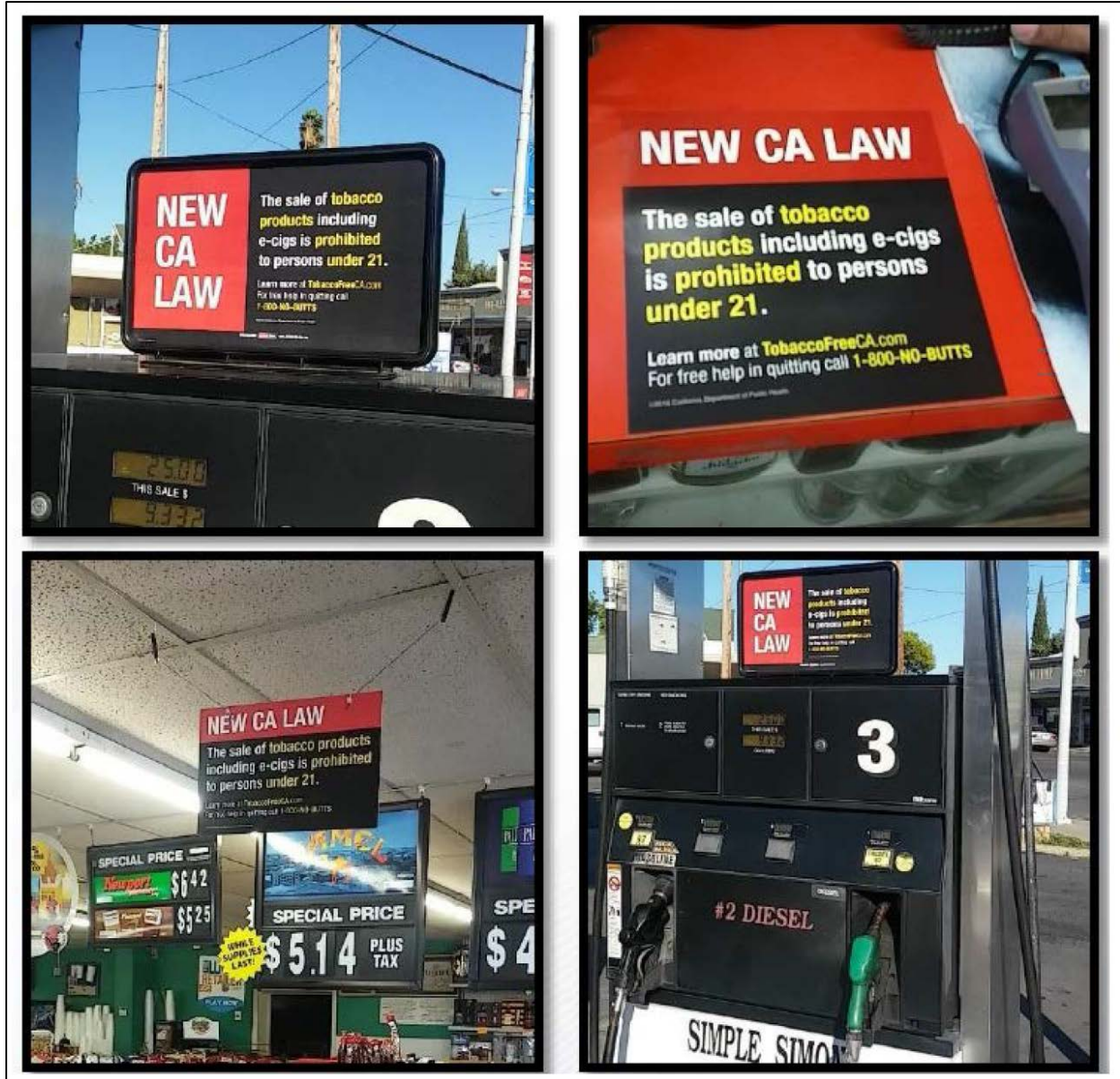


SUPPLEMENT 1: CALIFORNIA'S TOBACCO 21 ADVERTISEMENTS

Figure S1 displays the Tobacco 21 advertisements run by the California Tobacco Control Program, California Department of Public Health. These advertisements were placed at gas stations and convenience stores.

Figure S1. Tobacco 21 advertisements conducted by the California Tobacco Control Program.



SUPPLEMENT 2: DETAILED INFORMATION FOR PURCHASE SURVEYS

Table S1 displays the final sample size for the pre- and post-T21 Youth Tobacco Purchase Survey (YTPS), the Young Adult Tobacco Purchase Survey (YATPS), and the Young Adult E-cigarette Purchase Survey (YAEPS). The final sample size is also provided for each retailer type and geographic region, if applicable.

