

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 September 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 September 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

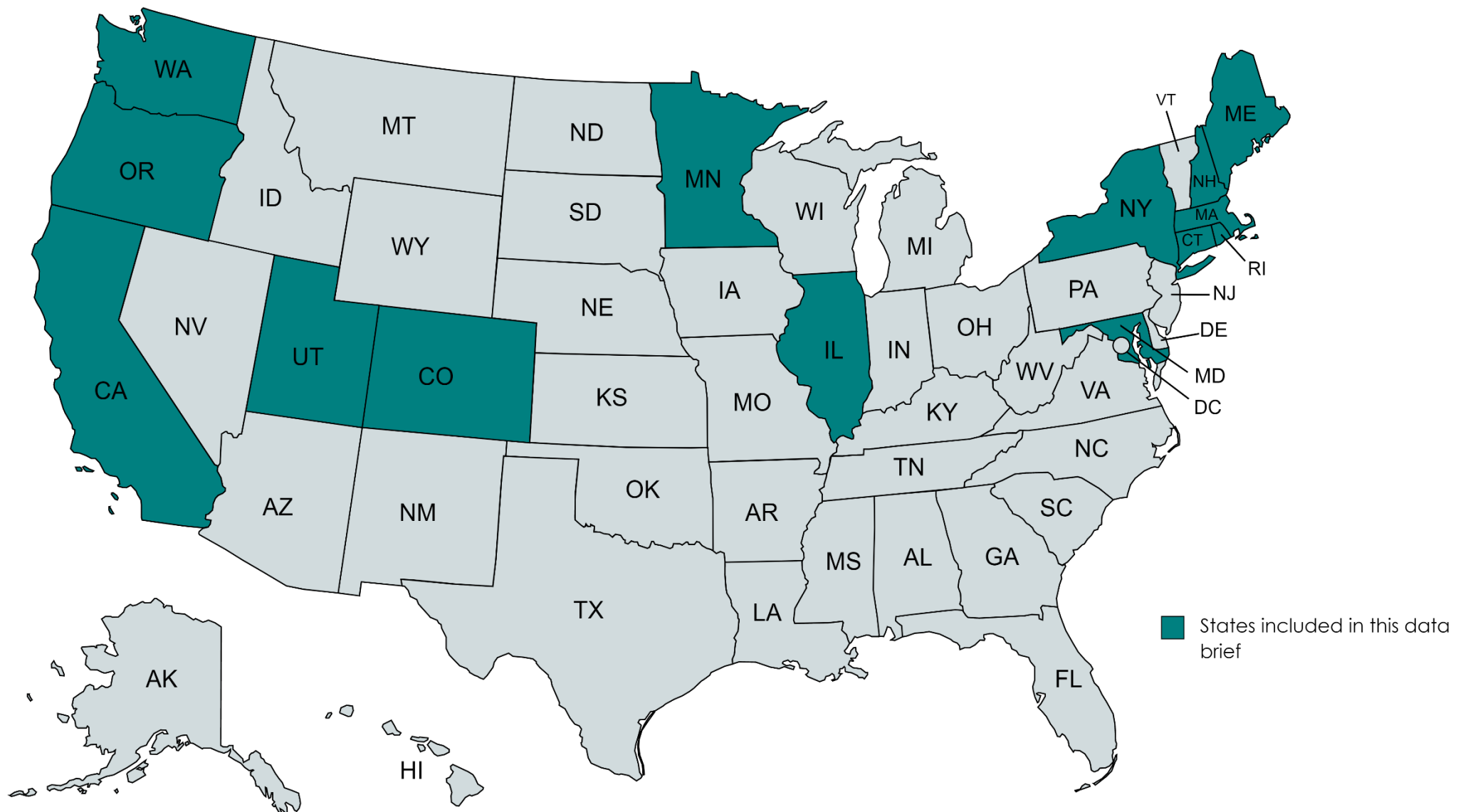
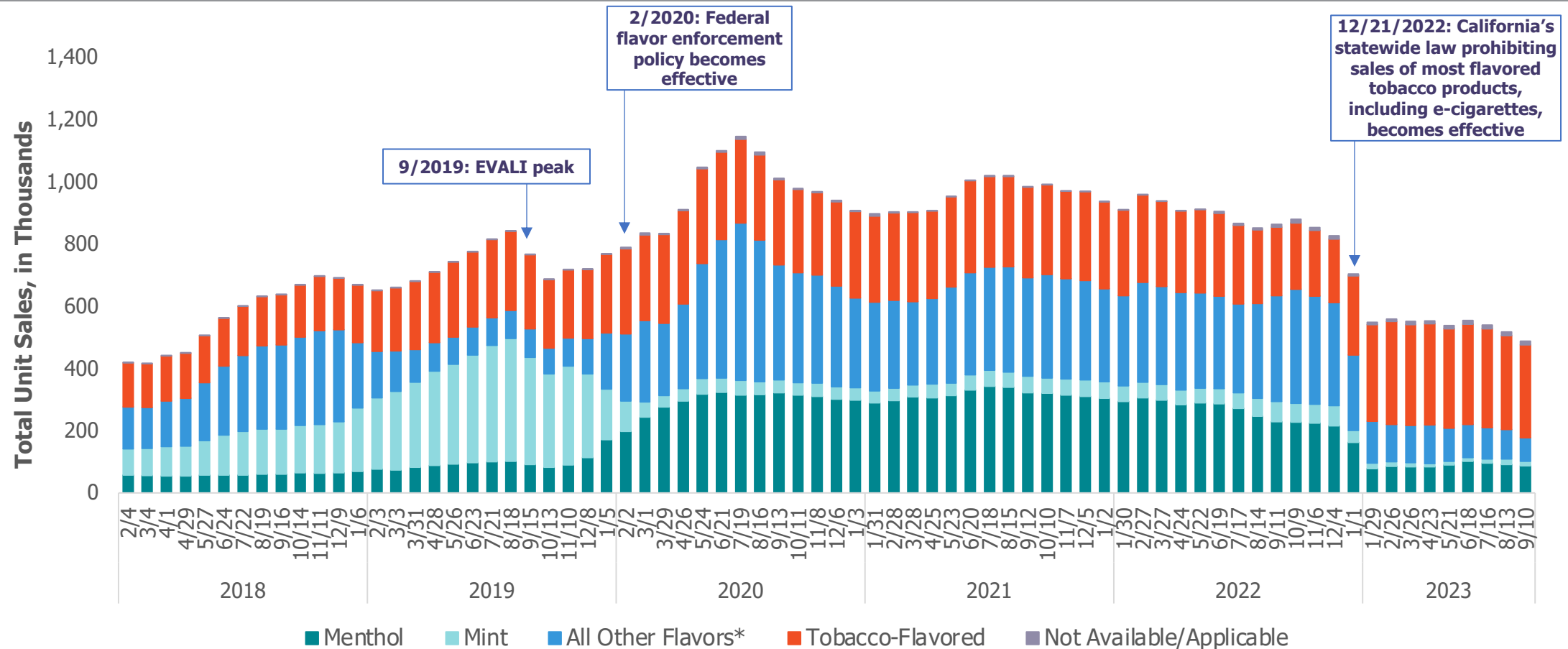


