



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

This brief report highlights trends in national e-cigarette sales from January 2018 through February 2022.

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

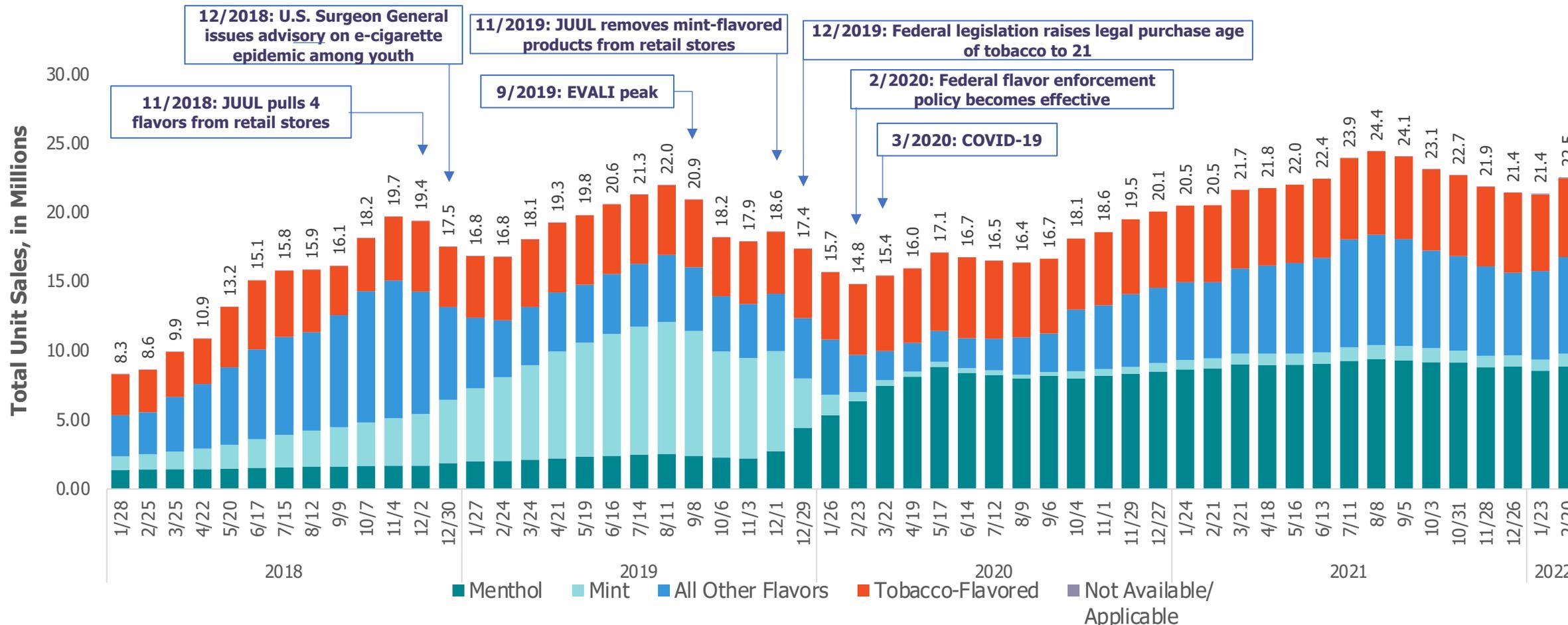
- **Total e-cigarettes:**
 - Annual total e-cigarette unit sales increased by 31.1% from 2020 to 2021, and by 231.2% from 2017 to 2021.
 - From February 23, 2020, to February 20, 2022, total e-cigarette unit sales increased by 52.3% (from 14.8 million units to 22.5 million units). During this period, sales of non-tobacco flavored e-cigarettes (mint, menthol and other flavors) increased by 73.2% (from 9.7 million to 16.8 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 23, 2020, to February 20, 2022, sales of disposable e-cigarettes increased by 215.4% (from 2.8 million units to 8.8 million units). During this period, the market share of disposable devices increased from 18.8% to 38.9% of total e-cigarette sales. As of February 20, 2022, 80.2% 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 23, 2020, to February 20, 2022, overall menthol flavored e-cigarette sales increased by 39.4% (from 6.4 million to 8.9 million units), including a 45.2% increase in menthol-flavored cartridge sales (from 5.9 million units to 8.5 million units). As of February 20, 2022, menthol flavored e-cigarettes sales accounted for 39.3% of the overall e-cigarette market and 62.0% 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 01/28/2018 – 02/20/2022*

