



IMPACT OF MENTHOL CIGARETTES ON YOUTH SMOKING INITIATION AND HEALTH DISPARITIES

Cigarettes with specific characterizing flavors were prohibited in the U.S. on September 22, 2009, as part of the Family Smoking Prevention and Tobacco Control Act (TCA) that gave the U.S. Food and Drug Administration (FDA) authority over tobacco products.¹ This provision excluded menthol cigarettes, which have subsequently increased their share of the cigarette market. Data from the Federal Trade Commission (FTC) show that in 2022, menthol cigarettes comprised 36% of the market.² Between 2009 and 2018, sales of non-menthol cigarettes declined by 33.1% nationally while sales of menthol cigarettes declined by only 8.2% during the same period. 91% of the decline in cigarette sales between 2009 and 2018 is attributable to nonmenthol cigarettes.³

Menthol cigarettes pose a tremendous public health threat. A 2013 FDA report on the health impact of menthol cigarettes determined that menthol cigarettes lead to increased smoking initiation among youth and young adults, greater addiction and decreased success in quitting smoking.⁴ Further, FDA's Tobacco Products Scientific Advisory Committee's (TPSAC)^{*} concluded, "**Removal of menthol cigarettes from the marketplace would benefit public health in the United States.**"⁵ In April 2022, the FDA published a proposed rule to prohibit menthol as a characterizing flavor in cigarettes. Researchers estimate that prohibiting menthol cigarettes would prevent over 650,000 deaths by 2060,⁶ including over 255,000 deaths in the Black community (over one-third of deaths averted).⁷

Menthol Makes it Easier for Youth to Initiate Tobacco Use and Increases Dependence

The tobacco companies know that almost all new tobacco users begin their addiction as kids, but they also know that to novice smokers, tobacco can be harsh and unappealing. Internal tobacco industry documents show that tobacco companies have a long history of using flavors to reduce the harshness of their products to make them more appealing to new users, almost all of whom are under age 18.⁸ By masking the harshness and soothing the irritation caused by tobacco smoke, flavors make it easier for beginners – primarily kids – to experiment with the product and ultimately become addicted. Menthol has particularly appealing qualities for novice smokers. Menthol is a chemical compound that cools and numbs the throat, reducing the harshness of cigarette smoke, thereby making menthol cigarettes more appealing to youth who are initiating tobacco use.⁹ As TPSAC noted, "Menthol cannot be considered merely a flavoring additive to tobacco. Its pharmacological actions reduce the harshness of smoke and the irritation from nicotine."¹⁰ According to TPSAC's conclusions:¹¹

- Menthol cigarettes increase the number of children who experiment with cigarettes and the number of children who become regular smokers, increasing overall youth smoking.
- Young people who initiate using menthol cigarettes are more likely to become addicted and become long-term daily smokers.

As the only flavored cigarette left on the market, it is no surprise that menthol cigarettes remain popular among youth. Since the reports from FDA and TPSAC, research has continued to demonstrate the popularity of menthol cigarettes among youth and menthol's role in smoking initiation:

^{*} TPSAC is a group of scientific experts charged with advising the Commissioner of Food and Drugs on safety, dependence, and health issues relating to tobacco. See <https://www.fda.gov/advisoryCommittees/CommitteesMeetingMaterials/tobacoproductsScientificAdvisoryCommittee/default.htm> for more details.

- Half of youth (ages 12-17) who had ever tried smoking initiated with menthol cigarettes.¹²
- In 2023, 42.3% of high school smokers reported using menthol cigarettes.¹³
- The popularity of menthol-flavored cigarettes is also evidenced by brand preference among youth. According to data from the 2015 National Survey on Drug Use and Health, one in five smokers ages 12-17 prefers Newport cigarettes, a heavily marketed menthol cigarette brand. Preference for Newport is even higher among Black youth smokers (69.1%) because of targeted marketing by the tobacco industry.¹⁴
- Data from Truth Initiative's Young Adult Cohort Study, a national study of 18-34 year olds, showed that 52% of new young adult smokers initiated with menthol cigarettes. Initiation with menthol cigarettes was higher among black smokers (93.1%) compared to white smokers (43.9%).¹⁵

According to the FDA, "the addition of menthol as a characterizing flavor used in cigarettes enhances nicotine addiction, particularly for youth and young adults, through a combination of its flavor, sensory effects, and interaction with nicotine in the brain." Menthol enhances the addictive properties of nicotine, making initiation with menthol cigarettes particularly detrimental. Specifically, menthol binds to nicotinic receptors in the brain, increases the number of nicotinic receptors in the brain, and enhances nicotine's effect on dopamine in the brain. All of these processes act to enhance the rewarding effects of nicotine.¹⁶ As a result, research shows that youth menthol smokers smoke more frequently and are at increased risk of dependence. For example:

- Data from the government's Population Assessment of Tobacco and Health (PATH) study shows that youth menthol smokers are more likely to perceive menthol cigarettes as easier to smoke than regular cigarettes,¹⁷ that youth menthol smokers have significantly higher levels of certain measures of dependence,¹⁸ and that initiation with a menthol-flavored cigarette is associated with a higher relative risk of daily smoking.¹⁹
- Pooled data from the 2017-2020 National Youth Tobacco Surveys (NYTS) shows that youth menthol smokers have greater risk of frequent (20 or more days per month) and heavier (11 or more cigarettes per day) smoking. This study also found that menthol smokers had lower odds of intentions to quit smoking and greater odds of other dependence measures, including craving tobacco and using tobacco within 30 minutes of waking.²⁰ Additionally, pooled data from the 2017 and 2018 NYTS indicate that menthol smoking among middle and high school students is associated with greater intention to continue smoking, compared to non-menthol smoking.²¹