Figure 1. California E-Cigarette Unit Sales by Flavor, 4 Week Estimates 2/2018 – 9/2023*

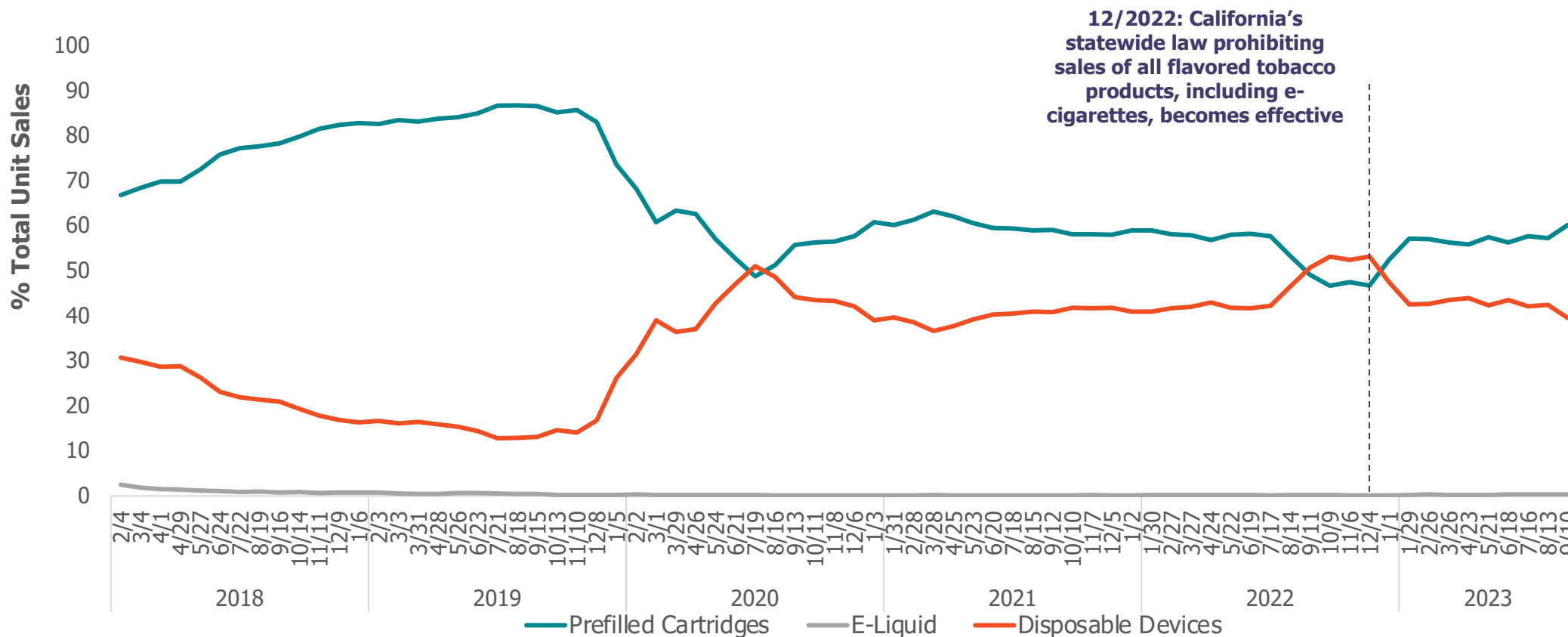


*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories 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 41.0% from December 4, 2022 to September 10, 2023 (from 826.4 thousand to 487.4 thousand). This decline represents 34.9% (i.e., 339.0 thousand units out of 971.4 thousand units) of the decline in national e-cigarette sales that occurred during this period.
- From December 4, 2022 to September 10, 2023:
 - Tobacco-flavored e-cigarette sales increased by 46.1% (from 203.9 thousand to 298.0 thousand); unit share increased from 24.7% to 61.1%.
 - Non-tobacco-flavored e-cigarette sales decreased by 71.0% (from 612.1 thousand to 177.7 thousand); unit share decreased from 74.1% to 36.4%.
 - Menthol-flavored e-cigarette sales decreased by 59.3% (from 216.2 thousand to 87.9 thousand); unit share decreased from 26.2% to 18.0%.
 - Mint-flavored e-cigarette sales decreased by 78.9% (from 64.7 thousand to 13.6 thousand); unit share decreased from 7.8% to 2.8%.
 - All other-flavored e-cigarette sales decreased by 77.0% (from 331.3 thousand to 76.2 thousand); unit share decreased from 40.1% to 15.6%.
- As of September 10, 2023, disposable e-cigarettes represent 91.4% of sales of prohibited flavored e-cigarettes in California.

Figure 2. California E-Cigarette Unit Sales by Product Type, 4 Week Estimates 2/2018 – 9/2023*



*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 September 10, 2023:
 - Sales of disposable devices decreased by 56.1% (from 439.2 thousand to 192.7 thousand); unit share decreased from 53.1% to 39.5%.
 - Sales of prefilled cartridges decreased by 24.1% (from 386.1 thousand to 293.2 thousand); unit share increased from 46.7% to 61.3%.

