

## Supplementary material

Figure 1: Predicted probabilities for ever use of e-cigarettes by age and sex for period November 2013 to December 2017 from models including a quadratic time trend (intervention point: May 2016)

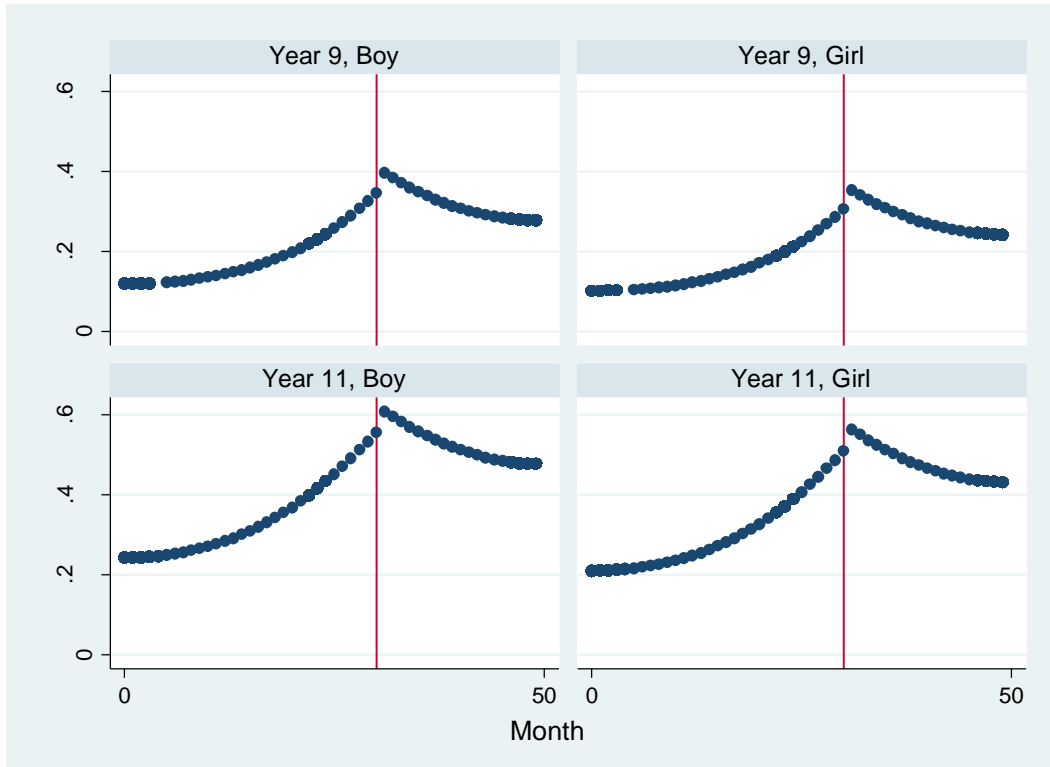


Table 1: Prevalence and CIs (95%) of ever e-cigarette use among pupils in Wales between November 2013 and December 2017, overall and by sex and school year

Month-Year	Time	Total (%)	95% CI		Boys (%)	95% CI		Girls (%)	95% CI		Year 9 (%)	95% CI		Year 11 (%)	95% CI	
			Low	High		Low	High		Low	High		Low	High		Low	High
11/2013	0	17.6	15.5	19.8	16.6	13.8	19.7	18.6	15.7	21.9	11.1	8.8	13.7	24.8	21.4	28.4
12/2013	1	16.5	14.3	19.0	18.7	15.4	22.4	14.0	11.0	17.5	11.5	8.9	14.5	22.5	18.7	26.6
01/2014	2	15.8	13.3	18.6	17.3	13.7	21.5	14.1	10.7	18.1	12.7	9.7	16.2	19.8	15.6	24.5
02/2014	3	13.3	10.2	16.8	12.6	8.7	17.5	13.8	9.4	19.3	10.3	6.9	14.6	17.5	12.3	23.8
03/2014	4	22.7	7.8	45.4	38.5	13.9	68.4	***	***	***	-	-	-	22.7	7.8	45.4
09/2015	22	27.8	25.5	30.2	29.3	25.7	33.1	26.7	23.7	29.8	22.3	19.5	25.4	34.3	30.7	38.1
10/2015	23	28.8	27.4	30.3	28.7	26.7	30.8	28.9	27.0	30.9	21.3	19.7	23.0	41.1	38.7	43.7
11/2015	24	31.6	30.3	32.8	31.9	30.1	33.8	31.2	29.5	33.0	22.5	20.9	24.1	40.4	38.6	42.3
09/2017	46	32.5	30.8	34.3	35.0	32.5	37.7	30.3	28.0	32.7	20.6	18.4	23.0	41.7	39.2	44.1
10/2017	47	35.8	34.8	36.8	38.4	37.0	39.8	33.2	31.9	34.6	27.4	26.3	28.6	47.5	45.9	49.1
11/2017	48	34.8	33.9	35.6	38.5	37.2	39.8	30.9	29.7	32.2	27.8	26.8	28.9	45.4	43.9	46.9
12/2017	49	34.0	33.2	34.8	35.1	34.0	36.3	32.9	31.8	34.0	24.2	23.2	25.2	45.3	44.1	46.6

