



# Monitoring U.S. E-Cigarette Sales: *National Trends*

**This brief report highlights trends in national e-cigarette sales from January 2017 to December 26, 2021.**

## Federal Regulatory Actions and Other Emergent Events

- The U.S. Food and Drug Administration (FDA) issued an enforcement policy, effective February 2020, prohibiting the sale of flavored prefilled cartridges e-cigarettes, which does not apply to tobacco-and *menthol-flavored prefilled cartridges*, e-liquids, or single use *disposable products*.
- FDA began issuing marketing denial orders for flavored e-cigarette products leading up to the court-ordered deadline of September 9, 2021 to rule on product applications. However, the FDA has yet to rule on products with over 75% of the e-cigarette market.
- Emergent events at the national level may have affected e-cigarette sales, including the e-cigarette or vaping product use-associated lung injury (EVALI) outbreak during August 2019 - January 2020 and COVID-19 pandemic.

## Key Findings

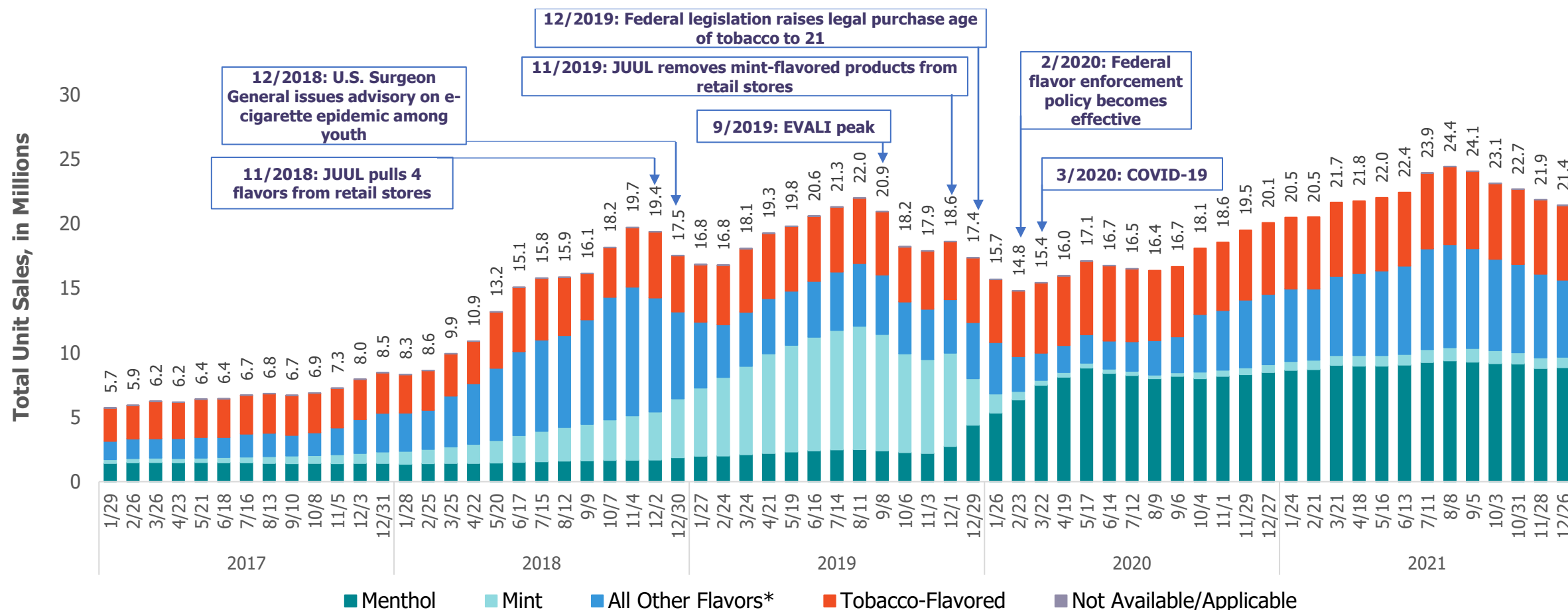
- **Total e-cigarettes:**
  - From 2020 to 2021, annual total e-cigarette unit sales increased by 31.1% (from 221.5 million to 290.4 million units).
  - From February 2020 to December 26, 2021, monthly total sales increased by 44.9% (from 14.8 million units to 21.4 million units). During this period, sales of non-tobacco flavored e-cigarettes (mint, menthol and other flavors) increased by 61.1% (from 9.7 million to 15.7 million).
