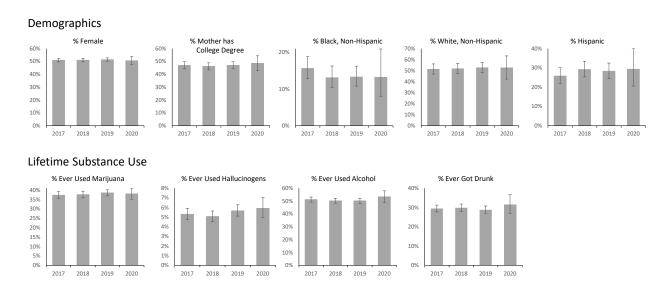
## **Supplemental Online Content**

- Miech R, Leventhal A, Johnston L, O'Malley PM, Patrick ME, Barrington-Trimis J. Trends in use and perceptions of nicotine vaping among US youth from 2017 to 2020. *JAMA Pediatr*. Published online December 15, 2020. doi:10.1001/jamapediatrics.2020.5667
- **eFigure.** Demographics and Use Levels of Selected Substances in 2020 and Previous Years among U.S. 10th and 12th Grade Students
- eTable 1. Survey Question Wording, Response Categories, and Sample Sizes
- **eTable 2.** Comparison of Demographics in 2020 with Previous Years among U.S. 10th and 12th Grade Students
- **eTable 3.** Comparison of Lifetime Use Levels of Selected Drugs in 2020 with Previous Years among U.S. 10th and 12th Grade Students
- **eTable 4.** Observed Prevalence of Nicotine Vaping by Year and Reporting Interval, And Coefficients for Predicted Values
- eTable 5. Prevalence of JUUL Use by Year and Reporting Interval
- **eTable 6.** Sample Sizes by Survey Question and Year for Surveys Collected on March 14th or Earlier in All Years
- **eTable 7.** Comparison of 2020 Demographics with Previous Years among U.S. 10th and 12th Grade Students, Samples in All Years Limited to Surveys Collected on March 14 or Earlier
- **eTable 8.** Comparison of Lifetime Use Levels of Selected Drugs in 2020 with Previous Years among U.S. 10th and 12th Grade Students, Samples in All Years Limited to Survey Collected on March 14 or Earlier
- **eTable 9.** Observed Prevalence of Nicotine Vaping by Year and Reporting Interval for Surveys Collected on March 14th or Earlier in All Years
- **eTable 10.** Prevalence of JUUL Use by Year and Reporting Interval for Surveys Collected on March 14th or Earlier in All Years
- **eTable 11.** Prevalence of Vaping Brands Reported Most Often Used among 10th and 12th Grade Students Who Vaped Nicotine in the Past 30 Days for Surveys Collected on March 14th or Earlier in All Years, by Year
- **eTable 12.** Percent 10th and 12th Grade Students Who Vaped Nicotine in the Past 30 Days and Reported Getting Selected Vaping Materials Would Be "Fairly Easy" or "Very Easy" for Surveys Collected on March 14th or Earlier in All Years, by Year
- **eTable 13.** Percent of 10th and 12th Grade Students Who Report Perceived Risk of "Great Harm" from Occasional and Regular Nicotine Vaping for Surveys Collected on March 14th or Earlier in All Years, by Year

This supplemental material has been provided by the authors to give readers additional information about their work.

## eFigure: Demographics and Use Levels of Selected Substances in 2020 and Previous Years among U.S. 10th and 12th Grade Students



Note: Bars indicate 95% confidence intervals. For exact estimates, see eTables 2-3. Substances with highly stable prevalence levels in recent years selected for this comparison. Differences between 2020 and 2019 estimates are not significantly different (p<.05) for any of these outcomes.