\*\*\*Prevalence rate and CIs not given for this time point due to small number of observations (n=9). Inclusion of this time point in regression analyses did not adversely impact modelled estimates.

Table 2: Odds ratios (with 95% CIs) for ever use of e-cigarettes among pupils in Wales between 2013 and 2017 by ethnicity and socioeconomic status (segmented regression analyses)

		Ever used e-cigarettes			
		Linear models	<i>P</i>	Quadratic models	<i>P</i>
White (n=45,727)	Time (month-year)	1.04 [1.03, 1.05]	<0.001	1.01 [0.89, 1.15]	0.880
	Time <sup>2</sup>	-	-	1.00 [1.00, 1.01]	0.677
	Level	1.19 [0.45, 3.15]	0.726	1.37 [0.43, 4.31]	0.593
	Post-slope	0.95 [0.90, 1.01]	0.089	0.88 [0.60, 1.28]	0.506
BME (n=4,528)	Time	1.03 [1.01, 1.05]	0.001	0.91 [0.56, 1.48]	0.702
	Time <sup>2</sup>	-	-	1.01 [0.99, 1.02]	0.602
	Level	0.56 [0.04, 7.35]	0.662	1.06 [0.03, 40.90]	0.975
	Post-slope	1.00 [0.86, 1.15]	0.963	0.69 [0.17, 2.76]	0.600
High SES (n=25,002)	Time	1.04 [1.03, 1.05]	<0.001	1.05 [0.89, 1.23]	0.554
	Time <sup>2</sup>	-	-	1.00 [0.99, 1.01]	0.887
	Level	1.76 [0.62, 4.97]	0.285	1.66 [0.47, 5.91]	0.432
	Post-slope	0.94 [0.88, 1.00]	0.037	0.97 [0.61, 1.53]	0.897
Low SES (n=25,167)	Time	1.04 [1.03, 1.05]	<0.001	0.99 [0.86, 1.14]	0.900
	Time <sup>2</sup>	-	-	1.00 [1.00, 1.01]	0.525
	Level	0.73 [0.23, 2.28]	0.592	0.92 [0.25, 3.43]	0.901
	Post-slope	0.98 [0.92, 1.04]	0.500	0.86 [0.57, 1.29]	0.461

Note: models adjusted for sex and school year

Table 3: Odds ratios (with 95% CIs) for ever use of e-cigarettes among pupils in Wales between 2013 and 2017 with smoking status (ever smoked = 1) as a modelled covariate (segmented regression analyses)

