

**APPENDIX TO “THE CONSEQUENCES OF A MATCH MADE IN HELL:
THE HARM CAUSED BY MENTHOL SMOKING TO THE
AFRICAN AMERICAN POPULATION OVER 1980-2018”**

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Parameters	Min	Baseline	Max
Ratio of Yields from Experimenter to Smoker	1.02	1.8	3.16
Menthol Cessation Multiplier	0.24	0.47	0.91
Menthol Mortality Multiplier	0.8	1	1.2
Switch Rate from Menthol to Non-menthol	0.0081	0.0108	0.0135
Switch Rate from Non- menthol to Menthol	0.0171	0.0229	0.0286

Table A1: African Americans’ menthol specific parameters with their 95% confidence intervals (CIs) or $\pm 25\%$ of the parameters’ baseline values (for cases without reported CIs). Refer to [1] for a description of the Table. These values were used to perform the sensitivity analysis presented in Table A4.

	Overall Cessation Rates in 1980	
Age	General Population	African American Population
19-30	0.00209	0.00138
31-49	0.02147	0.01422
50+	0.05958	0.03945

Table A2: Overall cessation rates in 1980 for the general and African American populations. The cessation rates for African Americans were calculated by multiplying the overall cessation rates for the general population from [2] with the cessation ratio between the general and African American populations [3].

	Cessation rates	
Age	Non-menthol smokers	Menthol smokers
19	0.002772	0.001303
20-24	0.002641	0.001241
25-29	0.002547	0.001197
30	0.002282	0.001072
31-34	0.023439	0.011016
35-39	0.022525	0.010587
40-44	0.018814	0.008843
45-49	0.018684	0.008781
50-54	0.051365	0.024142
55-59	0.049663	0.023341
60-64	0.048492	0.022791
65-69	0.055294	0.025988
70-74	0.056493	0.026552
75+	0.039452	0.018542

Table A3: Non-menthol and menthol cessation rates in 1980 for the African American population which obtained by using Table A2 and the procedure described in [1].

Scenarios	Cumulative Excess Smoking Initiators	Cumulative Excess Deaths	Cumulative Excess Life Years Lost
1- Baseline Values	1,508,913 (100%)	156,471 (100%)	1,476,198 (100%)
2- Low Yield from Experimenter to Smoker (1.02)	57,776 (4%)	130,653 (83%)	1,297,598 (88%)
3- High Yield from Experimenter to Smoker (3.16)	2,547,500 (169%)	174,949 (112%)	1,604,025 (109%)
4- Low Menthol Cessation (0.34)	1,508,913 (100%)	248,005 (158%)	2,391,798 (162%)
5- High Menthol Cessation (0.99)	1,508,913 (100%)	45,676 (29%)	365,371 (25%)
6- Low Menthol Mortality Risk (0.8)	1,508,913 (100%)	-111,063 (-71%)	-2,696,493 (-183%)
7- High Menthol Mortality Risk (1.2)	1,508,913 (100%)	368,541 (236%)	4,819,130 (326%)
8- Low Switch Rate Menthol to Non-menthol (0.81%)	1,508,913 (100%)	160,777 (103%)	1,509,450 (102%)
9- High Switch Rate Menthol to Non-menthol (1.35%)	1,508,913 (100%)	152,369 (97%)	1,444,219 (98%)
10- Low Switch Rate Non-menthol to Menthol (1.71%)	1,508,913 (100%)	152,040 (97%)	1,436,741 (97%)
11- High Switch Rate Non-menthol to Menthol (2.86%)	1,508,913 (100%)	160,561 (103%)	1,513,064 (102%)

Table A4: Estimates of cumulative excess smoking initiation, smoking-related premature deaths and life-years lost due to menthol cigarettes over 1980-2018 for the Black American population.

Age	Relative Risk Former	Relative Risk Current
0-34	1	1
35-39	1.447	2.083
40-44	1.447	2.081
45-49	1.447	2.080
50-54	1.447	2.077
55-59	1.447	2.079
60-69	1.447	2.359
70-74	1.277	1.824
75-79	1.187	1.583
80-84	1.185	1.576
85+	1.182	1.561

Table A5: Relative risks for African American smokers (derived from CPS II data and provided by Dr. Michael Thun, from the American Cancer Society for the 2011 TPSAC Menthol Report.)