Table S1. Final sample size for the Youth Tobacco Purchase Survey (YTPS), the Young Adult Tobacco Purchase Survey (YATPS), and the Young Adult E-cigarette Purchase Survey (YAEPS)

	YTPS		YATPS	YAEPS
	Pre-T21	Post-T21		
Total	793	751	1,228	842
Retailer type				
Convenience stores with gas.....	219	212	325	288
Convenience stores without gas.....	124	110	161	108
Liquor stores.....	149	113	224	156
Pharmacies.....	40	21	56	50
Small markets.....	62	106	161	50
Supermarkets.....	93	57	83	38
Tobacco stores ^a	65	70	118	83
Vape shop ^a	– ^a	– ^a	– ^a	31
Others.....	41	62	100	38
Geographic regions				
Los Angeles.....	– ^b	– ^b	331	151
San Diego.....	– ^b	– ^b	104	90
Orange.....	– ^b	– ^b	92	23
Santa Clara.....	– ^b	– ^b	34	46
San Bernardino.....	– ^b	– ^b	84	133
Riverside.....	– ^b	– ^b	66	34
Alameda.....	– ^b	– ^b	73	21
San Francisco Peninsula and Northern Bay Region.....	– ^b	– ^b	91	47
Central Valley Region.....	– ^b	– ^b	107	75
North Coast, Shasta Cascade, and Eastern Sierra Nevada Region.....	– ^b	– ^b	80	80
Sacramento Region.....	– ^b	– ^b	83	101
Central Coast Region.....	– ^b	– ^b	83	41

^a vape shops was not a separate category in the pre-T21 YTPS; vape shops was combined with tobacco stores in post-T21 YTPS and YATPS due to small sample size

^b regional breakdown not calculated in YTPS due to sampling design

Table S2 presents the retailer violation rates (RVR) for the pre- and post-T21 YTPS by retailer type. In addition, the RVR was presented for the YATPS and the YAEPS by retailer type and by geographic region. Adjustments were made to standardize the results to an equal distribution of the decoy's gender and age.

Table S2. Retailer violation rates from the Youth Tobacco Purchase Survey (YTPS), the Young Adult Tobacco Purchase Survey (YATPS), and the Young Adult E-cigarette Purchase Survey (YAEPS)

	YTPS		YATPS	YAEPS
	Pre-T21	Post-T21		
	% (95% CI)	% (95% CI)		
Total	10.3 (8.2–12.5)	5.7 (4.1–7.4)	14.2 (9.3–19.1)	13.1 (10.2–16.1)
Retailer type				
Convenience stores with gas.....	10.3 (6.3–14.3)	6.1 (2.9–9.4)	14.5 (7.6–21.4)	10.7 (6.0–15.3)
Convenience stores without gas.....	5.7 (1.8–9.7)	5.2 (1.1–9.4)	12.5 (6.9–18.1)	7.6 (1.5–13.6)
Liquor stores.....	5.8 (2.2–9.3)	2.4 (0.0–5.1)	14.3 (7.4–21.3)	13.2 (6.9–19.5)
Pharmacies.....	0.0 (0.0–0.0)	0.0 (0.0–0.0)	4.0 (0.0–9.5)	3.0 (0.0–8.9)
Small markets.....	5.7 (0.1–11.2)	8.6 (3.2–14.1)	10.6 (2.5–18.8)	11.7 (0.0–27.3)
Supermarkets.....	6.8 (1.5–12.2)	1.6 (0.0–4.8)	6.5 (1.2–11.8)	1.4 (0.0–4.3)
Tobacco stores ^a	31.8 (20.2–43.4)	12.0 (4.6–19.4)	24.0 (15.9–32.1)	36.7 (25.9–47.6)
Vape shop ^a	– ^a	– ^a	– ^a	28.0 (11.5–44.6)
Others.....	22.8 (10.0–35.6)	2.9 (0.0–7.0)	26.5 (14.3–38.8)	19.6 (4.0–35.2)
Geographic regions				
Los Angeles.....	– ^b	– ^b	21.5 (8.9–34.1)	18.5 (12.4–24.7)
San Diego.....	– ^b	– ^b	12.5 (4.3–20.8)	14.7 (7.0–22.3)
Orange.....	– ^b	– ^b	9.8 (0.0–19.9)	8.9 (0.0–20.8)
Santa Clara.....	– ^b	– ^b	17.6 (13.0–22.2)	8.7 (4.3–13.1)
San Bernardino.....	– ^b	– ^b	10.7 (7.2–14.2)	17.7 (10.2–25.2)
Riverside.....	– ^b	– ^b	18.2 (1.1–35.3)	20.5 (14.4–26.7)
Alameda.....	– ^b	– ^b	5.5 (2.1–8.8)	7.5 (0.0–20.4)
San Francisco Peninsula and Northern Bay Region.....	– ^b	– ^b	3.3 (2.3–4.4)	1.7 (0.0–4.7)
Central Valley Region.....	– ^b	– ^b	18.0 (2.2–33.8)	9.8 (2.1–17.6)
North Coast, Shasta Cascade, and Eastern Sierra Nevada Region.....	– ^b	– ^b	14.8 (3.3–26.4)	18.2 (10.4–26.1)
Sacramento Region.....	– ^b	– ^b	4.9 (1.6–8.1)	12.2 (0.0–25.3)
Central Coast Region.....	– ^b	– ^b	8.4 (2.8–14.1)	12.1 (0.0–24.4)

^a vape shops was not a separate category in the pre-T21 YTPS; vape shops was combined with tobacco stores in post-T21 YTPS and YATPS due to small sample size

^b regional breakdown not calculated in YTPS due to sampling design