



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

This brief report highlights trends in national e-cigarette sales from January 2017 to October 31, 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

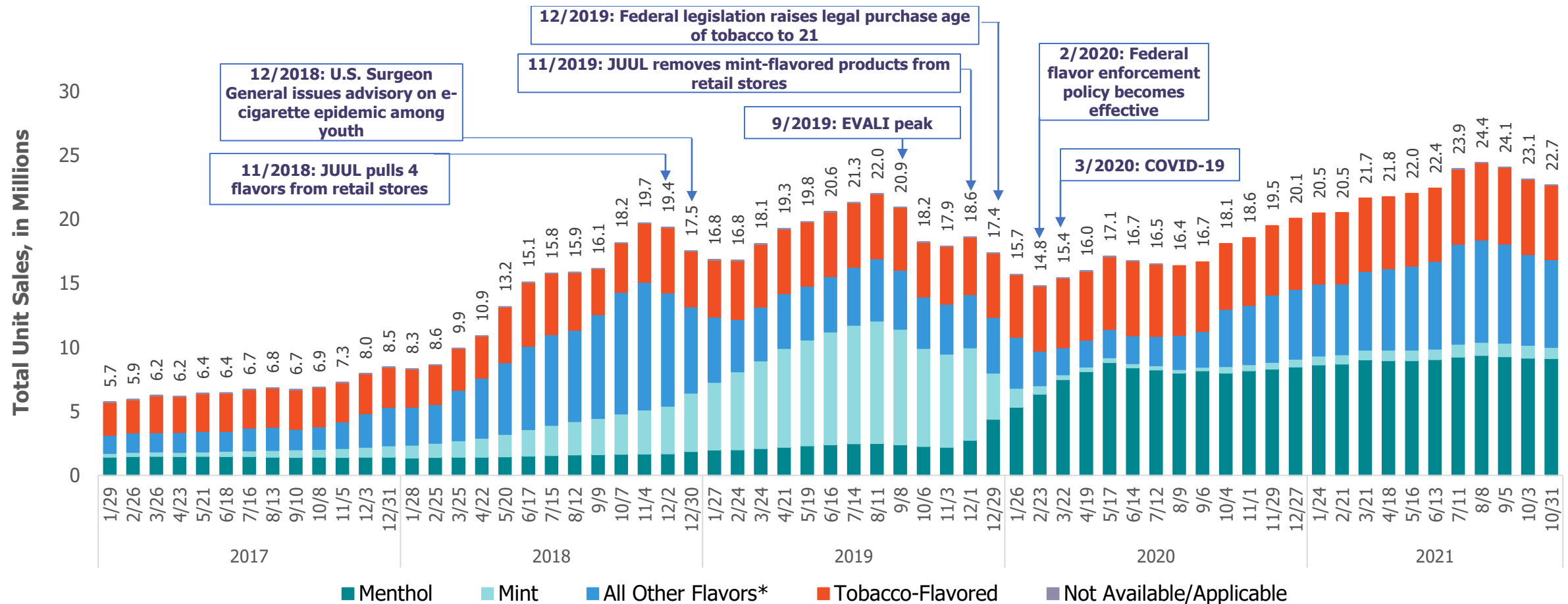
- **Total e-cigarettes:**
 - From February 2020 to October 31, 2021, total e-cigarette unit sales increased by 53.3% (from 14.8 million units to 22.7 million units). During this period, sales of non-tobacco flavored e-cigarettes (mint, menthol and other flavors) increased by 73.5% (from 9.7 million to 16.9 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.¹
- **Flavored disposable e-cigarettes:**
 - From February 2020 to October 31, 2021, sales of disposable e-cigarettes increased by 205.2% (from 2.8 million units to 8.5 million units). During this period, the market share of disposable devices increased from 18.8% to 37.4% of total e-cigarette sales. As of October 31, 2021, 80.5% 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 October 31, 2021, overall menthol flavored e-cigarette sales increased by 43.7% (from 6.4 million to 9.1 million units), including a 50.1% increase in menthol-flavored cartridge sales (from 5.9 million units to 8.8 million units). As of October 31, 2021, menthol flavored e-cigarettes sales accounted for 40.3% of the overall e-cigarette market and 62.1% 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 – 10/31/2021*