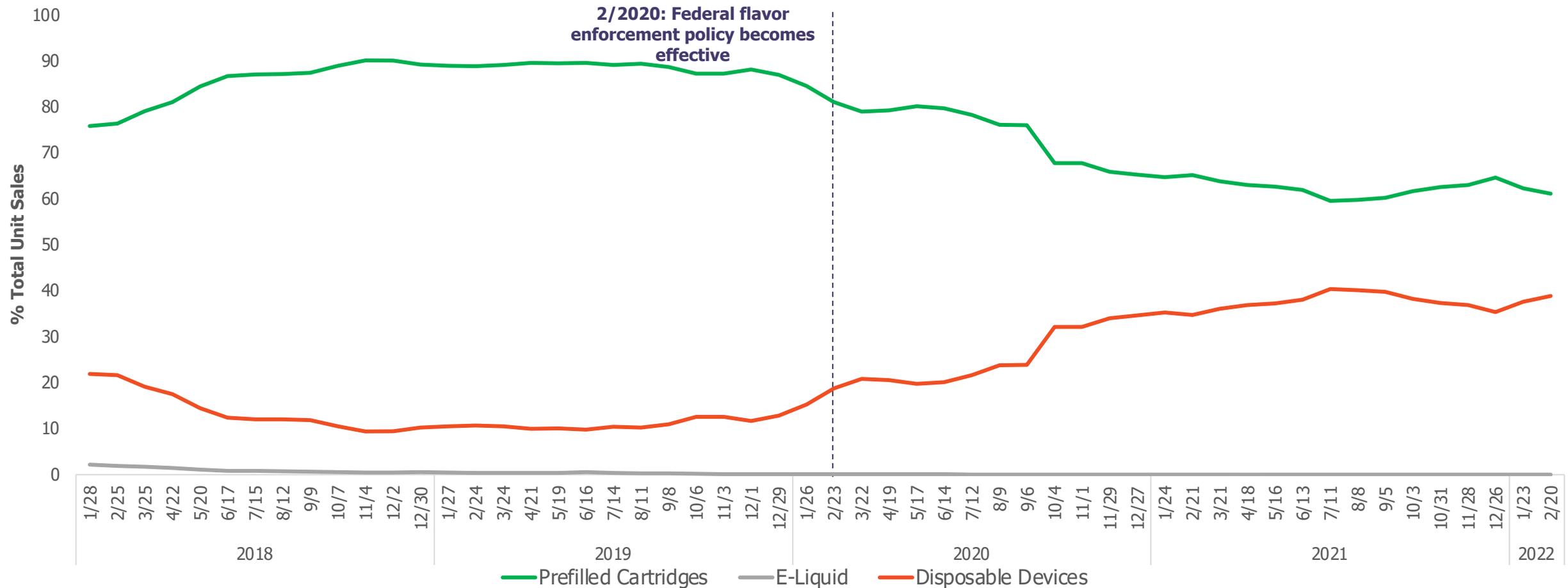


*Sales data does not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories 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 February 20, 2022, total monthly e-cigarette unit sales increased by 52.3% to 22.5 million units.
- From February 23, 2020, to February 20, 2022, sales of non-tobacco flavored e-cigarettes (mint, menthol and other flavors) increased by 73.2% (from 9.7 million to 16.8 million).
- From February 23, 2020, to February 20, 2022:
 - Menthol-flavored e-cigarette sales increased by 39.4% (from 6.4 million to 8.9 million); market share decreased from 43.0% to 39.3%.
 - Tobacco-flavored e-cigarette sales increased by 11.9% (from 5.1 million to 5.7 million); market share decreased from 34.3% to 25.2%.
 - Mint-flavored e-cigarette sales increased by 41.3% (from 0.7 million to 0.9 million); market share decreased from 4.4% to 4.1%.
 - All other-flavored e-cigarette sales increased by 160.3% (from 2.7 million to 7.0 million); market share increased from 18.3% to 31.2%.
- From September 5, 2021, to February 20, 2022, e-cigarette sales declined by 6.3% (from 24.1 million units to 22.5 million units).

Figure 2. National E-Cigarette Unit Sales by Product Type, 4 Week Estimates 01/28/2018 – 02/20/2022*



*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 February 20, 2022:
 - Sales of disposable devices increased by 215.4% (from 2.8 million to 8.8 million); market share increased from 18.8% to 38.9%.
 - Sales of prefilled cartridges increased by 14.8% (from 12.0 million to 13.8 million); market share decreased from 81.1% to 61.1%.

