

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 June 2023.

- **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 June 2023, 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

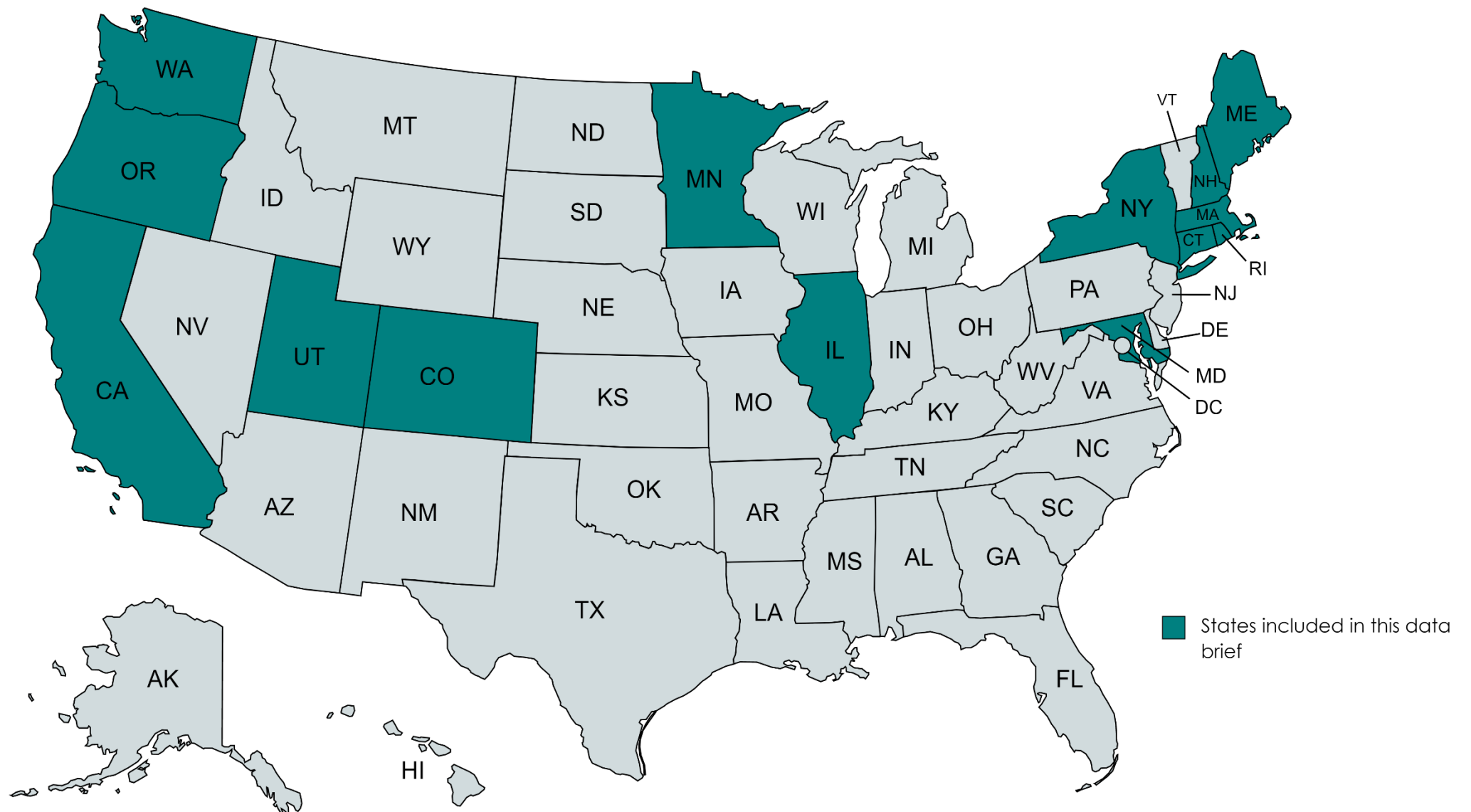
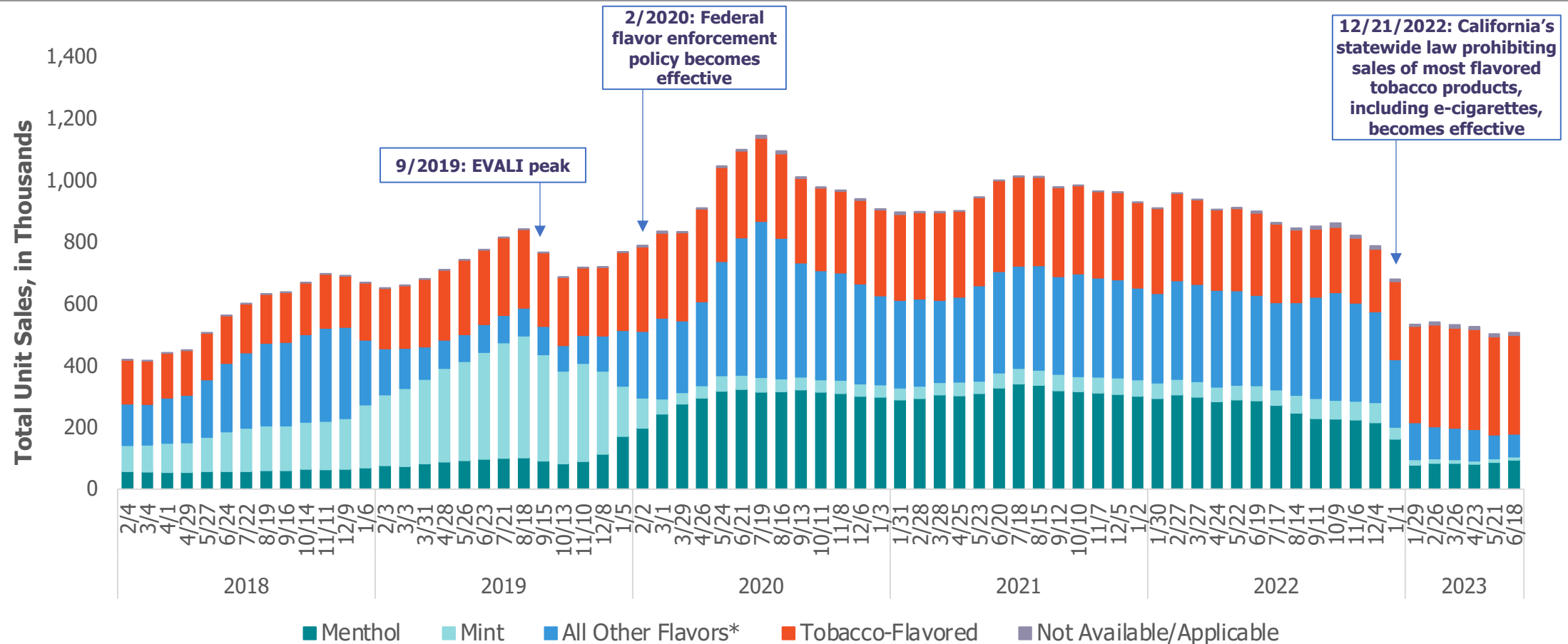


Figure 1. California E-Cigarette Unit Sales by Flavor, 4 Week Estimates 2/2018 – 6/2023*

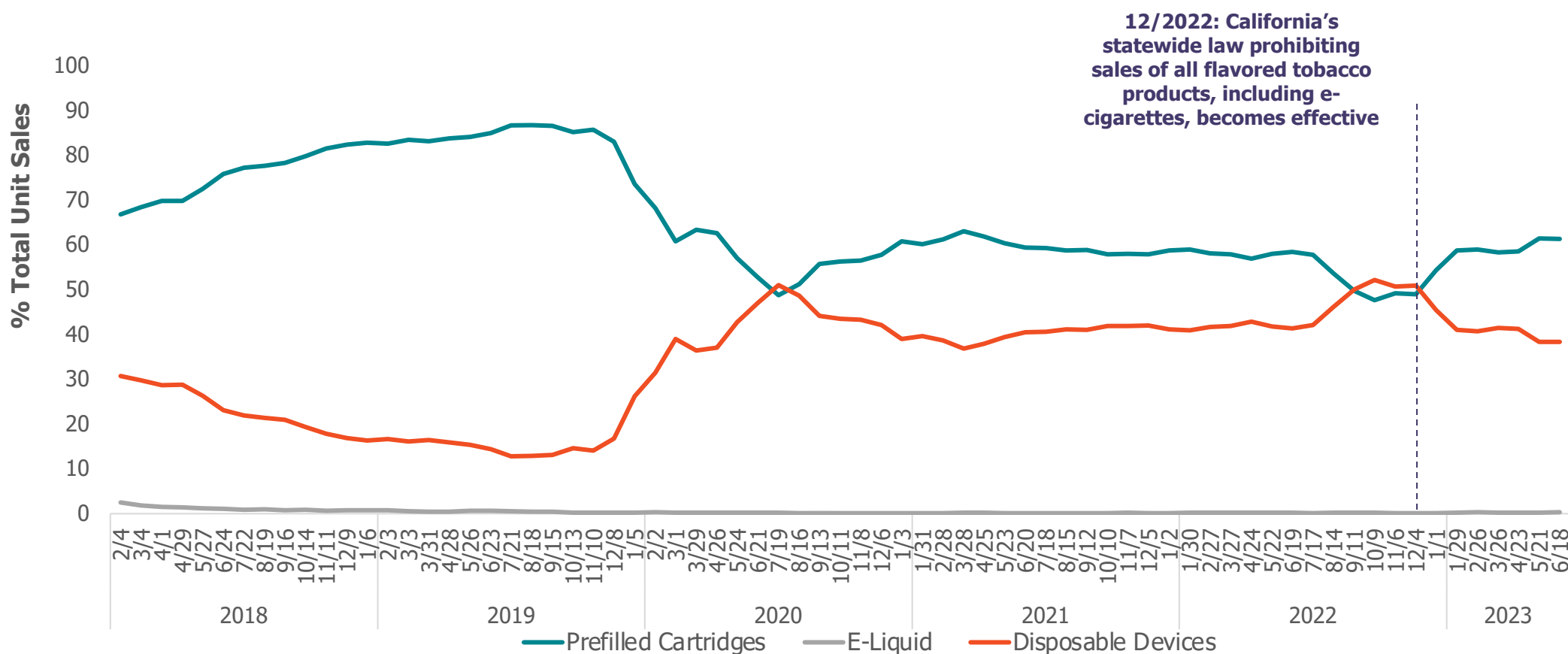


*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories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

- Following California's flavored e-cigarette restrictions, monthly e-cigarette total unit sales decreased by 35.7% from December 4, 2022 to June 18, 2023 (from 788.6 thousand to 507.2 thousand). This decline represents 30.2% (i.e., 281.4 thousand units out of 932.9 thousand units) of the decline in national e-cigarette sales that occurred during this period.
- From December 4, 2022 to June 18, 2023:
 - Tobacco-flavored e-cigarette sales increased by 56.6% (from 203.8 thousand to 319.0 thousand); unit share increased from 25.8% to 62.9%.
 - Non-tobacco-flavored e-cigarette sales decreased by 68.9% (from 574.6 thousand to 178.6 thousand); unit share decreased from 72.9% to 35.2%.
 - Menthol-flavored e-cigarette sales decreased by 56.3% (from 216.2 thousand to 94.5 thousand); unit share decreased from 27.4% to 18.6%.
 - Mint-flavored e-cigarette sales decreased by 82.8% (from 64.5 thousand to 11.1 thousand); unit share decreased from 8.2% to 2.2%.
 - All other-flavored e-cigarette sales decreased by 75.2% (from 293.8 thousand to 73.0 thousand); unit share decreased from 37.3% to 14.4%.
- As of June 18, 2023, disposable e-cigarettes represent 88.9% of sales of prohibited flavored e-cigarettes in California.

Figure 2. California E-Cigarette Unit Sales by Product Type, 4 Week Estimates 2/2018 – 6/2023*



*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 devices; 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. 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 California's Flavor Sales Restriction

- Following California's flavored e-cigarette restrictions, between December 4, 2022 and June 18, 2023:
 - Sales of disposable devices decreased by 51.5% (from 401.3 thousand to 194.5 thousand); unit share decreased from 50.9% to 38.4%.
 - Sales of prefilled cartridges decreased by 19.4% (from 386.1 thousand to 311.0 thousand); unit share increased from 49.0% to 61.3%.

Figure 3. California E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 2/2018 – 6/2023

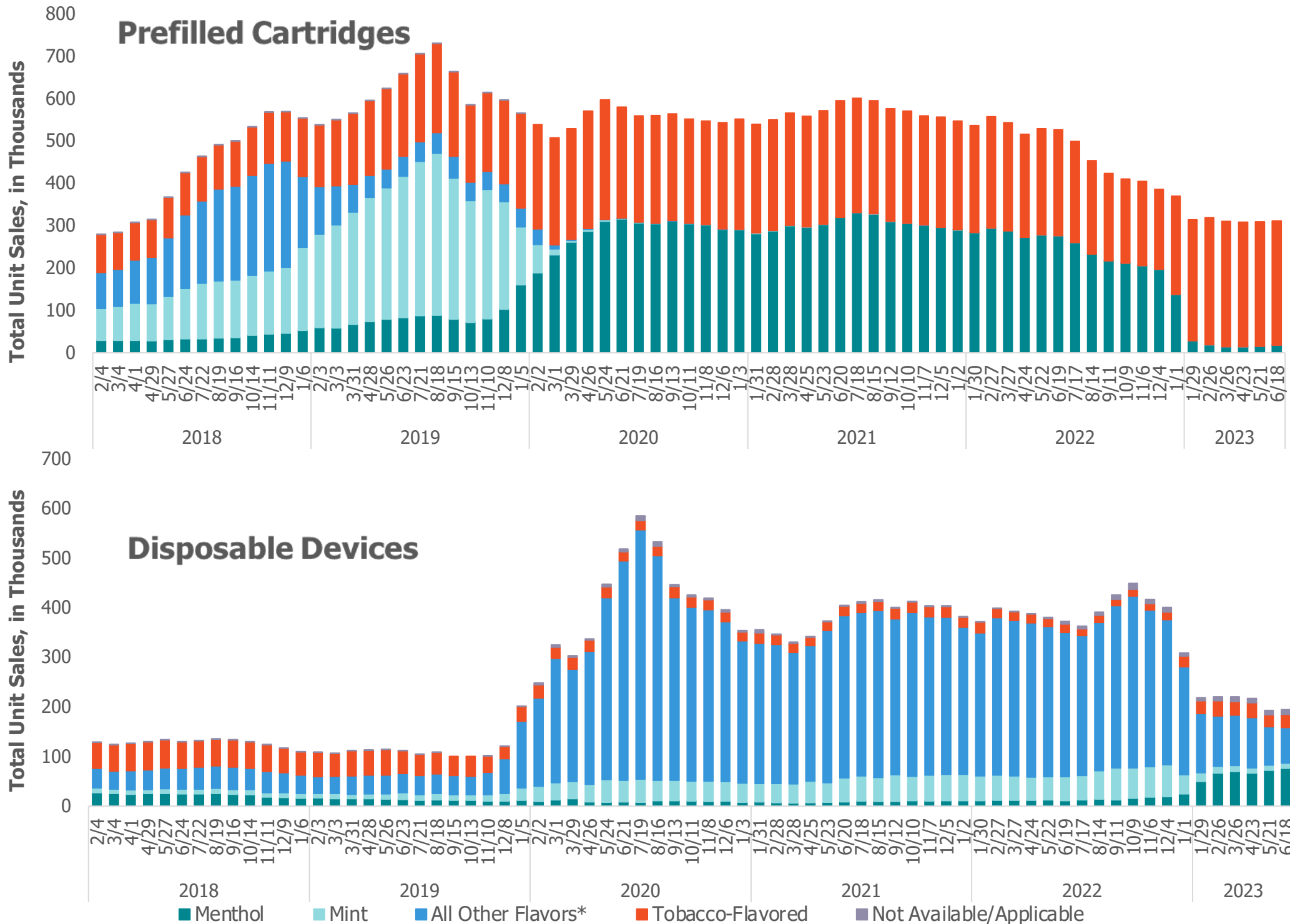
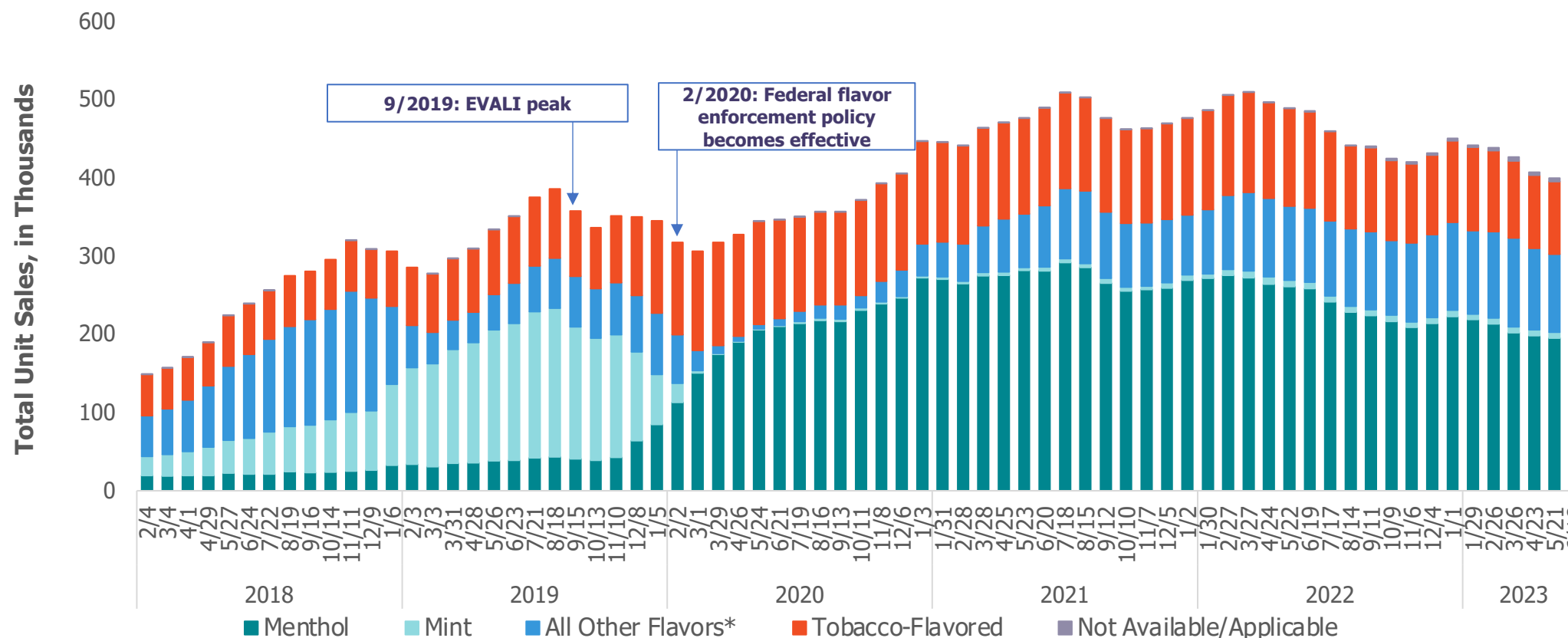


Figure 4. Colorado E-Cigarette Unit Sales by Flavor, 4 Week Estimates 2/2018 – 6/2023*

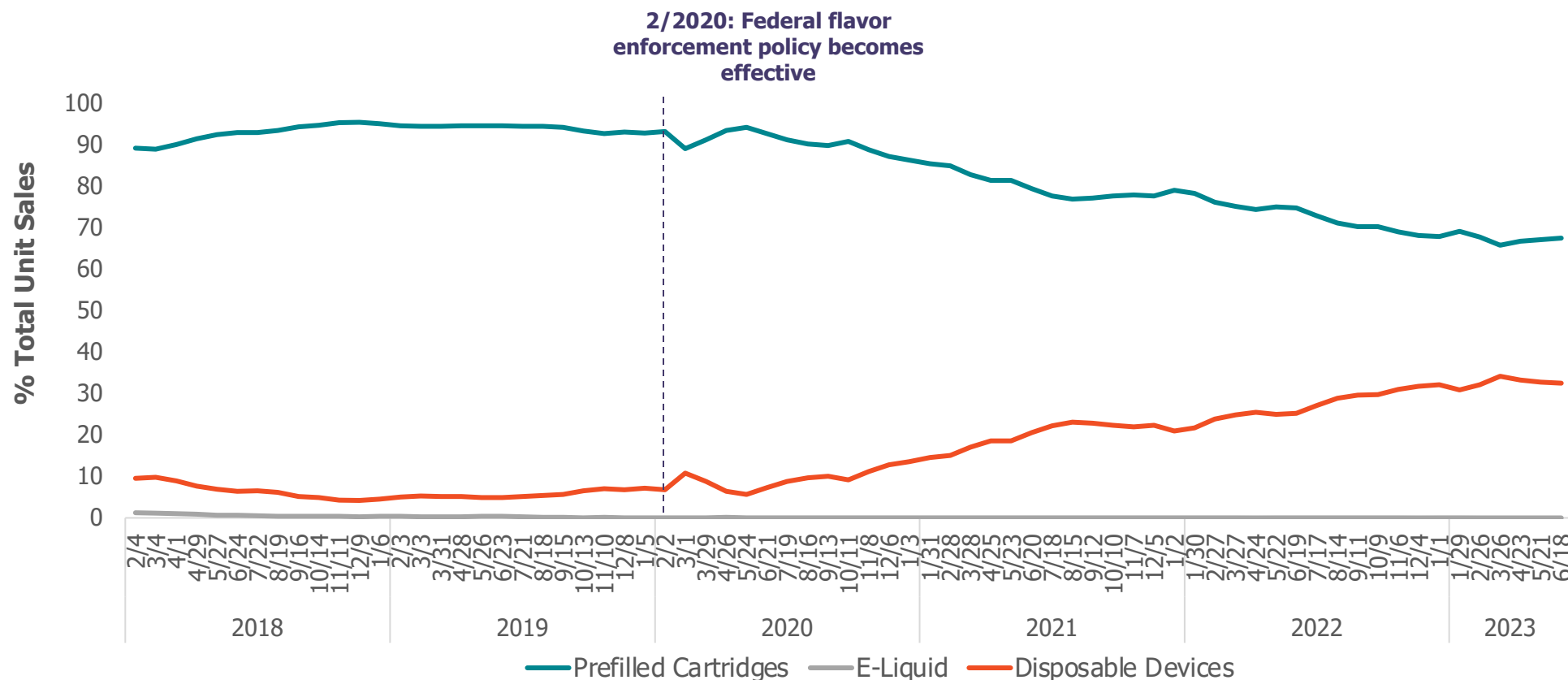


*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories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

- From February 2, 2020 to June 18, 2023, monthly e-cigarette unit sales increased by 22.8% from 317.3 to 389.5 thousand units.
- From February 2, 2020 to June 18, 2023:
 - Tobacco-flavored e-cigarette sales decreased by 22.3% (from 117.8 thousand to 91.5 thousand); unit share decreased from 37.1% to 23.5%.
 - Non-tobacco-flavored e-cigarette sales increased by 47.0% (from 199.5 thousand to 293.3 thousand); unit share increased from 62.9% to 75.3%.
 - Menthol-flavored e-cigarette sales increased by 69.3% (from 112.7 thousand to 190.8 thousand); unit share increased from 35.5% to 49.0%.
 - Mint-flavored e-cigarette sales decreased by 65.5% (from 24.7 thousand to 8.5 thousand); unit share decreased from 7.8% to 2.2%.
 - All other-flavored e-cigarette sales increased by 51.2% (from 62.1 thousand to 93.9 thousand); unit share increased from 19.6% to 24.1%.

