Table 1. Prevalence of vaping and smoking amongst pregnant women.

		Completed screening questions	Exclusive vapers	Exclusive smokers	Dual users	P Value Comparisons between categories ^
	Total	**N=3360 (%)***	**N=44 (1.3%)****	**N=515 (15.3%) ****	**N=118 (3.5%)****	
Age (years)	16-24	794 (23.6)	3 (6.8)	203 (39.4)	45 (38.1)	
	25-34	1936 (57.6)	35 (79.6)	250 (48.5)	55 (46.6)	
	35≥	604 (17.9)	6 (13.6)	62 (12.0)	16 (13.6)	<0.001
	Missing±	26 (0.8)	0	0	2 (1.7)	
	South	728 (21.7)	6 (0.8)	95 (13.0)	13 (1.8)	
NHS sites	London	546 (16.3)	3 (0.5)	54 (9.9)	11 (2.0)	
by Region	Midlands	859 (25.6)	22 (2.6)	194 (22.3)	39 (4.5)	<0.001
	North	909 (27.1)	10 (1.1)	138 (15.2)	38 (4.2)	
	Scotland	318 (9.5)	3 (0.9)	34 (10.7)	17 (5.3)	
Gestation	1st trimester	1543 (45.9)	23 (52.3)	219 (42.5)	55 (46.6)	
at	2nd trimester	1699 (50.6)	20 (45.5)	287 (55.7)	58 (49.2)	0.18
recruitment	Unknown/Missing ±	118 (3.5)	1 (2.3)	9 (1.8)	5 (4.2)	

* Percentages presented in columns for those who completed the screening questions in the survey

**Percentages presented by rows for the breakdown by vaping and smoking status

± Missing excluded from chi squared analysis

^ P value to determine statistical differences between vaping and smoking status (smokers/non-smokers/exclusive vapers, dual users) by age group, gestation when recruited into the study and region using chi-squared tests

Table 2. Sociodemographic characteristics; comparisons between pregnant vapers and exclusive smokers, and between exclusive vapers and dual users

		Completed the full survey	Vapers (exclusive and dual)	Exclusive smokers	P value Comparisons between vapers & exclusive smokers	Exclusive vapers	Dual users	P value Comparisons between exclusive vapers & dual users
	Total	N=867	N=140	N=434		N=33/140 (23.5%)	N=107/140 76.4%	
Age	Median [IQR]	26 (22-31)	26 (23-31)	26 (22-31)	0.18	28 (26-33)	26 (22-29)	0.007
	Missing ±	3	2	0		2	0	
Highest educational level	GCSEs, similar or none*	502 (57.9%)	84 (60.0%)	296 (68.2%)	0.04	15 (45.5.0%)	69 (64.5%)	0.04
	A levels/ degree, similar or above *	348 (40.1)	54 (38.6%)	126 (29.0%)		18 (54.6%)	36 (33.6%)	
	Missing ±	17 (2.0%)	2 (1.4%)	12 (2.8%)		0 (0%)	2 (1.9%)	
Age left education	≤ 16	415 (47.9%)	73 (52.1%)	251 (57.8%)	0.61	11 (33.3%)	62 (57.9%)	0.03
	≥ 17	408 (47.1%)	58 (41.4%)	161 (37.1%)		20 (60.6%)	38 (35.5%)	
	Still in education	25 (2.9%)	5 (3.6%)	10 (2.3%)		1 (3.0%)	4 (3.7%)	
	Missing ±	19 (2.2%)	4 (2.9%)	12 (2.8%)		1 (3.0%)	3 (2.8%)	
Ethnicity	White British	759 (87.5%)	131 (93.6%)	382 (88.2%)	0.53	31 (93.9%)	100 (93.5.2%)	0.76
	Other	63 (11.1%)	7 (5.0%)	45 (10.4%)		2 (6.1%)	5 (4.7%)	
	Missing ±	12 (1.4%)	2 (1.4%)	7 (1.6%)		0 (0%)	2 (1.9%)	