**Figure 3. National E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates
01/28/2018 – 02/20/2022**

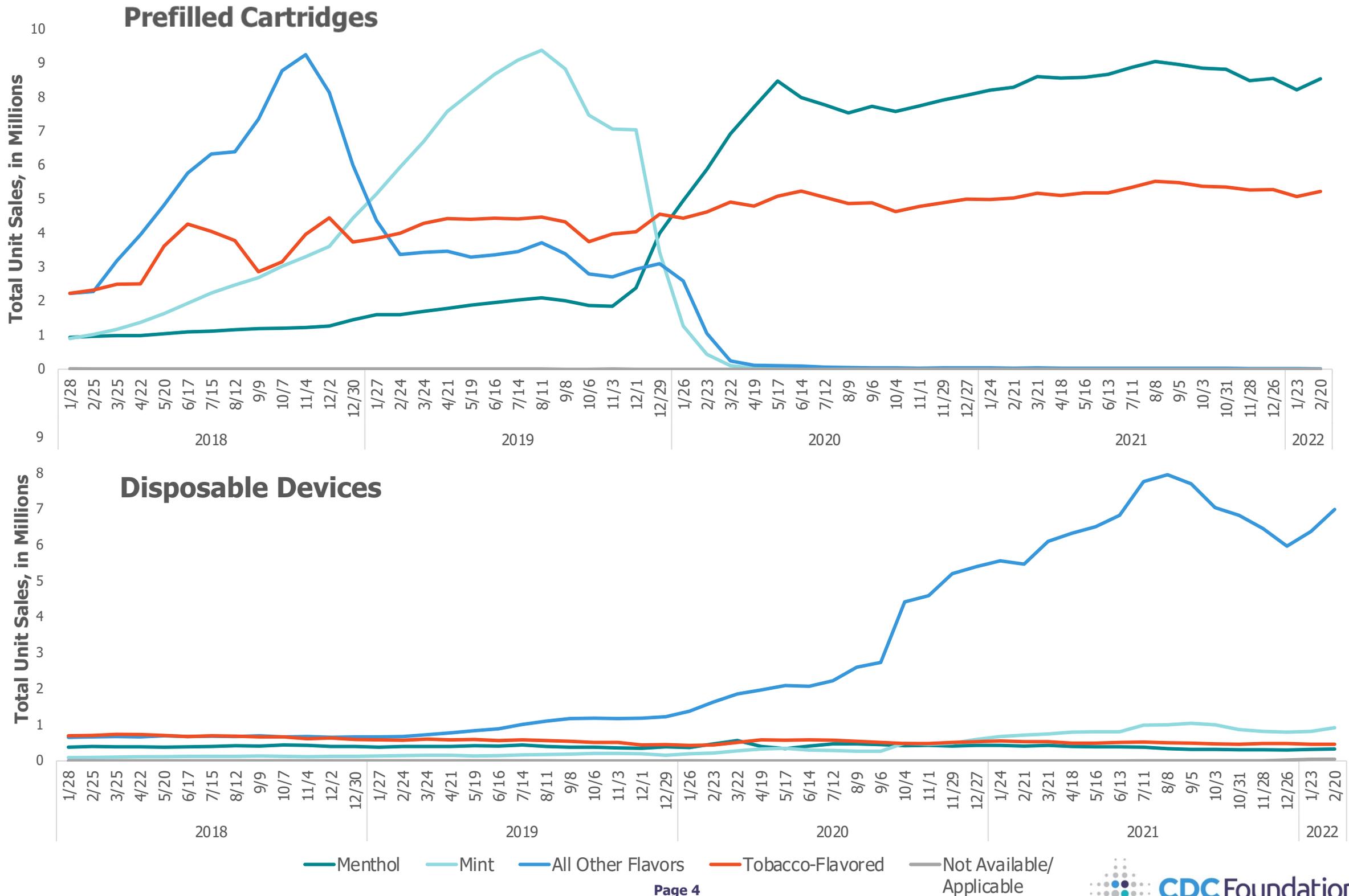
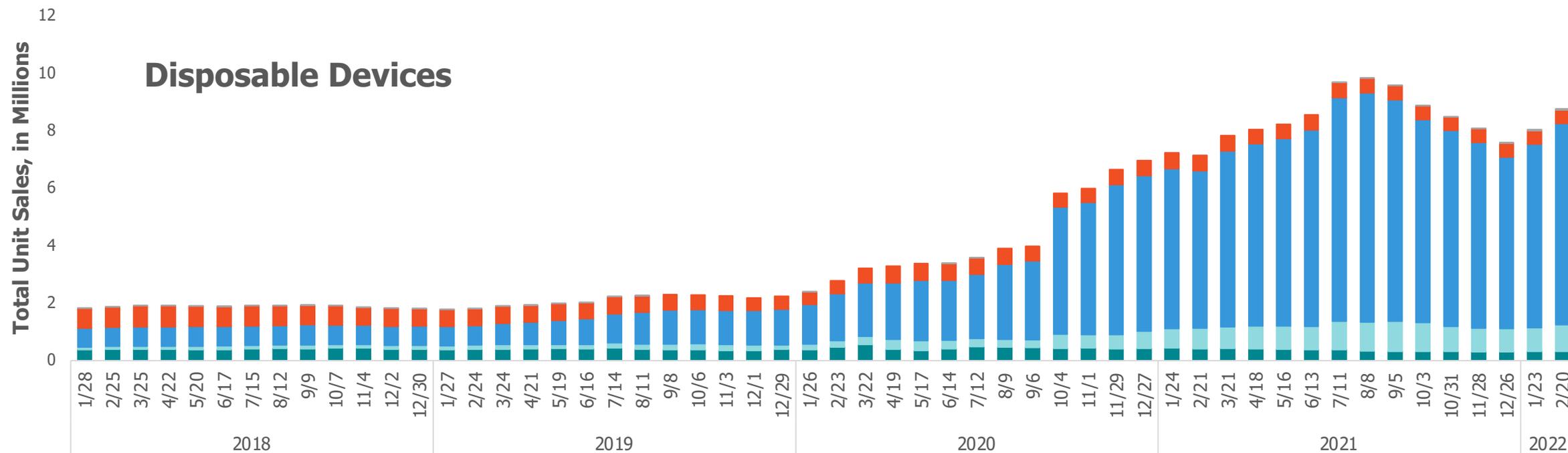
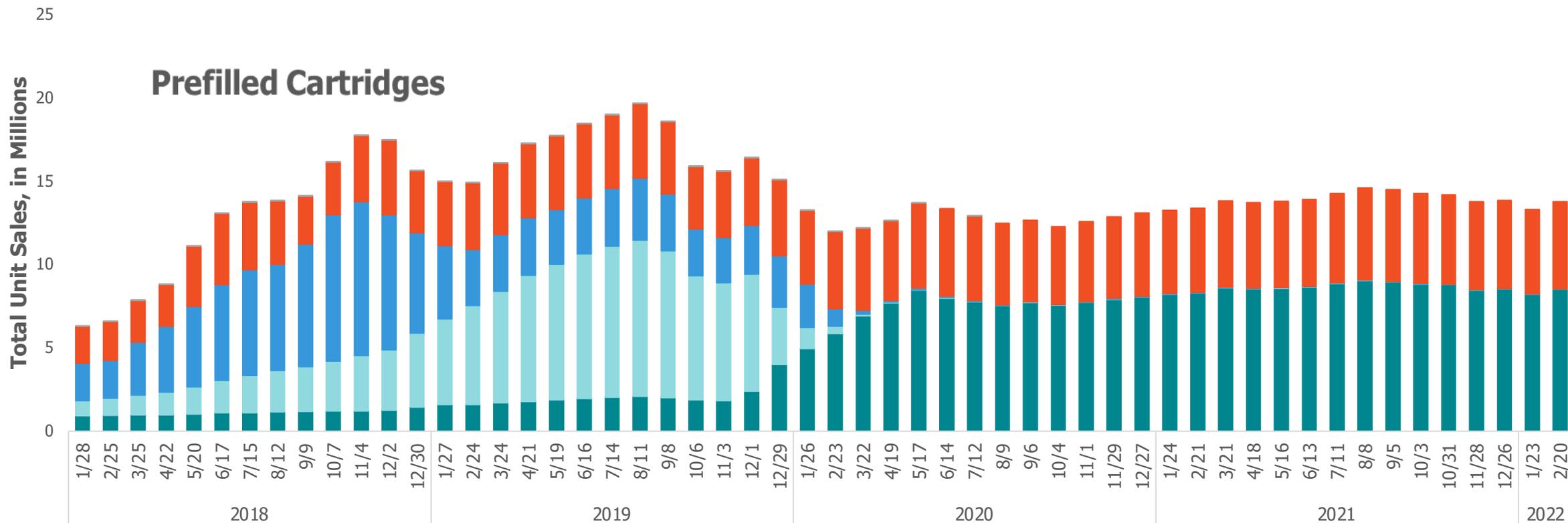