Figure 5. Colorado E-Cigarette Unit Sales by Product Type, 4 Week Estimates 2/2018 – 6/2023*



*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 devices; 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. 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

- 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 2, 2020 and June 18, 2023:
 - Sales of disposable devices increased by 491.0% (from 21.4 thousand to 126.5 thousand); unit share increased from 6.7% to 32.5%.
 - Sales of prefilled cartridges decreased by 11.1% (from 295.8 thousand to 263.0 thousand); unit share decreased from 93.2% to 67.5%.

Figure 6. Colorado E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 2/2018 – 6/2023

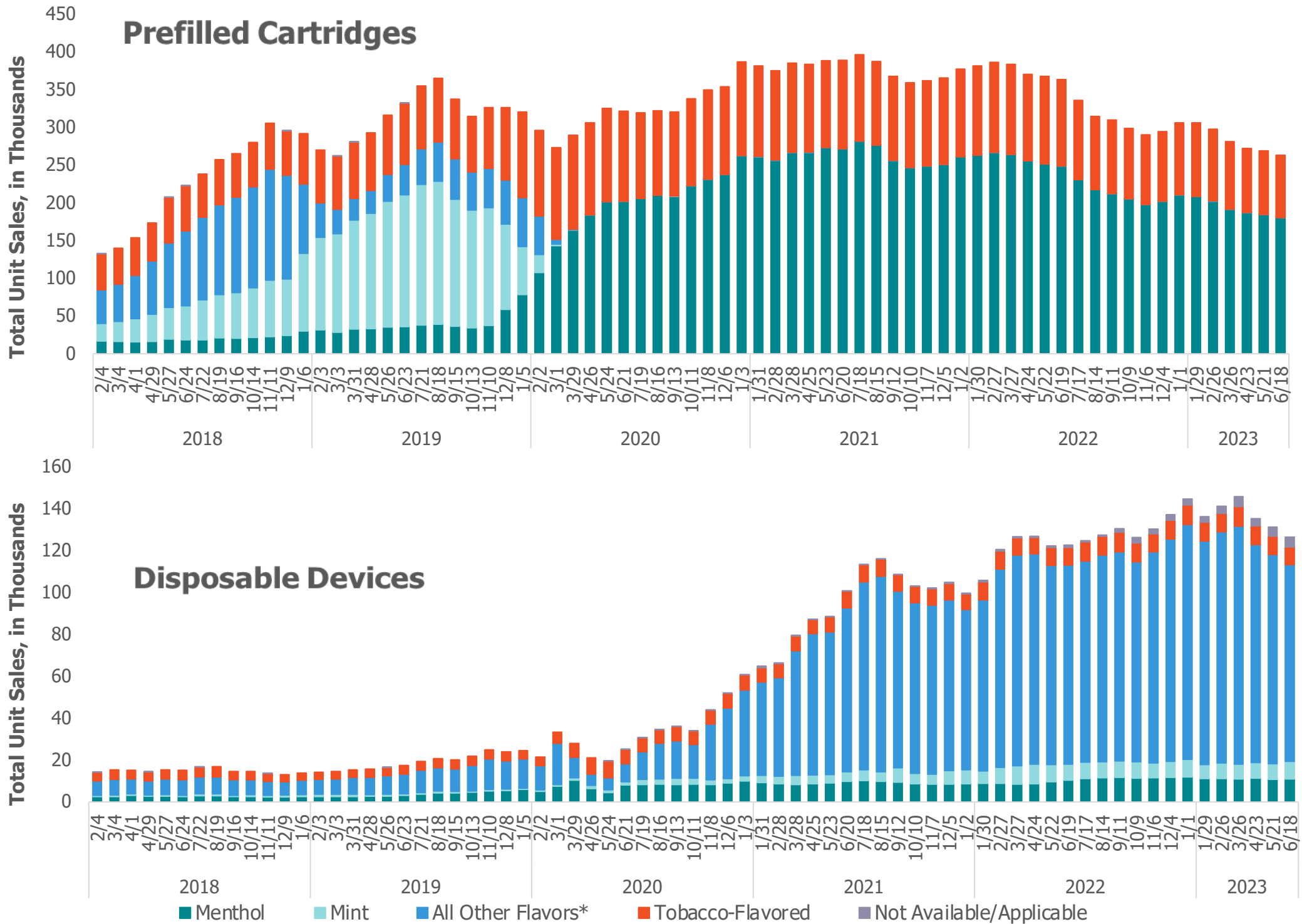
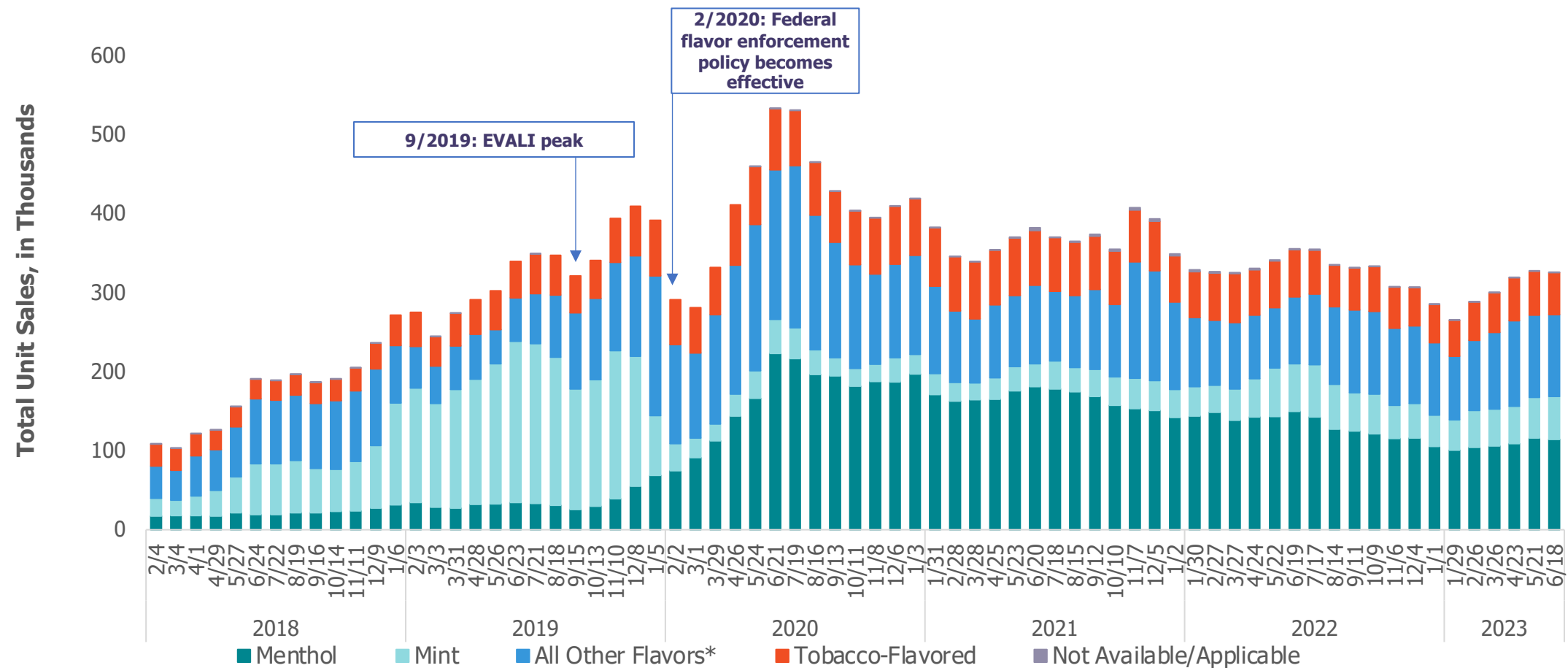


Figure 7. Connecticut E-Cigarette Unit Sales by Flavor, 4 Week Estimates 2/2018 – 6/2023*

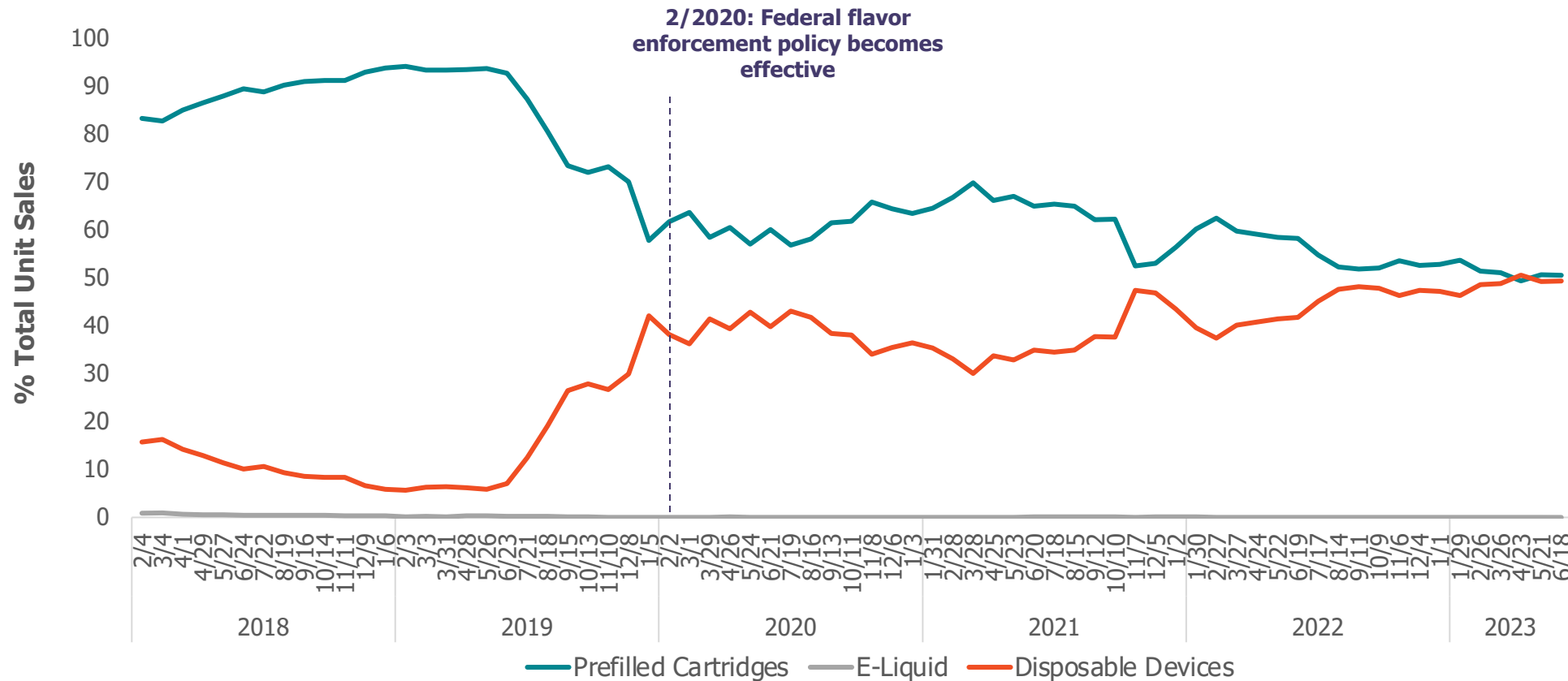


*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories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

- From February 2, 2020 to June 18, 2023, monthly e-cigarette unit sales increased by 11.8% from 291.2 to 325.5 thousand units.
- From February 2, 2020 to June 18, 2023:
 - Tobacco-flavored e-cigarette sales decreased by 6.6% (from 57.0 thousand to 53.2 thousand); unit share decreased from 19.6% to 16.4%.
 - Non-tobacco-flavored e-cigarette sales increased by 16.1% (from 234.2 thousand to 272.0 thousand); unit share increased from 80.4% to 83.5%.
 - Menthol-flavored e-cigarette sales increased by 53.4% (from 74.7 thousand to 114.6 thousand); unit share increased from 25.6% to 35.2%.
 - Mint-flavored e-cigarette sales increased by 58.3% (from 34.3 thousand to 54.2 thousand); unit share increased from 11.8% to 16.7%.
 - All other-flavored e-cigarette sales decreased by 17.7% (from 125.3 thousand to 103.1 thousand); unit share decreased from 43.0% to 31.7%.

Figure 8. Connecticut E-Cigarette Unit Sales by Product Type, 4 Week Estimates 2/2018 – 6/2023*



*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 devices; 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. 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

- 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 2, 2020 and June 18, 2023:
 - Sales of disposable devices increased by 44.6% (from 111.2 thousand to 160.9 thousand); unit share increased from 38.2% to 49.4%.
 - Sales of prefilled cartridges decreased by 8.5% (from 179.9 thousand to 164.7 thousand); unit share decreased from 61.8% to 50.6%.

Figure 9. Connecticut E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 2/2018 – 6/2023

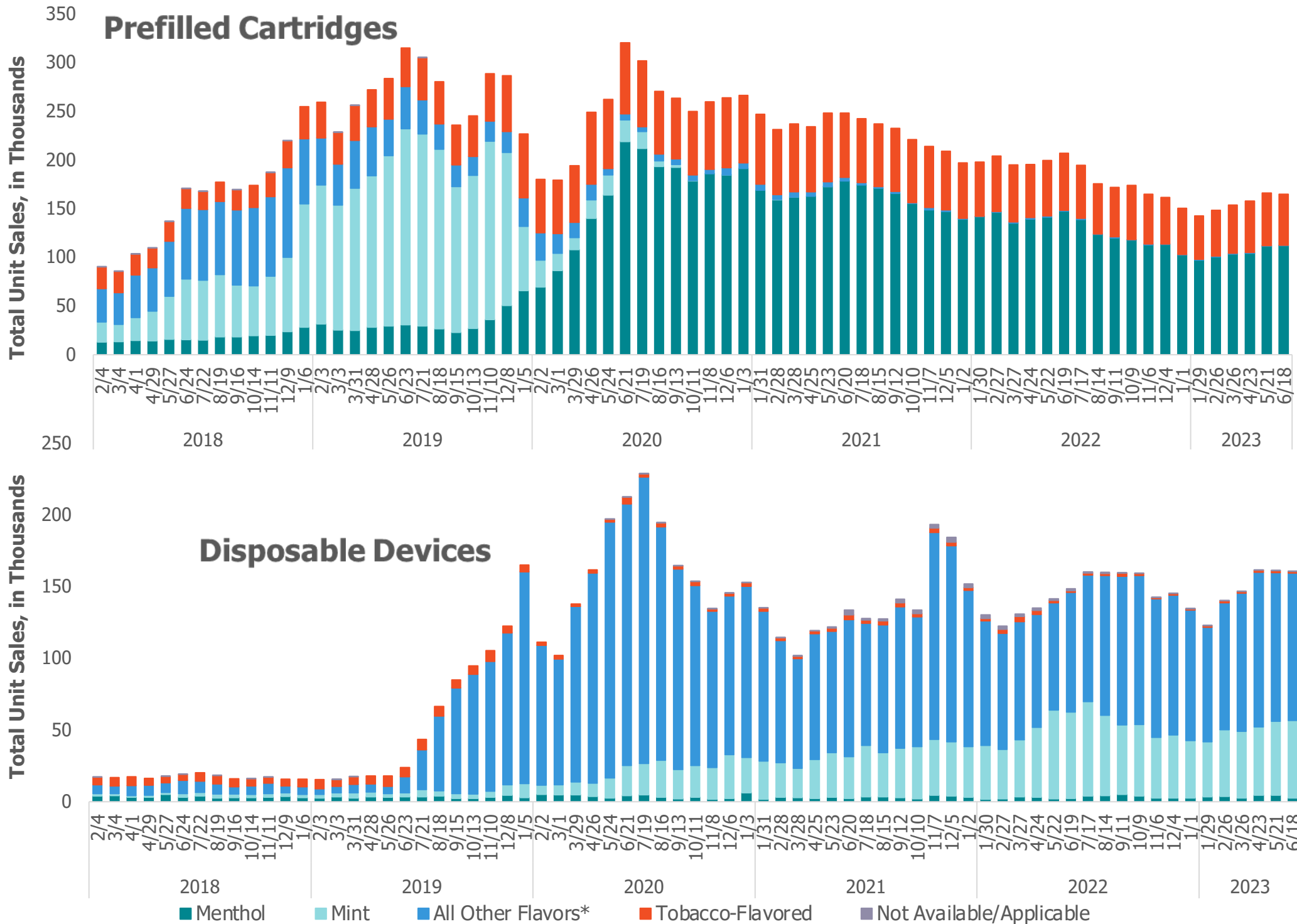
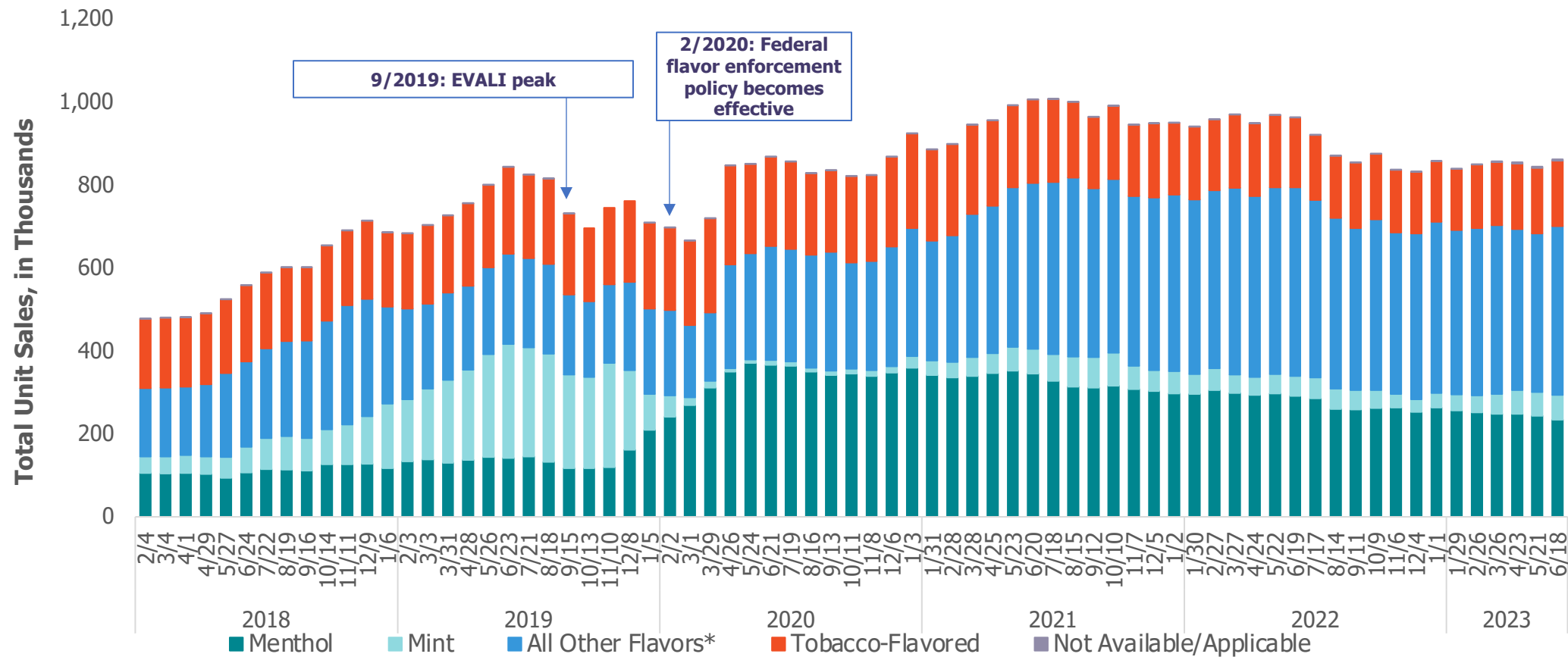