eTable 1: Survey Question Wording, Response Categories, and Sa	mple S	izes	eTable 1: Survey Question Wording, Response Categories, and Sample Sizes							
			Sample S	Size						
Question	2017	2018	2019	2020						
Nicotine Vaping <sup>a</sup> To "vape" is to use a device such as a JUUL, vape-pen, e-cigarette, e-hookah, or e-vaporizer to inhale a vapor into the lungs. <sup>b</sup>										
Have you ever vaped? 0="No" 1="Yes"										
If yes:										
In 2019 and 2020 asked: On how many DAYS (if any) have you vaped NICOTINE 1="0 Days" 2="1-2 Days" 3="3-5 Days" 4="6-9 Days" 5="10-19 Days" 6="20 or More" in your lifetime?during the last 12 months?during the last 30 days?										
"Daily" nicotine vaping coded as answer of 6										
In 2017-18 asked: On how many occasions (if any) have you vaped NICOTINE 1="0 Occasions" 2="1-2 Occasions" 3="3-5 Occasions" 4="6-9 Occasions" 5="10-19 Occasions" 6="20-29 Occasions" 7="40 or more"  •in your lifetime?  •during the last 12 months?  •during the last 30 days?										
For all years, any answer of 2 or more indicates prevalence	8,556	9,031	17,442	8,392						
JUUL use <sup>a</sup>										
[picture of pod device here]										
This is a JUUL										
On how many DAYS (if any) have you used a JUUL with a standard pod (that is, the types of pods for sale at most convenience stores)? 1="0 Days" 2="1-2 Days" 3="3-5 Days" 4="6-9 Days" 5="10-19 Days" 6="20 or More"  •in your lifetime?  •during the last 12 months?  •during the last 30 days?										
"Daily" nicotine vaping coded as answer of 6										
For all years, any answer of 2 or more indicates prevalence			3,984	8,443						

Vaping Brand <sup>c</sup>				
In 2020 question was:				
What is the brand name of the vaping device you use most often? 1="JUUL" 2="SMOK" 3="Suorin" 4="Vuse" 5="Stig" 6="Other[please write in]"				
In 2019 question was:  What is the brand name of the vaping device you use most often? 1="JUUL" 2="KandyPens" 3="Vuse" 4="blu" 5="Other[please write in]" 6="MarkTen" 7="Logic" 8="bo" 9="Myle" 10="PHIX" 11="SMOK" 12="SMPO" 13="Suorin"				
14="ZOOR"				
For study analyses 2019 responses for brands not on 2020 version of question coded as "Other"			1,916	1,744
Perceived Accessibility of Vaping Devicescid			1,010	.,
To "vape" is to use a device such as a JUUL, vape-pen, e-cigarette, e-hookah, or e-vaporizer to inhale a vapor into the lungs. How difficult do you think it would be for you to get each of the following, if you wanted some? 1="Probably Impossible" 2="Very Difficult" 3="Fairly Difficult" 4="Fairly Easy" 5="Very Easy"  Vaping device (JUUL, e-cigarette, e-pen, etc.)				
Answers 4 and 5 indicates "fairly or very easy"	591	1,235	1,408	546
Perceived Accessibility of Nicotine Solutions for Vaping <sup>c,d</sup>				
To "vape" is to use a device such as a JUUL, vape-pen, e-cigarette, e-hookah, or e-vaporizer to inhale a vapor into the lungs. How difficult do you think it				
would be for you to get each of the following, if you wanted some? 1="Probably Impossible" 2="Very Difficult" 3="Fairly Difficult" 4="Fairly Easy" 5="Very Easy"				
E-liquid with nicotine (for vaping)				
Answers 4 and 5 indicates "fairly or very easy"	593	1,237	1,409	690
Perceived Accessibility of Flavored Nicotine Solutions <sup>c</sup>		, -	,	
To "vape" is to use a device such as a JUUL, vape-pen, e-cigarette, e-hookah, or e-vaporizer to inhale a vapor into the lungs. How difficult do you think it would be for you to get each of the following, if you wanted some? 1="Probably Impossible" 2="Very Difficult" 3="Fairly Difficult" 4="Fairly Easy" 5="Very Easy"  • E-liquid with nicotine (for vaping) with a flavor other than tobacco or menthol, such as mint or mango				
Answers 4 and 5 indicates "fairly or very easy"				688
Perceived Risk of Nicotine Vaping				
How much do you think people risk harming themselves (physically or in other				
ways) if they " 1="No Risk" 2="Slight Risk" 3="Moderate Risk" 4="Great Risk" 5="Can't Say,				
Drug Unfamiliar"				
Vape an e-liquid with nicotine occasionally?  Vape an e-liquid with picetine regulary?				
<ul> <li>Vape an e-liquid with nicotine regulary?</li> </ul>				
Answer "4" indicates great risk; answers of "5" included in denominator	8,864	9,452	9,129	3,474
Female What is your sex? 1="Male" 2="Female"	25,725	27,057	26,715	8,430

