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Center for Tobacco Studies

Overview of flavor use and policy relevance

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- The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health or the Food and Drug Administration.

Fact Sheet:

Proposed product standards to prohibit menthol as a characterizing flavor in cigarettes and all characterizing flavors (other than tobacco) in cigars



[More Press Announcements](#)

The U.S. Food and Drug Administration has announced proposed product standards to:

- Prohibit menthol as a characterizing flavor in cigarettes.
- Prohibit all characterizing flavors (other than tobacco) in cigars.

These actions have the potential to significantly reduce disease and death from combusted tobacco product use, the leading cause of preventable death in the U.S., by reducing youth experimentation and addiction, and increasing the number of smokers that quit. Given that tobacco use is a leading cause of cancer and death from cancer, they are also a critical piece of the Administration's Cancer Moonshot to end cancer as we know it.

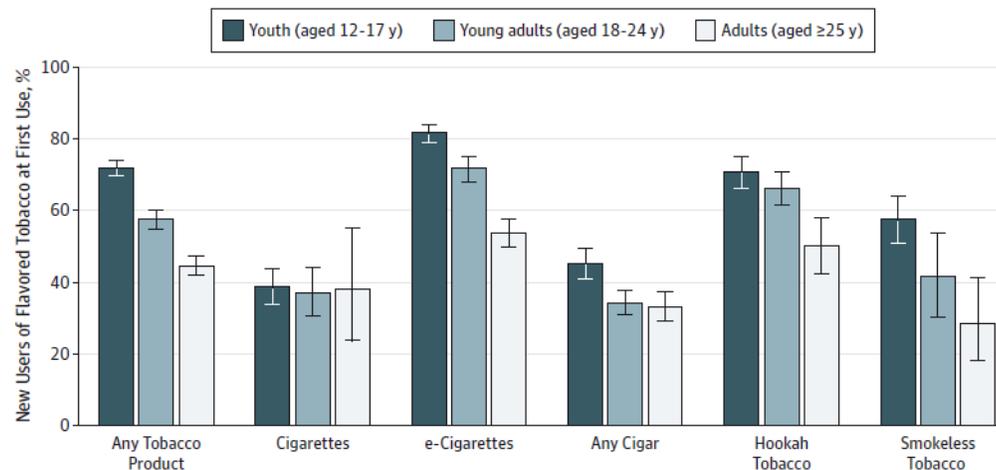


Original Investigation | Public Health

Association of Flavored Tobacco Use With Tobacco Initiation and Subsequent Use Among US Youth and Adults, 2013-2015

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Figure. Weighted Proportions of New Tobacco Users at Wave 2 Who Reported Using a Flavored Product at First Use



Among new users, first use of flavored tobacco is higher among youth and young adults than adults.

First flavored tobacco use is associated with subsequent use in all age groups

Use at Wave 2

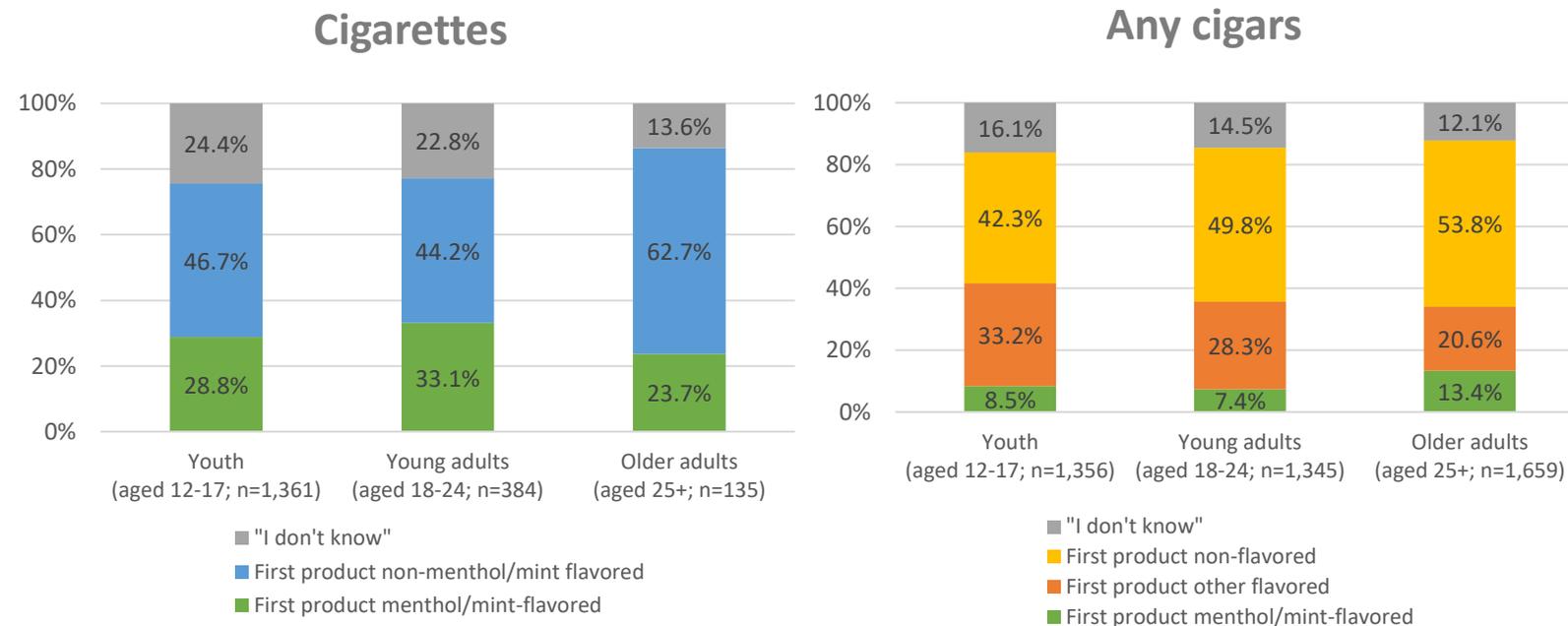
First flavored use (Wave 1)	Youth (12-17)	Young adults (18-24)	Adults (25+)
Cigarettes	p12m, p30d	Current regular	Current regular
Menthol	p12m, p30d	Current regular	Current regular
Any cigars	-	Current regular	Current regular
E-cigarettes	-	Current regular	Current regular
Hookah	-	Current regular	Current regular
Any smokeless	p30d	Current regular	Current regular

First flavored cigarette and e-cigarette use is associated with subsequent **DAILY** use of cigarettes and e-cigarettes

Table 4. Multivariable Multinomial Logistic Regression Models of Frequency of Use at Wave 2 Among Ever Users of Specified Product at Wave 1 of the Population Assessment of Tobacco and Health Study, by Age Group

