ratio = OR = 5.5), and MPCI (OR = 4.5) groups. Also, across the board, being less accepting of vaping activity among peers resulted in much lower odds of vaping (ORs ranging from 0.2 to 0.4). The two peer crowd groups with relatively less high (but still high) vaping prevalence were Country and Preppy/Popular, also had significant protective effects of greater awareness of the risks of vaping (OR=0.4). Additionally, but at a potentially lower representation, youth of color who identified with the Alternative peer crowd were at a somewhat higher risk of vaping (OR = 2.0).

Discussion

Our study is the one of the few to describe the full range of peer crowd affiliations[18], rather than just one or two "high-risk" peer crowds, for a statewide sample of youth. We found New Hampshire teens to be diverse, representing all 5 peer crowds. Other studies have noted substantial numbers of youth that do not identify with an a priori defined peer crowd and tend not to be included in analyses. In our study, we found that 19% of youth fell into this category, which we called multiple peer crowd-identifying (MPCI), and included them in our analyses, representing another peer crowd affiliation. Like other studies, we found that vaping is widespread and also varied by peer crowd. Higher, and statistically similar, vaping rates were found among Alternative (59%), Hip Hop (55%), Mainstream (52%), and MPCI (61%) groups. Statistically lower vaping rates were among Country (49%) and Preppy/Popular (48%) groups.

We found that for New Hampshire youth, age, gender, depression, and perceived substance use in the home were also associated with increased likelihood of vaping. These findings are consistent with findings for tobacco and substance use generally[19,20]. Being less accepting of vaping by others was strongly associated with reduced likelihood of vaping. Youth who identified with the Mainstream, Preppy/Popular, and MPCI peer crowds were far more likely to vape if they perceived substance use in their households. Males in the Preppy/Popular and MPCI groups were more likely to vape than females.

What are the implications for public health practice?

Teens are undergoing profound exploration and learning of who they are during this phase in their lives. Their family situation strongly influences teens, the scaffolding on which their behavior and peer crowd affiliation build. As they begin to socialize beyond their core family

and friends, they can experience peer pressure, decisions about risk taking, and begin to identify with social reference groups, or peer crowds.

Local context and culture also matter in how peer crowds are expressed. For example, in general, the Country peer crowd identifies with the rugged outdoors. In the New Hampshire context, some activities, like camping and hiking, are more common than others like farming or rodeo. Similarly, in New Hampshire, the lack of urban communities, ruralness, and lack of diversity, make the HipHop peer crowd look unique to what is typically displayed as this peer crowd, although they still share the values and the feeling of struggle that is ascribed to this peer crowd. Because of this, creative and messaging for social marketing campaigns must be tested for regionality and very specific local norms or it will risk not resonating with the intended audiences.

Public health programs can create campaigns that appeal to a broad range of peer crowds, building on the norms and goals of these groups to increase awareness, and reduce acceptance, of vaping. Campaigns can also be targeted and tailored to youth peer crowd segments who may be especially likely to vape (e.g., those who have experienced major depression), or target youth across peer crowds by focusing on shared experiences. These variations could help increase the appeal and effectiveness of social marketing campaigns.

For youth who are already using vaping products frequently, public health campaigns alone are inadequate to help them quit or reduce use. A complementary intervention, such as screening, brief intervention, and referral for treatment (SBIRT) could be tailored to the youth context. Educational materials for providers based on studies like ours could help them better understand and communicate with youth, with the goal of better access to, and engagement in, substance use services.

Strengths and limitations

Strengths of this study include is its large sample size of 2,200 New Hampshire teens, which allowed us to characterize whether and in what ways vaping and associated risk and protective factors vary by peer crowd affiliation. However, the study relied upon convenience sampling, which could limit generalizability NH prevalence estimates. For example, we note that our sample recruited more males than females as well as more people of color. We recruited participants by advertising on Facebook; the ads did not target any specific segment of youth, such as tobacco or electronic vapor product users.