Figure 3. California E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 2/2018 – 9/2023

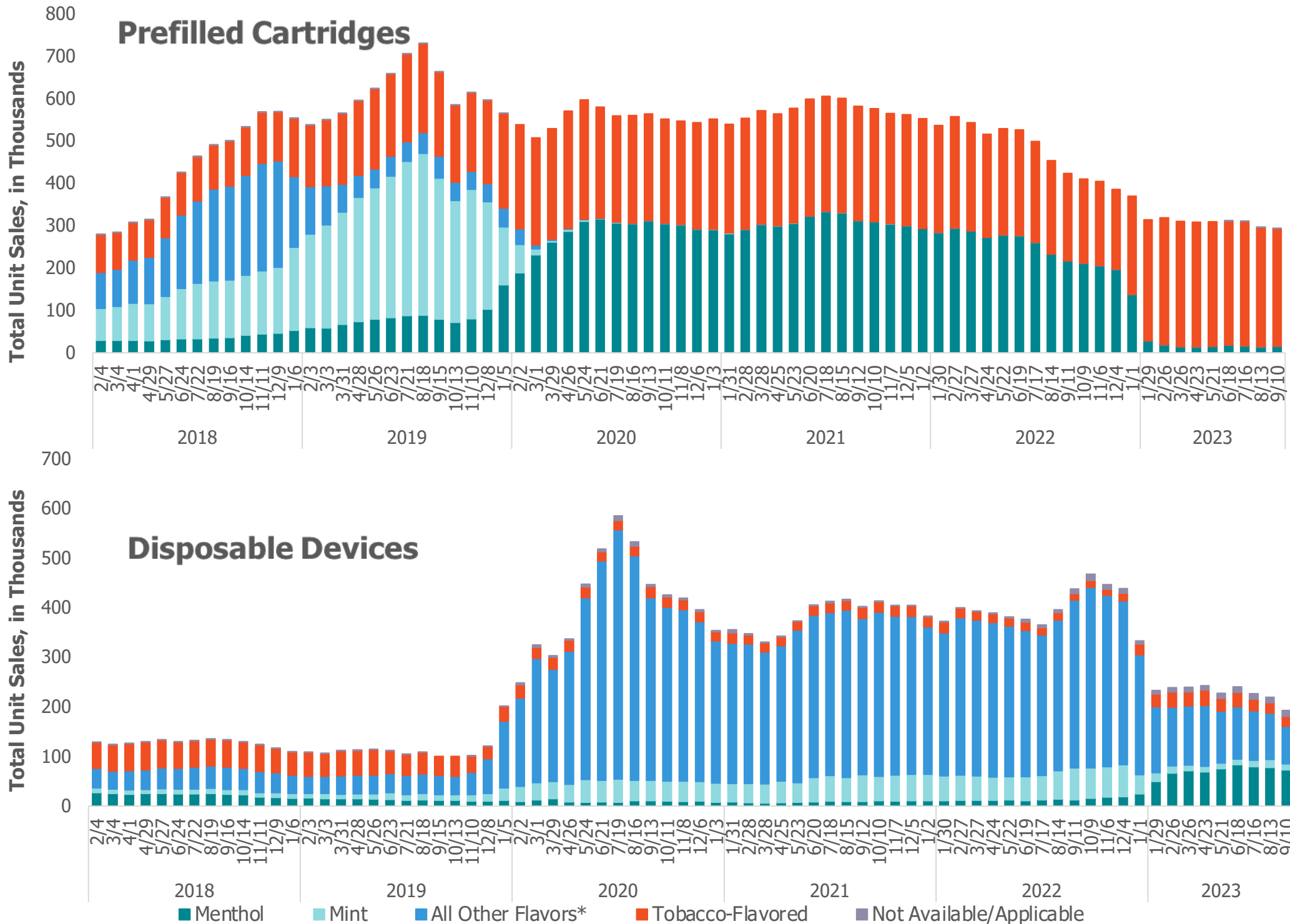
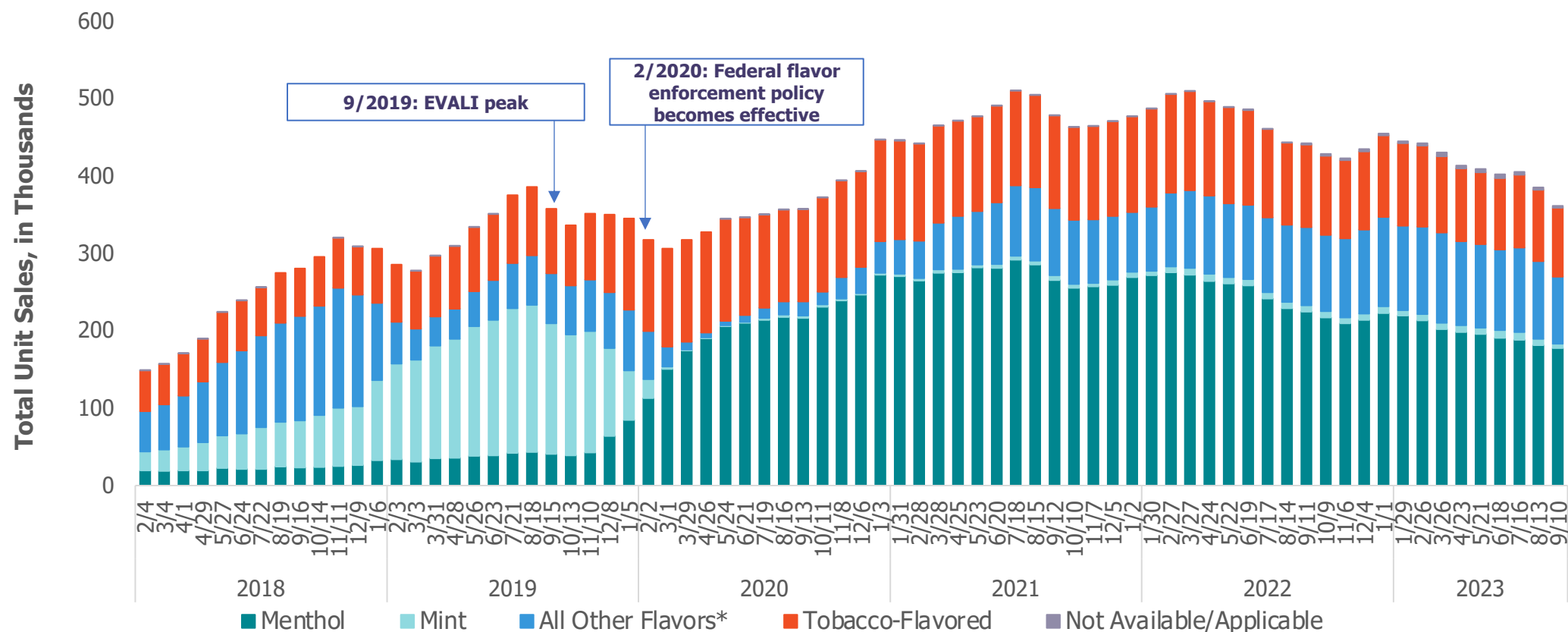


