Introduction

Nicotine pouches are nicotine-containing smoke-free products which do not contain any tobacco leaf. They offer noncombustible alternatives to adult smokers who are unable or unwilling to quit. Nicotine pouches, including on!, are a growing category of tobacco products among adult tobacco consumers in the US. Nicotine pouches are typically available in various flavors.

The aim of this study was to assess whether the use of flavor varieties (i.e., Berry, Cinnamon, Citrus, Coffee, Mint, and Wintergreen) may be associated with meaningful changes in nicotine pouch consumption compared to use of Original products among adult tobacco users (≥21 years of age) using data from a longitudinal study with daily data collection for 6 weeks.

Methods & Results

Most participants used multiple flavors and tended to prefer flavor varieties over Original. (Exclusive flavor use: 27.4% for any flavor variety in 6 weeks)

Table 1. Estimated differences in on!® nicotine pouch use comparing each flavor with Original

<table>
<thead>
<tr>
<th>Flavor</th>
<th>Estimate (95% CI)</th>
<th>Estimate (95% CI)</th>
<th>Estimate (95% CI)</th>
<th>Estimate (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berry</td>
<td>1.00 (1.00, 1.00)</td>
<td>1.02 (1.00, 1.05)</td>
<td>2.15 (1.00, 4.59)</td>
<td>0.35 (-2.52, 3.22)</td>
</tr>
<tr>
<td>Cinnamon</td>
<td>1.00 (0.94, 1.06)</td>
<td>1.03 (0.97, 1.10)</td>
<td>3.60 (1.52, 8.37)</td>
<td>0.50 (-5.13, 6.13)</td>
</tr>
<tr>
<td>Citrus</td>
<td>1.00 (0.94, 1.06)</td>
<td>1.03 (0.97, 1.09)</td>
<td>7.60 (2.35, 12.85)</td>
<td>1.21 (-2.75, 5.17)</td>
</tr>
<tr>
<td>Coffee</td>
<td>1.00 (0.94, 1.06)</td>
<td>1.03 (0.97, 1.09)</td>
<td>8.23 (1.00, 32.97)</td>
<td>0.33 (-4.74, 5.40)</td>
</tr>
<tr>
<td>Mint</td>
<td>1.00 (0.94, 1.06)</td>
<td>1.03 (0.97, 1.09)</td>
<td>9.74 (2.30, 38.80)</td>
<td>2.11 (-0.12, 4.35)</td>
</tr>
<tr>
<td>Wintergreen</td>
<td>1.00 (0.94, 1.06)</td>
<td>1.03 (0.97, 1.09)</td>
<td>10.44 (2.51, 43.05)</td>
<td>0.70 (-3.22, 4.62)</td>
</tr>
</tbody>
</table>

No meaningful association between flavor use and nicotine consumption outcomes of on!® nicotine pouches.

Conclusion

Use of flavored nicotine pouches is common and is not associated with meaningful changes in nicotine pouch consumption compared to the Original variety.

Strengths and Limitations

Strengths:

- Adult in a natural setting
- Daily diary provides more nuanced data for 6 weeks
- Mixed-effects models take into account repeated measures

Limitations:

- Observational study design
- Non-probability sample
- Products were provided to participants

This scientific research is presented by Altria Client Services LLC (ALCS). ALCS affiliate companies are tobacco product manufacturers.