Menthol Cigarettes Are Harder for Smokers to Quit

While the tobacco industry initially marketed menthol cigarettes as safer and healthier cigarettes, because of their cooling properties and reduced throat irritability, this could not be further from the truth.²² In fact, because menthol cigarettes are less harsh, they are associated with increased initiation and greater addiction, and FDA found that it is **"likely that menthol cigarettes pose a public health risk above that seen with nonmenthol cigarettes."**²³

Both TPSAC's and FDA's own scientific analyses conclude that menthol cigarettes are associated with increased nicotine dependence and reduced success in smoking cessation.²⁴ TPSAC projected that by 2020, about 17,000 premature deaths will be attributable to menthol cigarettes and about 2.3 million people will have started smoking because of menthol cigarettes.²⁵ Using the same model, researchers recently quantified the population harms caused by menthol cigarettes between 1980 and 2018. They estimate that during this time, menthol cigarettes were responsible for 10.1 million additional new smokers, 378,000 premature deaths and nearly 3 million life years lost. This amounts to nearly 10,000 premature deaths and over 265,000 new smokers each year over the 38-year period.²⁶

Research published since FDA's and TPSAC's reports continue to demonstrate the detrimental public health impact of menthol cigarettes:

- A 2014 randomized clinical trial of FDA-approved cessation treatments among 1,500 US adult smokers found that menthol smoking was associated with reduced likelihood of quitting, compared to non-menthol smoking. Black female menthol smokers had the lowest quit rates of all groups in the study.²⁷
- A meta-analysis of findings from nearly 150,000 smokers found that among Black Americans, menthol smokers have a 12% lower odds of smoking cessation compared to non-menthol smokers.²⁸
- Relying on these studies as well as the FDA's and TPSAC's findings, the 2020 Surgeon General Report on Smoking Cessation determined that the evidence was suggestive, but not conclusive as to the role of menthol on smoking cessation, finding the strongest evidence for reduced likelihood of smoking cessation among Black menthol smokers.²⁹
- Most recently, a study analyzing four waves of data from the government's Population Assessment of Tobacco and Health (PATH) study found that among daily smokers, menthol cigarette smokers have a 24% lower odds of quitting as compared to non-menthol smokers (the study did not find a significant difference among quit rates for non-daily menthol and non-menthol smokers). Among daily smokers, Black menthol smokers had a 53% lower odds of quitting compared to Black non-menthol smokers and white menthol smokers had a 22% lower odds of quitting compared to white non-menthol smokers.³⁰
- Another study analyzing data from the first four waves of the PATH study found that using menthol cigarettes prior to a quit attempt decreased the probability of 30+ day abstinence by 28% and the probability of 12-month abstinence by 53%. Smokers who switched from menthol to non-menthol cigarettes increased their probability of cessation.³¹
- Despite the overwhelming evidence regarding the public health harms of menthol cigarettes, misperceptions still exist. A survey of Black adult smokers in Minnesota found that over half (59%) were either unsure of the relative harm of menthol cigarettes or perceived that menthol cigarettes are less harmful than non-menthol cigarettes.³²

The difficulty that menthol smokers have in quitting continues to be reflected in national smoking prevalence trends. While smoking rates have declined overall in recent years, use of menthol cigarettes has increased significantly. Menthol smoking rates have increased among young adults and remained constant among youth and adults, while non-menthol smoking has decreased in all three age groups.³³ Overall, about 4 out of 10 (39.9%) of smokers use menthol cigarettes.³⁴

In recent years, use of menthol cigarettes has increased among White, Asian, and Hispanic smokers. Use of menthol cigarettes has remained constant among Black smokers, who continue to use menthol cigarettes more than any other racial/ethnic group.³⁵ Research also shows that use of menthol cigarettes has perpetuated disparities among other groups. According to the 2018 National Survey of Drug Use and Health (NSDUH):³⁶

- 85% of Black smokers, 50% of Hispanic smokers and 47% of Asian American smokers use menthol cigarettes, compared to 29% of White smokers.
- 51% of lesbian/gay and 46% of bisexual smokers use menthol cigarettes, compared to 39% of heterosexual smokers.
- 45% of smokers with severe psychological distress use menthol cigarettes compared to 39% of smokers with no past month serious psychological distress.
- 47% of smokers living in poverty use menthol cigarettes, compared to 36% of smokers with an income exceeding twice the Federal Poverty Threshold.
- 60% of pregnant smokers use menthol cigarettes.

Use of Menthol Cigarettes Leads to Health Disparities for Black Americans

Prevalence of menthol use is highest among Black Americans – 85% of all Black smokers smoke menthol cigarettes, compared to 29% of Whites.³⁷ The tobacco industry’s “investment” in the Black community has had a destructive impact. TPSAC’s report and FDA’s analysis conclude that Black Americans are disproportionately burdened by the health harms of menthol cigarettes. Specifically, TPSAC concluded that the marketing and availability of menthol cigarettes increases the overall prevalence of smoking and reduces cessation among Black Americans.³⁸