Figure 10. Illinois E-Cigarette Unit Sales by Flavor, 4 Week Estimates 2/2018 – 6/2023*

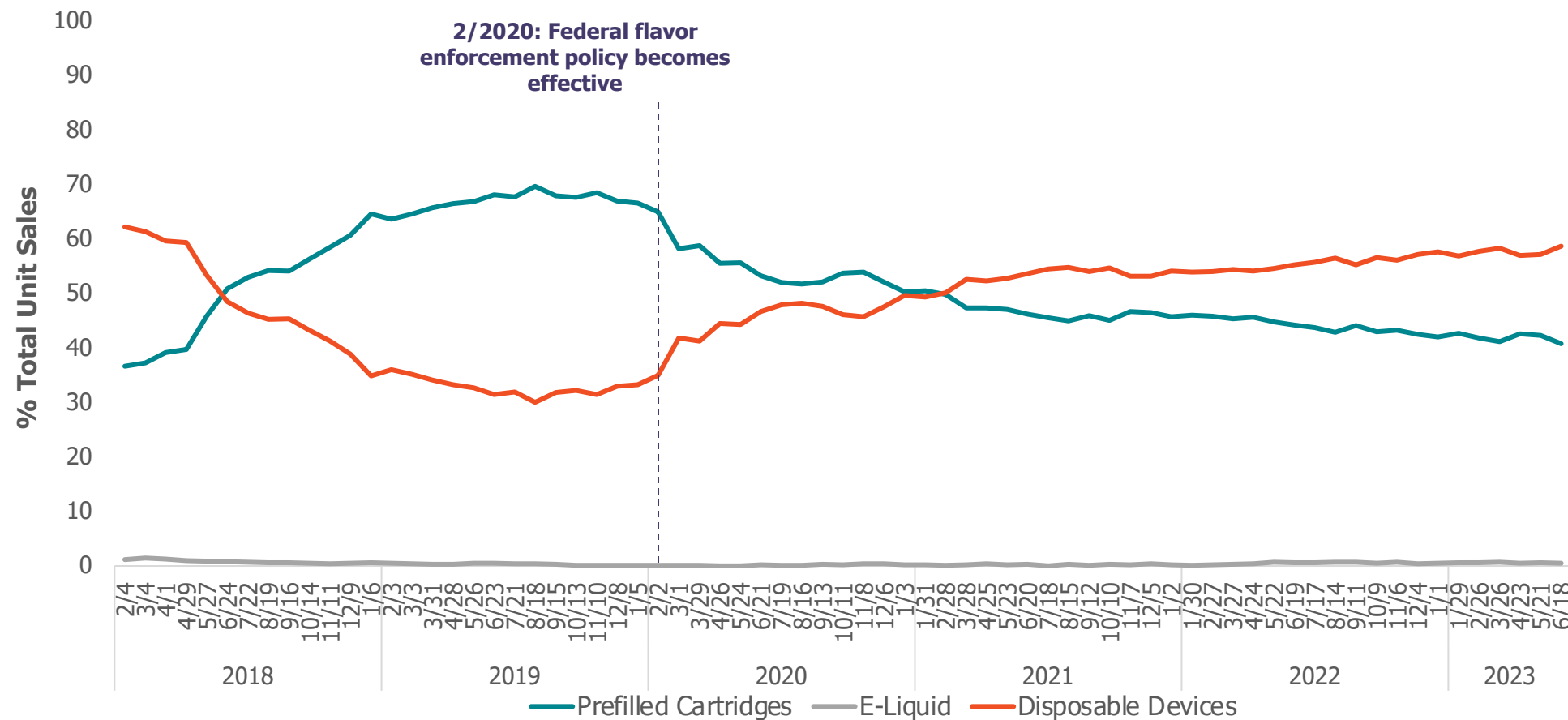


*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories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

- From February 2, 2020 to June 18, 2023, monthly e-cigarette unit sales increased by 23.7% from 696.5 to 861.5 thousand units.
- From February 2, 2020 to June 18, 2023:
 - Tobacco-flavored e-cigarette sales decreased by 20.6% (from 198.4 thousand to 157.6 thousand); unit share decreased from 28.5% to 18.3%.
 - Non-tobacco-flavored e-cigarette sales increased by 40.7% (from 498.0 thousand to 700.7 thousand); unit share increased from 71.5% to 81.3%.
 - Menthol-flavored e-cigarette sales decreased by 3.0% (from 241.0 thousand to 233.8 thousand); unit share decreased from 34.6% to 27.1%.
 - Mint-flavored e-cigarette sales increased by 17.9% (from 50.9 thousand to 60.0 thousand); unit share decreased from 7.3% to 7.0%.
 - All other-flavored e-cigarette sales increased by 97.4% (from 206.1 thousand to 406.9 thousand); unit share increased from 29.6% to 47.2%.

Figure 11. Illinois E-Cigarette Unit Sales by Product Type, 4 Week Estimates 2/2018 – 6/2023*



*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 devices; 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. 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

- 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 2, 2020 and June 18, 2023:
 - Sales of disposable devices increased by 107.6% (from 243.5 thousand to 505.6 thousand); unit share increased from 35.0% to 58.7%.
 - Sales of prefilled cartridges decreased by 22.3% (from 452.0 thousand to 351.2 thousand); unit share decreased from 64.9% to 40.8%.

Figure 12. Illinois E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 2/2018 – 6/2023

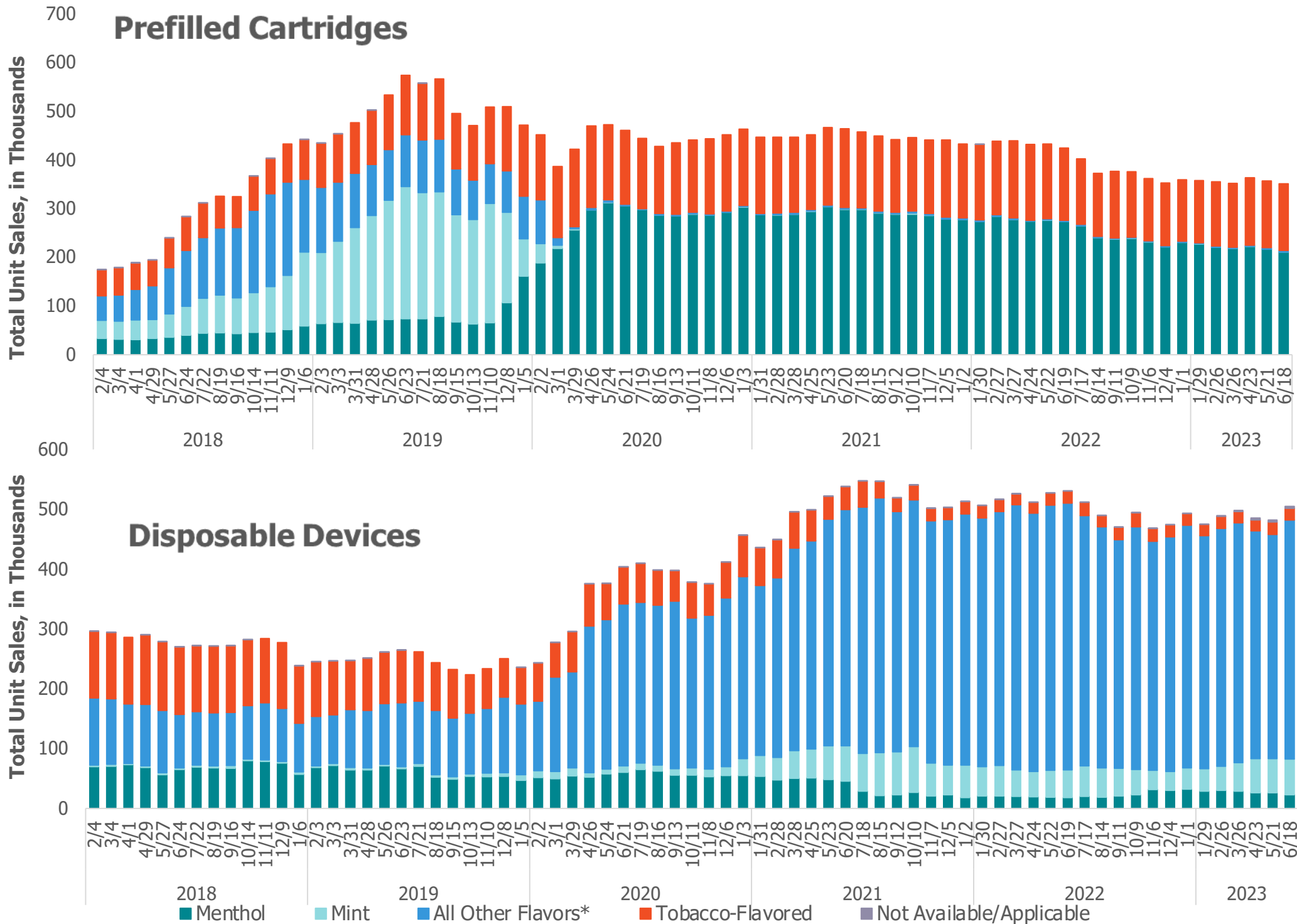
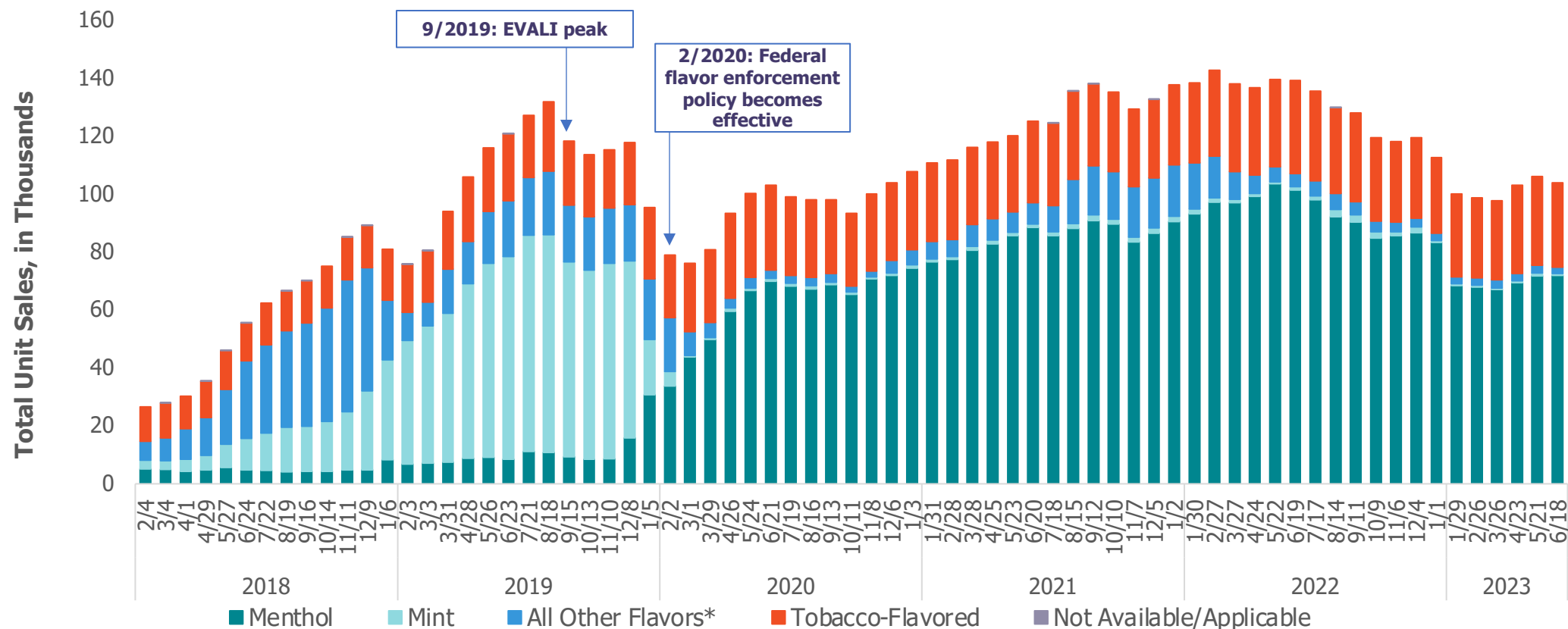


Figure 13. Maine E-Cigarette Unit Sales by Flavor, 4 Week Estimates 2/2018 – 6/2023*

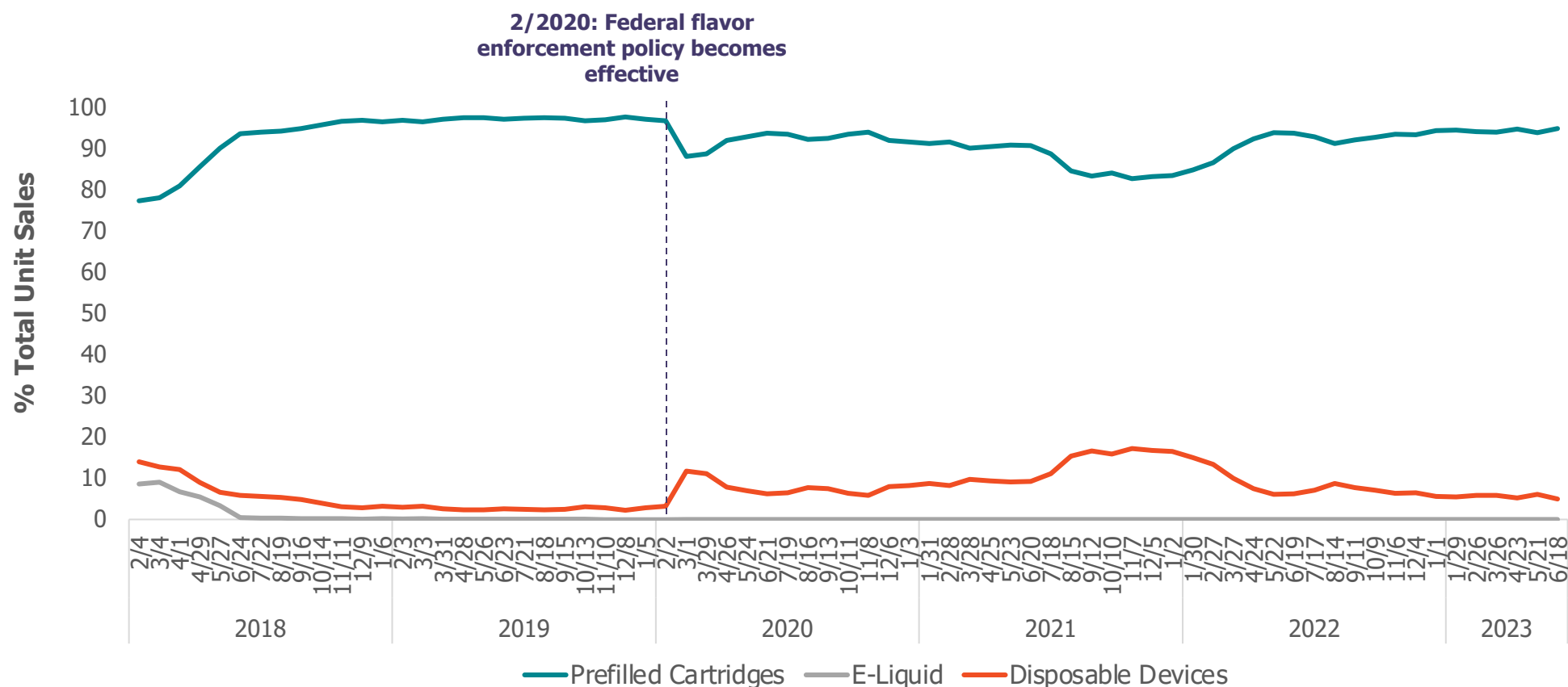


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Trends of Unit Sales by Flavor Following FDA’s Flavor Enforcement Policy

- From February 2, 2020 to June 18, 2023, monthly e-cigarette unit sales increased by 31.5% from 78.9 to 103.8 thousand units.
- From February 2, 2020 to June 18, 2023:
 - Tobacco-flavored e-cigarette sales increased by 34.6% (from 21.6 thousand to 29.1 thousand); unit share increased from 27.4% to 28.1%.
 - Non-tobacco-flavored e-cigarette sales increased by 30.4% (from 57.3 thousand to 74.7 thousand); unit share decreased from 72.6% to 71.9%.
 - Menthol-flavored e-cigarette sales increased by 113.5% (from 33.7 thousand to 71.9 thousand); unit share increased from 42.7% to 69.3%.
 - Mint-flavored e-cigarette sales decreased by 86.7% (from 5.2 thousand to 0.7 thousand); unit share decreased from 6.5% to 0.7%.
 - All other-flavored e-cigarette sales decreased by 88.7% (from 18.4 thousand to 2.1 thousand); unit share decreased from 23.4% to 2.0%.

Figure 14. Maine E-Cigarette Unit Sales by Product Type, 4 Week Estimates 2/2018 – 6/2023*



*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 devices; 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. 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

- 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 2, 2020 and June 18, 2023:
 - Sales of disposable devices increased by 108.3% (from 2.5 thousand to 5.2 thousand); unit share increased from 3.2% to 5.0%.
 - Sales of prefilled cartridges increased by 29.0% (from 76.4 thousand to 98.6 thousand); unit share decreased from 96.8% to 95.0%.

