

Secondhand Nicotine Vaping at Home and Respiratory Symptoms in Young Adults

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Online Supplementary Tables

Table E1: Comparison of sociodemographic characteristics, respiratory symptoms and secondhand nicotine vaping between participants participating in wave 2 and those who were lost to follow-up at wave 2*

	Participants lost to Follow-up in wave 2 N = 481	Participants in wave 2 N = 1609
Race [†]		
Asian	10 (2.1)	62 (3.9)
Black	13 (2.7)	18 (1.1)
Hispanic White	290 (60.4)	791 (49.2)
Non-Hispanic White	121 (25.2)	611 (38.0)
Others	46 (9.6)	126 (7.8)
Parental Education at Baseline		
Completed grade 12 or less	177 (36.8)	397 (24.7)
Some college	147 (30.6)	501 (31.1)
Completed college or more	73 (15.2)	549 (34.1)
Missing	84 (17.5)	162 (10.1)
Sex [†]		
Female	209 (43.5)	827 (51.4)
Male	272 (56.5)	782 (48.6)
Respiratory Symptoms		
Wheeze	55 (11.4)	201 (12.6)
Bronchitic Symptoms	81 (17.6)	302 (19.8)
Secondhand nicotine vaping	59 (12.3)	183 (11.5)

* Shortness of breath information was not available in wave-1, therefore it was not included in this table.

[†] Chi-square p-value ≤ 0.05

Table E2: Primary exposure to vaping and smoking (tobacco or cannabis or both), and secondhand exposure to tobacco smoking and cannabis (smoking or vaping), among study participants with secondhand nicotine vaping (N=810)*

	Primary Vaping or Smoking [†]	Secondhand Smoking or Cannabis [‡]	Primary Vaping or Smoking and Secondhand Smoking or Cannabis	No Exposure to primary or secondhand smoking or vaping or cannabis
Wave 1 (N=242)	4.5%	55%	26.5 %	14.0 %
Wave 2 (N=184)	10.5 %	46.5 %	33.1 %	9.9 %
Wave 3 (N=161)	9.6 %	34.4 %	42.0 %	14.0 %
Wave 4 (N=223)	11.5 %	33.2 %	48.4 %	6.9 %

* A total of 542 study participants reported secondhand nicotine vape exposure during the study period with some reporting exposure in multiple years (total reports=810).

[†] Participants who reported smoking cigarettes, vaping e-cigarettes, or using (smoking or vaping) cannabis in past 30 days), but no other secondhand exposure besides secondhand nicotine vape exposure.

[‡] Participants who reported exposure to secondhand combustible tobacco or secondhand exposure to cannabis , but had no primary smoking or vaping.

Table E3: Odds of developing respiratory symptoms among young adults exposed to secondhand nicotine vaping in previous, current, and both years compared to those with no secondhand nicotine vape exposure (N=1,609)

Secondhand Nicotine Vape Exposure	Wheeze* OR (95%CI)	Bronchitic Symptoms* OR (95%CI)	Shortness of Breath* OR (95%CI)
Not Exposed	Ref	Ref	Ref
Exposed in Previous Year	1.23 (0.72, 2.11)	1.63 (1.07, 2.46)	1.67 (1.06, 2.64)
Exposed in Current Year	1.28 (0.76, 2.14)	1.57 (1.06, 2.33)	1.67 (1.08, 2.59)
Exposed in Current and Previous Year	1.03 (0.50, 2.14)	1.58 (0.92, 2.74)	1.94 (1.04, 3.62)

* OR and 95% CI is based on a regression model with person specific random intercept and adjustment for wave, age, sex, race, parental education, personal smoking or vaping of nicotine or cannabis, and secondhand smoking or cannabis (smoking or vaping) exposure.

Table E4: Effect of past 30-day secondhand nicotine vaping on wheeze, bronchitic symptoms and shortness of breath, additionally adjusted for asthma status (N=2090)*

	Wheeze	Bronchitic Symptom	Shortness of Breath
Model1 [†]	1.57 (1.14, 2.17)	1.87 (1.46, 2.40)	1.84 (1.31, 2.58)
Model2 [‡]	1.19 (0.84, 1.68)	1.37 (1.04, 1.79)	1.46 (1.01, 2.11)

* The odds ratio (OR) and 95% confidence interval (CI) for wheeze, bronchitic symptoms and shortness of breath is based on mixed-effect logistic regression models.

[†] Model 1: OR and 95% CI is based on logistic regression with person specific random intercept and adjustment (fixed effect) for wave, age, sex, race, parental education and asthma status.

[‡] Model 2: OR and 95% CI is based on logistic regression similar to Model 1 with additional adjustment (fixed effect) for primary smoking or vaping of nicotine or cannabis, and secondhand smoking, or cannabis smoking or vaping exposure.