Our overall prevalence of vaping was 60% ever, and 53% current, use; which are higher than the 2019 estimates from New Hampshire YRBS (50% ever, 34% current). There are several possible reasons for the difference. A 2012 study[21] comparing prevalence rates for substance use from three youth surveys (National Survey of Drug Use and Health (NSDUH), Monitoring the Future, YRBS) found that NSDUH generally had lower rates. The authors noted this was consistent with the hypothesis that youth will underreport their use in household surveys if their interviews are not private. Our survey did not require parental consent, nor was it conducted in public school classrooms. All age- and resident- eligible youth completed the survey regardless of whether they had dropped out of school, were home-schooled, or attended private or public school.

Further, while the test-retest reliability of YRBS is generally good[22], reliability of recall of past 30-day substance use is not known, nor do we know for our survey. Since many NH youth occasionally vaped, it could have affected accuracy of reported recent use, resulting in a recall bias. Finally, the online format of our survey could have created a clustering bias if survey takers encouraged their friends to take the survey, particularly for the incentive.

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Footnotes

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Table 1: Current Use[a] of Vaping Products by New Hampshire Youth, Stratified by Individual Characteristics, 2019 (N=2,220)

	Number (Percent) of Youth	Percent Currently Vaping (95% Confidence Interval[b])
Peer Crowd		
Alternative	228 (10.3)	58.8% (52.4 - 65.2)
Country	472 (21.3)	48.5% (44.0 - 53.0)
Hip Hop	288 (13.0)	54.9% (49.1 - 60.6)
Mainstream	452 (20.4)	52.4% (47.8 – 57.0)
Preppy-Popular	368 (16.6)	47.6% (42.5 – 52.7)
Multiple Peer Crowd- Identifying (MPCI)	412 (18.6)	61.1% (56.4 – 65.8)
Gender		
Female	863 (39.8)	42.3% (39.0 – 45.6)
Male	1306 (60.2)	61.5% (58.9 – 64.1)
Sexual Orientation		
LGBTQ	414 (18.8)	51.0% (46.2 – 55.8)
Straight	1784 (81.1)	54.2% (51.9 – 54.2)
Race-ethnicity		
Person of color[c]	877 (39.5)	53.7% (50.4 – 57.0)
White, not-Hispanic[c]	1341 (60.5)	53.2% (50.5 – 55.8)
Age Group		

	Number (Percent) of Youth	Percent Currently Vaping (95% Confidence Interval[b])
12 to 14 years old	403 (18.2)	47.0% (42.1 – 51.9)
15 to 18 years old	1817 (81.8)	54.8% (52.5 – 57.1)
Ever lived with anyone who had a problem with alcohol or drugs		
Yes	897 (40.5)	76.1% (73.4 – 78.9)
No/Not sure	1317 (59.5)	37.8% (35.2 – 40.4)
During past 12 months, ever felt so sad and hopeless almost every day for > 2 weeks… stopped activities…		
Yes	1113 (50.2)	71.3% (68.6 – 73.9)
No	1106 (49.8)	35.4% (32.5 – 38.2)
OVERALL	**2220**	**53.4% (51.3 – 55.4)**

[a]Current use is defined as endorsing ever having used an ENDS product, and then reporting having vaped at least once during the past 30 days.

[b]Confidence interval computed by normal approximation to the binomial method.

[c]Persons of color are respondents who endorsed African-American, Asian, Hawaiian/Pacific Islander, American Indian/Alaska Native, or multi-racial race, with or without endorsing a Hispanic ethnicity. White persons endorsed white race and did not endorse Hispanic ethnicity.

Table 2: Awareness of Risk of Harm, Knowledge of Health Effects, and Acceptability of ENDS Use and Association with Current Vaping[a] among New Hampshire Youth, 2019 (N=2,220)

	Number of Youth	Percent Currently Vaping (95% Confidence Interval[b])
Aware of the risk of harm of vaping (median score[c] = 4.0)		
Less aware (< median score)	1215	60.8% (58.1 – 63.6)
More aware (>= median score)	1004	44.3% (41.3 – 47.4)
Knowledge of the effects of vaping (median score[c] = 3.0)		
Less knowledgeable (< median score)	934	68.4% (65.4 – 71.4)
More knowledgeable (>= median score)	1285	42.4% (39.7 – 45.1)
Degree of acceptance of vaping by others (median score[c] = 1.0)		
More accepting (< median score)	1260	69.4% (66.9 – 72.0)
Less accepting (>= median score)	959	32.2% (29.3 – 35.2)

[a]Current use is defined as endorsing ever having used an ENDS product, and then reporting having vaped at least once during the past 30 days.

