

A longitudinal analysis of flavored cigar use and cigar smoking cessation in US adults

James H. Buszkiewicz, Steven Cook, Hayoung Oh, Richa Mukerjee,
Jana L. Hirschtick, and Nancy L. Fleischer

Department of Epidemiology
University of Michigan School of Public Health

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- The content of this presentation is solely the responsibility of the authors and does not necessarily represent the official views of the NIH or the FDA.
- We have no conflicts of interest to disclose.

NCI = National Cancer Institute, NIH = National Institutes of Health, FDA = Food and Drug Administration,
CTP = Center for Tobacco Products

• **BACKGROUND** • METHODS • RESULTS • DISCUSSION



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Motivation

- Cigar use doubled from 2000-2016 in the U.S.
- Cigar smoking linked to a \uparrow risk of death and CVD
- 1 in 3 adults who use cigars report flavored cigar use

CVD = cardiovascular disease

Sources: Corey (2018), Cornelius (2019), Glasser (2017), Hinds (2018), King (2013), Rostron (2019), Sharma (2022), Sterling (2017), Villanti (2019)



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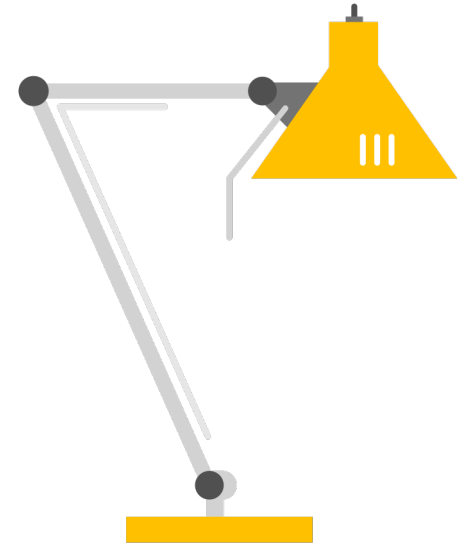
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Objective

- To examine whether flavored cigar use was associated with cigar smoking cessation in a longitudinal sample of US adults with established cigar use



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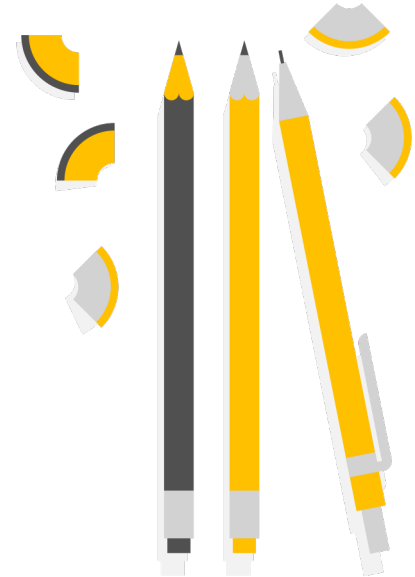
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Study population

- Population Assessment of Tobacco and Health, Waves 1-5 (2013-2019)
- Adults (18+) with established cigar use at baseline
 - Reported using cigars every day or some days
 - Used cigars during ≥ 5 days in the past 30 days
 - No exclusive, premium, traditional cigar use
- Had follow-up and complete covariate information



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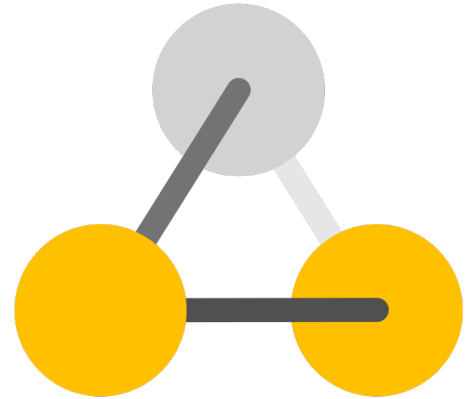
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Statistical analysis

- Exposure: Any flavored cigar use versus none
- Outcomes:
 - 30-day and 1-year cigar smoking cessation (primary)
 - 30-day cessation of cigars and cigarettes (secondary)
- Multivariable discrete-time survival approach
 - Model 1: flavored cigar use and time
 - Model 2: Model 1 + age, sex, race/ethnicity, and income
 - Model 3: Model 2 + tobacco use and past-year blunt use



