Supplemental Table 1. Regression Results among Flavoured Tobacco, Cigarette, Cigar, SLT, and ENDS unit sales, San Francisco and Comparison Cities, 2015-2019

Interrupted time-series analysis among flavoured tobacco sales overall and by major tobacco category	All Flavoured Tobacco Unit Sales			Menthol Cigarette Unit Sales			Flavoured Cigar Unit Sales		
	San Francisco	San Jose	San Diego	San Francisco	San Jose	San Diego	San Francisco	San Jose	San Diego
pre-policy slope (t) (average change in weekly sales)	102.4**	26.3	4.0	23.9**	-4.0	-12.3	32.9*	12.0	-4.3
	(24.7)	(14.2)	(16.2)	(8.4)	(10.3)	(9.9)	(13.3)	(8.5)	(5.8)
change in level (i.e., intercept) of weekly sales at the effective period (_x161)	2,934.7	3,279.3**	4,281.1**	283.0	1,850.4*	2,028.4**	-993.7	1,379.7	624.2
	(6,547.1)	(1,146.9)	(1,138.2)	(3,252.8)	(787.4)	(572.4)	(1,411.3)	(763.2)	(570.7)
change in slope relative to pre-policy slope (_x_t161)	-1,545.6**	-172.3	-189.1**	-616.8*	-126.9*	-192.8**	-300.3**	-91.9**	1.2
	(488.4)	(92.1)	(57.6)	(255.9)	(57.8)	(39.3)	(91.3)	(35.2)	(25.5)
change in level of weekly sales at the enforcement period (_x185)	-15,837.8*	1,418.5	-2,864.6*	-7,884.5*	1,289.9	-168.9	-4,134.2**	-889.8	-2,615.9**
	(7,709.6)	(1,851.6)	(1,342.2)	(3,937.0)	(1,150.6)	(846.8)	(1,528.3)	(828.3)	(682.7)
change in slope relative to the effective period (_x_t185)	1,444.1**	11.4	126.3	592.7*	57.6	155.2**	274.3**	30.9	-19.8
	(485.3)	(97.9)	(65.6)	(255.8)	(56.2)	(44.6)	(92.0)	(35.7)	(30.7)
2.quarter (quarter 1 is ref.)	-577.1	1,220.3	2,797.1**	181.1	1,817.4**	1,869.4**	-1,080.1	-537.0	68.0
	(1,136.6)	(687.9)	(896.9)	(386.9)	(466.8)	(619.3)	(694.9)	(384.1)	(355.7)
3.quarter (quarter 1 is ref.)	-1,945.4	1,853.9*	3,767.4**	-337.2	2,593.4**	3,440.8**	-1,117.6	-631.6	-222.7
	(1,137.0)	(736.6)	(907.2)	(393.1)	(459.2)	(597.0)	(784.8)	(469.7)	(344.6)
4.quarter (quarter 1 is ref.)	-603.1	1,472.5*	646.2	-210.4	1,767.5**	1,360.3*	-465.5	-159.0	-693.9
	(1,092.9)	(727.4)	(934.0)	(361.8)	(556.2)	(621.3)	(790.1)	(383.2)	(383.8)
California tax increase on cigarettes and ENDS (0/1)	2,506.7	-829.7	-6,209.9**	-1,510.2	-3,958.1**	-7,042.5**	2,153.5	3,511.1**	1,975.2**
	(2,311.6)	(1,279.9)	(1,530.5)	(832.8)	(917.4)	(1,034.8)	(1,317.6)	(825.4)	(510.0)
Constant (pre-policy level of weekly sales)	30,942.3**	65,971.1**	75,491.6**	20,467.1**	42,697.3**	48,532.2**	4,952.84**	14,335.7**	14,471.3**
	(1,427.8)	(882.6)	(1,149.8)	(459.5)	(649.8)	(765.7)	(858.0)	(512.2)	(409.6)
Observations	236	236	236	236	236	236	236	236	236

Standard errors in parentheses. ** p<0.01, * p<0.05; pre-period = July 2015 - July2018; effective period = July 2018 - December 2018; enforcement period = January – December 2019.

