SUPPLEMENTAL TABLES

Table S1. Types of vaping devices used most often[1] among past 30-day vapers, weighted %(n)

	2017	2018	2019	2019 vs. 2017
	% (n)	% (n)	% (n)	AOR (95%CI), p value[2]
Canada	(n=340)	(n=463)	(n=738)	
Disposable	10.0% (34)	7.9% (36)	6.5% (48)	0.66 (0.39-1.12), p=0.12
Cartridge/pod	14.9% (51)	19.2% (88)	47.6% (351)	**5.19 (3.53-7.63), p<0.0001**
Refillable tank	66.2% (225)	71.9% (328)	52.3% (385)	**0.53 (0.39-0.72), p<0.0001**
Don't know/Refused	2.3% (8)*	1.0% (5)*	1.6% (12)	--
More than 1 product[3]	2.3% (8)*	N/A	8.8% (65)	--
England	(n=347)	(n=351)	(n=439)	
Disposable	8.5% (30)	11.4% (39)	12.1% (53)	1.51 (0.91-2.50), p=0.11
Cartridge/pod	27.8% (96)	18.4% (63)	27.7% (122)	1.01 (0.72-1.42), p=0.97
Refillable tank	58.5% (203)	68.5% (236)	69.1% (304)	**1.60 (1.16-2.21), p=0.004**
Don't know/Refused	1.8% (6)*	1.6% (6)*	1.7% (7)*	--
More than 1 product[3]	2.8% (10)*	N/A	9.3% (41)	--
US	(n=454)	(n=635)	(n=736)	
Disposable	14.4% (66)	12.8% (81)	12.9% (95)	0.90 (0.60-1.34), p=0.60
Cartridge/pod	34.5% (157)	42.9% (271)	58.0% (427)	**2.66 (2.01-3.50), p<0.0001**
Refillable tank	53.8% (244)	43.6% (275)	41.4% (305)	**0.60 (0.46-0.79), p=0.0002**
Don't know/Refused	0.9% (4)*	0.7% (4)*	1.0% (7)*	--
More than 1 product[3]	5.4% (25)	N/A	11.9% (87)	--

[1]Device type used "most often" inferred for respondents who only ever used one type (those who used more than one type were asked which they used most often).

[2]From separate logistic regression models for each device type, stratified by country, adjusted for age group, sex, and race/ethnicity (white only vs. not)

[3]Respondents could select more than one response in 2017 and 2019; row percentages within country may not add to 100. Each device type was analyzed separately, so those who selected more than one type are included in more than one group.

*High variability (coefficient of variation is > 33.3 or the numerator is <10), interpret with caution

Table S2: Reasons for using current brand instead of other e-cigarette/vaping brands, among past 30-day vapers who selected a usual brand, 2019, by country and usual brand, weighted %(n)

