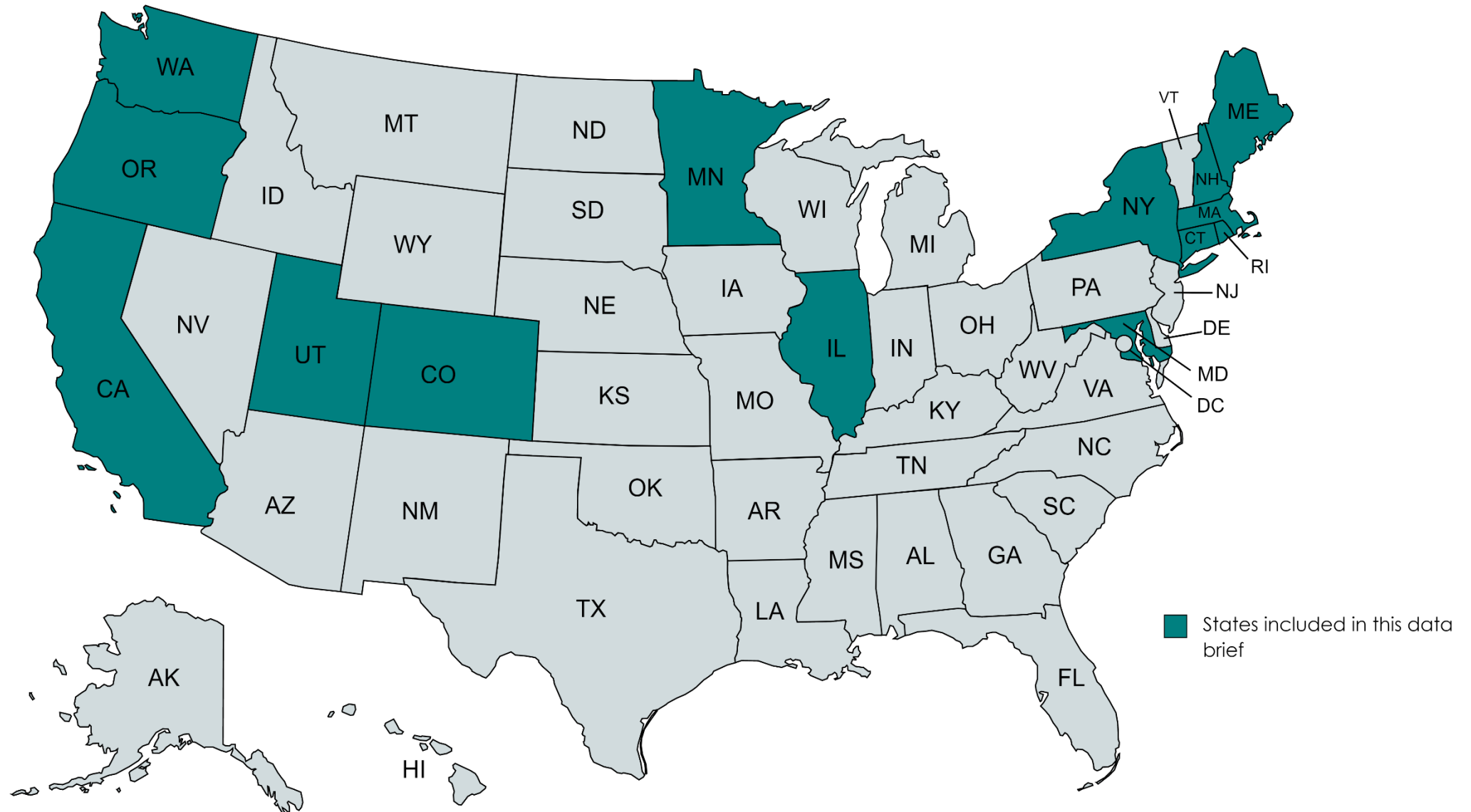


# Monitoring U.S. E-Cigarette Sales: *State Trends*

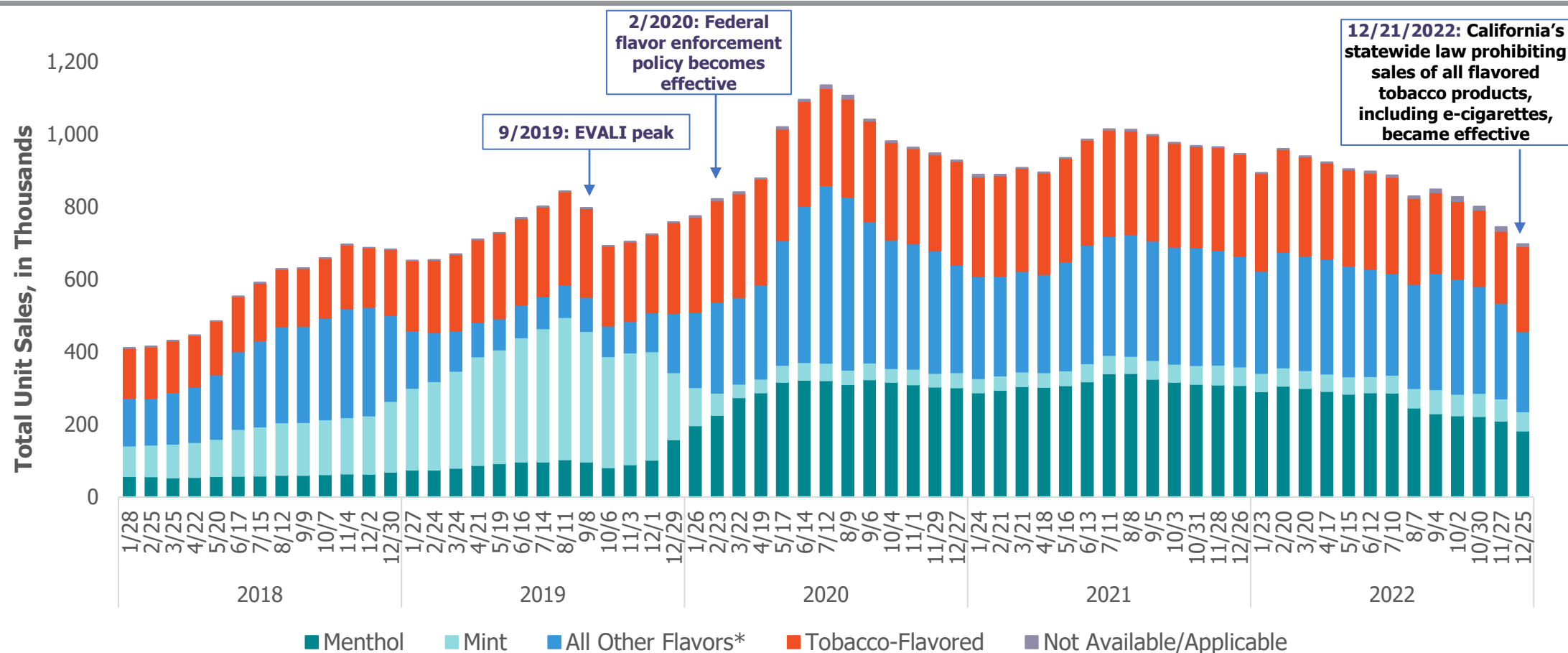
**This data brief highlights trends in e-cigarette unit sales in selected states. Data is presented from January 2018 through December 2022.**

- **Notice of Revision to Previous Data Estimates**
  - The data in this brief have been updated to capture new e-cigarette products coded by IRI. Historical sales estimates may differ from previous briefs.
- **Federal Flavor Regulatory Initiatives**
  - The U.S. Food and Drug Administration (FDA) issued an enforcement policy, effective February 2020, prohibiting the sale of flavored prefilled e-cigarette cartridges, 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 as of September 9, 2021.
  - On April 15, 2022, FDA was granted authority to regulate products containing nicotine from any source, including synthetic nicotine produced in a laboratory.
  - In April 2022, FDA issued a proposal to prohibit menthol cigarettes and flavored cigars.
- **Other 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 the period, 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.
- **State and Local Legislative Initiatives**
  - As of December 2022, five states (Massachusetts, New York, New Jersey, Rhode Island, and California) have passed laws prohibiting the sale of all non-tobacco flavored e-cigarettes and two states (Maryland, Utah) restrict the sale of some flavored e-cigarettes. In addition, over 360 local jurisdictions enacted laws that restrict the sale of flavored e-cigarettes.
  - More information about state and local policies can be found on the [Truth Initiative’s website](#).

## States Presented in the Data Brief



**Figure 1. California E-Cigarette Unit Sales by Flavor, 4 Week Estimates 1/2018 – 12/2022\***

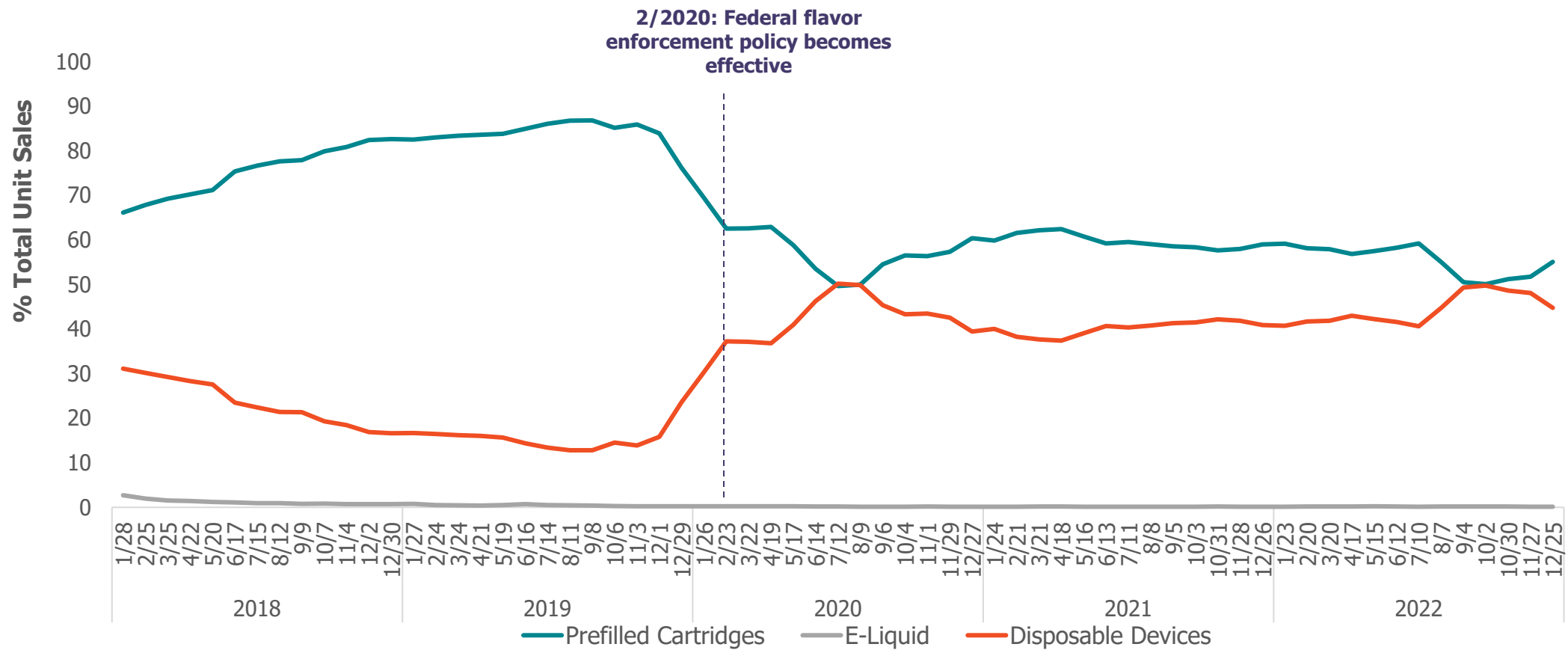


\*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories and devices sold without e-liquids were excluded (9.5% of total dollar sales in 2022).

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

- From February 23, 2020 to December 25, 2022, monthly e-cigarette unit sales decreased by 15.1% from 821.9 to 697.7 thousand units.
- From February 23, 2020 to December 25, 2022:
  - Menthol-flavored e-cigarette sales decreased by 18.9% (from 225.3 thousand to 182.7 thousand); unit share decreased from 27.4% to 26.2%.
  - Tobacco-flavored e-cigarette sales decreased by 16.1% (from 279.4 thousand to 234.5 thousand); unit share decreased from 34.0% to 33.6%.
  - Mint-flavored e-cigarette sales decreased by 14.8% (from 61.9 thousand to 52.7 thousand); unit share increased from 7.5% to 7.6%.
  - All other-flavored e-cigarette sales decreased by 11.8% (from 250.5 thousand to 221.0 thousand); unit share increased from 30.5% to 31.7%.

**Figure 2. California E-Cigarette Unit Sales by Product Type, 4 Week Estimates 1/2018 – 12/2022\***

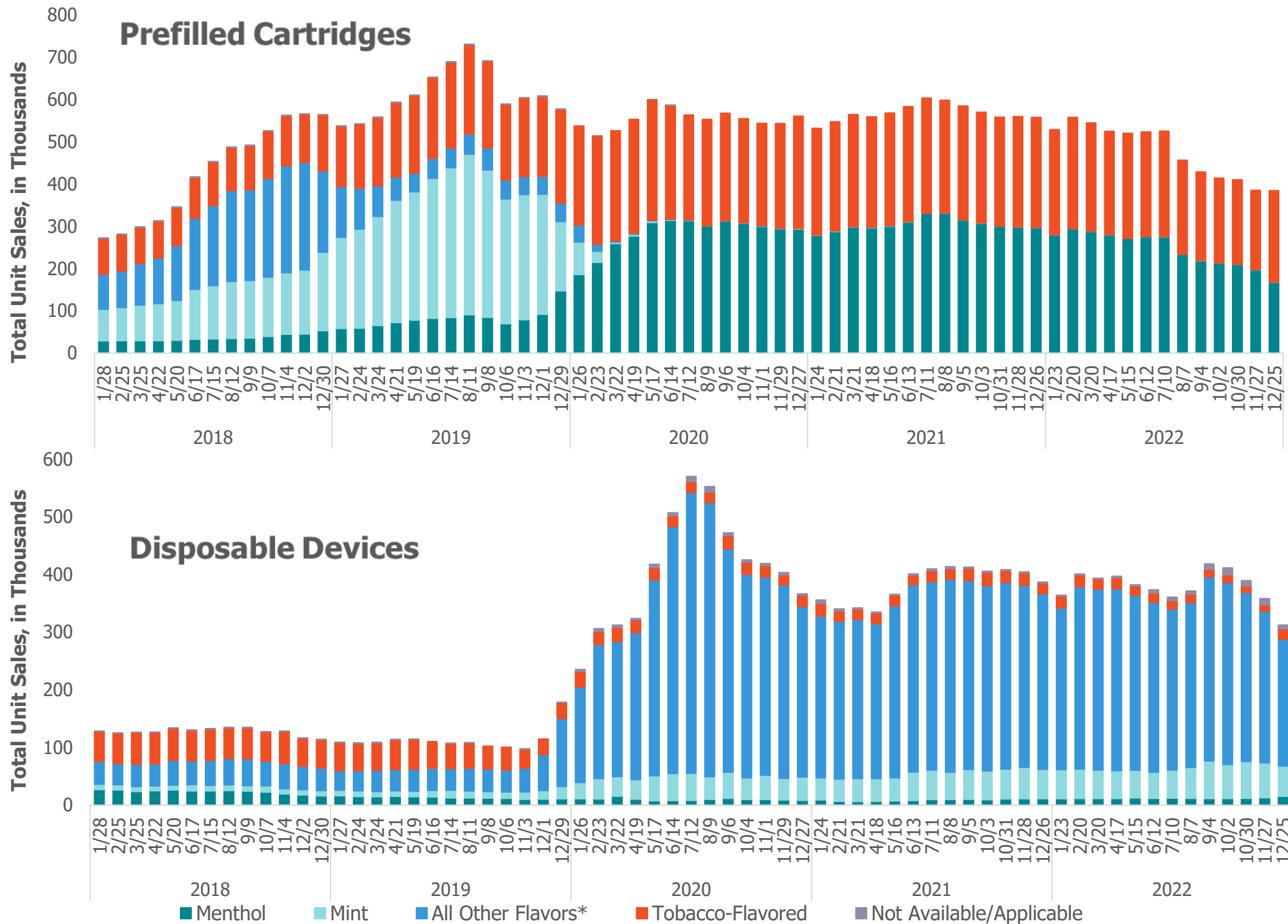


\*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; prefilled cartridges include tanks, cartridges, and pods used in rechargeable and reusable e-cigarette device; disposable devices include nonrechargeable and nonreusable e-cigarette devices that 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 contain a humectant (e.g., propylene glycol), nicotine, and flavoring.

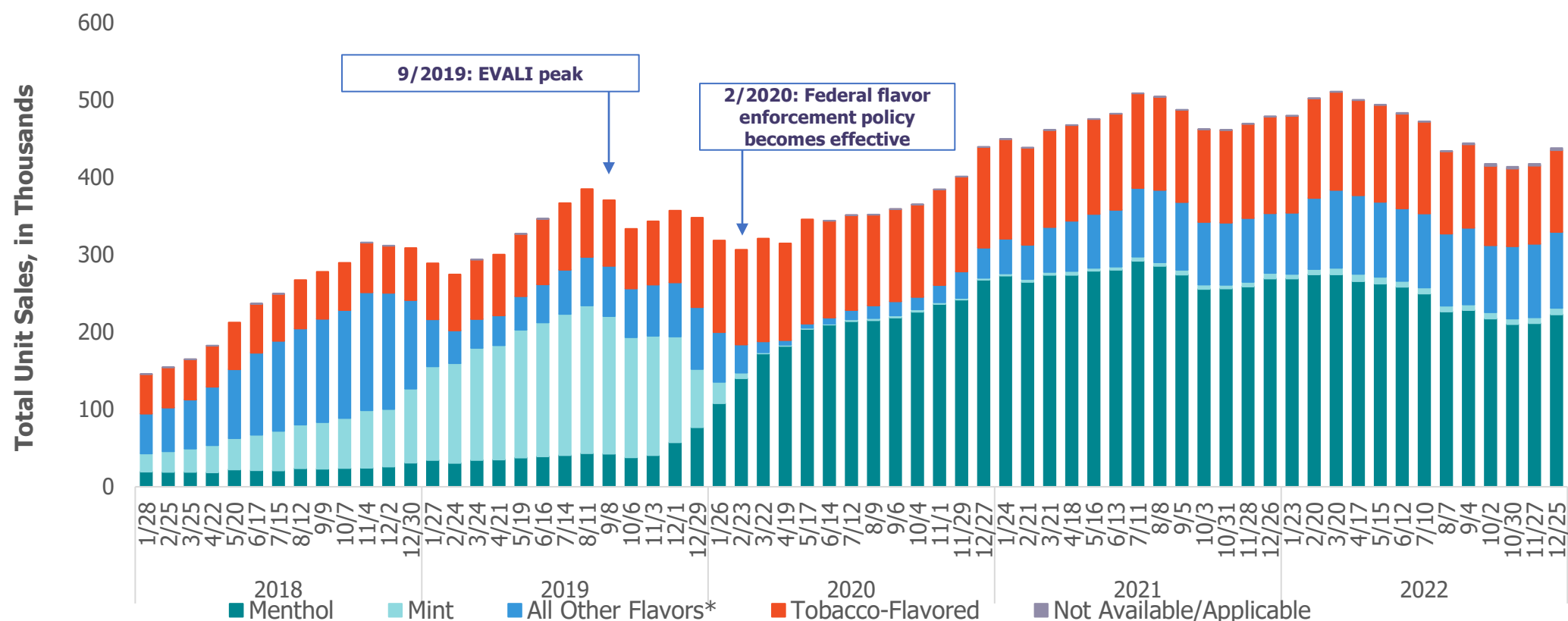
### Trends of Unit Sales by Product Following FDA’s Flavor Enforcement Policy

- 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 25, 2022:
  - Sales of disposable devices increased by 2.1% (from 306.0 thousand to 312.3 thousand); unit share increased from 37.2% to 44.8%.
  - Sales of prefilled cartridges decreased by 25.2% (from 513.9 thousand to 384.2 thousand); unit share decreased from 62.5% to 55.1%.

