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What's Going on with E-cigarette use in Vermont High Schools?

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Recommended Citation

Abdullah, Fay; Baumgartner, Elizabeth; Curran, Delaney; Damji, Noorin; Fritz, Madeline; Gereg, Catherine; Mak, Ray; McGee, Shayan; Crimmin, Alex; and Kaminsky, David, "What's Going on with E-cigarette use in Vermont High Schools?" (2020). *Public Health Projects, 2008-present*. 289.

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What's Going on with E-cigarette Use in Vermont High Schools?

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The Robert Larner, M.D. College of Medicine, American Lung Association in Vermont

Introduction

- The use of electronic cigarettes (e-cigarettes) has become popular practice among teenagers in the United States.
- E-cigarettes have been marketed as a "healthier" alternative to traditional cigarettes and include several flavor options to make them more appealing to teenagers.
- However, studies have shown that e-cigarettes are still harmful, leading to addiction, nausea, vomiting, headache, and upper airway irritation.
- Most recently, the outbreak of severe lung illnesses is believed to be related to e-cigarette use; the CDC and FDA are investigating the cause of this outbreak.

Objectives

- Evaluate Vermont high-schoolers' knowledge of e-cigarettes
- Understand the extent of high school e-cigarette use and addiction
- Identify factors influencing perceived harm of e-cigarettes
- Assess the impact of flavoring in e-cigarettes