Age Group	Participants, No.	No Past 12-mo Use	RRR (95% CI)				All 30 d in the Past 30 d
			Past 12-mo Use, No Past 30-d Use	1-5 d in the Past 30 d	6-19 d in the Past 30 d	20-29 d in the Past 30 d	
Youth^a							
First cigarette flavored	1316	1 [Reference]	1.47 (1.09-1.98)	1.69 (1.20-2.40)	1.22 (0.72-2.07)	1.15 (0.61-2.18)	1.61 (1.10-2.38)
First cigarette menthol or mint flavored ^b	1223	1 [Reference]	1.60 (1.17-2.21)	1.93 (1.32-2.83)	1.33 (0.77-2.31)	1.23 (0.65-2.32)	1.88 (1.25-2.82)
First e-cigarette flavored	1045	1 [Reference]	1.26 (0.82-1.94)	1.30 (0.78-2.16)	1.40 (0.64-3.07)	1.08 (0.21-5.71)	2.85 (0.94-8.63)
Young adults^c							
First cigarette flavored	4109	1 [Reference]	1.13 (0.90-1.41)	1.24 (1.00-1.55)	1.21 (0.93-1.57)	1.26 (0.86-1.86)	1.56 (1.27-1.93)
First cigarette menthol or mint flavored ^b	3925	1 [Reference]	1.13 (0.89-1.44)	1.21 (0.96-1.52)	1.24 (0.95-1.63)	1.30 (0.87-1.95)	1.66 (1.33-2.06)
First e-cigarette flavored	2622	1 [Reference]	1.52 (1.21-1.92)	1.61 (1.24-2.10)	2.35 (1.27-4.34)	0.81 (0.37-1.75)	3.24 (2.16-4.86)
Adults^d							
First cigarette flavored	13 959	1 [Reference]	1.34 (1.09-1.63)	1.30 (1.07-1.58)	1.22 (0.96-1.56)	1.11 (0.86-1.43)	1.23 (1.11-1.35)
First cigarette menthol or mint flavored ^b	13 594	1 [Reference]	1.40 (1.14-1.73)	1.36 (1.10-1.67)	1.28 (1.00-1.63)	1.15 (0.89-1.48)	1.32 (1.20-1.45)
First e-cigarette flavored	5188	1 [Reference]	1.38 (1.19-1.61)	1.25 (1.02-1.53)	1.44 (1.03-2.01)	2.09 (1.09-4.00)	2.38 (1.90-3.00)

Menthol and mint cigarettes and cigars: Initiation and progression in youth, young adults and adults in Waves 1 - 4 of the PATH Study, 2013 - 2017



Prevalence of first tobacco product menthol-flavored use among new tobacco smokers at Waves 2, 3, or 4 of the Population Assessment of Tobacco and Health Study (weighted) ^{a,b}

Initiation and progression: Menthol/mint cigarettes AND cigars

- New use of menthol cigarettes was associated with greater past 12-month cigarette use in **young adults**
- New use of menthol/mint-flavored cigars was associated with greater past 30-day cigar use in **youth** and **young adults** compared to non-menthol use.

Use of Mentholated Cigarettes and Likelihood of Smoking Cessation in the United States: A Meta-Analysis

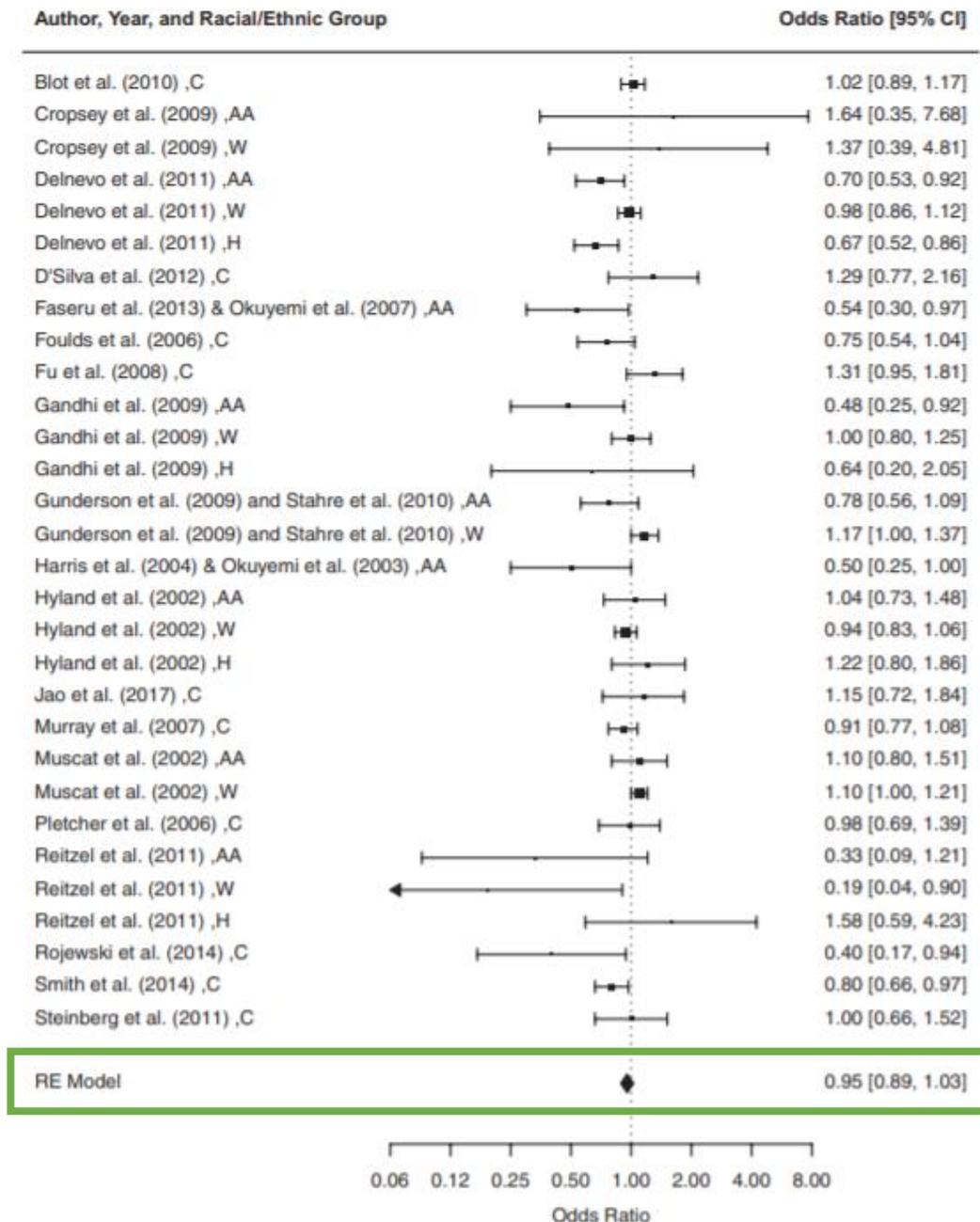


Figure 2. Forest plot for the association between menthol cigarette use and smoking cessation. AA = black/African American, W = white, H = Hispanic/Latinx, C = combined.