**Figure 3. California E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 1/2018 – 12/2022**



**Figure 4. Colorado E-Cigarette Unit Sales by Flavor, 4 Week Estimates 1/2018 – 12/2022\***

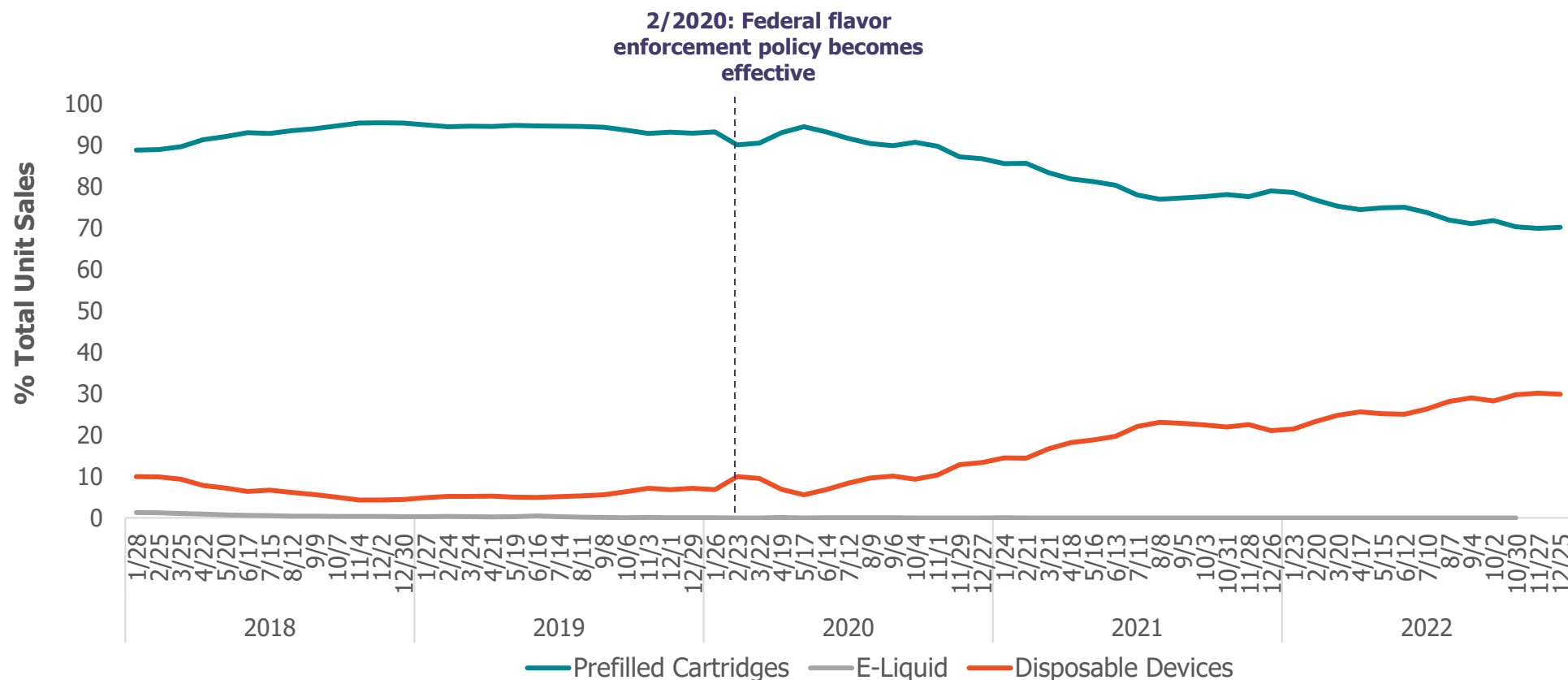


\*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories and devices sold without e-liquids were excluded (9.5% of total dollar sales in 2022).

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

- From February 23, 2020 to December 25, 2022, monthly e-cigarette unit sales increased by 42.8% from 306.7 to 438.0 thousand units.
- From February 23, 2020 to December 25, 2022:
  - Menthol-flavored e-cigarette sales increased by 58.9% (from 140.2 thousand to 222.8 thousand); unit share increased from 45.7% to 50.9%.
  - Tobacco-flavored e-cigarette sales decreased by 13.9% (from 122.9 thousand to 105.7 thousand); unit share decreased from 40.1% to 24.1%.
  - Mint-flavored e-cigarette sales increased by 12.4% (from 7.5 thousand to 8.4 thousand); unit share decreased from 2.4% to 1.9%.
  - All other-flavored e-cigarette sales increased by 171.5% (from 36.2 thousand to 98.3 thousand); unit share increased from 11.8% to 22.4%.

**Figure 5. Colorado E-Cigarette Unit Sales by Product Type, 4 Week Estimates 1/2018 – 12/2022\***

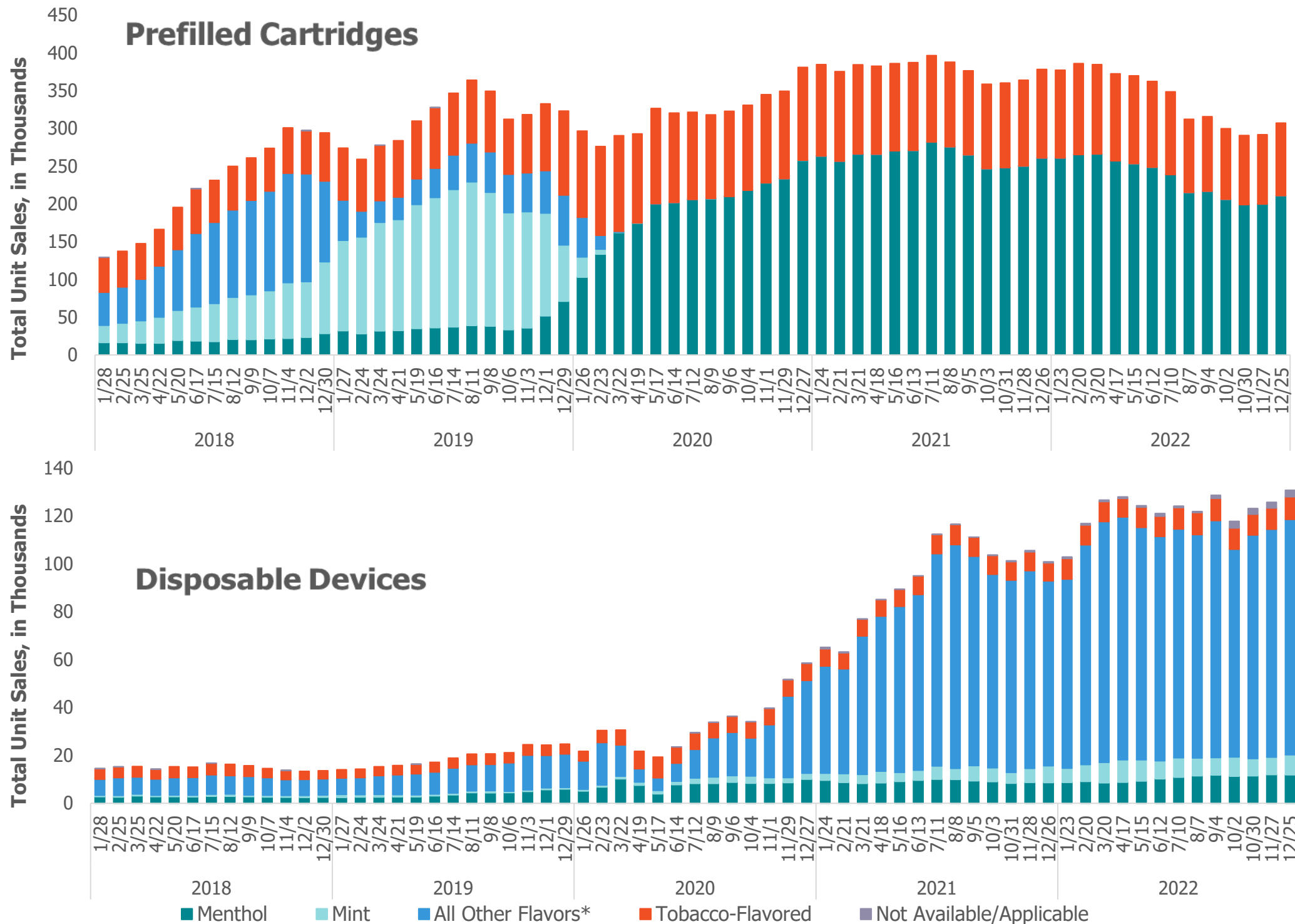


\*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; prefilled cartridges include tanks, cartridges, and pods used in rechargeable and reusable e-cigarette device; disposable devices include nonrechargeable and nonreusable e-cigarette devices that 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 contain a humectant (e.g., propylene glycol), nicotine, and flavoring.

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

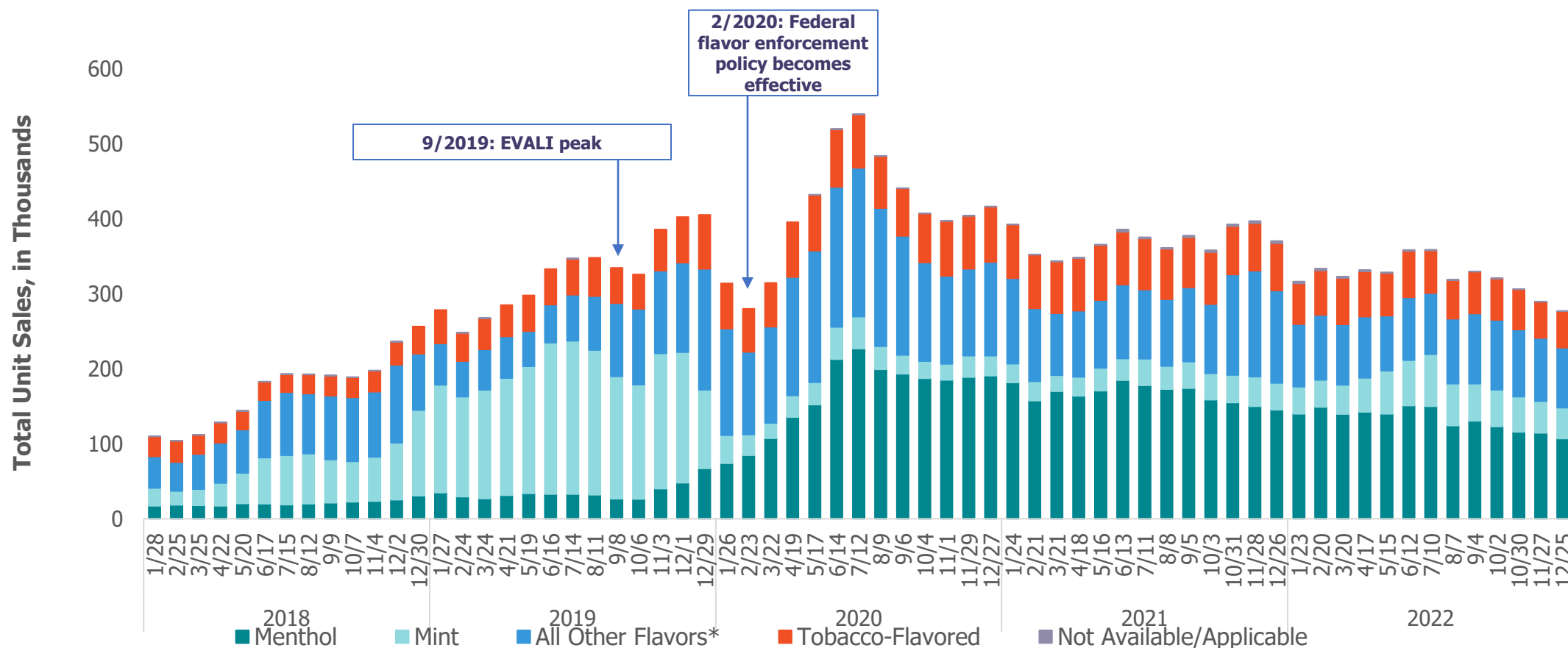
- Following FDA’s flavor enforcement policy, which prohibited the sale of flavored prefilled cartridges but exempted disposable devices and menthol and tobacco prefilled cartridges, between February 23, 2020 and December 25, 2022:
  - Sales of disposable devices increased by 329.1% (from 30.5 thousand to 130.8 thousand); unit share increased from 9.9% to 29.9%.
  - Sales of prefilled cartridges increased by 11.2% (from 276.2 thousand to 307.2 thousand); unit share decreased from 90.1% to 70.1%.

**Figure 6. Colorado E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 1/2018 – 12/2022**





**Figure 7. Connecticut E-Cigarette Unit Sales by Flavor, 4 Week Estimates 1/2018 – 12/2022\***

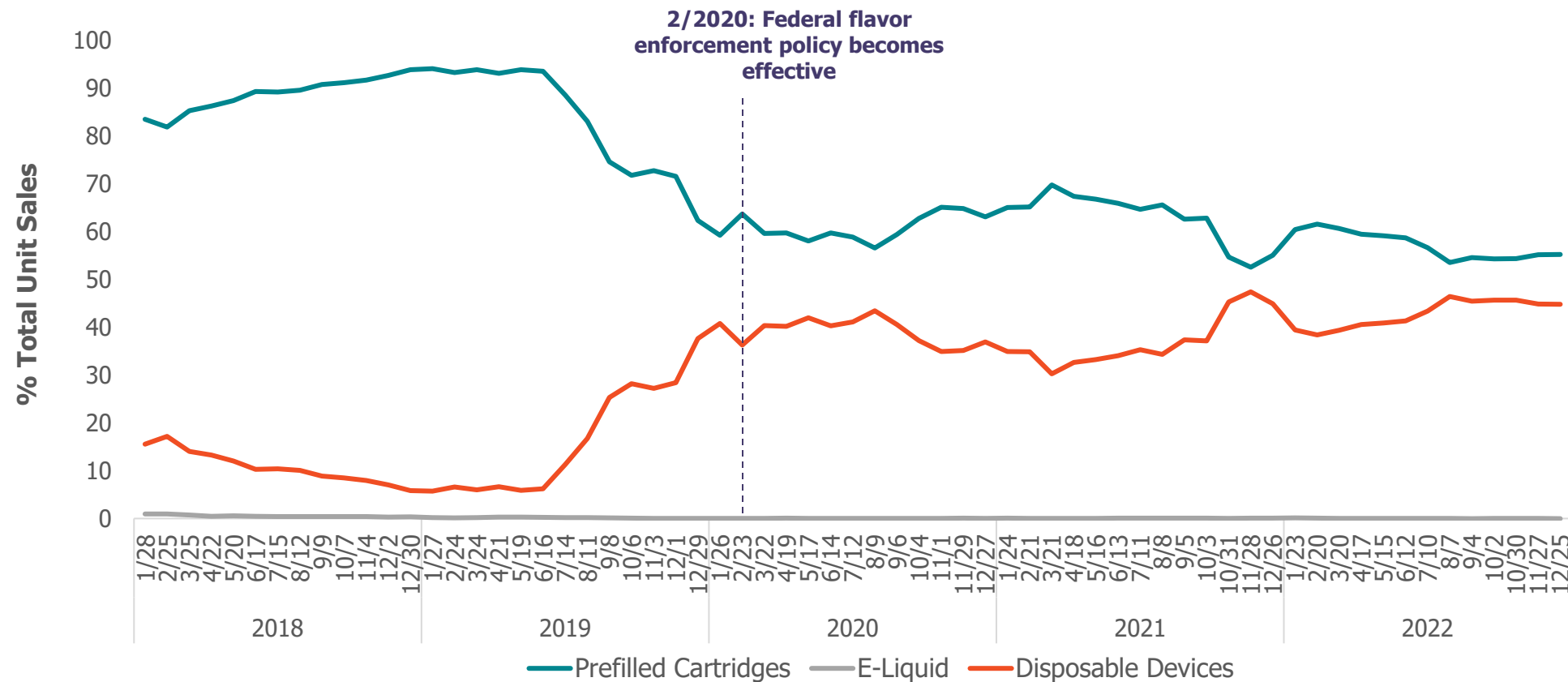


\*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories and devices sold without e-liquids were excluded (9.5% of total dollar sales in 2022).

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

- From February 23, 2020 to December 25, 2022, monthly e-cigarette unit sales decreased by 1.0% from 279.9 to 277.0 thousand units.
- From February 23, 2020 to December 25, 2022:
  - Menthol-flavored e-cigarette sales increased by 26.3% (from 84.7 thousand to 107.0 thousand); unit share increased from 30.3% to 38.6%.
  - Tobacco-flavored e-cigarette sales decreased by 15.4% (from 57.4 thousand to 48.6 thousand); unit share decreased from 20.5% to 17.5%.
  - Mint-flavored e-cigarette sales increased by 48.3% (from 27.7 thousand to 41.1 thousand); unit share increased from 9.9% to 14.9%.
  - All other-flavored e-cigarette sales decreased by 27.2% (from 110.0 thousand to 80.1 thousand); unit share decreased from 39.3% to 28.9%.

**Figure 8. Connecticut E-Cigarette Unit Sales by Product Type, 4 Week Estimates 1/2018 – 12/2022\***

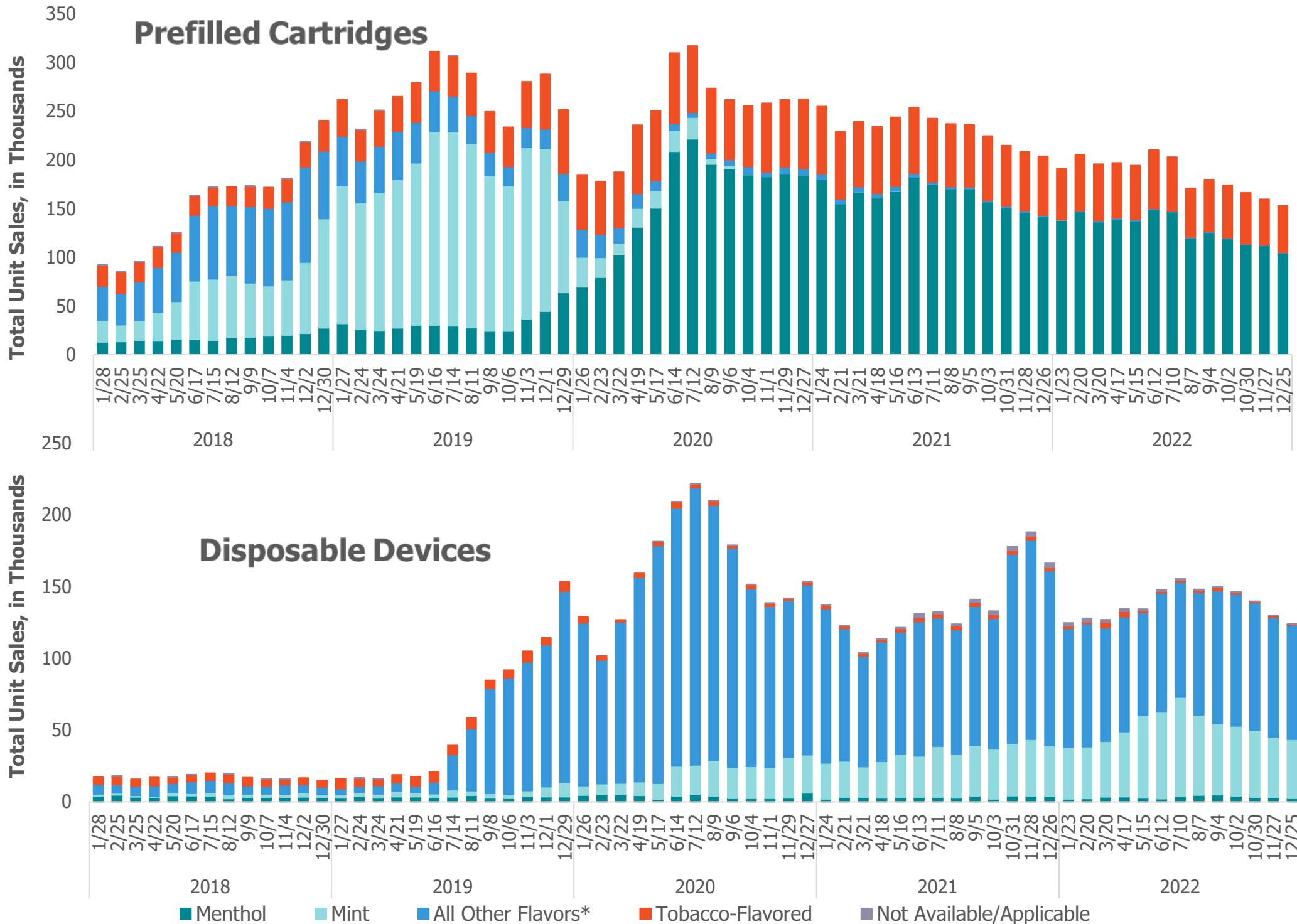


\*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; prefilled cartridges include tanks, cartridges, and pods used in rechargeable and reusable e-cigarette device; disposable devices include nonrechargeable and nonreusable e-cigarette devices that 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 contain a humectant (e.g., propylene glycol), nicotine, and flavoring.