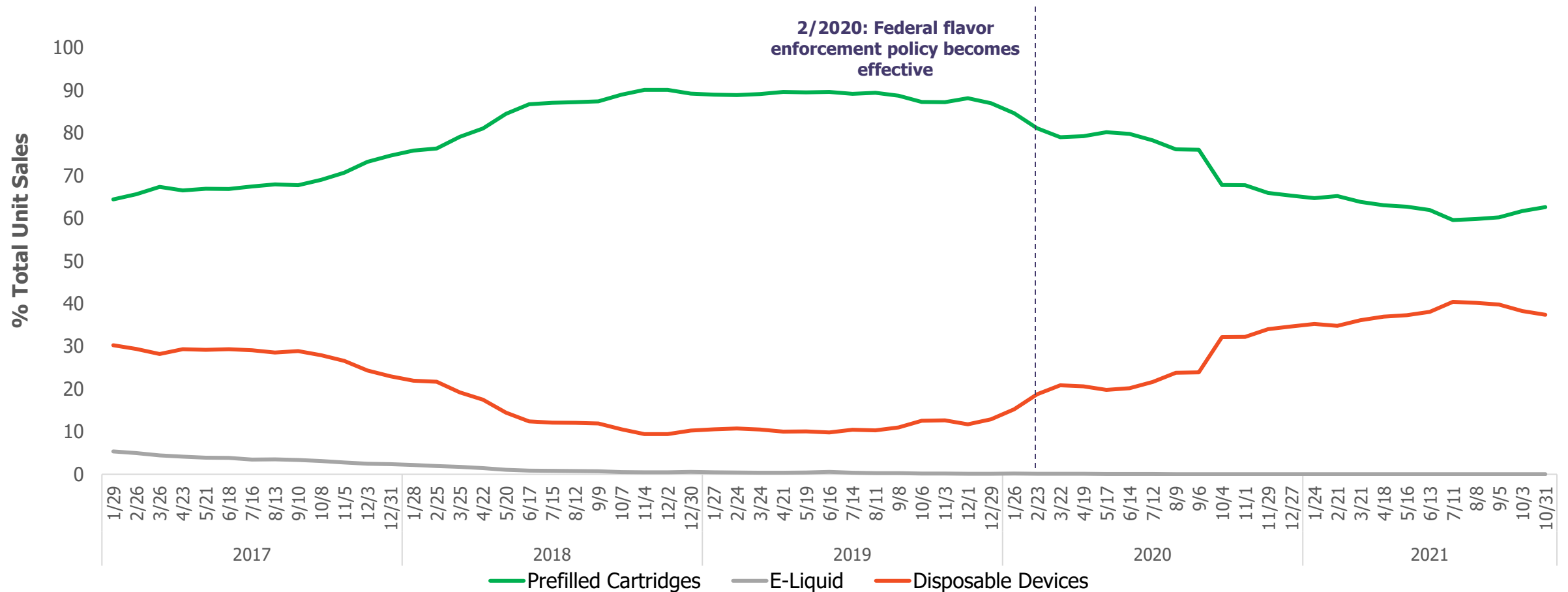


*Sales data does not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories 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 October 31, 2021, total monthly e-cigarette unit sales increased by 53.3% to 22.7 million units.
- From February 23, 2020 to October 31, 2021, sales of non-tobacco flavored e-cigarettes (mint, menthol and other flavors) increased by 73.5% (from 9.7 million to 16.9 million).
- From February 23, 2020 to October 31, 2021:
 - Menthol-flavored e-cigarette sales increased by 43.7% (from 6.4 million to 9.1 million); market share decreased from 43.0% to 40.3%.
 - Tobacco-flavored e-cigarette sales increased by 14.6% (from 5.1 million to 5.8 million); market share decreased from 34.3% to 25.7%.
 - Mint-flavored e-cigarette sales increased by 33.1% (from 0.7 million to 0.9 million); market share decreased from 4.4% to 3.9%.
 - All other-flavored e-cigarette sales increased by 153.6% (from 2.7 million to 6.9 million); market share increased from 18.3% to 30.2%.
- From September 5, 2021 to October 31, 2021, e-cigarette sales declined by 5.7% (from 24.1 million units to 22.7 million units).