Use of Mentholated Cigarettes and Likelihood of Smoking Cessation in the United States: A Meta-Analysis

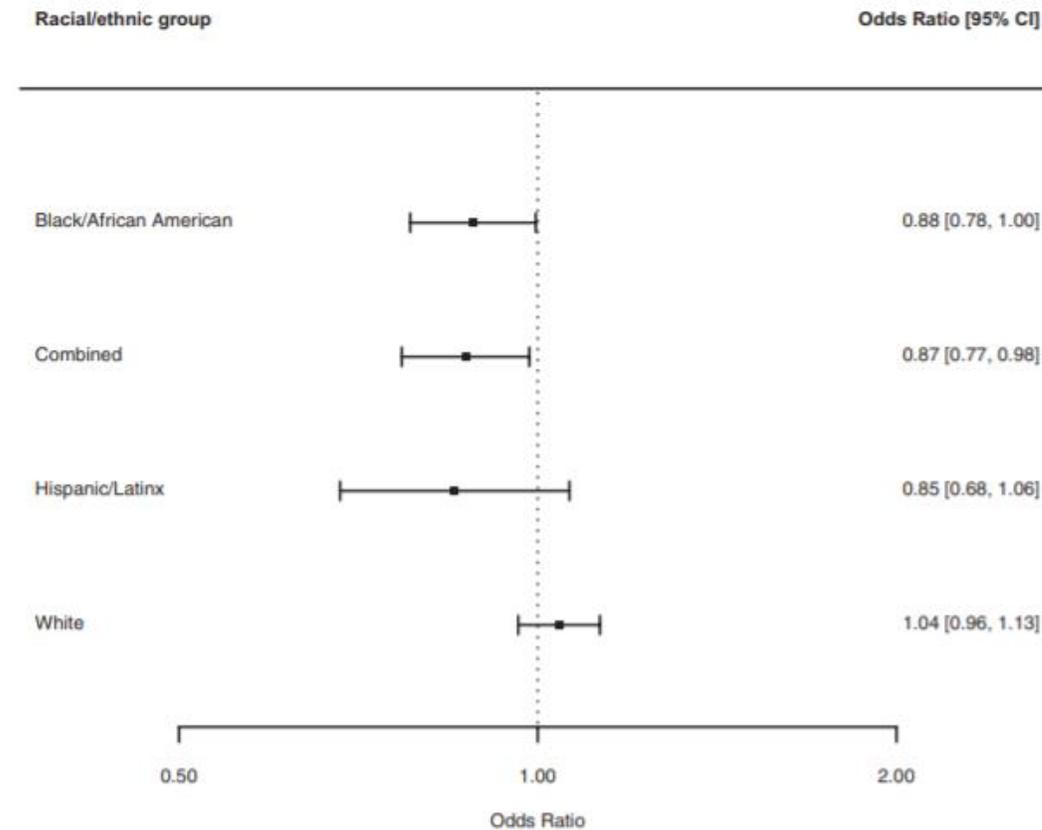


Figure 4. Racial/ethnic-specific associations between menthol cigarette use and smoking cessation. The overall difference among groups was statistically significant ($p < .01$).