REASON[1]	Canada Total (n=599)	JUUL (n=168)	Nicotine salt[2] (n=153)	Other[3] (n=280)	England Total (n=317)	JUUL (n=61)	Nicotine salt[2] (n=43)	Other[3] (n=213)	US Total (n=661)	JUUL (n=325)	Nicotine salt[2] (n=106)	Other[3] (n=230)
More popular among friends	**31.6% (189)**	34.5 (58)	40.1 (61)	25.1 (70)	**23.9% (76)**	29.5 (18)	25.0 (11)	22.1 (47)	**27.0% (179)**	35.2 (114)	17.0 (18)	20.0 (46)
Easier to use	**27.1% (163)**	23.2 (39)	34.0 (52)	25.8 (72)	**26.4% (84)**	34.4 (21)	43.2 (19)	20.7 (44)	**30.7% (203)**	33.2 (108)	34.6 (37)	25.3 (58)
Better flavor / taste	**26.3% (158)**	24.4 (41)	31.6 (48)	24.4 (68)	**30.8% (98)**	36.1 (22)	40.9 (18)	27.2 (58)	**34.2% (226)**	36.4 (118)	36.4 (39)	30.0 (69)
Better looking	**24.3% (146)**	19.0 (32)	28.9 (44)	25.1 (70)	**22.7% (72)**	34.4 (21)	34.9 (15)	17.0 (36)	**18.0% (119)**	16.3 (53)	28.0 (30)	15.7 (36)
I was offered it	**23.8% (143)**	30.4 (51)	13.2 (20)	25.7 (72)	**20.9% (66)**	36.1 (22)	18.2 (8)*	17.4 (37)	**23.7% (157)**	25.2 (82)	23.4 (25)	21.7 (50)
Smoother to inhale	**22.9% (137)**	19.2 (32)	27.0 (41)	22.6 (63)	**21.8% (69)**	19.7 (12)	43.2 (19)	18.3 (39)	**25.5% (168)**	21.3 (69)	43.4 (46)	23.0 (53)
Less expensive	**21.9% (131)**	11.3 (19)	32.2 (49)	22.6 (63)	**20.7% (66)**	6.6 (4)*	16.3 (7)*	25.4 (54)	**19.7% (130)**	11.7 (38)	33.6 (36)	24.8 (57)
Easier to hide	**20.3% (121)**	25.0 (42)	24.3 (37)	15.1 (42)	**12.2% (39)**	18.0 (11)	9.3 (4)*	11.3 (24)	**22.8% (150)**	25.8 (84)	24.5 (26)	17.5 (40)
Easier to get	**19.5% (117)**	25.6 (43)	19.1 (29)	16.1 (45)	**20.7% (66)**	13.1 (8)*	15.9 (7)*	23.9 (51)	**20.1% (133)**	18.8 (61)	23.4 (25)	20.5 (47)
Stronger nicotine 'hit'	**17.3% (103)**	16.1 (27)	35.9 (55)	7.9 (22)	**9.3% (29)**	11.5 (7)*	22.7 (10)	6.1 (13)	**17.9% (119)**	16.3 (53)	37.7 (40)	11.3 (26)
More fun	**16.5% (99)**	17.9 (30)	17.8 (27)	15.1 (42)	**16.5% (52)**	21.3 (13)	27.9 (12)	12.7 (27)	**16.8% (111)**	17.2 (56)	19.6 (21)	14.8 (34)
Less harmful	**11.3% (67)**	8.3 (14)	9.2 (14)	14.0 (39)	**15.7% (50)**	27.9 (17)	20.5 (9)*	11.7 (25)	**11.6% (76)**	13.6 (44)	12.3 (13)	8.3 (19)
Better for quitting smoking	**10.4% (62)**	10.1 (17)	13.1 (20)	9.3 (26)	**13.3% (42)**	14.8 (9)*	25.6 (11)	10.3 (22)	**8.7% (58)**	9.8 (32)	12.3 (13)	5.7 (13)
Other reason(s)	**2.3% (14)**	1.2 (2)*	3.9 (6)*	1.8 (5)*	**1.8% (6)***	0	0	2.8 (6)*	**2.5% (17)**	0.6 (2)*	4.7 (5)*	4.4 (10)*

[1]Percentages do not add to 100, as respondents could choose multiple responses (mean=2.7)
[2]Specified they currently used nicotine salts, but selected a brand other than JUUL
[3]Specified they did not currently use nicotine salts and selected a brand other than JUUL
*High variability (coefficient of variation is > 33.3 or the numerator is <10), interpret with caution

Table S3. Patterns of use and symptoms of dependence among past 30-day vapers, by self-reported current nicotine use, 2019, weighted %(n)