Figure 2. National E-Cigarette Unit Sales by Product Type, 4 Week Estimates 1/2017 – 10/31/2021*



*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 October 31, 2021:
 - Sales of disposable devices increased by 205.2% (from 2.8 million to 8.5 million); market share increased from 18.8% to 37.4%.
 - Sales of prefilled cartridges increased by 18.3% (from 12.0 million to 14.2 million); market share decreased from 81.1% to 62.6%.

Figure 3. National E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 1/2017 – 10/31/2021

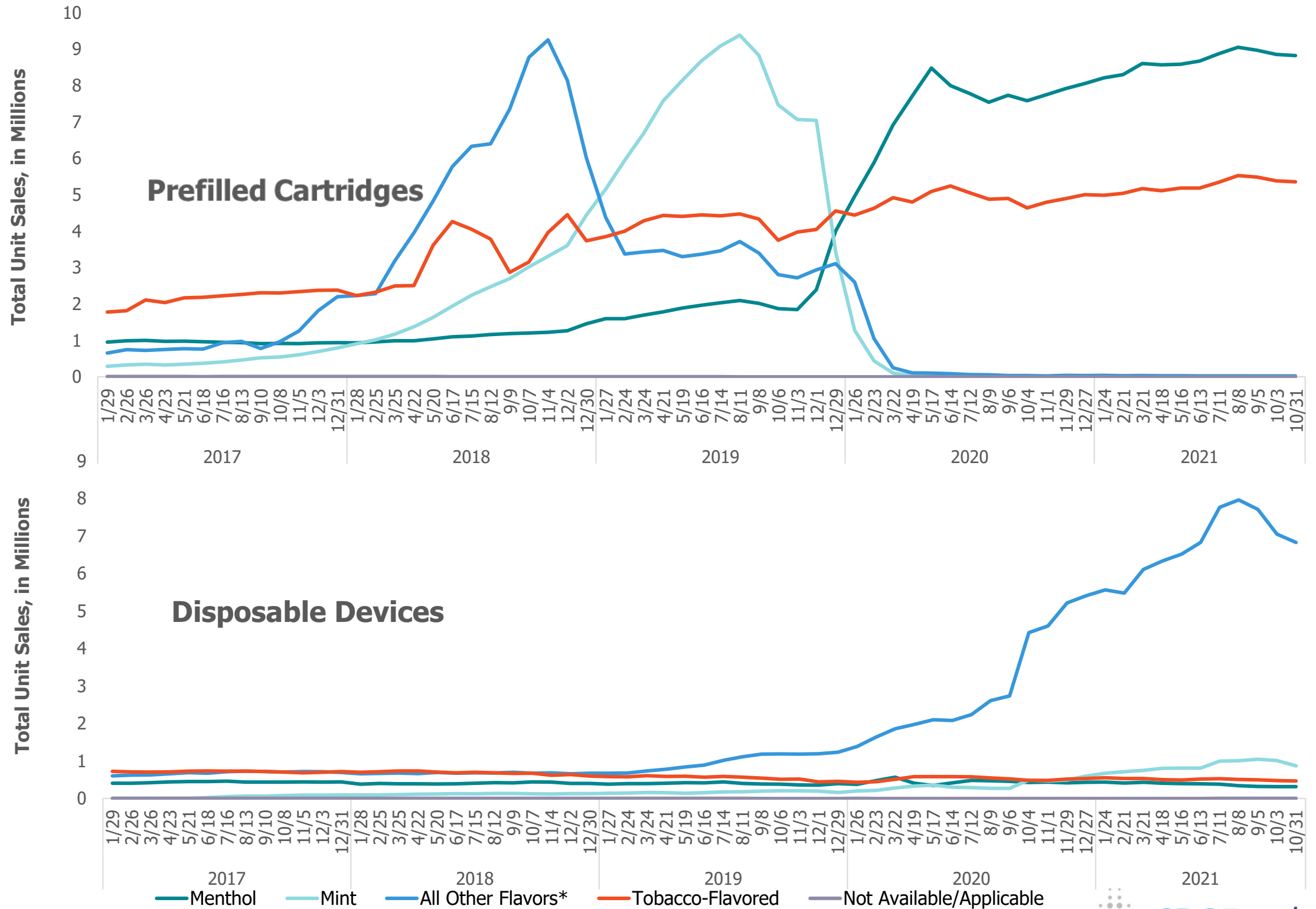


Figure 4. National E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 1/2017 – 10/31/2021