Gestation at recruitment	1st trimester	399 (46.0%)	72 (51.4)	188 (43.3)		21 (63.6)	51 (47.7)	
	2nd trimester	460 (53.1)	65 (46.4)	243 (56.0)	0.06	11 (33.3)	54 (50.5)	0.91
	Don't know/missing	8 (0.9)	3 (2.1)	3 (0.7)		1 (3.0)	2 (1.9)	
Previous pregnancy	Yes	561 (64.7%)	100 (71.4%)	306 (70.5%)		27 (81.8%)	73 (68.2%)	
	No	288 (33.2%)	34 (24.3%)	121 (27.9%)	0.50	6 (18.2%)	28 (26.2%)	0.27
	Missing ±	18 (2.1%)	6 (4.3%)	7 (1.6%)		0 (0%)	6 (5.6%)	
If yes – smoked in previous pregnancy	Yes	345 (61.5%)	72 (72.0%)	232 (75.8%)		13 (48.2%)	59 (80.8%)	
	No	197 (35.1%)	26 (26.0%)	59 (19.3%)	0.32	14 (51.9%)	12 (16.4%)	0.007
	Don't remember	12 (2.1%)	2 (2.0%)	8 (2.6%)		0 (0%)	2 (2.7%)	
	Missing ±	7 (1.3%)	0(0%)	7 (2.3%)		0(0%)	0 (0%)	
Planned pregnancy	Yes	292 (33.7%)	43 (30.7%)	121 (27.9%)		18 (54.6%)	25 (23.4%)	
	No	548 (63.2%)	93 (66.4%)	299 (68.9%)	0.53	15 (45.4%)	78 (72.9%)	0.001
	Missing ±	27 (3.1%)	4 (2.9%)	14 (3.2%)		(0%)	4 (3.7%)	

± Missing data excluded from chi squared analysis ≠P values are for comparisons between exclusive smokers (who do not vape) and dual users.

*GCSE: General Certificate of Secondary Education, compulsory exams in the UK taken between ages 15-16. A levels: General Certificate of Education Advanced Level certificate, non-compulsory exams, taken in the UK, after compulsory education ends. To note: The remaining 293/867 women who completed the full survey were recent ex-smokers who were not using e-cigarette, not included in table

Table 3. Smoking and vaping behaviour; comparisons between pregnant vapers and exclusive smokers, and between exclusive vapers and dual users.

		Total participants who completed the full survey	Vapers (exclusive & dual)	Exclusive smokers	P value Comparisons between vapers & exclusive smokers	Exclusive vapers	Dual users	P value Comparisons between exclusive vapers & dual users
	Total	N=867	N=140 16.1%	N=434 50.1%		N= 33	N=107	
Tried to stop smoking since becoming pregnant	Yes	639 (73.7%)	94 (67.1%)	305 (70.3%)	0.28	14 (42.4%)	80 (74.8%)	<0.001
	No	142 (16.4%)	23 (16.4%)	116 (26.7%)		0 (0%)	23 (21.5%)	
	Stop smoking before pregnancy	61 (7.0%)	19 13.6%	0%		19 (57.6%)	0 (0%)	
	Missing ±	25 (2.7%)	4 (2.9%)	13 (13%)		0 (0%)	4 (3.7%)	
Likely to try or continue to use EC while still pregnant	Likely	199 (23.0%)	103 (73.6%)	82 (18.9%)	<0.001	24 (72.7%)	79 (73.8%)	0.02
	Neither likely or unlikely	113 (13.0%)	16 (11.4%)	79 (18.2%)		3 (9.1%)	13 (12.2%)	
	Unlikely	432 (49.8%)	8 (5.7%)	188 (43.3%)		5 (15.2%)	3 (2.8%)	
	I don't know	94 (10.8%)	10 (7.1%)	68 (15.7%)		1 (3.0%)	9 (8.4%)	
	Missing ±	29 (3.3%)	3 (2.1%)	17 (3.9%)		0	3 (2.8%)	
Likely to try or continue to use EC once baby is born	Likely	212 (24.5%)	91 (65.0%)	98 (22.6%)	<0.001	22 (64.5%)	69 (64.5%)	0.78
	Neither likely or unlikely	138 (15.9%)	26 (18.6%)	79 (18.2%)		6 (18.2%)	20 (19.0%)	
	Unlikely	381 (43.9%)	6 (4.3%)	168 (38.7%)		1 (3.0%)	5 (4.7%)	
	I don't know	107 (12.3%)	13 (9.3%)	70 (16.1%)		4 (12.1%)	9 (8.4%)	
	Missing ±	29 (3.3%)	4 (2.9%)	19 (4.4%)		0	4 (3.7%)	
Current smokers only		541	--	434			107	
Last smoked	≤ 24 hours	470 (86.9%)	--	390 (89.9%)			80 (74.8%)	<0.001 ≠
	> 24 hours	59 (10.9%)	--	34 (7.8%)			25 (23.4%)	
	Missing ±	12 (2.2%)	--	10 (2.3%)			2 (1.9%)	
Heaviness of Smoking	Low dependence (0-2)	345 (63.8%)	--	278 (64.1%)	NA		67 (62.7%)	

Index	Moderate/high dependence (3-6)	158 (29.2%)	--	131 (30.2%)	NA	27 (25.2%)	0.53 ≠
	Missing ±	38 (7.0%)	--	25 (5.8%)		13 (12.1%)	
Cigarettes smoked per day	0-10	387 (71.5%)	--	306 (71.0%)		81 (75.7%)	
	≥ 11	128 23.7%)	--	110 (25.4%)		18 (16.8%)	0.09 ≠
	Missing ±	26 (4.8%)	--	18 (4.2%)		8 (7.5%)	
Seriously planning to quit smoking	Yes	362 (66.9%)	--	286 (65.9%)		76 (71.0%)	
	No	128 (23.7%)	--	114 (26.3%)		14 (13.1%)	0.01 ≠
	Missing ±	52 (9.4%)	--	34 (7.8%)		17 (15.9%)	

± Missing data excluded from chi squared analysis, ≠ P values are for comparisons between exclusive smokers (who do not vape) and dual users.