[b]Confidence interval computed by normal approximation to the binomial method.

[c]The three scales (awareness, knowledge, acceptance) range in value from 1 to 5. The scale scores were then dichotomized at the median value to create risk categories.

Table 3: Peer-crowd models[a] for odds ratio (95% Confidence Interval) estimates of current vaping for select characteristics of New Hampshire Youth, 2019 (N=2,220)

	Alternative (n=228)	Country (n=472)	Hip Hop (n=288)	Mainstream (n=452)	Preppy/Popular (n=368)	MPCI[b] (n=412)	Overall peer crowds (n=2220)
Live with person with substance use[c]	3.7 (1.8–7.8)	2.2 (1.3-3.8)	2.3 (1.2-4.3)	5.5 (3.0-10.3)	5.5 (2.8-10.7)	4.5 (2.5-8.2)	3.6 (2.8-4.5)
Depressive episode[d]	3.1 (1.5–6.7)	2.4 (1.4-3.9)	2.0 (1.1-3.6)	2.4 (1.3-4.5)	3.0 (1.7-5.5)	3.1 (1.8-5.5)	2.7 (2.1-3.4)
LGBTQ	0.8 (0.4–1.6)	0.9 (0.5-1.6)	0.8 (0.5-1.6)	1.6 (0.8-3.1)	1.8 (0.9-3.9)	0.6 (0.3-1.1)	1.0 (0.7-1.3)
Male	1.0 (0.5–2.0)	1.3 (0.9-2.1)	1.4 (0.8-2.4)	1.7 (1.0-2.9)	2.2 (1.3-3.9)	2.5 (1.5-4.2)	1.6 (1.3-2.0)
15-18 years	1.3 (0.6–2.8)	1.1 (0.6-2.1)	0.9 (0.5-1.8)	1.7 (0.8-3.4)	1.6 (0.8-3.1)	1.3 (0.7-2.3)	1.3 (1.0-1.7)
Person of color[e]	2.0 (1.0–4.1)	1.2 (0.8-2.0)	1.3 (0.8-2.3)	0.8 (0.5-1.3)	1.1 (0.6-2.0)	1.5 (0.9-2.5)	1.2 (1.0-1.5)
Greater risk aware	0.8 (0.4–1.7)	0.4 (0.2-0.6)	0.8 (0.4-1.3)	0.6 (0.3-1.0)	0.4 (0.2-0.7)	0.6 (0.4-1.0)	0.5 (0.4-0.6)
Greater knowledge	0.7 (0.4–1.5)	0.7 (0.4-1.1)	0.5 (0.3-0.9)	0.6 (0.4-1.1)	1.0 (0.5-1.7)	0.8 (0.5-1.3)	0.7 (0.6-0.9)
Less accepting	0.4 (0.2–0.7)	0.2 (0.1-0.4)	0.3 (0.2-0.6)	0.2 (0.1-0.4)	0.3 (0.2-0.5)	0.3 (0.2-0.4)	0.3 (0.2-0.3)

[a]Models built using logistic regression; 95% confidence intervals based on Wald method.

[b]Multiple Peer Crowd Identifying (MPCI).

[c]"Ever lived with anyone who had a problem with alcohol or drugs?"

[d]During the past 12 months, ever feel so sad or hopeless almost everyday for 2 or more weeks in a row that you stopped doing some usual activities?

[e]Persons of color are respondents who endorsed African-American, Asian, Hawaiian/Pacific Islander, American Indian/Alaska Native, or multi-racial race, with or without endorsing a Hispanic ethnicity.