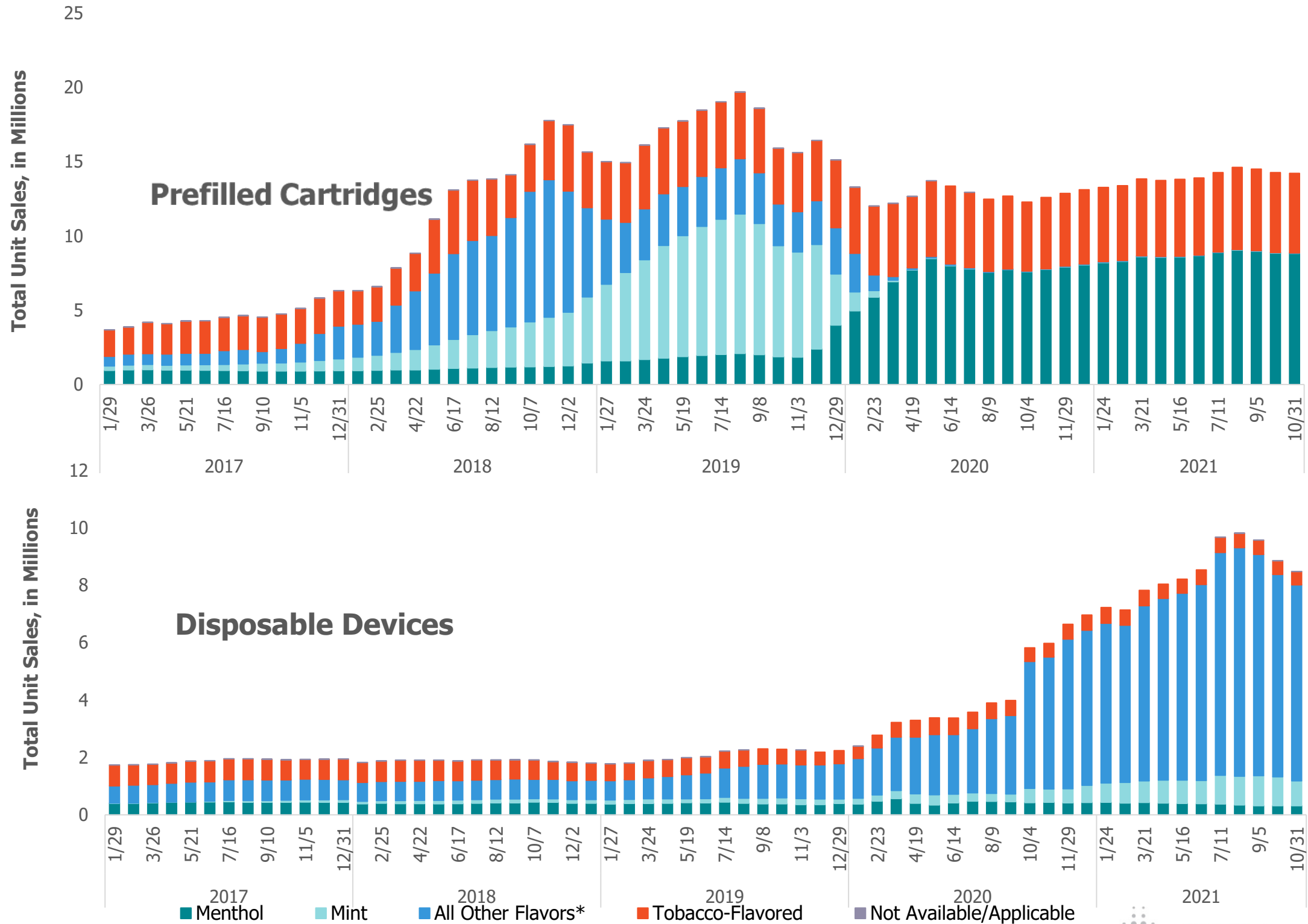