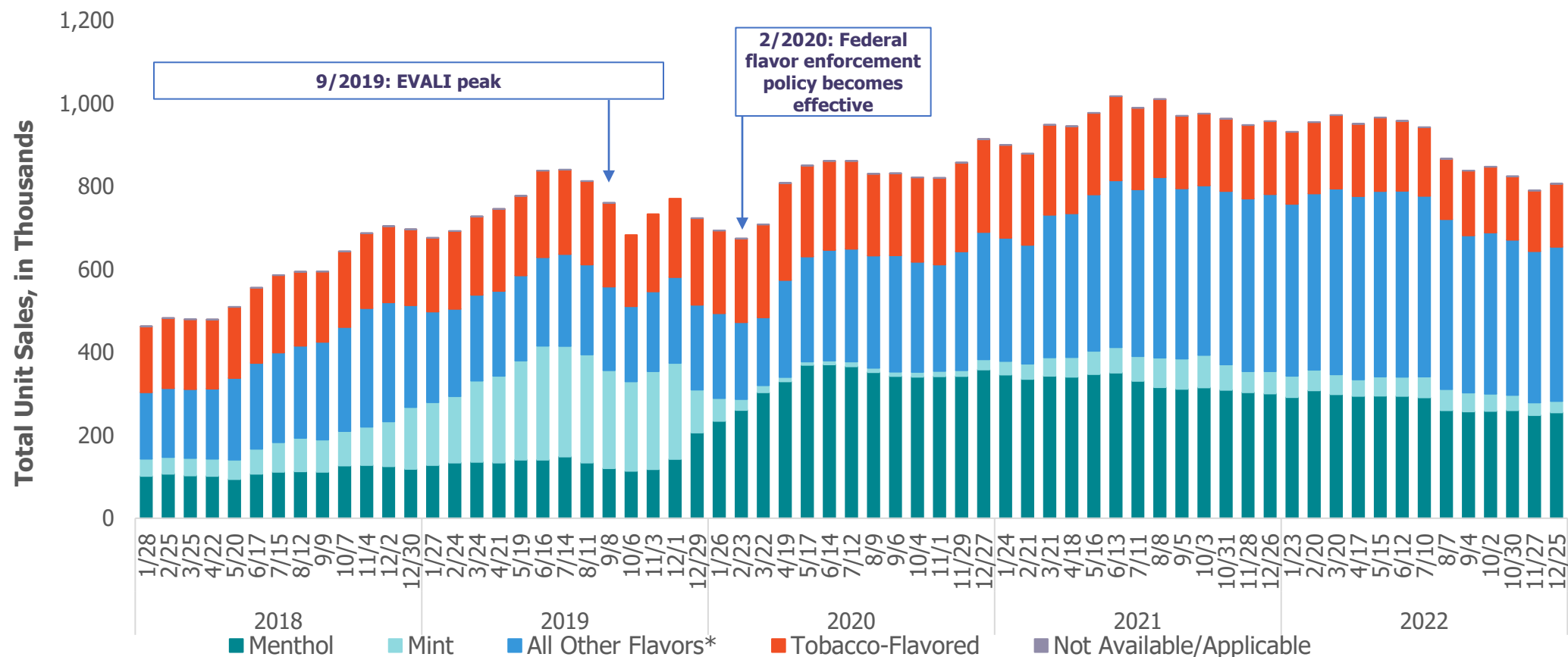
**Trends of Unit Sales by Product Following FDA’s Flavor Enforcement Policy**

- 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 25, 2022:
  - Sales of disposable devices increased by 22.1% (from 101.7 thousand to 124.1 thousand); unit share increased from 36.3% to 44.8%.
  - Sales of prefilled cartridges decreased by 14.2% (from 178.1 thousand to 152.9 thousand); unit share decreased from 63.7% to 55.2%.

**Figure 9. Connecticut E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 1/2018 – 12/2022**



**Figure 10. Illinois E-Cigarette Unit Sales by Flavor, 4 Week Estimates 1/2018 – 12/2022\***

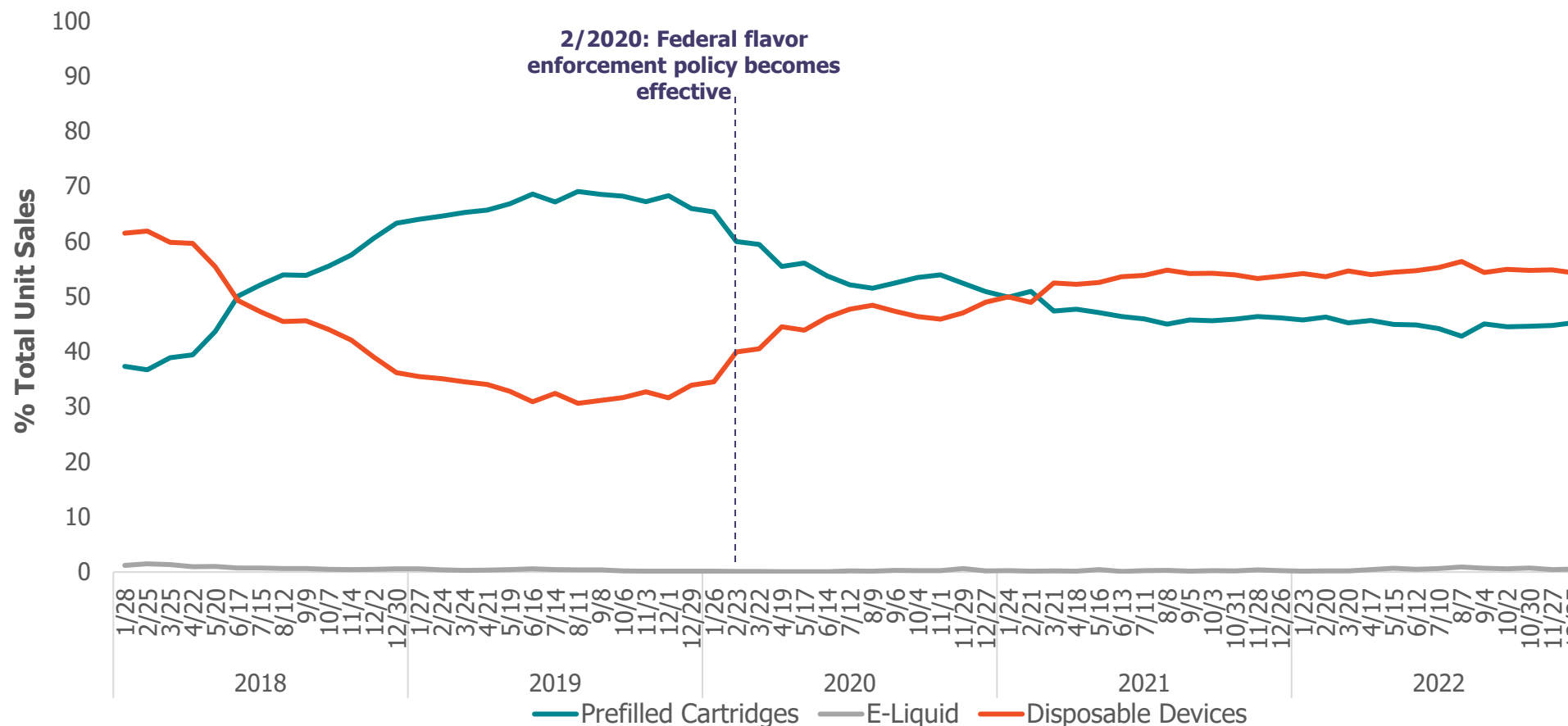


\*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories and devices sold without e-liquids were excluded (9.5% of total dollar sales in 2022).

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

- From February 23, 2020 to December 25, 2022, monthly e-cigarette unit sales increased by 19.6% from 673.7 to 805.8 thousand units.
- From February 23, 2020 to December 25, 2022:
  - Menthol-flavored e-cigarette sales decreased by 2.2% (from 260.8 thousand to 255.0 thousand); unit share decreased from 38.7% to 31.7%.
  - Tobacco-flavored e-cigarette sales decreased by 24.6% (from 201.4 thousand to 151.8 thousand); unit share decreased from 29.9% to 18.8%.
  - Mint-flavored e-cigarette sales increased by 4.2% (from 26.2 thousand to 27.3 thousand); unit share decreased from 3.9% to 3.4%.
  - All other-flavored e-cigarette sales increased by 100.5% (from 185.2 thousand to 371.4 thousand); unit share increased from 27.5% to 46.1%.

**Figure 11. Illinois E-Cigarette Unit Sales by Product Type, 4 Week Estimates 1/2018 – 12/2022\***

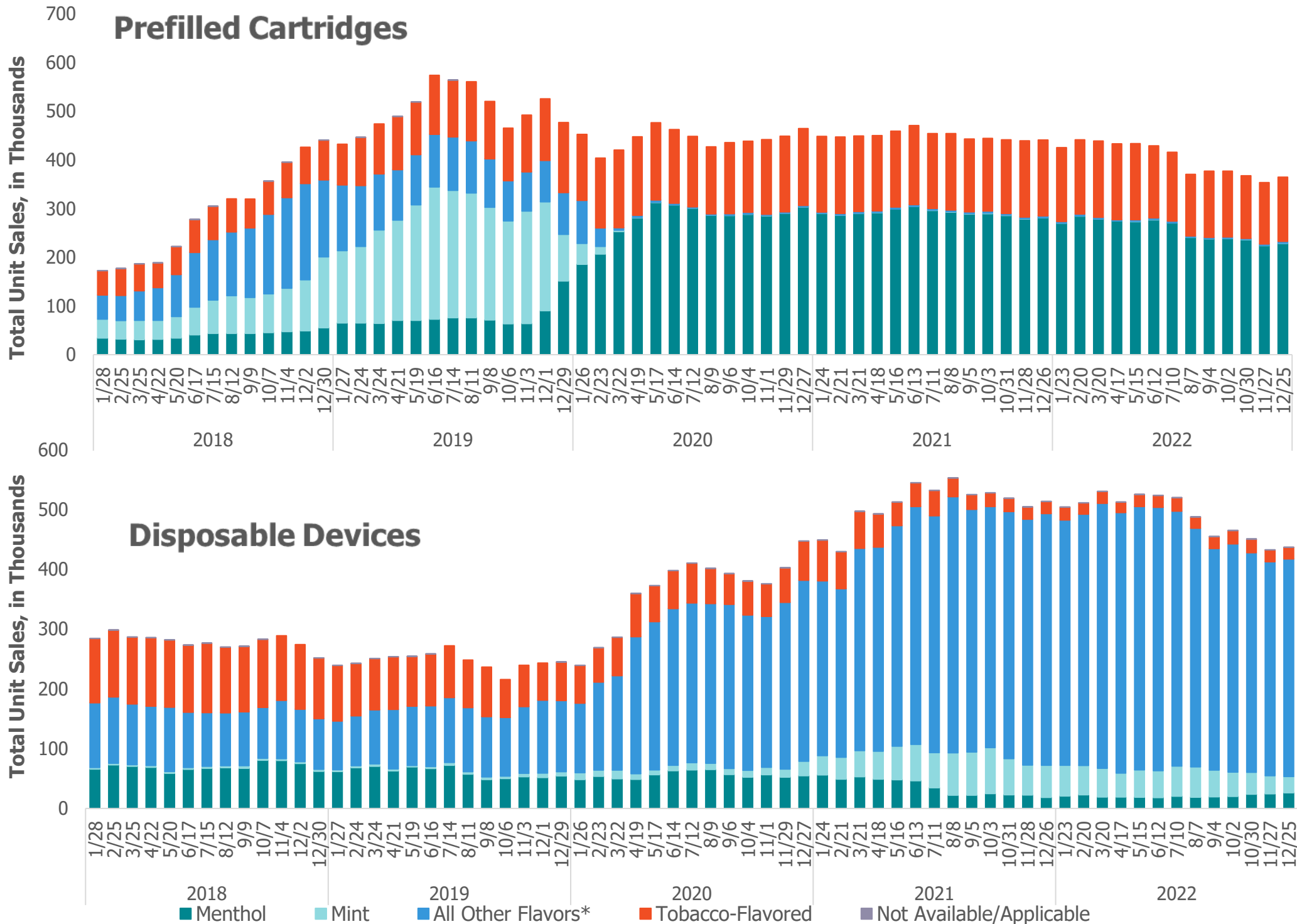


\*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; prefilled cartridges include tanks, cartridges, and pods used in rechargeable and reusable e-cigarette device; disposable devices include nonrechargeable and nonreusable e-cigarette devices that 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 contain a humectant (e.g., propylene glycol), nicotine, and flavoring.

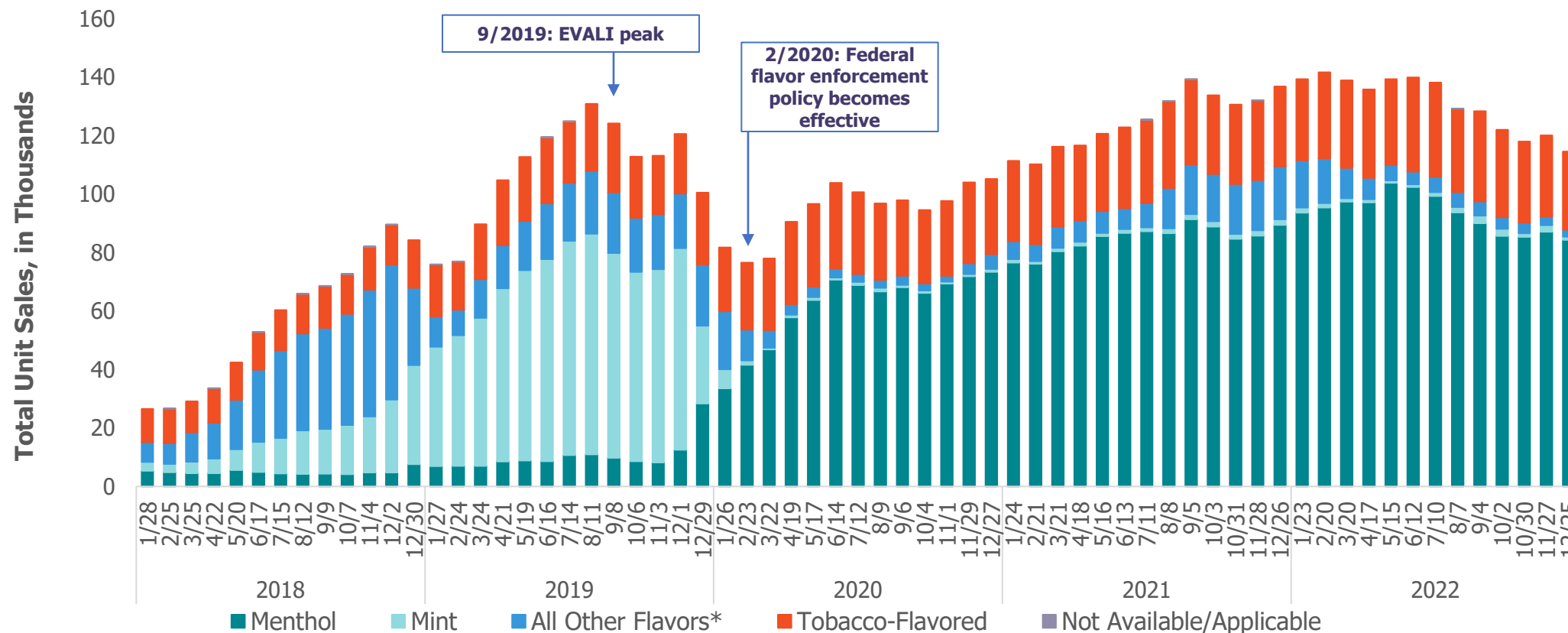
### Trends of Unit Sales by Product Following FDA’s Flavor Enforcement Policy

- 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 25, 2022:
  - Sales of disposable devices increased by 62.5%(from 269.0 thousand to 437.0 thousand); unit share increased from 39.9% to 54.2%.
  - Sales of prefilled cartridges decreased by 9.7% (from 403.9 thousand to 364.6 thousand); unit share decreased from 60.0% to 45.3%.

**Figure 12. Illinois E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 1/2018 – 12/2022**



**Figure 13. Maine E-Cigarette Unit Sales by Flavor, 4 Week Estimates 1/2018 – 12/2022\***

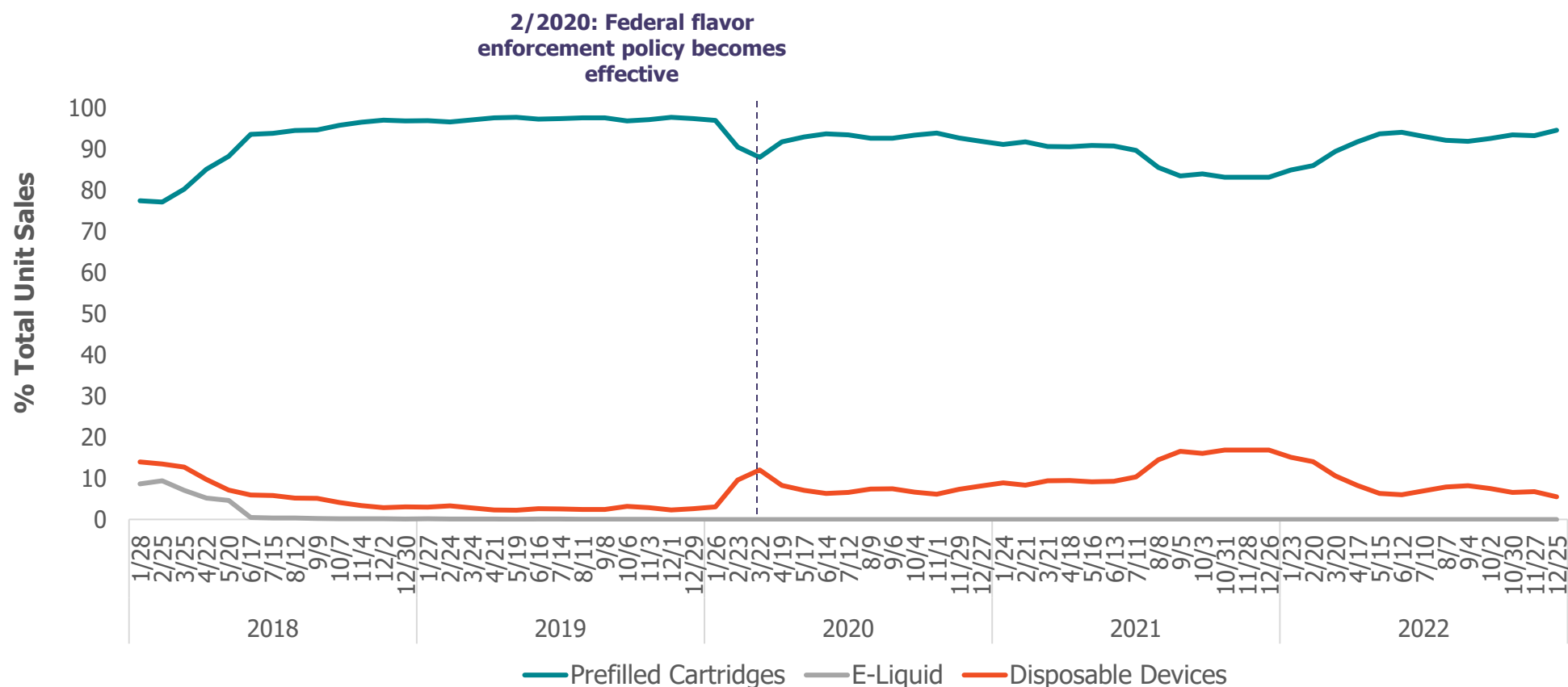


\*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories and devices sold without e-liquids were excluded (9.5% of total dollar sales in 2022).

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

- From February 23, 2020 to December 25, 2022, monthly e-cigarette unit sales increased by 49.6% from 76.6 to 114.6 thousand units.
- From February 23, 2020 to December 25, 2022:
  - Menthol-flavored e-cigarette sales increased by 102.8% (from 41.6 thousand to 84.3 thousand); unit share increased from 54.3% to 73.6%.
  - Tobacco-flavored e-cigarette sales increased by 16.4% (from 23.0 thousand to 26.8 thousand); unit share decreased from 30.0% to 23.4%.
  - Mint-flavored e-cigarette sales decreased by 28.6% (from 1.5 thousand to 1.1 thousand); unit share decreased from 2.0% to 0.9%.
  - All other-flavored e-cigarette sales decreased by 77.2% (from 10.5 thousand to 2.4 thousand); unit share decreased from 13.8% to 2.1%.

**Figure 14. Maine E-Cigarette Unit Sales by Product Type, 4 Week Estimates 1/2018 – 12/2022\***



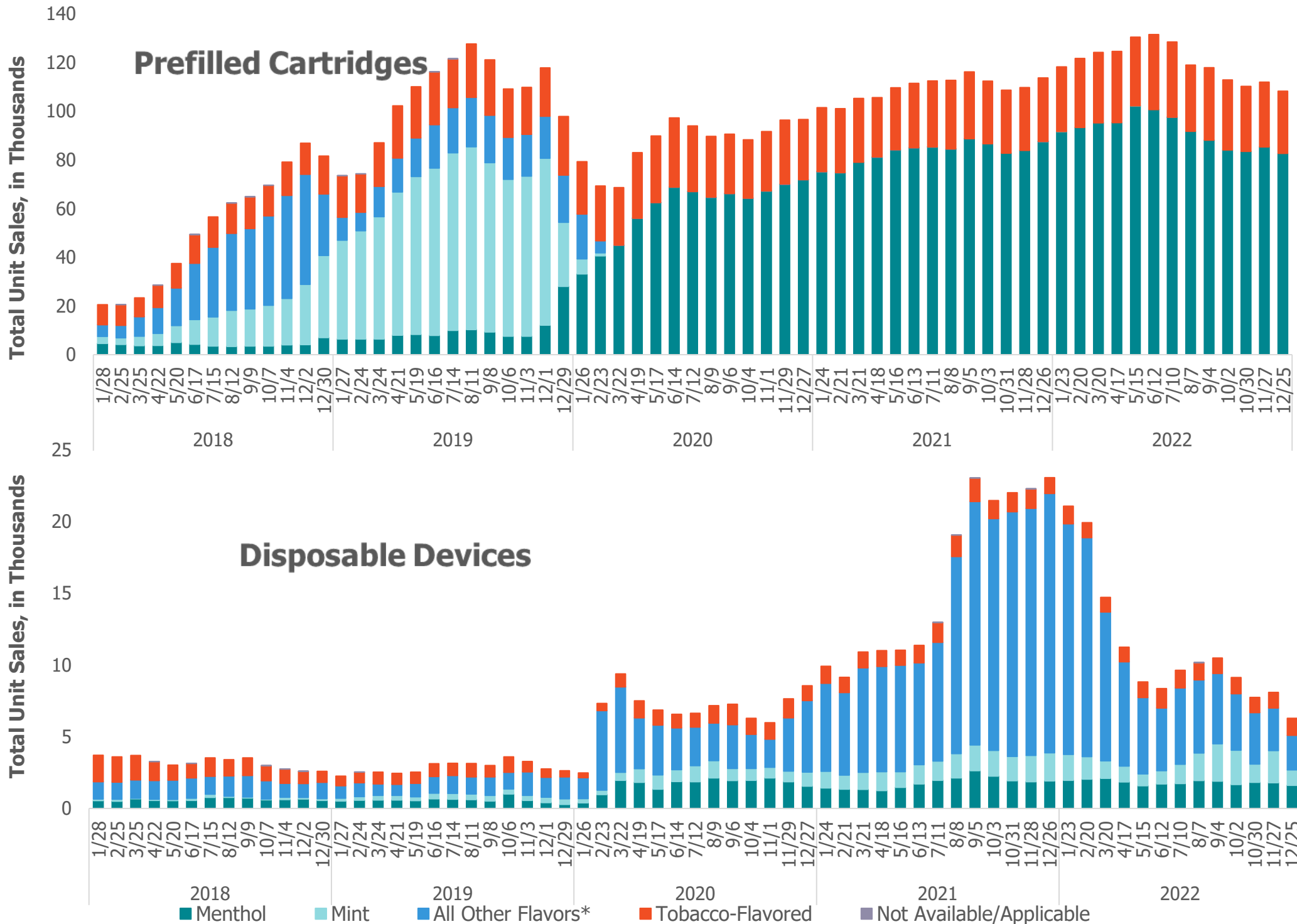
\*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; prefilled cartridges include tanks, cartridges, and pods used in rechargeable and reusable e-cigarette device; disposable devices include nonrechargeable and nonreusable e-cigarette devices that 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 contain a humectant (e.g., propylene glycol), nicotine, and flavoring.