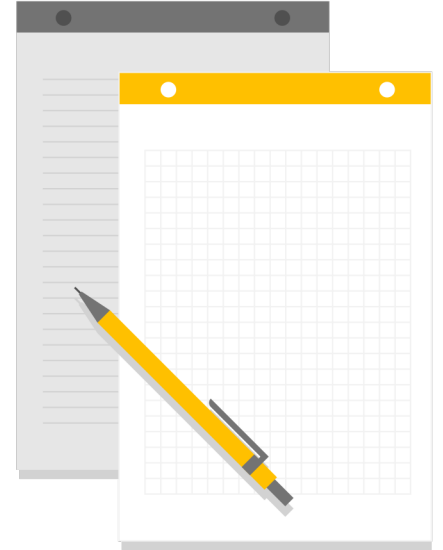
Note: Tobacco use included 30-day cigarette smoking intensity (sticks/day) and cigar smoking intensity (sticks/day)

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Sensitivity analyses

- Varied PATH survey weights used and baseline exclusion criteria:
 - Model 3a: PATH Wave 2 weights
 - Model 3b: PATH 'All Waves' weights
 - Model 3c: Restricted to adults age 25+ years
 - Model 3d: No 5+ days in the past 30 days restriction
 - Model 3e: No exclusive, premium, traditional cigar restriction
 - Model 3f: Restricted to exclusive cigar use (30-day only)



PATH = Population Assessment of Tobacco and Health

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Associations between flavored cigar use and smoking cessation, Population Assessment of Tobacco and Health, Waves 1-5

Outcome and model

Hazard Ratio (95% CI)

30-day cigar smoking cessation

Model 1: Unadjusted

Model 2: Adjusted for sociodemographic factors

Model 3: Adjusted for sociodemographic factors, tobacco use, and blunt use

1-year cigar smoking cessation

Model 1: Unadjusted

Model 2: Adjusted for sociodemographic factors

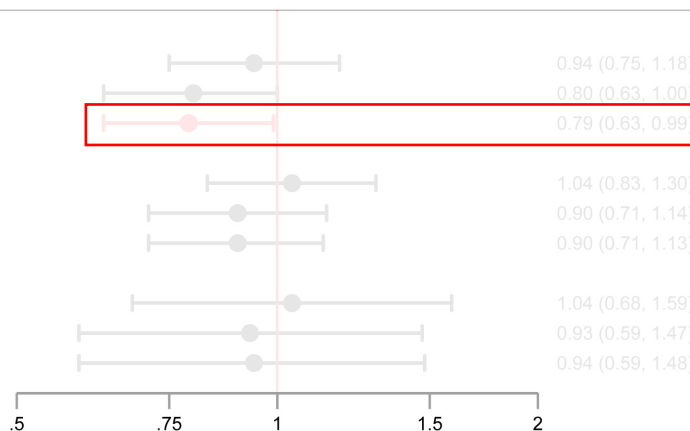
Model 3: Adjusted for sociodemographic factors, tobacco use, and blunt use

30-day cigar and cigarette smoking cessation

Model 1: Unadjusted

Model 2: Adjusted for sociodemographic factors

Model 3: Adjusted for sociodemographic factors, tobacco use, and blunt use



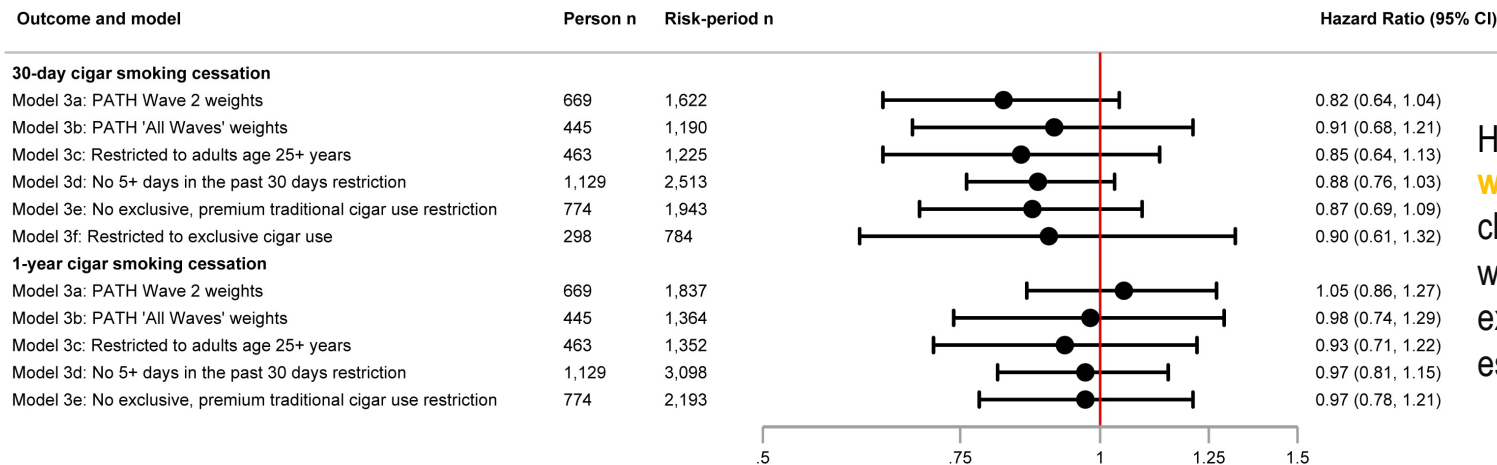
Among adults with established cigar use, flavored cigar use was associated with a 21% lower risk of cigar smoking and either 1-year cigar cessation compared to unflavored cigar use or 30-day cigar and cigarette smoking cessation.

