

Lifetime Electronic Cigarette Use is Associated with Increased Risk of Current Cannabis Use among Maryland High School Students

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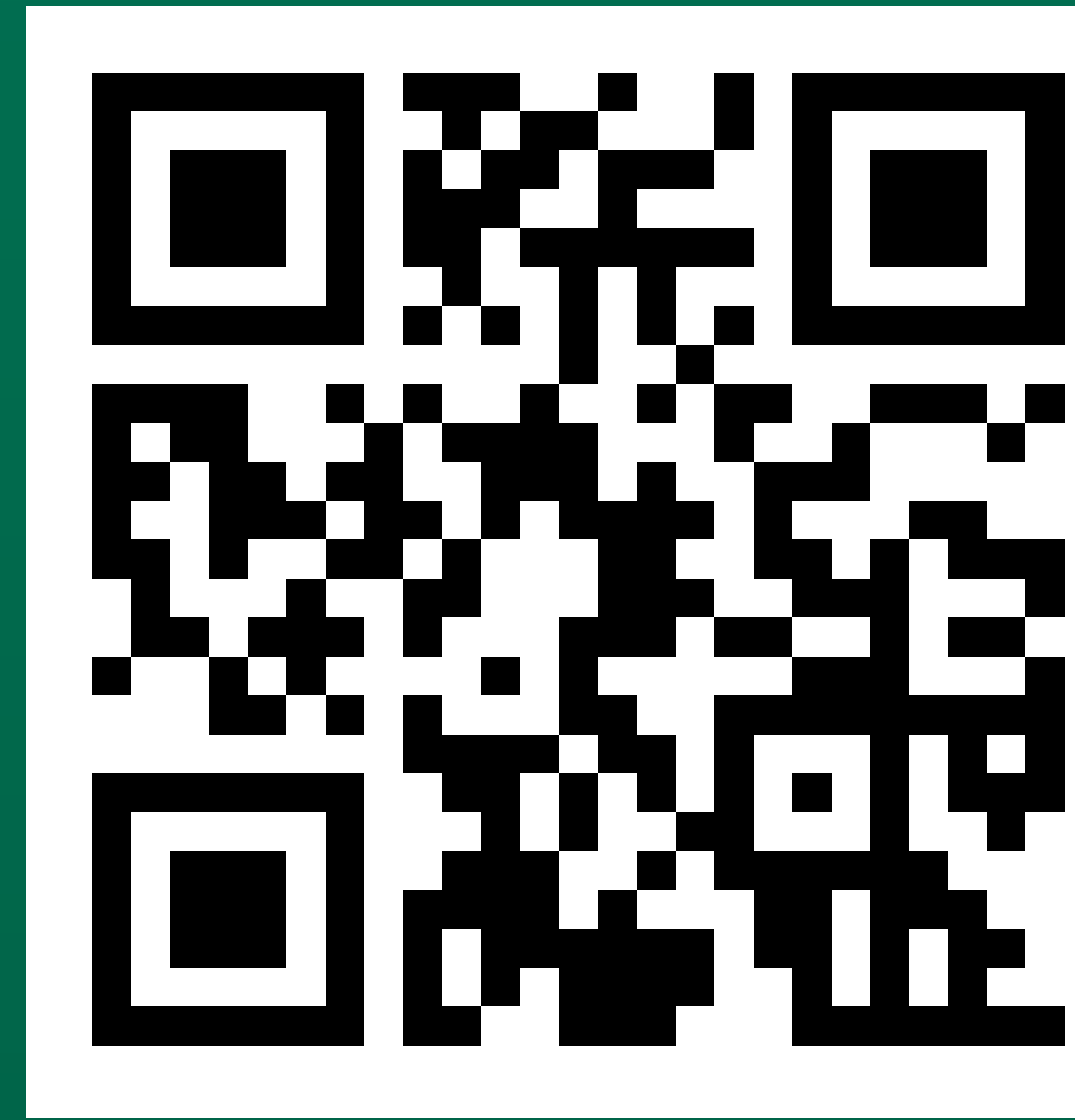
INTRODUCTION

- Historically, cigarettes preceded cannabis initiation, but recently, youth cigarette use has been on the decline and e-cigarettes have been growing in popularity.
- E-cigarettes are currently the most common mode of nicotine and tobacco consumption for youth.
- E-cigarettes may increase the odds of future cannabis use among youth.
- Objective:** To investigate the association between lifetime e-cigarette use and past 30-day cannabis use among Maryland high school students.

METHODS

- Secondary analysis of the CDC's 2016 Maryland Youth Risk Behavioral Survey/Youth Tobacco Survey (YRBS/YTS).
 - Two-stage cluster sample design (i.e., schools, classes within schools).
 - Data are representative of school-attending youth in the state (weighted n 201,357).
- Statistical Analysis
 - Multivariable logistic regression to assess lifetime electronic cigarette use (exposure) in association with past 30-day cannabis use (outcome)
 - Adjusted for sex, grade, race/ethnicity, county, lifetime cigarette use, past 30-day alcohol use, and emotional distress.
- Used R version 3.4.3 via the *survey* package.