Figure 4. Colorado E-Cigarette Unit Sales by Flavor, 4 Week Estimates 2/2018 – 9/2023*

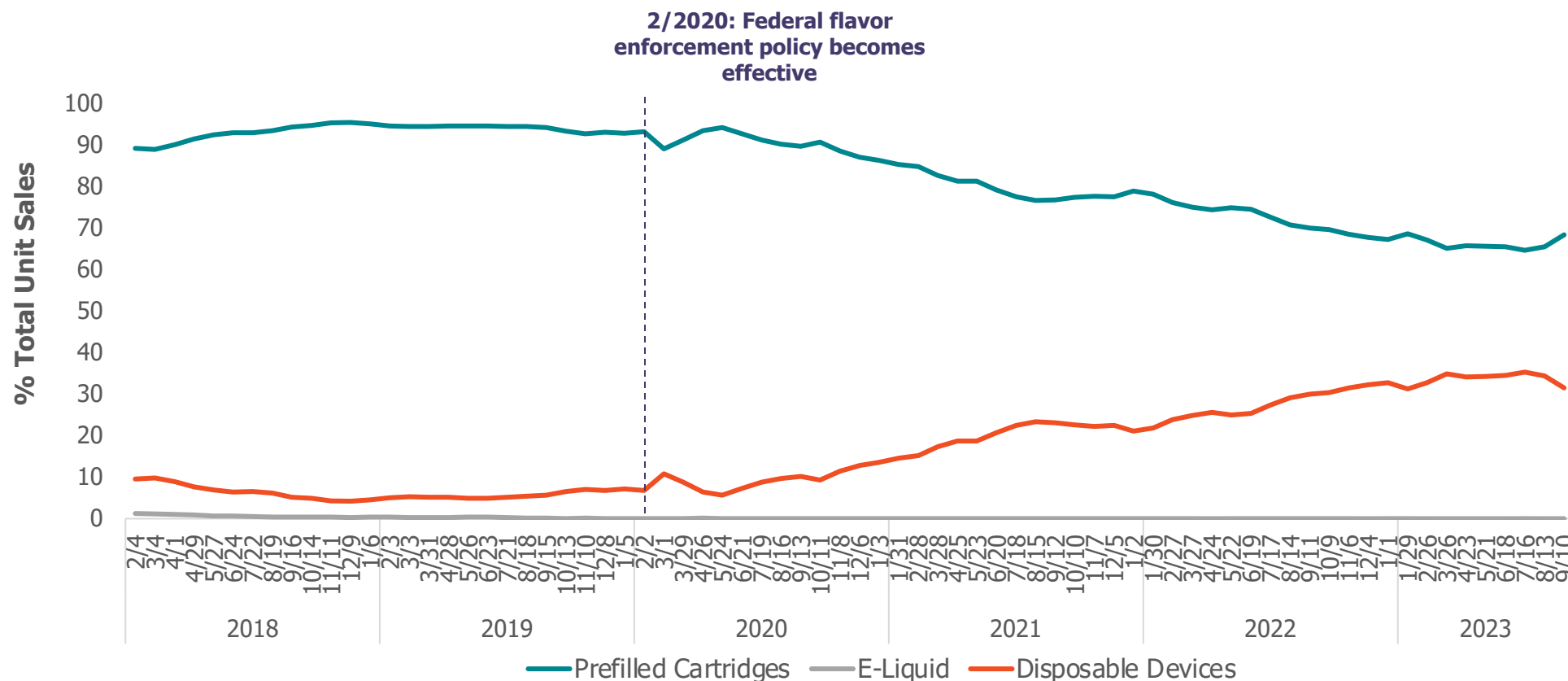


*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories 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 September 10, 2023, monthly e-cigarette unit sales increased by 13.9% from 317.3 to 361.2 thousand units.
- From February 2, 2020 to September 10, 2023:
 - Tobacco-flavored e-cigarette sales decreased by 24.5% (from 117.8 thousand to 89.0 thousand); unit share decreased from 37.1% to 24.6%.
 - Non-tobacco-flavored e-cigarette sales increased by 35.3% (from 199.5 thousand to 270.0 thousand); unit share increased from 62.9% to 74.7%.
 - Menthol-flavored e-cigarette sales increased by 57.7% (from 112.7 thousand to 177.7 thousand); unit share increased from 35.5% to 49.2%.
 - Mint-flavored e-cigarette sales decreased by 78.5% (from 24.7 thousand to 5.3 thousand); unit share decreased from 7.8% to 1.5%.
 - All other-flavored e-cigarette sales increased by 40.0% (from 62.1 thousand to 87.0 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 – 9/2023*



*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 September 10, 2023:
 - Sales of disposable devices increased by 432.1% (from 21.4 thousand to 113.9 thousand); unit share increased from 6.8% to 31.5%.
 - Sales of prefilled cartridges decreased by 16.4% (from 295.8 thousand to 247.3 thousand); unit share decreased from 93.2% to 68.5%.