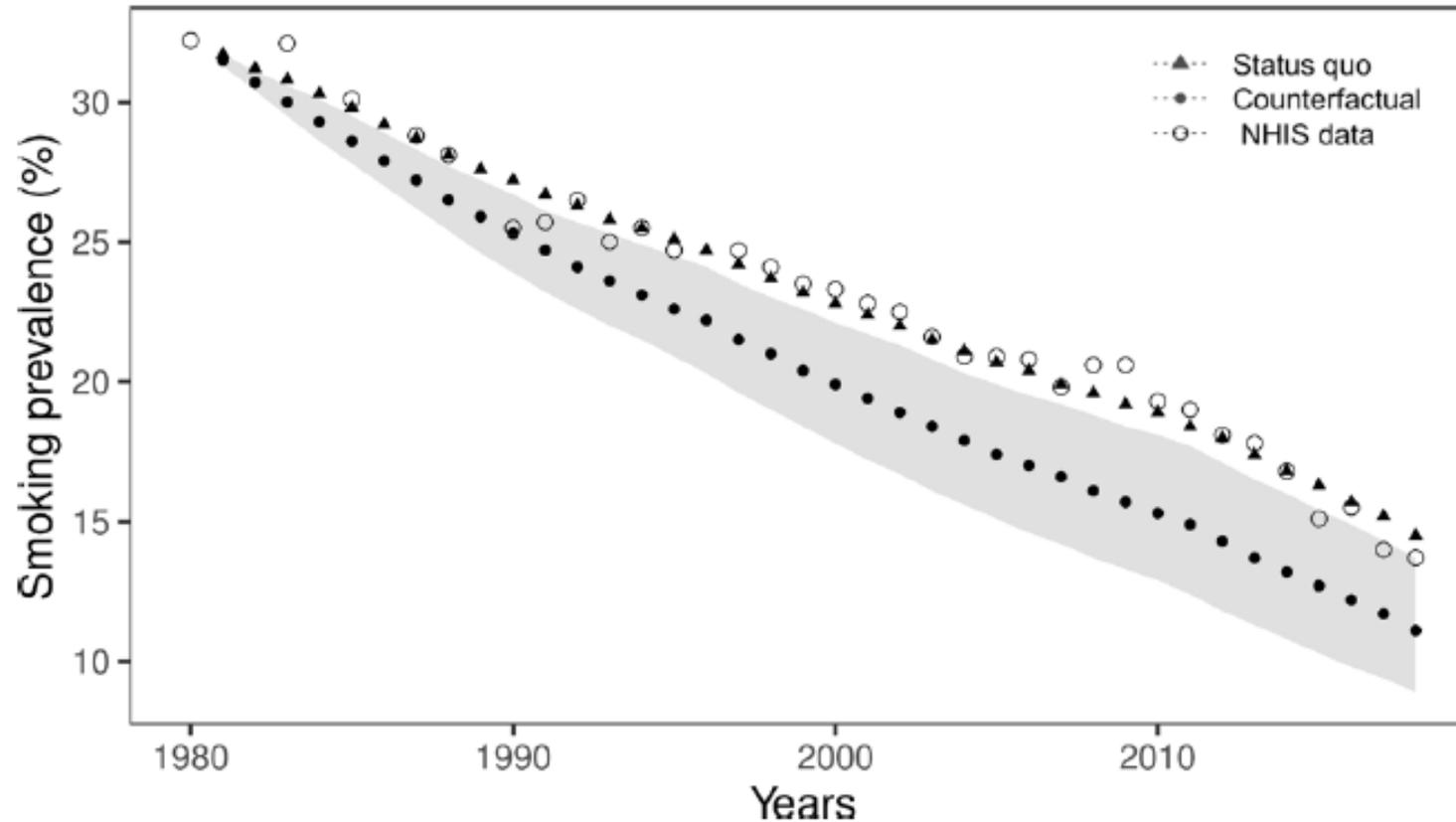


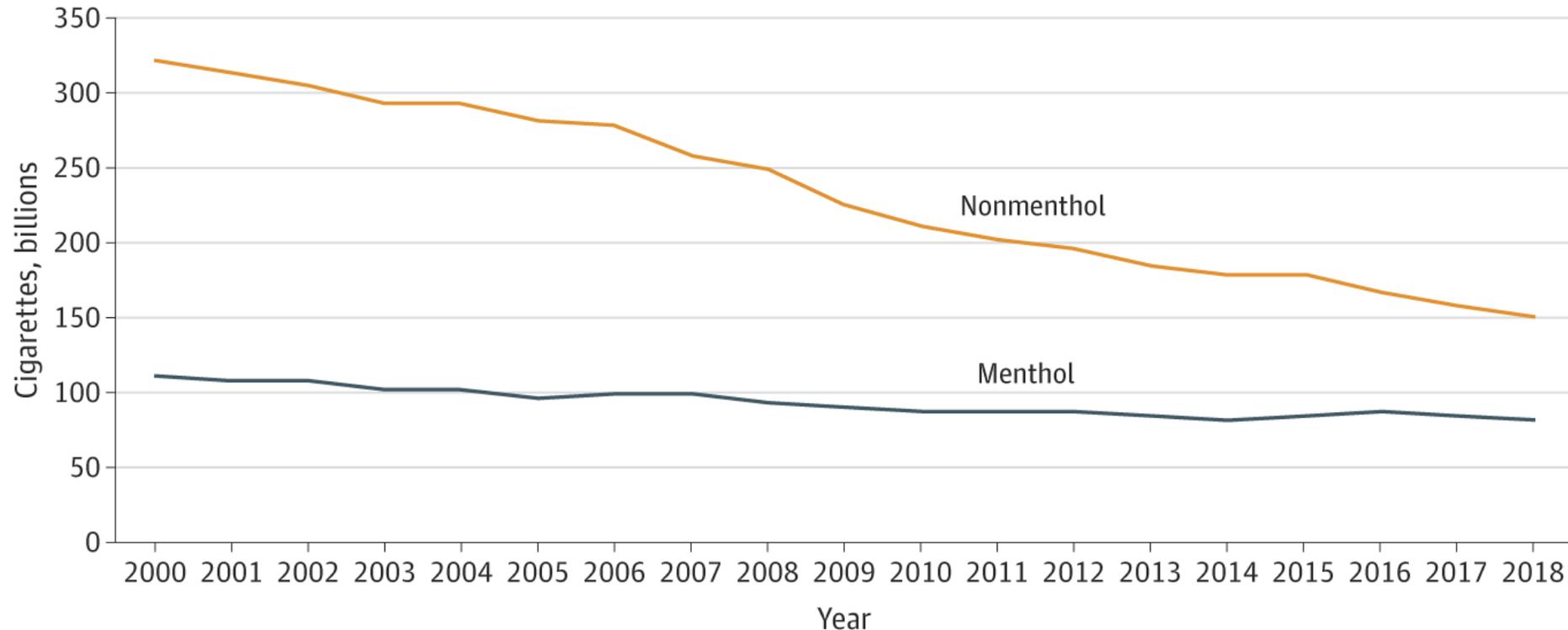
Figure 2 Simulated smoking prevalence under *status quo ante* and counterfactual scenarios and reported NHIS smoking prevalence over 1980–2018. The shaded region shows the 95% confidence band of the estimated prevalence in the counterfactual scenario.

Table 1 Excess smoking initiation, smoking-related deaths and life-years lost due to menthol cigarettes over 1980–2018 for the adult general, African American and hypothetical low-menthol African American population

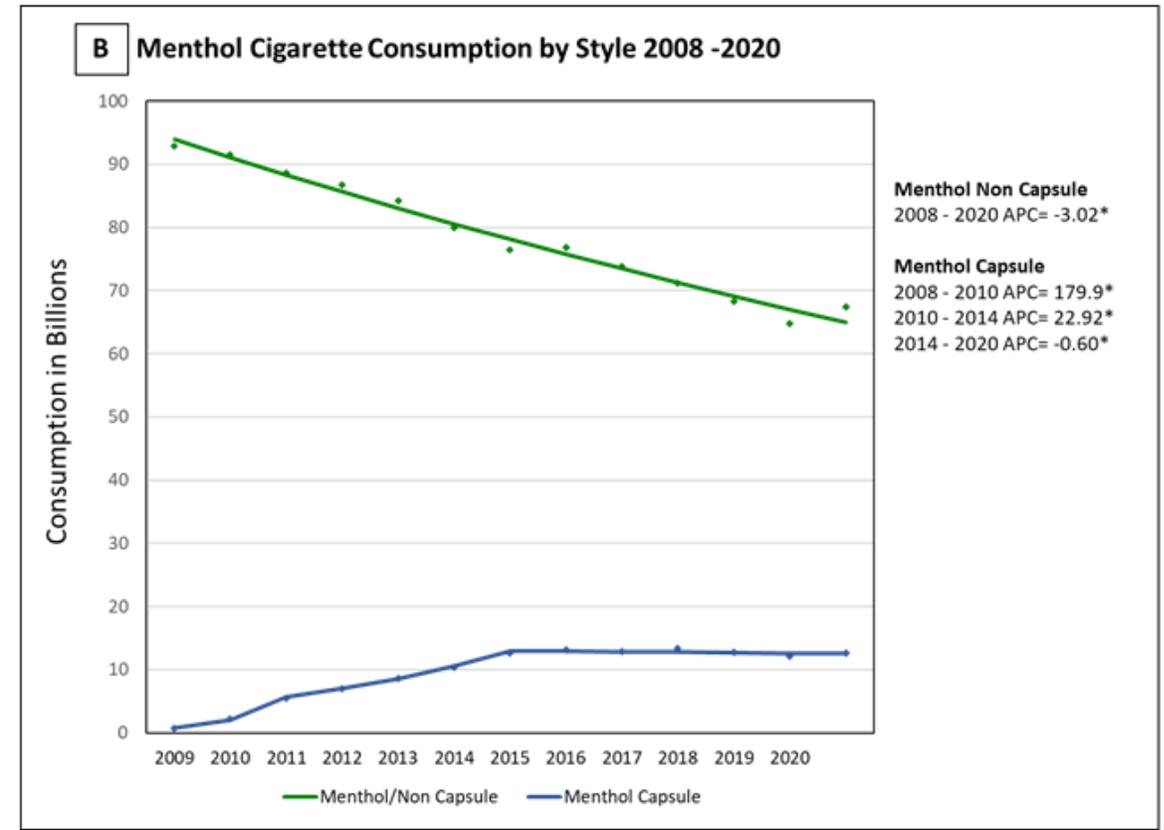
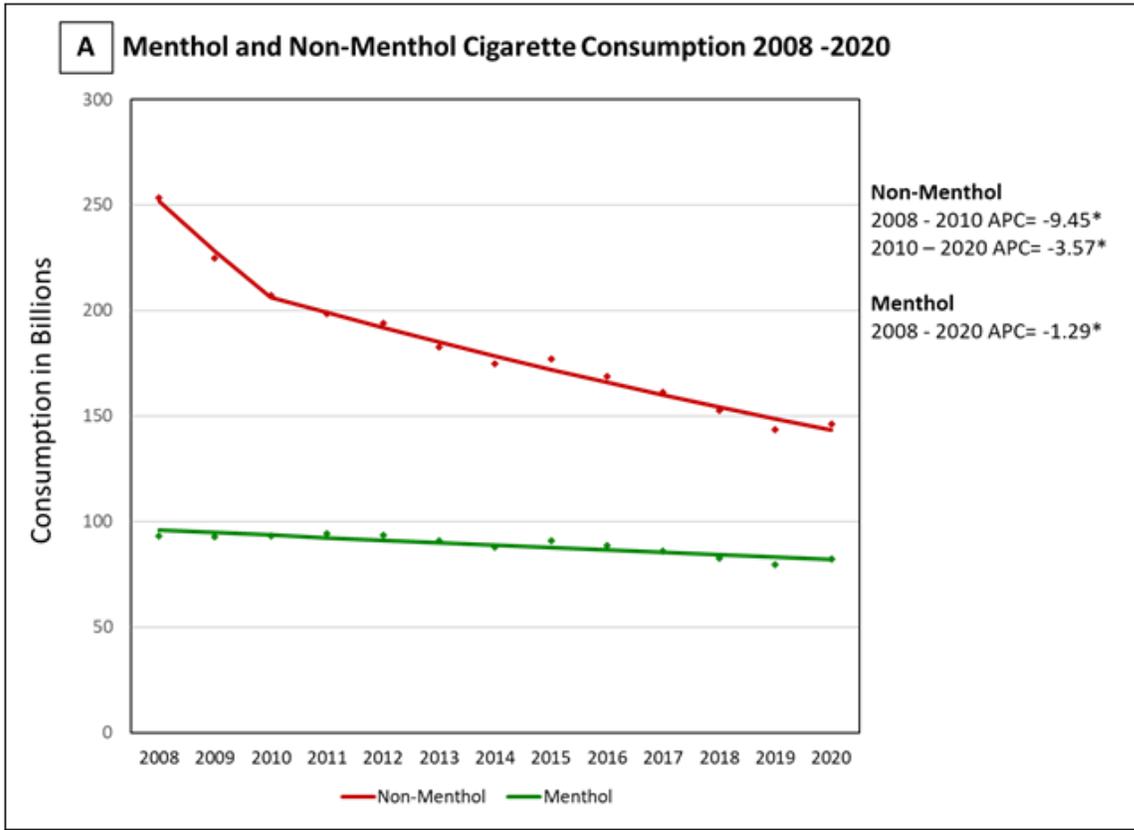
	Cumulative excess smoking initiators (%)	Cumulative excess deaths (%)	Cumulative excess life-years lost (%)	Average percentage of population (%)
General population	10 137 808 (100)	377 528 (100)	2 951 533 (100)	100
African American population	1 508 913 (15)	156 471 (41)	1 476 198 (50)	12
Hypothetical low-menthol African American population	1 286 848 (13)	61 132 (16)	606 840 (21)	12