- Among Black Americans, menthol cigarettes were responsible for 1.5 million extra smokers, 157,000 smoking-related premature deaths and 1.5 million excess life-years lost during 1980-2018. Black Americans bear a disproportionate toll of the public health impact of menthol cigarettes. During this time, Black Americans represented 15% of extra new smokers, 41% of excess premature deaths and 50% of excess life-years lost, despite only accounting for 12% of the population.³⁹
- Black Americans generally have higher levels of nicotine dependence as a consequence of their preference for mentholated cigarettes.⁴⁰ While research shows that Black smokers are highly motivated to quit smoking and are more likely than White smokers to have made a quit attempt and used counseling services in the previous year, they are less likely than White smokers to successfully quit smoking.⁴¹
- Due to the lower likelihood of smoking cessation among Black menthol smokers, the 2020 Surgeon General Report on Smoking Cessation concluded that, “Use of menthol cigarettes has been shown to contribute to tobacco cessation-related disparities in the United States.”⁴²
- A 2019 metaanalysis found that among Black smokers, menthol smokers had a 12% lower odds of successfully quitting smoking compared to non-menthol smokers.⁴³
- Black Americans suffer the greatest burden of tobacco-related mortality of any racial or ethnic group in the United States. Each year, approximately 45,000 Black Americans die from a smoking-caused illness.⁴⁴
- Lung cancer is the second most common cancer in both Black men and women, but it kills more Black Americans than any other type of cancer.⁴⁵ Decreased cessation success due to the popularity of menthol cigarettes among Black Americans likely contributes to this mortality disparity.⁴⁶ Researchers estimate that a menthol ban would close the gap between lung cancer death rates for Black Americans and other U.S. racial and ethnic groups by 2025— twenty-five years sooner than it otherwise would have, and that by 2060, smoking attributable lung cancer death rates would be cut in half for Black Americans.⁴⁷

The Tobacco Industry Targets Minorities and Youth with Menthol Cigarette Marketing

The greater popularity of menthol cigarettes among Black Americans, youth, and other minorities is a direct result of a decades-long marketing campaign by the tobacco industry. In fact, TPSAC concluded that menthol cigarettes are marketed disproportionately to younger smokers and Black Americans.⁴⁸ Dating back to the 1950s, the tobacco industry has targeted these communities with marketing for menthol cigarettes through sponsorship of community and music events, targeted magazine advertising, youthful imagery, and marketing in the retail environment.

Music and Community Event Sponsorship. Beginning in the 1970s, the major tobacco companies competed for market share in the Black community by sponsoring music and community events like Brown & Williamson’s “Kool Jazz Festival,” R.J. Reynolds’ “Salem Summer Street Scenes,” and Phillip Morris’s “Club Benson & Hedges” promotional bar nights.⁴⁹ Kool also sponsored Latin music festivals, including the branded “Kool Latino Festival,” in the 1970s and 1980s.⁵⁰

Magazine Advertising. Expenditures for magazine advertising of mentholated cigarettes increased from 13% of total ad expenditures in 1998 to 76% in 2006.⁵¹ During the two years after the Master Settlement Agreement (MSA) in November 1998, the average annual expenditures for Newport in magazines with high youth readership increased 13.2% (from \$5.3 to \$6.0 million).⁵² Between 1998–2002, *Ebony*, a magazine tailored to Black culture, was 9.8 times more likely than *People* to contain ads for menthols.⁵³ One study comparing the English and Spanish language versions of *Cosmopolitan* and *Glamour* from 1998–2002 found that 51% of the cigarette ads in the Spanish language versions were for menthol brands, compared to only 28% in the English language versions.⁵⁴

Youthful Imagery. The tobacco companies commonly use youthful imagery in its advertising to appeal to young consumers. As a R.J. Reynolds document from 1981 noted, “The benefit of smoking which has most frequently and most successfully been exploited by brand families appears to be Social Interaction. For example, some brands, such as Newport, have focused on the younger adult ‘peer group’ aspect of social interaction.”⁵⁵ Newport’s “Alive with Pleasure” campaign, which continues today, portrays smokers in fun, social environments in its advertisements.⁵⁶ In 2004, Brown & Williamson started an ad campaign for their Kool brand cigarettes clearly aimed at youth—and Black youth, in particular. The Kool Mixx campaign featured images of young rappers, disc jockeys and dancers on cigarette packs and in advertising. The campaign also included radio giveaways with cigarette purchases and a Hip-Hop disc jockey competition in major cities around the country. The themes, images, radio giveaways and music involved in the campaign all clearly have tremendous appeal to youth, especially Black youth. Attorneys General from several states promptly filed motions against Brown & Williamson for violating the Master Settlement Agreement.⁵⁷

Retail Promotions. For decades, tobacco companies have specifically targeted minority communities, particularly Black Americans, with intense advertising and promotional efforts. Beginning in the 1970s, the major tobacco companies used mobile van programs, like the Newport Pleasure Van, to expand their reach in urban areas through product sampling and coupon distribution.⁵⁸ The tobacco companies also developed specific strategies and specially designed product displays to adapt their point-of-sale marketing to smaller retailers that were more common in urban areas. Phillip Morris implemented promotion programs and paid retailers to exhibit product displays and grow their inventory. Brown & Williamson launched its Kool Inner City Point of Purchase Program, later the Kool Inner City Family Program, with the explicit goal, “to reach the core of Kool’s franchise (young, black, relatively low income and education),”⁵⁹ with both retailer and consumer promotions.⁶⁰ Today, menthol cigarettes continue to be heavily advertised, widely available, and priced cheaper in certain Black communities, making them more appealing, particularly to price-sensitive youth. A wealth of research indicates that Black neighborhoods have a disproportionate number of tobacco retailers, pervasive tobacco marketing, and in particular, more marketing of menthol products.⁶¹