		Ever used e-cigarettes			
		Linear models	<i>P</i>	Quadratic models	<i>P</i>
All (n=49,449)	Time (month-year)	1.07 [1.06, 1.08]	<0.001	1.08 [0.94, 1.25]	0.280
	Time <sup>2</sup>	-	-	1.00 [0.99, 1.01]	0.832
	Level	1.09 [0.42, 2.82]	0.867	1.00 [0.30, 3.34]	0.994
	Post-slope	0.93 [0.88, 0.98]	0.005	0.97 [0.64, 0.73]	0.879
	Smoking status	23.31 [21.36, 25.43]	<0.001	23.32 [21.38, 25.43]	<0.001
Boys (n=24,085)	Time (month-year)	1.06 [1.04, 1.07]	<0.001	1.09 [0.93, 1.28]	0.272
	Time <sup>2</sup>	-	-	1.00 [0.99, 1.00]	0.673
	Level	1.68 [0.63, 1.49]	0.304	1.41 [0.40, 4.94]	0.587
	Post-slope	0.92 [0.87, 0.97]	0.003	1.01 [0.65, 1.59]	0.955
	Smoking status	21.04 [18.78, 23.57]	<0.001	21.06 [18.80, 23.59]	<0.001
Girls (n=25,364)	Time (month-year)	1.07 [1.06, 1.09]	<0.001	1.06 [0.88, 1.29]	0.515
	Time <sup>2</sup>	-	-	1.00 [0.99, 1.01]	0.923
	Level	0.68 [0.18, 2.55]	0.569	0.71 [0.13, 3.79]	0.692
	Post-slope	0.93 [0.87, 1.01]	0.070	0.91 [0.52, 1.59]	0.739
	Smoking status	25.10 [22.48, 28.03]	<0.001	25.10 [22.49, 28.02]	<0.001
Year 9 (n=27,543)	Time (month-year)	1.06 [1.05, 1.08]	<0.001	1.13 [0.95, 1.34]	0.182
	Time <sup>2</sup>	-	-	1.00 [0.99, 1.00]	0.518
	Level	1.68 [0.43, 6.61]	0.459	1.25 [0.25, 6.16]	0.784
	Post-slope	0.90 [0.84, 0.97]	0.009	1.07 [0.64, 1.80]	0.797
	Smoking status	35.81 [31.57, 40.61]	<0.001	35.84 [31.58, 40.66]	<0.001
Year 11 (n=21,906)	Time (month-year)	1.07 [1.05, 1.08]	<0.001	1.03 [0.87, 1.22]	0.739
	Time <sup>2</sup>	-	-	1.00 [0.99, 1.01]	0.680
	Level	0.77 [0.23, 2.55]	0.664	0.91 [0.21, 4.16]	0.907
	Post-slope	0.95 [0.89, 1.01]	0.104	0.86 [0.52, 1.40]	0.531
	Smoking status	17.95 [16.15, 19.97]	<0.001	17.94 [16.14, 19.95]	<0.001

Note: where appropriate, models adjusted for sex and school year

Table 4: Odds ratios (with 95% CIs) for ever use of e-cigarettes among pupils in Wales between 2013 and 2017, overall and by sex, school year and smoking status – quadratic models (segmented regression analyses)

			<i>P</i>
All (n=51,056)	Time (month-year)	1.00 [0.87, 1.15]	0.994
	Time <sup>2</sup>	1.00 [1.00, 1.01]	0.589
	Level	1.32 [0.41, 4.21]	0.640
	Post-slope	0.86 [0.58, 1.27]	0.451
Boys (n=24,993)	Time	1.03 [0.90, 1.19]	0.654
	Time <sup>2</sup>	1.00 [0.99, 1.01]	0.960
	Level	1.91 [0.57, 6.37]	0.292
	Post-slope	0.93 [0.62, 1.38]	0.707
Girls (n=26,063)	Time	0.97 [0.81, 1.15]	0.706
	Time <sup>2</sup>	1.00 [1.00, 1.01]	0.425
	Level	0.92 [0.21, 3.97]	0.916
	Post-slope	0.80 [0.48, 1.33]	0.381
Year 9 (n=28,471)	Time	1.07 [0.90, 1.26]	0.461
	Time <sup>2</sup>	1.00 [0.99, 1.01]	0.745
	Level	1.29 [0.27, 6.10]	0.750
	Post-slope	1.02 [0.62, 1.68]	0.926
Year 11 (n=22,585)	Time	0.95 [0.81, 1.11]	0.513
	Time <sup>2</sup>	1.00 [1.00, 1.01]	0.255
	Level	1.34 [0.33, 5.52]	0.684
	Post-slope	0.75 [0.48, 1.17]	0.206
Never smoker (n=40,703)	Time	1.06 [0.90, 1.24]	0.459
	Time <sup>2</sup>	1.00 [0.99, 1.01]	0.940
	Level	1.02 [0.28, 3.72]	0.974
	Post-slope	0.95 [0.60, 1.51]	0.843
Ever smoker (n=8,746)	Time	1.06 [0.90, 1.25]	0.502
	Time <sup>2</sup>	1.00 [0.99, 1.01]	0.905
	Level	2.47 [0.33, 18.39]	0.378
	Post-slope	0.86 [0.52, 1.44]	0.568

