Monitoring Sales: National Trends

This report highlights trends from February 2019 to September 2024.

Notice of Revision to Previous Data Estimates

- The data in this brief have been updated to capture new e-cigarette products coded by Circana (formerly known as IRI). Historical sales estimates may differ from previous briefs.

Federal Regulatory Actions

- In February 2020, FDA began prioritizing enforcement of existing regulations against prefilled e-cigarette cartridges in flavors other than tobacco and menthol. This prioritization did not apply to e-liquid bottles or single use disposable e-cigarettes.
- FDA began issuing marketing denial orders for flavored e-cigarette products as of September 9, 2021.
- On April 15, 2022, FDA was granted authority to regulate products containing nicotine from any source, including synthetic nicotine.

Key Findings

Total e-cigarettes:

- During the 6-month period ending on September 8, 2024, the total number of e-cigarette products sold in the U.S. has reached 6,309 products; of which 94.2% were disposable e-cigarettes.[1]
- From February 2, 2020, to September 8, 2024, total e-cigarette unit sales increased by 35.9% (15.7 million units to 21.3 million units); and non-tobacco flavored e-cigarette sales (mint, menthol, clear/other cooling and other flavors) increased by 54.6% (11.2 million units to 17.4 million units). By September 8, 2024, non-tobacco flavored e-cigarette sales accounted for 81.5% of total unit sales.
- The top ten brands during the period spanning July 14, 2024, through September 8, 2024, were (in descending order of dollar sales) Vuse, JUUL, Geek Bar Pulse, Breeze Smoke, RAZ, NJOY, HQD, Breeze Prime, Loon Maxx and Mr Fog. The top five brands and top ten brands accounted for 73.0% and 81.9% of total dollar sales, respectively.
- Geek Bar Pulse and RAZ, ranked among the top 5 brands nationally as of this data brief, contain product models considered smart vapes (vapes that incorporate technologies such as digital screens, interactive notifications and power level/usage indicators).[3]
- The 2024 National Youth Tobacco Survey (NYTS) found that 7.8% (1.21 million) of high school and 3.5% (410,000) of middle school students currently used e-cigarettes. Among those who currently used e-cigarettes, 87.6% used flavored e-cigarettes.[2]

Flavored Disposable e-cigarettes:

- From February 2, 2020, to September 8, 2024, disposable e-cigarette sales increased by 213.6% (4.1 million units to 12.8 million units); their unit share increased from 26.0% to 60.0% of total e-cigarette sales. As of September 8, 2024, 95.0% of disposable sales were of non-tobacco flavors.
- Among youth who used e-cigarettes in 2024, 55.6% used disposable e-cigarettes (NYTS).[2]

Menthol flavored e-cigarettes:

- From February 2, 2020, to September 8, 2024, overall menthol-flavored e-cigarette sales increased by 8.4% (5.2 million units to 5.6 million units), including a 8.5% increase in menthol-flavored cartridge sales (4.8 million units to 5.2 million units). As of September 8, 2024, menthol-flavored e-cigarette sales accounted for 26.2% of the overall e-cigarette market and 61.1% of the prefilled cartridge market.
- Among youth who used flavored e-cigarettes in 2024, 15.1% used menthol flavor (NYTS).[2]

Relevant Issues

- The e-cigarette or vaping product use-associated lung injury (EVALI) outbreak in late 2019 and COVID-19 pandemic may have affected e-cigarette sales.
- During 2020-2024, additional flavored tobacco products continued to be marketed, such as flavored cigars; or entered the market, such as nicotine pouches.
- Units of e-cigarettes are not adjusted to account for variations in unit size. Large-format disposable e-cigarettes that allow for thousands of “puffs” are now available. Declines in unit sales may not signify declines in prevalence of use or consumption.
- Following California’s prohibition of flavored tobacco product sales in December 2022, sales of products branded as clear, clear ice, and unflavored, likely containing non-menthol synthetic cooling agents, increased (e.g., Flum Pebble Clear, EB Design BC5000 Clear). These products are categorized as Clear/Other Cooling for the purposes of this data brief.

Conclusion

- Restrictions that exempt certain flavors and product types likely shift sales to the products and flavors that remain on the market. Policies that prohibit all non-tobacco flavored e-cigarettes, including flavored disposable e-cigarettes and menthol-flavored prefilled cartridges, reduce e-cigarette sales and may reduce youth access and use of e-cigarettes.

1. Number of e-cigarette products is counted as the number of unique UPCs (Universal Product Code) in Circana data.
2. Park-Lee E, Jamal A, Cowan H, et al. *Notes from the Field:* E-Cigarette and Nicotine Pouch Use Among Middle and High School Students — United States, 2024. MMWR Morb Mortal Wkly Rep 2024;73:774–778. DOI: http://dx.doi.org/10.15585/mmwr.mm7335a3.
3. Bertrand A, Diaz MC, Goyette R, et al. Tracking technology changes of e-cigarettes: characteristics and capabilities of new smart vape devices. *Tobacco Control* Published Online First: 17 August 2024. doi: 10.1136/tc-2024-058862

