

Supplementary Table S1: Mean number of cigarettes per day smoked by vaping frequency and level of psychological distress (n = 22466)

Psychological Distress	Total	Frequency of Vaping			
		Every Day (n = 644)	Some Day (n = 2046)	Ever but no longer (n = 8601)	Never (n = 11175)
None/Low (n = 14699)	11.52 [11.33 – 11.70]	10.43 [9.39 – 11.46]	12.03 [11.42 – 12.65]	12.43 [12.14 – 12.73]	10.87 [10.64 – 11.11]
Moderate (n = 5762)	12.32 [12.02 – 12.63]	9.01 [7.76 – 10.26]	11.74 [10.93 – 12.54]	13.16 [12.70 – 13.62]	11.85 [11.43 – 12.28]
Serious (n = 2005)	13.56 [13.05 – 14.07]	10.27 [8.39 – 12.16]	13.65 [12.05 – 15.25]	14.30 [13.60 – 15.00]	12.98 [12.18 – 13.77]
Total		9.97 [9.21 – 10.74]	12.12 [11.65 – 12.59]	12.84 [12.59 – 13.09]	11.24 [11.04 – 11.45]

Notes: Data obtained from pooled 2014-2018 National Health Interview Surveys. Numbers reported are weighted to account for NHIS survey weights.

Psychological distress measured using the Kessler 6 (K-6) scale.

Supplementary Table S2: Adjusted multiple linear regression measuring association of cigarettes smoked per day by vaping frequency, levels of psychological distress, interaction of vaping frequency by psychological distress, age, and demographic variables (sex assigned at birth, sexual orientation, ethnicity, race, marital status, family income) (n = 22,466)

	β	Std. error	95% CI	<i>p</i> -value
Intercept	10.62	0.25	10.13 - 11.11	<0.01
Vaping Frequency				
Every Day Vaping	-1.48	0.40	-2.26 - -0.70	<0.01
Some Day Vaping	0.77	0.24	0.29 - 1.24	<0.01
Ever But No Longer Vaping	1.48	0.15	1.18 - 1.78	<0.01
Psychological Distress				
Moderate. PD	0.91	0.16	0.59 - 1.23	<0.01
Serious PD	1.98	0.26	1.47 - 2.49	<0.01
Vaping Frequency*Psychological Distress				
Every Day Vaping*Moderate PD	-2.21	0.81	-3.79 - -0.63	<0.01

	Every Day Vaping*Serious PD	-1.74	1.05	-3.80 - 0.32	0.09
	Some Day Vaping* Moderate PD	-1.08	0.54	-2.13 - -0.02	<0.05
	Some Day Vaping* Serious PD	0.05	0.92	-1.76 - 1.86	0.96
	Ever Vaping*Moderate PD	-0.08	0.34	-0.75 - 0.59	0.81
	Ever Vaping*Serious PD	0.03	0.52	-0.99 - 1.05	0.96
Age					
	25-44 years old	2.25	0.24	1.78 - 2.72	<0.01
	45+ years old	4.59	0.26	4.08 - 5.10	<0.01
Sex Assigned at Birth					
	Female	-2.20	0.14	-2.48 - -1.93	<0.01
Sexual orientation					
	Lesbian or gay	-0.79	0.44	-1.66 - 0.07	0.07
	Bisexual	-0.89	0.44	-1.75 - -0.03	<0.05
	Other	-1.66	0.53	-2.70 - -0.62	<0.01
Ethnicity					
	Hispanic/Spanish	-5.12	0.21	-5.52 - -4.71	<0.01
Race					
	Black/African American only	-3.90	0.19	-4.27 - -3.54	<0.01
	American Indian/Alaskan Native only	-2.97	0.49	-3.93 - -2.02	<0.01
	Asian only	-4.61	0.33	-5.26 - -3.95	<0.01
	Multiple race	-0.48	0.44	-1.35 - 0.39	0.28
Marital Status					
	Married	0.68	0.19	0.32 - 1.04	<0.01
	Separated or divorced	0.70	0.21	0.29 - 1.10	<0.01
	Widowed	0.79	0.34	0.12 - 1.46	<0.05
	Living with partner	0.67	0.22	0.24 - 1.11	<0.01
Family Combined Income					
	\$50,000 - \$99,999	-0.79	0.17	-1.12 - -0.47	<0.01
	\$100,000 and over	-0.45	0.20	-0.84 - -0.06	<0.05

Notes: Reference groups are never vaping, low psychological distress, <25 years of age, male, straight (that is not lesbian or gay, or bisexual), non-Hispanic/Spanish, White only, never married, and <\$50,000.

β: Beta coefficient, Std. error: Standard error, 95% CI: 95% Confidence Interval, PD: Psychological Distress.

Data obtained from pooled 2014-2018 National Health Interview Surveys.

Beta coefficients reported are weighted to account for NHIS survey weights.

Psychological distress measured using the Kessler-6 scale.

P-values represent tests of significance of individual estimated regression coefficients in the multiple linear regression model.