- Nationwide, census tracts with a greater proportion of Black residents have higher tobacco retailer density.⁶²
- A 2011 study of cigarette prices in retail stores across the U.S. found that Newport cigarettes are significantly less expensive in neighborhoods with higher proportions of Black residents.⁶³
- Consistent with findings from previous California studies,⁶⁴ an analysis of California retailers in 2018 found that controlling for store type, neighborhood poverty and other covariates, tobacco retailers in neighborhoods with the highest proportions of Black residents were more likely to advertise menthol cigarettes and charged an estimated 25 cents less for Newport cigarettes, compared with stores in neighborhoods with the lowest proportion of Black residents.⁶⁵
- A 2013 study of tobacco retail outlets in St. Louis found more tobacco advertising, including more menthol advertising, in areas with a greater proportion of Black residents.⁶⁶ Another 2013 study found similar patterns in Ramsey County, Minnesota.⁶⁷

Action Needed to Prohibit Menthol Cigarettes

In April 2022, more than a decade since the FDA's Tobacco Products Scientific Advisory Committee concluded in a landmark 2011 report that the removal of menthol cigarettes from the marketplace would benefit public health in the United States, the FDA issued a proposed rule to prohibit menthol as a characterizing flavor in cigarettes. There is strong support for prohibiting menthol cigarettes and flavored cigars from a wide range of organizations, scientists and elected officials – including from leading Black organizations and members of Congress. Supporters include the [NAACP](#), other [Black civil rights and public health organizations](#), [members of the Congressional Black Caucus](#), and [a broad coalition of 77 public health, medical, education and community organizations](#). The FDA's proposed rule is an important step forward, but it is the first step of a lengthy rulemaking process. It will take time for the FDA to finalize and implement the necessary regulations to prohibit menthol cigarettes and flavored cigars, and tobacco industry efforts to block or postpone FDA actions could cause further delays. Until any FDA rule is implemented, cities should continue their growing efforts to end the sale of menthol cigarettes, flavored cigars and other flavored tobacco products. Today, over 150 localities from California to Minnesota to Maine restrict or ban the sale of menthol cigarettes.⁶⁸

- In November 2019, Massachusetts enacted the first statewide ban on the sale of all flavored tobacco products, including menthol cigarettes (effective 6/1/20). In August 2020, California became the second state to ban menthol cigarettes, along with flavored e-cigarettes and most other flavored tobacco products (implementation pending referendum vote).
- In 2017, the San Francisco Board of Supervisors unanimously passed an ordinance to prohibit the sale of all flavored tobacco products, including menthol cigarettes and e-cigarettes, becoming the first major U.S. city to enact a comprehensive ban.⁶⁹ This law was originally slated to go into effect on April 1, 2018. However, R.J. Reynolds, manufacturer of the top-selling menthol brand, quickly responded by gathering signatures for a referendum petition, allowing voters to decide on the June 2018 ballot whether the restriction should be implemented.⁷⁰ San Francisco residents overwhelmingly voted (68.4% to 31.6%)⁷¹ to implement the flavored tobacco sales restriction, despite the industry spending nearly \$12 million to try to defeat the initiative.⁷²

International Evidence that Menthol Cigarette Bans Increase Smoking Cessation

The Canadian government banned menthol cigarettes in October 2017, although most provinces had banned menthol cigarettes prior to the nationwide law. Studies have found that laws restricting the sale of menthol cigarettes in Canadian provinces were associated with significant reductions in menthol cigarette sales and total cigarette sales.⁷³ Surveillance from Ontario, which banned menthol cigarettes on January 2017 shows promising evidence that banning menthol cigarettes increases quit attempts and cessation:

- A 1-year follow-up survey found that both daily and occasional menthol smokers were more likely to report having quit smoking (24% and 20%, vs 14%) or having made a quit attempt (63% and 62%, vs 43%), compared to non-menthol smokers.⁷⁴
- A 2-year follow-up survey found that menthol smokers were more likely to report having quit smoking for at least the last 6 months (12% for daily menthol smokers and 10% for occasional menthol smokers), compared to non-menthol smokers (3%), with no significant differences in relapse rates. Menthol smokers also reported more quit attempts than non-menthol smokers. Daily menthol smokers reported an average of 3 quit attempts, compared to 2.6 for occasional menthol smokers and 1.2 for non-menthol smokers.⁷⁵

Data from the International Tobacco Control Policy Evaluation Project (ITC), evaluating the impact of Canada's national ban, are consistent with the findings on the impact of the Ontario ban. Specifically, ITC researchers, using longitudinal surveys of Canadian smokers in seven provinces from 2016-2018 found that following provincial bans and the national ban, menthol smokers were more likely to try to quit than

non-menthol smokers (59% vs. 49%), and were twice as likely to have quit smoking for at least six months (12% vs. 6%).⁷⁶

Based on these studies from Ontario and Canada, researchers estimate that a menthol ban in the United States would lead over 1.3 million smokers to quit, including 381,000 Black smokers.⁷⁷ It is important to note that menthol cigarettes comprised a much smaller proportion of the Canadian cigarette marketplace (~5%) than the US marketplace (37%), and the demographics of menthol smokers are very different between the two countries.

In May 2020, the European Union and the United Kingdom banned the sale of menthol cigarettes, but research is still emerging on the impact of these bans.

Campaign for Tobacco-Free Kids, November 9, 2023 / Laura Bach

More information on Tobacco and Black Americans is available at
<https://www.tobaccofreekids.org/fact-sheets/tobaccos-toll-health-harms-and-cost/toll-of-tobacco-on-specific-populations-african-americans>

More information on Flavored Tobacco Products is available at
<http://www.tobaccofreekids.org/flavortrap> and <http://www.tobaccofreekids.org/research/factsheets/pdf/0383.pdf>.