Figure 15. Maine E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 2/2018 – 6/2023

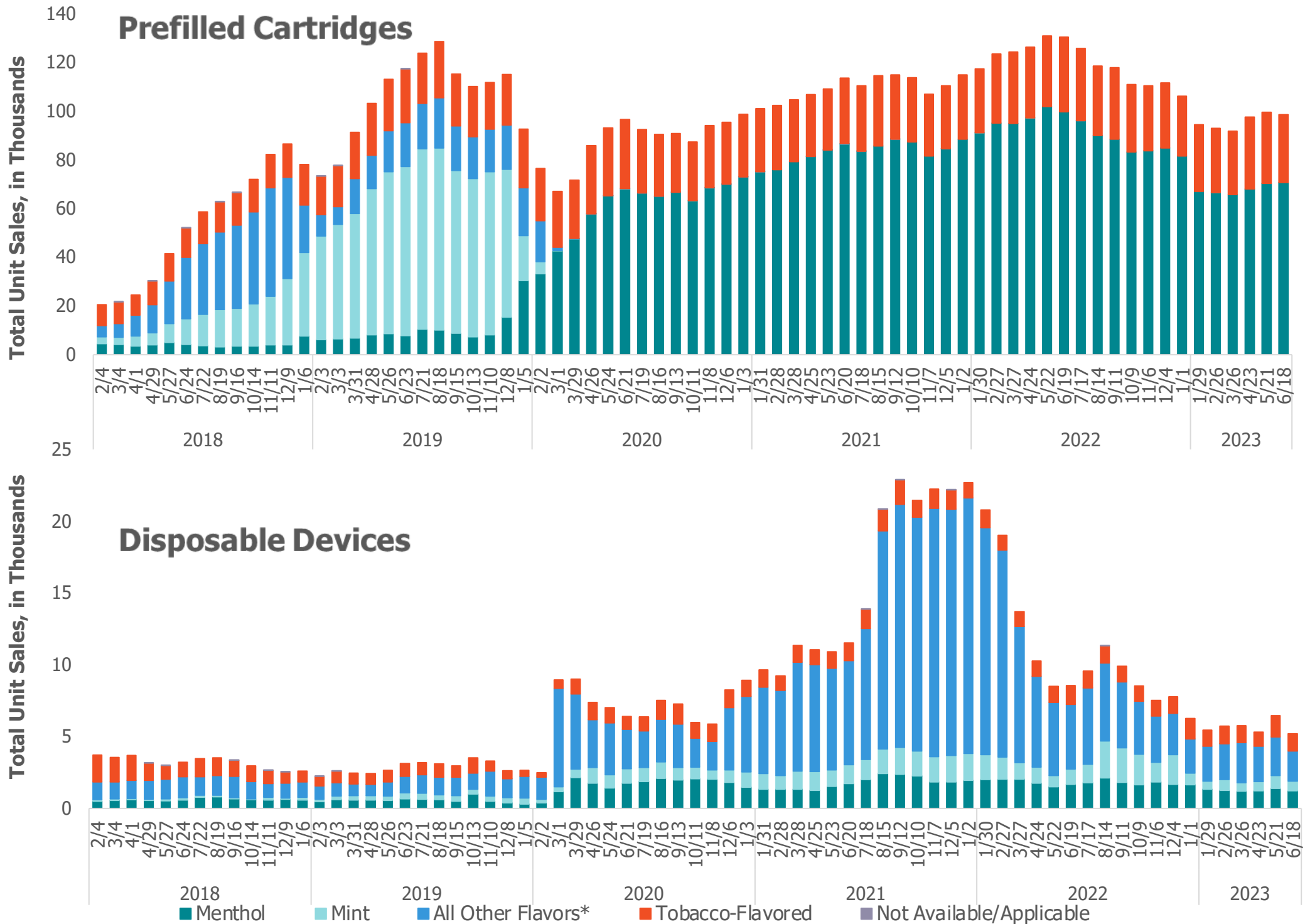
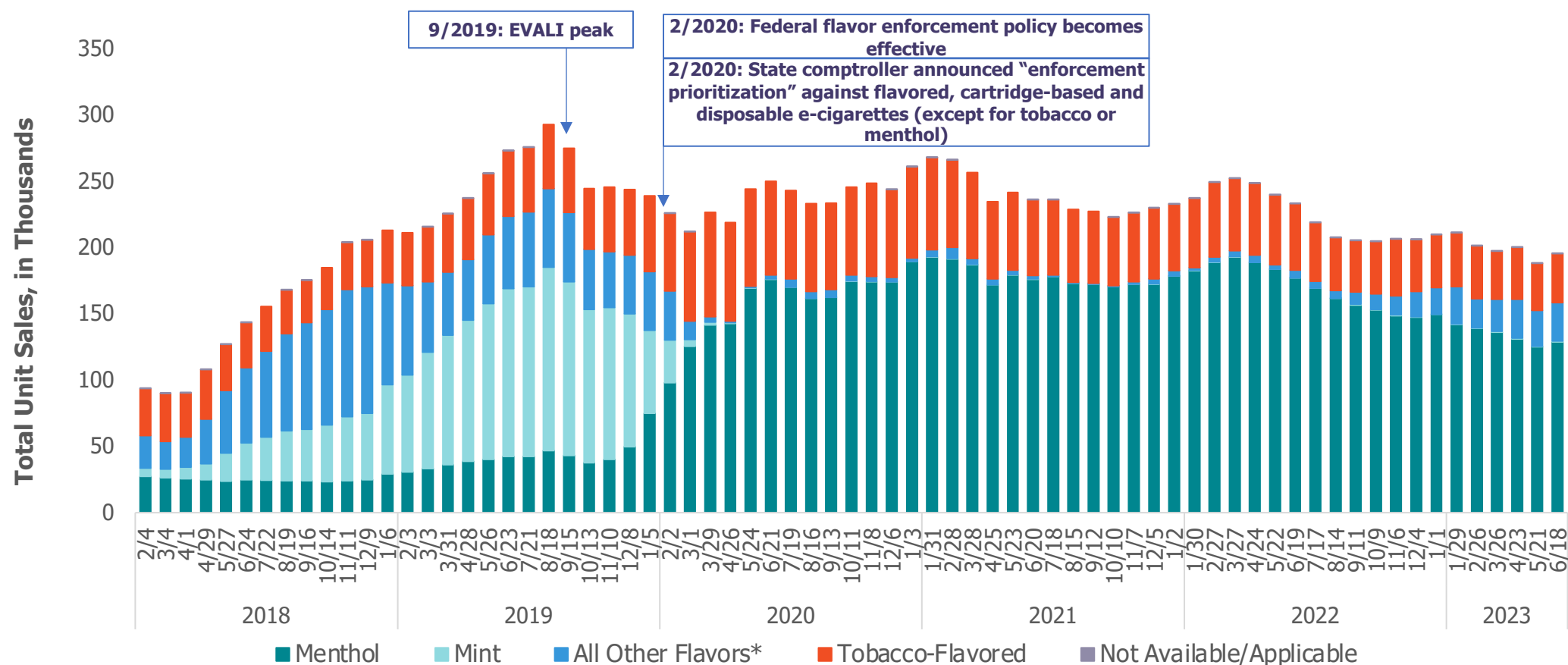


Figure 16. Maryland E-Cigarette Unit Sales by Flavor, 4 Week Estimates 2/2018 – 6/2023*

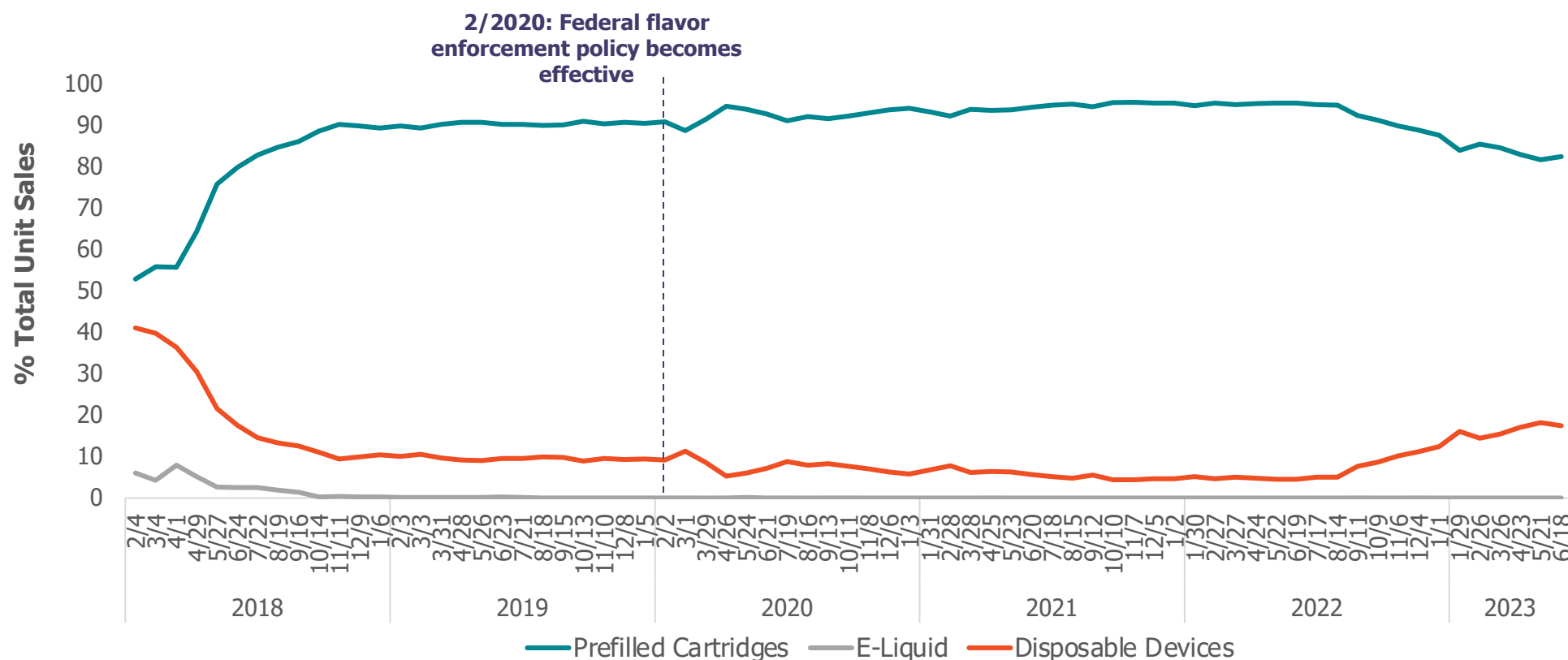


*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories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

- From February 2, 2020 to June 18, 2023, monthly e-cigarette unit sales decreased by 13.4% from 225.8 to 195.5 thousand units.
- From February 2, 2020 to June 18, 2023:
 - Tobacco-flavored e-cigarette sales decreased by 37.1% (from 58.7 thousand to 36.9 thousand); unit share decreased from 26.0% to 18.9%.
 - Non-tobacco-flavored e-cigarette sales decreased by 5.1% (from 167.1 thousand to 158.5 thousand); unit share increased from 74.0% to 81.1%.
 - Menthol-flavored e-cigarette sales increased by 31.5% (from 98.0 thousand to 128.9 thousand); unit share increased from 43.4% to 65.9%.
 - Mint-flavored e-cigarette sales decreased by 97.6% (from 32.4 thousand to 0.8 thousand); unit share decreased from 14.3% to 0.4%.
 - All other-flavored e-cigarette sales decreased by 21.4% (from 36.8 thousand to 28.9 thousand); unit share decreased from 16.3% to 14.8%.

Figure 17. Maryland E-Cigarette Unit Sales by Product Type, 4 Week Estimates 2/2018 – 6/2023*



*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 devices; 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. 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

- 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 2, 2020 and June 18, 2023:
 - Sales of disposable devices increased by 65.2% (from 20.7 thousand to 34.2 thousand); unit share increased from 9.2% to 17.5%.
 - Sales of prefilled cartridges decreased by 21.4% (from 205.1 thousand to 161.3 thousand); unit share decreased from 90.8% to 82.5%.

Figure 18. Maryland E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 2/2018 – 6/2023

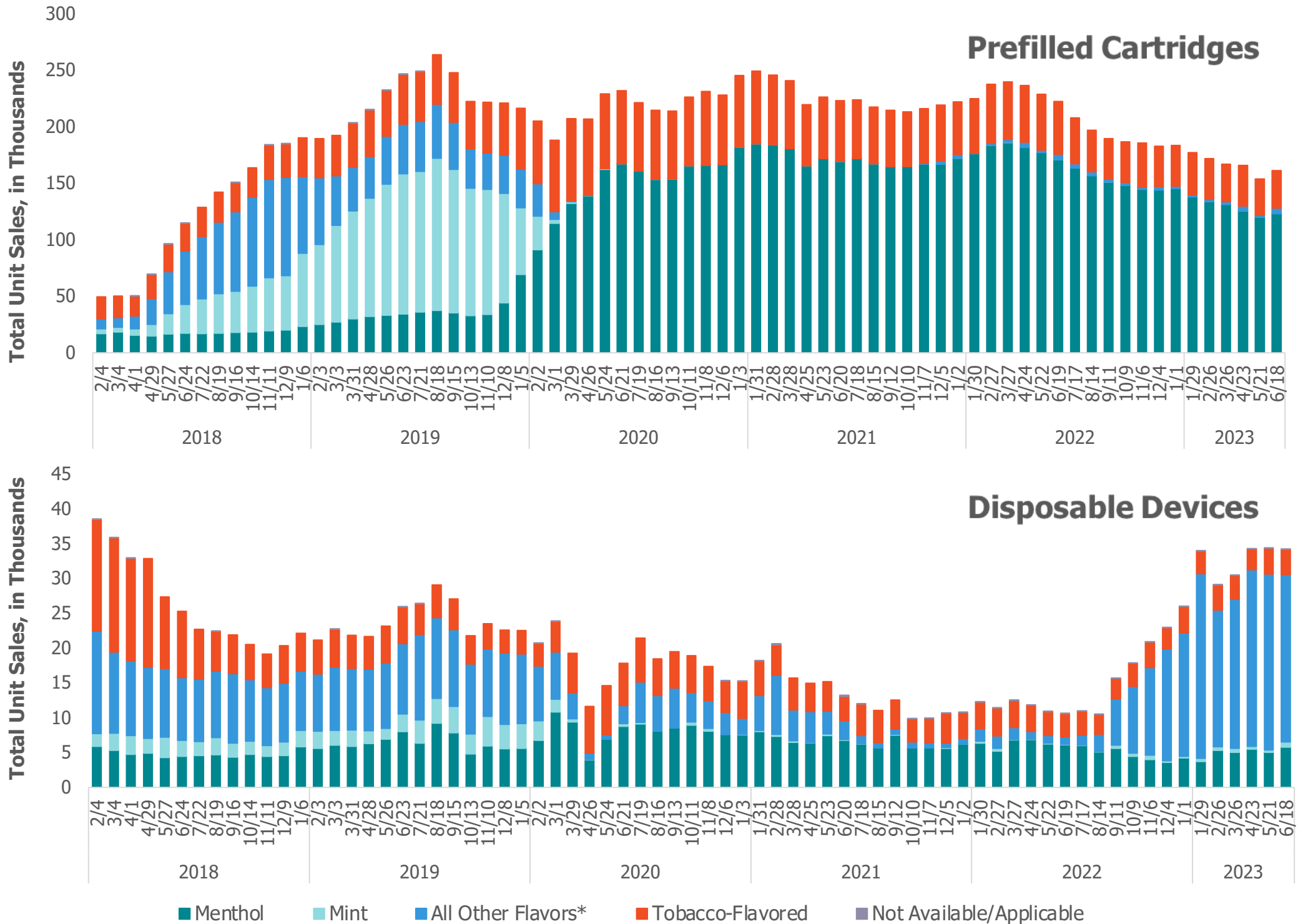
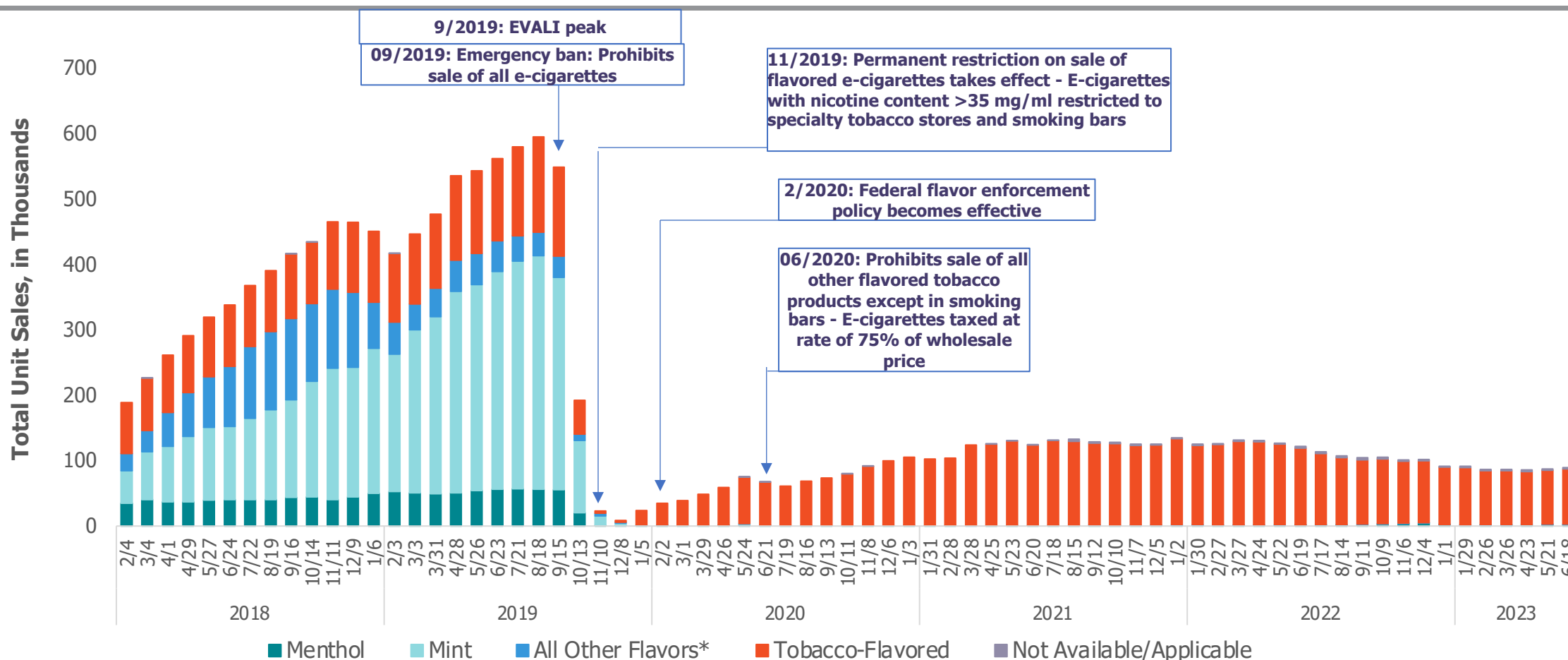


Figure 19. Massachusetts E-Cigarette Unit Sales by Flavor, 4 Week Estimates 2/2018 – 6/2023*

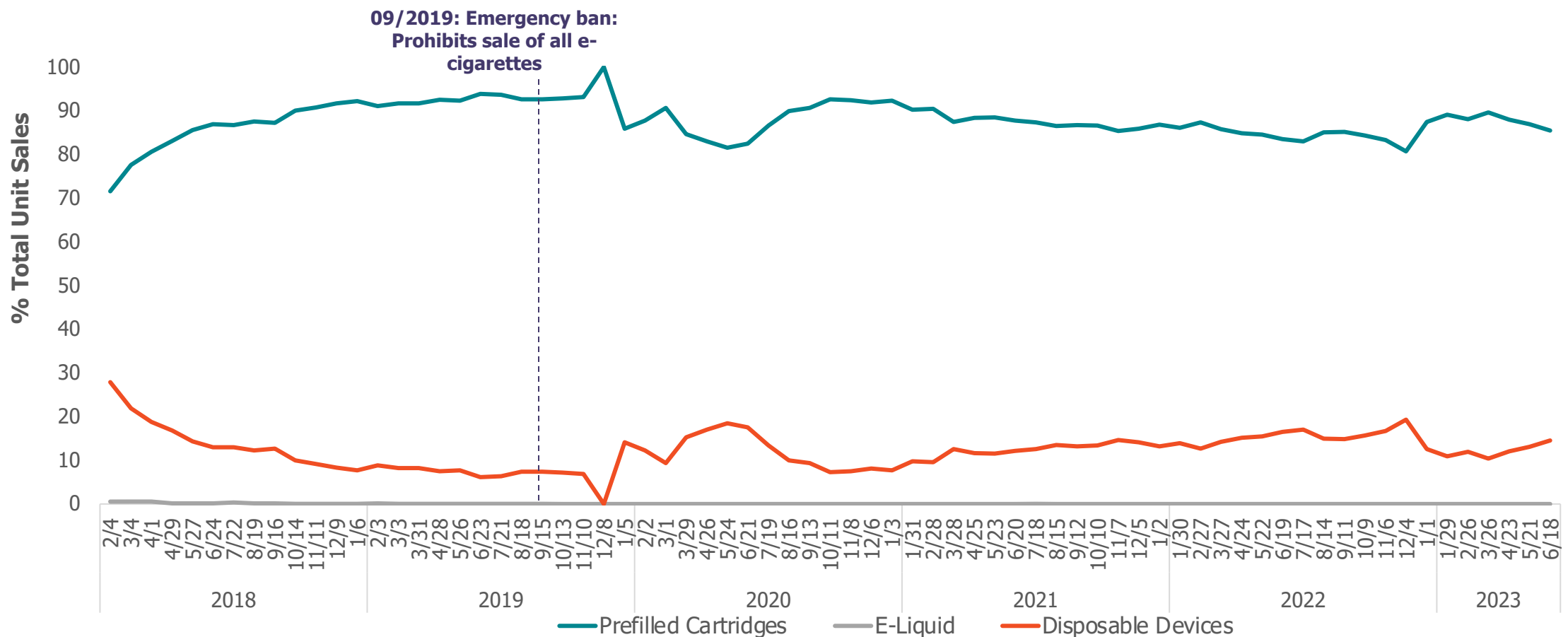


*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories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

- Following Massachusetts's flavored e-cigarette restrictions, monthly e-cigarette total unit sales decreased by 83.7% from September 15, 2019 to June 18, 2023 (from 549.1 thousand to 89.7 thousand). During this period, monthly e-cigarette total unit sales of flavors other than tobacco decreased by 99.3% (from 413.0 thousand to 2.9 thousand).
- From September 15, 2019 to June 18, 2023:
 - Tobacco-flavored e-cigarette sales decreased by 37.7% (from 136.1 thousand to 84.8 thousand); unit share increased from 24.8% to 94.5%.
 - Non-tobacco-flavored e-cigarette sales decreased by 99.3% (from 413.0 thousand to 2.9 thousand); unit share decreased from 75.2% to 3.2%.
 - Menthol-flavored e-cigarette sales decreased by 95.7% (from 55.6 thousand to 2.4 thousand); unit share decreased from 10.1% to 2.6%.
 - Mint-flavored e-cigarette sales decreased by 100.0% (from 325.0 thousand to 0.1 thousand); unit share decreased from 59.2% to 0.1%.
 - All other-flavored e-cigarette sales decreased by 98.6% (from 32.4 thousand to 0.5 thousand); unit share decreased from 5.9% to 0.5%.