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

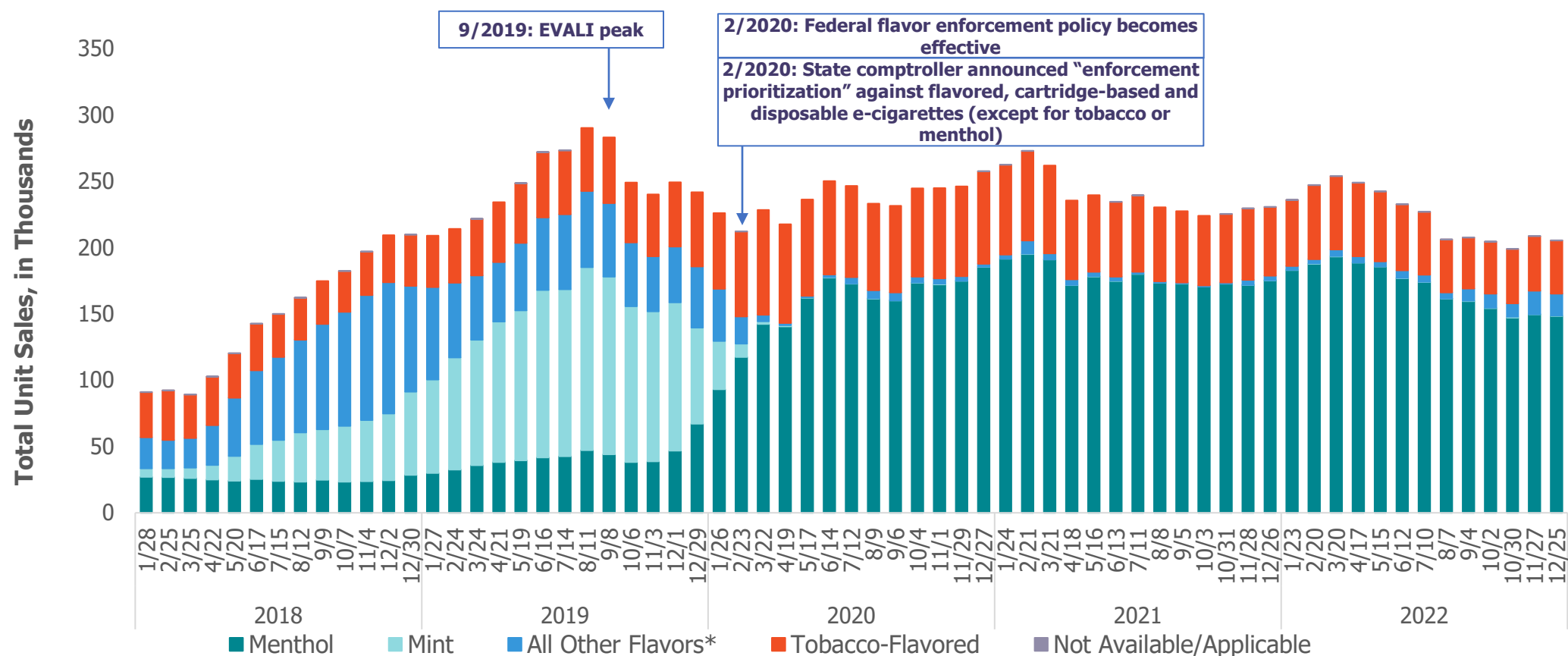
- Following FDA’s flavor enforcement policy, which prohibited the sale of flavored prefilled cartridges but exempted disposable devices and menthol and tobacco prefilled cartridges, between February 23, 2020 and December 25, 2022:
  - Sales of disposable devices decreased by 14.1% (from 7.3 thousand to 6.3 thousand); unit share decreased from 9.6% to 5.5%.
  - Sales of prefilled cartridges increased by 56.3% (from 69.3 thousand to 108.3 thousand); unit share increased from 90.4% to 94.5%.



**Figure 15. Maine E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 1/2018 – 12/2022**



**Figure 16. Maryland E-Cigarette Unit Sales by Flavor, 4 Week Estimates 1/2018 – 12/2022\***

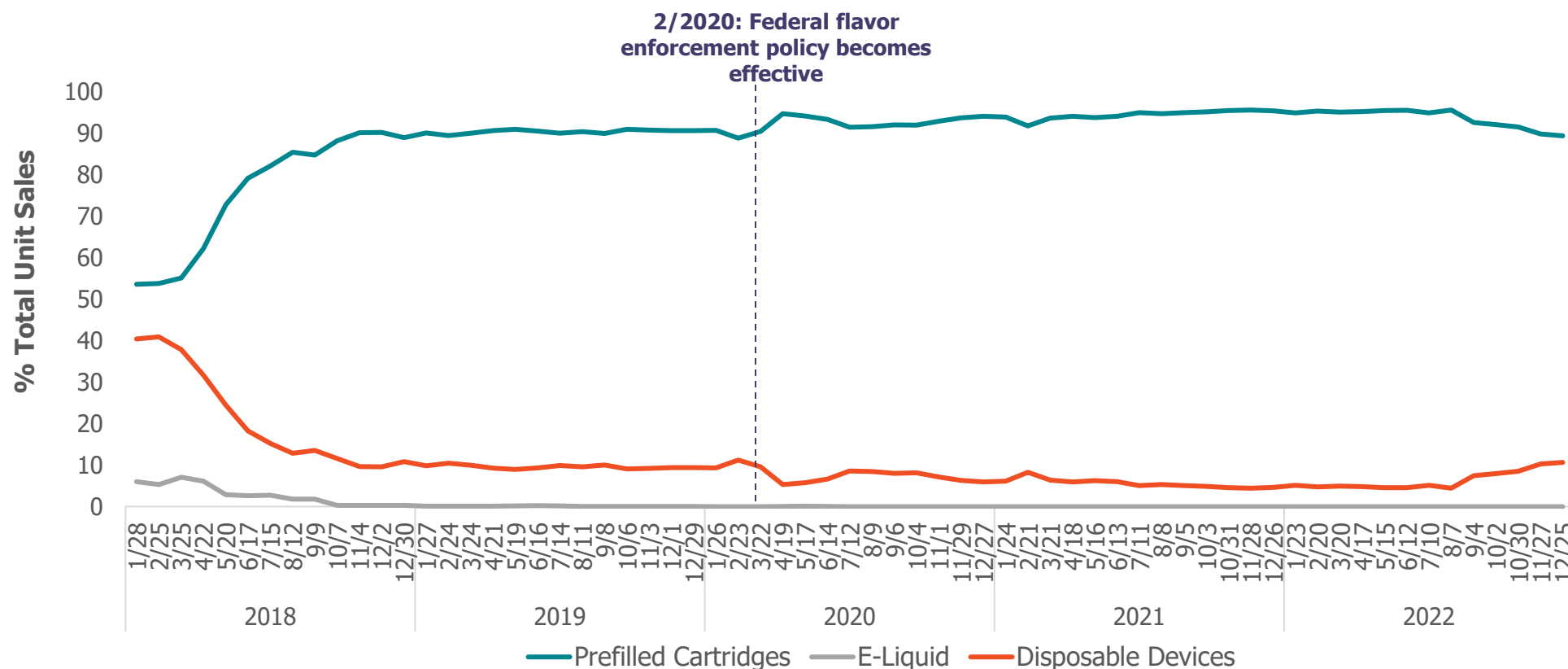


\*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories and devices sold without e-liquids were excluded (9.5% of total dollar sales in 2022).

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

- From February 23, 2020 to December 25, 2022, monthly e-cigarette unit sales decreased by 3.2% from 212.1 to 205.2 thousand units.
- From February 23, 2020 to December 25, 2022:
  - Menthol-flavored e-cigarette sales increased by 26.4% (from 117.4 thousand to 148.4 thousand); unit share increased from 55.4% to 72.3%.
  - Tobacco-flavored e-cigarette sales decreased by 37.6% (from 64.1 thousand to 40.0 thousand); unit share decreased from 30.2% to 19.5%.
  - Mint-flavored e-cigarette sales decreased by 96.7% (from 10.2 thousand to 0.3 thousand); unit share decreased from 4.8% to 0.2%.
  - All other-flavored e-cigarette sales decreased by 19.1% (from 20.4 thousand to 16.5 thousand); unit share decreased from 9.6% to 8.0%.

**Figure 17. Maryland E-Cigarette Unit Sales by Product Type, 4 Week Estimates 1/2018 – 12/2022\***

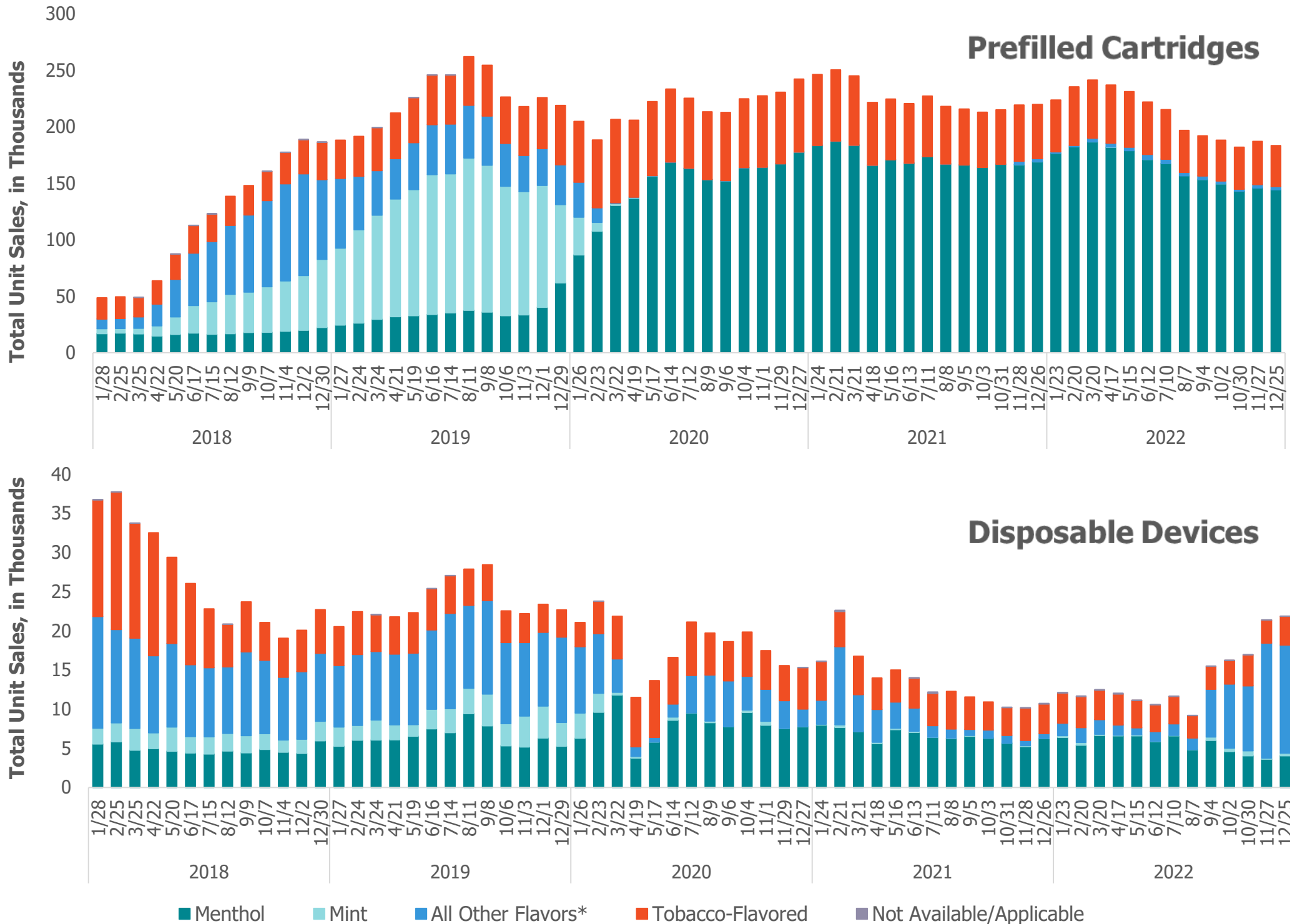


\*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; prefilled cartridges include tanks, cartridges, and pods used in rechargeable and reusable e-cigarette device; disposable devices include nonrechargeable and nonreusable e-cigarette devices that 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 contain a humectant (e.g., propylene glycol), nicotine, and flavoring.

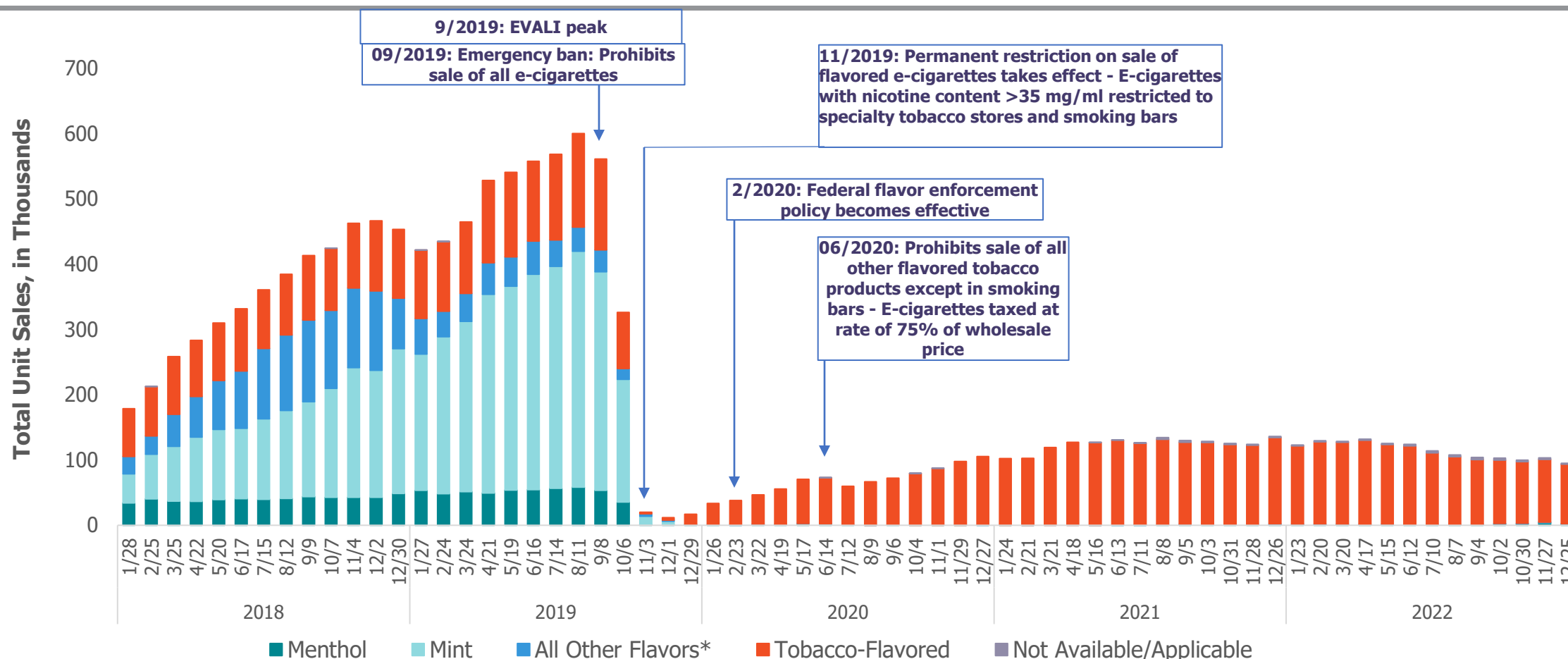
**Trends of Unit Sales by Product Following FDA’s Flavor Enforcement Policy**

- 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 25, 2022:
  - Sales of disposable devices decreased by 8.0% (from 23.8 thousand to 21.9 thousand); unit share decreased from 11.2% to 10.6%.
  - Sales of prefilled cartridges decreased by 2.6% (from 188.3 thousand to 183.4 thousand); unit share increased from 88.8% to 89.4%.

**Figure 18. Maryland E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 1/2018 – 12/2022**



**Figure 19. Massachusetts E-Cigarette Unit Sales by Flavor, 4 Week Estimates 1/2018 – 12/2022\***

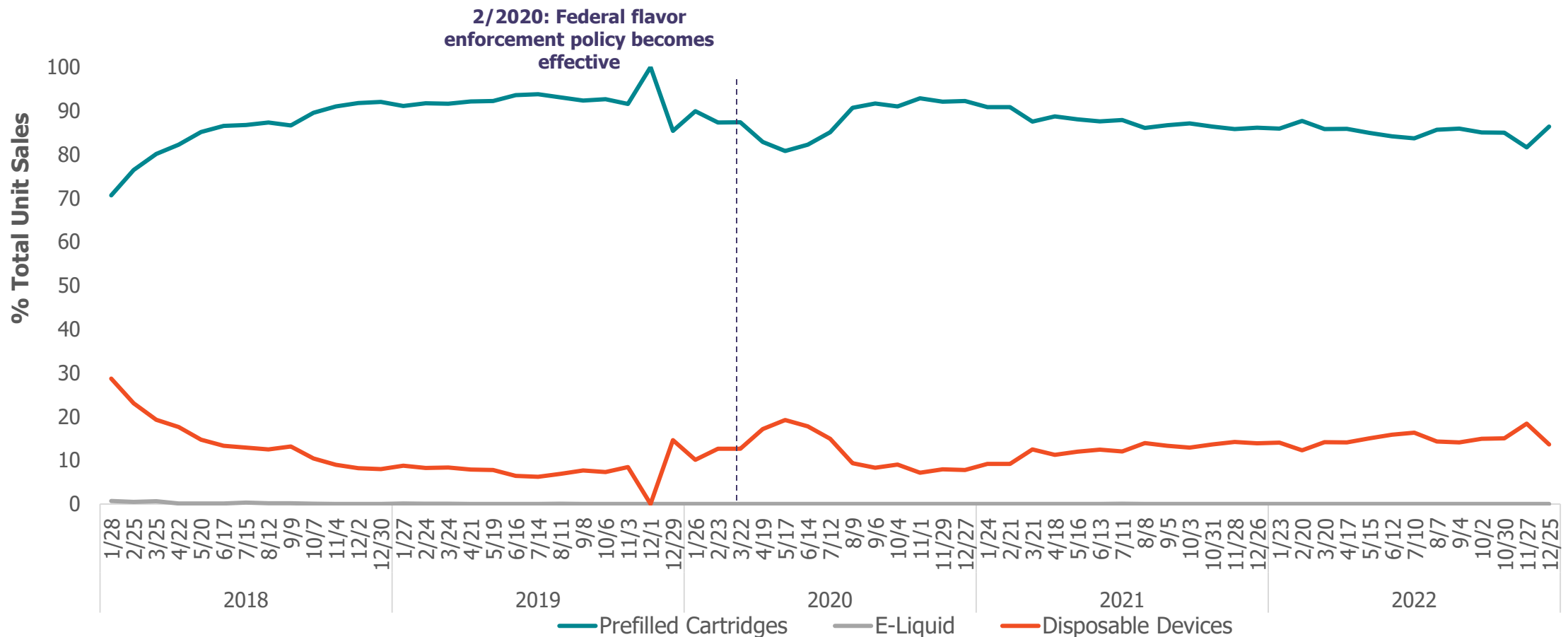


\*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories and devices sold without e-liquids were excluded (9.5% of total dollar sales in 2022).