  - The 2021 National Youth Tobacco Survey (NYTS) found that 11.3% (1.72 million) of high school and 2.8% (320,000) of middle school students were current e-cigarette users. Overall, 84.7% used flavored e-cigarettes.<sup>1</sup>
- **Flavored disposable e-cigarettes:**
  - From February 2020 to December 26, 2021, sales of disposable e-cigarettes increased by 173.1% (from 2.8 million units to 7.6 million units). During this period, the market share of disposable devices increased from 18.8% to 35.4% of total e-cigarette sales. As of December 26, 2021, 78.7% of disposable sales were of flavors other than tobacco, mint and menthol.
  - Consistent with sales trends, the 2021 NYTS found that more than half (53.7%) used disposable e-cigarettes. Among current youth users of flavored disposable e-cigarettes, the most commonly used flavor types were fruit (78.7%) and candy/desserts/other sweets (32.3%).
- **Menthol flavored prefilled cartridge e-cigarettes:**
  - From February 2020 to December 26, 2021, overall menthol flavored e-cigarette sales increased by 39.3% (from 6.4 million to 8.9 million units), including a 45.5% increase in menthol-flavored cartridge sales (from 5.9 million units to 8.6 million units). As of December 26, 2021, menthol flavored e-cigarettes sales accounted for 41.3% of the overall e-cigarette market and 61.7% of the prefilled cartridge market.
  - The 2021 NYTS also found high menthol flavored e-cigarette use among youth users of flavored e-cigarettes (28.8%), particularly among current flavored prefilled cartridge users (46.3%).