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

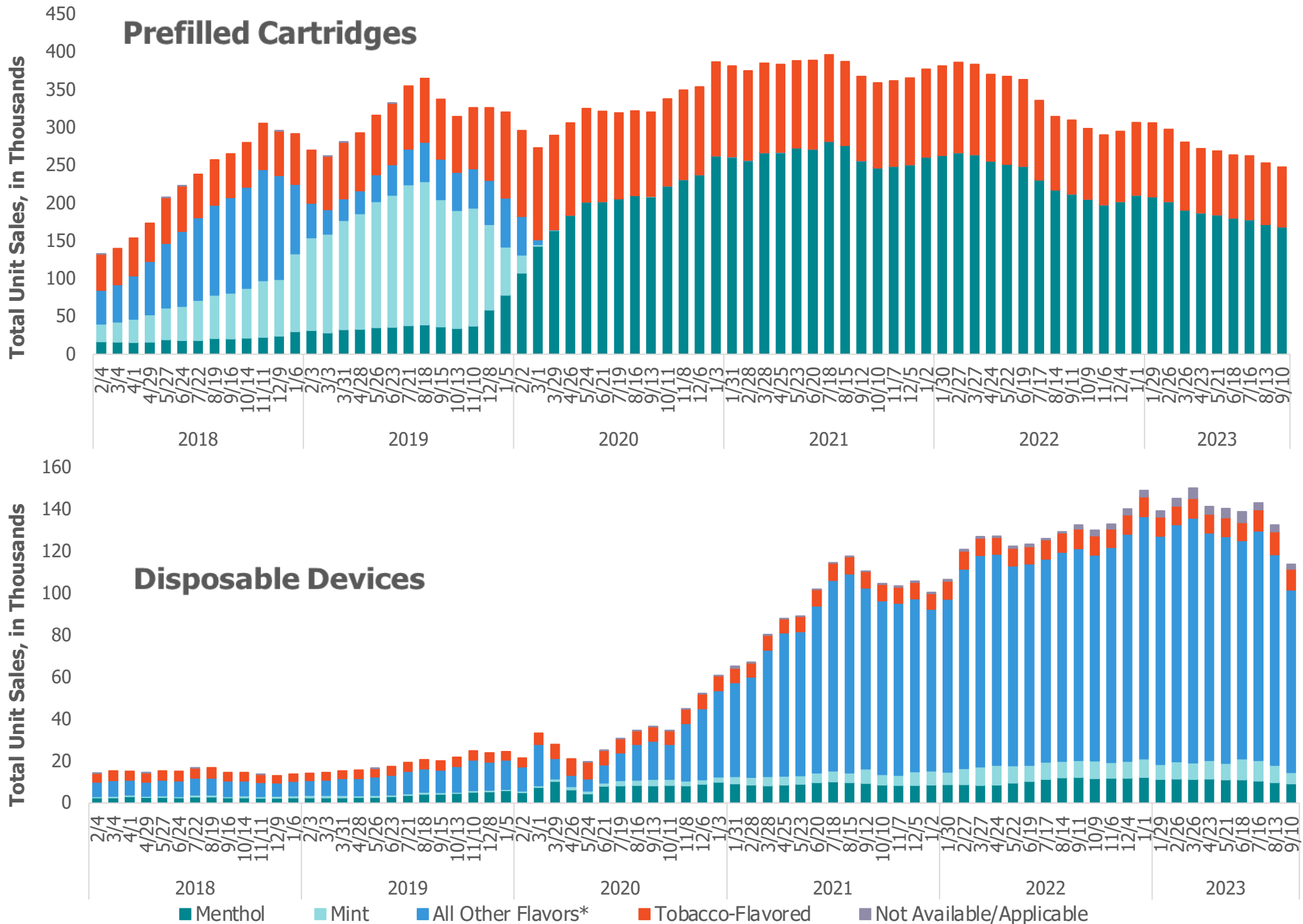
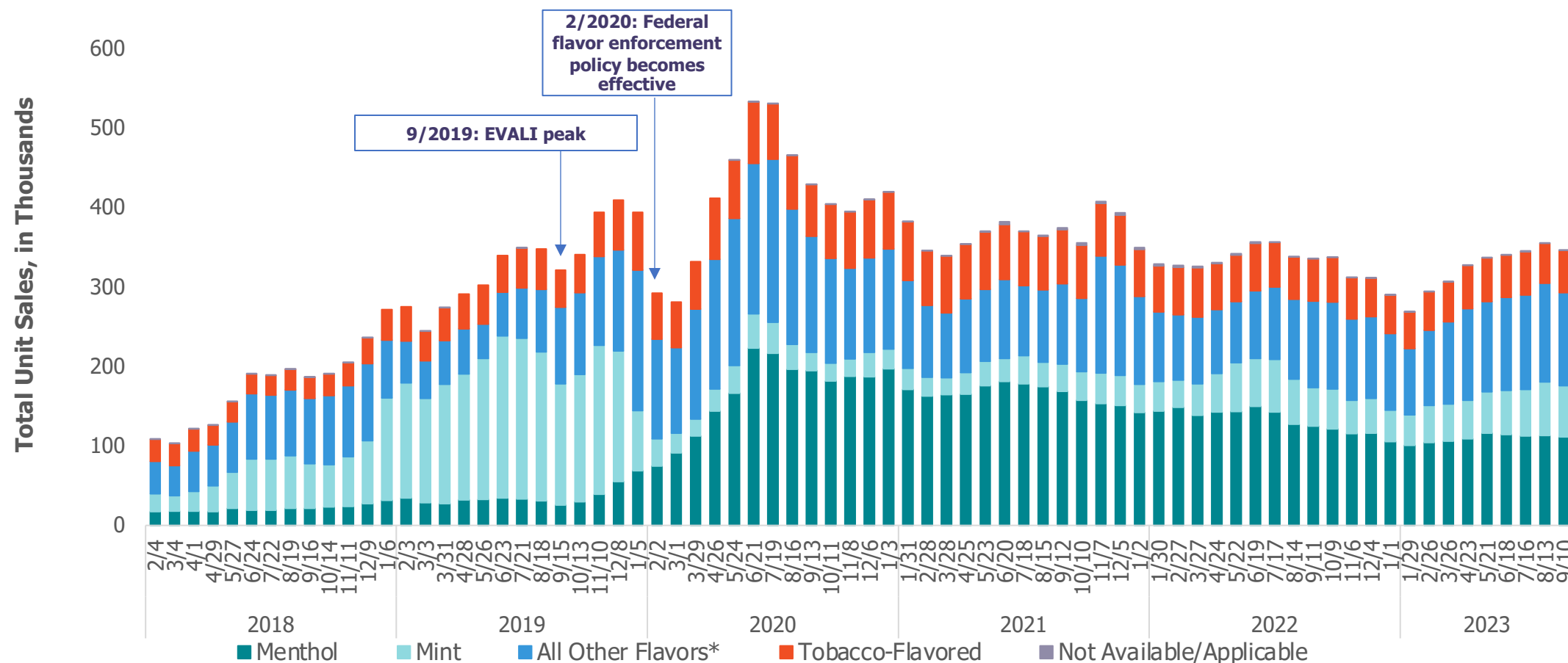