Mother Has College Degree				
What is the highest level of schooling your mother completed? 1="Completed				
grade school or less" 2="Some high school" 3="Completed high school"				
4="Some college" 5="Completed college" 6="Graduate or professional school				
after college" 7="Don't know, or does not apply"				
Answer "5" or "6" indicates mother with college education; answer "7" not included				
in analyses	24,525	25,836	24,969	7,764
Race/Ethnicity				
How do you describe yourself?				
Black or African American				
Mexican American or Chicano				
Cuban American				
Puerto Rican Other Hispanic or Latino				
Asian American				
White (Caucasian)				
American Indian or Alaska Native				
Native Hawaiian or Other Pacific Islander				
Traine Flamanari of Carlot Faorite Islandor				
Responses coded to indicate Black, Non-Hispanic, White Non-Hispanic, and				
Hispanic	25,728	27,162	26,321	8,145
Lifetime Marijuana Use	,	,	,	,
On how many occasions (if any) have you used marijuana 1="0" 2="1-2"				
3="3-5" 4="6-9" 5="10-19" 6="20-39" 7="40+"				
in your lifetime?				
Any answer of 2 or more indicates prevalence	26,235	27,687	26,982	8,390
Lifetime Hallucinogen Use				
The next questions are about LSD, the hallucinogenic drug which is sometimes				
called "acid". On how many occasions (if any) have you taken LSD 1="0"				
2="1-2" 3="3-5" 4="6-9" 5="10-19" 6="20-39" 7="40+"				
in your lifetime?				
The next questions are about HALLUCINOGENS OTHER THAN LSD. This				
group would include the following drugs: Mescaline, Peyote, "Shrooms" or				
Psilocybin, PCP. On how many occasions (if any) have you taken hallucinogens				
other than LSD 1="0" 2="1-2" 3="3-5" 4="6-9" 5="10-19" 6="20-39" 7="40+"				
in your lifetime?				
Any angular of 2 or mare an either question indicates providence	24 420	OF 406	24,942	7 000
Any answer of 2 or more on either question indicates prevalence.  Lifetime Alcohol Use	24,128	25,436	24,942	7,822
On how many occasions (if any) have you had any alcoholic beverage to				
drink—more than just a few sips 1="0" 2="1-2" 3="3-5" 4="6-9" 5="10-19"				
6="20-39" 7="40+"				
• in your lifetime?				
iii your mounto:				
Any answer of 2 or more indicates prevalence	25,726	27,210	26,572	8,220
Lifetime Getting Drunk		,		0,0
On how many occasions (if any) have you been drunk or very high from drinking				
alcoholic beverages 1="0" 2="1-2" 3="3-5" 4="6-9" 5="10-19" 6="20-39"				
7="40+"				
in your lifetime?				
· <b>,</b> ··· · · · · · · · · · · · · · · · ·				
Any answer of 2 or more indicates prevalence	16,896	17,769	17,382	5,700
,		•		

Note: Estimates for all measures are nationally-representative. Sample sizes vary both due to size of randomly-selected subgroup that received questions and also the abbreviated data collection in 2020. In 2019 a randomly-selected half of schools recorded their answers on electronic tablets and in the other half used paper and pencil. In all analyses responses from both survey modes are combined because prevalence differences across the modes were negligible. (Before 2019 all responses were on paper and pencil, and in 2020 all responses were on electronic tablets.)

<sup>a</sup>Across reporting intervals (e.g., lifetime, past 12-month, past 30-day, and daily) sample size varies between 99% and 100% of sample size reported here.

<sup>b</sup>The example of JUUL was first added to the stem question for a randomly-selected half of these questions in 2019. Prevalence of nicotine vaping was 3 points higher on questionnaires with the JUUL example compared to those without it. All questionnaires included the example of JUUL in the stem question in 2020.

<sup>c</sup>Sample size in analyses and reported here restricted to youth who vaped nicotine in the past 30 days.