**Trends of Unit Sales by Flavor following Massachusetts’s flavor restrictions**

- Following Massachusetts's flavored e-cigarette restrictions, monthly e-cigarette total unit sales decreased by 83.1% from September 8, 2019 to December 25, 2022 (from 561.2 thousand to 95.0 thousand).
- From September 8, 2019 to December 25, 2022:
  - Menthol-flavored e-cigarette sales decreased by 96.6% (from 53.4 thousand to 1.8 thousand); unit share decreased from 9.5% to 1.9%.
  - Tobacco-flavored e-cigarette sales decreased by 34.5% (from 139.4 thousand to 91.3 thousand); unit share increased from 24.8% to 96.1%.
  - Mint-flavored e-cigarette sales decreased by 100.0% (from 334.8 thousand to 0.0 thousand); unit share decreased from 59.7% to 0.0%.
  - All other-flavored e-cigarette sales decreased by 98.8% (from 33.6 thousand to 0.4 thousand); unit share decreased from 6.0% to 0.4%.

**Figure 20. Massachusetts E-Cigarette Unit Sales by Product Type, 4 Week Estimates 1/2018 – 12/2022\***



\*Sales data do 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 contain 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 25, 2022:
  - Sales of disposable devices increased by 170.3% (from 4.8 thousand to 13.0 thousand); unit share increased from 12.7% to 13.6%.
  - Sales of prefilled cartridges increased by 148.3% (from 33.0 thousand to 82.0 thousand); unit share decreased from 87.3% to 86.4%.

**Figure 21. Massachusetts E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 1/2018 – 12/2022**

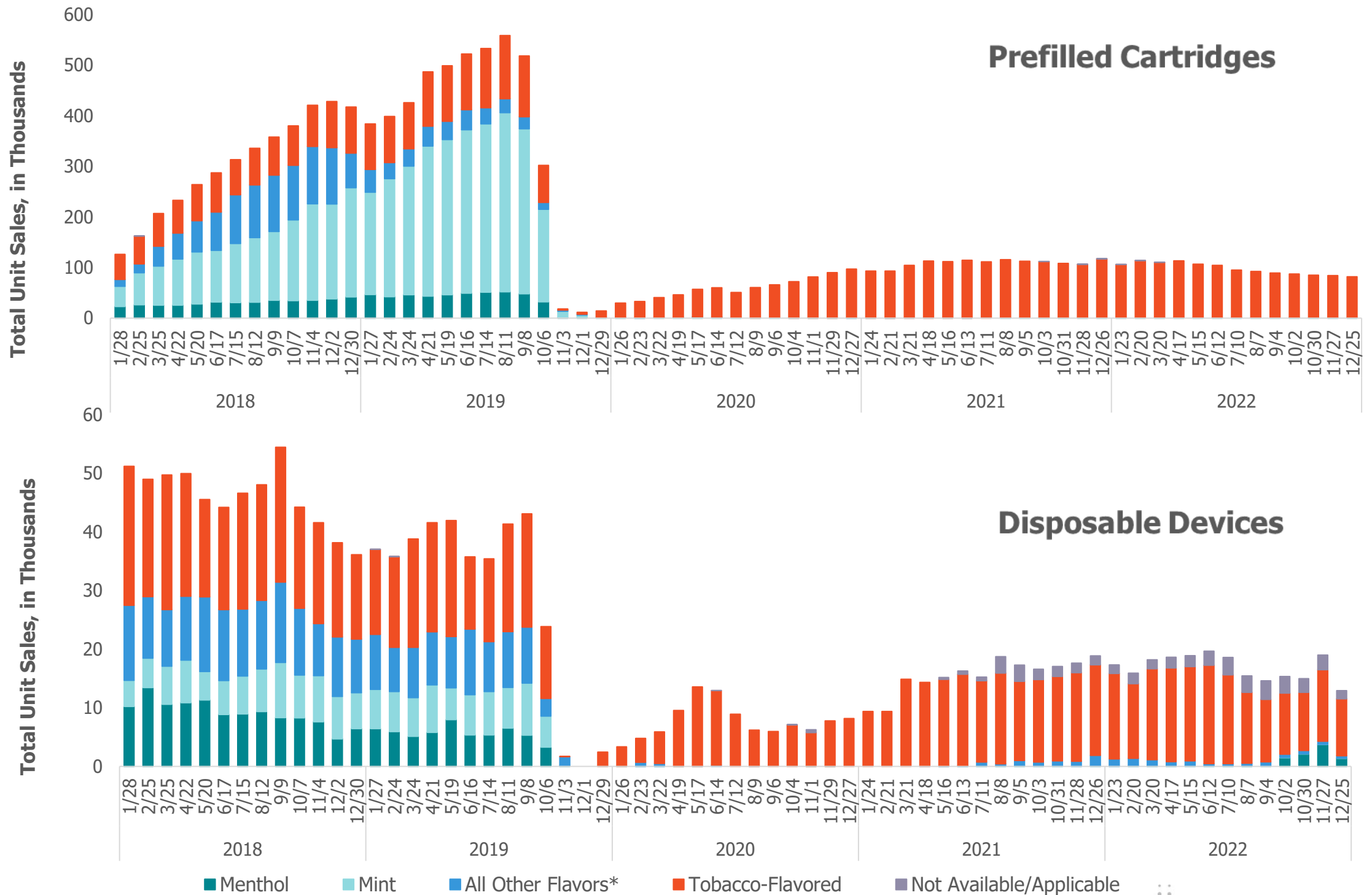
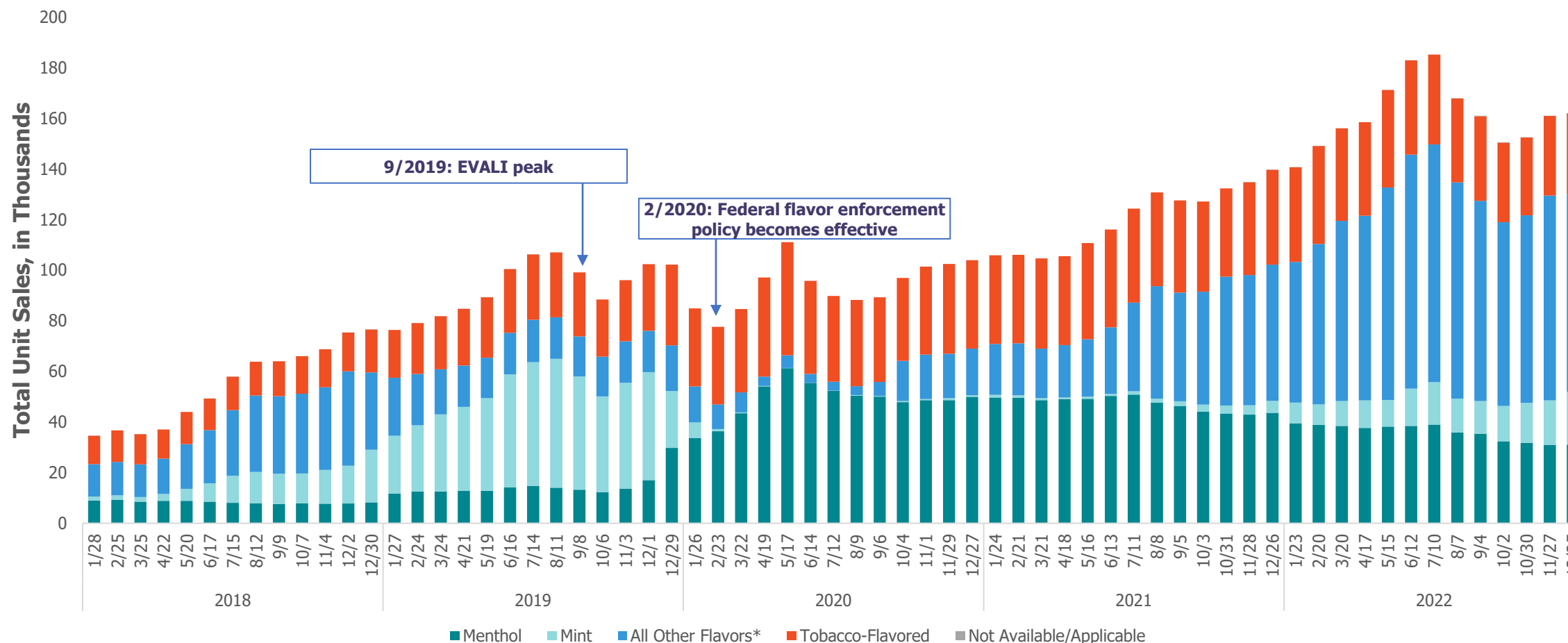


Figure 22. Minnesota E-Cigarette Unit Sales by Flavor, 4 Week Estimates 1/2018 – 12/2022\*



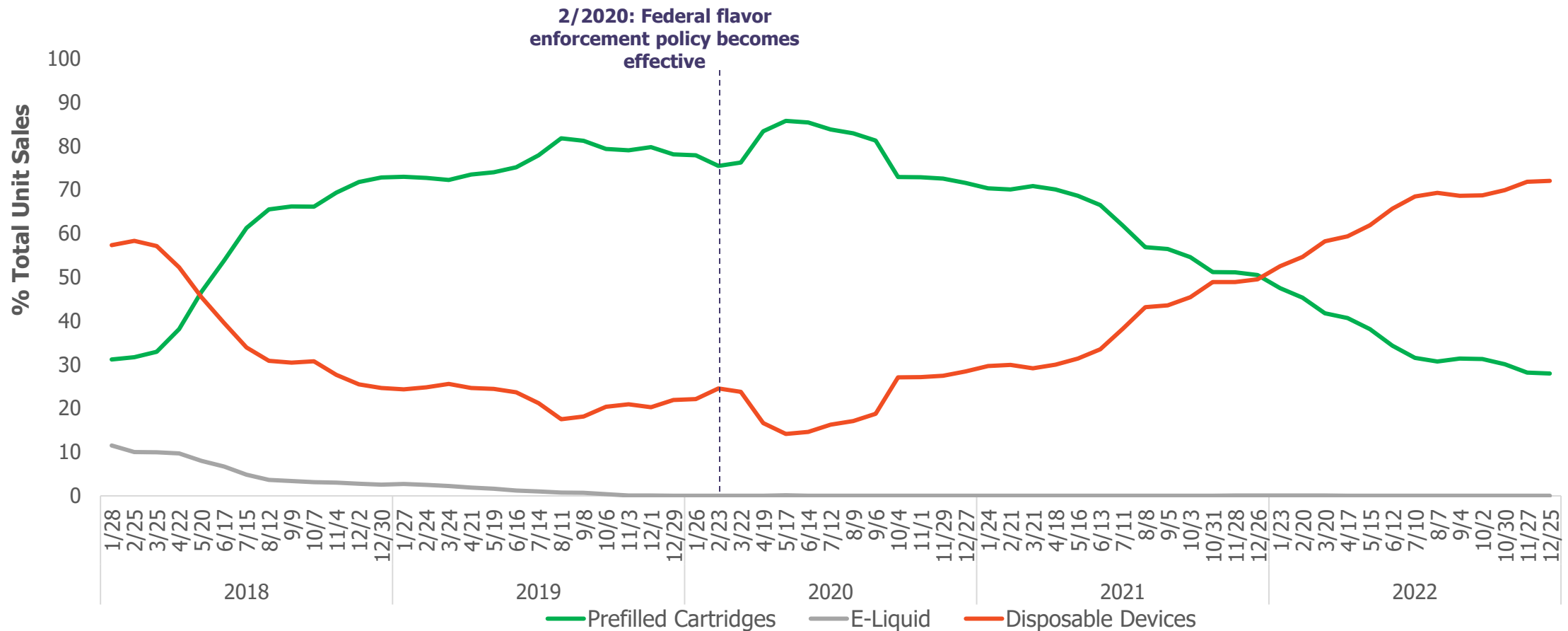
\*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories and devices sold without e-liquids were excluded (9.5% of total dollar sales in 2022).

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

- From February 23, 2020 to December 25, 2022, monthly e-cigarette unit sales increased by 108.8% from 77.7 to 162.2 thousand units.
- From February 23, 2020 to December 25, 2022:
  - Menthol-flavored e-cigarette sales decreased by 14.4% (from 36.3 thousand to 31.1 thousand); unit share decreased from 46.8% to 19.2%.
  - Tobacco-flavored e-cigarette sales increased by 4.3% (from 30.6 thousand to 31.9 thousand); unit share decreased from 39.4% to 19.7%.
  - Mint-flavored e-cigarette sales increased by 2110.4% (from 0.9 thousand to 20.8 thousand); unit share increased from 1.2% to 12.9%.
  - All other-flavored e-cigarette sales increased by 702.6% (from 9.7 thousand to 78.2 thousand); unit share increased from 12.6% to 48.2%.



**Figure 23. Minnesota E-Cigarette Unit Sales by Product Type, 4 Week Estimates 1/2018 – 12/2022\***

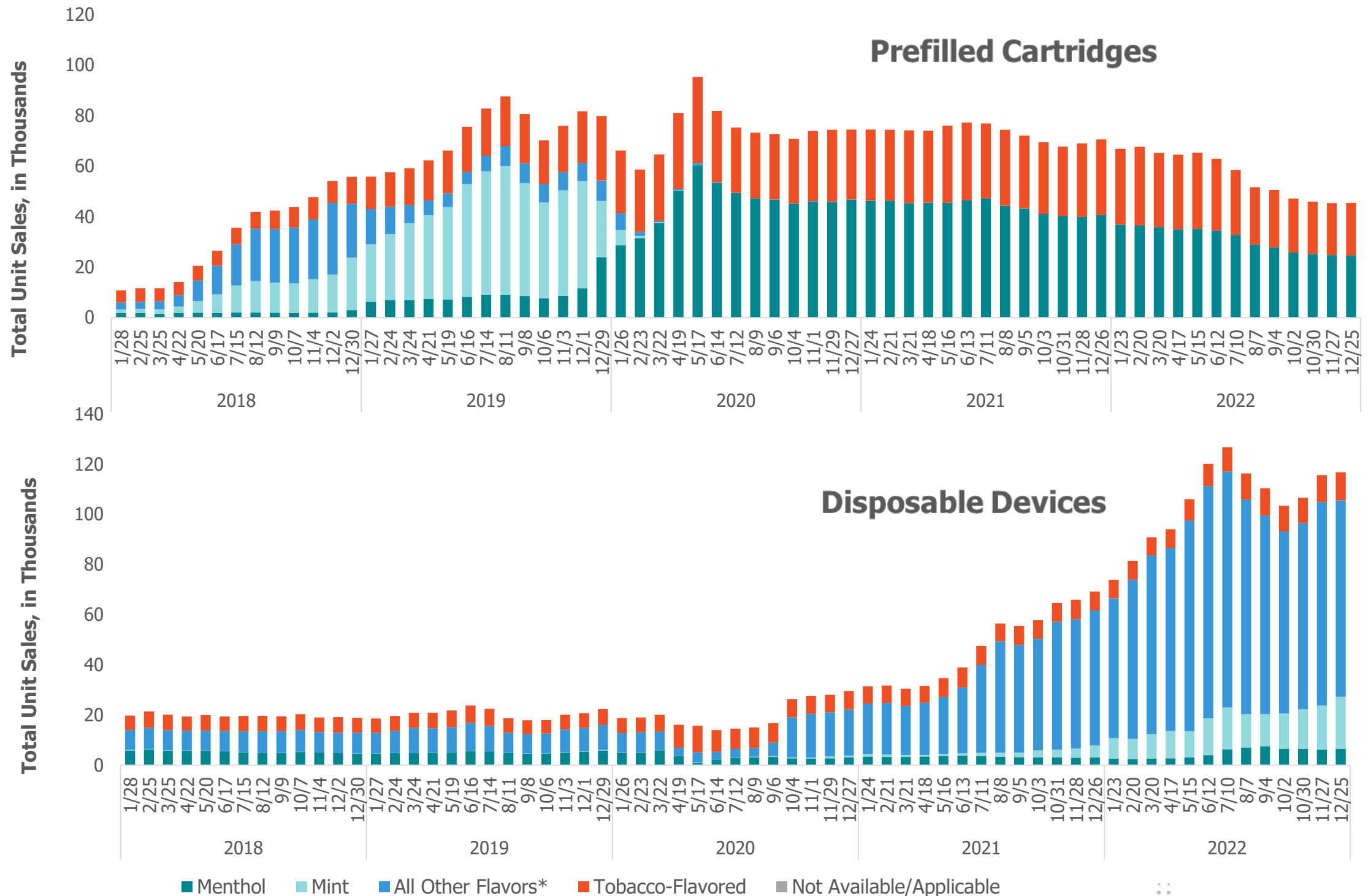


\*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; prefilled cartridges include tanks, cartridges, and pods used in rechargeable and reusable e-cigarette device; disposable devices include nonrechargeable and nonreusable e-cigarette devices that 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 contain a humectant (e.g., propylene glycol), nicotine, and flavoring.

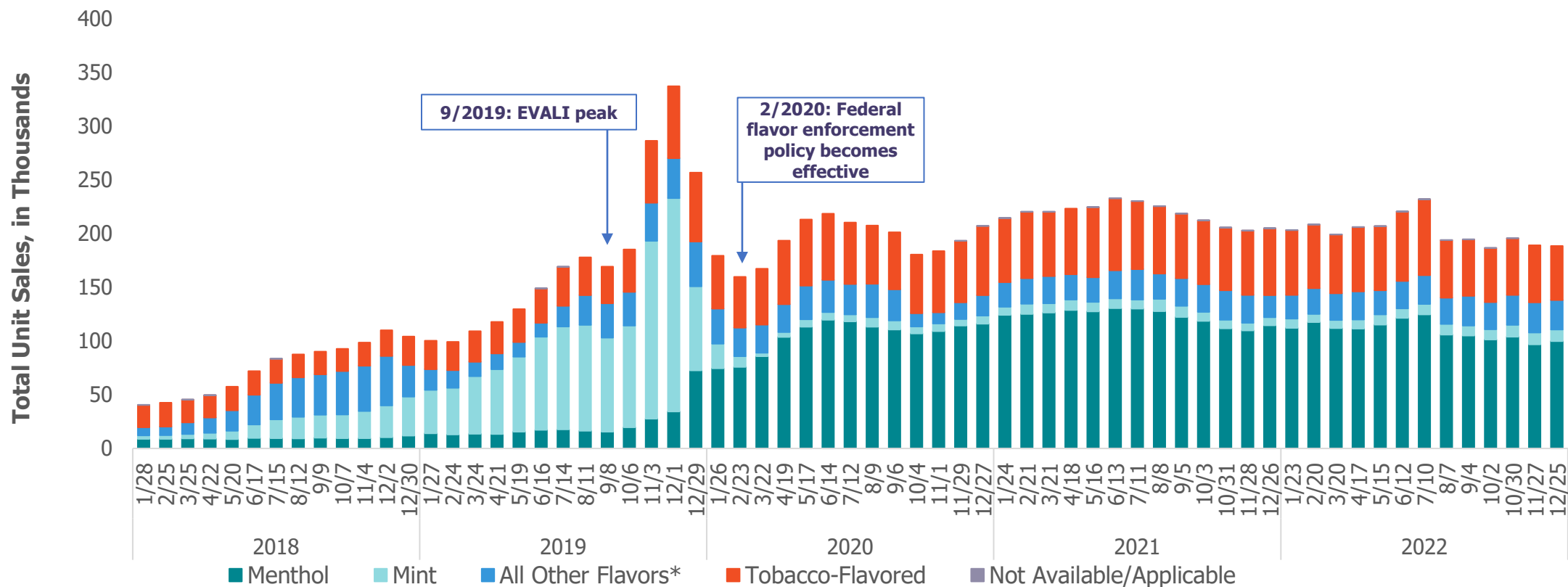
**Trends of Unit Sales by Product Following FDA’s Flavor Enforcement Policy**

- 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 25, 2022:
  - Sales of disposable devices increased by 512.9% (from 19.1 thousand to 116.8 thousand); unit share increased from 24.5% to 72.0%.
  - Sales of prefilled cartridges decreased by 22.6% (from 58.6 thousand to 45.4 thousand); unit share decreased from 75.5% to 28.0%.

**Figure 24. Minnesota E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 1/2018 – 12/2022**



**Figure 25. New Hampshire E-Cigarette Unit Sales by Flavor, 4 Week Estimates 1/2018 – 12/2022\***

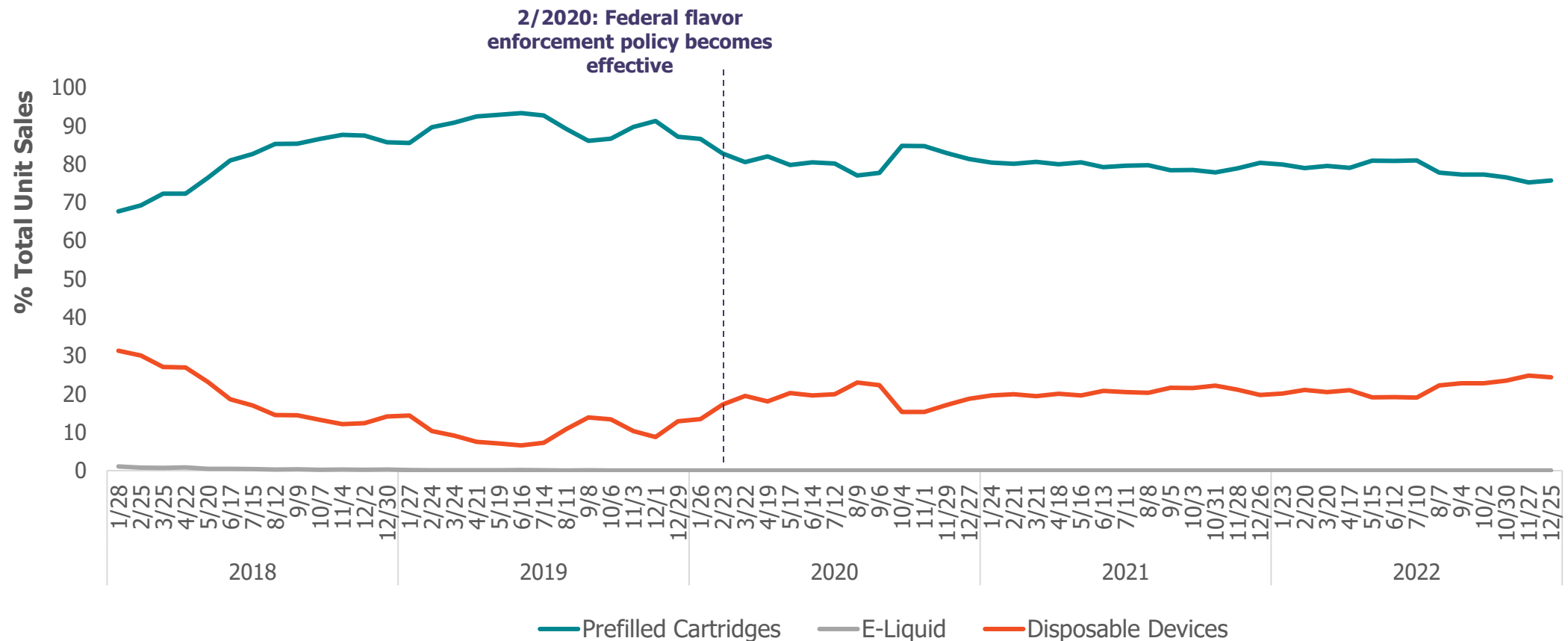


\*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories and devices sold without e-liquids were excluded (9.5% of total dollar sales in 2022).