¹ See U.S. Food and Drug Administration's (FDA) Flavored Tobacco webpage at

<http://www.fda.gov/TobaccoProducts/GuidanceComplianceRegulatoryInformation/FlavoredTobacco/default.htm>.

² U.S. Federal Trade Commission (FTC), *Cigarette Report for 2022, 2023*, https://www.ftc.gov/system/files/ftc_gov/pdf/2022-Cigarette-Report.pdf [data for top 4 manufacturers only].

³ Delnevo, CD, et al., "Assessment of Menthol and Nonmenthol Cigarette Consumption in the US, 2000 to 2018," *JAMA Network Open*, published online August 7, 2020.

⁴ FDA. *Preliminary Scientific Evaluation of the Possible Public Health Effects of Menthol versus Nonmenthol Cigarettes* (2013).

⁵ Tobacco Products Scientific Advisory Committee (TPSAC), FDA, "Menthol Cigarettes and Public Health: Review of the Scientific Evidence and Recommendations, 2011," <https://wayback.archive-it.org/7993/20170405201731/https://www.fda.gov/downloads/AdvisoryCommittees/CommitteesMeetingMaterials/TobaccoProductsScientificAdvisoryCommittee/UCM269697.pdf>.

⁶ Levy, DT, et al., "Public health impact of a US ban on menthol in cigarettes and cigars: a simulation study," *Tobacco Control*, published online September 2, 2021.

⁷ Issabakhsh, M, et al., "Public health impact of a US menthol cigarette ban on the non-Hispanic black population: a simulation study," *Tobacco Control*, published online June 14, 2022.

⁸ HHS, *Preventing Tobacco Use Among Youth and Young Adults, A Report of the Surgeon General*, 2012, <http://www.cdc.gov/Features/YouthTobaccoUse/>.

⁹ FDA. *Preliminary Scientific Evaluation of the Possible Public Health Effects of Menthol versus Nonmenthol Cigarettes* (2013).

¹⁰ TPSAC, FDA, "Menthol Cigarettes and Public Health: Review of the Scientific Evidence and Recommendations, 2011," <https://wayback.archive-it.org/7993/20170405201731/https://www.fda.gov/downloads/AdvisoryCommittees/CommitteesMeetingMaterials/TobaccoProductsScientificAdvisoryCommittee/UCM269697.pdf>.

¹¹ TPSAC, FDA, "Menthol Cigarettes and Public Health: Review of the Scientific Evidence and Recommendations, 2011," <https://wayback.archive-it.org/7993/20170405201731/https://www.fda.gov/downloads/AdvisoryCommittees/CommitteesMeetingMaterials/TobaccoProductsScientificAdvisoryCommittee/UCM269697.pdf>.

¹² Ambrose, BK, et al., "Flavored Tobacco Product Use Among US Youth Aged 12-17 Years, 2013-2014," *Journal of the American Medical Association*, published online October 26, 2015.

¹³ Birdsey J., et al. "Tobacco Product Use Among U.S. Middle and High School Students — National Youth Tobacco Survey, 2023," *MMWR*, 72(44): 1173–1182, November 3, 2023, <https://www.cdc.gov/mmwr/volumes/72/wr/mm7244a1.htm>.

¹⁴ SAMHSA's public online data analysis system (PDAS), National Survey on Drug Use and Health, 2015. http://pdas.samhsa.gov/#/survey/NSDUH-2015-DS0001/crosstab?row=CIG30BR2&column=CATAG3&control=NEWRACE2&weight=ANALWT_C&results_received=true and https://pdas.samhsa.gov/#/survey/NSDUH-2015-DS0001/crosstab?column=CATAG3&results_received=true&row=CIG30BR2&weight=ANALWT_C.

¹⁴ FDA. *Preliminary Scientific Evaluation of the Possible Public Health Effects of Menthol versus Nonmenthol Cigarettes* (2013).