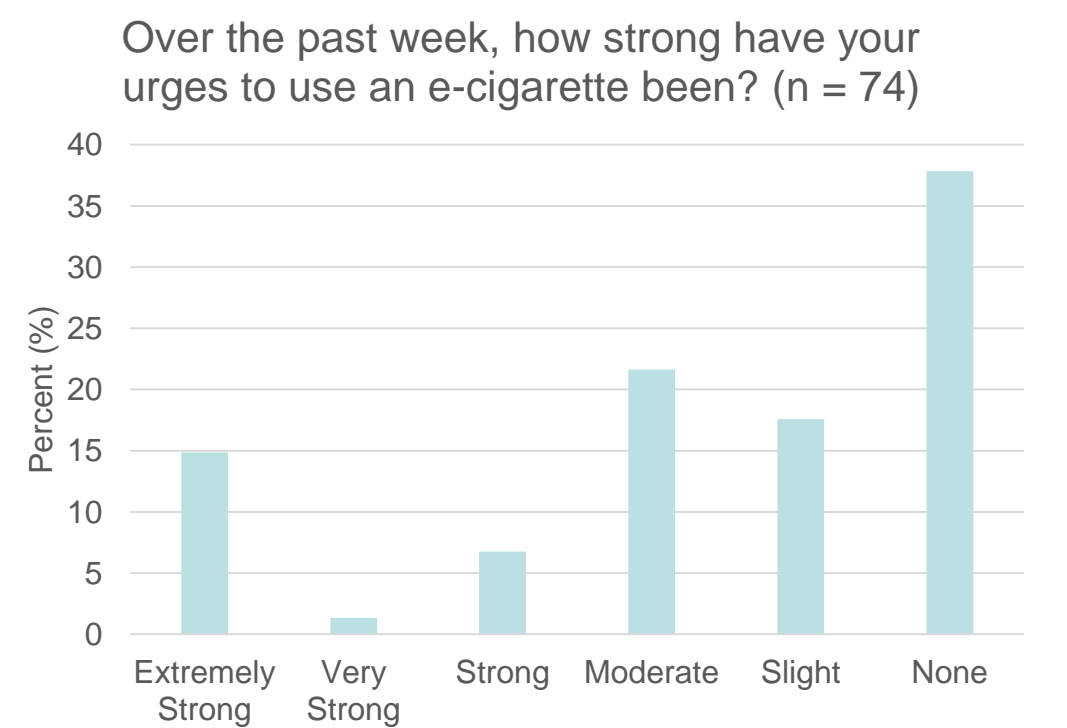
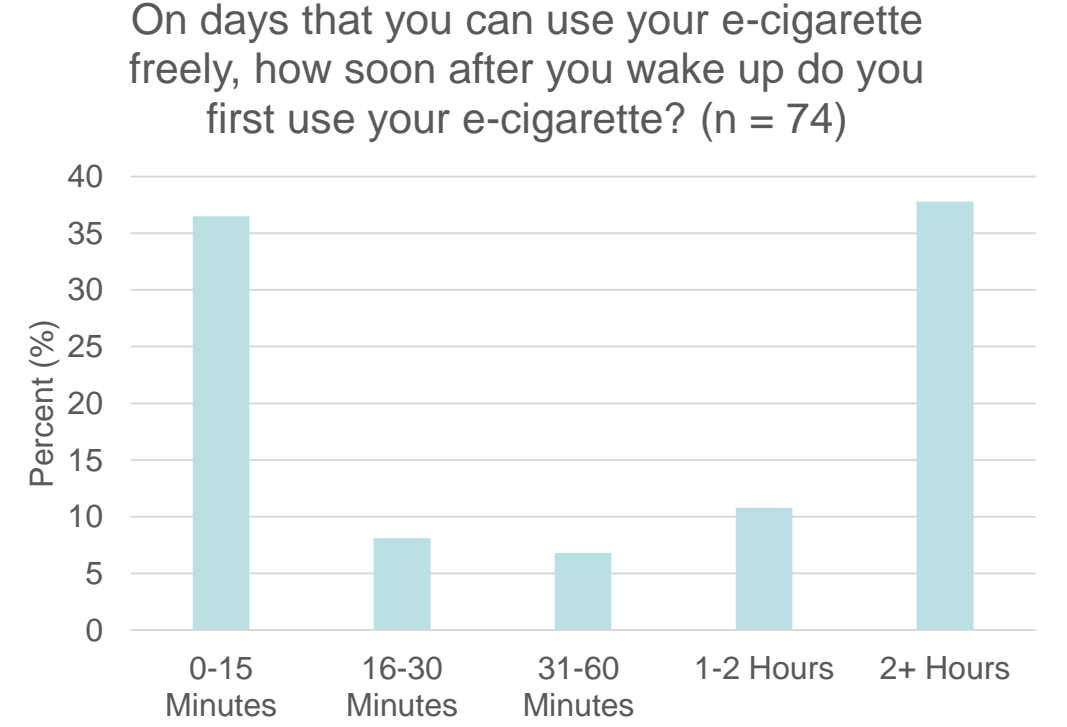
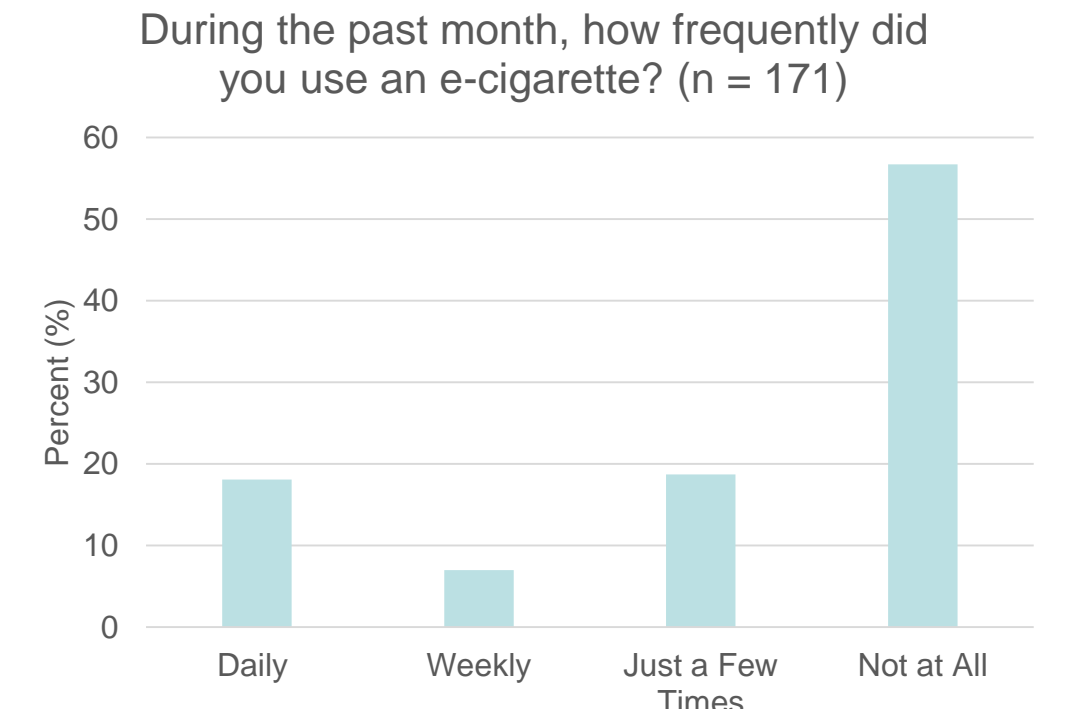
Methods