## Conclusion

Restrictions that exempt certain flavors and product types are likely to shift sales to the products and flavors that remain on the market, deterring progress in reducing overall use. Comprehensive policies that prohibit all non-tobacco flavored e-cigarettes, including flavored disposable e-cigarettes and menthol-flavored prefilled cartridges, may reduce e-cigarette sales, reduce youth access to flavored e-cigarettes, and ultimately reduce youth e-cigarette use.

1. Park-Lee E, Ren C, Sawdey MD, et al. *Notes from the Field: E-Cigarette Use Among Middle and High School Students — National Youth Tobacco Survey, United States, 2021*. MMWR Morb Mortal Wkly Rep 2021;70:1387–1389.

**Figure 1. National E-Cigarette Unit Sales by Flavor, 4 Week Estimates 1/2017 – 12/26/2021\***

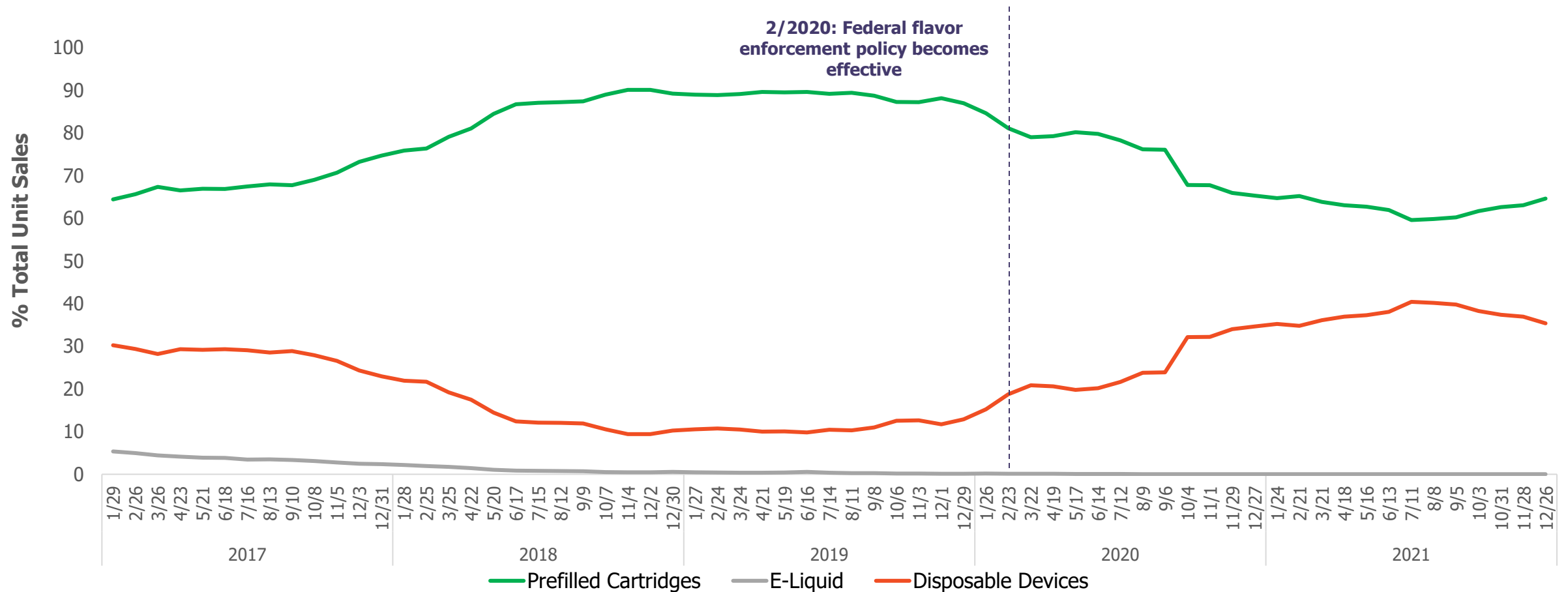


\*Sales data does not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories and devices sold without e-liquids were excluded (11.5% of total sales).

### Trends of Unit Sales by Flavor Following FDA’s Flavor Enforcement Policy

- From February 23, 2020 to December 26, 2021, total monthly e-cigarette unit sales increased by 44.9% to 21.4 million units.
- From February 23, 2020 to December 26, 2021, sales of non-tobacco flavored e-cigarettes (mint, menthol and other flavors) increased by 61.1% (from 9.7 million to 15.7 million).
- From February 23, 2020 to December 26, 2021:
  - Menthol-flavored e-cigarette sales increased by 39.3% (from 6.4 million to 8.9 million); market share decreased from 43.0% to 41.3%.
  - Tobacco-flavored e-cigarette sales increased by 13.4% (from 5.1 million to 5.8 million); market share decreased from 34.3% to 26.9%.
  - Mint-flavored e-cigarette sales increased by 23.0% (from 0.7 million to 0.8 million); market share decreased from 4.4% to 3.8%.
  - All other-flavored e-cigarette sales increased by 121.9% (from 2.7 million to 6.0 million); market share increased from 18.3% to 28.0%.
- From September 5, 2021 to December 26, 2021, e-cigarette sales declined by 10.9% (from 24.1 million units to 21.4 million units).

