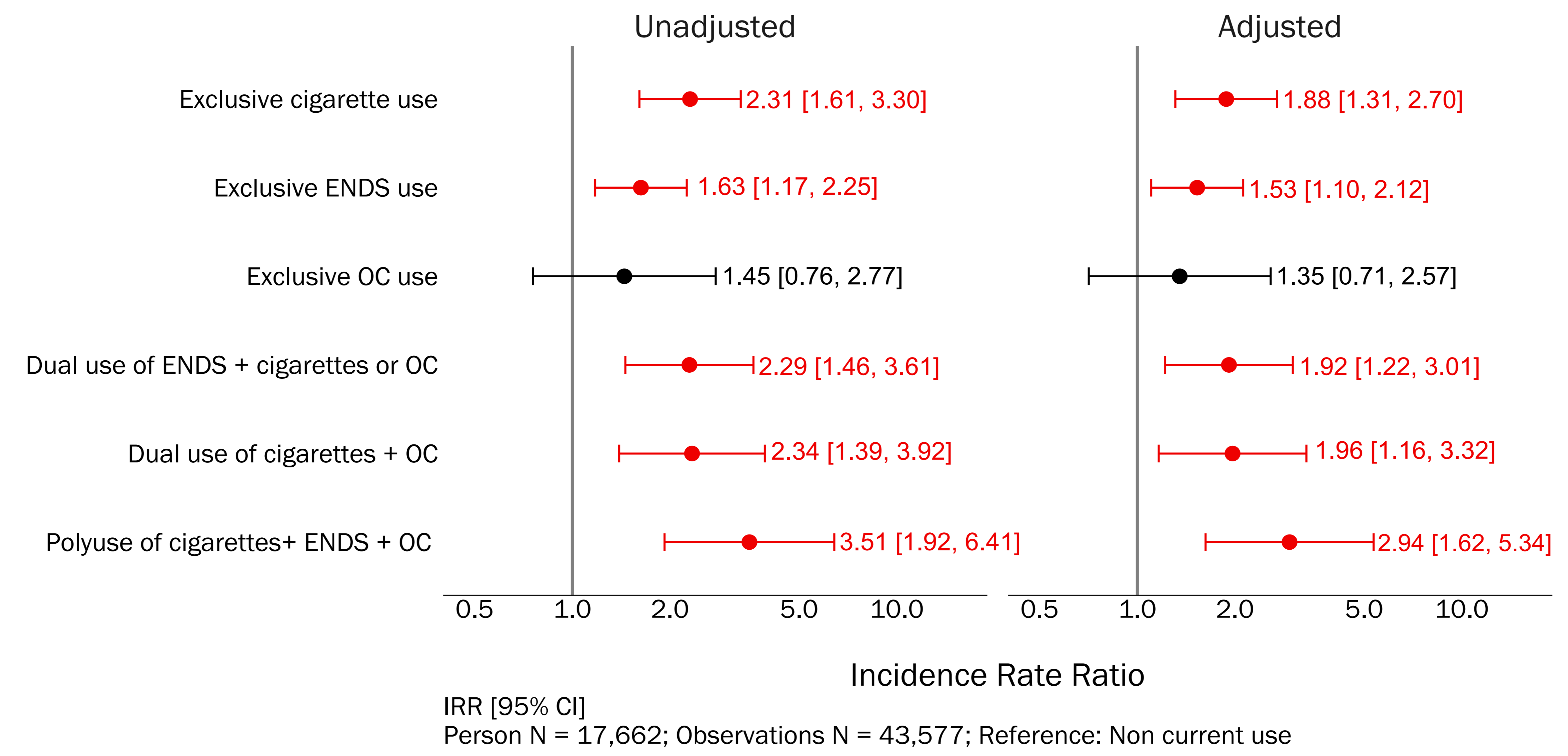


BACKGROUND

This study aims to evaluate prospective associations between exclusive, dual, and poly tobacco use and parent-reported diagnosed of bronchitis, pneumonia, or chronic cough among a nationally representative sample of US youth.

METHODS

- Population:** Adolescents 12-17 years from Population Assessment of Tobacco & Health Study, waves 1-5 (2013-2019) (including participants who age up into the youth sample).
- Exposure:** Time-varying, lagged (t-1) past 30 day tobacco use:
 - Exclusive cigarette use
 - Exclusive Electronic Nicotine Delivery systems use (ENDS)
 - Exclusive other combustible use (OC)
 - Dual use of ENDS + cigarettes or OC
 - Dual use of cigarettes + OC
 - Polyuse of cigarettes + ENDS + OC
 - Non-current use (referent)
- Outcome:** Parent-reported diagnosed bronchitis, pneumonia, or chronic cough.
- Analysis:** Weighted multilevel Poisson models (person n=17,662; 43,577 observations). Adjusted by time-varying age, and baseline covariates: sex, race/ethnicity, parental education, second hand smoke exposure, household use of combustible products, and BMI.



Exclusive cigarette, exclusive ENDS, dual use, and polyuse increased the risk of diagnosed acute bronchitis, pneumonia, or chronic cough among youth.

KEY FINDINGS

- We found an association between exclusive, dual, and polyuse and the incidence of acute bronchitis, pneumonia, or chronic cough among youth.
- This association was stronger for polyuse of tobacco products.
- The lack of association of exclusive OC use can be explained by lower frequency of use and smaller sample size.
- These findings provide evidence that both combustible tobacco and ENDS use among youth is associated with negative acute respiratory health outcomes.
- Limitation: conflation of bronchitis, pneumonia and chronic cough as single outcome.

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