Estimated cigarette consumption in the U.S., 2000 - 2018

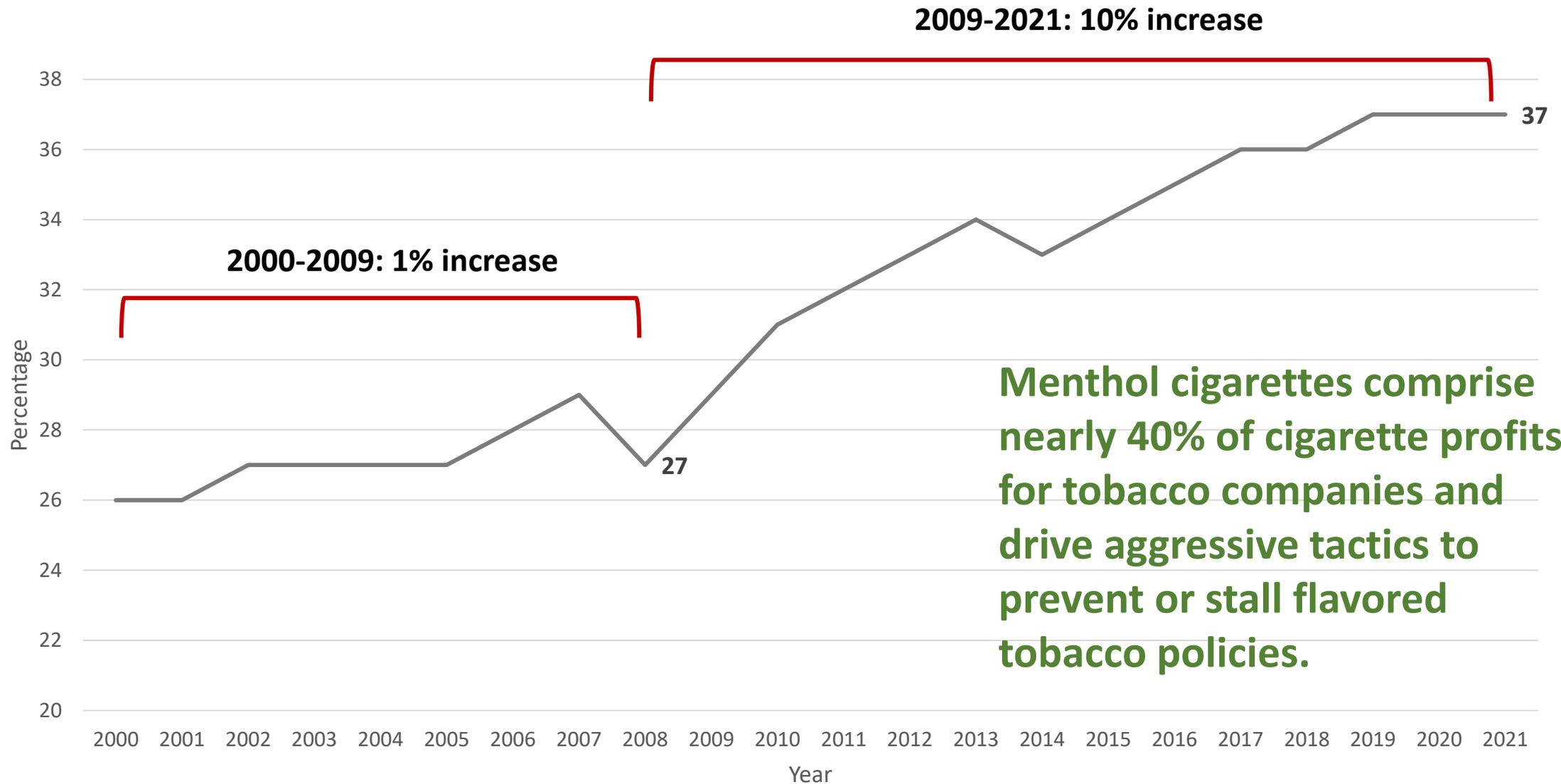
85% of the total decline in cigarette consumption attributed to nonmenthol cigarettes



