Don’t forget menthol cigarettes in a flavored tobacco ban!

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Areas of focus

Youth and young adult substance use and cessation

Tobacco regulatory science

Methods and measures

- Menthol/flavors
- Emerging tobacco products
- PATH
- UVM TCORS
- Nicotine perceptions

PACE Vermont Study
COBRE Project – Socioeconomically-disadvantaged smokers

Quantitative policy analysis
Survey measures, design, and analysis
UVM Center on Rural Addiction

Vermont Center on Behavior & Health
The University of Vermont
Key points

– Tobacco use remains a major public health problem in the U.S. and globally.

– Menthol cigarettes and flavored tobacco products are slowing progress in tobacco control.

– There is a strong evidence base to support legal and policy efforts to restrict or ban sales and marketing of menthol cigarettes and flavored tobacco products.
Central questions re: menthol and flavored tobacco products

- Do menthol cigarettes and flavored tobacco products facilitate youth smoking initiation? Yes, both.

- Do menthol cigarettes and flavored tobacco products impede adult cessation? Yes, menthol cigarettes.

- What is the likelihood that prohibiting menthol and flavors would reduce the number of tobacco users and thereby benefit public health? Best chance for public health benefit from banning both.
Menthol cigarettes & flavored tobacco products: Initiation and progression

1. Youth and young adult smokers are more likely to use menthol cigarettes than older adult smokers.

2. Youth and young adult tobacco users are more likely to use flavored products than older adult users.

3. Youth and young adults who start with menthol cigarettes or flavored tobacco products are more likely to escalate their tobacco use behavior over time than those who start with unflavored products.
Adjusted prevalence of use of menthol cigarettes among past 30-day smokers – United States, 2008-2010

Prevalence of menthol cigarette use among past 30-day smokers, NSDUH

Increased from 35% to 39%

Prevalence of use of flavored tobacco use among current users - United States, 2013-2014

![Bar chart showing prevalence of use of flavored tobacco by age group.]  

- **Flavored polytobacco use (among current users)**
- **Flavored non-cigarette tobacco product use (exclusive, one or more products; among current users)**
- **Menthol or mint flavored cigarette use (exclusive; among current users)**
- **Any current flavored tobacco use (among full sample)**

Figure 1. Prevalence of current flavored tobacco use in the full sample and among current tobacco users, by age; Population Assessment of Tobacco and Health, 2013–2014.  

*Percentages are weighted to represent the U.S. population.*

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

<table>
<thead>
<tr>
<th>First flavored use (Wave 1)</th>
<th>Youth (12-17)</th>
<th>Young adults (18-24)</th>
<th>Adults (25+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cigarettes</td>
<td>p12m, p30d</td>
<td>Current regular</td>
<td>Current regular</td>
</tr>
<tr>
<td>Menthol</td>
<td>p12m, p30d</td>
<td>Current regular</td>
<td>Current regular</td>
</tr>
<tr>
<td>Any cigars</td>
<td>-</td>
<td>Current regular</td>
<td>Current regular</td>
</tr>
<tr>
<td>E-cigarettes</td>
<td>-</td>
<td>Current regular</td>
<td>Current regular</td>
</tr>
<tr>
<td>Hookah</td>
<td>-</td>
<td>Current regular</td>
<td>Current regular</td>
</tr>
<tr>
<td>Any smokeless</td>
<td>p30d</td>
<td>Current regular</td>
<td>Current regular</td>
</tr>
</tbody>
</table>

First flavored tobacco use is associated with subsequent DAILY use of menthol cigarettes and flavored e-cigarettes

<table>
<thead>
<tr>
<th></th>
<th>Age group</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>12-17 (%)</td>
<td>18-25 (%)</td>
<td>Total (%)</td>
<td></td>
</tr>
<tr>
<td><strong>Cigarettes</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First flavored</td>
<td>15.6</td>
<td>24.0</td>
<td>23.2</td>
<td></td>
</tr>
<tr>
<td>Past 30-day flavored</td>
<td>36.0</td>
<td>32.0</td>
<td>32.3</td>
<td></td>
</tr>
<tr>
<td><strong>Electronic vapor products</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First flavored</td>
<td>87.5</td>
<td>85.6</td>
<td>85.9</td>
<td></td>
</tr>
<tr>
<td>Past 30-day flavored</td>
<td>80.5</td>
<td>83.9</td>
<td>83.3</td>
<td></td>
</tr>
</tbody>
</table>

Wave 1, Spring 2019
Cigarette smoking is still a major problem

The burden of death and disease from tobacco use in the United States is overwhelmingly caused by cigarettes and other combusted tobacco products.

- Smoking accounts for 480,000 deaths annually in the U.S.
  - ~1,300 smoking-related deaths per day

- 5.6 million of today’s youth expected to die prematurely from smoking

Prevalence of current smoking among adults in the US, 1965-2018

Current smoking prevalence among all U.S. Adults, 2018: 13.8%

Cigarette consumption in the U.S.