**Figure 2. National E-Cigarette Unit Sales by Product Type, 4 Week Estimates 1/2017 – 12/26/2021\***

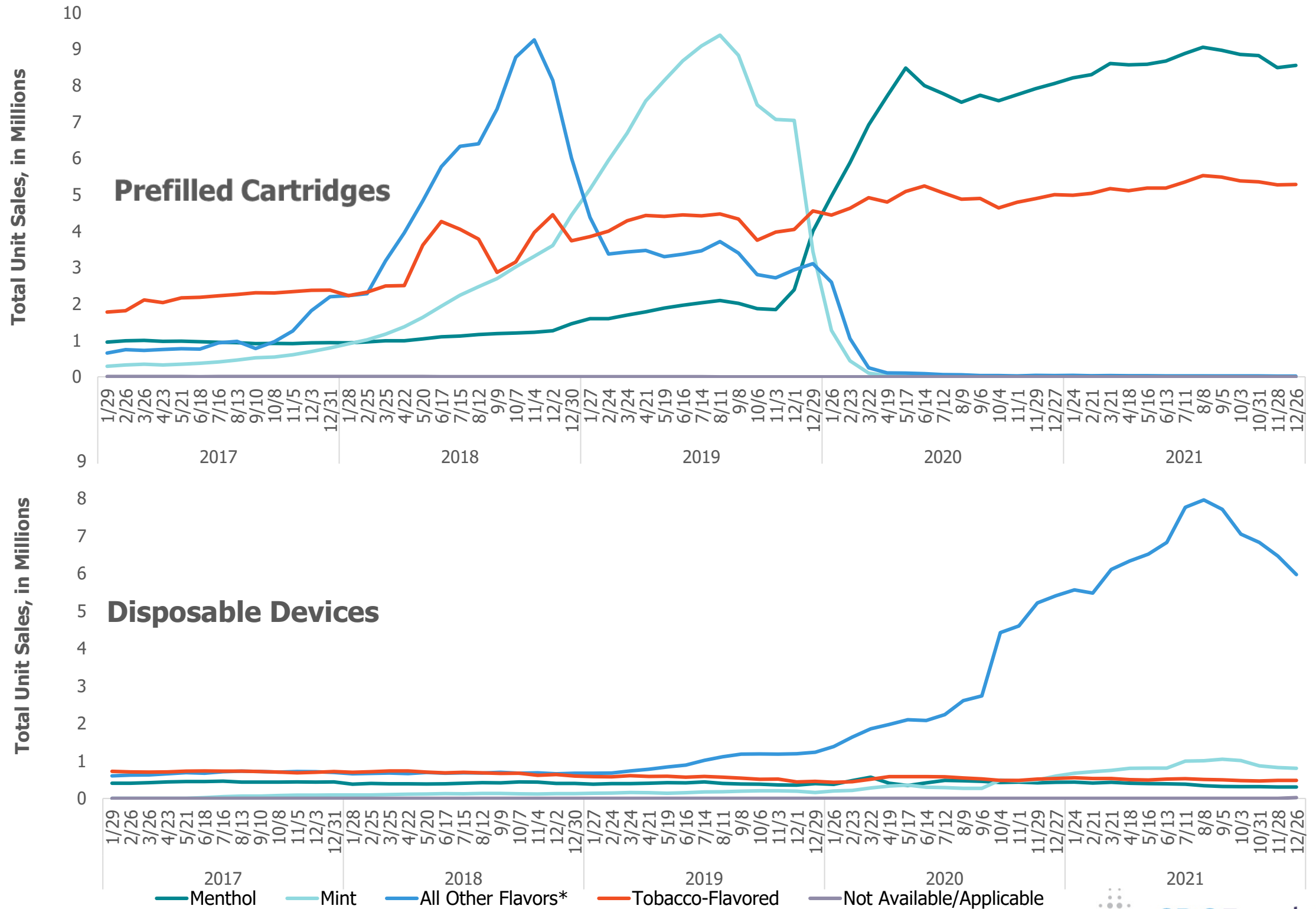


\*Sales data does not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; prefilled cartridges include tanks, cartridges, and pods used in rechargeable and reusable e-cigarette device; disposable devices include nonrechargeable and nonreusable e-cigarette devices that are not intended to be refilled with e-liquid after being depleted; e-liquids are containers of the liquid used in e-cigarette devices, which typically contains a humectant (e.g., propylene glycol), nicotine, and flavoring.