- ¹⁵ D'Silva, J, et al., "Differences in Subjective Experiences to First Use of Menthol and Nonmenthol Cigarettes in a National Sample of Young Adult Cigarette Smokers," *Nicotine & Tobacco Research*, 20(9): 1062-1068, 2018.
- ¹⁶ Alsharari, S.D., J.R. King, J.C. Nordman, et al. "Effects of Menthol on Nicotine Pharmacokinetic, Pharmacology and Dependence in Mice." *PLoS ONE*, 10(9):e0137070, 2015. Available at <https://doi.org/10.1371/journal.pone.0137070>. Henderson, B.J., T.R. Wall, B.M. Henley, et al. "Menthol Alone Upregulates Midbrain Nachrs, Alters Nachr Subtype Stoichiometry, Alters Dopamine Neuron Firing Frequency, and Prevents Nicotine Reward." *The Journal of Neuroscience*, 36(10):2957-2974, 2016. Available at <https://doi.org/10.1523/JNEUROSCI.4194-15.2016>. Henderson, B.J., T.R. Wall, B.M. Henley, et al. "Menthol Enhances Nicotine Reward-Related Behavior by Potentiating Nicotine-Induced Changes in Nachr Function, Nachr Upregulation, and Da Neuron Excitability." *Neuropsychopharmacology*, 42:2285-2291, 2017. Available at <https://doi.org/10.1038/npp.2017.72>. Zhang, M., E. Harrison, L. Biswas, et al. "Menthol Facilitates Dopamine-Releasing Effect of Nicotine in Rat Nucleus Accumbens." *Pharmacology, Biochemistry and Behavior*, 175:47-52, 2018. Available at <https://doi.org/10.1016/j.pbb.2018.09.004>.
- ¹⁷ Cohn, AM, et al., "Menthol Smoking Patterns and Smoking Perceptions Among Youth: Findings from the Population Assessment of Tobacco and Health Study," *American Journal of Preventive Medicine*, 56(4): e107-e116, 2019.
- ¹⁸ Cwalina, SN, et al., "Adolescent menthol cigarette use and risk of nicotine dependence: Findings from the national Population Assessment on Tobacco and Health (PATH) study," *Drug and Alcohol Dependence*, published online November 15, 2019.
- ¹⁹ Villanti, AC, et al., "Association of flavored tobacco use with tobacco initiation and subsequent use among US youth and adults, 2013-2015," *JAMA Network Open*, published online October 23, 2019.
- ²⁰ Mantey, D. S., et al. (2021). Cigarette smoking frequency, quantity, dependence, and quit intentions during adolescence: comparison of menthol and non-menthol smokers (National Youth Tobacco Survey 2017–2020). *Addictive Behaviors*, 121, 106986.
- ²¹ Azagba, S, et al., "Cigarette smoking behavior among menthol and nonmenthol adolescent smokers," *Journal of Adolescent Health*, 66: 545-550, 2020.
- ²² Anderson, SJ, et al., "Marketing of menthol cigarette sand consumer perceptions: a review of tobacco industry documents," *Tobacco Control*, 20(Suppl 2): ii20-ii28, 2011.
- ²³ FDA, "Preliminary Scientific Evaluation of the Possible Public Health Effects of Menthol Versus Nonmenthol Cigarettes," <http://www.fda.gov/downloads/ScienceResearch/SpecialTopics/PeerReviewofScientificInformationandAssessments/UCM361598.pdf>, 2013.
- ²⁴ TPSAC, Menthol Cigarettes and Public Health: Review of the Scientific Evidence and Recommendations, July 21, 2011 <http://www.fda.gov/downloads/AdvisoryCommittees/CommitteesMeetingMaterials/TobaccoProductsScientificAdvisoryCommittee/UCM269697.pdf>
- ²⁵ TPSAC, Menthol Cigarettes and Public Health: Review of the Scientific Evidence and Recommendations, July 21, 2011 <http://www.fda.gov/downloads/AdvisoryCommittees/CommitteesMeetingMaterials/TobaccoProductsScientificAdvisoryCommittee/UCM269697.pdf>
- ²⁶ Le, TT, "An estimation of the harm of menthol cigarettes in the United States from 1980 to 2018," *Tobacco Control*, published online February 25, 2021.
- ²⁷ Smith, SS, et al., "Smoking cessation in smokers who smoke menthol and non-menthol cigarettes," *Addiction*, 109: 2107-2117, 2014.
- ²⁸ Smith, PH, et al., "Use of Mentholated Cigarettes and Likelihood of Smoking Cessation in the United States: A Meta-Analysis," *Nicotine & Tobacco Research*, 2019, published online June 17, 2019.
- ²⁹ U.S. Department of Health and Human Services. *Smoking Cessation. A Report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2020.
- ³⁰ Mills, S, et al., *The Relationship between Menthol Cigarette Use, Smoking Cessation and Relapse: Findings from Waves 1 to 4 of the Population Assessment of Tobacco and Health Study*, *Nicotine & Tobacco Research*, published online October 16, 2020, <https://doi.org/10.1093/ntr/ntaa212>.
- ³¹ Leas, EC, et al., "Effects of menthol use and transitions in use on short-term and long-term cessation from cigarettes among US smokers," *Tobacco Control*, published online July 6, 2021.
- ³² Kingsbury, JH, et al., "Perceptions of Menthol Cigarettes and Reasons for Unsuccessful Quit Attempts in an African American Community Sample," *Journal of Immigrant and Minority Health*, published online May 25, 2020.
- ³³ Giovino, GA, et al., "Differential trends in cigarette smoking in the USA: is menthol slowing progress?" *Tobacco Control*, 2013.
- ³⁴ Delnevo, CD, et al., "Banning Menthol Cigarettes: A Social Justice Issue Long Overdue," *Nicotine & Tobacco Research*, 22(10): 1673-1675, 2020.
- ³⁵ Villanti, A., et al., "Changes in the prevalence and correlates of menthol cigarette use in the USA, 2004–2014," *Tobacco Control*, published online October 20, 2016.
- ³⁶ Delnevo, CD, et al., "Banning Menthol Cigarettes: A Social Justice Issue Long Overdue," *Nicotine & Tobacco Research*, 22(10): 1673-1675, 2020.
- ³⁷ Villanti, A., et al., "Changes in the prevalence and correlates of menthol cigarette use in the USA, 2004–2014," *Tobacco Control*, published online October 20, 2016
- ³⁸ TPSAC, Menthol Cigarettes and Public Health: Review of the Scientific Evidence and Recommendations, July 21, 2011 <http://www.fda.gov/downloads/AdvisoryCommittees/CommitteesMeetingMaterials/TobaccoProductsScientificAdvisoryCommittee/UCM269697.pdf>
- ³⁹ Mendez, D and Le, TT, "Consequences of a match made in hell: the harm caused by menthol smoking to the African American population over 1980-2018," *Tobacco Control*, published online September 16, 2021.
- ⁴⁰ FDA, "Preliminary Scientific Evaluation of the Possible Public Health Effects of Menthol Versus Nonmenthol Cigarettes," <http://www.fda.gov/downloads/ScienceResearch/SpecialTopics/PeerReviewofScientificInformationandAssessments/UCM361598.pdf>, 2013; Tobacco Products Scientific Advisory Committee, FDA, "Menthol Cigarettes and Public Health: Review of the Scientific Evidence and Recommendations, 2011, <http://www.fda.gov/downloads/AdvisoryCommittees/CommitteesMeetingMaterials/TobaccoProductsScientificAdvisoryCommittee/UCM269697.pdf>

