

**Supplemental Table S1: Adjusted odds ratios of self-reported difficulty concentrating, remembering, or making decisions because of a physical, mental, or emotional condition in youth.**

Variables	Adjusted Odds Ratio (95% CI)
Smoking and Vaping Status	
Ever dual users	4.19(2.97,5.92)
Exclusive ever cigarette smokers	1.50(1.18,1.91)
Exclusive ever e-cigarette users	3.13(2.25,4.34)
Never users	Reference
Age of participant	0.98(0.95,1.01)
Sex	
Male	1.40(1.27,1.54)
Female	Reference
Race/Ethnicity	
Non-Hispanic Black	1.19(1.00,1.42)
Hispanic	1.29(1.12,1.48)
Non-Hispanic Asian	0.70(0.50,0.98)
Non-Hispanic AI/AN	1.93(1.36,2.73)
Non-Hispanic NHOPI	1.44(0.79,2.62)
Multiple races	1.26(0.99,1.61)
Non-Hispanic White	Reference
Other tobacco use	
Yes	1.07(0.91,1.27)
No	Reference
During the past 30 days, have you had a strong craving or felt like you really needed to use a tobacco product of any kind?	
Yes	2.64(2.14,3.24)
No	Reference
During the past 30 days, on how many days did you use any tobacco product(s)?	
1 or 2 days	1.01(0.75,1.37)
3 to 5 days	1.07(0.74,1.55)
6 to 9 days	0.50(0.34,0.74)
10 to 19 days	1.13(0.74,1.73)
20 to 29 days	0.45(0.26,0.79)
All 30 days	0.64(0.44,0.93)
0 days	Reference
Reported you smoked cigarettes on $\geq$ 1 of the past 30 days	
Yes	1.52(1.17,1.98)
No	Reference
How old were you when you first tried using an e-cigarette, even once or twice?	0.89(0.85,0.93)