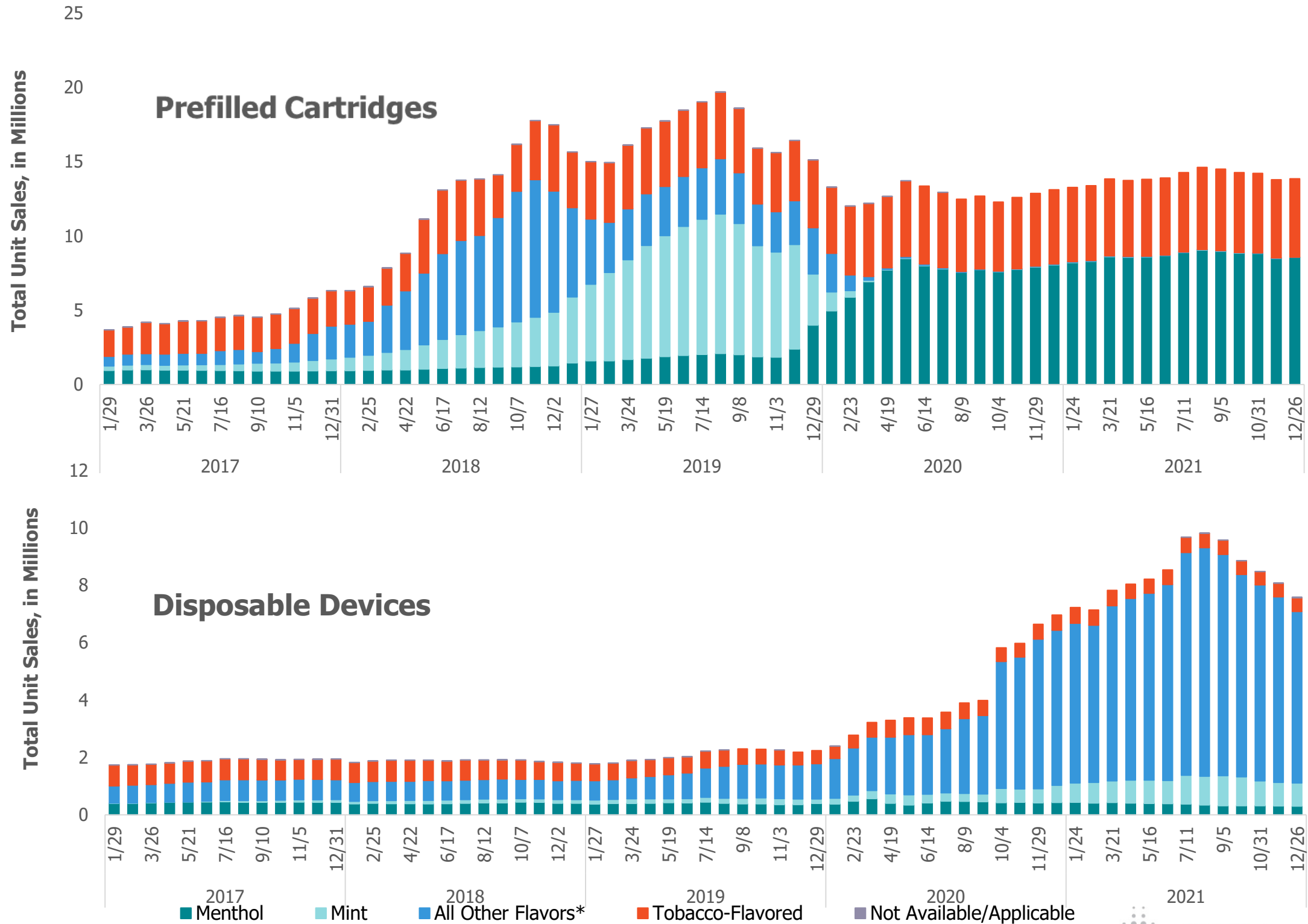
**Trends of Unit Sales by Product Following FDA’s Flavor Enforcement Policy**

- Following FDA’s flavor enforcement policy, which prohibited the sale of flavored prefilled cartridges but exempted disposable devices and menthol and tobacco prefilled cartridges, between February 23, 2020 and December 26, 2021:
  - Sales of disposable devices increased by 173.1% (from 2.8 million to 7.6 million); market share increased from 18.8% to 35.4%.
  - Sales of prefilled cartridges increased by 15.4% (from 12.0 million to 13.9 million); market share decreased from 81.1% to 64.6%.