- Created a 24-item Redcap survey with questions addressing reasons of use, perceptions, and use of e-cigarettes
- Distributed survey to Vermont high school students through the Vermont Principal's Association (478 were completed)
- Identified focus group participants through the Vermont Raising Awareness of Youth Services group (n=1 focus group with 5 participants)
- Recorded and analyzed the focus group session for common themes and quotes
- Analyzed quantitative data from Redcap survey using Microsoft Excel

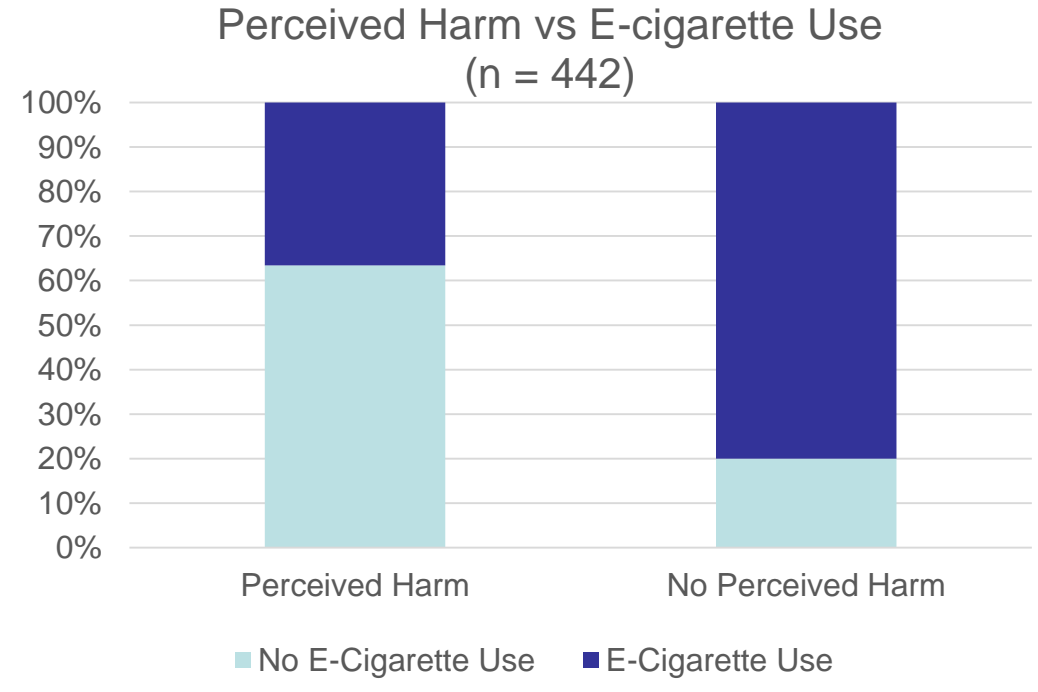
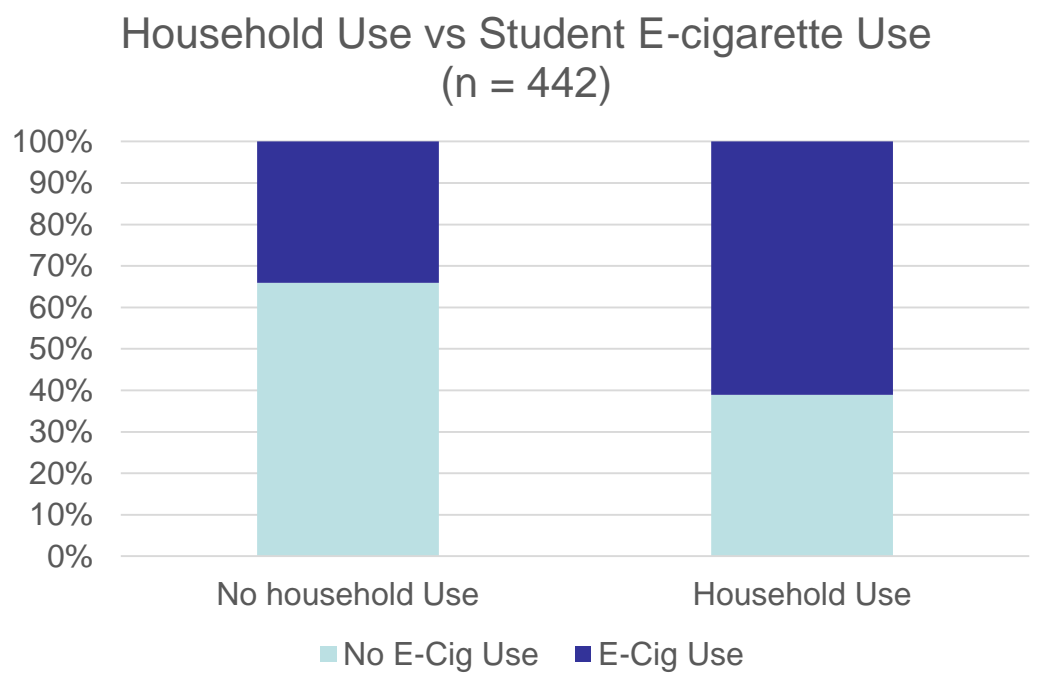
Results