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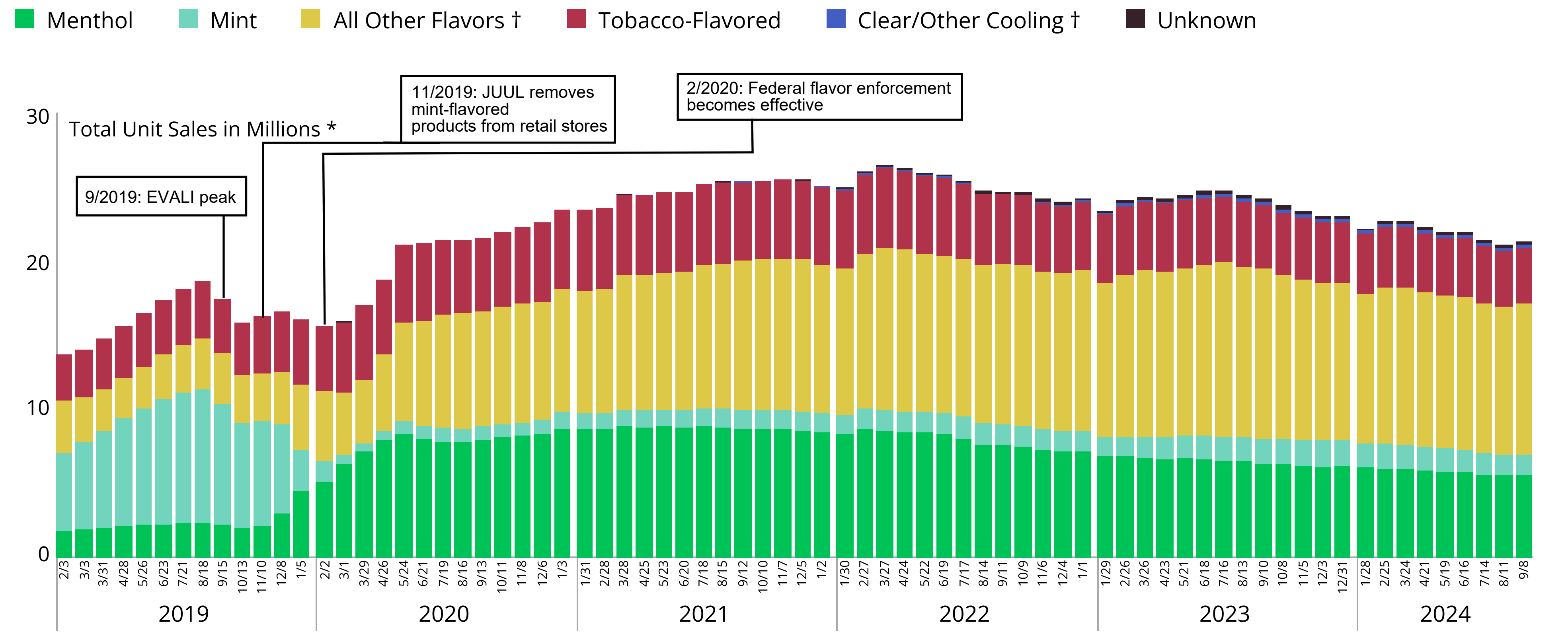
Figure 1. National E-Cigarette Unit Sales by Flavor



* Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; e-cigarette accessories and devices sold without e-liquids were excluded (9.5% of total dollar sales in 2022). Unit sales were standardized to reflect the most common package size for each product type. A standardized unit was equal to five prefilled cartridges, one disposable device, or one e-liquid bottle.

† All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; Clear/Other Cooling include products with flavor names such as clear, clear ice, or unflavored, which likely contain non-menthol synthetic cooling agents (e.g., Flum Pebble Clear, EB Design BC5000 Clear)

Trends of Unit Sales by Flavor Following FDA's Flavor Enforcement Policy

From 2/2/2020 to 9/8/2024, unless otherwise specified

Total monthly e-cigarette sales increased from 15.7 to 21.3 million units (+35.9%).

Tobacco-flavored e-cigarette sales decreased from 4.4 million to 3.7 million (-16.1%); unit share decreased from 28.3% to 17.5%.

Non-tobacco-flavored e-cigarette sales increased from 11.2 million to 17.4 million (+54.6%); unit share increased from 71.7% to 81.5%.

Menthol-flavored e-cigarette sales increased from 5.2 million to 5.6 million (+8.4%); unit share decreased from 32.9% to 26.2%.

Mint-flavored e-cigarette sales decreased from 1.4 million to 1.4 million (-2.4%); unit share decreased from 9.0% to 6.5%.

Other-flavored e-cigarette sales increased from 4.6 million to 10.2 million (+119.4%); unit share increased from 29.6% to 47.8%.

Between 12/4/2022 and 9/8/2024 clear/other cooling flavored e-cigarette sales increased from 73.9 thousand to 201.9 thousand (+173.1%); unit share increased from 0.5% to 0.9%.

California's decline in e-cigarette sales between December 2022 and 9/8/2024 represents 15.7% (i.e., 412.2 thousand units out of 2625.5 thousand units) of the decline in national e-cigarette sales that occurred during this period.

Between 12/4/2022 and 9/8/2024, California's monthly e-cigarette total unit sales decreased from 831.6 thousand to 419.4 thousand (-49.6%) following enforcement of flavored e-cigarette restrictions.

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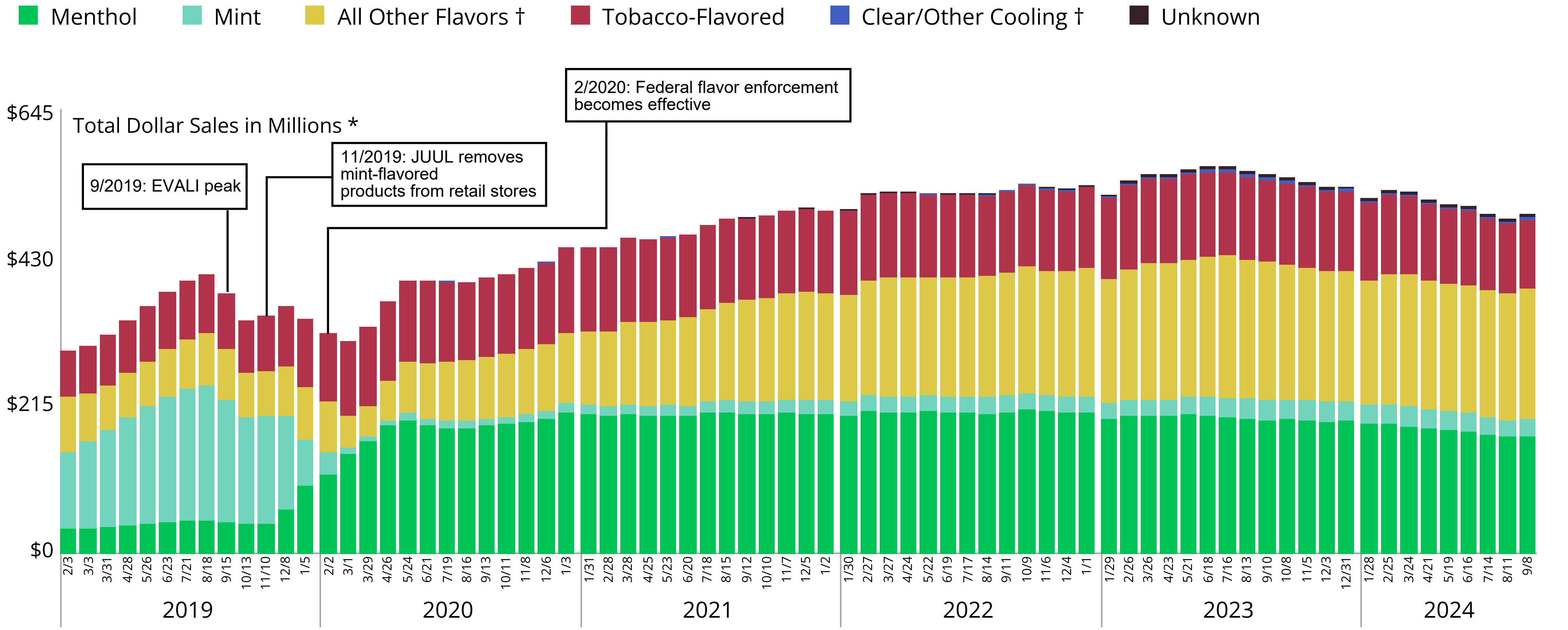
Figure 2. National E-Cigarette Dollar Sales by Flavor



