New Hampshire conducted a formative research project to inform the development of a youth segmentated social marketing campaign to prevent youth vaping and determine the existence of and percent of peer crowds in NH who are vaping. The campaign was called ‘Save Your Breath’. 

- Peer crowds share cultural similarities, including values, activities, aspirations, or style. Youth and young adults follow social norms because they want to fit in with the people around them. Researchers have characterized and named several peer crowds (mainstream, popular, country, alt, and hip hop) and found risk taking behavior varies by peer crowd [4,5].

- In 2019, primary data collection was via web-based survey to ascertain vaping behavior & knowledge, attitudes and beliefs, peer crowd affiliation, mental health, interests, and demographics of NH youth.

- Vaping was very common; 60% of respondents had vaped at least once in their lifetime. This analysis examines the association of both peer crowd affiliation and mental health on current vaping behavior (>1 vape in the past 30 days).

### RESULTS

#### Self-assessment of depression symptoms and perception of substance use in the home

**Have you ever lived with someone with a problem with alcohol or drugs?**

- 40% of youth reported perceiving that they had lived with someone with an alcohol or drug problem. This was a bit more than the 2019 NH YRBS result of 30%.

**During the past 12 months, did you every feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing your usual activities?**

- 50% of the sample reported depressive symptoms in the past year, which is greater than the 2019 NH YRBS result of 34%.

- One-third of youth reported both situations, 43% reported neither.

#### Vaping prevalence by peer crowd, stratified by depression or living with someone with a substance use disorder

- Among youth for whom both ‘risk factors’ were present, vaping prevalence was over 80%; regardless of peer crowd (exception Country, at ~70%).

### CONCLUSION

- The overall vaping rates by peer crowd were very high and similar because of the confounding factors of depression and perception of ever living with someone with alcohol or drug problem.

- When neither risk factor (MH or SU) was present, vaping prevalence varied as one might expect from the research. The Mainstream and Preppy/Popular crowds had lower rates of vape use, while the Hip Hop, Alternative, Country, and the Unidentified youth had higher rates.

- Among youth for whom both risk factors were present, vaping prevalence was over 80%; regardless of peer crowd (exception Country, at ~70%).

### RECOMMENDATIONS

- **A larger scale survey has more power to examine more nuanced concepts, such as the interplay of peer crowd and mental health.**

- **Survey questions that do not just focus on negative behaviors and ‘risk factors’ provide a more holistic view of young adults.**

- **Incentive-based online recruitment for surveys = beware of scams and bots! Check your data!**

- **Limitations of a convenience sample of vaping was higher in our survey than YRBS – difficult to determine why.**

### METHODS

- **Sample**: 2,220 youth aged 13-18 years assented to, and completed the survey.
- **Recruited via social media ads aimed at NH residents**
- **Incentive to participate**: $5 gift card, enrolled in raffle for GoPro or iPad Mini

This analysis focuses on 1,817 high school aged teens (15-18 years old) among whom peer crowd identification is well researched.

- Peer crowds are social groups that share normative beliefs and behaviors. Members share attitudes, values, beliefs, behaviors and/or style.
- Recent anti-vaping campaigns have successfully targeted peer crowds.
- Mental health (MH) struggles or diagnosis and substance use (SU) in Home (n=122) were highly associated with tobacco use.

Bivariate associations were examined using chi-square tests and 95% confidence intervals. A general linear model, fit using weighted least squares, was used to test for the main and interaction effects of mental health and peer crowd on average vaping prevalence. Analyses were completed in SAS 9.4 (proc freq, proc casewise).

### INTRODUCTION

New Hampshire Department of Health and Human Services

Eugenie Coakley, MA, MPH, PSTatM Independent Consultant

Christin D’Ovidio, MFA, CCPH JSH/John Snow Inc.

Jessica Morton, BS New Hampshire Department of Health and Human Services

### New Hampshire teens represent a diversity of peer crowds.

The vaping teenager: understanding the psychographics and interests of adolescent vape users to inform health communication. 2012;17(10):1215-31.


[3] Christenberry CV, McCambridge J, Kalady MF. ‘Save Your Breath’ is an example of an implementation study on a tobacco prevention campaign that was implemented in a large scale statewide intervention. AJPH, 2017. 107(3):389-395.