Figure 4. National E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 01/28/2018 – 02/20/2022

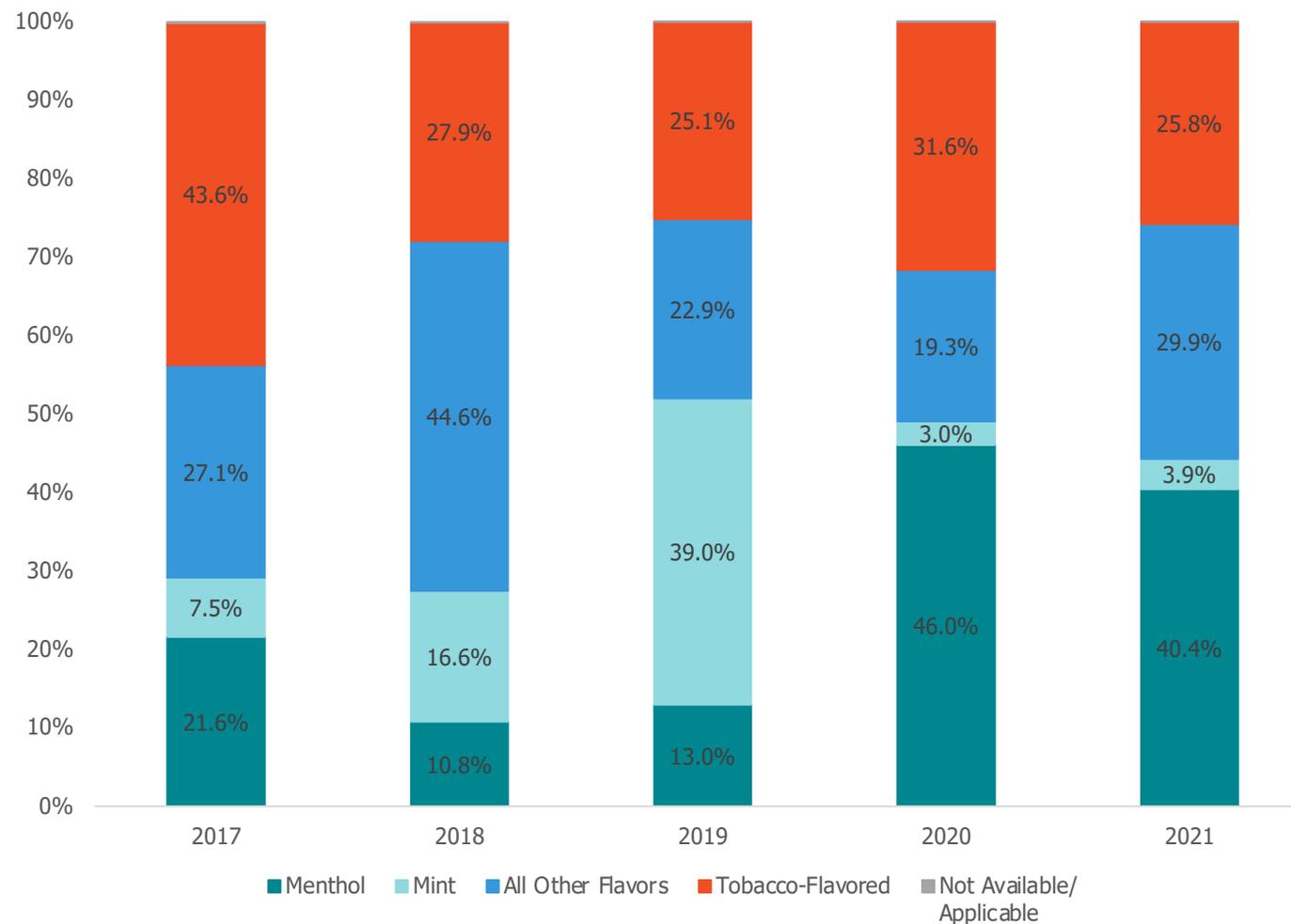


■ Menthol
 ■ Mint
 ■ All Other Flavors
 ■ Tobacco-Flavored
 ■ Not Available/ Applicable

All estimates and analyses in this data brief based on Information Resources, Inc., Multi-Outlet + Convenience data are by the author and not by Information Resources, Inc. Financial support was provided by Bloomberg Philanthropies through a grant to the CDC Foundation.