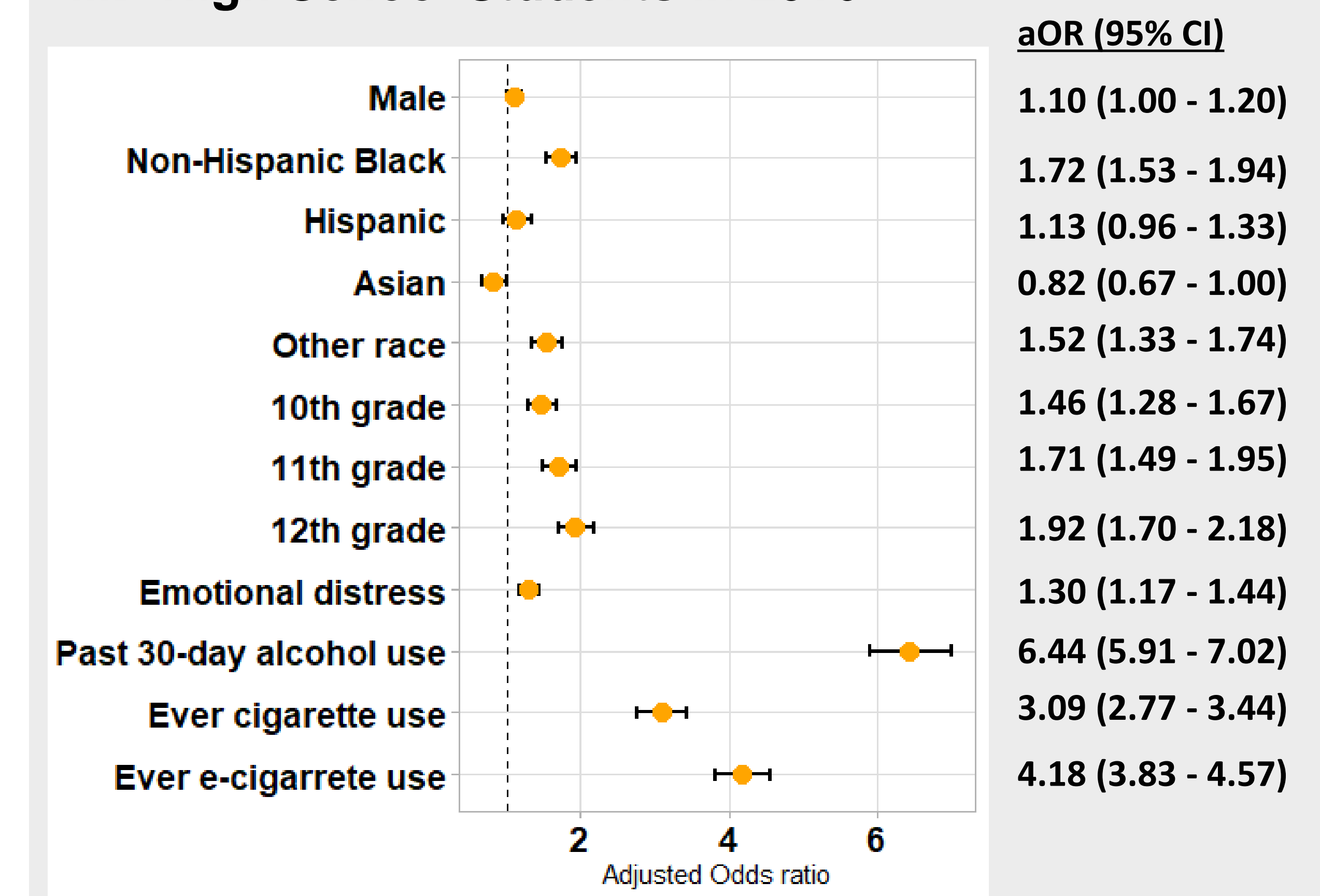
Any lifetime e-cigarette use is associated with 4-fold increased odds of current cannabis use among Maryland high school students (aOR = 4.18; 95% CI: 3.83 – 4.57).



RESULTS

- Any lifetime e-cigarette use was a strong and statistically significant predictor of past 30-day cannabis use.
- Prevalence of past 30-day cannabis use:
 - 38.3% (95% CI: 37.1% – 39.6%) among those reporting lifetime e-cigarette use
 - 6.7% (95% CI: 6.3% – 7.1%) among those reporting no lifetime e-cigarette use

Odds of Current Cannabis Use among MD High School Students in 2016



- Odds of past 30-day cannabis use were higher among:
 - Youth reporting past 30-day alcohol use, any lifetime cigarette use, and emotional distress
 - 10th – 12th graders (vs. 9th)
 - Students in the Non-Hispanic Black and “Other” race groups (vs. White)

DISCUSSION

- Preliminary evidence that e-cigarette use may precede cannabis use among Maryland youth.
- Preventing e-cigarette use could delay the initiation of cannabis use.
- Data were cross-sectional. Longitudinal studies are needed to determine the temporality between e-cigarette and cannabis use among youth.