Figure 7. Connecticut E-Cigarette Unit Sales by Flavor, 4 Week Estimates 2/2018 – 9/2023*

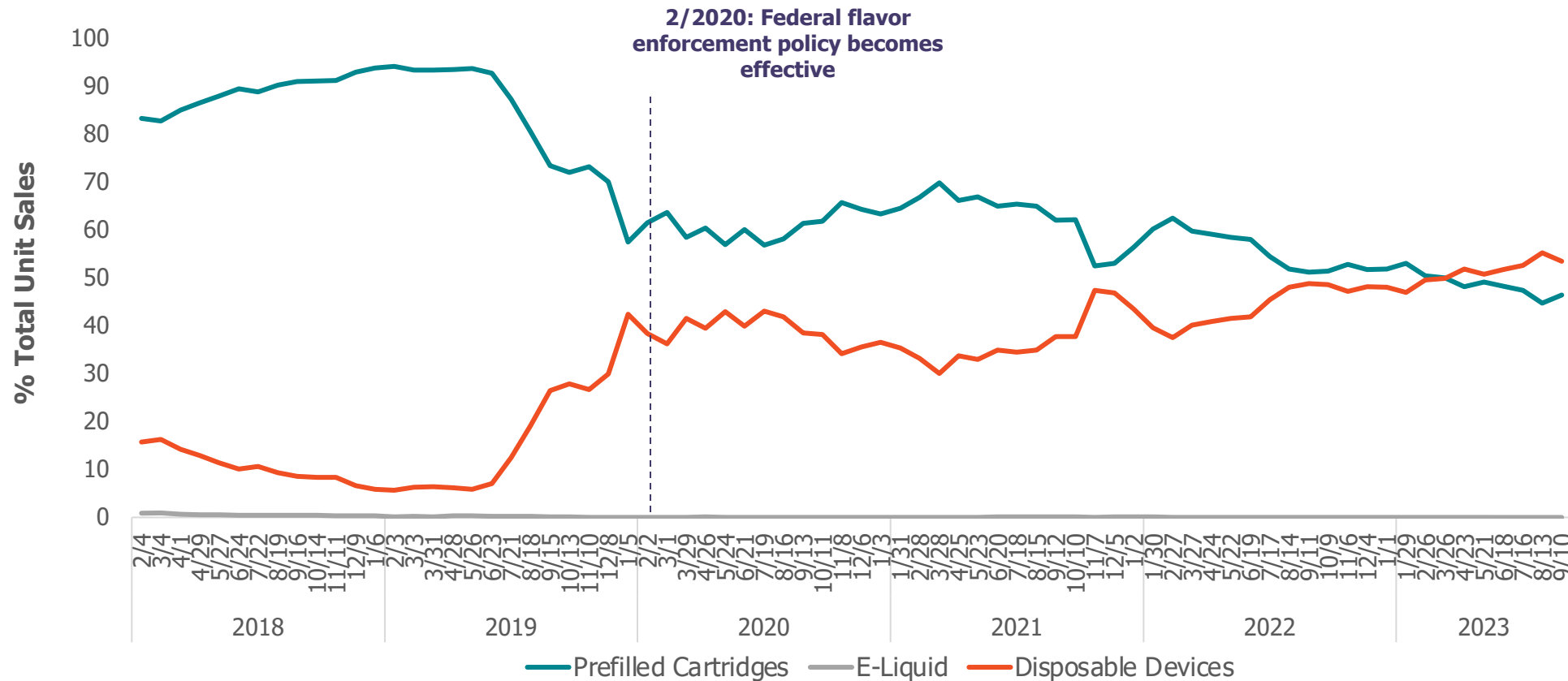


*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories 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 September 10, 2023, monthly e-cigarette unit sales increased by 18.5% from 292.4 to 346.3 thousand units.
- From February 2, 2020 to September 10, 2023:
 - Tobacco-flavored e-cigarette sales decreased by 8.6% (from 58.1 thousand to 53.1 thousand); unit share decreased from 19.9% to 15.3%.
 - Non-tobacco-flavored e-cigarette sales increased by 25.0% (from 234.3 thousand to 292.7 thousand); unit share increased from 80.1% to 84.5%.
 - Menthol-flavored e-cigarette sales increased by 49.1% (from 74.7 thousand to 111.4 thousand); unit share increased from 25.6% to 32.2%.
 - Mint-flavored e-cigarette sales increased by 88.8% (from 34.3 thousand to 64.7 thousand); unit share increased from 11.7% to 18.7%.
 - All other-flavored e-cigarette sales decreased by 6.9% (from 125.3 thousand to 116.7 thousand); unit share decreased from 42.9% to 33.7%.

Figure 8. Connecticut E-Cigarette Unit Sales by Product Type, 4 Week Estimates 2/2018 – 9/2023*



*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 September 10, 2023:
 - Sales of disposable devices increased by 65.1% (from 112.3 thousand to 185.4 thousand); unit share increased from 38.4% to 53.5%.
 - Sales of prefilled cartridges decreased by 10.6% (from 179.9 thousand to 160.9 thousand); unit share decreased from 61.5% to 46.5%.