To note: The remaining 293/867 women who completed the full survey were recent ex-smokers who were not using e-cigarette

Table 4. Attitudes towards e-cigarettes (EC) use in pregnancy; comparisons between pregnant vapers and exclusive smokers

		All participants who completed the full survey N (%)	Vapers (exclusive & dual)	Exclusive smokers	P value: comparisons between vapers & exclusive smokers
	Total	N=867	N=140 (16.1%)	N=434 (50.1%)	
More likely to vape in pregnancy if health professional recommended	Agree	483 (55.7%)	117 (83.6%)	235 (54.2%)	<0.001
	Neither agree or disagree	165 (19.0%)	16 (11.4%)	94 (21.7%)	
	Disagree	208 (24.0%)	6 (4.3%)	99 (22.8%)	
	Missing ±	11 (1.3%)	1 (0.7%)	6 (1.4%)	
Vaping in pregnancy harms my baby	Agree	294 (33.9%)	11 (7.9%)	126 (29.0%)	<0.001
	Neither agree or disagree	448 (51.7%)	87 (62.1%)	246 (56.7%)	
	Disagree	114 (13.2%)	41 (29.3%)	56 (12.9%)	
	Missing ±	11 (1.3%)	1 (0.7%)	6 (1.4%)	
Vaping in pregnancy is as safe as using nicotine patches	Agree	151 (17.4%)	43 (30.7%)	68 (15.7%)	<0.001
	Neither agree or disagree	492 (56.8%)	76 (54.3%)	249 (57.37%)	
	Disagree	214 (24.7%)	19 (13.6%)	113 (26.0%)	
	Missing ±	10 (1.2%)	2 (1.4%)	4 (0.9%)	
Vaping in pregnancy is much less harmful than tobacco cigarettes	Agree	415 (47.9%)	110 (78.6%)	158 (36.4%)	<0.001
	Neither agree or disagree	304 (35.1%)	24 (17.1%)	189 (43.6%)	
	Disagree	135 (15.6%)	4 (2.9%)	80 (18.4%)	
	Missing ±	13 (2.0%)	2 (1.4%)	7 (1.6%)	
Nicotine is harmful to my unborn baby	Agree	674 (77.7%)	98 (70.0%)	330 (76.0%)	0.19
	Neither agree or disagree	140 (16.2%)	29 (20.7%)	80 (18.4%)	
	Disagree	42 (4.8%)	11 (7.9%)	19 (4.4%)	
	Missing ±	11 (1.3%)	2 (1.4%)	5 (1.2%)	
*Most important reasons for vaping in pregnancy	To help quit smoking	392 (45.2%)	65 (46.4%)	184 (42.4%)	
	To help cut down cigarettes	40 (4.6%)	6 (4.3%)	25 (5.8%)	
	Less harmful to others around me compared to	28 (3.2%)	0 (0%)	12 (2.8%)	0.06

	tobacco smoke				
	Healthier than tobacco cigarettes	26 (3.0%)	5 (3.6%)	10 (2.3%)	
	They are cheaper than tobacco cigarettes	13 (1.5%)	1 (0.7%)	6 (1.4%)	
	Other	53 (6.1%)	2 (1.4%)	27 (6.2%)	
	Missing ±	315 (36.3%)	61 (43.6%)	170 (39.2%)	
*Most important reasons for NOT vaping in pregnancy	They do not get rid of the smoking habit	102 (11.8%)	12 (8.6%)	49 (11.3%)	
	Not enough research	135 (15.6%)	21 (15.0%)	52 (12.0%)	
	Bad stories in press/ social media	81 (9.3%)	9 (6.4%)	59 (13.6%)	0.009
	Worried about side effects	71 (8.2%)	7 (5.0%)	25 (5.8%)	
	Do not get rid of nicotine addiction	52 (6.0%)	15 (10.7%)	17 (3.9%)	
	Other	154 (17.8%)	49 (35.0%)	89 (20.5%)	
	Missing±	272 (31.4%)	49 (35.0%)	143 (33.0%)	

± Missing data excluded from chi squared analysis *There were multiple answers to the questions asked about the most important reason to use or not to vape, the five most commonly reported answers are presented in the tables. To note: The remaining 293/867 women who completed the full survey were recent ex-smokers who were not using e-cigarettes