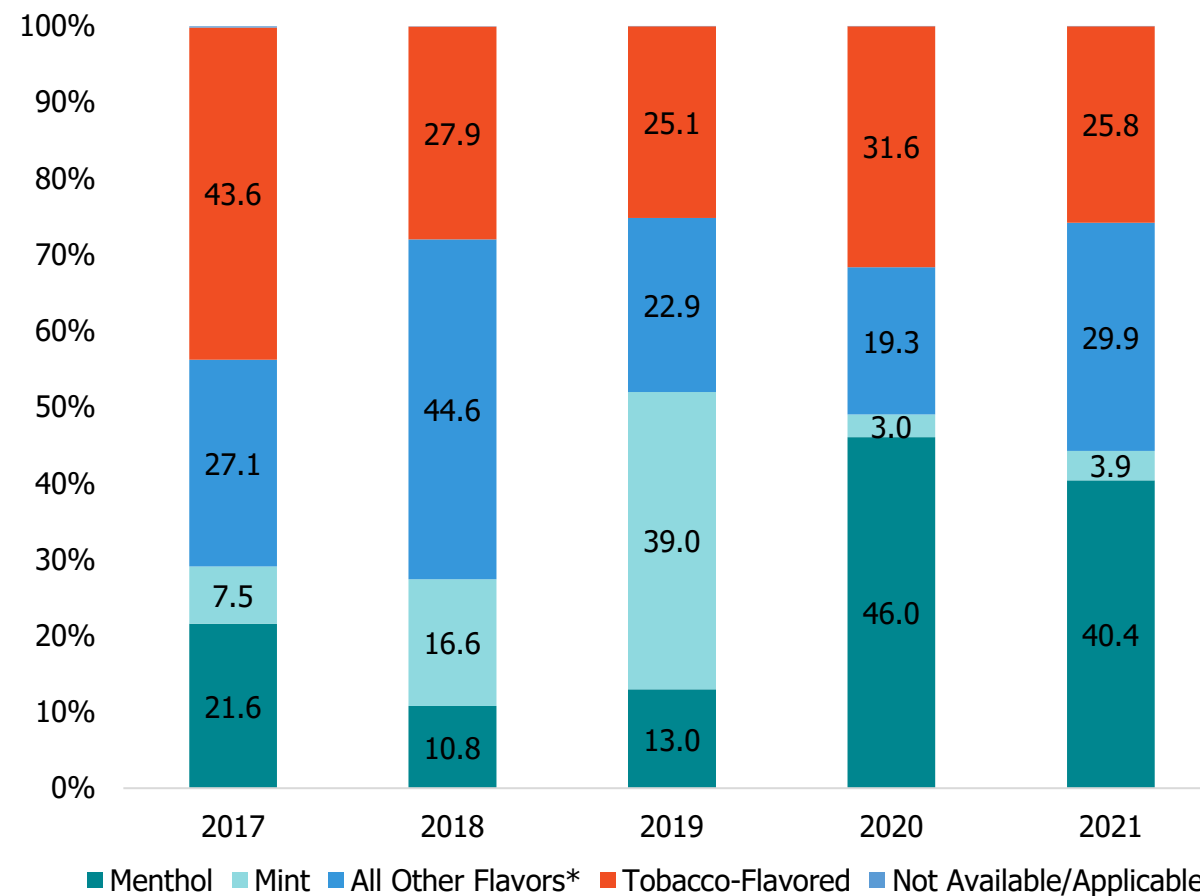
**Figure 3. National E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 1/2017 – 12/26/2021**