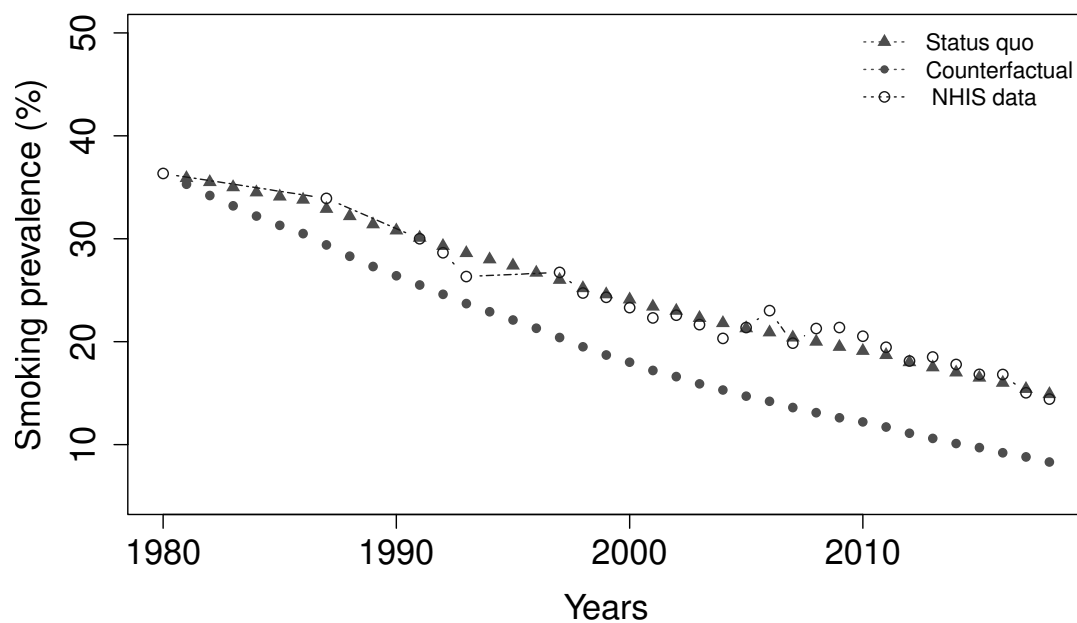


Figure A1: Simulated smoking prevalence under status quo ante and counterfactual scenarios and reported NHIS smoking prevalence over 1980–2018.

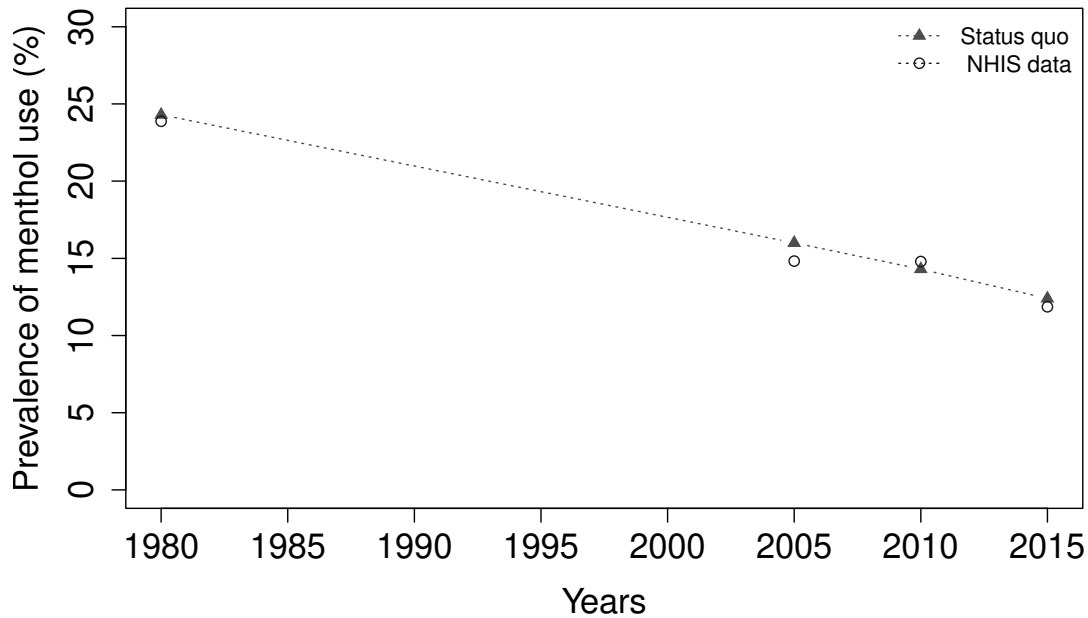


Figure A2: Simulated prevalence of menthol smoking under status quo ante and reported NHIS prevalence of menthol use over 1980–2018.

- [1] Le TTT, Mendez D. An estimation of the harm of menthol cigarettes in the United States from 1980 to 2018. *Tobacco Control* 2021.
- [2] Mendez D, Warner KE, Courant PN. Has smoking cessation ceased? Expected trends in the prevalence of smoking in the United States. *Am J Epidemiol* 1998;**148**(3):249-258.
- [3] Babb S, Malarcher A, Schauer G, *et al.* Quitting smoking among adults—United States, 2000–2015. *Morbidity and Mortality Weekly Report* 2017;**65**(52):1457-1464.