Trends in Menthol Cigarette Consumption, 2008-2020



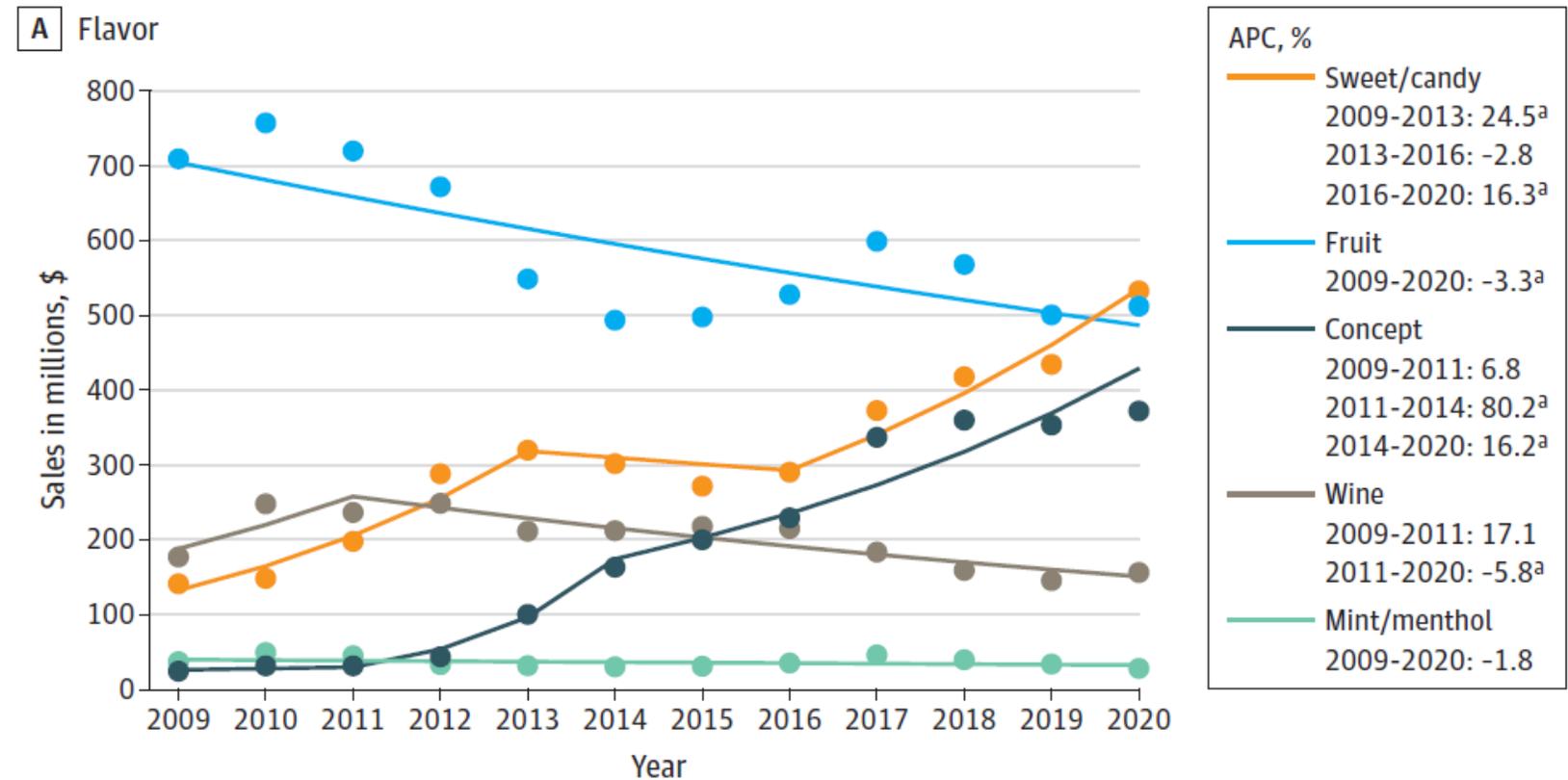
Menthol cigarette market share



Flavored cigar sales and market share

- Flavored cigar market share increased from 45% in 2009 to 53% in 2020

Figure. Cigar Sales Trends Over Time by Flavor and Packaging Count in US Convenience Stores, 2009-2020



Flavored e-cigarette sales

FIGURE 2. Percentage of prefilled cartridge* e-cigarette unit sales,[†] by flavor[§]— United States, September 14, 2014–May 17, 2020

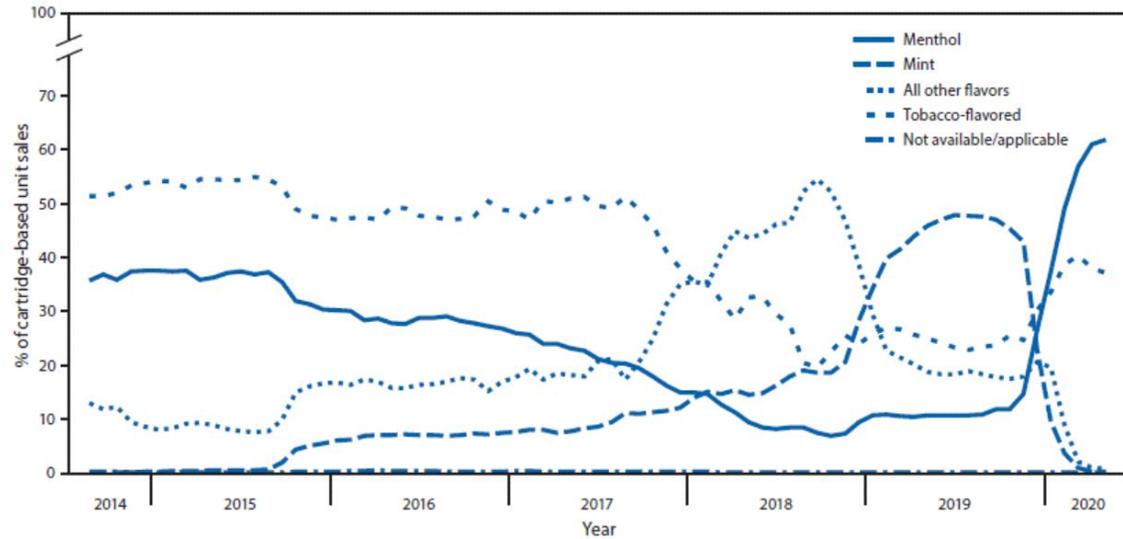
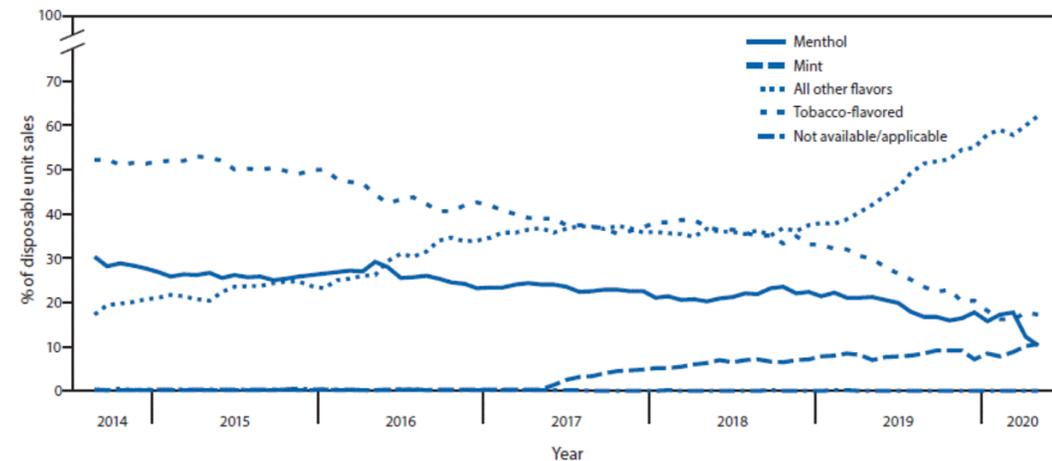
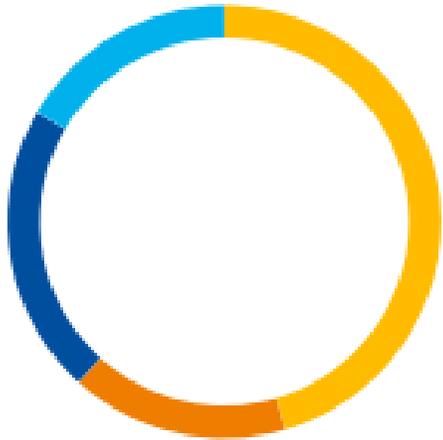