Menthol cigarette market share

2009-2018: 9% increase

2000-2009: 1% increase

Effect of FDA’s flavored cigarette ban on youth tobacco use (2009)

• Flavored cigarette ban, exempting menthol cigarettes
  – Reduced youth cigarette use overall
  – BUT increases in youth menthol cigarette use, cigar use, pipe use

“The results suggest the 2009 flavored cigarette ban did achieve its objective of reducing adolescent tobacco use, but effects were likely diminished by the continued availability of menthol cigarettes and other flavored tobacco products.”
Short-term effect of Ontario menthol cigarette ban on adult smoker behavior (2017)

Substitution of flavored/menthol products can reduce impact

Flavored cigarette ban (exempting menthol cigarettes, other flavored tobacco products) → Greater use of menthol cigarettes, other flavored tobacco products

Menthol cigarette ban (exempting other flavored tobacco products) → Greater use of other flavored tobacco products
Example: Clove cigarettes → Clove cigars

<table>
<thead>
<tr>
<th>Year</th>
<th>Cigars</th>
<th>Clove cigarettes</th>
<th>Total</th>
<th>Cigars</th>
<th>Clove cigarettes</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>154</td>
<td>12 271</td>
<td>12 425</td>
<td>6003</td>
<td>456 532</td>
<td>462 535</td>
</tr>
<tr>
<td>2007</td>
<td>68</td>
<td>12 897</td>
<td>12 964</td>
<td>2534</td>
<td>436 073</td>
<td>438 607</td>
</tr>
<tr>
<td>2008</td>
<td>74</td>
<td>15 579</td>
<td>15 652</td>
<td>2448</td>
<td>532 963</td>
<td>535 411</td>
</tr>
<tr>
<td>2009</td>
<td>3450</td>
<td>8679</td>
<td>12 129</td>
<td>186 006</td>
<td>284 234</td>
<td>470 240</td>
</tr>
<tr>
<td>2010</td>
<td>12 761</td>
<td>0</td>
<td>12 761</td>
<td>656 680</td>
<td>0</td>
<td>656 680</td>
</tr>
<tr>
<td>2011</td>
<td>10 739</td>
<td>0</td>
<td>10 739</td>
<td>508 600</td>
<td>0</td>
<td>508 980</td>
</tr>
<tr>
<td>2012</td>
<td>13 410</td>
<td>0</td>
<td>13 410</td>
<td>626 417</td>
<td>0</td>
<td>626 417</td>
</tr>
</tbody>
</table>

Delnevo CD, Hrywna M. *Tob Control.* 2015;24(e4):e246-250.
Example: Flavored cigars
TOBACCO PRODUCT USE AMONG HIGH SCHOOL STUDENTS

31.2%
27.5%
7.6%
5.8%
4.8%
3.4%
1.1%

any tobacco product
e-cigarettes
 cigars
 cigarettes
 smokeless tobacco
 hookah
 pipe tobacco

Learn more at bit.ly/NYTS-2019

Source: National Youth Tobacco Survey, 2019

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E-cigarettes are not used alone!

Flavors are not used alone!

Table 3. Flavored e-cigarette use in past month among adolescents, young adults, and adults, by flavor type, weighted Population Assessment for Tobacco and Health (PATH) Study, United States, 2014-2015.a,b

<table>
<thead>
<tr>
<th>Flavored E-Cigarette Use</th>
<th>Past-Month Adolescent (Aged 12-17) E-Cigarette Users (n = 414), % (95 CI)</th>
<th>Past-Month Young Adult (Aged 17-24) E-Cigarette Users (n = 961), % (95 CI)</th>
<th>Past-Month Older Adult (Aged ≥25) E-Cigarette Users (n = 1711), % (95 CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol, candy/sweets, chocolate, clove/spice, fruit, or mint/menthol only</td>
<td>61.1 (56.0-66.2)</td>
<td>66.7 (63.9-69.5)</td>
<td>52.3 (50.2-54.3)</td>
</tr>
<tr>
<td>Tobacco or other flavor only</td>
<td>16.1 (13.3-18.9)</td>
<td>15.5 (14.1-16.8)</td>
<td>37.9 (36.3-39.5)</td>
</tr>
<tr>
<td>Both (1) alcohol, candy/sweets, chocolate, clove/spice, fruit, or mint/menthol and (2) tobacco or other flavor</td>
<td>13.1 (10.9-15.3)</td>
<td>12.4 (10.4-14.5)</td>
<td>8.2 (7.3-9.0)</td>
</tr>
<tr>
<td>Do not know</td>
<td>9.7 (7.8-11.7)</td>
<td>5.4 (4.1-6.7)</td>
<td>1.7 (1.3-2.1)</td>
</tr>
<tr>
<td><strong>Single vs multiple flavor types used concurrently</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>57.1 (53.7-60.4)</td>
<td>57.0 (54.5-59.4)</td>
<td>76.3 (74.7-77.7)</td>
</tr>
<tr>
<td>Multiple</td>
<td>42.9 (39.6-46.3)</td>
<td>43.0 (40.6-45.5)</td>
<td>23.7 (22.3-25.3)</td>
</tr>
</tbody>
</table>

43% of youth and young adult e-cigarette users report multiple flavor types

Substitution of flavored/menthol products can reduce impact

- **Flavored cigarette ban** (exempting menthol cigarettes, other flavored tobacco products)
  - Greater use of menthol cigarettes, other flavored tobacco products

- **Menthol cigarette ban** (exempting other flavored tobacco products)
  - Greater use of other flavored tobacco products
Lowell, MA: Effect of flavored tobacco ban on youth tobacco use (2016)

Urgency for action continues to increase.

– Tobacco use remains a major public health problem in the U.S. and globally.

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