| Gender | Grade | Ever-used | Knowledge of side effects | Reasons for use |
|------------------------------------|---------------------------------------|--|---|--|
| 56% Female 40% Male 4% Other | 51% 9-10th grade 49% 11-12th grade | 36% have used an e-cigarette at least once | 91% identified addiction 87% identified lung disease | 18% for the nicotine buzz 17% because friends/family use it |

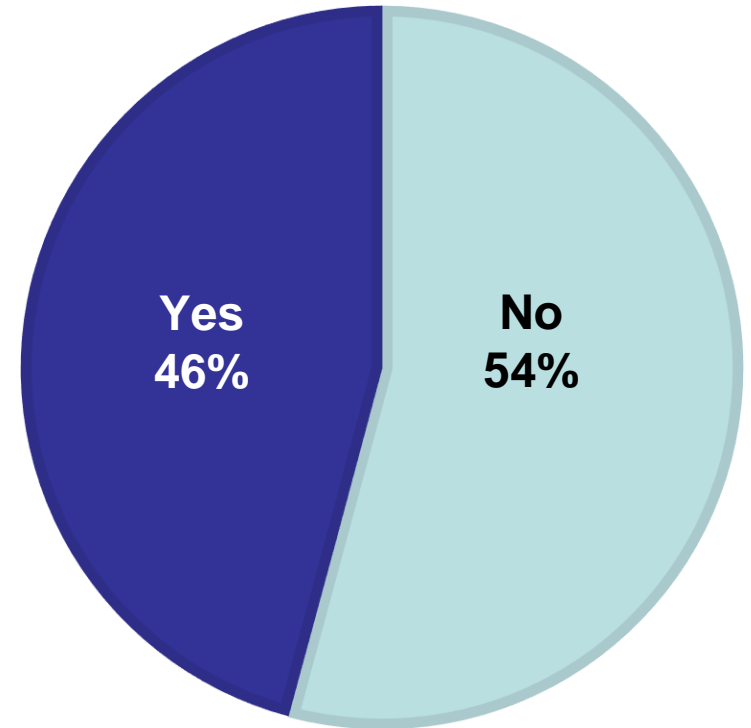
Frequency and dependency questions reveal a population of students who may be addicted to e-cigarettes.