JUUL first included as an example in the stem question in 2020, for all questionnaires on which this question appeared.

eTable 2: Comparison of Demographics in 2020 with Previous Years among U.S. 10 <sup>th</sup> and 12 <sup>th</sup> Grade Students							
	Female	Mother has college degree	Black, non- Hispanic	White, non- Hispanic	Hispanic		
Observed Values							
2017	51.0 (49.7-52.3)	47.0 (44.3-49.8)	15.6 (12.9-18.8)	51.5 (46.9-56.1)	25.8 (21.9-30.1)		
2018	51.1 (49.7-52.4)	46.2 (43.4-48.9)	13.1 (10.5-16.3)	52.0 (47.3-56.7)	29.2 (25.3-33.4)		
2019	51.4 (50.1-52.8)	47.0 (44.3-49.8)	13.3 (10.8-16.2)	52.9 (48.2-57.6)	28.3 (24.5-32.5)		
2020	50.6 (47.4-53.8)	48.6 (42.9-54.4)	13.2 (8.0-20.9)	53.0 (42.4-63.4)	29.3 (20.5-40.0)		

Note: These results graphed in the eFigure. 95% confidence intervals are in parentheses. Differences between 2020 and 2019 estimates are not significantly different at p<.05 for a two-tailed test for any of these outcomes.

eTable 3: Comparison of Lifetime Use Levels of Selected Drugs in 2020 with Previous Years among U.S. 10 <sup>th</sup> and 12 <sup>th</sup> Grade Students							
Marijuana Hallucinogens Alcohol Got Drunk							
Observed Values							
2017	37.3 (35.5-39.2)	5.3 (4.8-5.9)	51.2 (49.1-53.2)	29.5 (27.7-31.3)			
2018	37.6 (35.9-39.4)	5.1 (4.6-5.6)	50.2 (48.4-52.0)	29.8 (27.9-31.8)			
2019	38.5 (36.9-40.2)	5.7 (5.1-6.3)	50.2 (48.3-52.2)	28.8 (26.9-30.8)			
2020	38.0 (35.1-41.1)	5.9 (5.0-7.0)	53.3 (48.7-57.9)	31.6 (26.9-36.7)			

Note: These results graphed in the eFigure. 95% confidence intervals are in parentheses. Selected substances had highly consistent prevalence levels from 2017-2019, which was expected to continue in 2020. Differences between 2020 and 2019 estimates are not significantly different at p<.05 for a two-tailed test for any of these outcomes.

eTable 4: Observed Prevalence of Nicotine Vaping by Year and Reporting Interval, And Coefficients for Predicted Values						
	Daily Use*	Past 30-Day Use	Past 12-month Use	Lifetime Use		
Observed Values						
2017		9.5 (8.2-10.8)	17.2 (15.5-18.9)	23.1 (21.3-24.9)		
2018		18.3 (16.4-20.4) <sup>a</sup>	27.0 (24.6-29.4) <sup>a</sup>	<b>31.1</b> (28.7-33.5) <sup>a</sup>		
2019	9.1 (8-10.2)	<b>22.5</b> (20.7-24.4) <sup>a</sup>	32.8 (30.8-35.0) <sup>a</sup>	38.4 (36.2-40.6) <sup>a</sup>		
2020	7.0 (5.6-8.7) <sup>a</sup>	21.8 (18.6-25.2)	32.4 (28.4-36.7)	41.3 (36.9-45.7)		
Logistic Regression Results for Predicted Values <sup>b</sup>						
Year		0.9 (0.7 - 1.1)	0.7 (0.5 - 0.9)	0.5 (0.3 - 0.7)		
Year <sup>2</sup>		-0.2 (-0.30.1)	-0.1 (-0.20.08)	-0.1 (-0.10.01)		
Constant		-2.2 (-2.42.1)	-1.6 (-1.71.5)	-1.2 (-1.31.1)		

Note: 95% confidence intervals are in parentheses

\* Daily use defined as use on 20+ days in the last 30 days and was not measured before 2019

a Prevalence level significantly different from previous year at p<.05 for a two-tailed test

b Year is centered at 2017 and coefficients are unexponentiated. All coefficients are statistically significant at p<.05 for a two-tailed test, as indicated by 95% confidence intervals that do not include zero.