FIGURE 3. Percentage of disposable e-cigarette* unit sales,[†] by flavor[§]— United States, September 14, 2014–May 17, 2020

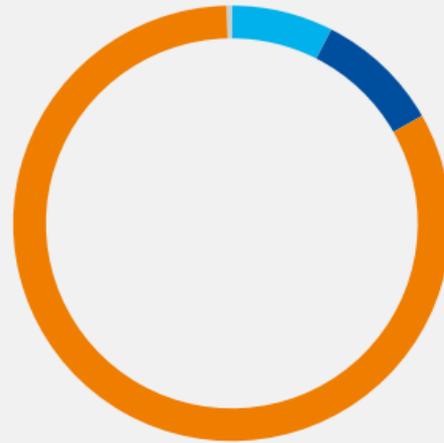


Proportion of combustibles revenue by region in 2022 (£m)



	2022 £m	2021 £m
U.S.	10,470	10,015
AmSSA	3,751	3,435
Europe	4,996	5,024
APME	3,813	3,555
Total	23,030	22,029

2022 revenue by category



	2022	2021
New Categories	7.5%	4.8%
Traditional oral	9.3%	9.2%
Combustibles	82.8%	85.7%
Other	0.4%	0.3%

Value share of cigarettes increased 10 bps (2021: up 60 bps), driven by our strategic brands (up 10 bps) including Newport and Natural American Spirit. Total volume share declined 30 bps (2021: 40 bps decrease) as we continued to focus on value generation from combustibles in 2022.

Anticipating industry response may allow us to maximize the public health benefit of flavored tobacco policies

Why an FDA Ban on Menthol Is Likely to Survive a Tobacco Industry Lawsuit

Kevin R. J. Schroth, JD¹; Andrea C. Villanti, PhD, MPH²; Marin Kurti, PhD¹; and Cristine D. Delnevo, PhD, MPH¹

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Closing the loopholes on a flavored cigar ban: Anticipated challenges and solutions

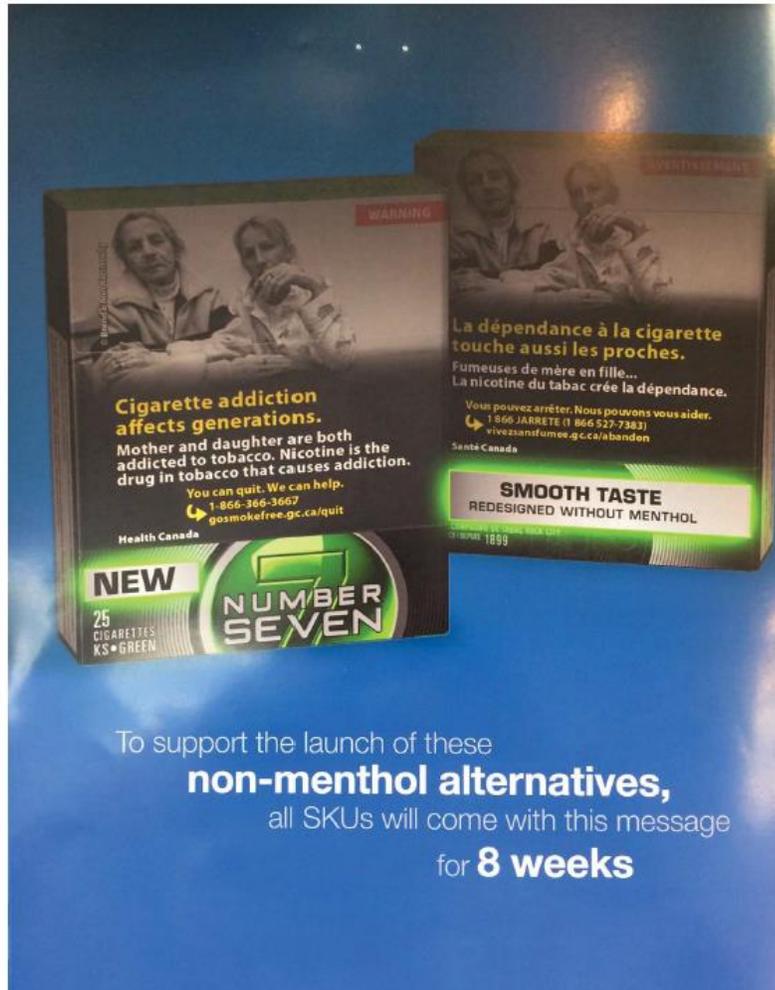
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Predicting industry response: B2B



Predicting industry response: “Is blue the new green?”



Figure 1 Preban traditional menthol packs (Next Menthol, Benson & Hedges deLuxe Menthol, LD Super Kings Menthol) and postban non-menthol alternatives (Next Green, Benson & Hedges Unison, LD Super Kings Blue).

2009 flavored cigarette ban → Clove cigars

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PROFIT FROM HIGH-MARGIN SPECIALTY TOBACCO

Table 2 Tobacco imports to the USA from Indonesia, 2006–2012

	Dollar value (in thousands)			Sticks of tobacco (in thousands)		
	Cigars	Clove cigarettes	Total	Cigars	Clove cigarettes	Total
2006	154	12 271	12 425	6003	456 532	462 535
2007	68	12 897	12 964	2534	436 073	438 607
2008	74	15 579	15 652	2448	532 963	535 411
2009	3450	8679	12 129	186 006	284 234	470 240
2010	12 761	0	12 761	656 680	0	656 680
2011	10 739	0	10 739	508 600	0	508 980
2012	13 410	0	13 410	626 417	0	626 417

Tobacco companies subvert policy with synthetic coolants

- “New” Camel and Newport varieties with “bold, lasting flavor” marketed to California consumers in January 2023.
- The company’s records of ingredients show that the Camel Crisp and the Newport EXP versions contain a synthetic cooling agent referred to as WS-3.
 - Germany and Belgium have prohibited this particular additive.

<https://www.nytimes.com/2023/01/11/health/cigarettes-flavor-ban-california.html>

The New York Times

R.J. Reynolds Pivots to New Cigarette Pitches as Flavor Ban Takes Effect

Now that California’s tobacco prohibitions are in place, some Camel and Newport items are billed as newly “fresh” or “crisp” non-menthol versions.