Figure 20. Massachusetts E-Cigarette Unit Sales by Product Type, 4 Week Estimates 2/2018 – 6/2023*



*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 devices; 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. 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 Massachusetts’s Flavored E-cigarette Restriction

- Following Massachusetts’s flavored e-cigarette restriction, between September 15, 2019 and June 18, 2023:
 - Sales of disposable devices decreased by 67.9% (from 40.6 thousand to 13.1 thousand); unit share increased from 7.4% to 14.6%.
 - Sales of prefilled cartridges decreased by 84.9% (from 508.5 thousand to 76.7 thousand); unit share decreased from 92.6% to 85.4%.

Figure 21. Massachusetts E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 2/2018 – 6/2023

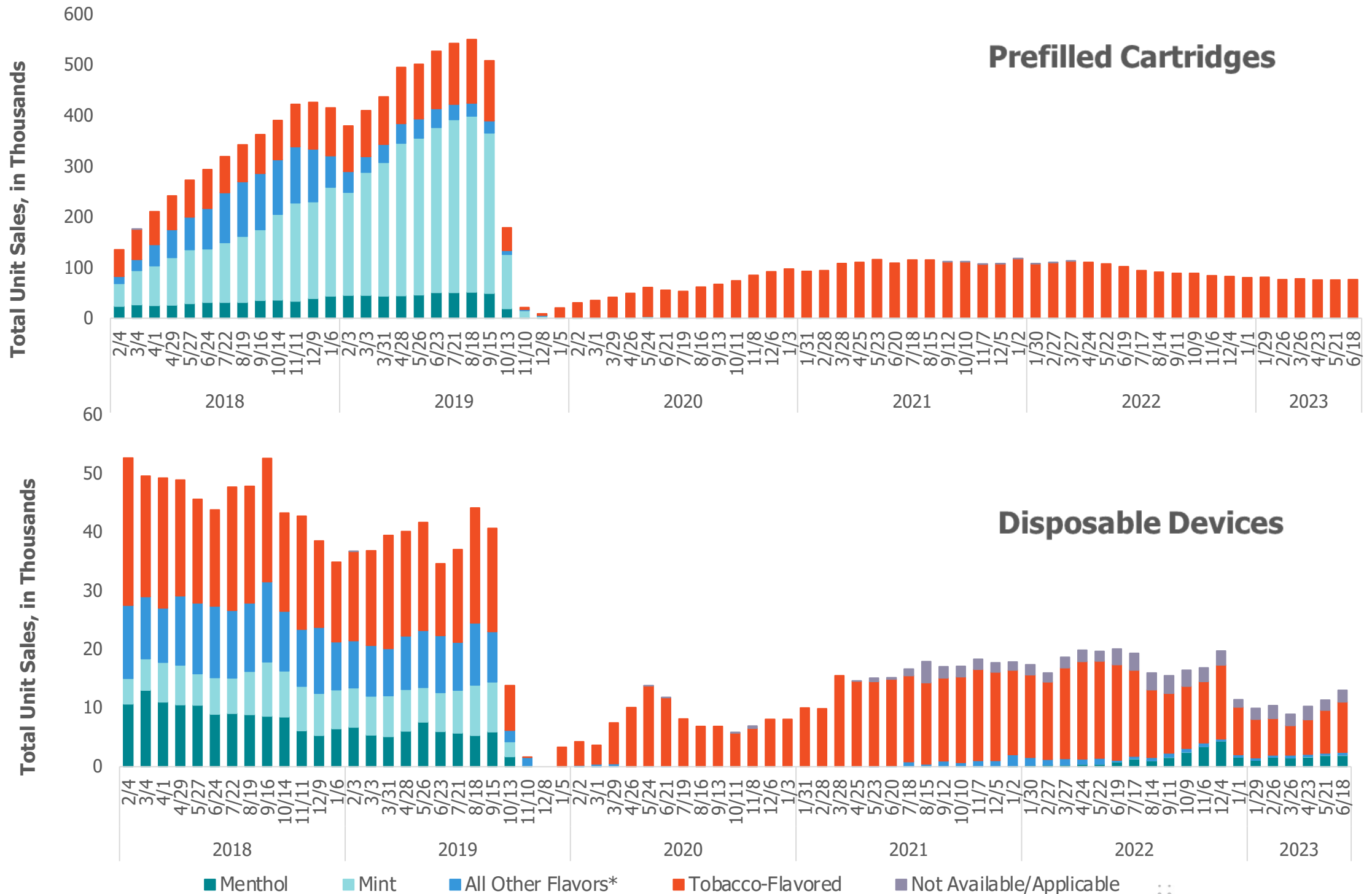
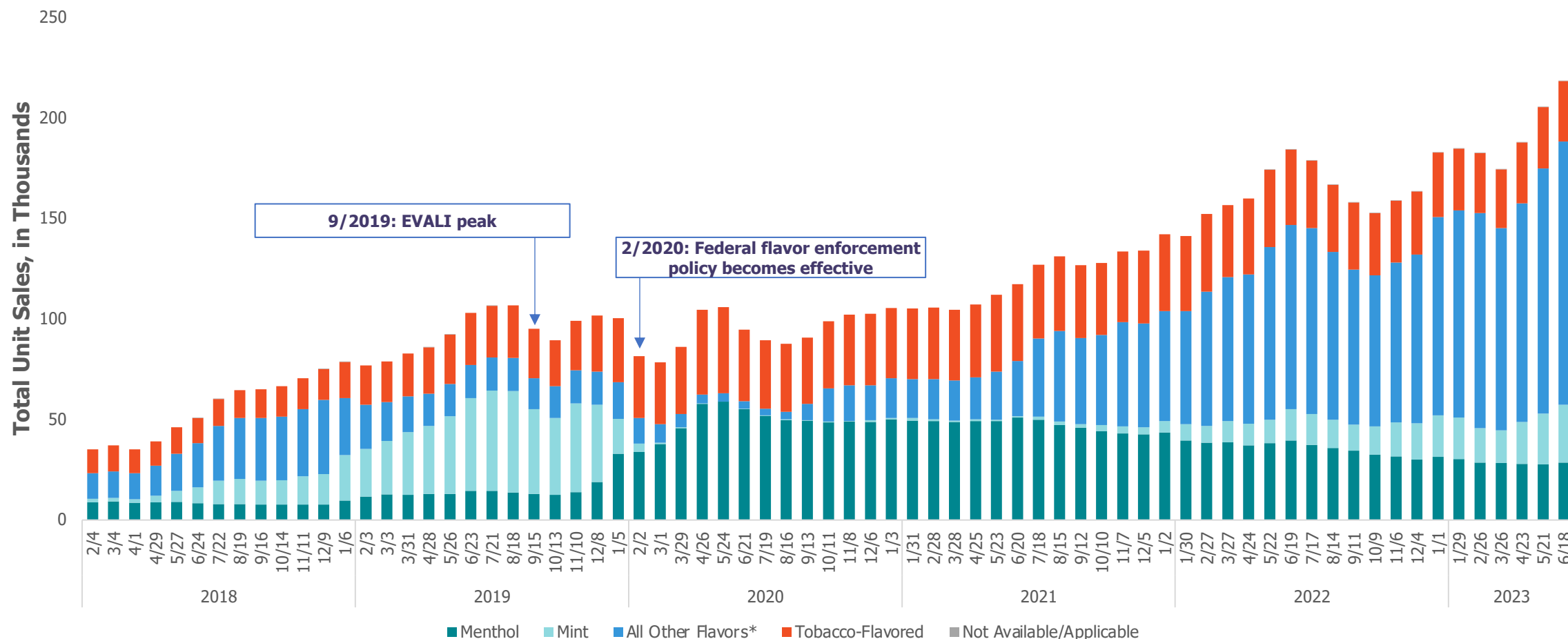


Figure 22. Minnesota E-Cigarette Unit Sales by Flavor, 4 Week Estimates 2/2018 – 6/2023*

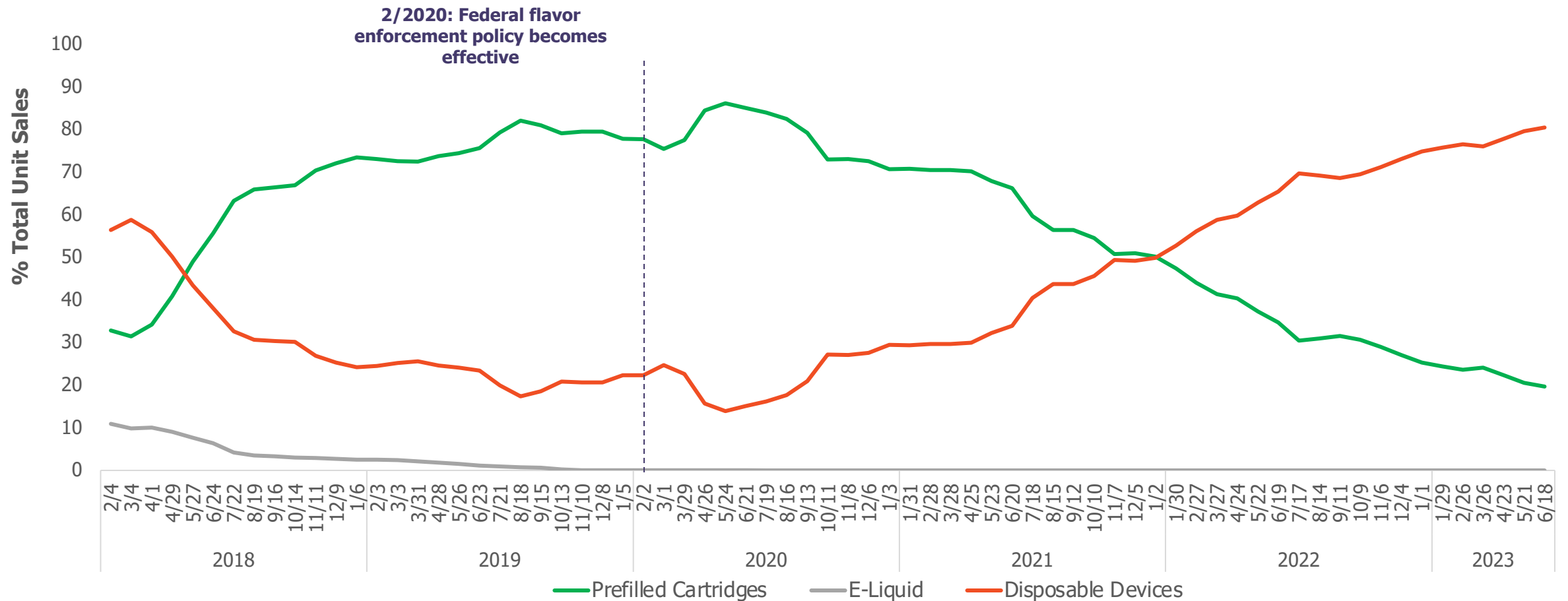


*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories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

- From February 2, 2020 to June 18, 2023, monthly e-cigarette unit sales increased by 167.9% from 81.6 to 218.5 thousand units.
- From February 2, 2020 to June 18, 2023:
 - Tobacco-flavored e-cigarette sales decreased by 2.1% (from 30.8 thousand to 30.2 thousand); unit share decreased from 37.8% to 13.8%.
 - Non-tobacco-flavored e-cigarette sales increased by 270.8% (from 50.7 thousand to 188.1 thousand); unit share increased from 62.2% to 86.1%.
 - Menthol-flavored e-cigarette sales decreased by 16.0% (from 33.9 thousand to 28.5 thousand); unit share decreased from 41.6% to 13.0%.
 - Mint-flavored e-cigarette sales increased by 621.2% (from 4.0 thousand to 28.8 thousand); unit share increased from 4.9% to 13.2%.
 - All other-flavored e-cigarette sales increased by 920.7% (from 12.8 thousand to 130.8 thousand); unit share increased from 15.7% to 59.9%.

Figure 23. Minnesota E-Cigarette Unit Sales by Product Type, 4 Week Estimates 2/2018 – 6/2023*



*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 devices; 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. 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

- 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 2, 2020 and June 18, 2023:
 - Sales of disposable devices increased by 863.5% (from 18.2 thousand to 175.5 thousand); unit share increased from 22.3% to 80.4%.
 - Sales of prefilled cartridges decreased by 32.2% (from 63.3 thousand to 42.9 thousand); unit share decreased from 77.6% to 19.6%.

Figure 24. Minnesota E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 2/2018 – 6/2023

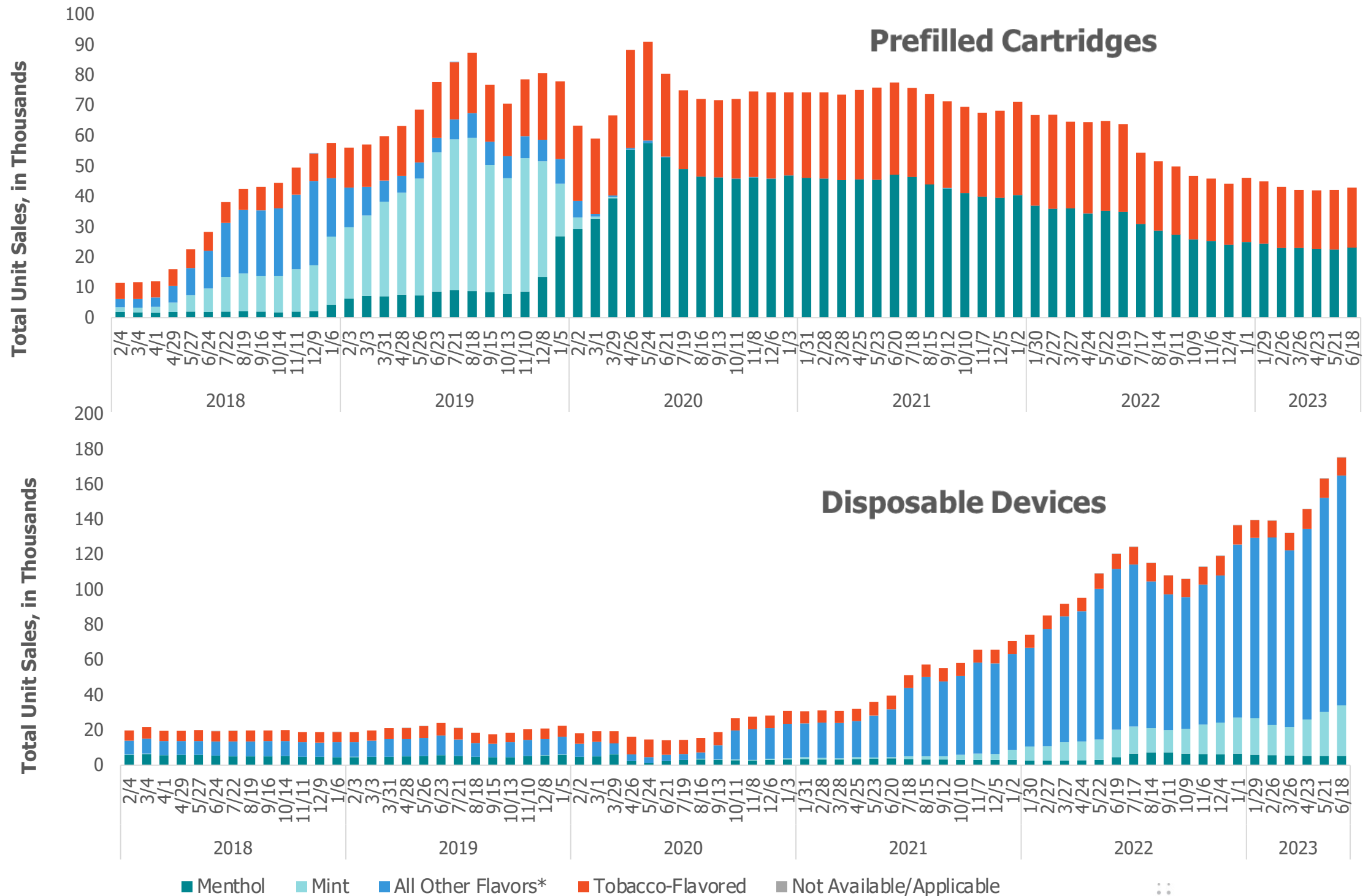
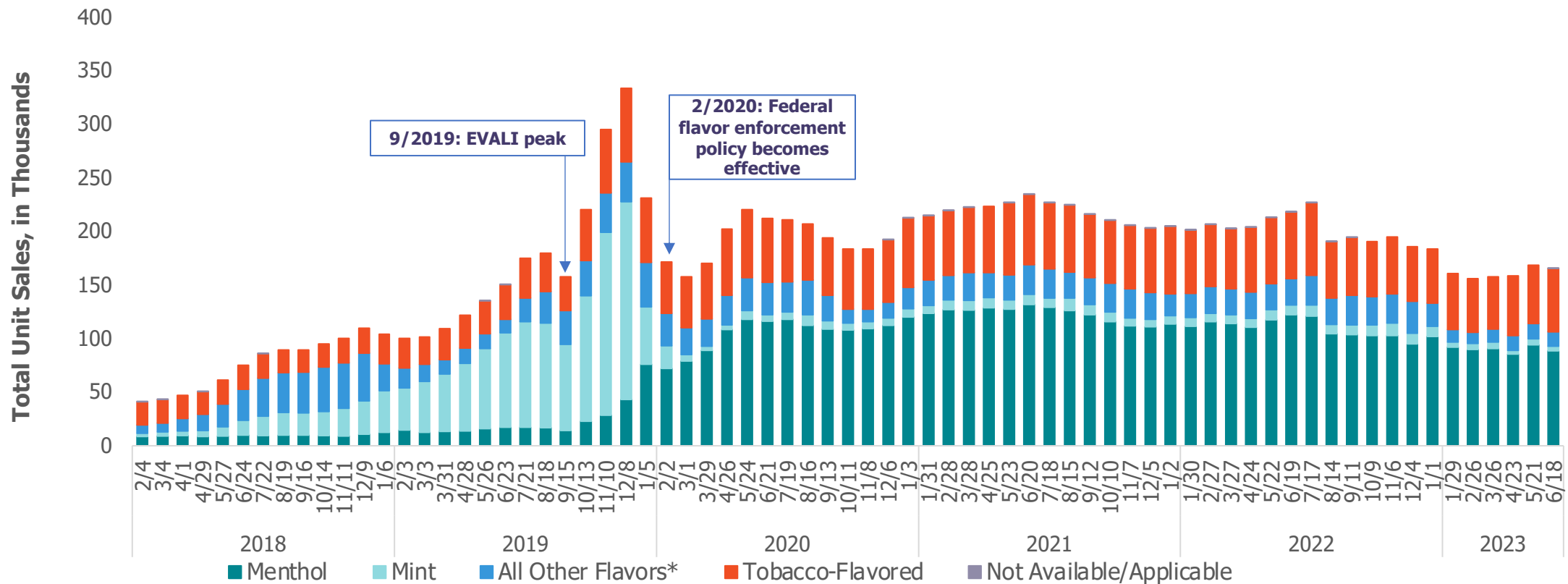


Figure 25. New Hampshire E-Cigarette Unit Sales by Flavor, 4 Week Estimates 2/2018 – 6/2023*

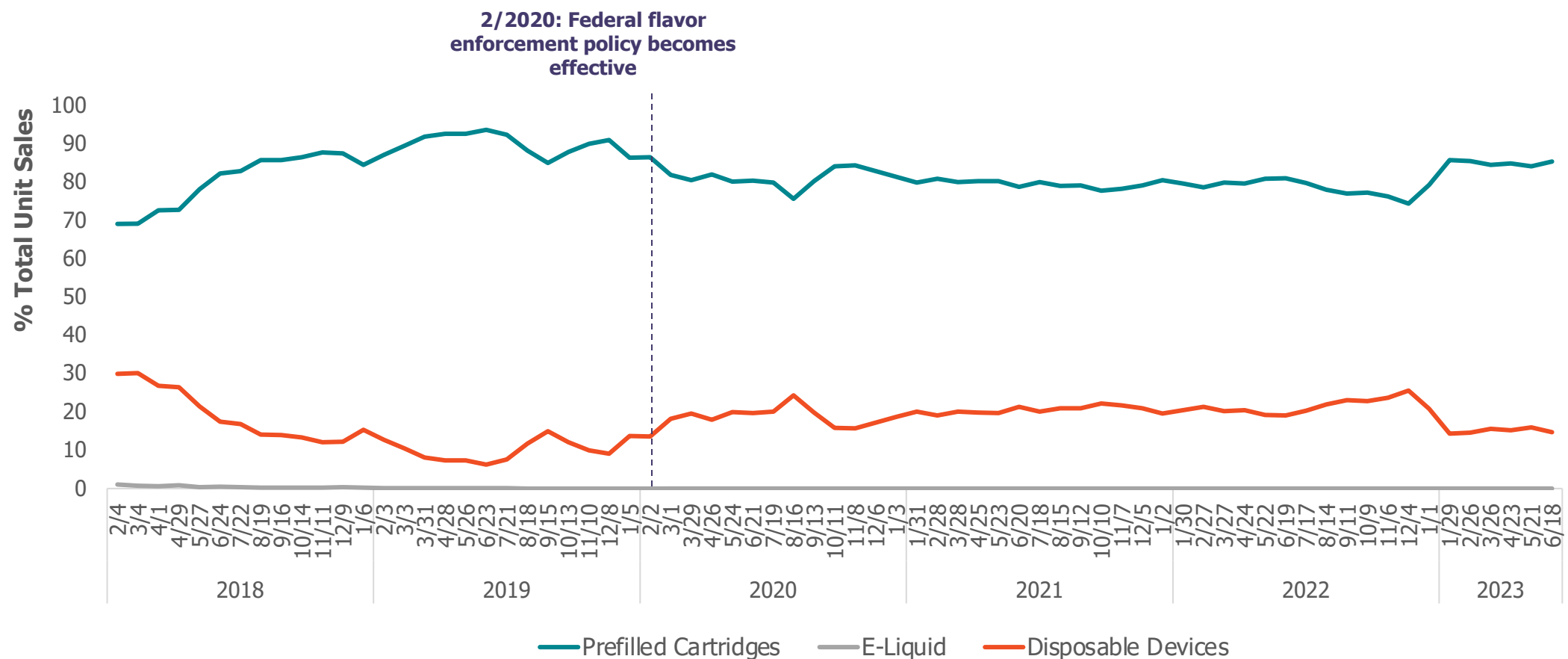


*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories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

- From February 2, 2020 to June 18, 2023, monthly e-cigarette unit sales decreased by 3.5% from 171.8 to 165.7 thousand units.
- From February 2, 2020 to June 18, 2023:
 - Tobacco-flavored e-cigarette sales increased by 22.5% (from 48.4 thousand to 59.2 thousand); unit share increased from 28.2% to 35.8%.
 - Non-tobacco-flavored e-cigarette sales decreased by 13.7% (from 123.4 thousand to 106.4 thousand); unit share decreased from 71.8% to 64.2%.
 - Menthol-flavored e-cigarette sales increased by 22.7% (from 72.3 thousand to 88.7 thousand); unit share increased from 42.1% to 53.6%.
 - Mint-flavored e-cigarette sales decreased by 80.5% (from 21.1 thousand to 4.1 thousand); unit share decreased from 12.3% to 2.5%.
 - All other-flavored e-cigarette sales decreased by 54.6% (from 30.0 thousand to 13.6 thousand); unit share decreased from 17.5% to 8.2%.