**Figure 4. National E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 1/2017 – 12/26/2021**



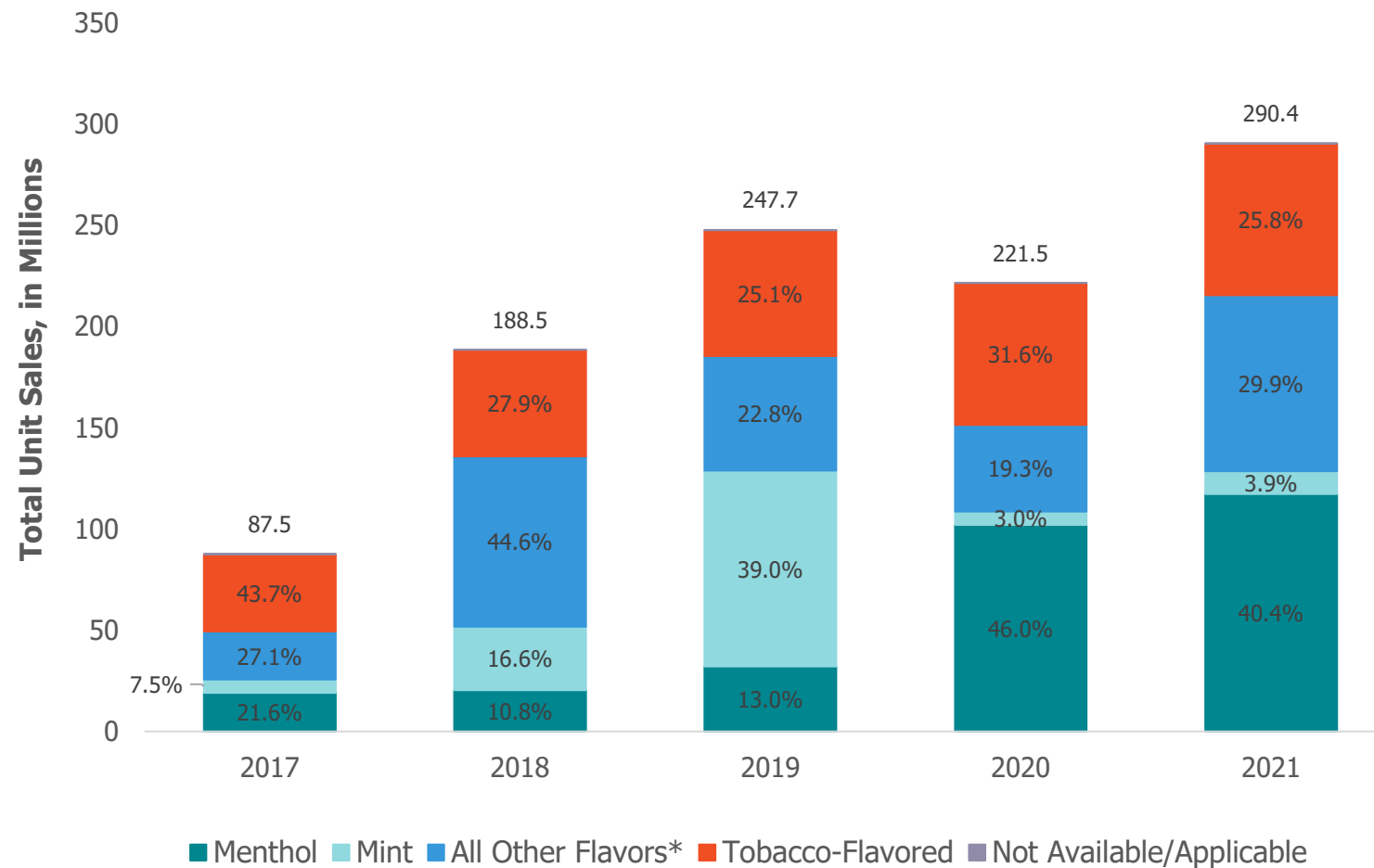
## Figure 5. Market Share of National E-Cigarette Unit Sales by Flavor, Annual Estimates 2017–2021\*



\*Sales data does not reflect sales from vape shops or online retailers; 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; e-cigarette accessories and devices sold without e-liquids were excluded (11.5% of total sales).

### Unit Sales Annual Trends by Flavor (2020-2021)

- From 2020 to 2021:
  - Market share of menthol-flavored e-cigarette sales decreased from 46.0% to 40.4%;
  - Market share of tobacco-flavored e-cigarette sales decreased from 31.6% to 25.8%;
  - Market share of mint-flavored e-cigarette sales increased from 3.0% to 3.9%; and
  - Market share of all other-flavored e-cigarette sales increased from 19.3% to 29.9%.

**Figure 6. Sales of National E-Cigarette Unit Sales by Flavor, Annual Estimates 2017-2021\***

\*Sales data does not reflect sales from vape shops or online retailers; 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; e-cigarette accessories and devices sold without e-liquids were excluded (11.5% of total sales).

## Unit Sales Annual Trends by Flavor (2020-2021)

- From 2020 to 2021:
  - Annual total e-cigarette unit sales increased by 31.1% (from 221.5 million to 290.4 million);
  - Menthol-flavored e-cigarettes sales increased by 15.0% (from 102.0 million units to 117.3 million);
  - Tobacco-flavored e-cigarettes increased by 6.8% (from 70.1 million units to 74.9 million);
  - Mint-flavored e-cigarette sales increased by 70.8% (from 6.6 million units to 11.3 million); and
  - All other-flavored e-cigarette sales increased by 103.1% (from 42.8 million units to 86.9 million).