eTable 5: Prevalence of JUUL Use by Year and Reporting Interval						
	Daily Use* Past 30-Day Use Past 12-month Use Lifetime Use					
Observed						
Values						
2019	6.3 (5.3-7.5)	19.6 (17.7-21.6)	28.5 (26.2-31.0)	32.9 (30.5-35.4)		
2020	2.1 (1.7-2.6) <sup>a</sup>	12.6 (10.7-14.7) <sup>a</sup>	21.3 (19.6-23.0) <sup>a</sup>	33.2 (28.5-38.3)		

Note: 95% confidence intervals are in parentheses

\* Daily use defined as use on 20+ days in the last 30 days.

a Prevalence level significantly different from previous year at p<.05 for a two-tailed test

eTable 6: Sample Sizes by Survey Question and Year for Surveys Collected on March 14th or Earlier in All Years							
	Un	weighted	Sample S	Size			
Question	2017	2018	2019	2020			
Nicotine Vaping <sup>a,b</sup>	1,680	2,395	5,286	8,392			
JUUL use <sup>a</sup>			1,223	8,443			
Vaping brand <sup>c</sup>			556	1,744			
Perceived Accessibility of Vaping Devices <sup>c,d</sup>	112	335	416	546			
Perceived Accessibility of Nicotine Solutions for Vaping <sup>c,d</sup>	112	335	415	690			
Perceived Accessibility of Flavored Nicotine Solutions <sup>c</sup>				688			
Perceived Risk of Nicotine Vaping	1,700	2,488	2,752	3,474			
Female	4,985	7,101	8,139	8,430			
Mother Has College Education	4,763	6,834	7,616	7,764			
Race/Ethnicity	4,974	7,163	8,025	8,145			
Lifetime Marijuana Use	5,069	7,288	8,211	8,390			
Lifetime Hallucinogen Use	4,693	6,675	7,627	7,822			
Lifetime Alcohol Use	4,951	7,147	8,091	8,220			
Lifetime Getting Drunk	3,363	4,656	5,462	5,700			

Note: For question wording and response categories see eTable 1. Estimates for all measures are nationally-representative. Sample sizes vary both due to size of randomly-selected subgroup that received questions and also the abbreviated data collection in 2020. In 2019 a randomly-selected half of schools recorded their answers on electronic tablets and in the other half used paper and pencil. In all analyses responses from both survey modes are combined because prevalence differences across the modes were negligible. (Before 2019 all responses were on paper and pencil, and in 2020 all responses were on electronic tablets.)

<sup>&</sup>lt;sup>a</sup>Across reporting intervals (e.g., lifetime, past 12-month, past 30-day, and daily) sample size varies between 99% and 100% of sample size reported here.

bThe example of JUUL was first added to the stem question for a randomly-selected half of these questions in 2019. Prevalence of nicotine vaping was 3 points higher on questionnaires with the JUUL example compared to those without it. All questionnaires included the example of JUUL in the stem question in 2020.

<sup>°</sup>Sample size in analyses and reported here restricted to youth who vaped nicotine in the past 30 days.

<sup>&</sup>lt;sup>d</sup>JUUL first included as an example in the stem question in 2020, for all questionnaires on which this question appeared.

eTable 7: Comparison of 2020 Demographics with Previous Years among U.S. 10 <sup>th</sup> and 12 <sup>th</sup> Grade Students, Samples in All Years Limited to Surveys Collected on March 14 or Earlier							
	Female	Mother has college degree	Black, non- Hispanic	White, non- Hispanic	Hispanic		
Observed Values							
2017	49.6 (46.5-52.7)	49.7 (42.7-56.8)	11.5 (8.1-16.2)	60.5 (52.1-68.3)	21.9 (15.2-30.6)		
2018	50.0 (46.7-53.2)	49.4 (44.7-54.1)	9.4 (5.0-17.1)	58.5 (48.7-67.6)	27.6 (21.3-35.0)		
2019	52.9 (49.7-56.0)	47.4 (42.9-52.0)	13.6 (9.5-19.2)	55.3 (45.7-64.5)	26.9 (20.6-34.4)		
2020	50.6 (47.4-53.8)	48.6 (42.9-54.4)	13.2 (8.0-20.9)	53.0 (42.4-63.4)	29.3 (20.5-40.0)		

