

The Impact of the Canada-Wide Menthol Cigarette Ban on Increasing Quitting: Implications for California

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Chung-Hall et al. (2021)¹ conducted a pre-post evaluation of the Canadian menthol cigarette ban across 7 provinces (covering 83% of the Canadian population) that implemented the ban.

There were three major outcomes of the Canadian menthol cigarette ban:

1. Menthol smokers were significantly more likely than non-menthol smokers to attempt to quit after the menthol ban (58.7% vs. 49.0% = 9.7%).
2. Daily menthol smokers were almost twice as likely than daily non-menthol smokers to quit after the menthol ban (21.0% vs. 11.6% = 9.4%).
3. Menthol smokers who had quit smoking before the menthol ban were significantly less likely than non-menthol smokers who had quit smoking to have relapsed back to smoking.

To estimate the impact of a menthol cigarette ban in California, we took the number of menthol cigarette smokers (both among all smokers and among African American smokers) and multiplied by the effect sizes above. To do this, we used 2019 data from the California Health Interview Survey (CHIS) to obtain the number of menthol and non-menthol cigarette smokers over all smokers and among African American smokers:

CHIS 2019	OVERALL								
	Menthol			Non-Menthol			TOTAL		
	Daily	<Daily	Total	Daily	<Daily	Total	Daily	<Daily	Total
all smokers	269,309	387,114	656,423	894,246	515,393	1,409,640	1,163,555	902,507	2,066,063
African American smokers	62,064	102,652	164,716	57,705	22,181	79,885	119,769	124,833	244,602

How many ADDITIONAL smokers would ATTEMPT TO QUIT after a California menthol cigarette ban?

All smokers: Total menthol smokers in California x 9.7% = 656,423 x 9.7% = **63,673**

African American smokers: Total AA menthol smokers in California x 9.7% = 164,716 x 9.7% = **15,977**

How many ADDITIONAL smokers would SUCCESSFULLY QUIT after a California menthol ban?

All daily smokers: Daily menthol smokers in California x 9.4% = 269,309 x 9.4% = **25,315**

African American daily smokers: Daily AA menthol smokers in California x 9.4% = 62,064 x 9.4% = **5,834**

This is a **conservative** estimate based only on daily smokers. But since the Canadian menthol ban led to a near significant (p=0.06) effect on ALL smokers on quitting (menthol smokers quitting = 21.5%, non-menthol smokers quitting = 14.0%). If we estimate the additional quitters based on ALL smokers, not just daily smokers, then we get these estimates of additional smokers who would quit after a California menthol cigarette ban:

All smokers: Total menthol smokers in California x 7.5% = 656,423 x 7.5% = **49,232**

All African American smokers: Total AA menthol smokers in California x 7.5% = 164,716 x 7.5% = **12,354**

¹ Chung-Hall J, Fong GT, Meng G, Cummings KM, Hyland A, O'Connor RJ, Quah ACK, Craig LV. Evaluating the impact of menthol cigarette bans on cessation and smoking behaviors in Canada: Longitudinal findings from the Canadian arm of the 2016-18 ITC Four Country Smoking and Vaping Surveys. *Tobacco Control*. Epub ahead of print: 06 April 2021. <https://dx.doi.org/10.1136/tobaccocontrol-2020-056259>.