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Trends of Dollar Sales by Flavor Following FDA's Flavor Enforcement Policy

From 2/2/2020 to 9/8/2024, unless otherwise specified

Total monthly e-cigarette dollar sales increased from 320.5 to 491.7 million dollars (+53.4%).

Tobacco-flavored e-cigarette dollar sales decreased from 100.4 million to 100.0 million (-0.4%); dollar share decreased from 31.3% to 20.3%.

Non-tobacco-flavored e-cigarette dollar sales increased from 220.1 million to 387.4 million (+76.0%); dollar share increased from 68.7% to 78.8%.

Menthol-flavored e-cigarette dollar sales increased from 116.1 million to 170.6 million (+47.0%); dollar share decreased from 36.2% to 34.7%.

Mint-flavored e-cigarette dollar sales decreased from 31.2 million to 24.1 million (-22.9%); dollar share decreased from 9.7% to 4.9%.

Other-flavored e-cigarette dollar sales increased from 72.7 million to 189.5 million (+160.8%); dollar share increased from 22.7% to 38.5%.

Differences between trends in unit sales and dollar sales could be due, in part, to inflation and the recent increase in large-format disposable e-cigarettes that allow for thousands of puffs. Higher price per device of large-format disposable e-cigarettes might account for declines in unit sales without comparable declines in dollar sales.

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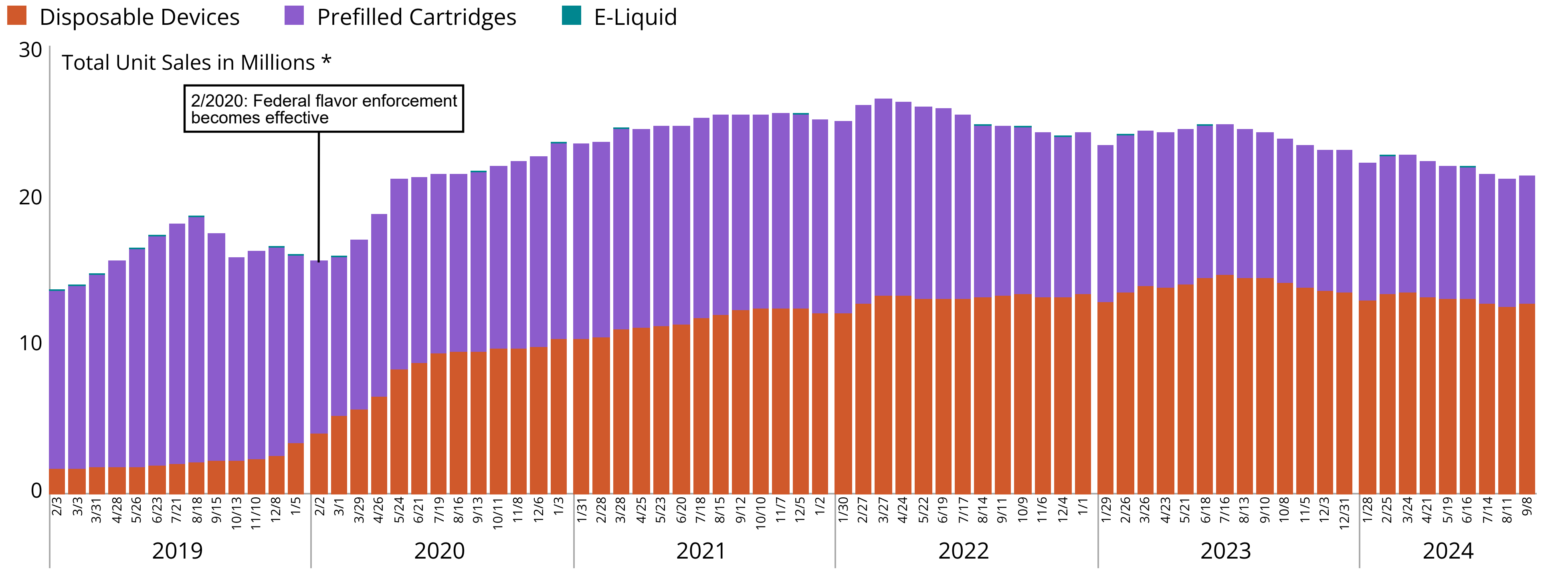
Figure 3. National E-Cigarette Unit Sales by Product Type



* Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; e-cigarette accessories and devices sold without e-liquids were excluded (9.5% of total dollar sales in 2022). Unit sales were standardized to reflect the most common package size for each product type. A standardized unit was equal to five prefilled cartridges, one disposable device, or one e-liquid bottle.

Trends of Unit Sales by Product Following FDA's Flavor Enforcement Policy

From 2/2/2020 to 9/8/2024, unless otherwise specified

- Sales of prefilled cartridges decreased from 11.6 million to 8.5 million (-26.5%); unit share decreased from 73.9% to 39.9%.
- Sales of disposable devices increased from 4.1 million to 12.8 million (+213.6%); unit share increased from 26.0% to 60.0%.