Figure 26. New Hampshire E-Cigarette Unit Sales by Product Type, 4 Week Estimates 2/2018 – 6/2023*



*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 devices; 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. 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

- 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 2, 2020 and June 18, 2023:
 - Sales of disposable devices increased by 4.7% (from 23.3 thousand to 24.4 thousand); unit share increased from 13.6% to 14.7%.
 - Sales of prefilled cartridges decreased by 4.8% (from 148.5 thousand to 141.3 thousand); unit share decreased from 86.4% to 85.3%.

Figure 27. New Hampshire E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 2/2018 – 6/2023

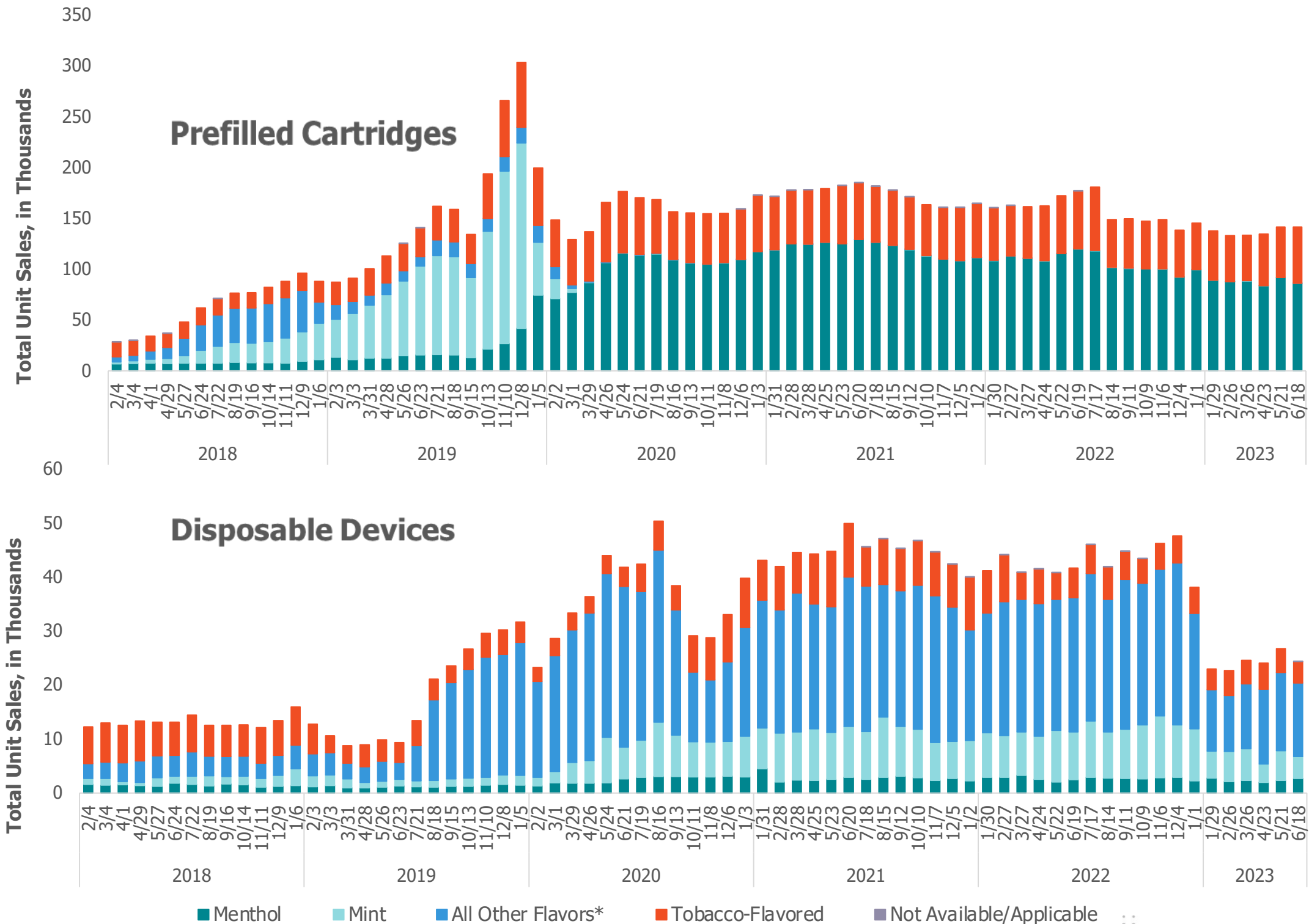
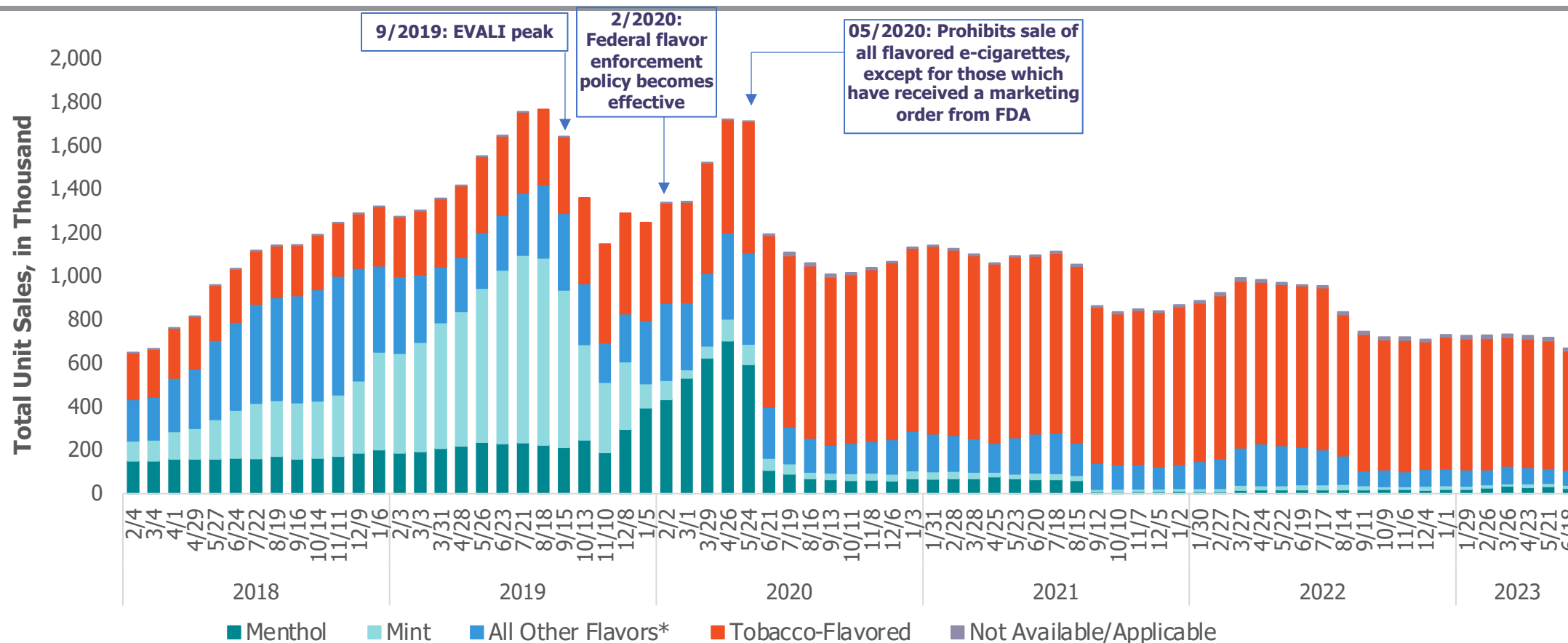


Figure 28. New York E-Cigarette Unit Sales by Flavor, 4 Week Estimates 2/2018 – 6/2023*

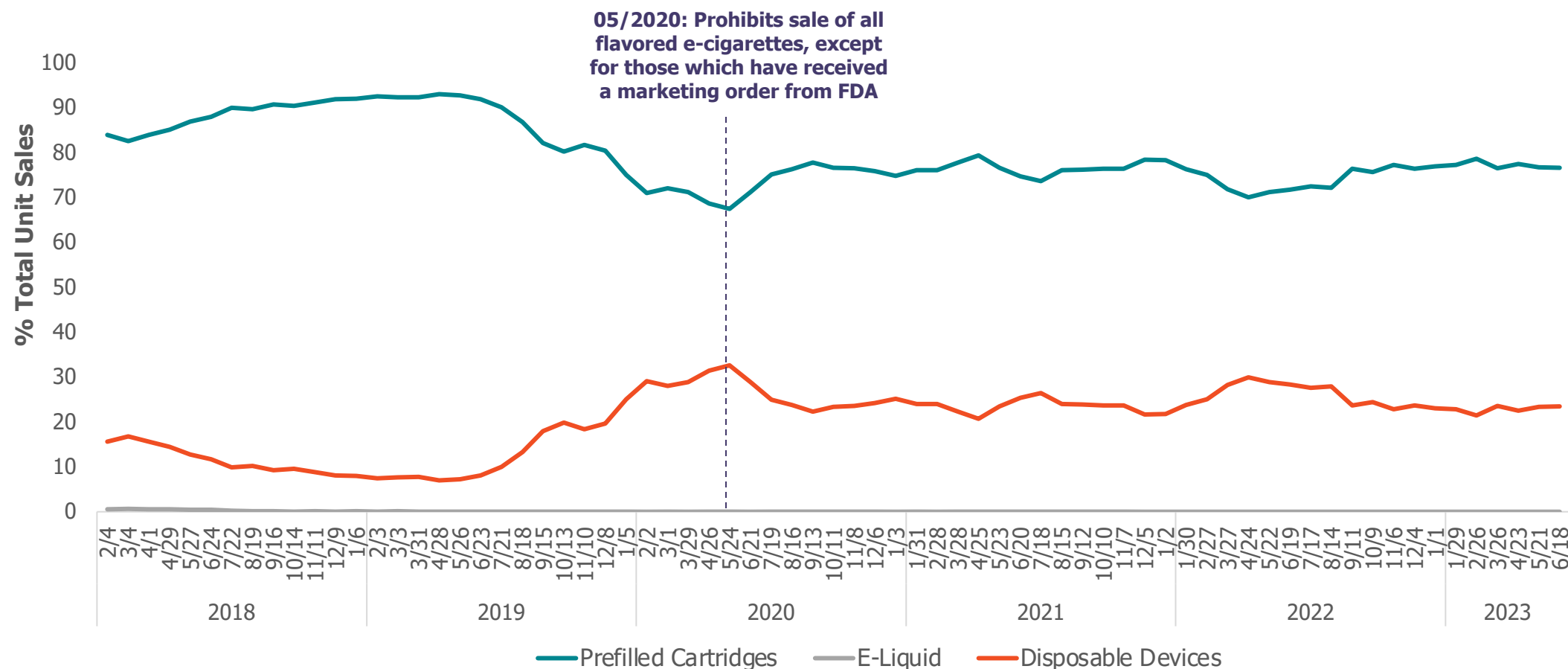


*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories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

- Following New York’s flavored e-cigarette restriction, monthly e-cigarette total unit sales decreased by 60.9% between May 24, 2020 and June 18, 2023 (from 1713.8 thousand to 669.3 thousand). During this period, monthly e-cigarette total unit sales of flavors other than tobacco decreased by 90.2% (from 1106.6 thousand to 108.5 thousand).
- From May 24, 2020 to June 18, 2023:
 - Tobacco-flavored e-cigarette sales decreased by 9.5% (from 604.8 thousand to 547.1 thousand); unit share increased from 35.3% to 81.7%.
 - Non-tobacco-flavored e-cigarette sales decreased by 90.2% (from 1106.6 thousand to 108.5 thousand); unit share decreased from 64.6% to 16.2%.
 - Menthol-flavored e-cigarette sales decreased by 95.9% (from 594.5 thousand to 24.2 thousand); unit share decreased from 34.7% to 3.6%.
 - Mint-flavored e-cigarette sales decreased by 84.8% (from 93.9 thousand to 14.3 thousand); unit share decreased from 5.5% to 2.1%.
 - All other-flavored e-cigarette sales decreased by 83.3% (from 418.2 thousand to 70.0 thousand); unit share decreased from 24.4% to 10.5%.
- As of June 18, 2023, disposable e-cigarettes represent 90.7% of sales of prohibited flavored e-cigarettes in New York.

Figure 29. New York E-Cigarette Unit Sales by Product Type, 4 Week Estimates 2/2018 – 6/2023*



*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 devices; 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. 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 New York’s Flavored E-cigarette Restriction

- Following New York's flavored e-cigarette restriction, between May 24, 2020 and June 18, 2023:
 - Sales of disposable devices decreased by 71.9% (from 558.5 thousand to 157.0 thousand); unit share decreased from 32.6% to 23.5%.
 - Sales of prefilled cartridges decreased by 55.7% (from 1155.3 thousand to 512.4 thousand); unit share increased from 67.4% to 76.5%.

Figure 30. New York E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 2/2018 – 6/2023

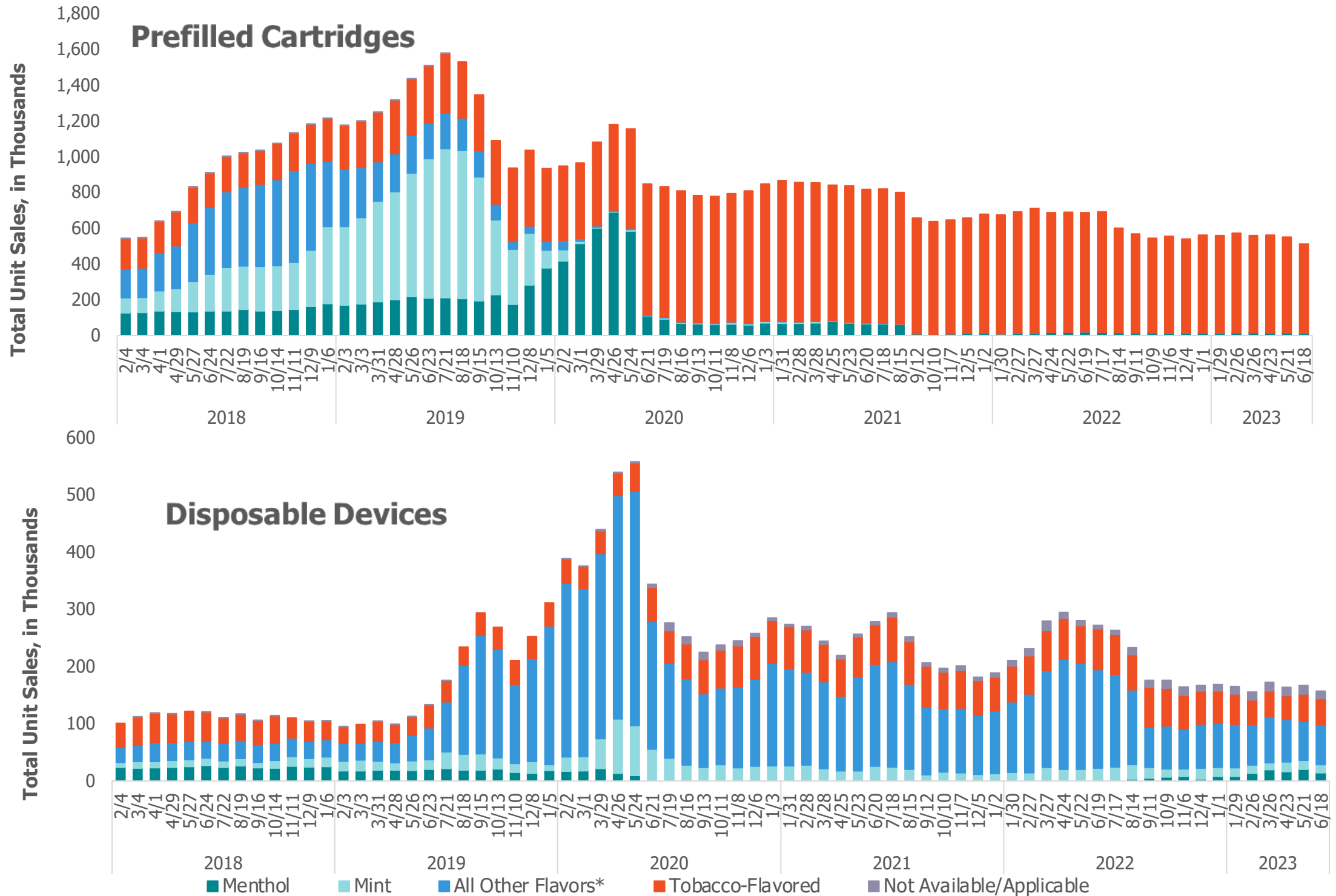
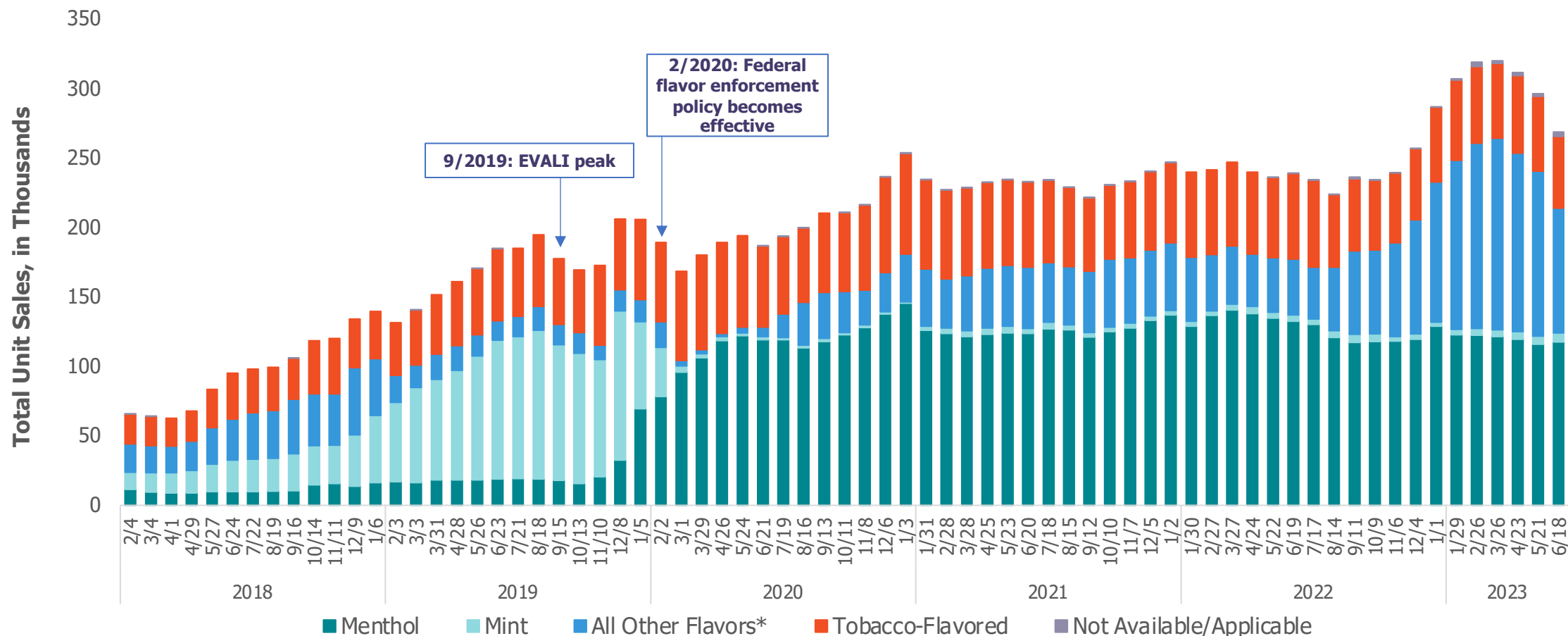