Note: where appropriate, models adjusted for sex and school year

Table 5: Annual prevalence and CI (95%) of regular e-cigarette use among pupils in Wales between 2015 and 2017, overall and by sex and school year

Year	<b>Total (%)</b>	95% CI		<b>Boys (%)</b>	95% CI		<b>Girls (%)</b>	95% CI		<b>Year 9 (%)</b>	95% CI		<b>Year 11 (%)</b>	95% CI	
		Low	High		Low	High		Low	High		Low	High		Low	High
2015	4.2	3.9	4.6	5.1	4.5	5.7	3.5	3.0	4.0	2.8	2.4	3.2	6.0	5.3	6.7
2017	4.8	4.6	5.1	6.1	5.8	6.5	3.6	3.3	3.9	3.6	3.3	3.9	6.4	6.0	6.8

Table 6: Odds ratios (with 95% CIs) for regular use of e-cigarettes among pupils in Wales between 2015 and 2017 by ethnicity and socioeconomic status (before and after analyses)

			<i>P</i>
White (n=42,246)	Time	1.09 [1.00, 1.20]	0.047
BME (n=4,291)	Time	1.01 [0.82, 1.25]	0.927
High SES (n=23,278)	Time	1.13 [1.02, 1.25]	0.019
Low SES (n=23,231)	Time	1.08 [0.96, 1.21]	0.211

Note: models adjusted for sex and school year

Table 7: Annual prevalence and CI (95%) of e-cigarette use (ever/regular) among pupils in England between 2014 and 2016, overall and by sex and age

			95% CI			95% CI			95% CI			95% CI			95% CI	
	Year	<b>Total (%)</b>	Low	High	<b>Boys (%)</b>	Low	High	<b>Girls (%)</b>	Low	High	<b>13 year olds (%)</b>	Low	High	<b>15 year olds (%)</b>	Low	High
Ever use	2014	27.3	25.7	29.0	29.0	26.6	31.4	25.6	23.3	28.0	19.4	17.3	21.6	34.4	31.9	36.9
	2016	32.5	31.3	33.8	35.2	33.4	37.1	30.1	28.4	31.8	23.8	22.2	25.4	41.2	39.3	43.0
Regular use	2014	1.7	1.2	2.2	1.9	1.3	2.8	1.4	0.8	2.2	1.0	0.5	1.7	2.3	1.6	3.2
	2016	3.4	2.9	3.9	4.9	4.1	5.8	2.0	1.5	2.6	2.4	1.8	3.0	4.3	3.6	5.2



Table 8: Odds ratios (with 95% CIs) for primary and secondary outcomes among pupils in England between 2014 and 2016 by ethnicity

		Ever use of e-cigarettes		Regular use of e-cigarettes	
			<i>P</i>		<i>P</i>
White (n=6,607)	Time	1.16 [1.09, 1.23]	<0.001	1.47 [1.23, 1.77]	<0.001
BME (n=1,278)	Time	1.14 [1.00, 1.30]	0.044	1.38 [0.90, 2.11]	0.138

Note: models adjusted for sex and age

Table 9: Prevalence and CI (95%) of ever energy drink use among pupils in Wales between November 2013 and December 2017, overall and by sex and school year