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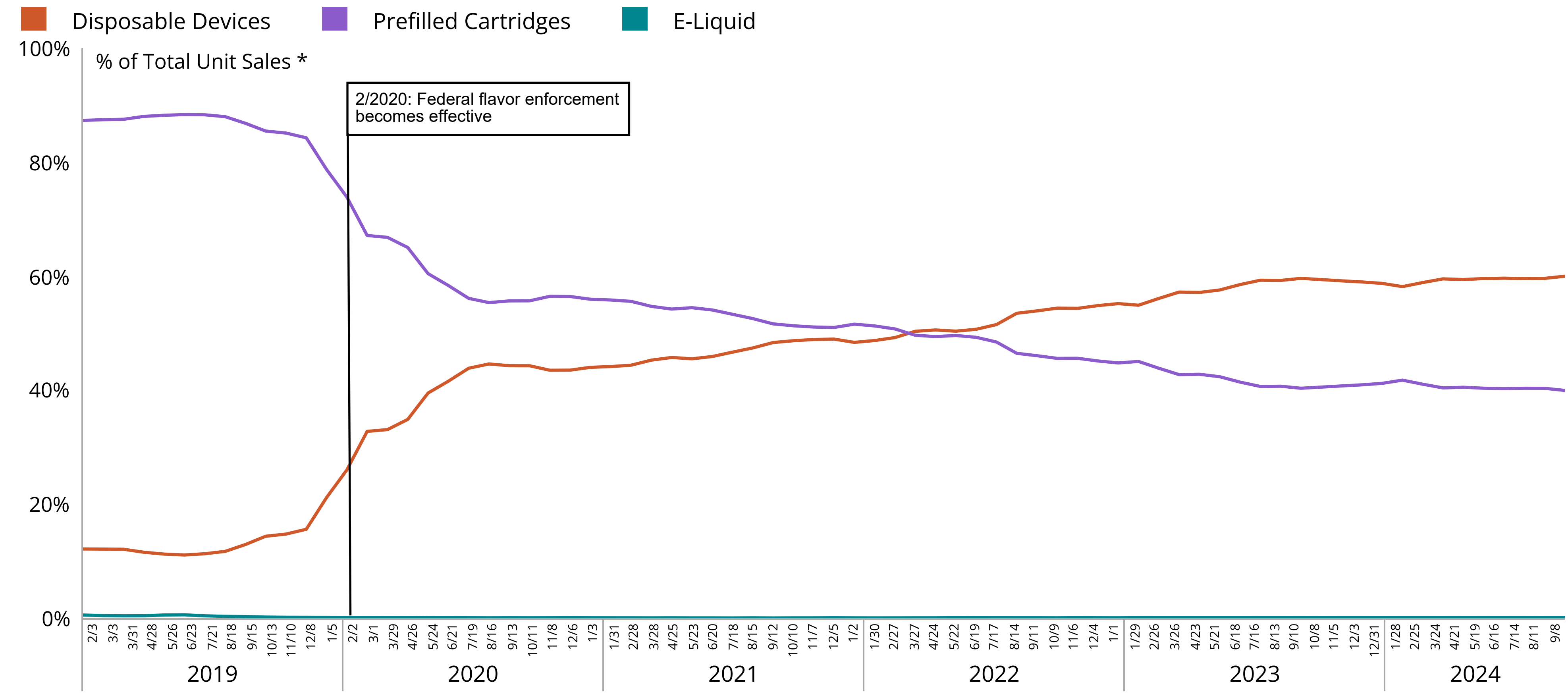
Figure 4. National E-Cigarette Unit Share by Product Type



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Trends of Unit Share by Product Following FDA's Flavor Enforcement Policy

From 2/2/2020 to 9/8/2024, unless otherwise specified

- Unit share of disposable devices increased from 26.0% to 60.0%.
- Unit share of prefilled cartridges decreased from 73.9% to 39.9%.

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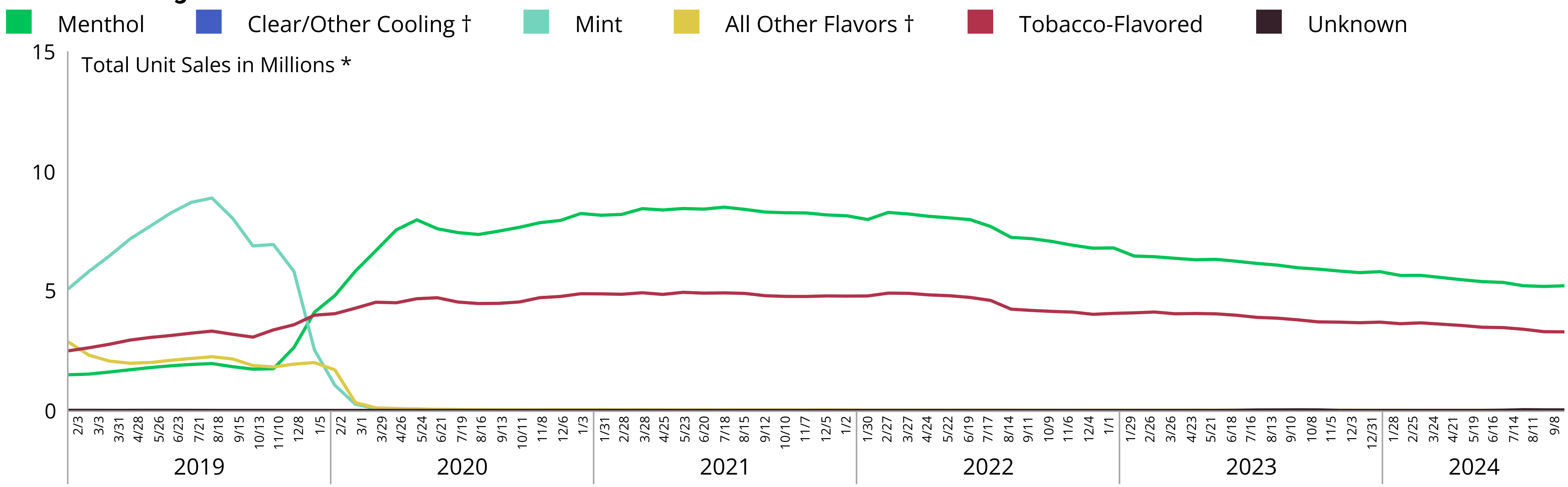
Figure 5. National E-Cigarette Unit Sales by Product Type and Flavor