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

- From February 23, 2020 to December 25, 2022, monthly e-cigarette unit sales increased by 18.0% from 159.7 to 188.6 thousand units.
- From February 23, 2020 to December 25, 2022:
  - Menthol-flavored e-cigarette sales increased by 31.8% (from 75.8 thousand to 99.9 thousand); unit share increased from 47.4% to 53.0%.
  - Tobacco-flavored e-cigarette sales increased by 6.4% (from 47.4 thousand to 50.5 thousand); unit share decreased from 29.7% to 26.8%.
  - Mint-flavored e-cigarette sales increased by 7.9% (from 10.0 thousand to 10.8 thousand); unit share decreased from 6.3% to 5.7%.
  - All other-flavored e-cigarette sales increased by 3.4% (from 26.5 thousand to 27.4 thousand); unit share decreased from 16.6% to 14.5%.

**Figure 26. New Hampshire E-Cigarette Unit Sales by Product Type, 4 Week Estimates 1/2018 – 12/2022\***

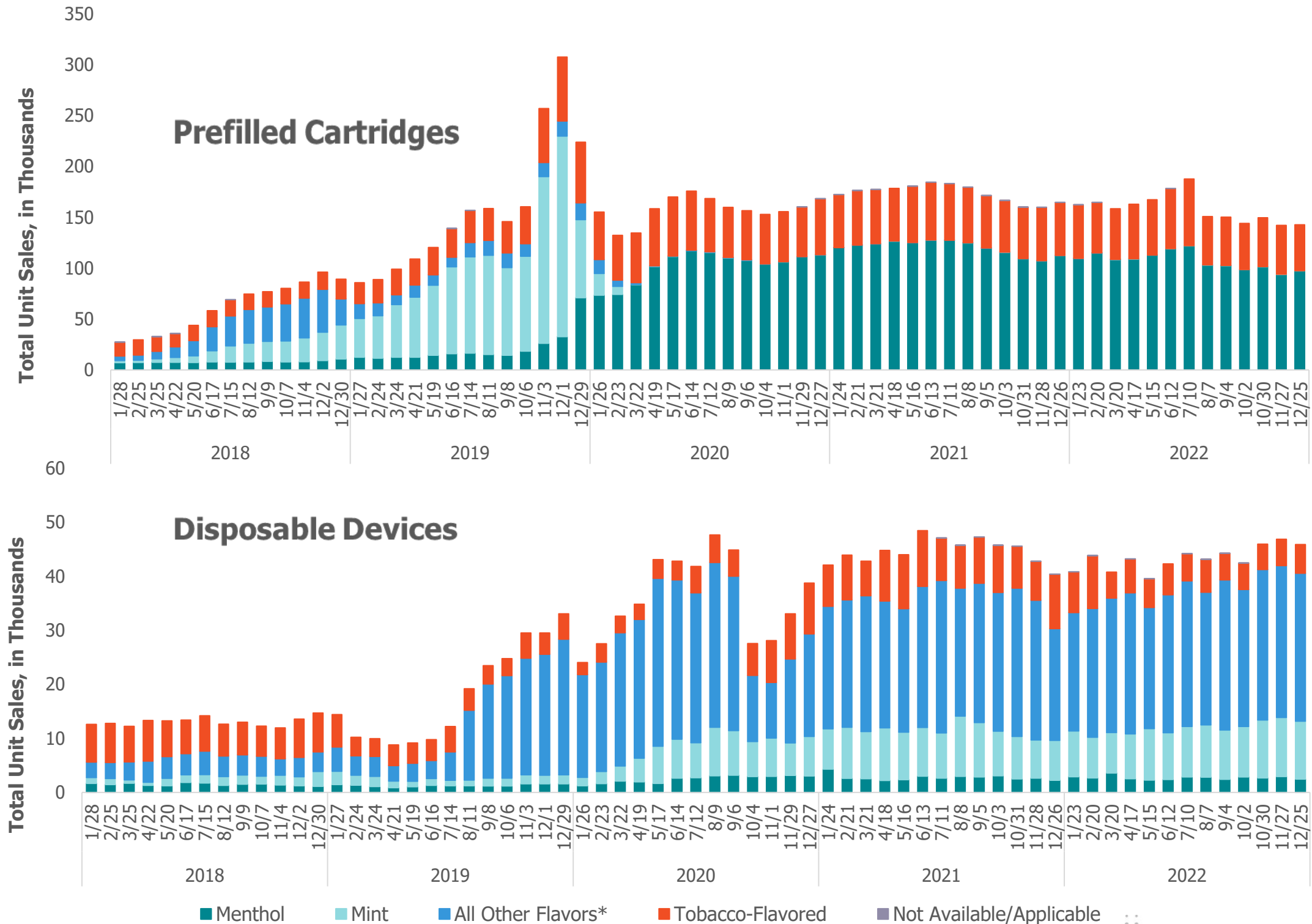


\*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; prefilled cartridges include tanks, cartridges, and pods used in rechargeable and reusable e-cigarette device; disposable devices include nonrechargeable and nonreusable e-cigarette devices that 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 contain a humectant (e.g., propylene glycol), nicotine, and flavoring.

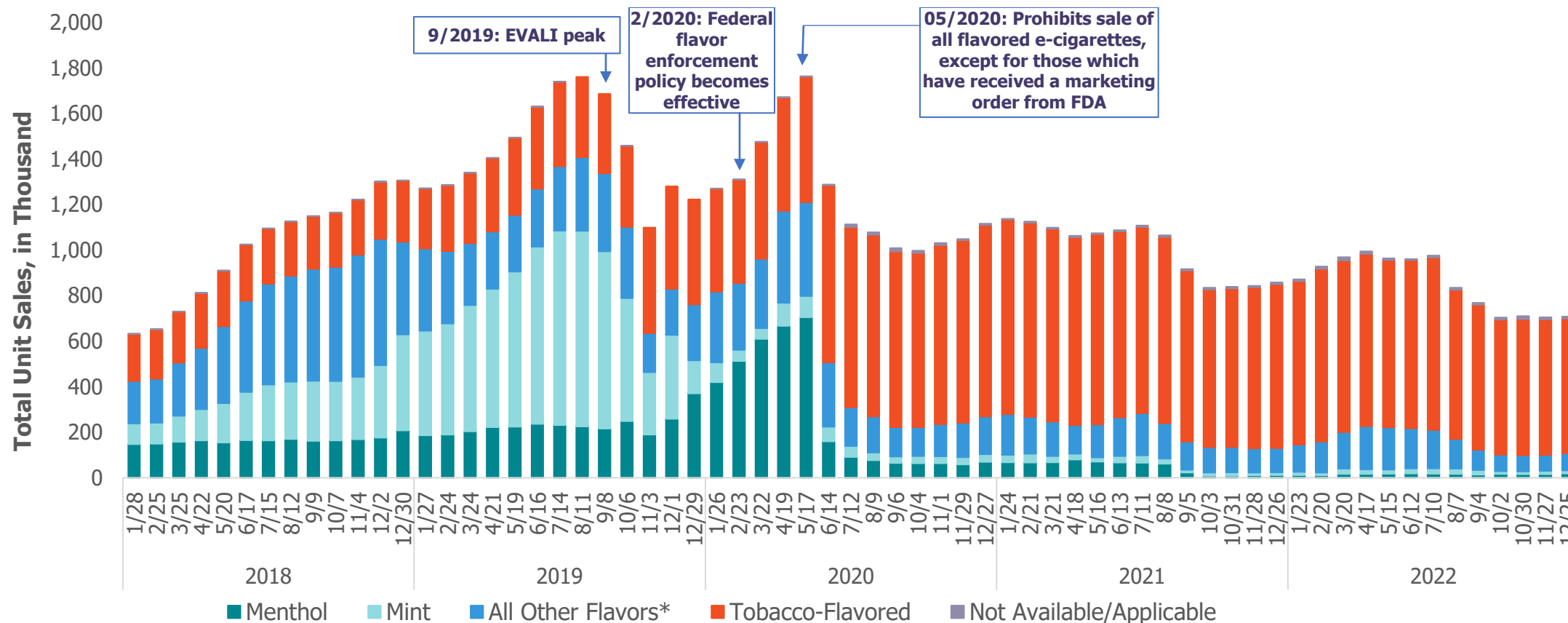
**Trends of Unit Sales by Product Following FDA’s Flavor Enforcement Policy**

- 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 25, 2022:
  - Sales of disposable devices increased by 66.7% (from 27.5 thousand to 45.9 thousand); unit share increased from 17.2% to 24.3%.
  - Sales of prefilled cartridges increased by 7.9% (from 132.2 thousand to 142.7 thousand); unit share decreased from 82.8% to 75.7%.

**Figure 27. New Hampshire E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 1/2018 – 12/2022**



**Figure 28. New York E-Cigarette Unit Sales by Flavor, 4 Week Estimates 1/2018 – 12/2022\***

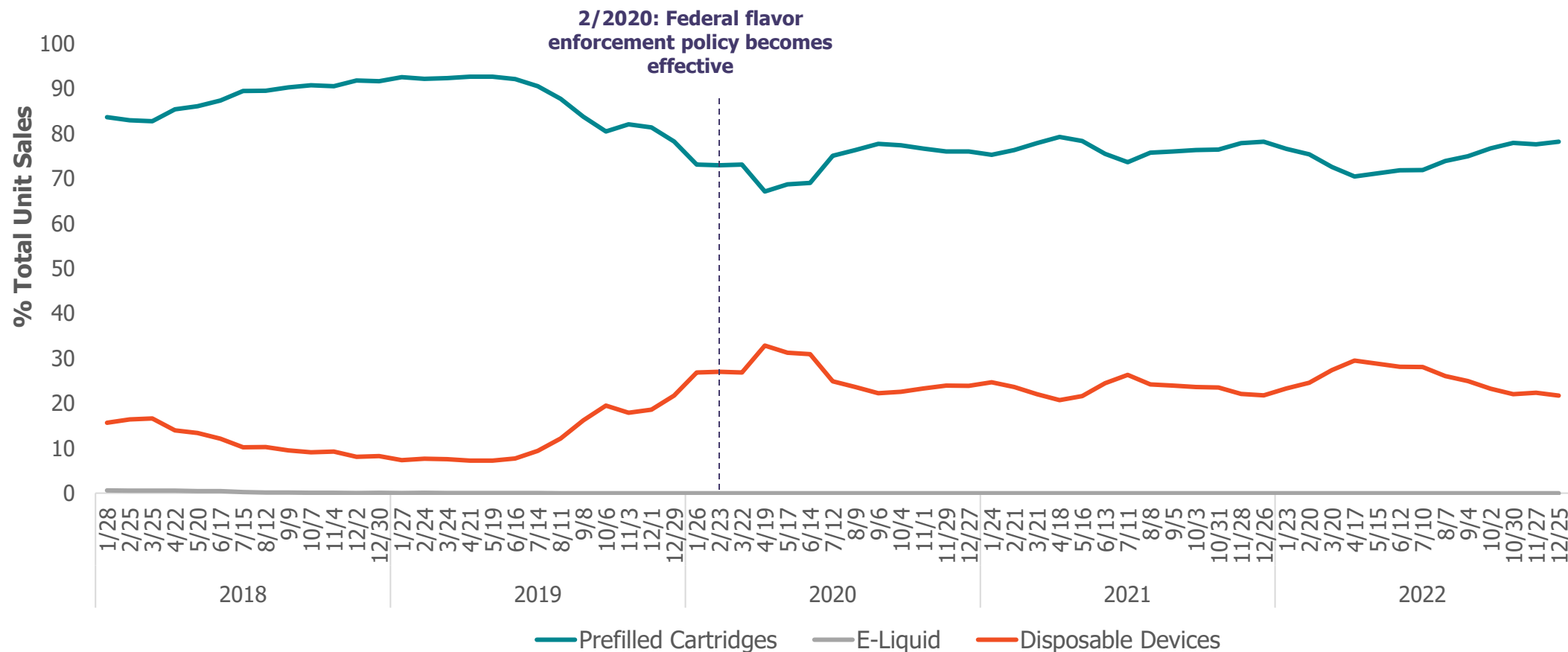


\*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories and devices sold without e-liquids were excluded (9.5% of total dollar sales in 2022).

**Trends of Unit Sales by Flavor (5/17/20 - 12/25/22)**

- Following New York's flavored e-cigarette restriction, monthly e-cigarette total unit sales decreased by 59.9% between May 17, 2020 and December 25, 2022 (from 1764.3 thousand to 708.0 thousand).
- From May 17, 2020 to December 25, 2022:
  - Menthol-flavored e-cigarette sales decreased by 97.4% (from 705.4 thousand to 18.2 thousand); unit share decreased from 40.0% to 2.6%.
  - Tobacco-flavored e-cigarette sales increased by 7.6% (from 550.7 thousand to 592.6 thousand); unit share increased from 31.2% to 83.7%.
  - Mint-flavored e-cigarette sales decreased by 86.0% (from 92.9 thousand to 13.0 thousand); unit share decreased from 5.3% to 1.8%.
  - All other-flavored e-cigarette sales decreased by 81.6% (from 412.8 thousand to 75.8 thousand); unit share decreased from 23.4% to 10.7%.

**Figure 29. New York E-Cigarette Unit Sales by Product Type, 4 Week Estimates 1/2018 – 12/2022\***

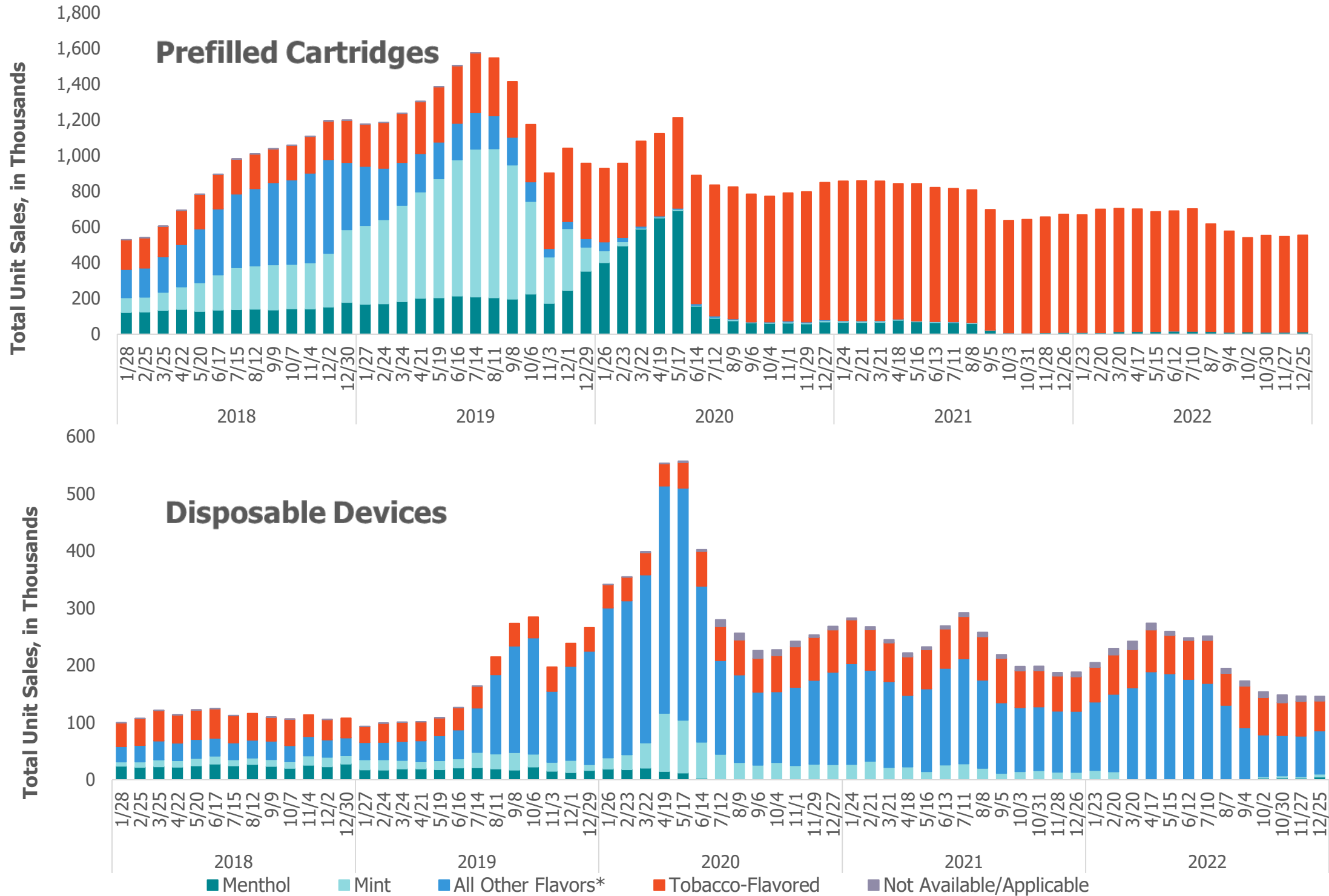


\*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; prefilled cartridges include tanks, cartridges, and pods used in rechargeable and reusable e-cigarette device; disposable devices include nonrechargeable and nonreusable e-cigarette devices that 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 contain a humectant (e.g., propylene glycol), nicotine, and flavoring.

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

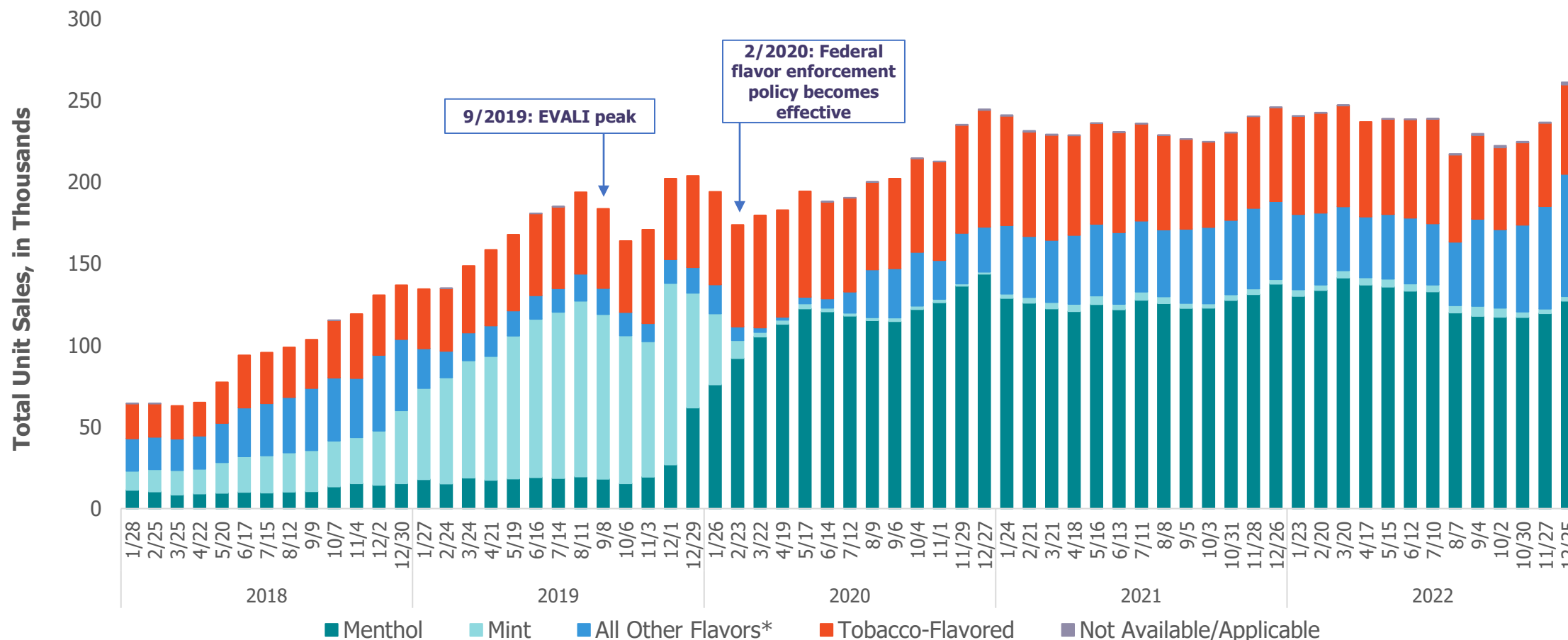
- Following FDA’s flavor enforcement policy, which prohibited the sale of flavored prefilled cartridges but exempted disposable devices and menthol and tobacco prefilled cartridges, between February 23, 2020 and December 25, 2022:
  - Sales of disposable devices decreased by 58.9% (from 355.0 thousand to 146.0 thousand); unit share decreased from 27.0% to 21.8%.
  - Sales of prefilled cartridges decreased by 42.1% (from 956.6 thousand to 553.9 thousand); unit share increased from 73.0% to 78.2%.