[pdf](#); Alexander, LA, et al., "Why we must continue to investigate menthol's role in the African American smoking paradox," *Nicotine & Tobacco Research*, 18(S1): S91-S101, 2016;

⁴¹ See e.g., [CDC](#), "Quitting Smoking Among Adults—United States, 2000-2015," *MMWR*, 65(52): 1457-1464, January 6, 2017, <https://www.cdc.gov/mmwr/volumes/65/wr/pdfs/mm6552a1.pdf>. Royce, J, et al., "Smoking cessation factors among African Americans and Whites: COMMIT Research Group," *American Journal of Public Health* 83(2):220-6, February 1993.

<https://www.fda.gov/advisoryCommittees/CommitteesMeetingMaterials/tobaccoproductsScientificAdvisoryCommittee/default.htm>

⁴² U.S. Department of Health and Human Services. *Smoking Cessation. A Report of the Surgeon General*. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2020.

⁴³ Smith, PH, et al., "Use of mentholated cigarettes and Likelihood of Smoking Cessation in the United States: A Meta-Analysis," *Nicotine & Tobacco Research*, 22(3): 307-316, 2020.

⁴⁴ HHS, "Tobacco Use Among US Racial/Ethnic Minority Groups—African Americans, American Indians and Alaskan Natives, Asian Americans and Pacific Islanders, and Hispanics: A Report of the Surgeon General," 1998,

http://www.cdc.gov/tobacco/data_statistics/sgr/1998/complete_report/pdfs/complete_report.pdf.

⁴⁵ American Cancer Society, "Cancer Facts & Figures for African Americans, 2016-2018," 2016,

<http://www.cancer.org/acs/groups/content/@editorial/documents/document/acspc-047403.pdf>.

⁴⁶ Alexander, LA, et al., "Why we must continue to investigate menthol's role in the African American smoking paradox," *Nicotine & Tobacco Research*, 18 (Suppl 1): S91-S101, 2016.

⁴⁷ Angelino, O, et al., "How New Tobacco Control Laws Could Help Close the Racial Gap on U.S. Cancer," Council on Foreign Relations, February 1, 2023, <https://www.cfr.org/article/how-new-tobacco-control-laws-could-help-close-racial-gap-us-cancer>.

⁴⁸ TPSAC, Menthol Cigarettes and Public Health: Review of the Scientific Evidence and Recommendations, July 21, 2011

[https://wayback.archive-](https://wayback.archive-it.org/7993/20170405201731/https://www.fda.gov/downloads/AdvisoryCommittees/CommitteesMeetingMaterials/TobaccoProductsScientificAdvisoryCommittee/UCM269697.pdf)

[it.org/7993/20170405201731/https://www.fda.gov/downloads/AdvisoryCommittees/CommitteesMeetingMaterials/TobaccoProductsScientificAdvisoryCommittee/UCM269697.pdf](https://www.fda.gov/downloads/AdvisoryCommittees/CommitteesMeetingMaterials/TobaccoProductsScientificAdvisoryCommittee/UCM269697.pdf).

⁴⁹ Hafez, N. & Ling, P.M. "Finding the Kool Mixx: how Brown & Williamson used music marketing to sell cigarettes," *Tobacco Control* 15: 359-366, 2006. See also Yerger, VB, et al., "Racialized geography, corporate activity, and health disparities: Tobacco industry targeting of inner cities," *Journal of Health Care for the Poor and Underserved*, 18: 10-38, 2007. RJ Reynolds. *Black Street Scenes: review and recommendations*. Winston-Salem, NC: R.J. Reynolds Tobacco Company, 1983. Available at <http://legacy.library.ucsf.edu/tid/onb19d00>.

⁵⁰ Hafez, N, & Ling, P, "Finding the Kool Mixx: how Brown & Williamson used music marketing to sell cigarettes," *Tobacco Control*, 15: 359-366, 2006.

⁵¹ Alpert, H, Koh, HK, & Connolly, GN, "After the Master Settlement Agreement: Targeting and exposure of youth to magazine tobacco advertising," *Health Affairs* 27(6):w503-w512, 2008.

⁵² King, C, et al., "The Master Settlement Agreement with the tobacco industry and cigarette advertising in magazines," *New England Journal of Medicine* 345(7):504-11, August 2001.

⁵³ Landrine, H, et al., "Cigarette advertising in Black, Latino and White magazines, 1998-2002: An exploratory investigation," *Ethnic Disparities* 15(1):63-7, 2005.

⁵⁴ Fernandez, S, et al., "Cigarette Advertising in Magazines for Latinas, White Women, and Men, 1998-2002: A Preliminary Investigation," *Journal of Community Health*, 30(2): 141-151, 2005.

⁵⁵ RJ Reynolds. Strategic Research Report: The 1981 Brand Family Segmentation Study. Mangini, 1982.

<https://www.industrydocumentslibrary.ucsf.edu/tobacco/docs/#id=zfbf0092>.

⁵⁶ Anderson, SJ, et al., "Marketing of menthol cigarette and consumer perceptions: a review of tobacco industry documents," *Tobacco Control*, 20(Suppl 2): ii20-ii28, 2011.

