

CHARACTERISTICS, MOTIVATIONS, PATTERNS, AND TRENDS OF DAILY E-CIGARETTE USE AMONG 14-17 YEAR-OLD PAST 2-WEEK VAPERS

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OBJECTIVE

To describe a sample of past two-week e-cigarette users from an ecological momentary assessment (EMA) study, including e-cig and tobacco use patterns, vaping trends, context, and motivations to use.

SAMPLE & METHODS

PARTICIPANTS

- 50 adolescents (ages 14-17), past two-week e-cig users (with nicotine) in Kentucky
- 34% reported past 30-day use of tobacco cigarettes
- 42% Male
- 90% White
- 42% Rural
- 36% self-identified as being poorer than the average American
- 42% reported getting mostly As last semester of school

PROCEDURES

- 45-minute initial online survey
- 5-minute daily surveys at 4:00 p.m. for 14 days

INITIAL SURVEY MEASURES

- Demographics, age of initiation of e-cig and tobacco cigarette use, past year and past month e-cig, tobacco, and other substance use, ease of access, and high risk vaping behaviors

DAILY SURVEY MEASURES

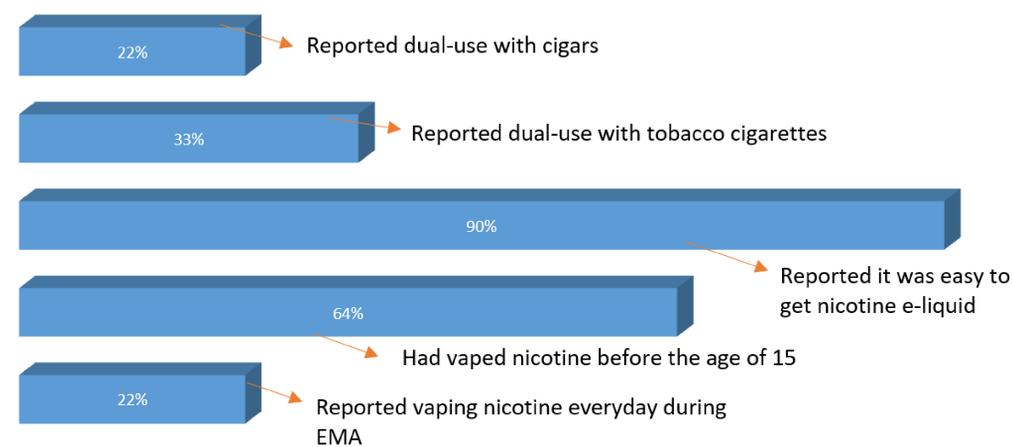
- Use: e-cig, dual-use w/ tobacco (same day as vaping), concurrent use of tobacco (within 2 hours of vaping), flavors, and other substances
- E-cig use occasions, puffs per occasion
- Context (with whom, where, nicotine strength) and motivations for use

ANALYSIS

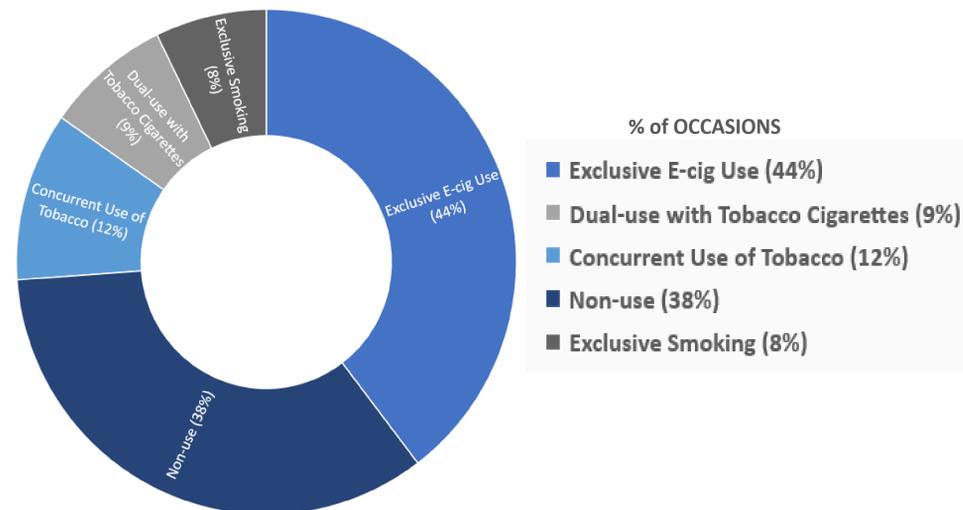
- 50 baseline surveys and 700 EMA daily observations (14 days x 50 adolescent participants)
- We used multi-level, random intercept, models with daily observations nested within individuals to examine use patterns.