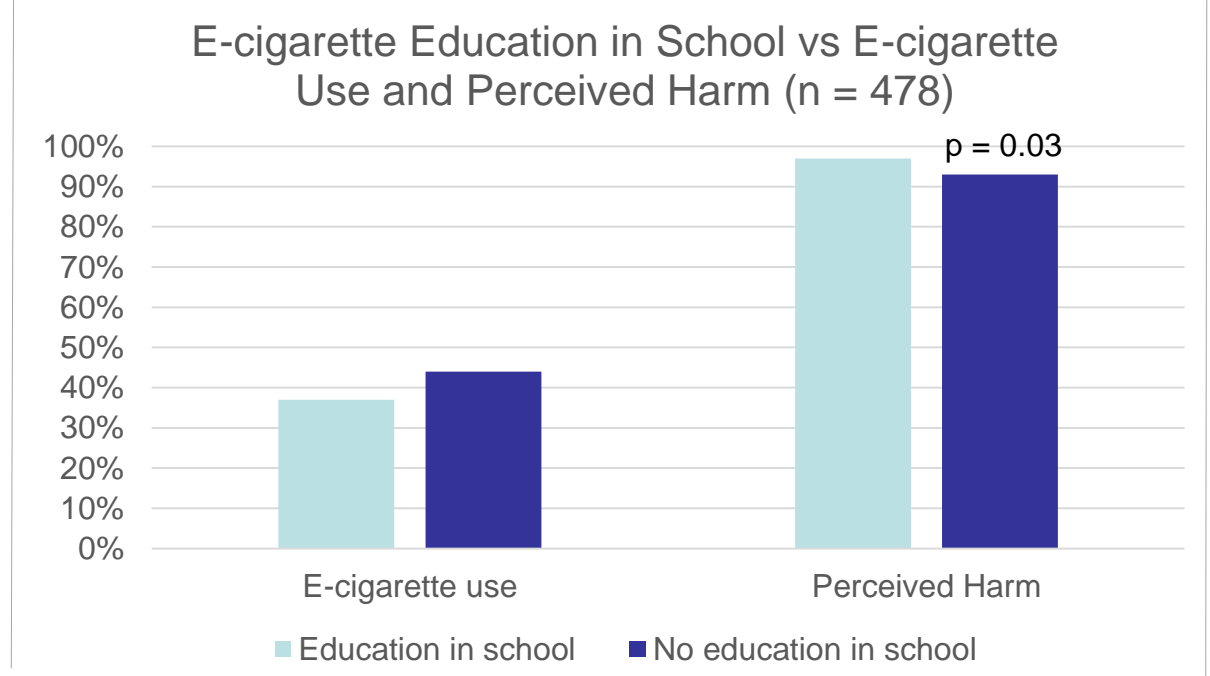
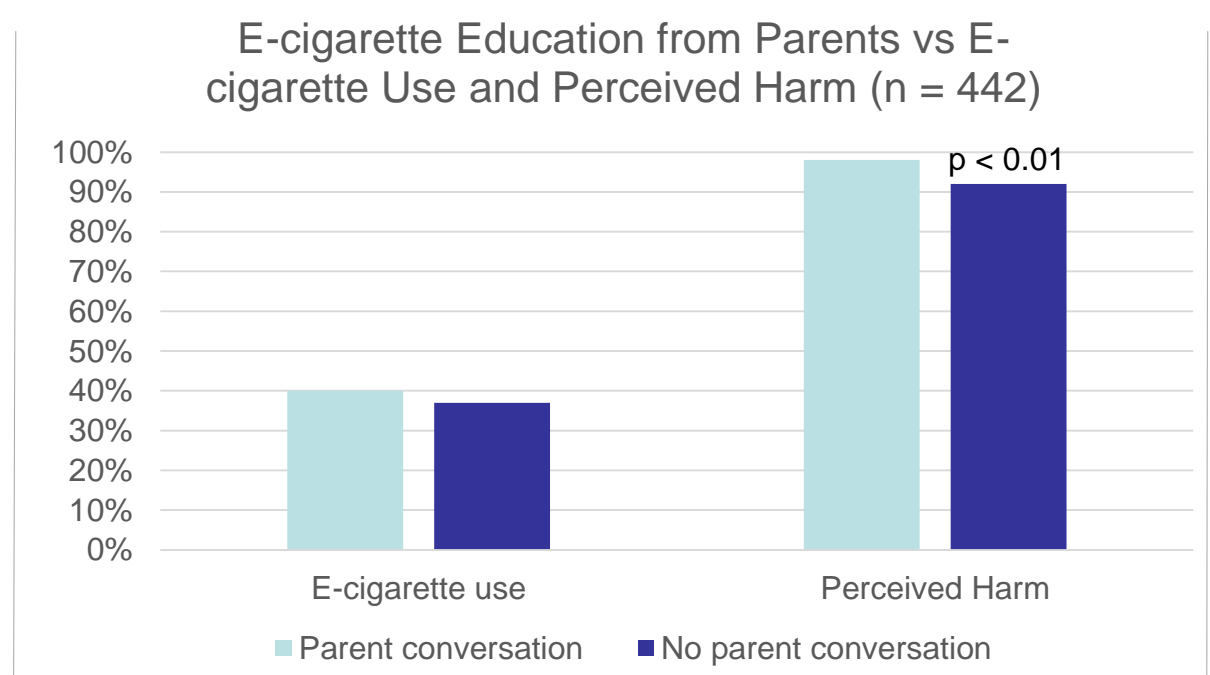
Household use and no perceived harm is associated with e-cigarette use (p < 0.01).