Month-Year	Time	Total (%)	95% CI		Boys (%)	95% CI		Girls (%)	95% CI		Year 9 (%)	95% CI		Year 11 (%)	95% CI	
			Low	High		Low	High		Low	High		Low	High		Low	High
11/2013	0	55.3	52.5	58.0	62.2	58.2	66.0	48.6	44.7	52.5	53.9	50.0	57.7	57.0	53.0	61.0
12/2013	1	52.7	49.5	55.8	60.2	55.8	64.4	44.4	39.9	49.1	52.2	47.8	56.5	53.5	48.8	58.1
01/2014	2	48.9	45.3	52.5	56.6	51.5	61.5	40.5	35.5	45.8	50.8	46.0	55.6	46.4	40.9	51.9
02/2014	3	50.2	45.5	54.9	59.7	53.2	65.9	38.9	32.2	46.0	49.2	43.0	55.4	51.6	44.2	59.0
03/2014	4	54.5	32.2	75.6	61.5	31.6	86.1	44.4	13.7	78.8	-	-	-	54.5	32.2	75.6
09/2015	22	54.1	51.6	56.6	59.9	56.1	63.7	49.8	46.4	53.1	56.9	53.5	60.3	50.8	47.0	54.5
10/2015	23	53.0	51.5	54.5	58.5	56.3	60.6	47.9	45.9	50.1	52.9	51.0	54.8	53.2	50.7	55.7
11/2015	24	51.6	50.2	52.9	57.5	55.6	59.4	46.2	44.4	48.0	53.6	51.7	55.5	49.5	47.7	51.4
09/2017	46	42.8	41.0	44.7	51.4	48.7	54.1	35.5	33.1	38.0	39.7	37.0	42.4	45.3	42.9	47.8
10/2017	47	44.7	43.7	45.7	51.6	50.1	53.0	37.9	36.5	39.3	44.7	43.4	46.0	44.7	43.1	46.2
11/2017	48	43.6	42.7	44.5	51.2	49.9	52.5	35.8	34.5	37.0	43.7	42.5	44.9	43.4	41.9	44.8
12/2017	49	41.7	40.9	42.6	49.6	48.4	50.8	34.2	33.1	35.3	41.0	39.9	42.1	42.6	41.4	43.8

Table 10: Odds ratios (with 95% CIs) for ever use of energy drinks among pupils in Wales between 2013 and 2017 by ethnicity and socioeconomic status (segmented regression analyses)

		Linear models	<i>P</i>	Quadratic models	<i>P</i>
White (n=47,137)	Time (month-year)	1.00 [0.99, 1.01]	0.936	0.99 [0.92, 1.07]	0.825
	Time <sup>2</sup>	-	-	1.00 [1.00, 1.00]	0.828
	Level	1.38 [0.60, 3.21]	0.449	1.45 [0.57, 3.64]	0.435
	Post-slope	0.96 [0.92, 1.01]	0.112	0.94 [0.75, 1.18]	0.590
BME (n=4,787)	Time	1.00 [0.99, 1.01]	0.807	1.08 [0.93, 1.26]	0.317
	Time <sup>2</sup>	-	-	1.00 [0.99, 1.00]	0.324
	Level	2.54 [0.48, 13.39]	0.273	1.75 [0.26, 11.60]	0.564
	Post-slope	0.92 [0.84, 1.01]	0.067	1.14 [0.73, 1.79]	0.568
High SES (n=25,644)	Time	1.00 [0.99, 1.01]	0.993	1.01 [0.92, 1.11]	0.783
	Time <sup>2</sup>	-	-	1.00 [1.00, 1.00]	0.782
	Level	1.53 [0.56, 4.17]	0.401	1.44 [0.47, 4.38]	0.524
	Post-slope	0.96 [0.90, 1.01]	0.116	0.99 [0.75, 1.31]	0.963
Low SES (n=25,836)	Time	1.00 [0.99, 1.01]	0.772	0.98 [0.90, 1.07]	0.596
	Time <sup>2</sup>	-	-	1.00 [1.00, 1.00]	0.609
	Level	1.31 [0.54, 3.16]	0.550	1.46 [0.56, 3.82]	0.435
	Post-slope	0.97 [0.92, 1.01]	0.172	0.91 [0.70, 1.17]	0.441

Note: models adjusted for sex and school year

Table 11: Odds ratios (and 95% CIs) for ever use of energy drinks among pupils in Wales between 2013 and 2017, overall and by sex, school year, and smoking status – quadratic models (segmented regression analyses)