CHARACTERISTICS, MOTIVATIONS, & USE

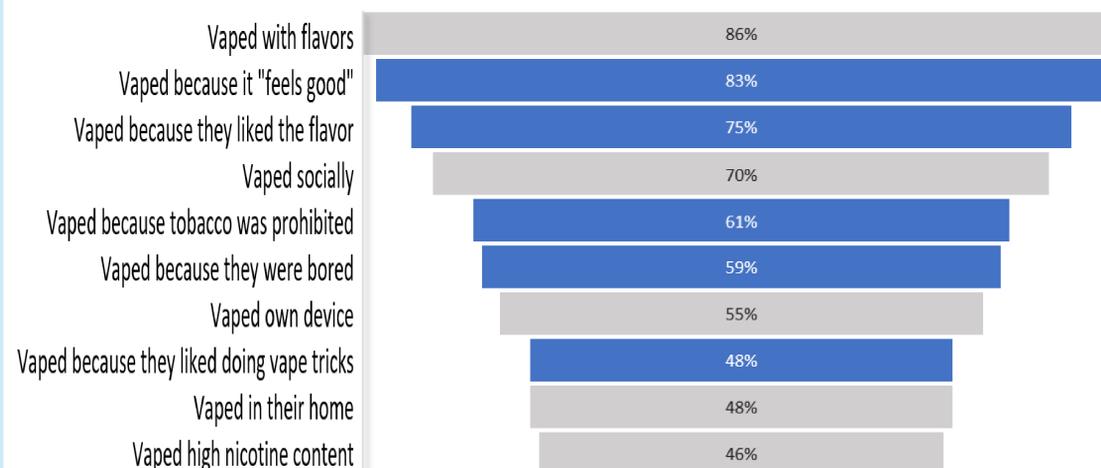
SAMPLE CHARACTERISTICS



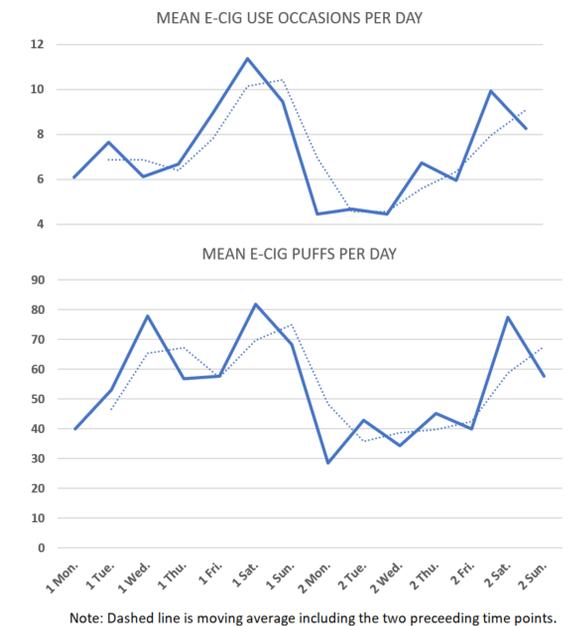
DAILY USE PATTERNS and TRENDS



DAILY CONTEXT and MOTIVATIONS



E-CIG PATTERNS & TRENDS



- On average, **youth vaped nicotine 7 times per day with 6 puffs per occasion.** The highest e-cig use occurred on a Saturday with an avg. of 11.4 occasions (consisting of an avg. 82 total puffs). The lowest use occurred on a Monday with an avg. of 4.4 occasions (consisting of an avg. 28 puffs).

CONCLUSIONS

When vaping nicotine during the past 30 days, 51% reported occasions of dual-use with marijuana, 33% w/ cigarettes, 22% w/ cigars or cigarillos, and 4% w/ chewing tobacco.

Daily survey results showed: Youth noted using marijuana during 28% of vaping occasions and other forms of tobacco 12%. 86% of vaping occasions occurred with flavors (5% menthol, 30% mint, 20% candy, chocolates, or sweets, 51% fruit, and 6% tobacco. 16% noted "other" flavoring).

36% of vaping occasions occurred when the participant was alone, 20% with one friend, 33% with several friends. 23% of vaping occasions occurred at someone else's home, 48% at participant's home, 11% outdoors, 9% at school.

Finally, e-cig use had a linear trend— highest on weekends, dropping significantly early in the week, rising mid-week.

In order to inform FDA policy, it is critical to better understand adolescent risk associated with e-cig use, including the use and uptake of combustible tobacco. A profile of adolescent low- and high-risk vapers would greatly inform prevention, policy, and intervention, but must include daily measures to accurately capture use and contextual and individual risk factors at the individual, interpersonal, and community levels.

CONFLICT OF INTEREST: None.

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