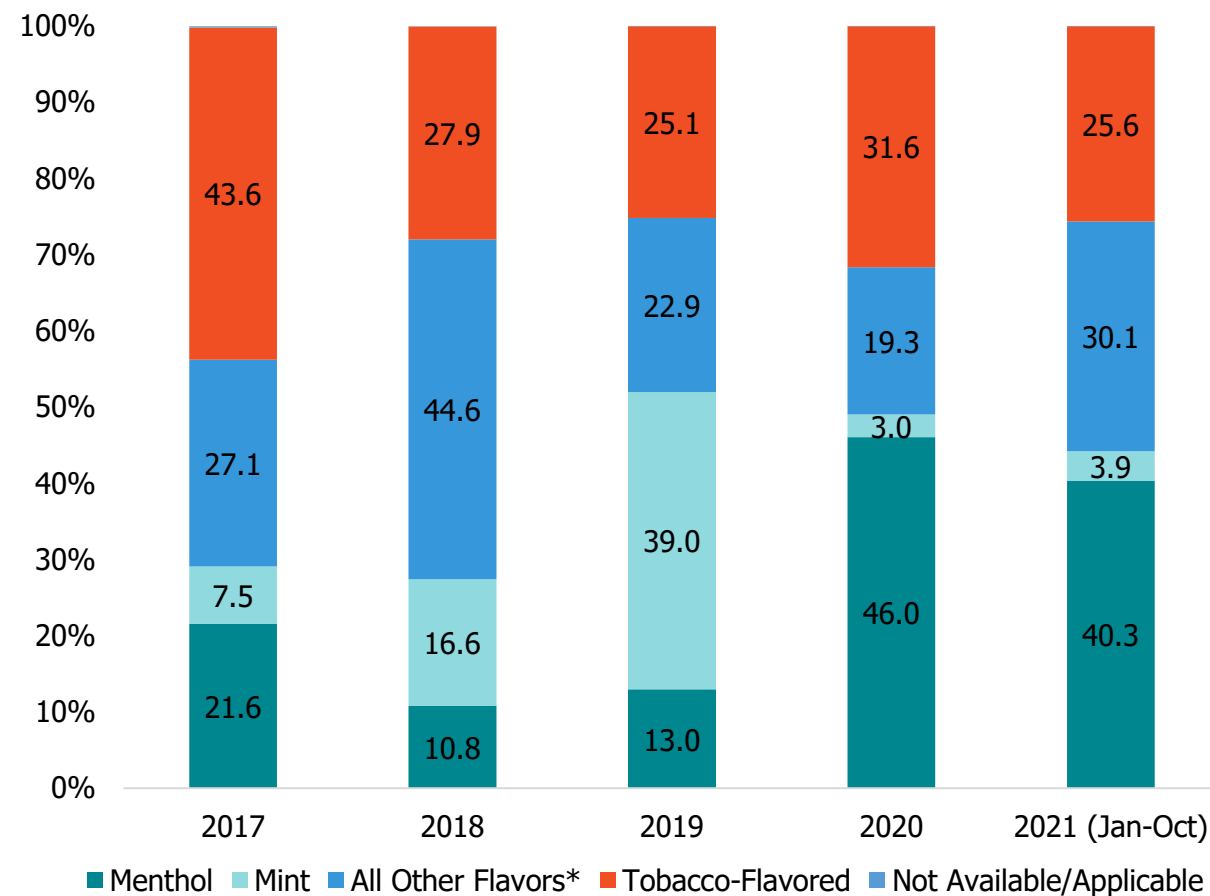