**Figure 30. New York E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 1/2018 – 12/2022**





**Figure 31. Oregon E-Cigarette Unit Sales by Flavor, 4 Week Estimates 1/2018 – 12/2022\***

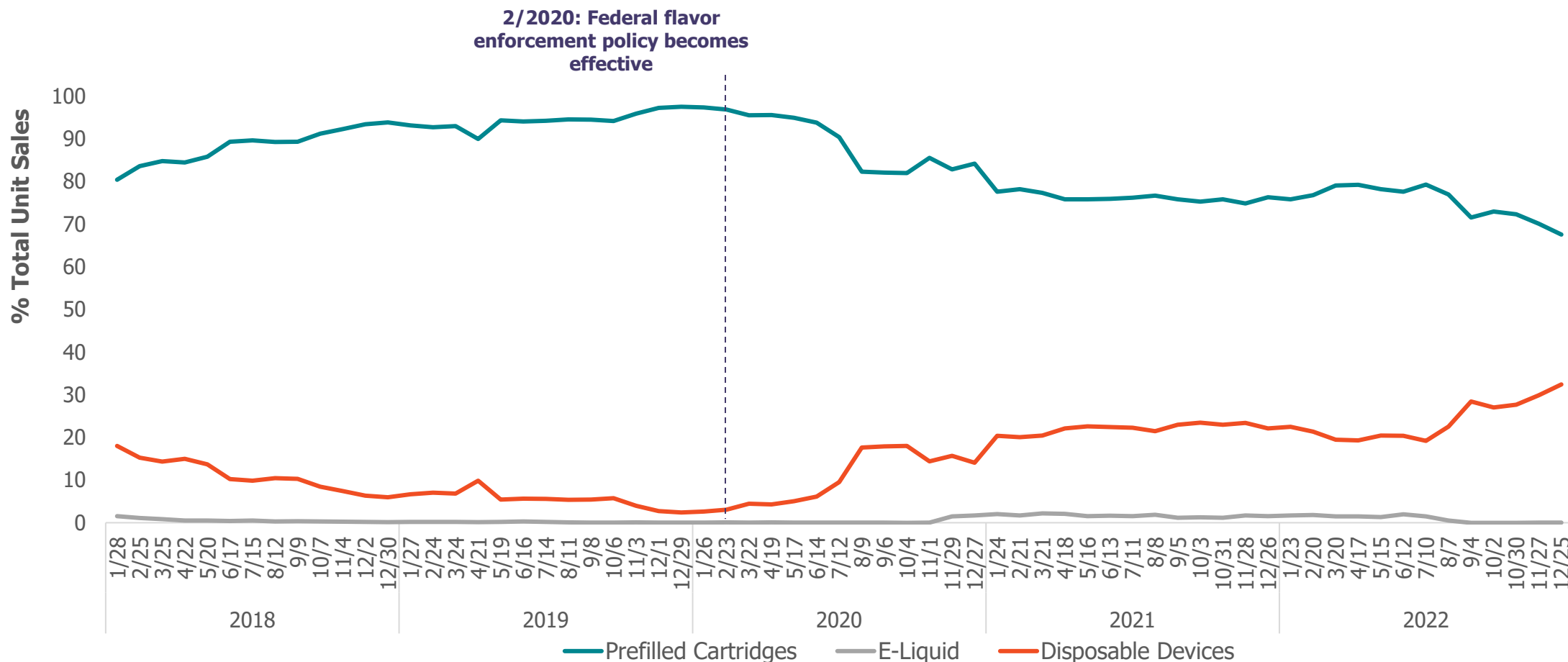


\*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories and devices sold without e-liquids were excluded (9.5% of total dollar sales in 2022).

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

- From February 23, 2020 to December 25, 2022, monthly e-cigarette unit sales increased by 50.3% from 173.9 to 261.3 thousand units.
- From February 23, 2020 to December 25, 2022:
  - Menthol-flavored e-cigarette sales increased by 38.2% (from 92.1 thousand to 127.4 thousand); unit share decreased from 53.0% to 48.7%.
  - Tobacco-flavored e-cigarette sales decreased by 12.2% (from 62.5 thousand to 54.9 thousand); unit share decreased from 35.9% to 21.0%.
  - Mint-flavored e-cigarette sales decreased by 75.7% (from 10.9 thousand to 2.7 thousand); unit share decreased from 6.3% to 1.0%.
  - All other-flavored e-cigarette sales increased by 799.5% (from 8.3 thousand to 75.0 thousand); unit share increased from 4.8% to 28.7%.

**Figure 32. Oregon E-Cigarette Unit Sales by Product Type, 4 Week Estimates 1/2018 – 12/2022\***

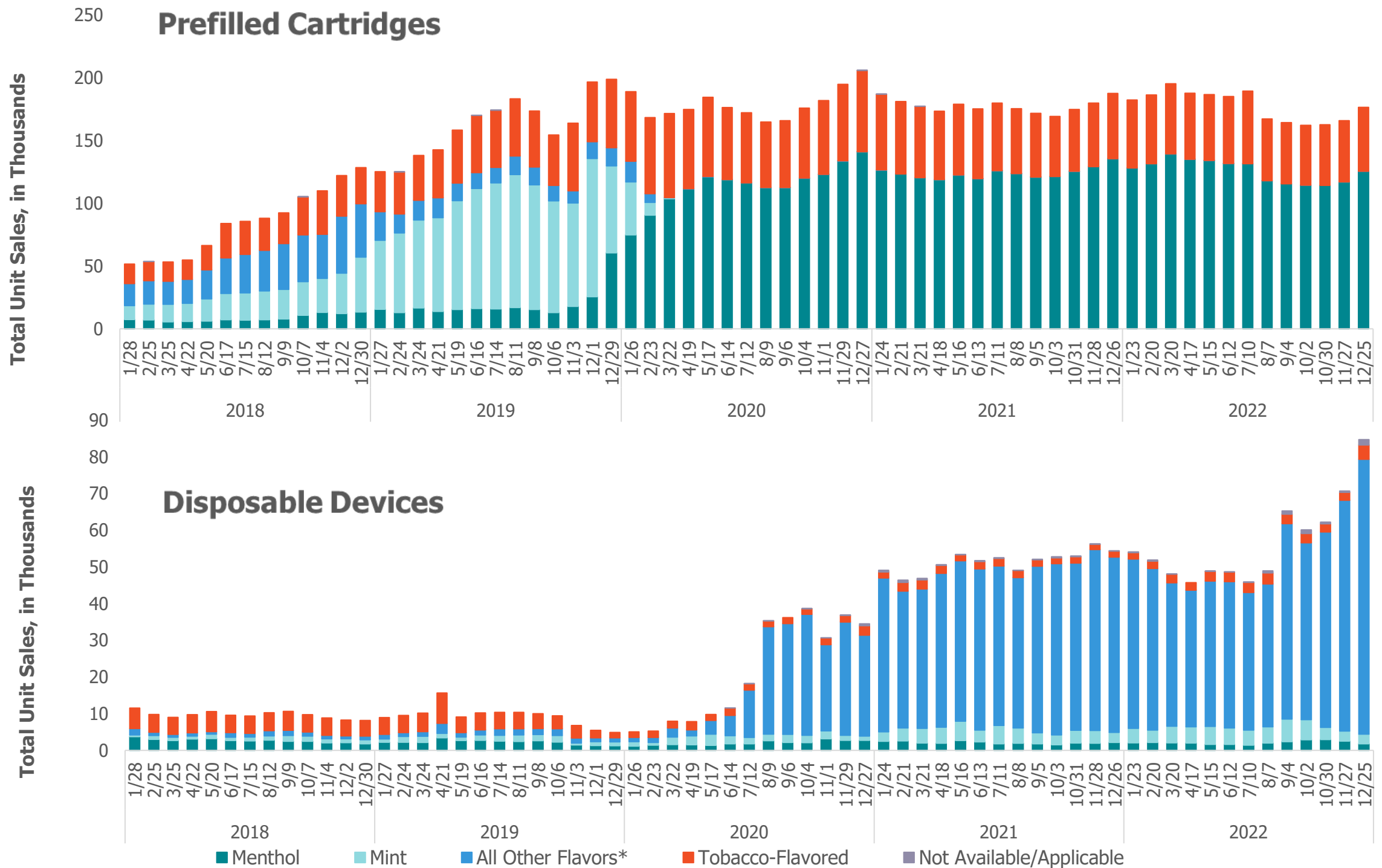


\*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; prefilled cartridges include tanks, cartridges, and pods used in rechargeable and reusable e-cigarette device; disposable devices include nonrechargeable and nonreusable e-cigarette devices that 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 contain a humectant (e.g., propylene glycol), nicotine, and flavoring.

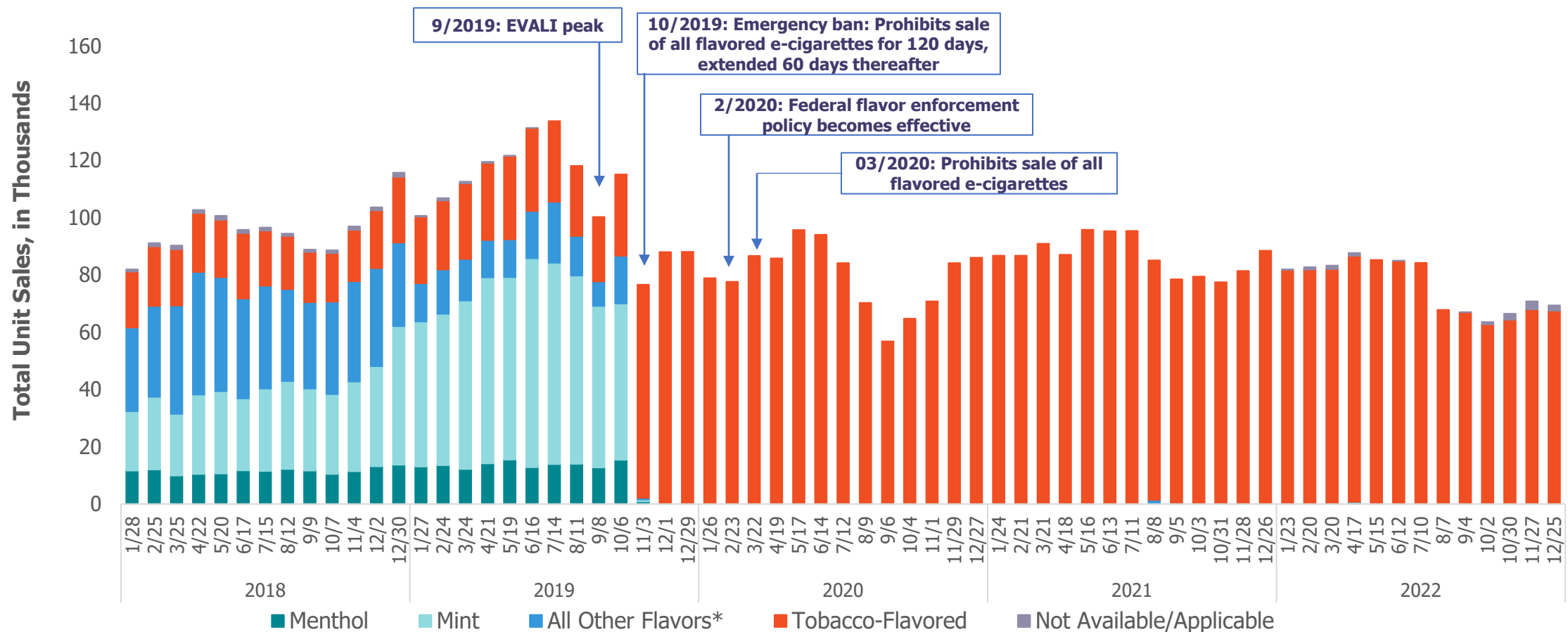
### Trends of Unit Sales by Product Following FDA’s Flavor Enforcement Policy

- 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 25, 2022:
  - Sales of disposable devices increased by 1502.9% (from 5.3 thousand to 84.7 thousand); unit share increased from 3.0% to 32.4%.
  - Sales of prefilled cartridges increased by 4.8% (from 168.4 thousand to 176.6 thousand); unit share decreased from 96.9% to 67.6%.

**Figure 33. Oregon E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 1/2018 – 12/2022**



**Figure 34. Rhode Island E-Cigarette Unit Sales by Flavor, 4 Week Estimates 1/2018 – 12/2022\***

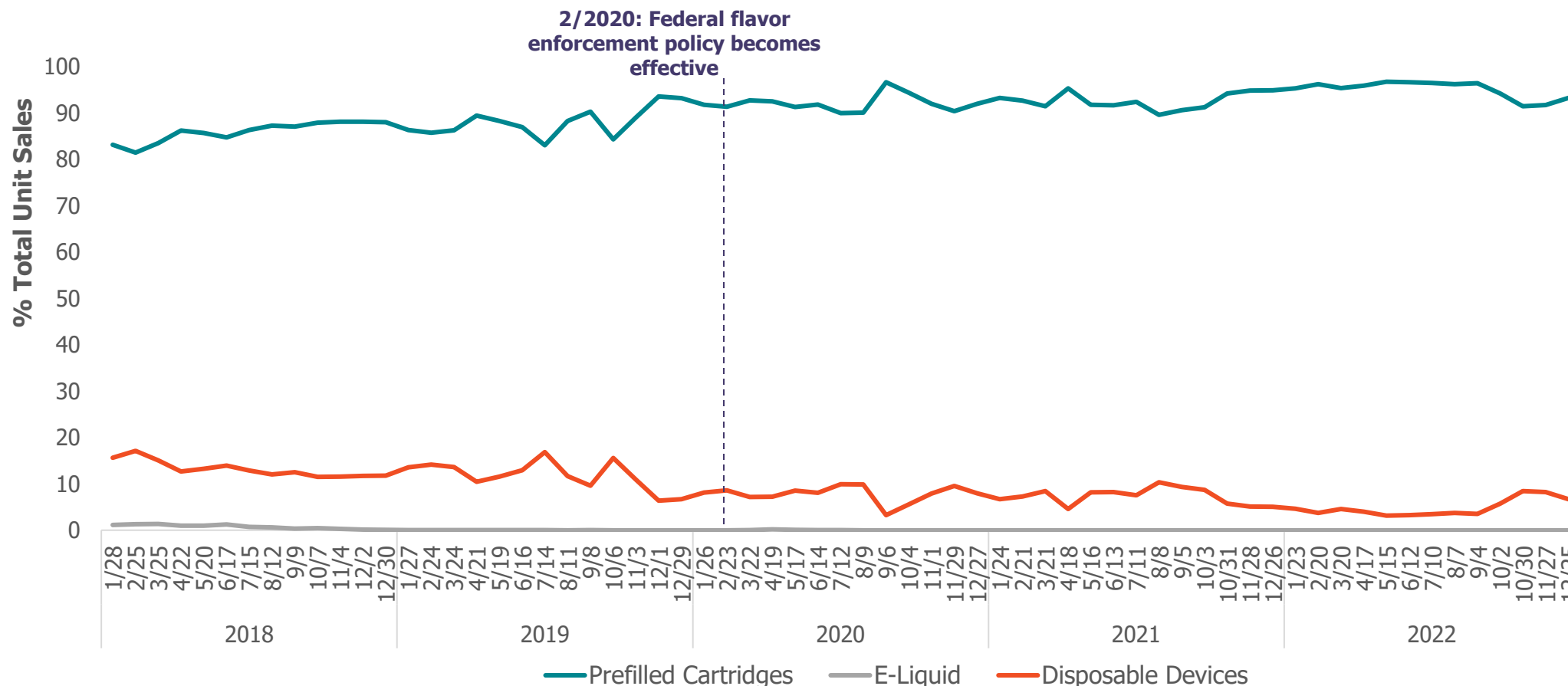


\*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories and devices sold without e-liquids were excluded (9.5% of total dollar sales in 2022).

**Trends of Unit Sales by Flavor (10/6/19 - 12/25/22)**

- Following Rhode Island's flavored e-cigarette restriction, monthly e-cigarette total unit sales decreased by 39.7% from October 6, 2019 to December 25, 2022 (from 115.1 thousand to 69.4 thousand).
- From October 6, 2019 to December 25, 2022:
  - Menthol-flavored e-cigarette sales decreased by 100.0% (from 15.4 thousand to 0.0 thousand); unit share decreased from 13.4% to 0.0%.
  - Tobacco-flavored e-cigarette sales increased by 137.2% (from 28.5 thousand to 67.5 thousand); unit share increased from 24.7% to 97.3%.
  - Mint-flavored e-cigarette sales decreased by 100.0% (from 54.6 thousand to 0.0 thousand); unit share decreased from 47.5% to 0.0%.
  - All other-flavored e-cigarette sales decreased by 99.9% (from 16.6 thousand to 0.0 thousand); unit share decreased from 14.5% to 0.0%.

**Figure 35. Rhode Island E-Cigarette Unit Sales by Product Type, 4 Week Estimates 1/2018 – 12/2022\***

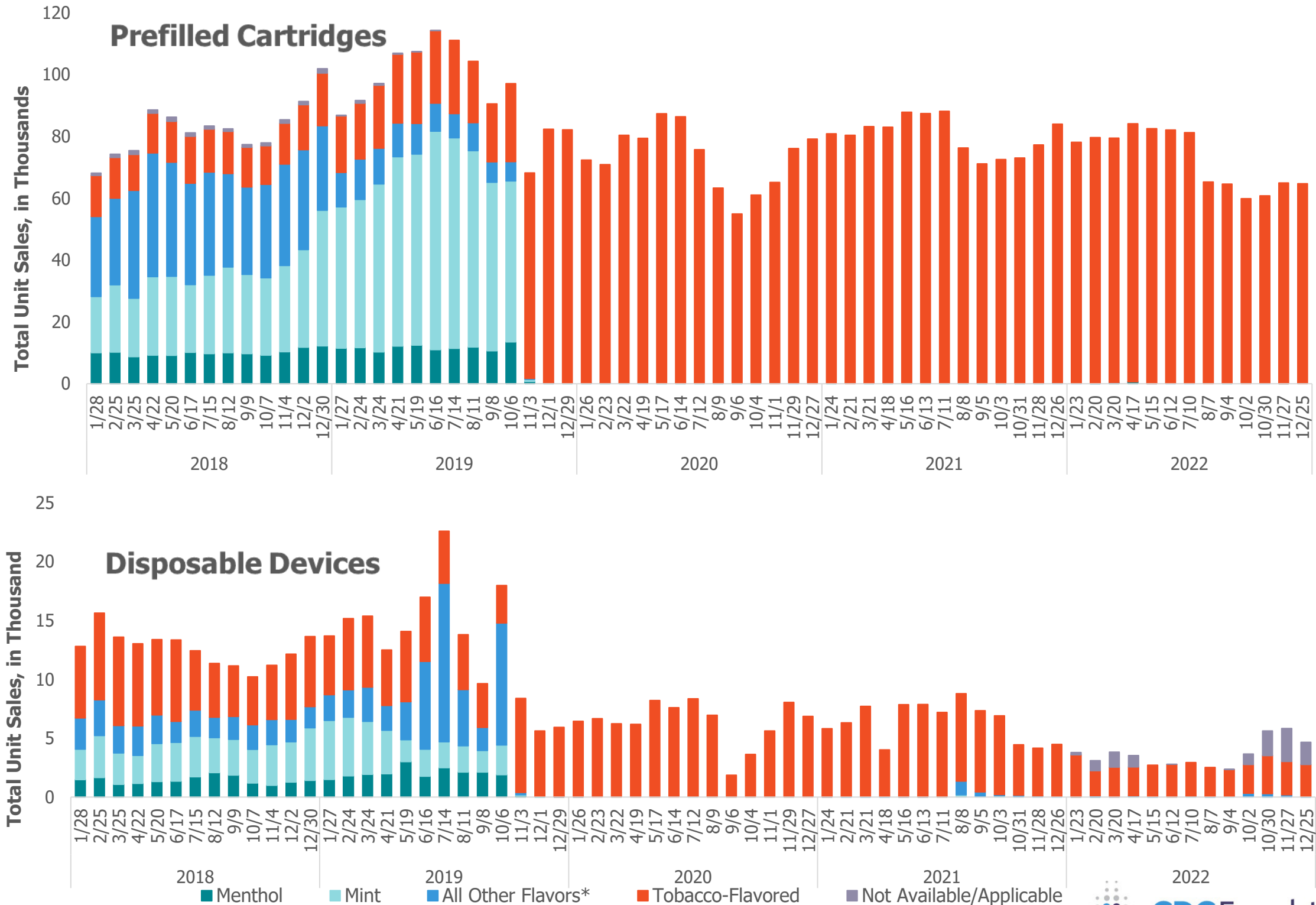


\*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; prefilled cartridges include tanks, cartridges, and pods used in rechargeable and reusable e-cigarette device; disposable devices include nonrechargeable and nonreusable e-cigarette devices that 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 contain a humectant (e.g., propylene glycol), nicotine, and flavoring.