Figure 31. Oregon E-Cigarette Unit Sales by Flavor, 4 Week Estimates 2/2018 – 6/2023*

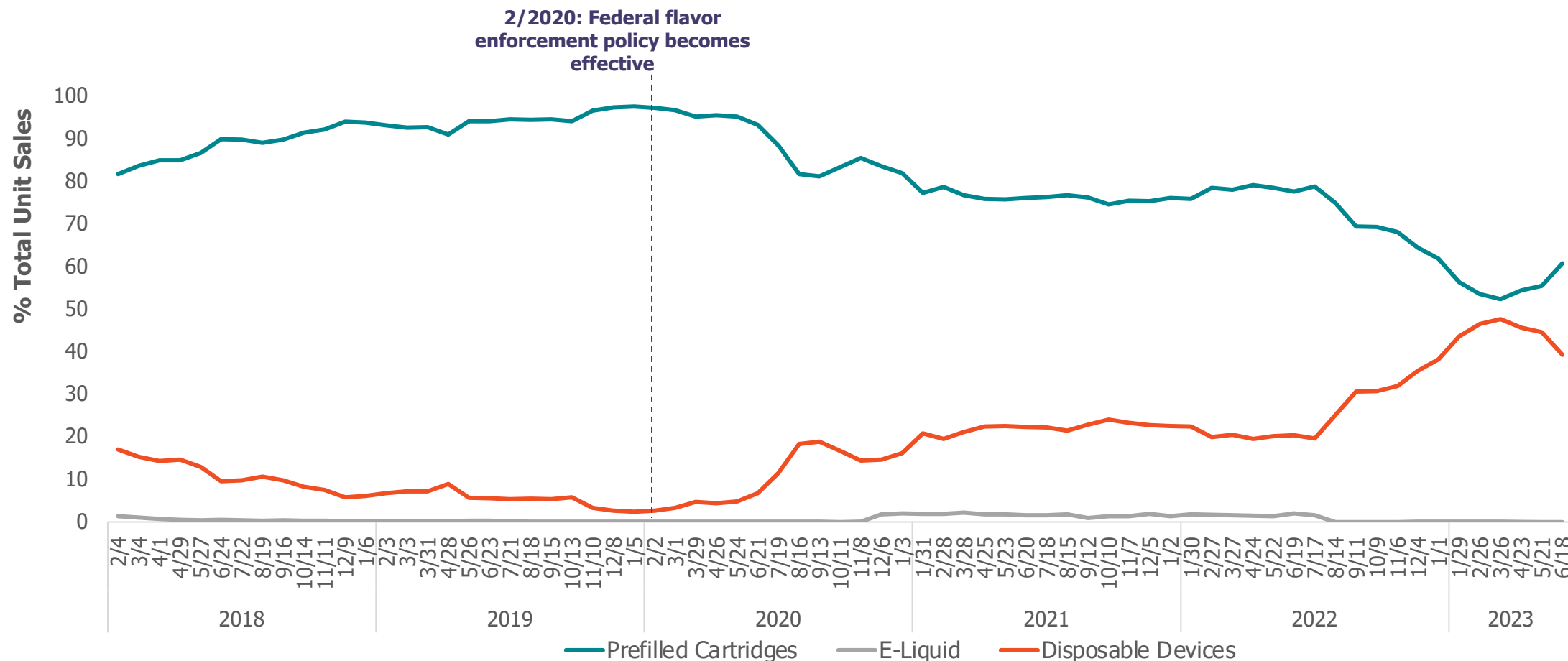


*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories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

- From February 2, 2020 to June 18, 2023, monthly e-cigarette unit sales increased by 41.8% from 189.4 to 268.6 thousand units.
- From February 2, 2020 to June 18, 2023:
 - Tobacco-flavored e-cigarette sales decreased by 10.2% (from 57.4 thousand to 51.5 thousand); unit share decreased from 30.3% to 19.2%.
 - Non-tobacco-flavored e-cigarette sales increased by 62.0% (from 132.0 thousand to 213.8 thousand); unit share increased from 69.7% to 79.6%.
 - Menthol-flavored e-cigarette sales increased by 49.9% (from 78.3 thousand to 117.4 thousand); unit share increased from 41.4% to 43.7%.
 - Mint-flavored e-cigarette sales decreased by 81.5% (from 35.3 thousand to 6.5 thousand); unit share decreased from 18.7% to 2.4%.
 - All other-flavored e-cigarette sales increased by 390.3% (from 18.3 thousand to 89.9 thousand); unit share increased from 9.7% to 33.5%.

Figure 32. Oregon E-Cigarette Unit Sales by Product Type, 4 Week Estimates 2/2018 – 6/2023*



*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 devices; 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. 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

- 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 2, 2020 and June 18, 2023:
 - Sales of disposable devices increased by 1971.0% (from 5.1 thousand to 105.6 thousand); unit share increased from 2.7% to 39.3%.
 - Sales of prefilled cartridges decreased by 11.5% (from 184.2 thousand to 163.0 thousand); unit share decreased from 97.3% to 60.7%.

Figure 33. Oregon E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 2/2018 – 6/2023

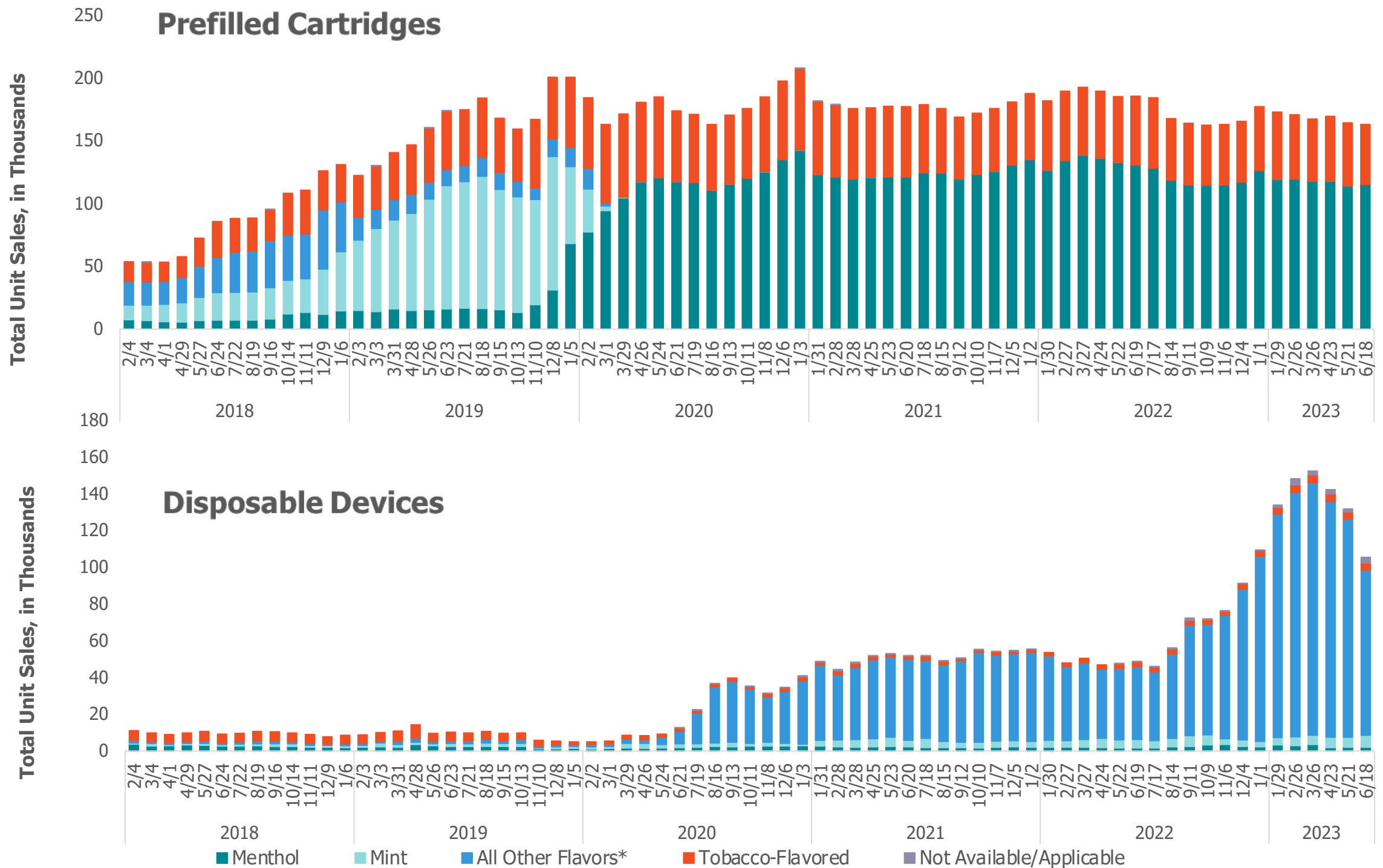
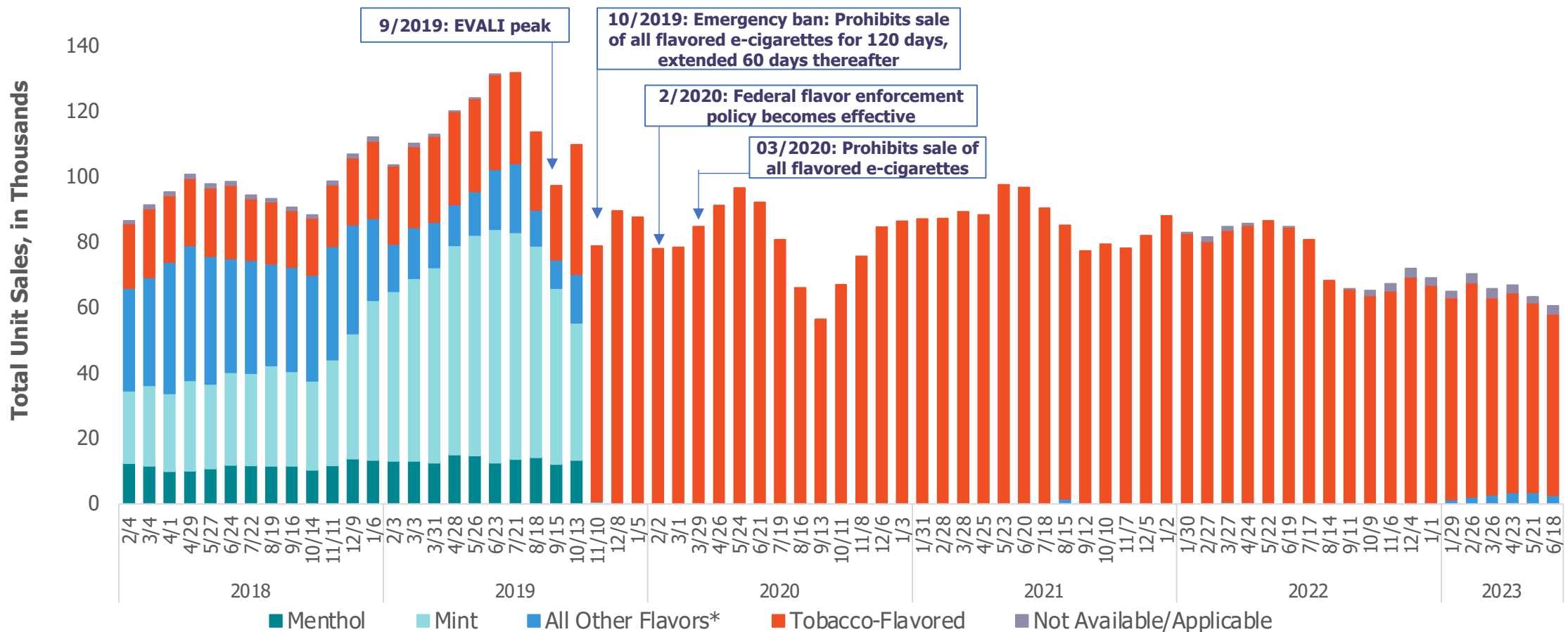


Figure 34. Rhode Island E-Cigarette Unit Sales by Flavor, 4 Week Estimates 2/2018 – 6/2023*

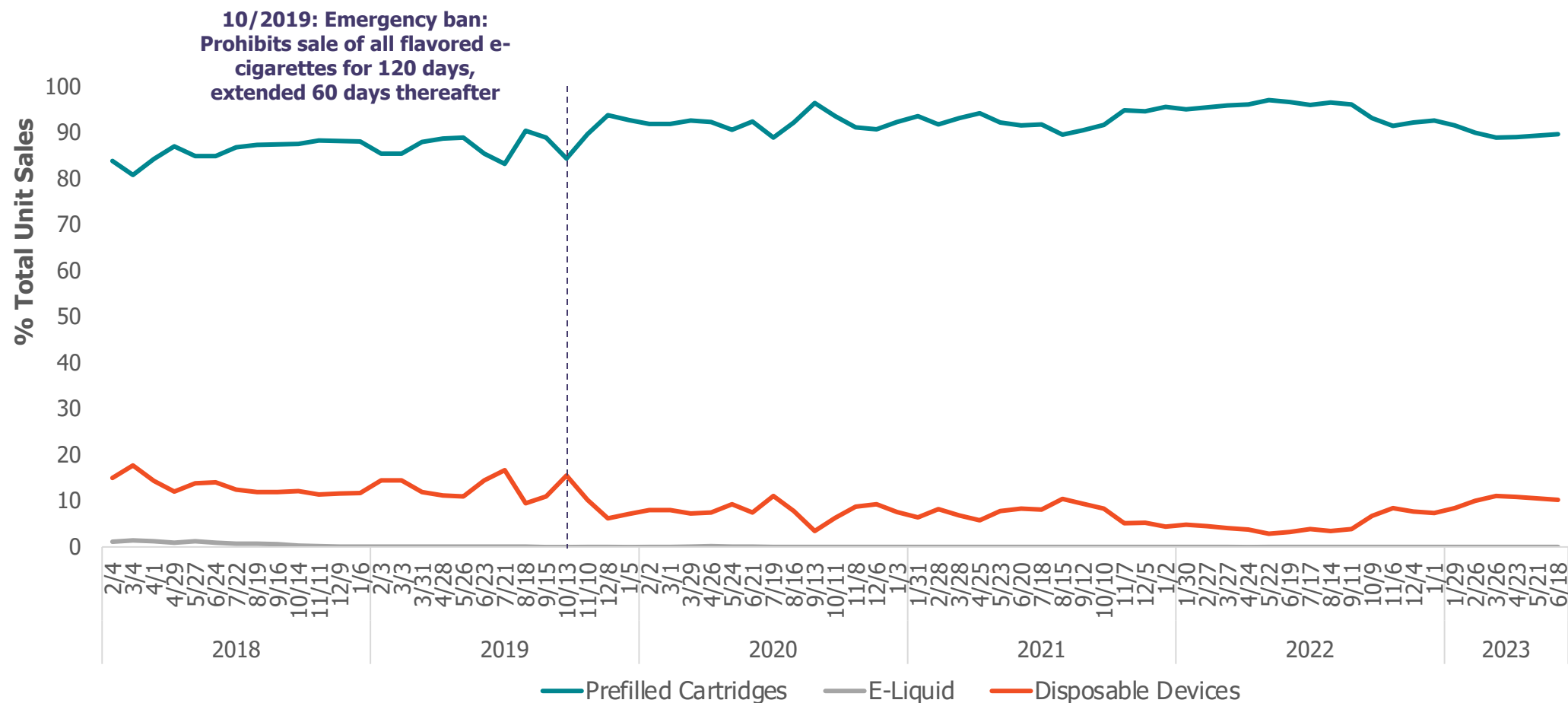


*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories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

- Following Rhode Island's flavored e-cigarette restriction, monthly e-cigarette total unit sales decreased by 44.8% from October 13, 2019 to June 18, 2023 (from 109.7 thousand to 60.6 thousand). During this period, monthly e-cigarette total unit sales of flavors other than tobacco decreased by 96.3% (from 70.1 thousand to 2.6 thousand).
- From October 13, 2019 to June 18, 2023:
 - Tobacco-flavored e-cigarette sales increased by 40.0% (from 39.6 thousand to 55.4 thousand); unit share increased from 36.1% to 91.5%.
 - Non-tobacco-flavored e-cigarette sales decreased by 96.3% (from 70.1 thousand to 2.6 thousand); unit share decreased from 63.9% to 4.3%.
 - Menthol-flavored e-cigarette sales decreased by 98.6% (from 13.4 thousand to 0.2 thousand); unit share decreased from 12.3% to 0.3%.
 - Mint-flavored e-cigarette sales decreased by 99.8% (from 41.8 thousand to 0.1 thousand); unit share decreased from 38.1% to 0.1%.
 - All other-flavored e-cigarette sales decreased by 84.1% (from 14.9 thousand to 2.4 thousand); unit share decreased from 13.5% to 3.9%.

Figure 35. Rhode Island E-Cigarette Unit Sales by Product Type, 4 Week Estimates 2/2018 – 6/2023*



*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 devices; 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. 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 Rhode Island’s Flavored E-cigarette Restriction

- Following Rhode Island’s flavor restriction, between October 13, 2019 and June 18, 2023:
 - Sales of disposable devices decreased by 63.5% (from 17.1 thousand to 6.2 thousand); unit share decreased from 15.5% to 10.3%.
 - Sales of prefilled cartridges decreased by 41.3% (from 92.7 thousand to 54.4 thousand); unit share increased from 84.5% to 89.7%.