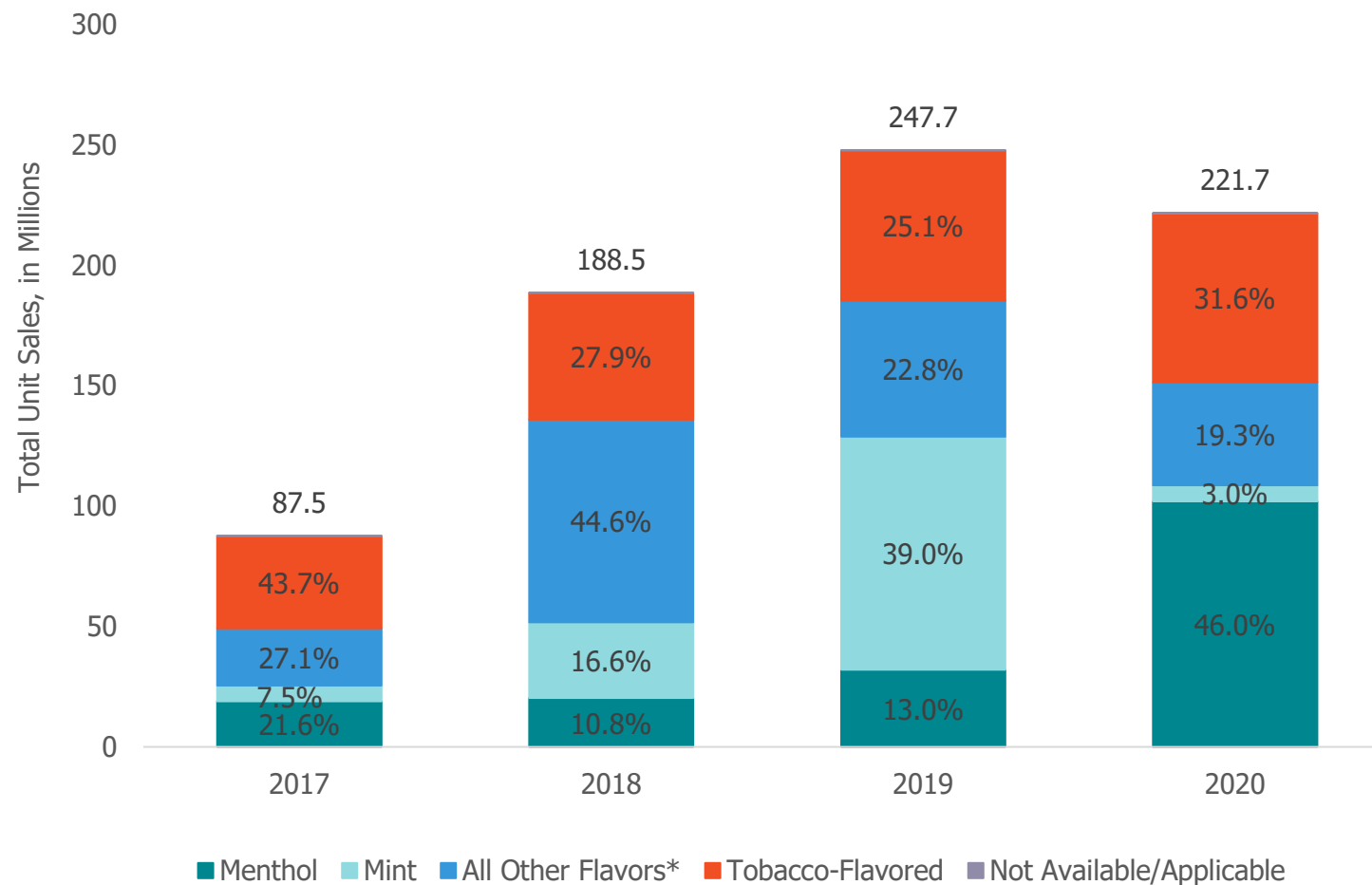
Figure 5. Market Share of National E-Cigarette Unit Sales by Flavor, Annual Estimates 2017 – 10/31/2021*



*Sales data does not reflect sales from vape shops or online retailers; dates for all years, except 2021, include sales from January through December; data for 2021 include sales from January through October 31st; 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-October 31, 2021)

- From 2020 to October 31, 2021:
 - Market share of menthol-flavored e-cigarette sales decreased from 46.0% to 40.3%;
 - Market share of tobacco-flavored e-cigarette sales decreased from 31.6% to 25.6%;
 - Market share of mint-flavored e-cigarette sales increased from 3.0% to 3.9%; and
 - All other-flavored e-cigarette sales increased from 19.3% to 30.1%.

Figure 6. Market Share of National E-Cigarette Unit Sales by Flavor, Annual Estimates 2017-2020*

*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 (2019-2020)

- From 2019 to 2020:
 - Annual total e-cigarette unit sales decreased by 10.5% (from 247.7 million to 221.7 million units);
 - Market share of menthol-flavored e-cigarettes increased from 13.0% to 46.0%;
 - Market share of tobacco-flavored e-cigarettes increased from 25.1% to 31.6%;
 - Market share of mint-flavored e-cigarette sales decreased from 39.0% to 3.0%; and
 - All other-flavored e-cigarette sales decreased from 22.8% to 19.3%.