⁵⁷ Hafez, N, & Ling, P, "Finding the Kool Mixx: how Brown & Williamson used music marketing to sell cigarettes," *Tobacco Control*, 15: 359-366, 2006.

⁵⁸ Yerger, VB, et al., "Racialized geography, corporate activity, and health disparities: Tobacco industry targeting of inner cities," *Journal of Health Care for the Poor and Underserved*, 18: 10-38, 2007. Hafez, N. & Ling, P.M. "Finding the Kool Mixx: how Brown & Williamson used music marketing to sell cigarettes," *Tobacco Control* 15: 359-366, 2006.

⁵⁹ Hudson RC. Brown & Williamson. Inner city POP Program. Macon, GA: Brown & Williamson Tobacco Corporation, 1979 Oct 15.

<http://legacy.library.ucsf.edu/tid/icb91d00>.

⁶⁰ Yerger, VB, et al., "Racialized geography, corporate activity, and health disparities: Tobacco industry targeting of inner cities," *Journal of Health Care for the Poor and Underserved*, 18: 10-38, 2007.

⁶¹ Lee, JGL, et al., "A Systematic Review of Neighborhood Disparities in Point-of-Sale Tobacco Marketing," *American Journal of Public Health*, published online ahead of print July 16, 2015.

⁶² Rodriguez, D, et al., "Predictors of tobacco outlet density nationwide: a geographic analysis," *Tobacco Control*, published online first on April 4, 2012. See also Lee, JGL, et al., "Inequalities in tobacco outlet density by race, ethnicity and socioeconomic status, 2012, USA: results from the ASPIRE Study," *Journal of Epidemiology and Community Health*, published online March 1, 2017.

⁶³ Resnick, EA, et al., *Cigarette Pricing Differs by U.S. Neighborhoods—A BTG Research Brief*. Chicago, IL: Bridging the Gap Program, Health Policy Center, Institute for Health Research and Policy, University of Illinois at Chicago, 2012, www.bridgingthegapresearch.org.

⁶⁴ Schleicher, N, et al., "Tobacco Marketing in California's Retail Environment (2008-2011), Final report for the California Tobacco Advertising Survey. Stanford, CA: Stanford Prevention Research Center, July 2013. Henriksen, L., et al., "Targeted Advertising, Promotion, and Price for Menthol Cigarettes in California High School Neighborhoods," *Nicotine & Tobacco Research*, June 24, 2011.

⁶⁵ Henriksen, L, et al., "Menthol cigarettes in black neighbourhoods: still cheaper after all these years," *Tobacco Control*, published online August 12, 2021.

⁶⁶ Moreland-Russell, S. "Disparities and Menthol Marketing: Additional Evidence in Support of Point of Sale Policies," *International Journal of Environmental Research and Public Health*, 10: 4571-4583, 2013.

-
- ⁶⁷ Widome, R, et al., "The relationship of neighborhood demographic characteristics to point-of-sale tobacco advertising and marketing," *Ethnicity & Disease* 18(2): 136-151, 2013.
- ⁶⁸ Campaign for Tobacco-Free Kids, "States & Localities That Have Restricted the Sale of Flavored Tobacco Products," <https://www.tobaccofreekids.org/assets/factsheets/0398.pdf>.
- ⁶⁹ San Francisco Health Code 140-17, Banning the Sale of Flavored Tobacco Products, <http://sfbos.org/sites/default/files/o0140-17.pdf>
- ⁷⁰ Swan, R., "SF's battle over flavored tobacco heats up," *San Francisco Chronicle*, September 4, 2017, <http://www.sfchronicle.com/bayarea/article/SF-s-battle-over-flavored-tobacco-heats-up-12172353.php>. Matier & Ross, "SF ban on flavored tobacco looks headed for the ballot," *San Francisco Chronicle*, July 26, 2017, <http://www.sfchronicle.com/bayarea/article/SF-ban-on-flavored-tobacco-looks-headed-for-the-11408689.php>.
- ⁷¹ City and County of San Francisco Department of Elections. June 5, 2018 Election Results – Summary. See Local Measure E - Prohibiting Tobacco Retailers from Selling Flavored Tobacco Products. <https://selections.sfgov.org/june-5-2018-election-results-summary>.
- ⁷² Hoffman, J. "San Francisco Voters Uphold Ban on Flavored Tobacco Products," *New York Times*, June 6, 2018, <https://www.nytimes.com/2018/06/06/health/vaping-ban-san-francisco.html>.
- ⁷³ Brown, EM, et al., "Changes in retail sales of tobacco products in Ontario after a menthol sales restriction," *Tobacco Control*, published online July 13, 2021. Chaiton, M, et al., "Analysis of Wholesale Cigarette Sales in Canada After Menthol Cigarette Bans," *JAMA Network Open*, 2021;4(11):e2133673, published online November 9, 2021.
- ⁷⁴ Chaiton, MO, et al., "Ban on menthol-flavoured tobacco products predicts cigarette cessation at 1 year: a population cohort study," *Tobacco Control*, published online May 30, 2019.
- ⁷⁵ Chaiton, M, et al., "Prior daily menthol smokers more likely to quit two years after a menthol ban than non-menthol smokers: a population cohort study," *Nicotine & Tobacco Research*, published online March, 10, 2021.
- ⁷⁶ Chung-Hall, et al., "Evaluating the impact of menthol cigarette bans on cessation and smoking behaviours in Canada: longitudinal findings from the Canadian arm of the 2016-2018 ITC Four Country Smoking and Vaping Surveys," *Tobacco Control*, published online April 5, 2021.
- ⁷⁷ Fong, Geoffrey T., 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).