

# Prevalence of menthol cigarette use among adults who smoke from the United States by census division and demographic subgroup, 2002-2020: Findings from the International Tobacco Control (ITC) Project

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## Abstract

**Background:** Targeted marketing of menthol cigarettes in the US influences disparities in the prevalence of menthol smoking. There has been no analysis of sub-national data documenting differences in use across demographic subgroups. This study estimated trends in the prevalence of menthol use among adults who smoke in the nine US census divisions by sex, age, and race/ethnicity from 2002 to 2020.

**Methods:** Data from 12 waves of the US ITC Survey were used to estimate the prevalence of menthol cigarette use across census divisions and demographic subgroups using multilevel regression and post-stratification (n = 12,020). Multilevel logistic regression was used to predict the prevalence of menthol cigarette use in 72 cross-classified groups of adults who smoke defined by sex, age, race/ethnicity, and socioeconomic status; division-level effects were fit with a random intercept. Predicted prevalence was weighted by the total number of adults who smoke in each cross-classified group and aggregated to divisions within demographic subgroup. Estimates were validated against the Tobacco Use Supplement to the Current Population Survey (TUS-CPS).

**Results:** Overall modeled prevalence of menthol cigarette use was similar to TUS-CPS estimates. Prevalence among adults who smoke increased in each division from 2002 to 2020. By 2020, prevalence was highest in the Middle (46.3%) and South Atlantic (42.7%) and lowest in the Pacific (25.9%) and Mountain (24.2%) divisions. Prevalence was higher among adults aged 18-29 (vs. 50+) and females (vs. males). Prevalence among non-Hispanic Black people exceeded 80% in the Middle Atlantic, East North Central, West North Central, and South Atlantic in all years and varied most among Hispanic people in 2020 (Pacific: 26.5%, New England: 55.1%).

**Conclusions:** Significant geographic variation in the prevalence of menthol cigarette use among adults who smoke suggests the proposed US Food and Drug Administration (FDA) menthol cigarette ban will exert differential public health benefits and challenges across geographic and demographic subgroups.

## Recommended Citation

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