Give this article



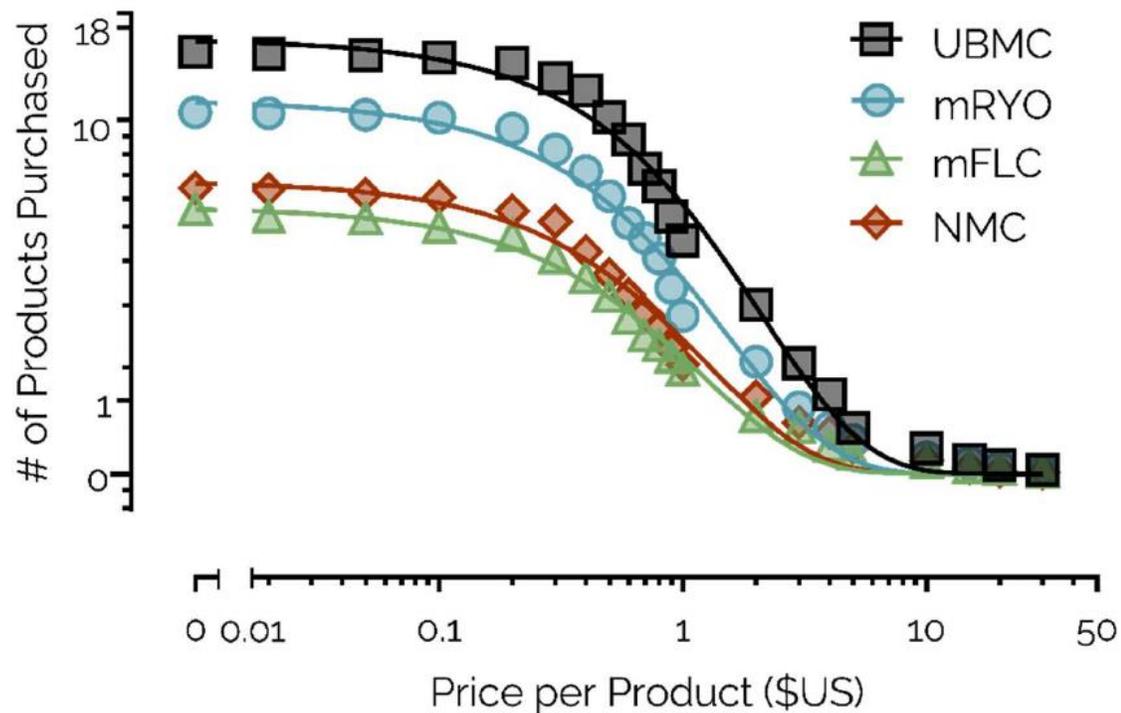
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In California, R.J. Reynolds has begun marketing what it says is a new, non-menthol Newport cigarette. Antismoking advocates criticized the campaign as an attempt to circumvent the state’s ban on flavored tobacco products. Aaron Wojack for The New York Times

Menthol cigarette ban → Menthol RYO??

A. Products Purchased



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Kings/100's: Full Flavor, Medium, Blue, Silver, Menthol, Smooth Menthol, Extra Smooth Menthol (100's only), Non-Filter
120's: Full Flavor, Smooth, Ultra, Menthol, Smooth Menthol

1.5oz., 5oz. and 16oz. Bags Available in Red, Green, Blue

Seneca Filtered Cigars: Red, Blue, Green, Cherry, Grape, Vanilla
38 Special Filtered Cigars: Red, Blue, Green, Grape, Cherry, Pouch

Sagor Filter Tubes Available in King Size & 100's: Red, Blue, Green

SURGEON GENERAL WARNING: Cigar Smoking Can Cause Cancers Of The Mouth And Throat, Even If You Do Not Inhale.

SURGEON GENERAL'S WARNING: Smoking Causes Lung Cancer, Heart Disease, Emphysema, And May Complicate Pregnancy.

Contact Curtis Butler to place an order:
863.409.9584
E-mail: cbutler@b2busallc.com

NSDUH 2008-2010 vs. 2020

2008-2010 (Giovino 2013 Tob Control)

Factor	All ages	
	%	95% CI
Overall	35.23	34.19 to 36.27
Gender		
Male	31.40	30.24 to 32.55
Female	39.65	38.11 to 41.19
Race/ethnicity		
Non-Hispanic Caucasian	25.70	24.71 to 26.69
Non-Hispanic Black	88.47	86.24 to 90.71
Non-Hispanic other	45.19	37.25 to 53.12
Non-Hispanic Asian	30.77	26.41 to 35.13
Non-Hispanic more than one race	42.16	34.57 to 49.75
Hispanic	38.06	35.70 to 40.43
Household income		
Lower tertile	40.68	38.85 to 42.51
Middle tertile	35.81	34.17 to 37.46
Higher tertile	31.20	29.75 to 32.65
Number of days smoked per month		
1-5 days	39.50	37.35 to 41.65
6-29 days	41.30	39.44 to 43.15
30 days	31.92	30.71 to 33.13



2020 (Villanti, in prep)

	Total %95% CI
Overall	43.1 (40.0-46.3)
Age group	
12-17	61.7 (47.3-74.3)
18-25	51.5 (47.4-55.7)
26-34	50.4 (44.9-55.9)
35+	39.4 (35.5-43.4)
Sex	
Male	37.9 (34.5-41.5)
Female	49.0 (44.3-53.7)
Race/ethnicity	
Non-Hispanic White	33.7 (30.7-36.8)
Non-Hispanic Black/African American	80.7 (73.4-86.5)
Non-Hispanic Native American/AK Native	32.4 (15.1-56.4)
Non-Hispanic Native HI/Other Pacific Islander	29.8 (9.0-64.6)
Non-Hispanic Asian	37.1 (22.9-54.0)
Non-Hispanic more than one race	50.4 (32.3-68.4)
Hispanic	51.1 (40.9-61.1)
Poverty level (% of US Census Threshold)	
Living in Poverty	51.5 (46.3-56.7)
Income Up to 2X Federal Poverty Threshold	42.0 (36.4-48.0)
Income More Than 2X Federal Poverty Threshold	39.2 (34.9-43.6)
Number of days smoked in past month	
1-5 days	48.9 (44.3-53.6)
6-29 days	47.7 (41.9-53.6)
30 days	39.9 (35.7-44.2)

- **Pivotal moment for health equity**
- Maximizing public health benefit will require:
 1. Developing culturally-appropriate communication efforts to raise awareness and counter misperceptions and disinformation about the goals of flavored tobacco policies;
 2. Ensuring that policy enactment and enforcement focus on retailers and manufacturers as proposed;
 3. Limiting policy exemptions that may lead to loopholes and inequitable implementation; and
 4. Scaling up culturally-appropriate, free, and accessible resources to support tobacco cessation.

The background of the slide features a large, faint watermark of the Rutgers University seal. The seal is circular and contains the text "RUTGERS UNIVERSITY" around the perimeter and "STATE UNIVERSITY" at the bottom. The seal is centered and slightly larger than the text elements.

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Thank you!

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