	Currently NOT using nicotine[1] (n=645)	Currently use nicotine (not salts)[2] (n=831)	Currently use nicotine salts[3] (n=414)	Nicotine (non-salt) vs no nicotine	Nicotine salts vs no nicotine
	% (n)	% (n)	% (n)	AOR (95%CI), p value[4]	AOR (95%CI), p value[4]
Smoking status[5]					
Current smoker	9.5 (62)	19.2 (160)	15.6 (65)	**2.50 (1.84-3.41)**	**2.06 (1.42-2.99)**
Experimental smoker	53.6 (346)	58.1 (483)	58.1 (241)	p<0.0001	p=0.0001
Former smoker	1.5 (9)	5.2 (43)	8.0 (33)		
Never smoker	35.4 (228)	17.4 (145)	18.2 (76)		
Days ever vaped[6]					
100 days or more	10.5 (68)	40.1 (335)	60.2 (250)	**5.27 (3.85-7.20)**	**11.59 (8.14-16.50)**
51 to 99 days	7.4 (48)	11.6 (97)	7.6 (31)	p<0.0001	p<0.0001
21 to 50 days	13.6 (88)	17.8 (148)	7.8 (32)		
11 to 20 days	14.1 (91)	10.2 (85)	8.9 (37)		
2 to 10 days	33.5 (216)	13.9 (116)	8.8 (36)		
One day	16.5 (107)	3.0 (25)	3.7 (15)		
Don't know	4.4 (29)	3.4 (28)	3.0 (12)		
Mean days vaped in past 30d[7] (SD)	6.4 (7.4)	15.2 (10.4)	20.5 (9.9)	**B=8.45 (7.27-9.62)** p<0.0001	**B=13.47 (12.01-14.94)** p<0.0001
Times vaped/day in past 30d[8]	3.0 (19)	15.1 (126)	36.3 (151)	**5.35 (3.39-8.44)**	**17.51 (10.94-28.01)**
More than 20 times per day	4.4 (28)	11.0 (92)	10.4 (43)	p<0.0001	p<0.0001
11 to 20 times per day	11.6 (74)	18.0 (150)	17.9 (74)		
6 to 10 times per day	37.8 (243)	37.4 (312)	20.5 (85)		
2 to 5 times per day	37.7 (242)	15.9 (133)	11.5 (48)		
1 time per day	5.6 (46)	2.5 (21)	3.4 (14)		
Don't know					
Urges to vape[9]					
Several times a day	7.0 (45)	18.2 (152)	34.3 (141)	**3.12 (2.37-4.12)**	**7.67 (5.50-10.71)**
Every day or most days	11.2 (72)	23.1 (192)	28.2 (116)	p<0.0001	p<0.0001
At least once a week	16.6 (107)	21.8 (182)	19.2 (79)		
Less than once a week	14.8 (95)	13.4 (112)	5.0 (21)		
Never	47.2 (304)	21.2 (176)	11.3 (46)		
Don't know	3.2 (20)	2.3 (20)	2.1 (9)		
Perceived addiction[10]					
Yes, very addicted	5.1 (33)	10.1 (84)	26.4 (109)	**2.85 (2.22-3.64)**	**8.23 (5.90-11.48)**
Yes, a little addicted	20.9 (135)	40.0 (334)	47.5 (196)	p<0.0001	p<0.0001
Not at all	71.1 (458)	46.8 (390)	23.6 (97)		
Don't know	2.8 (21)	3.1 (26)	2.5 (10)		

Note: Weighted n's are rounded
[1]Specified they did not currently use nicotine
[2]Specified they currently used nicotine, but not nicotine salts
[3]Specified they currently used nicotine salts
[4]From separate logistic regression models for each use outcome (linear regression model for mean days), adjusted for country, age group, sex, and race/ethnicity (white only vs. not); outcomes analyzed as heavy use category vs else
[5]Analyzed as current smoker vs else
[6]Analyzed as "100 days or more" vs else, refusals (n=1) and don't know responses excluded
[7] Analyzed as a continuous outcome variable, refusals (n=9) and don't know responses (n=299) excluded
[8]Analyzed as "More than 20 times per day" vs else, refusals (n=6) and don't know responses excluded
[9]Analyzed as "Several times a day"/"Every day or most days" vs else, refusals (n=9) and don't know responses excluded
[10]Analyzed as "Yes, very addicted"/"Yes, a little addicted" vs "Not at all", refusals (n=8) and don't know responses excluded
*High variability (coefficient of variation is > 33.3 or the numerator is <10), interpret with caution

Table S4. Patterns of use and symptoms of dependence among past 30-day vapers, by current use of JUUL and nicotine salts, 2019