Figure 36. Rhode Island E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 2/2018 – 6/2023

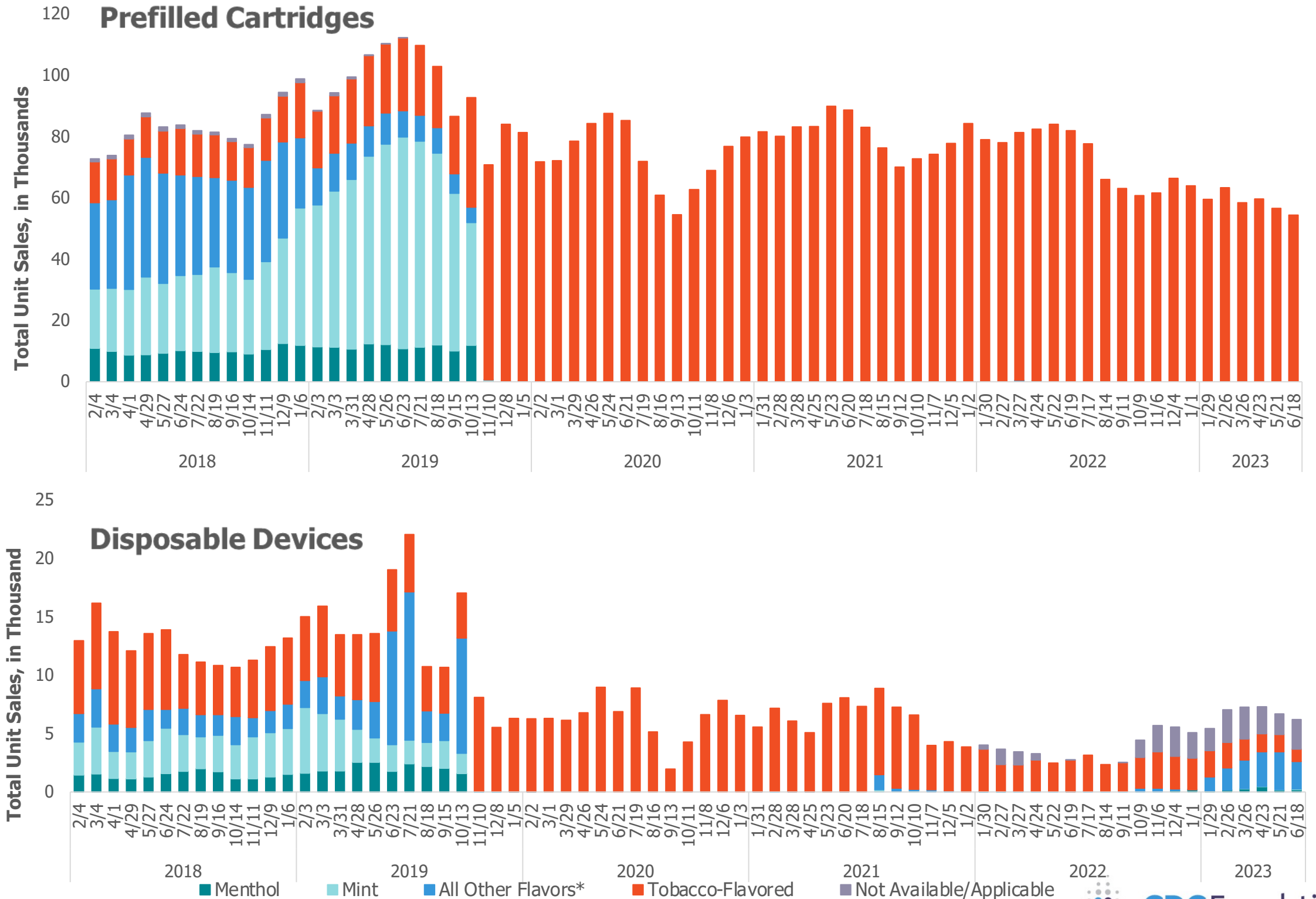
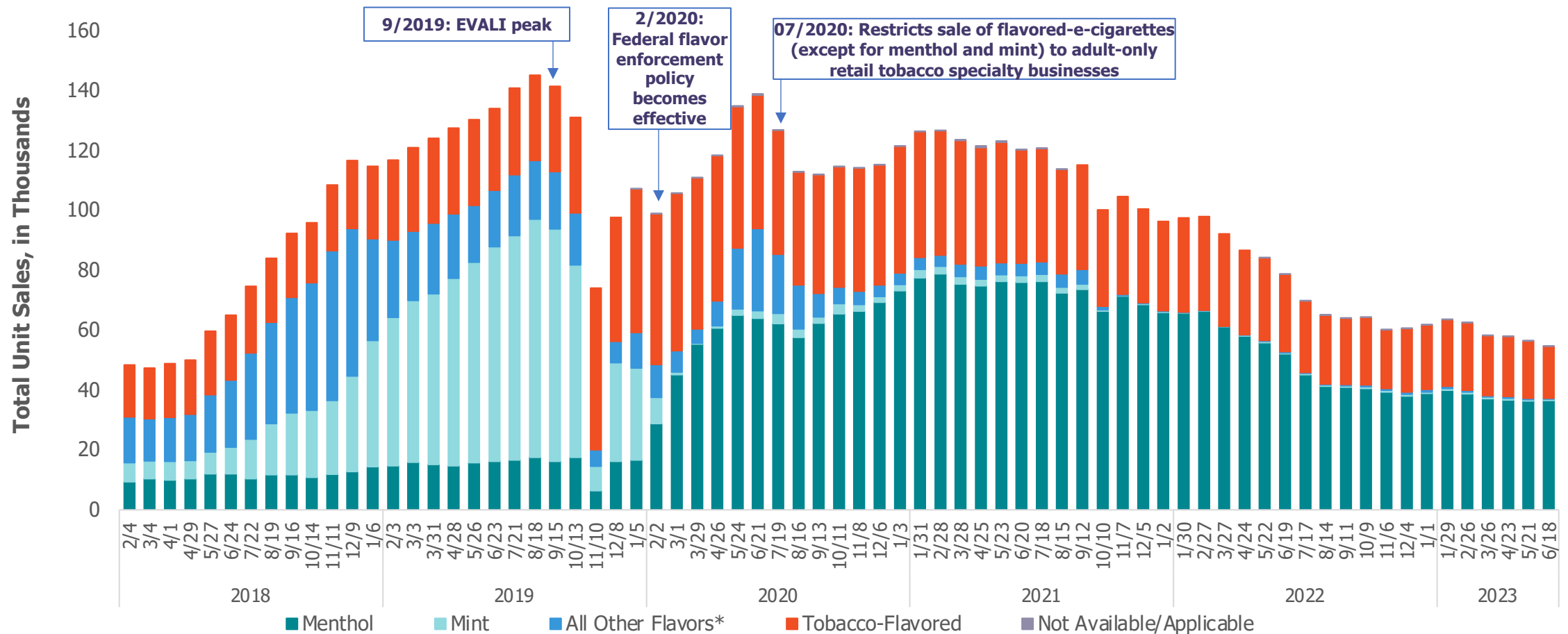


Figure 37. Utah E-Cigarette Unit Sales by Flavor, 4 Week Estimates 2/2018 – 6/2023*

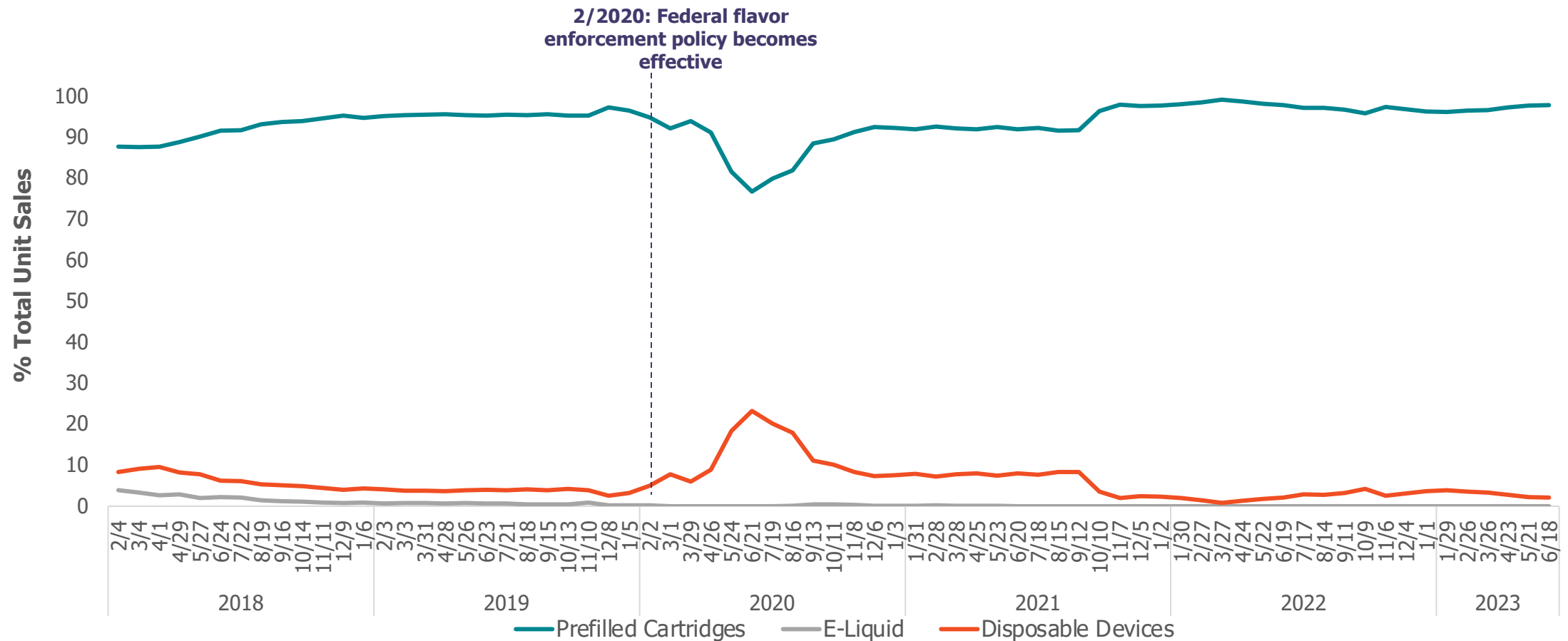


*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories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

- From February 2, 2020 to June 18, 2023, monthly e-cigarette unit sales decreased by 44.7% from 98.9 to 54.7 thousand units.
- From February 2, 2020 to June 18, 2023:
 - Tobacco-flavored e-cigarette sales decreased by 65.5% (from 50.2 thousand to 17.3 thousand); unit share decreased from 50.8% to 31.7%.
 - Non-tobacco-flavored e-cigarette sales decreased by 23.2% (from 48.6 thousand to 37.3 thousand); unit share increased from 49.2% to 68.2%.
 - Menthol-flavored e-cigarette sales increased by 26.8% (from 28.8 thousand to 36.5 thousand); unit share increased from 29.1% to 66.7%.
 - Mint-flavored e-cigarette sales decreased by 95.1% (from 8.8 thousand to 0.4 thousand); unit share decreased from 8.9% to 0.8%.
 - All other-flavored e-cigarette sales decreased by 96.4% (from 11.0 thousand to 0.4 thousand); unit share decreased from 11.1% to 0.7%.

Figure 38. Utah E-Cigarette Unit Sales by Product Type, 4 Week Estimates 2/2018 – 6/2023*



*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 devices; 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. 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

- 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 2, 2020 and June 18, 2023:
 - Sales of disposable devices decreased by 75.9% (from 4.9 thousand to 1.2 thousand); unit share decreased from 5.0% to 2.2%.
 - Sales of prefilled cartridges decreased by 42.9% (from 93.8 thousand to 53.5 thousand); unit share increased from 94.9% to 97.8%.

Figure 39. Utah E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 2/2018 – 6/2023

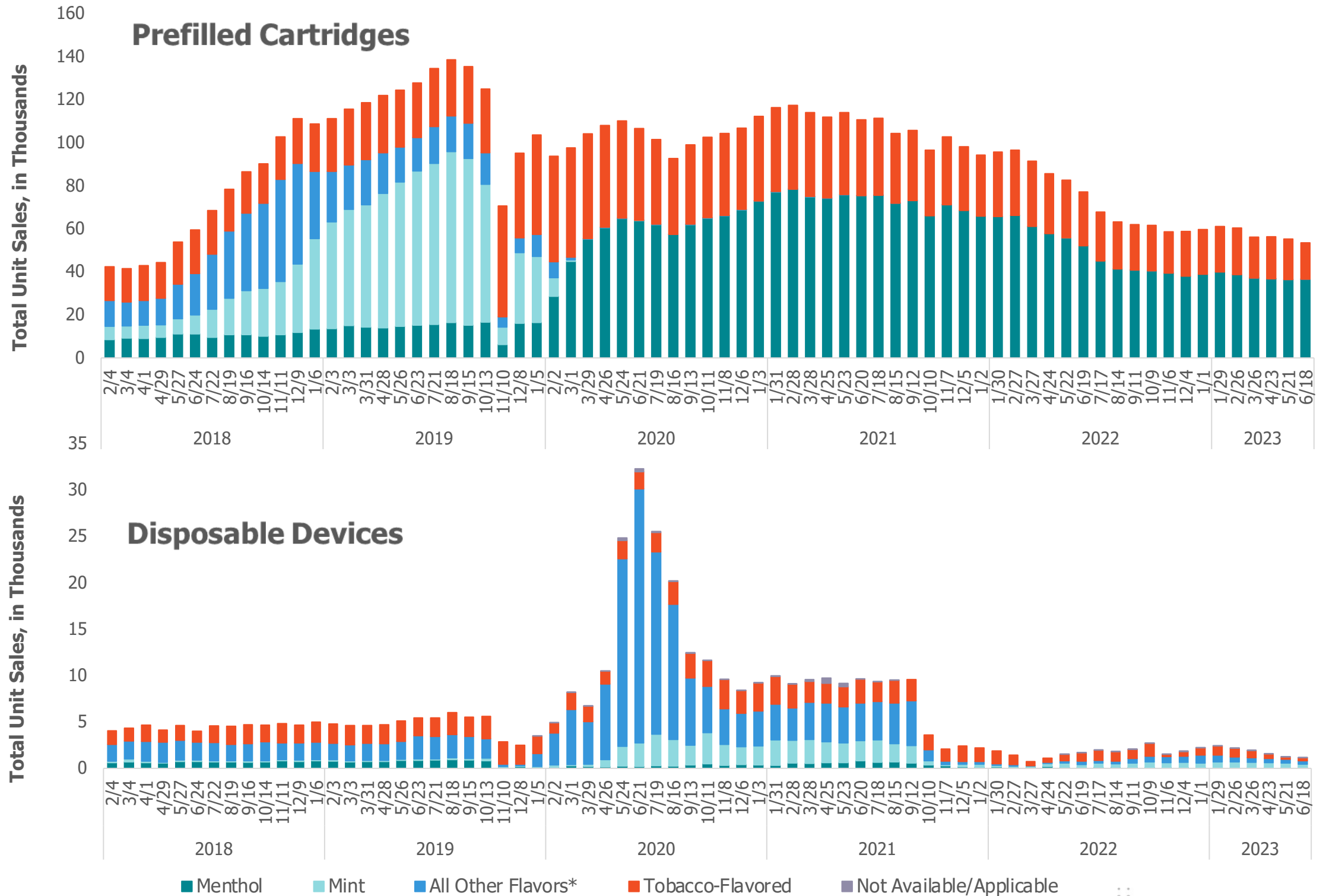
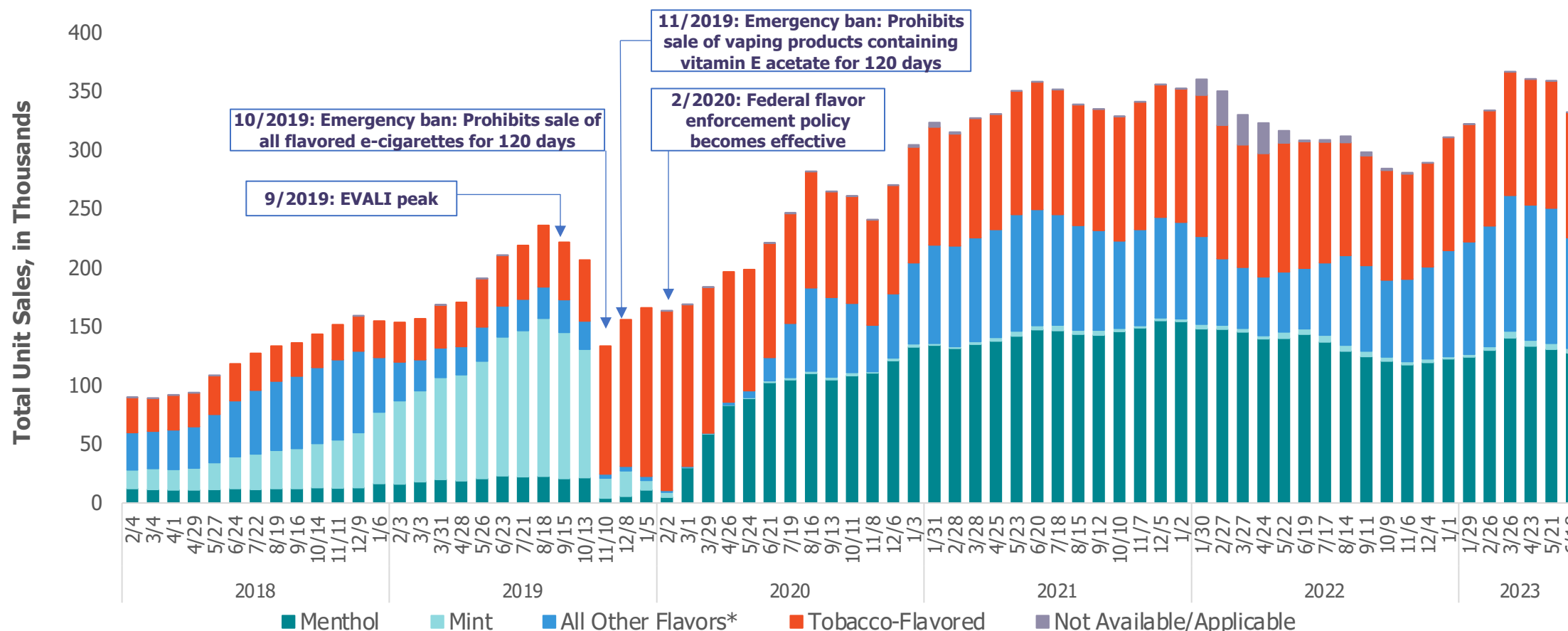


Figure 40. Washington E-Cigarette Unit Sales by Flavor, 4 Week Estimates 2/2018 – 6/2023*



*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). 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.

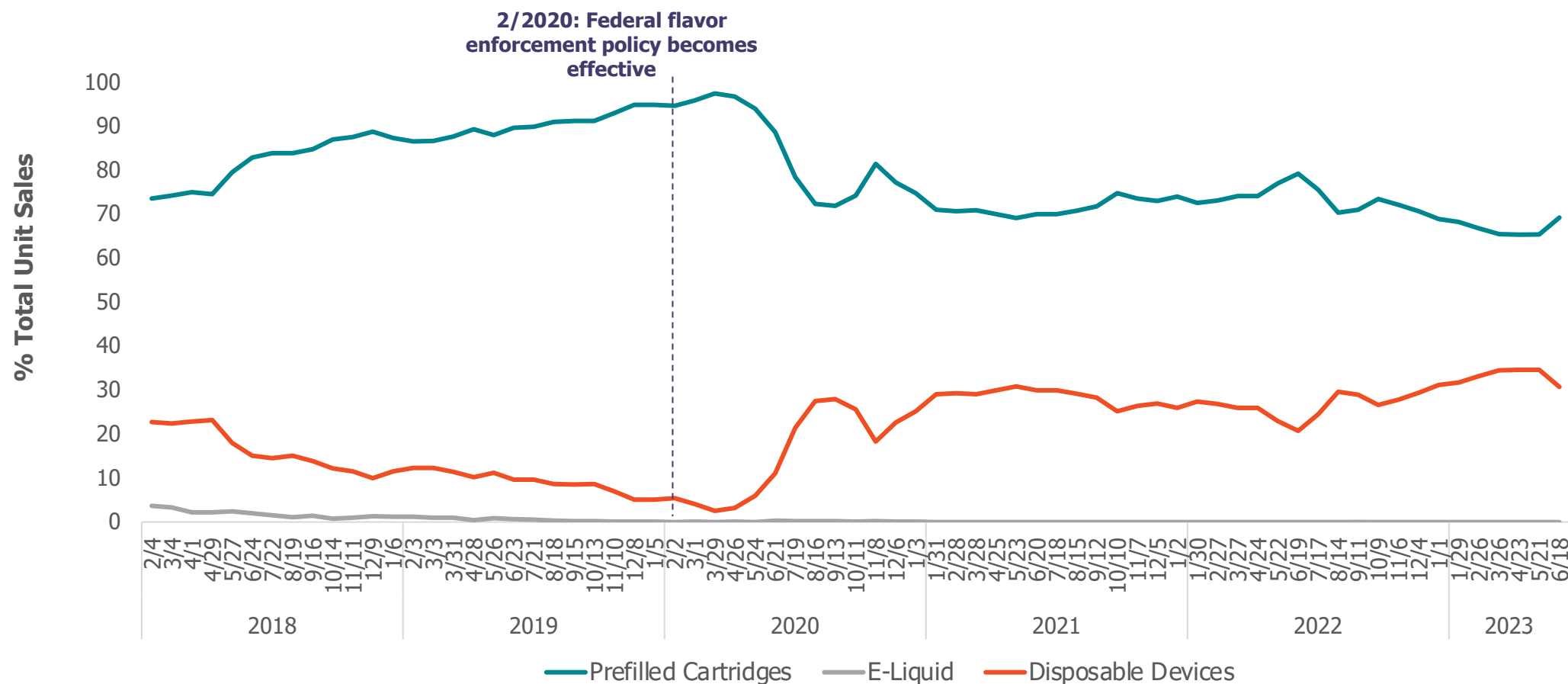
Trends of Unit Sales by Flavor (10/13/19 - 2/2/20)

- Following Washington’s temporary flavored e-cigarette restriction, monthly e-cigarette total unit sales decreased by 21.0% from October 13, 2019, to February 2, 2020 (from 206.9 thousand to 163.4 thousand).

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

- From February 2, 2020 to June 18, 2023, monthly e-cigarette unit sales increased by 103.3% from 163.4 to 332.2 thousand units.
- From February 2, 2020 to June 18, 2023:
 - Tobacco-flavored e-cigarette sales decreased by 30.3% (from 152.8 thousand to 106.5 thousand); unit share decreased from 93.5% to 32.0%.
 - Non-tobacco-flavored e-cigarette sales increased by 2015.5% (from 10.7 thousand to 225.7 thousand); unit share increased from 6.5% to 67.9%.
 - Menthol-flavored e-cigarette sales increased by 2439.6% (from 5.0 thousand to 127.6 thousand); unit share increased from 3.1% to 38.4%.
 - Mint-flavored e-cigarette sales decreased by 4.4% (from 4.2 thousand to 4.0 thousand); unit share decreased from 2.6% to 1.2%.
 - All other-flavored e-cigarette sales increased by 6333.5% (from 1.5 thousand to 94.1 thousand); unit share increased from 0.9% to 28.3%.

Figure 41. Washington E-Cigarette Unit Sales by Product Type, 4 Week Estimates 2/2018 – 6/2023*



*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 devices; 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. 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

- 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 2, 2020 and June 18, 2023:
 - Sales of disposable devices increased by 1062.7% (from 8.8 thousand to 102.2 thousand); unit share increased from 5.4% to 30.8%.
 - Sales of prefilled cartridges increased by 48.7% (from 154.6 thousand to 230.0 thousand); unit share decreased from 94.6% to 69.2%.

Figure 42. Washington E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 2/2018 – 6/2023