Prefilled Cartridges



Disposable Devices

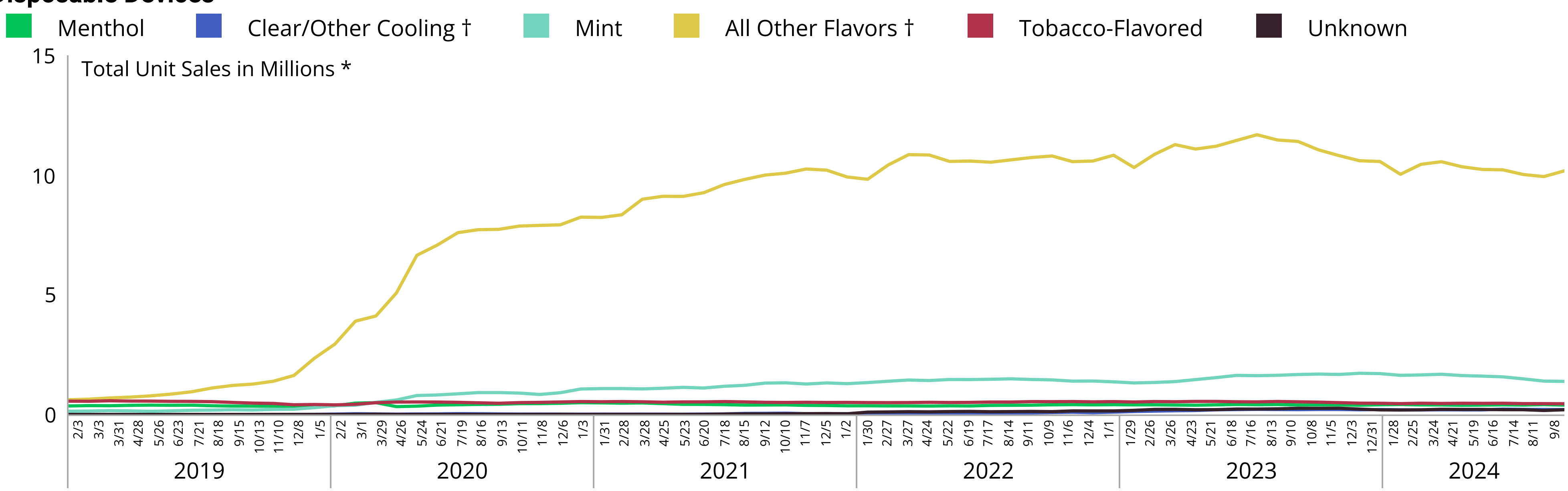


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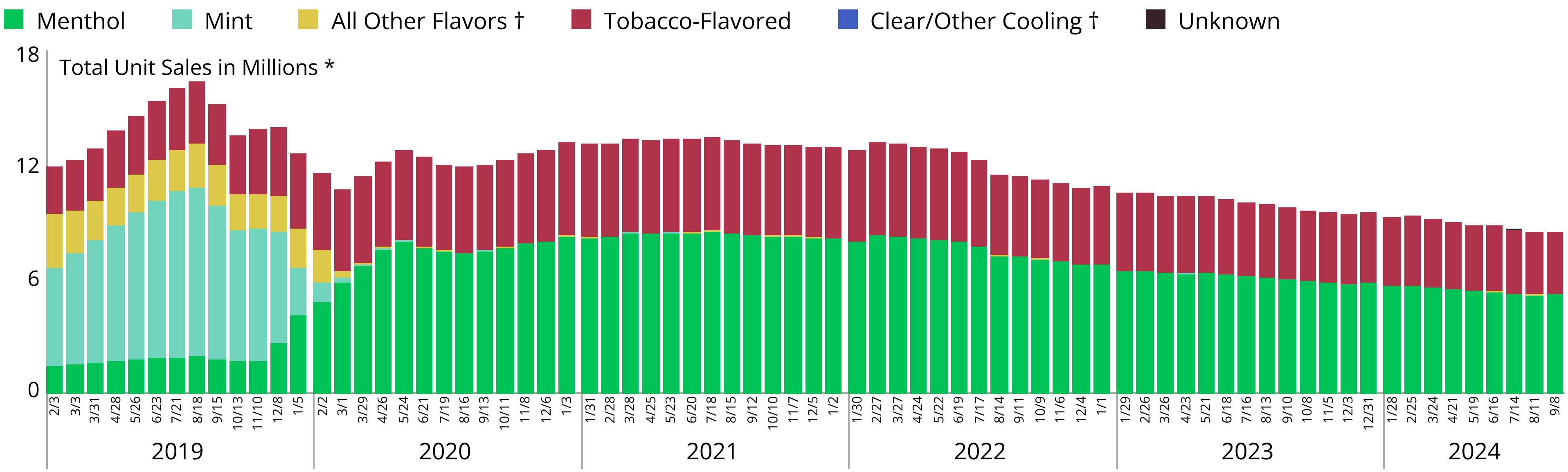
Figure 6. National E-Cigarette Unit Sales by Product Type and Flavor