Note: 95% confidence intervals are in parentheses. Differences between 2020 and 2019 estimates are not significantly different at p<.05 for a two-tailed test for any of these outcomes.

eTable 8: Comparison of Lifetime Use Levels of Selected Drugs in 2020 with Previous Years among U.S. 10<sup>th</sup> and 12<sup>th</sup> Grade Students, Samples in All Years Limited to Survey Collected on March 14 or Earlier

	Marijuana	Hallucinogens	Alcohol	Got Drunk
Observed Values				
2017	34.3 (30.8-38.1)	4.5 (3.5-5.8)	51.5 (46.9-56.0)	31.1 (27.5-34.9)
2018	33.8 (30.0-37.8)	5.4 (4.5-6.6)	50.5 (47.1-54.0)	29.9 (25.7-34.4)
2019	36.0 (33.0-39.1)	6.0 (5.0-7.0)	50.2 (46.4-53.9)	28.0 (24.4-31.9)
2020	38.0 (35.1-41.1)	5.9 (5.0-7.0)	53.3 (48.7-57.9)	31.6 (26.9-36.7)

Note: 95% confidence intervals are in parentheses. Selected substances had highly consistent prevalence levels from 2017-2019, which was expected to continue in 2020. Differences between 2020 and 2019 estimates are not significantly different at p<.05 for a two-tailed test for any of these outcomes.

eTable 9: Observed Prevalence of Nicotine Vaping by Year and Reporting Interval for Surveys Collected on March 14 <sup>th</sup> or Earlier in All Years						
	Daily Use*	Past 30-Day Use	Past 12-month Use	Lifetime Use		
Observed Values						
2017		9.5 (7.2-12.4)	18.3 (15.0-22.2)	23.5 (19.7-27.8)		
2018		17.6 (14.0-22.0) <sup>a</sup>	26.6 (22.1-31.7) <sup>a</sup>	30.6 (25.7-36.0) <sup>a</sup>		
2019	8.7 (6.5-11.5)	20.8 (17.0-25.1)	31.4 (27.0-36.2)	36.8 (32.3-41.6)		
2020	7.0 (5.6-8.6)	21.8 (18.6-25.2)	32.4 (28.4-36.7)	41.3 (36.9-45.7)		
Logistic Regression Results for Predicted Values <sup>5</sup>						
Year		0.7 (0.3 - 1.2)	0.6 (0.2 - 0.9)	0.4 (0.1 - 0.7)		
Year <sup>2</sup>		-0.1 (-0.30.02)	-0.1 (-0.2 – 0.001)	-0.04 (-0.1 - 0.1)		
Constant		-2.2 (-2.51.9)	-1.5 (-1.71.3)	-1.2 (-1.41.0)		

Note: 95% confidence intervals are in parentheses

\* Daily use defined as use on 20+ days in the last 30 days and was not measured before 2019

a Prevalence level significantly different from previous year at p<.05 for a two-tailed test

b Year is centered at 2017 and coefficients are unexponentiated. Coefficients are statistically significant at p<.05 for a two-tailed test when 95% confidence intervals do not include zero.

eTable 10: Prevalence of JUUL Use by Year and Reporting Interval for Surveys Collected on March 14 <sup>th</sup> or Earlier in All Years					
	Daily Use*	Past 30-Day Use	Past 12-month Use	Lifetime Use	
Observed Values					
2019	6.2 (4.5-8.5)	17.6 (14.1-21.6)	26.9 (22.8-31.4)	30.9 (26.3-35.8)	
2020	<b>2.1</b> (1.7-2.6) <sup>a</sup>	12.6 (10.6-14.8) <sup>a</sup>	21.3 (19.6-23.0) <sup>a</sup>	33.2 (28.5-38.3)	

Note: 95% confidence intervals are in parentheses

\* Daily use defined as use on 20+ days in the last 30 days.

a Prevalence level significantly different from previous year at p<.05 for a two-tailed test