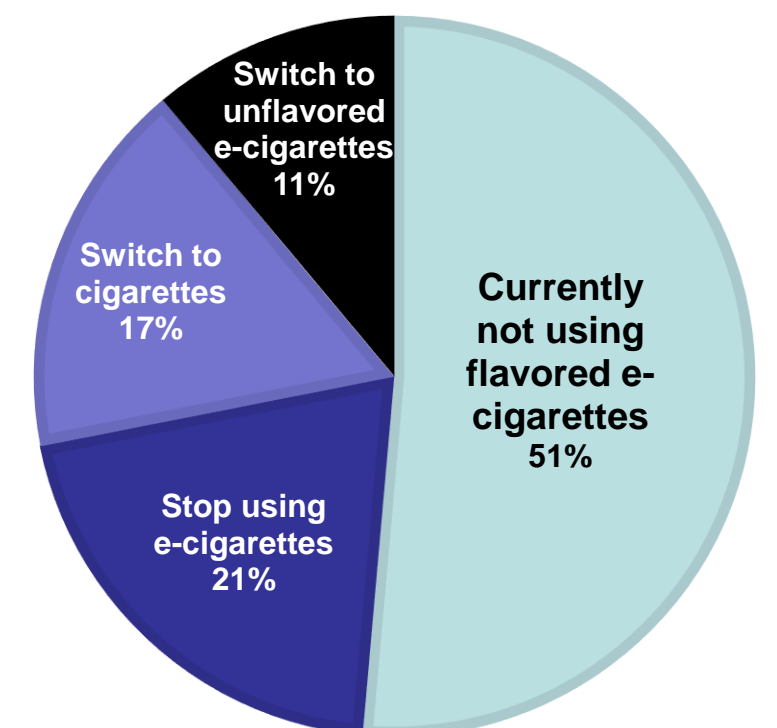
Impact of flavoring on high school e-cigarette use



Discussion on e-cigarette use with parents and in school is associated with greater perception of harm but the same prevalence of use.



If you couldn't get flavored e-cigarettes anymore, which of the following would you do? (n = 171)



Student Quotes

"A lot of kids are switching over to smoking... because it's too expensive to keep Juuling, but they're already addicted to the nicotine."

"It's hard to know how to help someone quit... youth are the best people to help their friends quit, but they don't know how to do it, and so letting youth know strategies would be beneficial."

Conclusions

- Most high school students in Vermont know what e-cigarettes are and many have tried them.
- Of those who have ever used, a significant number show signs of addiction and dependence.
- Students who have received education from either their school or parents perceive e-cigarettes to be more harmful, but education does not change prevalence of e-cigarette use.
- Flavoring does not appear to be as significant of a factor influencing use as we had expected.

Selected References

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