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

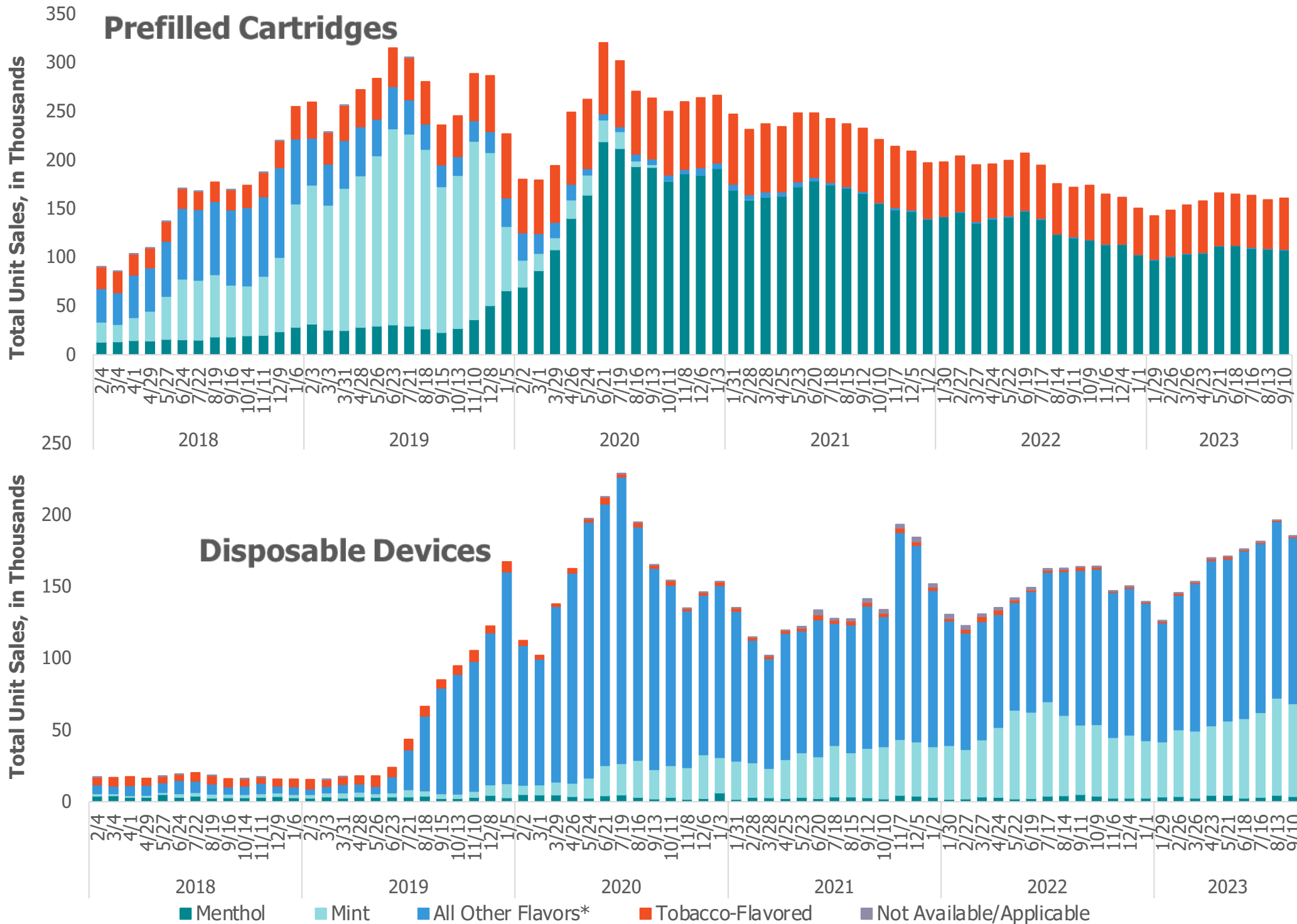
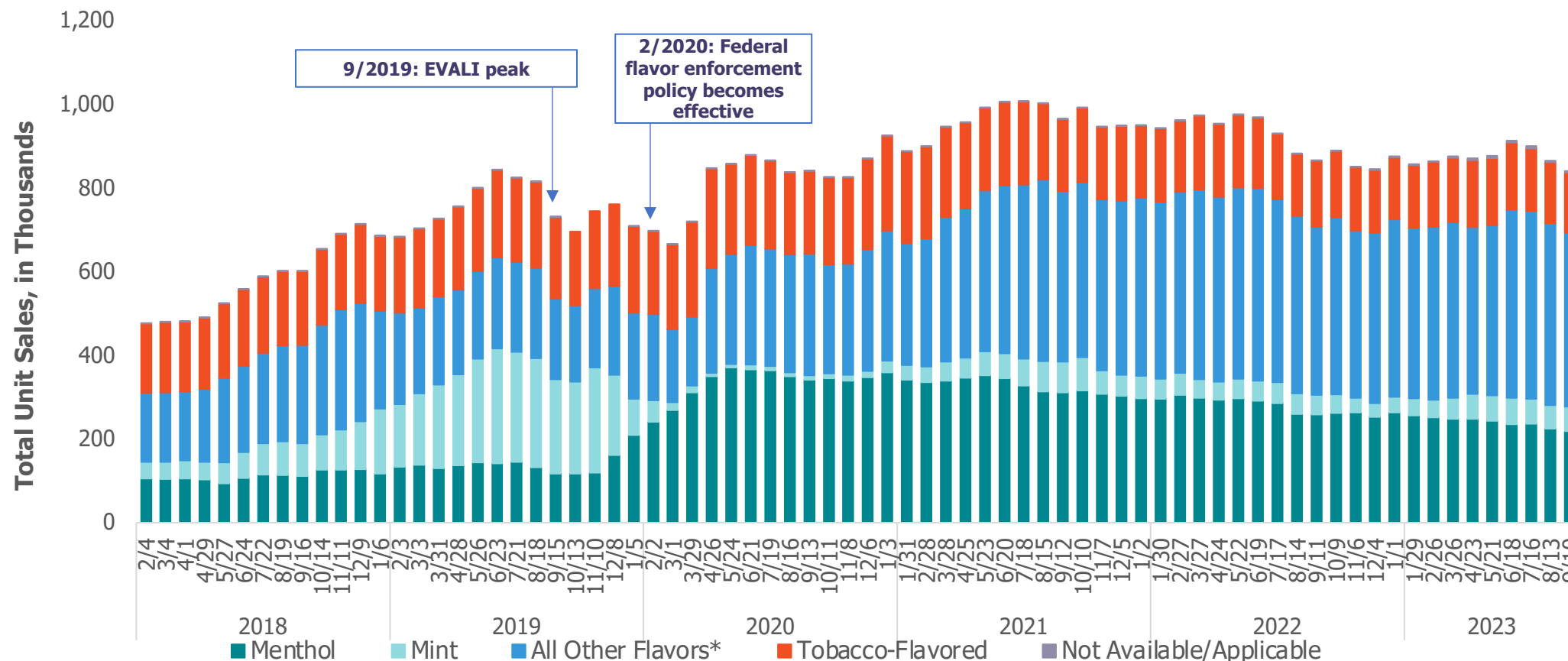