Note: Person n=774, Risk period n = 1,943. Wave 1 survey weights used.

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Sensitivity analyses examining the associations between flavored cigar use and cigar smoking cessation, PATH, Waves 1-5 (2013-2019)



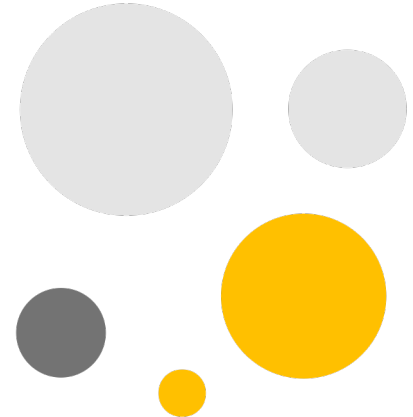
However, **our findings were sensitive** to our choice of PATH survey weights and baseline exclusion criteria for established cigar use

PATH = Population Assessment of Tobacco and Health

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Conclusions

- Limited evidence of lower risk of 30-day cigar smoking cessation associated with flavored cigar use
- There is a need for thoughtful consideration of how to define ‘established cigar use’ particularly in the context of flavored cigar products
 - More work on cigar use transitions needed
- Larger diverse cohorts may help identify differences by use patterns and sociodemographic subgroups

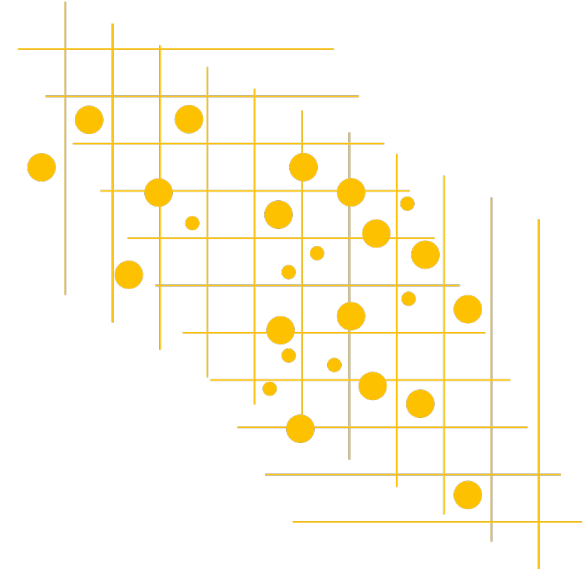


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Strengths and limitations

Strengths	Limitations
Nationally-representative	Small sample of adults with reported established cigar use
Longitudinal	Exposure definition may lack specificity among adults who use multiple cigar products
Short- and long-term cessation	
Numerous sensitivity tests	



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Comparisons to prior work and implications for FDA's regulation of flavored cigar products

- Most local, state, and international flavored cigar product bans have resulted in a decline in sales
- Some evidence those who use flavored cigars may switch to unflavored products in response to a ban
- Potentially large public health impact of a US ban



FDA = Food and Drug Administration

Sources: Brock (2019), Cadham (2020), Chen-Sankey (2022), Czaplicki (2019), D'Silva (2021), Farley (2017), Farley (2020), Kingsley (2020), Nguyen (2015), Pearlman (2019), Rogers (2017), Rogers (2020), Rogers (2021), Rostron (2019), Vyas (2021)

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Thank you

James Buszkiewicz, PhD MPH

Research Investigator

Center for Social Epidemiology and Population Health

Department of Epidemiology

School of Public Health

University of Michigan

buszkiew@umich.edu



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