			P
All (n=52,794)	Time (month-year)	1.00 [0.93, 1.08]	0.937
	Time <sup>2</sup>	1.00 [1.00, 1.00]	0.947
	Level	1.36 [0.64, 3.40]	0.510
	Post-slope	0.97 [0.77, 1.21]	0.772
Boys (n=25,888)	Time	1.00 [0.92, 1.10]	0.923
	Time <sup>2</sup>	1.00 [1.00, 1.00]	0.858
	Level	1.26 [0.46, 3.44]	0.647
	Post-slope	1.00 [0.76, 1.30]	0.982
Girls (n=26,906)	Time	1.00 [0.91, 1.10]	0.997
	Time <sup>2</sup>	1.00 [1.00, 1.00]	0.925
	Level	1.49 [0.49, 4.53]	0.479
	Post-slope	0.94 [0.71, 1.23]	0.633
Year 9 (n=29,545)	Time	1.01 [0.92, 1.11]	0.853
	Time <sup>2</sup>	1.00 [1.00, 1.00]	0.911
	Level	1.22 [0.38, 3.96]	0.742
	Post-slope	0.97 [0.73, 1.30]	0.855
Year 11 (n=23,249)	Time	0.99 [0.91, 1.08]	0.807
	Time <sup>2</sup>	1.00 [1.00, 1.00]	0.867
	Level	1.58 [0.55, 4.55]	0.394
	Post-slope	0.94 [0.74, 1.20]	0.637
Never smoker (n=41,457)	Time	0.99 [0.91, 1.07]	0.770
	Time <sup>2</sup>	1.00 [1.00, 1.00]	0.727
	Level	1.51 [0.58, 3.94]	0.403
	Post-slope	0.92 [0.72, 1.16]	0.468
Ever smoker (n=8,805)	Time	1.12 [0.98, 1.27]	0.087
	Time <sup>2</sup>	1.00 [0.99, 1.00]	0.092
	Level	1.28 [0.33, 5.01]	0.725
	Post-slope	1.30 [0.89, 1.89]	0.180

Note: where appropriate, models adjusted for sex and/or school year

Table 12: Odds ratios (with 95% CIs) for ever use of energy drinks among pupils in Wales between 2013 and 2017 with smoking status (ever smoked = 1) as a modelled covariate (segmented regression analyses)

		Linear models	<i>P</i>	Quadratic models	<i>P</i>
All (n=50,262)	Time (month-year)	1.00 [1.00, 1.01]	0.428	1.01 [0.94, 1.09]	0.784
	Time <sup>2</sup>	-	-	1.00 [1.00, 1.00]	0.828
	Level	1.49 [0.66, 3.36]	0.332	1.43 [0.58, 3.56]	0.437
	Post-slope	0.95 [0.91, 1.00]	0.033	0.97 [0.78, 1.22]	0.821
	Smoking status	3.67 [3.44, 3.91]	<0.001	3.67 [3.44, 3.91]	<0.001
Boys (n=24,492)	Time (month-year)	1.00 [0.99, 1.00]	0.451	1.00 [0.91, 1.10]	0.991
	Time <sup>2</sup>	-	-	1.00 [1.00, 1.00]	0.965
	Level	1.32 [0.56, 3.12]	0.528	1.31 [0.48, 3.56]	0.603
	Post-slope	0.97 [0.93, 1.02]	0.214	0.98 [0.74, 1.28]	0.863
	Smoking status	3.39 [3.11, 3.69]	<0.001	3.39 [3.11, 3.69]	<0.001
Girls (n=25,770)	Time (month-year)	1.01 [1.00, 1.01]	0.050	1.02 [0.93, 1.11]	0.683
	Time <sup>2</sup>	-	-	1.00 [1.00, 1.00]	0.798
	Level	1.74 [0.62, 4.91]	0.294	1.64 [0.54, 5.05]	0.385
	Post-slope	0.93 [0.88, 0.99]	0.021	0.96 [0.74, 1.26]	0.791
	Smoking status	3.98 [3.68, 4.30]	<0.001	3.98 [3.68, 4.31]	<0.001
Year 9 (n=28,071)	Time (month-year)	1.01 [1.00, 1.01]	0.092	1.00 [0.91, 1.10]	0.993
	Time <sup>2</sup>	-	-	1.00 [1.00, 1.00]	0.903
	Level	1.42 [0.51, 3.95]	0.507	1.46 [0.46, 4.59]	0.520
	Post-slope	0.95 [0.89, 1.00]	0.062	0.93 [0.71, 1.23]	0.613
	Smoking status	5.60 [5.08, 6.18]	<0.001	5.60 [5.08, 6.18]	<0.001
Year 11 (n=22,191)	Time (month-year)	1.00 [0.99, 1.01]	0.692	1.01 [0.93, 1.10]	0.793
	Time <sup>2</sup>	-	-	1.00 [1.00, 1.00]	0.765
	Level	1.60 [0.60, 4.25]	0.342	1.51 [0.53, 4.31]	0.445
	Post-slope	0.96 [0.91, 1.01]	0.116	0.99 [0.78, 1.26]	0.953
	Smoking status	3.01 [2.78, 3.25]	<0.001	3.01 [2.79, 3.25]	<0.001