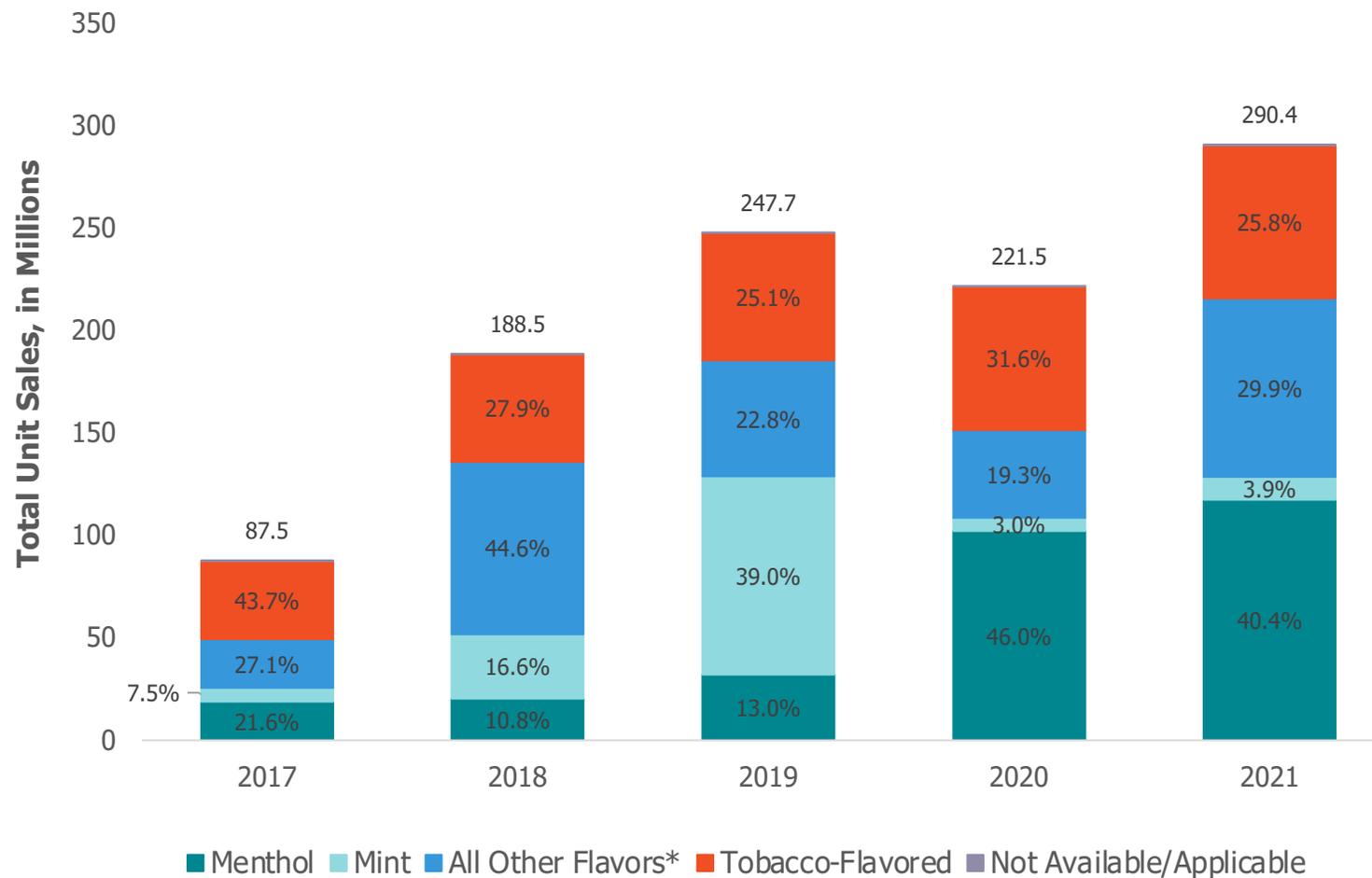
Figure 5. Market Share of National E-Cigarette Unit Sales by Flavor, Annual Estimates 2017 – 2021*



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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 other-flavored e-cigarette sales increased from 19.3% to 29.9%.

Figure 6. 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:
 - Annual total e-cigarette unit sales increased by 31.1% (from 221.5 million to 290.4 million units);
 - Market share of menthol-flavored e-cigarettes decreased from 46.0% to 40.4%;
 - Market share of tobacco-flavored e-cigarettes 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 other-flavored e-cigarette sales increased from 19.3% to 29.9%.