Regression model specified as: $Y = \beta_0 + \beta_1 T + \beta_2 Effective + \beta_3 T*Effective + \beta_4 Enforcement + \beta_5 T*Enforcement + \varepsilon$, where Y is estimated unit sales, T is time (weekly), *Effective* is the indicator for the effective date, $T*Effective$ is the interaction of the effective date indicator and time, *Enforcement* is the indicator for the enforcement date, and $T*Enforcement$ is the interaction of the enforcement date indicator and time. β_0 is the intercept or estimated level of sales at the start of the study period, β_1 is the estimated pre-policy slope, β_2 is the estimated change in the level of the outcome for the week in which the policy becomes effective, β_3 is the estimated change in the slope of the outcome in the policy-effective period relative to the slope in the pre-policy period, β_4 is the estimated change in the level of the outcome for the week in which policy enforcement begins, and β_5 is the estimated change in the slope of the outcome in the policy enforcement period relative to the slope in the policy effective period.

1

Supplemental material

BMJ Publishing Group Limited (BMJ) disclaims all liability and responsibility arising from any reliance placed on this supplemental material which has been supplied by the author(s)

Tob Control

Supplemental Table 1 *Continued.* Regression Results among Flavoured Tobacco, Cigarette, Cigar, SLT, and ENDS unit sales, San Francisco and Comparison Cities, 2015-2019

Interrupted time-series analysis among flavoured tobacco sales overall and by major tobacco category	Flavoured Smokeless Tobacco Unit Sales			Flavoured ENDS Unit Sales		
	San Francisco	San Jose	San Diego	San Francisco	San Jose	San Diego
pre-policy slope (t) (average change in weekly sales)	5.6 (4.2)	-1.8 (2.3)	3.0 (3.7)	39.8** (5.74)	20.0** (1.4)	18.0** (2.5)
change in level (i.e., intercept) of weekly sales at the effective period (_x161)	879.8 (885.5)	-65.9 (369.2)	166.9 (279.9)	2,570.5 (1,376.4)	62.4 (184.1)	1,455.0** (277.7)
change in slope relative to pre-policy slope (_x_t161)	-284.1** (57.9)	-3.2 (24.1)	-19.9 (20.6)	-342.6** (102.8)	55.2** (8.2)	21.5 (13.4)
change in level of weekly sales at the enforcement period (_x185)	-1,252.8 (986.5)	318.8 (362.1)	404.3 (379.7)	-2,567.0 (1,660.0)	609.0* (297.5)	-457.2 (233.2)
change in slope relative to the effective period (_x_t185)	263.1** (56.2)	1.2 (25.6)	31.5 (22.3)	312.5** (103.3)	-84.0** (14.0)	-41.7* (17.2)
2.quarter (quarter 1 is ref.)	109.4 (192.4)	-22.6 (139.5)	570.6** (136.9)	202.2 (265.1)	-33.8 (117.0)	299.5* (128.0)
3.quarter (quarter 1 is ref.)	-138.0 (205.0)	-185.2 (153.0)	288.0 (183.6)	-369.9 (250.3)	74.2 (133.8)	262.2 (151.2)
4.quarter (quarter 1 is ref.)	366.4 (297.2)	-188.1 (165.5)	12.0 (202.0)	-297.7 (151.7)	-4.2 (81.3)	-35.7 (120.1)
California tax increase on cigarettes and ENDS (0/1)	1,206.8** (461.9)	-240.4 (217.6)	-754.4* (353.7)	668.2 (414.1)	-148.3 (147.1)	-412.4 (210.8)
Constant (pre-policy level of weekly sales)	5,429.7** (264.2)	8,520.9** (180.2)	11,171.6** (249.6)	108.2 (365.0)	396.8** (105.7)	1,222.7** (175.7)
Observations	236	236	236	236	236	236

Standard errors in parentheses. ** $p<0.01$, * $p<0.05$; pre-period = July 2015 - July2018; effective period = July 2018 - December 2018; enforcement period = January – December 2019.
Regression model specified as: $Y = \beta_0 + \beta_1 T + \beta_2 Effective + \beta_3 T*Effective + \beta_4 Enforcement + \beta_5 T*Enforcement + \varepsilon$, where Y is estimated unit sales, T is time (weekly), *Effective* is the indicator for the effective date, $T*Effective$ is the interaction of the effective date indicator and time, *Enforcement* is the indicator for the enforcement date, and $T*Enforcement$ is the interaction of the enforcement date indicator and time. β_0 is the intercept or estimated level of sales at the start of the study period, β_1 is the estimated pre-policy slope, β_2 is the estimated change in the level of the outcome for the week in which the policy becomes effective, β_3 is the estimated change in the slope of the outcome in the policy-effective period relative to the slope in the pre-policy period, β_4 is the estimated change in the level of the outcome for the week in which policy enforcement begins, and β_5 is the estimated change in the slope of the outcome in the policy enforcement period relative to the slope in the policy effective period.

2