Note: where appropriate, models adjusted for sex and school year

**Interaction terms**

Table 12: Odds ratios for interaction terms for all outcomes among pupils in Wales

Interaction terms	Ever use of e-cigarettes (n=51,056) <sup>a</sup>	<i>P</i>	Ever use of energy drinks (n=52,794) <sup>a</sup>	<i>P</i>	Regular use of e-cigarettes (n=47,318) <sup>b</sup>	<i>P</i>
Time * sex	1.00 [0.99, 1.00]	0.029	1.00 [0.99, 1.00]	0.034	0.92 [0.79, 1.06]	0.057
Level * sex	0.85 [0.75, 0.96]	0.007	0.87 [0.79, 0.95]	0.003	-	-
Trend * sex	0.99 [0.98, 1.00]	0.015	0.99 [0.99, 1.00]	0.003	-	-
Time * school year	1.00 [1.00, 1.01]	0.612	1.00 [1.00, 1.01]	0.169	0.91 [0.79, 1.05]	0.204
Level * school year	1.02 [0.88, 1.19]	0.760	1.11 [1.01, 1.23]	0.035	-	-
Trend * school year	1.00 [0.99, 1.01]	0.693	1.01 [1.00, 1.01]	0.034	-	-

<sup>a</sup> Based on segmented regression models (linear); <sup>b</sup> Based on before and after models

Table 13: Odds ratios for interaction terms (sex and age) for all outcomes among pupils in England (before and after analysis)

Interaction terms	Ever use of e-cigarettes (n=8,178)	<i>P</i>	Regular use of e-cigarettes (n=8,178)	<i>P</i>
Time * sex	0.95 [0.86, 1.05]	0.314	0.72 [0.51, 1.00]	0.053
Time * age	1.02 [0.92, 1.13]	0.713	0.92 [0.64, 1.32]	0.646

**Process indicators (Wales only)**

Pupil responses to questions from the 2017 SHRN/HBSC survey on e-cigarettes and associated processes, asked of a subsample of whole SHRN/HBSC sample. Frequencies relate to pupils in years 9 and 11 only. Rounding errors mean percentages may not always sum correctly. Overall sample sizes will differ due to some questions not being asked of all respondents.

Table 14: Health risk perceptions for tobacco and e-cigarette use, and content of last e-cigarette used, among 13 and 15 year olds in Wales in 2017 by ethnicity and socioeconomic status

	Perceived harms of smoking				Nicotine content of last e-cigarette used (ever users only)				
	Smoking worse (%)	Vaping worse	Equally harmful	Don't know	Nicotine	Flavour / water vapour only	Cannabis or cannabis oil	Something else	Don't know
White	5,560 (48.3)	347 (3.0)	4,058 (35.2)	1,559 (13.5)	2,418 (30.2)	4,228 (52.7)	201 (2.5)	69 (0.9)	1,105 (13.8)
BME	500 (47.0)	29 (2.7)	389 (36.5)	147 (13.8)	212 (27.8)	405 (53.0)	41 (5.4)	9 (1.2)	97 (12.7)
High SES	3,301 (49.6)	159 (2.4)	2,329 (35.0)	867 (13.0)	1,241 (28.5)	2,361 (54.2)	134 (3.1)	44 (1.0)	573 (13.2)
Low SES	2,831 (45.9)	229 (3.7)	2,200 (35.7)	908 (14.7)	1,418 (31.3)	2,320 (51.2)	113 (2.5)	36 (0.8)	647 (14.3)