Prefilled Cartridges



Disposable Devices

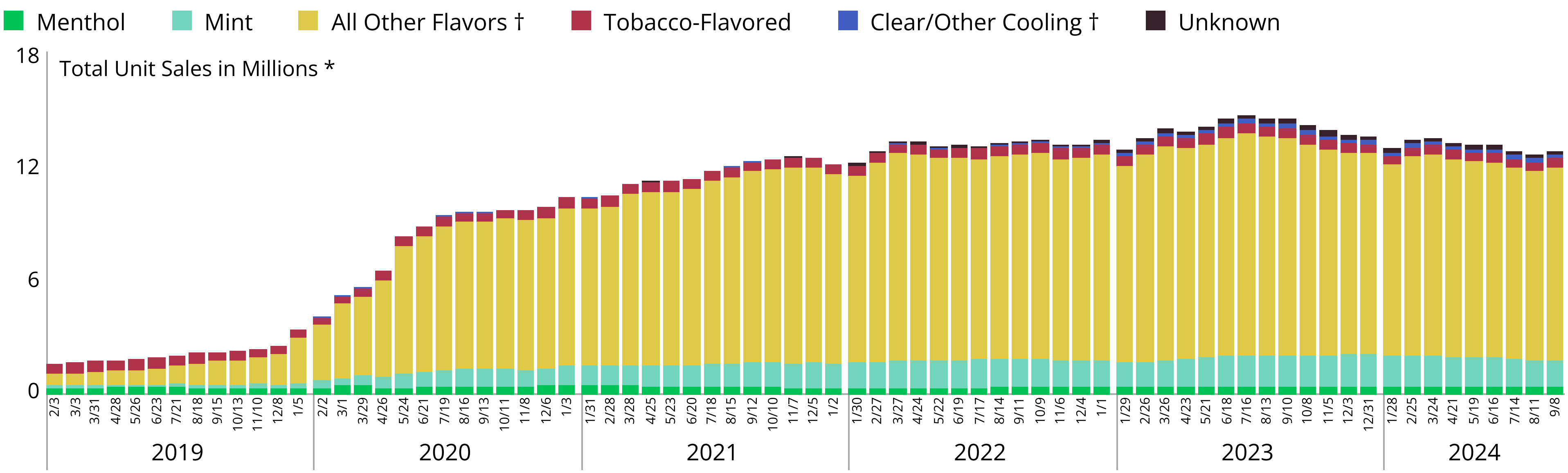


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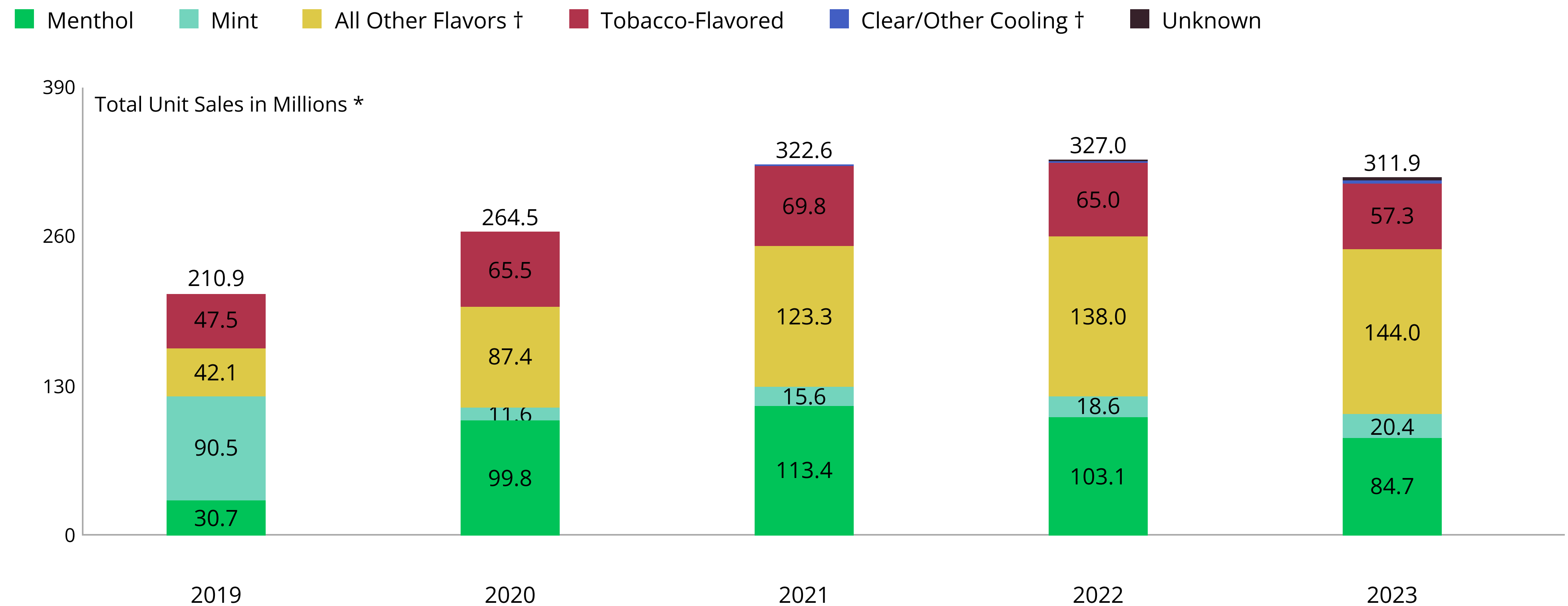
Figure 7. National E-Cigarette Unit Sales By Flavor, Annual Estimates



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Unit Sales Annual Trends by Flavor, Annual Aggregates

From 2022 to 2023, unless otherwise specified

Annual total e-cigarette unit sales decreased from 327.0 to 311.9 million units (-4.6%).

Unit sales of tobacco-flavored e-cigarettes decreased from 65.0 to 57.3 million units (-11.8%).

Unit sales of non-tobacco-flavored e-cigarettes decreased from 260.4 to 251.6 million units (-3.4%).

Unit sales of menthol-flavored e-cigarettes decreased from 103.1 to 84.7 million units (-17.8%).

Unit sales of mint-flavored e-cigarettes increased from 18.6 to 20.4 million units (+10.1%).

Unit sales of other-flavored e-cigarettes increased from 138.0 to 144.0 million units (+4.4%).

Unit sales of clear/other cooling flavored e-cigarettes increased from 0.7 to 2.4 million units (+225.7%).