Vaped Nicotine in the Past 30 Days for Surveys Collected on March 14 <sup>th</sup> or Earlier in All Years, Year							
	JUUL	Othera	SMOK	Suorin	Vuse	Stig	
Observed Values							
2019	50.6 (42.2-59.0)	11.8 (8.4-16.1)	21.4 (14.7-29.9)	14.7 (7.7-26.1)	1.7 (0.6-4.8)		
2020	41.1 (35.7-46.7)	27.8 (23.1-33.0)	13.1 (9.2-18.4)	7.2 (4.4-11.7)	7.3 (4.8-11.1)	3.4 (1.9-6.1)	
Absolute change in observed values from 2019-2020	-9.5 (-18.90.1) <sup>b</sup>	16.0 (9.9 - 22.1) <sup>b</sup>	-8.2 (-17 - 0.5)	-7.4 (-16.6 - 1.8)	5.7 (2.1 - 9.3) <sup>b</sup>		

Note: 95% confidence intervals are in parentheses

a In 2020 30% of respondents in this category wrote in "Puff bar" or a spelling variant thereof, which makes this brand's prevalence the third highest, behind JUUL and SMOK, with a prevalence of 8% (8% = 30% of 28%, which is the size of the "Other" category).

b Prevalence level significantly different across years at p<.05 for a two-tailed test, as indicated by 95% confidence intervals that do not include zero.

eTable 12: Percent 10<sup>th</sup> and 12<sup>th</sup> Grade Students Who Vaped Nicotine in the Past 30 Days and Reported Getting Selected Vaping Materials Would Be "Fairly Easy" or "Very Easy" for Surveys Collected on March 14<sup>th</sup> or Earlier in All Years, by Year

	Vaping Device	Nicotine Solution for Vaping	Flavored Nicotine Solution
Observed Values			
2017	92.6 (87.7-95.6)	94.0 (87.1-97.3)	
2018	93.5 (90.0-95.8)	93.1 (90.0-95.3)	
2019	93.9 (91.2-95.9)	93.6 (90.1-95.9)	
2020	86.4 (82.7-89.3) <sup>a</sup>	83.0 (78.5-86.7) <sup>a</sup>	79.8 (74.9-83.9)
Logistic Regression Results for Predicted Values <sup>b</sup>			
Year	0.6 (-0.1 - 1.4)	0.5 (-0.4 - 1.4)	
Year <sup>2</sup>	-0.3 (-0.50.1)	-0.3 (-0.50.03)	
Constant	2.4 (1.9 - 2.9)	2.6 (1.9 - 3.3)	

Note: 95% confidence intervals are in parentheses

<sup>&</sup>lt;sup>a</sup> Prevalence level significantly different from previous year at p<.05 for a two-tailed test

<sup>&</sup>lt;sup>b</sup> Year is centered at 2017 and coefficients are unexponentiated. Coefficients are statistically significant at p<.05 for a two-tailed test when 95% confidence intervals do not include zero.

eTable 13: Percent of 10 <sup>th</sup> and 12 <sup>th</sup> Grade Students Who Report Perceived Risk of "Great Harm" from Occasional and Regular Nicotine Vaping for Surveys Collected on March 14 <sup>th</sup> or Earlier in All Years, by Year							
	Occasional Nicotine Vaping	Regular Nicotine Vaping					
Observed Values							
2017	16.7 (14.2-19.4)	28.9 (25.8-32.2)					
2018	16.2 (14.1-18.4)	29.9 (26.4-33.6)					
2019	20.2 (18.0-22.6) <sup>a</sup>	39.4 (36.3-42.6) <sup>a</sup>					
2020	27.2 (24.8-29.8) <sup>a</sup>	49.3 (46.5-52.0) <sup>a</sup>					
Logistic Regression Results for Predicted Values <sup>b</sup>							
Year	-0.1 (-0.3 - 0.2)	0.05 (-0.2 - 0.3)					
Year <sup>2</sup>	0.1 (0.03 - 0.2)	0.1 (0.01 - 0.2)					
Constant	-1.6 (-1.81.4)	-0.9 (-1.10.8)					

Note: 95% confidence intervals are in parentheses

a Prevalence level significantly different from previous year at p<.05 for a two-tailed test
b Year is centered at 2017 and coefficients are unexponentiated. Coefficients are statistically significant at p<.05 for a two-tailed test when 95% confidence intervals do not include zero.