Table 15: Perceptions of parental attitudes to regulation of smoking and e-cigarette use among 13 and 15 year olds in Wales in 2017 by ethnicity and socioeconomic status

		Try to stop me (%)	Try persuading me to stop	Do nothing	Encourage me to vape
E-cigarettes (non-users)	White (n=10,106; 91.8%)	7,449 (74.2)	2,228 (22.1)	315 (3.1)	64 (0.6)
	BME (n=907; 8.2%)	717 (79.1)	156 (17.2)	26 (2.9)	8 (0.9)
	High SES (n=5,875; 52.5%)	4,521 (77.0)	1,186 (20.2)	135 (2.3)	33 (0.6)
	Low SES (n=5,322; 47.5%)	3,844 (72.2)	1,228 (23.1)	210 (4.0)	40 (0.8)
Smoking (non-smokers)	White (n=10,310; 91.7%)	8,780 (85.2)	1,373 (13.2)	121 (1.2)	36 (0.4)
	BME (n=937; 8.3%)	827 (88.3)	97 (10.4)	9 (1.0)	4 (0.4)
	High SES (n=6,019; 52.6%)	5,238 (87.0)	712 (11.8)	55 (0.9)	14 (0.2)
	Low SES (n=5,423; 47.4%)	4,536 (83.6)	783 (14.4)	78 (1.4)	26 (0.5)

Table 16: Modes of obtaining e-cigarettes among 13 and 15 year olds in Wales in 2017 by ethnicity and socioeconomic status

	Buy from shop (%)	Internet	From adults	From peers	Take	From siblings	Other
White ( <i>n</i> =2,934; 100%)	417 (14.2)	188 (6.4)	487 (16.6)	962 (32.8)	229 (7.8)	98 (0.3)	576 (19.6)
BME ( <i>n</i> =341; 100%)	82 (24.1)	35 (10.3)	60 (17.6)	77 (22.6)	50 (14.7)	19 (0.6)	73 (21.4)
High SES ( <i>n</i> =1,619; 100%)	285 (17.6)	106 (6.6)	284 (17.5)	506 (31.3)	131 (8.1)	60 (0.3)	334 (20.6)
Low SES ( <i>n</i> =1,694; 100%)	220 (13.0)	121 (7.1)	269 (15.9)	543 (32.1)	154 (9.1)	59 (0.3)	320 (18.9)

Note: multiple responses allowed. Figures therefore reflect numbers of pupils that acquired e-cigarettes via each method (and as a percentage of the total sample). Current e-cigarette users only.

Table 17: Prevalence and locations of exposure to e-cigarette marketing among 13 and 15 year olds in Wales in 2017 by ethnicity and socioeconomic status

	Bus shelter (%)	Side of bus	Billboard	Supermarket, petrol station, newsagent, vape shop	Internet	Phone box	Other	No exposure
White ( <i>n</i> =12,057; 91.3%)	2,516 (20.9)	1,323 (11.0)	1,754 (14.6)	5,103 (42.2)	4,786 (39.7)	940 (7.8)	2,246 (18.6)	4,011 (33.3)
BME ( <i>n</i> =1,154; 8.7%)	232 (20.1)	146 (12.7)	208 (18.0)	421 (36.5)	403 (34.9)	109 (9.5)	218 (18.9)	380 (32.9)
High SES ( <i>n</i> =6,978; 51.7%)	1,562 (22.4)	848 (12.2)	1,158 (16.6)	3,064 (43.9)	2,853 (40.9)	619 (8.9)	1,395 (20.0)	2,206 (31.6)
Low SES ( <i>n</i> =6,525; 48.3%)	1,231 (18.9)	644 (9.9)	839 (12.9)	2,540 (38.9)	2,408 (36.9)	448 (6.9)	1,114 (17.1)	2,288 (35.1)

Note: multiple responses allowed. Figures therefore reflect numbers of pupils exposed to e-cigarette marketing via each mechanism (and as a percentage of the total sample)