

State Menthol Fact Sheets

References and Methodology

This document lists the references and describes the methods used to collect and analyze data for the state menthol fact sheets.

References

Tobacco industry marketing of menthol products; menthol cigarettes' relationship to initiation, dependence, and cessation; menthol cigarette use data, including among certain population groups:

- Centers for Disease Control and Prevention. Menthol Tobacco Products. Accessed April 6, 2023. https://www.cdc.gov/tobacco/basic_information/menthol/index.html
- Seaman EL, Corcy N, Chang JT, et al. Menthol cigarette smoking trends among United States adults, 2003-2019. *Cancer Epidemiol Biomarkers Prev.* 2022;31(10):1959–1965. <https://doi.org/10.1158/1055-9965.EPI-22-0095>

Localities that prohibit the sale of menthol cigarettes and other flavored tobacco products:

- Campaign for Tobacco-Free Kids. States & Localities That Have Restricted the Sale of Flavored Tobacco Products. Accessed February 15, 2024. <https://www.tobaccofreekids.org/assets/factsheets/0398.pdf>

Comprehensive Medicaid coverage, available medications, and data on quitline use:

- Centers for Disease Control and Prevention. State Tobacco Activities Tracking and Evaluation (STATE) System. Accessed February 14, 2024. <https://www.cdc.gov/statesystem>
- Data current as of December 2023 (Medicaid coverage and medications available) and December 2020 (quitline utilization).

Quitline funding provided by CDC in Fiscal Year 2023:

- Centers for Disease Control and Prevention. National Tobacco Control Program Funding. Accessed May 25, 2023. <https://www.cdc.gov/tobacco/stateandcommunity/tobacco-control/program-funding/index.htm>

Economic cost of cigarette smoking, including health care spending, productivity costs associated with premature death, and productivity costs associated with smoking-related illnesses and health conditions:

- Xu X, Shrestha SS, Trivers KF, Neff L, Armour BS, King BA. U.S. healthcare spending attributable to cigarette smoking in 2014. *Prev Med.* 2021;150:106529. <https://doi.org/10.1016/j.ypmed.2021.106529>
- US Department of Health and Human Services. *The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General.* Centers for Disease Control and Prevention, US Department of Health and Human Services; 2014. <https://www.cdc.gov/tobacco/sgr/50th-anniversary/index.htm>
- Shrestha SS, Ghimire R, Wang X, Trivers KF, Homa DM, Armour BS. Cost of cigarette smoking—attributable productivity losses, U.S., 2018, *Am J Prev Med.* 2022;63(4):478–485. <https://doi.org/10.1016/j.amepre.2022.04.032>

Methodology

CDC used the Tobacco Use Supplement to the Current Population Survey (TUS-CPS) to estimate the number of adults who currently smoke, usually use menthol cigarettes, and are seriously considering quitting smoking.

The TUS-CPS is a nationally representative tobacco use survey that has been cosponsored by the National Cancer Institute since 1992 and the US Food and Drug Administration since 2014. It has been administered as part of the US Census Bureau's Current Population Survey about every 3 to 4 years since 1992–1993. For more information, see the Tobacco Use Supplement to the Current Population Survey, <https://cancercontrol.cancer.gov/brp/tcrb/tus-cps/>.

The state menthol fact sheets use data on all adult respondents aged 18 years or older from the 2018–2019 wave of the TUS-CPS. Current smoking was defined as smoking at least 100 cigarettes in a participant's lifetime and now smoking cigarettes “every day” or “some days” at the time of the survey. Respondents who reported current smoking were asked, “Do you usually smoke menthol or non-menthol cigarettes?” Respondents were also asked, “Are you seriously considering quitting smoking within the next 6 months?”

In some states, the sample size was not large enough to provide a reliable estimate of the prevalence of current smoking or usual menthol cigarette use for some population groups. Data are presented for population groups with a sample size of at least 30 participants. Data marked with an asterisk have a relative standard of error of <30%. These estimates are less precise but still informative.

CDC used pooled pre-post evaluation data from the ITC Canada Study and the Ontario Menthol Ban Study to estimate the projected cessation effects if menthol cigarettes were no longer available throughout the United States.

These studies assessed the effect of prohibiting menthol cigarettes on quitting across seven Canadian provinces covering 83% of the Canadian population. An analysis of these studies found that the effect size was 7.3%. The effect size was defined as the difference between the percentage of adults in Canada who smoked menthol cigarettes and quit and the percentage who smoked non-menthol cigarettes and quit.

For each state menthol fact sheet, the projected number of additional people who would quit smoking if menthol cigarettes were no longer available in each state and the District of Columbia was calculated by multiplying the estimated number of people who currently smoke and usually use menthol cigarettes by 7.3% and then rounding to the nearest 100.

This methodology is similar to the method used to derive national quitting estimates in the United States from the 2019 National Survey on Drug Use and Health (Source: Fong GT, Chung-Hall J, Meng G, et al. Impact of Canada's menthol cigarette ban on quitting among menthol smokers: pooled analysis of pre-post evaluation from the ITC Project and the Ontario Menthol Ban Study and projections of impact in the USA. *Tobacco Control*. 2022;0:1–5. doi: [10.1136/tobaccocontrol-2021-057227](https://doi.org/10.1136/tobaccocontrol-2021-057227).) The only difference is that the estimates in the state menthol fact sheets were rounded to the nearest 100.

Three limitations noted by Fong et al. in their study are also relevant to this analysis. The first is that menthol use is a self-reported measure. The second is that using Canadian data with a small sample of Black smokers to estimate the effect among African Americans who smoke menthol could lead to

underestimates for this population. The third limitation is that differences in the policy and tobacco use landscapes between the United States and Canada could limit the ability to use Canadian data to generate estimates for the US population.

More details about the design, strengths, and limitations of the Fong et al. study are available in the original article.

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