	Currently NOT using nicotine salts or JUUL[1] (n=1043)	Currently use JUUL (n=554)	Currently use nicotine salts (other than JUUL)[2] (n=316)	JUUL vs not nicotine salts or JUUL	Nicotine salts vs not nicotine salts or JUUL
	% (n)	% (n)	% (n)	AOR (95%CI), p value[3]	AOR (95%CI), p value[3]
Smoking status[4]					
Current smoker	16.8 (175)	11.7 (64)	16.2 (51)	0.80 (0.58-1.09)	1.04 (0.74-1.46)
Experimental smoker	54.6 (567)	58.4 (323)	58.1 (183)	p=0.16	p=0.83
Former smoker	3.6 (38)	4.0 (22)	8.5 (27)		
Never smoker	24.9 (259)	25.9 (143)	17.2 (54)		
Days ever vaped[5]					
100 days or more	25.3 (264)	34.9 (193)	61.9 (196)	1.26 (0.97-1.63)	**4.19 (3.11-5.64)**
51 to 99 days	10.0 (104)	9.9 (55)	6.3 (20)	p=0.089	**p<0.0001**
21 to 50 days	15.1 (158)	15.6 (86)	8.1 (26)		
11 to 20 days	11.5 (120)	12.3 (68)	8.7 (27)		
2 to 10 days	23.2 (242)	19.5 (108)	8.1 (26)		
One day	9.8 (102)	6.1 (33)	4.2 (13)		
Don't know	5.1 (53)	1.7 (9)*	2.7 (9)*		
Mean days vaped in past 30d[6] (SD)	11.1 (10.1)	13.7 (10.6)	20.4 (9.8)	**B=1.58 (0.11-3.04) p=0.035**	**B=8.43 (6.82-10.03) p<0.0001**
Times vaped/day in past 30d[7]	10.0 (104)	13.3 (74)	37.4 (118)	1.24 (0.86-1.79)	**4.99 (3.55-7.02)**
More than 20 times per day	8.2 (86)	8.5 (47)	10.2 (32)	p=0.24	**p<0.0001**
11 to 20 times per day	15.1 (157)	15.1 (84)	18.4 (58)		
6 to 10 times per day	36.8 (382)	37.9 (210)	16.6 (52)		
2 to 5 times per day	25.8 (268)	21.8 (121)	13.0 (41)		
1 time per day	4.0 (41)	3.4 (19)	4.5 (14)		
Don't know					
Urges to vape[8]					
Several times a day	12.5 (129)	17.9 (98)	35.5 (112)	**1.47 (1.13-1.91)**	**4.14 (3.05-5.61)**
Every day or most days	16.1 (167)	23.2 (128)	27.3 (86)	**p=0.0036**	**p<0.0001**
At least once a week	18.2 (189)	22.5 (124)	17.9 (56)		
Less than once a week	14.1 (146)	11.7 (65)	5.5 (17)		
Never	36.0 (374)	22.6 (125)	11.8 (37)		
Don't know	3.2 (33)	2.1 (11)*	2.0 (6)*		
Perceived addiction[9]					
Yes, very addicted	7.1 (74)	12.5 (69)	26.5 (83)	**1.49 (1.16-1.91)**	**5.03 (3.65-6.94)**
Yes, a little addicted	29.7 (309)	37.1 (205)	48.6 (153)	**p=0.0017**	**p<0.0001**
Not at all	59.8 (621)	47.8 (264)	22.9 (72)		
Don't know	3.4 (35)	2.6 (14)	2.0 (6)*		

Note: Weighted n's are rounded

[1]Specified they did not currently use nicotine salts and selected a brand other than JUUL

[2]Specified they currently used nicotine salts, but selected a brand other than JUUL

[3]From separate logistic regression models for each use outcome (linear regression model for mean days), adjusted for country, age group, sex, and race/ethnicity (white only vs. not); outcomes analyzed as heavy use category vs else

[4]Analyzed as current smoker vs else

[5]From responses to the item,"On how many days have you used an e-cigarette/vaped in your entire life?" with response options "One day", "2 to 10 days", "11 to 20 days", "21 to 50 days", "51 to 99 days", "100 days or more"; Analyzed as "100 days or more" vs else, Refusals (n=1) and don't know responses excluded

[6]From responses to the item, "In the past 30 days, on how many days did you use e-cigarettes/vape?"; Analyzed as a continuous outcome variable, refusals (n=9) and don't know responses (n=299) excluded

[7]From responses to the item, "In the past 30 days, on the days you used an e-cigarette/vaped, how many times did you use it each day?" with response options "1 time per day", "2 to 5 times per day", "6 to 10 times per day", "11 to 20 times per day", "More than 20 times per day"; Analyzed as "More than 20 times per day" vs else, Refusals (n=6) and don't know responses excluded

[8]From responses to the item, "In the past 30 days, how often did you have a strong urge to use an e-cigarette/vape?" with response options "Several times a day", "Every day or most days", "At least once a week", "Less than once a week", "Never"; Analyzed as "Several times a day"/"Every day or most days" vs else, Refusals (n=9) and don't know responses excluded

[9]From responses to the item, "Do you consider yourself addicted to e-cigarettes/vaping?" with response options "Not at all", "Yes, a little addicted", "Yes, very addicted"; Analyzed as "Yes, very addicted"/"Yes, a little addicted" vs "Not at all", Refusals (n=8) and don't know responses excluded

*High variability (coefficient of variation is > 33.3 or the numerator is <10), interpret with caution