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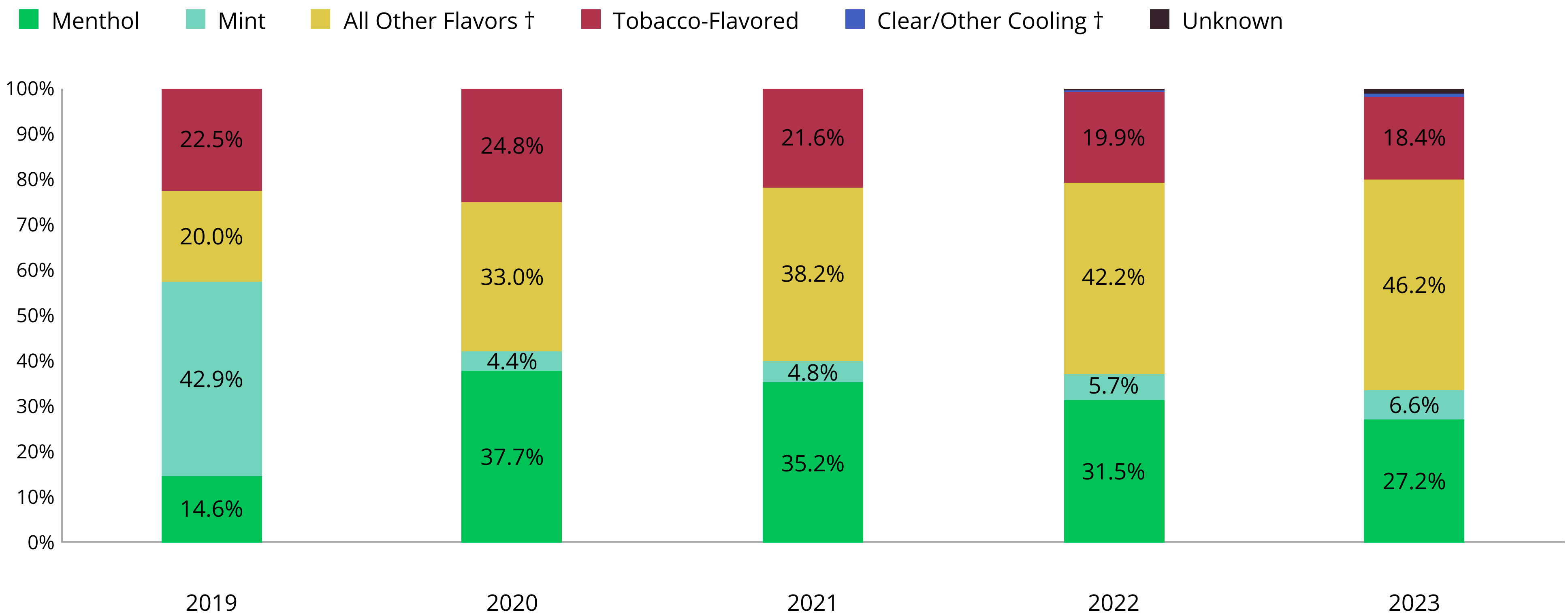
Figure 8. Annual Unit Share of National E-Cigarette Unit Sales by Flavor



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Unit Share Annual Trends by Flavor, Annual Aggregates

From 2022 to 2023, unless otherwise specified

- Unit share of tobacco-flavored e-cigarette sales decreased from 19.9% to 18.4% (-1.5%).
- Unit share of non-tobacco-flavored e-cigarette sales increased from 79.6% to 80.7% (+1.0%).
- Unit share of menthol-flavored e-cigarette sales decreased from 31.5% to 27.2% (-4.4%).
- Unit share of mint-flavored e-cigarette sales increased from 5.7% to 6.6% (+0.9%).
- Unit share of other-flavored e-cigarette sales increased from 42.2% to 46.2% (+4.0%).
- Unit share of clear/other cooling flavored e-cigarette sales increased from 0.2% to 0.8% (+0.5%).

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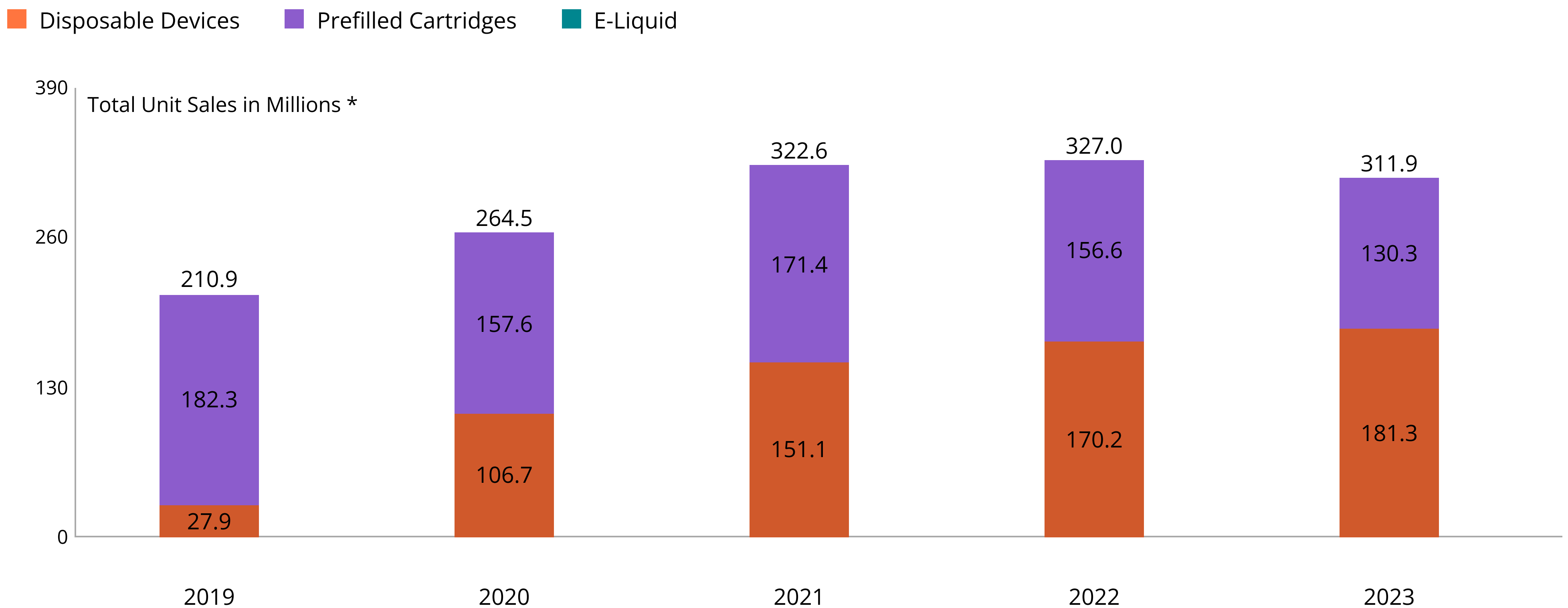
Figure 9. National E-Cigarette Unit Sales By Product Type, Annual Estimates



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Unit Sales Annual Trends by Product, Annual Aggregates

From 2022 to 2023, unless otherwise specified

Total monthly e-cigarette unit sales decreased from 327.0 to 311.9 million units (-4.6%).

Unit sales of prefilled cartridge e-cigarettes decreased from 156.6 to 130.3 million units (-16.8%).

Unit sales of disposable e-cigarettes increased from 170.2 to 181.3 million units (+6.5%).