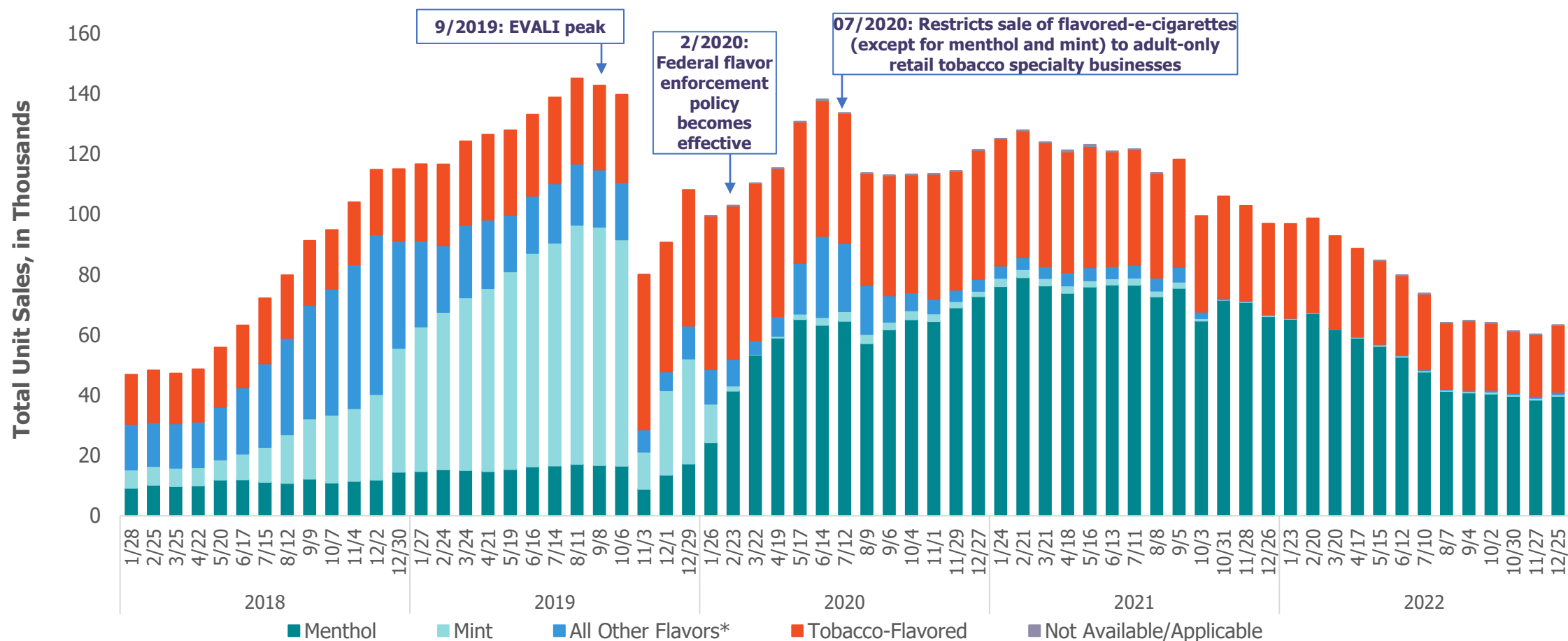
**Trends of Unit Sales by Product Following FDA’s Flavor Enforcement Policy**

- 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 25, 2022:
  - Sales of disposable devices decreased by 30.2% (from 6.7 thousand to 4.7 thousand); unit share decreased from 8.6% to 6.7%.
  - Sales of prefilled cartridges decreased by 8.7% (from 70.9 thousand to 64.8 thousand); unit share increased from 91.4% to 93.3%.

**Figure 36. Rhode Island E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates  
1/2018 – 12/2022**



**Figure 37. Utah E-Cigarette Unit Sales by Flavor, 4 Week Estimates 1/2018 – 12/2022\***

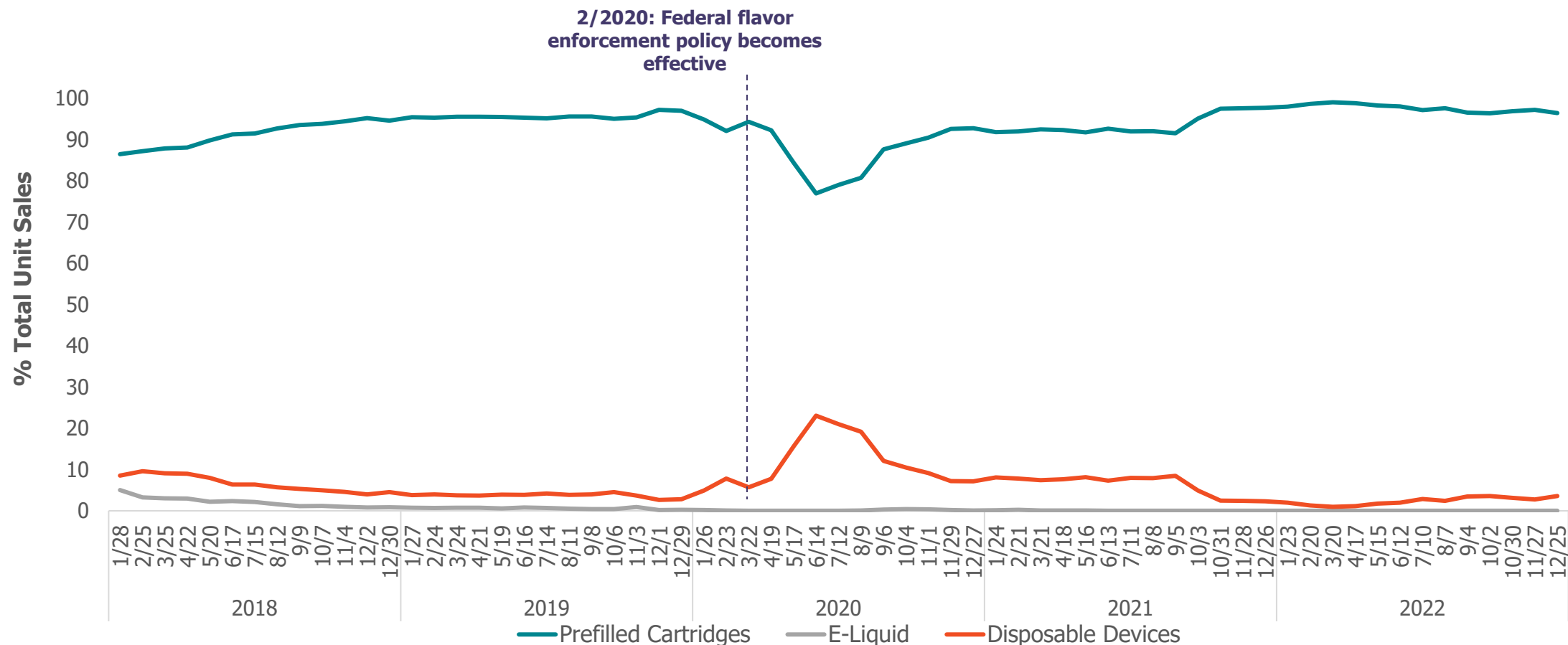


\*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories and devices sold without e-liquids were excluded (9.5% of total dollar sales in 2022).

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

- From February 23, 2020 to December 25, 2022, monthly e-cigarette unit sales decreased by 38.5% from 102.9 to 63.2 thousand units.
- From February 23, 2020 to December 25, 2022:
  - Menthol-flavored e-cigarette sales decreased by 4.0% (from 41.4 thousand to 39.7 thousand); unit share increased from 40.2% to 62.8%.
  - Tobacco-flavored e-cigarette sales decreased by 56.4% (from 50.8 thousand to 22.2 thousand); unit share decreased from 49.4% to 35.0%.
  - Mint-flavored e-cigarette sales decreased by 68.7% (from 1.8 thousand to 0.6 thousand); unit share decreased from 1.7% to 0.9%.
  - All other-flavored e-cigarette sales decreased by 91.4% (from 8.8 thousand to 0.8 thousand); unit share decreased from 8.6% to 1.2%.

**Figure 38. Utah E-Cigarette Unit Sales by Product Type, 4 Week Estimates 1/2018 – 12/2022\***



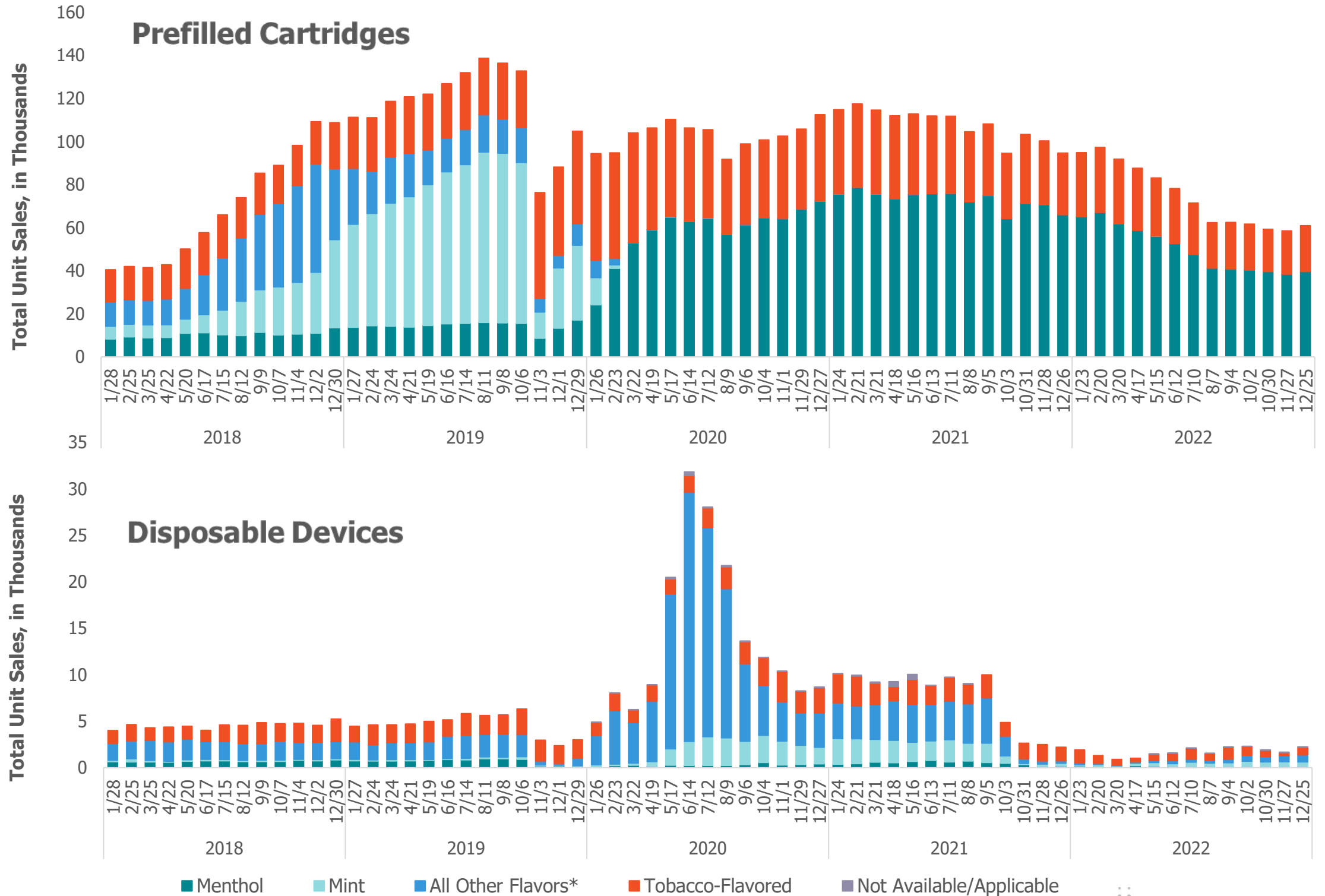
\*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; prefilled cartridges include tanks, cartridges, and pods used in rechargeable and reusable e-cigarette device; disposable devices include nonrechargeable and nonreusable e-cigarette devices that 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 contain a humectant (e.g., propylene glycol), nicotine, and flavoring.

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

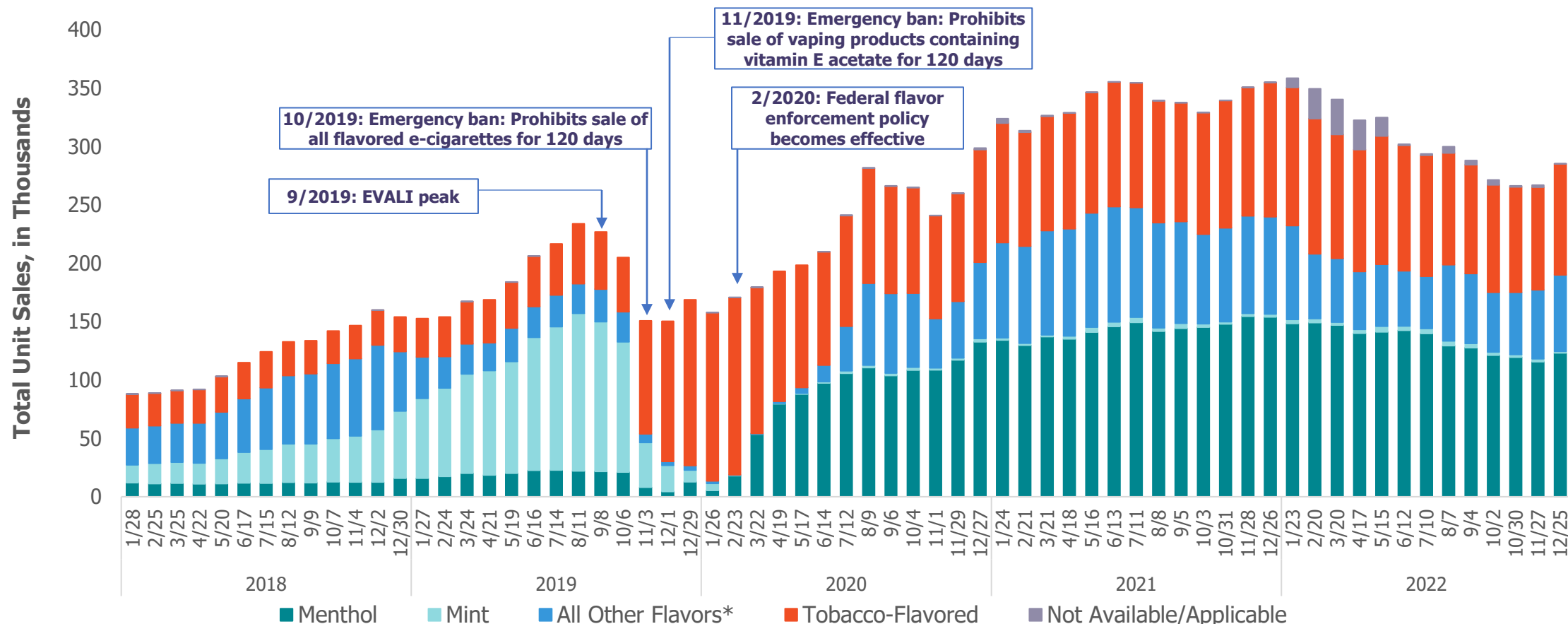
- Following FDA’s flavor enforcement policy, which prohibited the sale of flavored prefilled cartridges but exempted disposable devices and menthol and tobacco prefilled cartridges, between February 23, 2020 and December 25, 2022:
  - Sales of disposable devices decreased by 72.1% (from 8.1 thousand to 2.2 thousand); unit share decreased from 7.8% to 3.6%.
  - Sales of prefilled cartridges decreased by 35.6% (from 94.7 thousand to 61.0 thousand); unit share increased from 92.1% to 96.4%.



**Figure 39. Utah E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 1/2018 – 12/2022**



**Figure 40. Washington E-Cigarette Unit Sales by Flavor, 4 Week Estimates 1/2018 – 12/2022\***



\*Sales data do 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 (9.5% of total dollar sales in 2022).

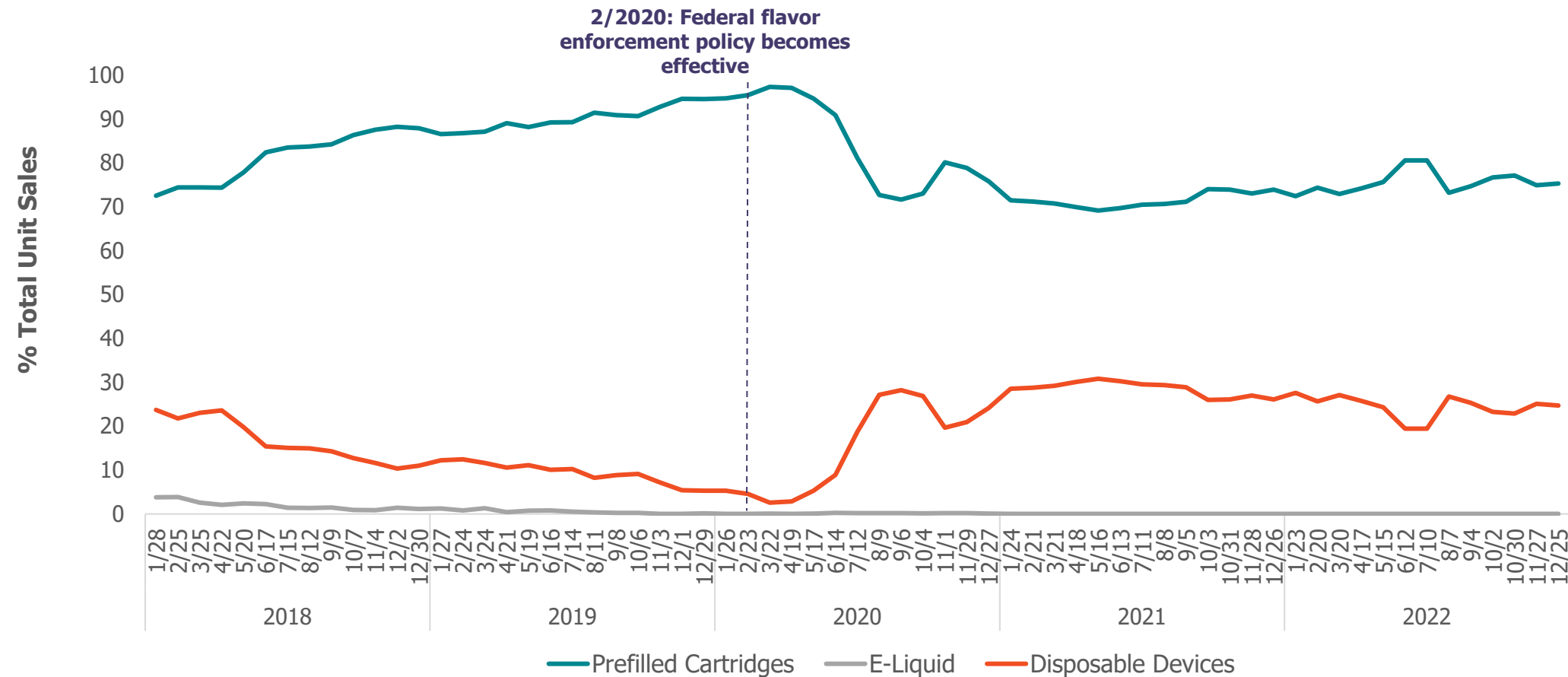
**Trends of Unit Sales by Flavor (10/6/19 - 1/26/20)**

- Following Washington’s temporary flavored e-cigarette restriction, monthly e-cigarette total unit sales decreased by 23.0% from October 6, 2019, to January 26, 2020 (from 205.0 thousand to 157.8 thousand).

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

- From February 23, 2020 to December 25, 2022, monthly e-cigarette unit sales increased by 67.2% from 170.7 to 285.4 thousand units.
- From February 23, 2020 to December 25, 2022:
  - Menthol-flavored e-cigarette sales increased by 582.8% (from 18.0 thousand to 123.2 thousand); unit share increased from 10.6% to 43.2%.
  - Tobacco-flavored e-cigarette sales decreased by 37.2% (from 151.7 thousand to 95.3 thousand); unit share decreased from 88.9% to 33.4%.
  - Mint-flavored e-cigarette sales increased by 196.0% (from 0.5 thousand to 1.5 thousand); unit share increased from 0.3% to 0.5%.
  - All other-flavored e-cigarette sales increased by 17035.3% (from 0.4 thousand to 65.3 thousand); unit share increased from 0.2% to 22.9%.

**Figure 41. Washington E-Cigarette Unit Sales by Product Type, 4 Week Estimates 1/2018 – 12/2022\***



\*Sales data do 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 contain 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 25, 2022:
  - Sales of disposable devices increased by 805.5% (from 7.8 thousand to 70.5 thousand); unit share increased from 4.6% to 24.7%.
  - Sales of prefilled cartridges increased by 31.9% (from 162.9 thousand to 215.0 thousand); unit share decreased from 95.4% to 75.3%.

**Figure 42. Washington E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 1/2018 – 12/2022**

