

Introduction

JUUL (Fig. 1) is a PAX labs electronic nicotine delivery system (ENDS) product that entered the U.S. market in 2015 and targets adolescents (under age 21) via novel online platforms (Willett et al., 2019). 'Juuling'—the act of using the product—is extremely popular among young people (McKelvey et al., 2018).

Fast facts:

- 45.5% of adolescents ages 15 to 17 and 29.1% of 13 to 14 year-olds report "ever seeing or hearing" of JUUL (McKegane & Russell, 2019).
- Adolescents 15 to 17 are 16 times more likely to report current JUUL use compared to those ages 25 to 34 (Vallone et al., 2018).
- Juuling is associated with negative health outcomes including nicotine addiction and the risk of progression to use of combustible cigarettes or other drugs (Jenssen & Boykan, 2019).

Knowing student perceptions of policies and enforcement is crucial to understanding risk behaviors (i.e. juuling, traditional cigarettes, alcohol, etc). Alcohol use, another adolescent risk behavior, is influenced by perceptions of alcohol law enforcement, acceptability of use, and accessibility (Paschall et al., 2012). Lipperman-Kreda & Grube (2009) found that higher levels of perceived policy enforcement were inversely and significantly related to past 30-day smoking behaviors. Schreuders et al. (2017) identified four responses school tobacco policies cause in adolescents: 1) fear of sanctions, 2) less pressure to conform to peer smoking, 3) internalization of anti-smoking beliefs, and 4) facilitating abstinence. Perceived inadequate enforcement can hinder the effectiveness of school tobacco policies (Schreuders et al., 2017).

Objectives

To propose and conduct a research study investigating adolescents' knowledge of community and high school JUUL policies, perceptions of enforcement of these policies, and juuling behaviors and intentions.

Research Questions

1. What do adolescents know about juuling policies in their communities and high schools?
2. What are adolescents' perceptions of policy enforcement around juuling?
3. How does knowledge of policies relate to juuling behaviors and intentions?
4. How do perceptions of policy enforcement relate to juuling behaviors and intentions?



Photo courtesy of Willett et al. (2018).



Photo courtesy of The Conversation (2019).

Fig. 1. JUUL device and JUULpods; Fig 2. Adolescent using a JUUL device.

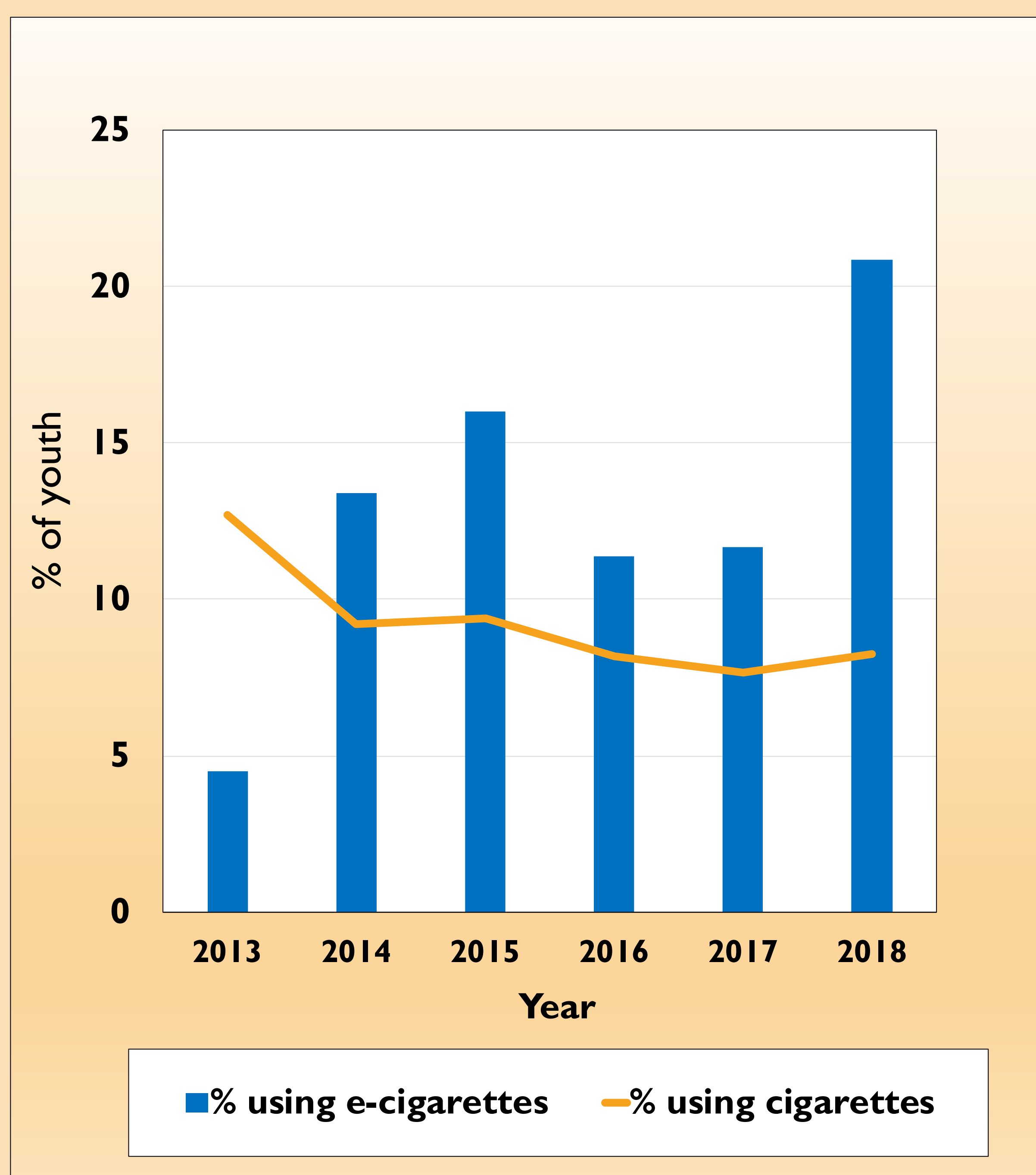


Fig. 3. Graph of National Youth Tobacco Survey data—United States, 2013-2018 estimates of current high school e-cigarette and traditional cigarette use. Current use is defined as past 30-day use.

Methods

This study will recruit 300 high school students ages 13 to 17. An online survey will be disseminated via community and neighborhood listservs.

Survey questions will resemble those used by Lipperman-Kreda & Grube (2009) and McKelvey et al. (2018). Questions will assess demographics, adolescents' knowledge of community and high school JUUL policies, perceptions of enforcement of these policies, and juuling behaviors and intentions.

Outcome measures will include:

- use and intentions to use JUUL;
- social acceptability & norms;
- personal & community disapproval; and
- perceived availability and prevalence of JUUL.

Analyses

The analyses will involve univariate and bivariate analyses of the students' responses. We will compare non-JUUL and JUUL users using Student t and chi-square tests. We will perform multivariate analyses relationships to examine demographics, knowledge of policies and perceptions of enforcement predicting behaviors and intentions. We expect to find a relationship between perceptions of enforcement and behavior/use intentions.

Discussion

Understanding what adolescents know, think, and do in response to policies and enforcement is essential in reducing the juuling epidemic. The strengths of this study include its focus on one community and its timeliness in determining what policies and enforcement are effective. Information from this work can offer strategies to limit adolescents' intentions to use this hazardous product and engage in other risk behaviors.

References

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