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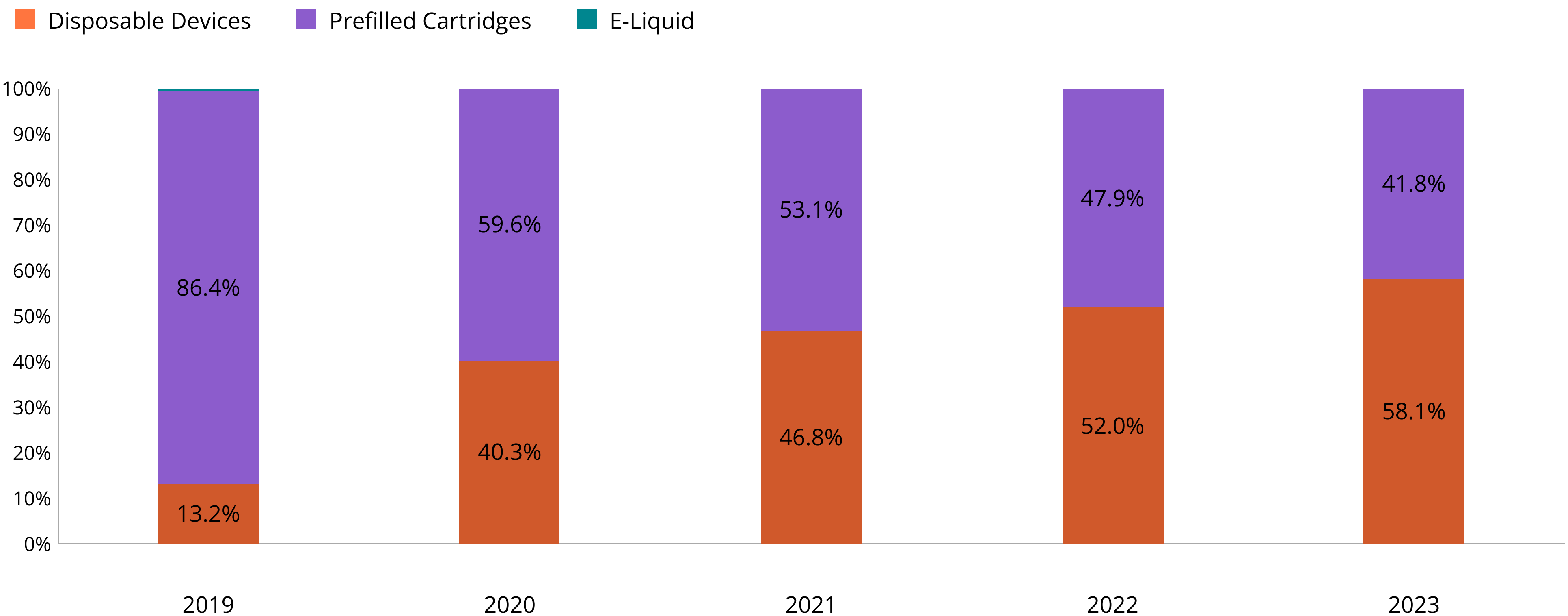
Figure 10. Annual Unit Share of National E-Cigarette Unit Sales by Product type



Unit Share Annual Trends by Product, Annual Aggregates

From 2022 to 2023, unless otherwise specified

- Unit share of prefilled cartridge e-cigarette sales decreased from 47.9% to 41.8% (-6.1%).
- Unit share of disposable e-cigarette sales increased from 52.0% to 58.1% (+6.1%).

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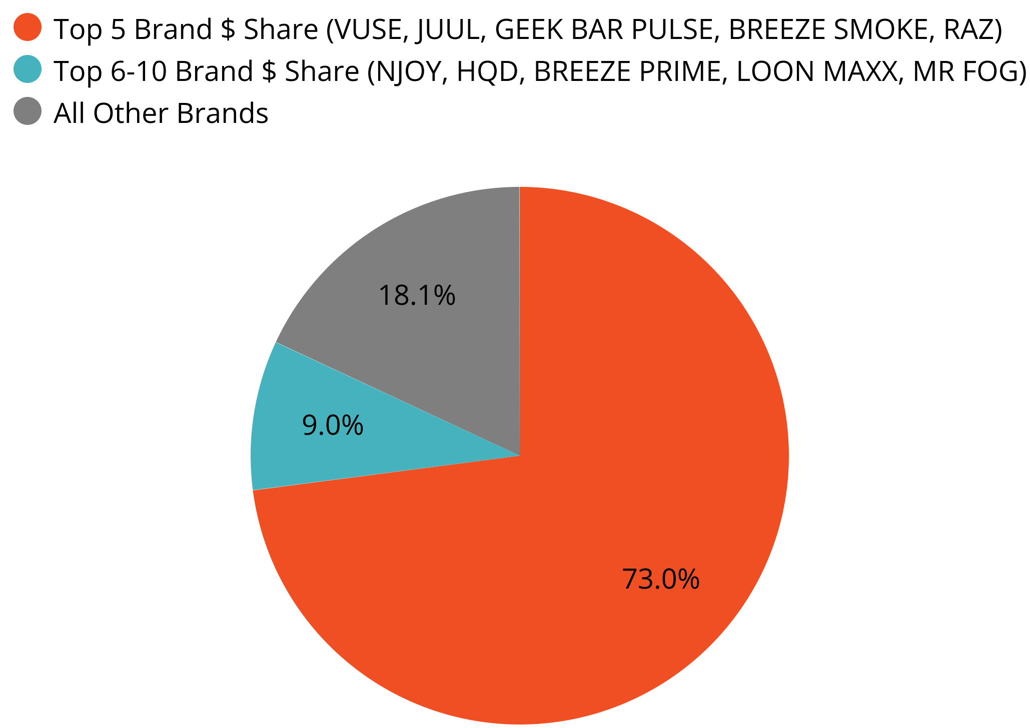
Figure 11. Dollar Market Share of Top Brands **



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** Brands included here are presented as they are described within Circana data (therein labelled BrandFranchiseName); CDC Foundation has not performed additional aggregation. Some brands (such as Vuse) may aggregate several product lines, whereas others (such as Breeze) may be listed separately.

Dollar share by top brand aggregates

From 7/14/2024 to 9/8/2024, unless otherwise specified

The top ten brands during the period spanning July 14, 2024, through September 8, 2024, were (in descending order of dollar sales) VUSE, JUUL, GEEK BAR PULSE, BREEZE SMOKE, RAZ, NJOY, HQD, BREEZE PRIME, LOON MAXX and MR FOG. The top five brands and top ten brands accounted for 73.0% and 81.9% of dollar sales, respectively

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