Figure 10. Illinois E-Cigarette Unit Sales by Flavor, 4 Week Estimates 2/2018 – 9/2023*

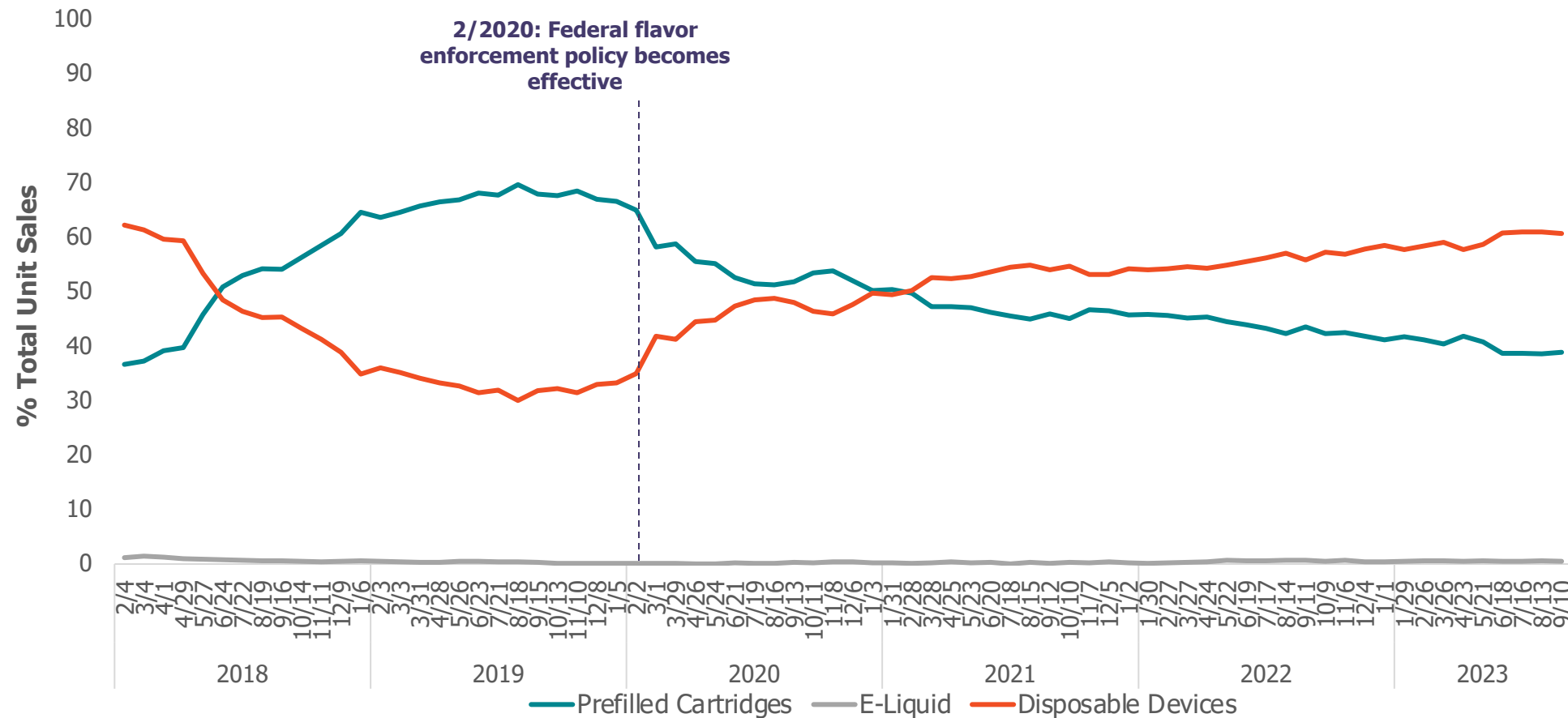


*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories 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 September 10, 2023, monthly e-cigarette unit sales increased by 20.7% from 696.5 to 840.7 thousand units.
- From February 2, 2020 to September 10, 2023:
 - Tobacco-flavored e-cigarette sales decreased by 27.4% (from 198.4 thousand to 144.1 thousand); unit share decreased from 28.5% to 17.1%.
 - Non-tobacco-flavored e-cigarette sales increased by 39.1% (from 498.0 thousand to 692.8 thousand); unit share increased from 71.5% to 82.4%.
 - Menthol-flavored e-cigarette sales decreased by 9.1% (from 241.0 thousand to 219.1 thousand); unit share decreased from 34.6% to 26.1%.
 - Mint-flavored e-cigarette sales increased by 13.1% (from 50.9 thousand to 57.6 thousand); unit share decreased from 7.3% to 6.8%.
 - All other-flavored e-cigarette sales increased by 101.9% (from 206.1 thousand to 416.2 thousand); unit share increased from 29.6% to 49.5%.

Figure 11. Illinois E-Cigarette Unit Sales by Product Type, 4 Week Estimates 2/2018 – 9/2023*



*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 September 10, 2023:
 - Sales of disposable devices increased by 109.2% (from 243.5 thousand to 509.5 thousand); unit share increased from 35.0% to 60.6%.
 - Sales of prefilled cartridges decreased by 27.7% (from 452.0 thousand to 327.0 thousand); unit share decreased from 64.9% to 38.9%.

Figure 12. Illinois E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 2/2018 – 9/2023

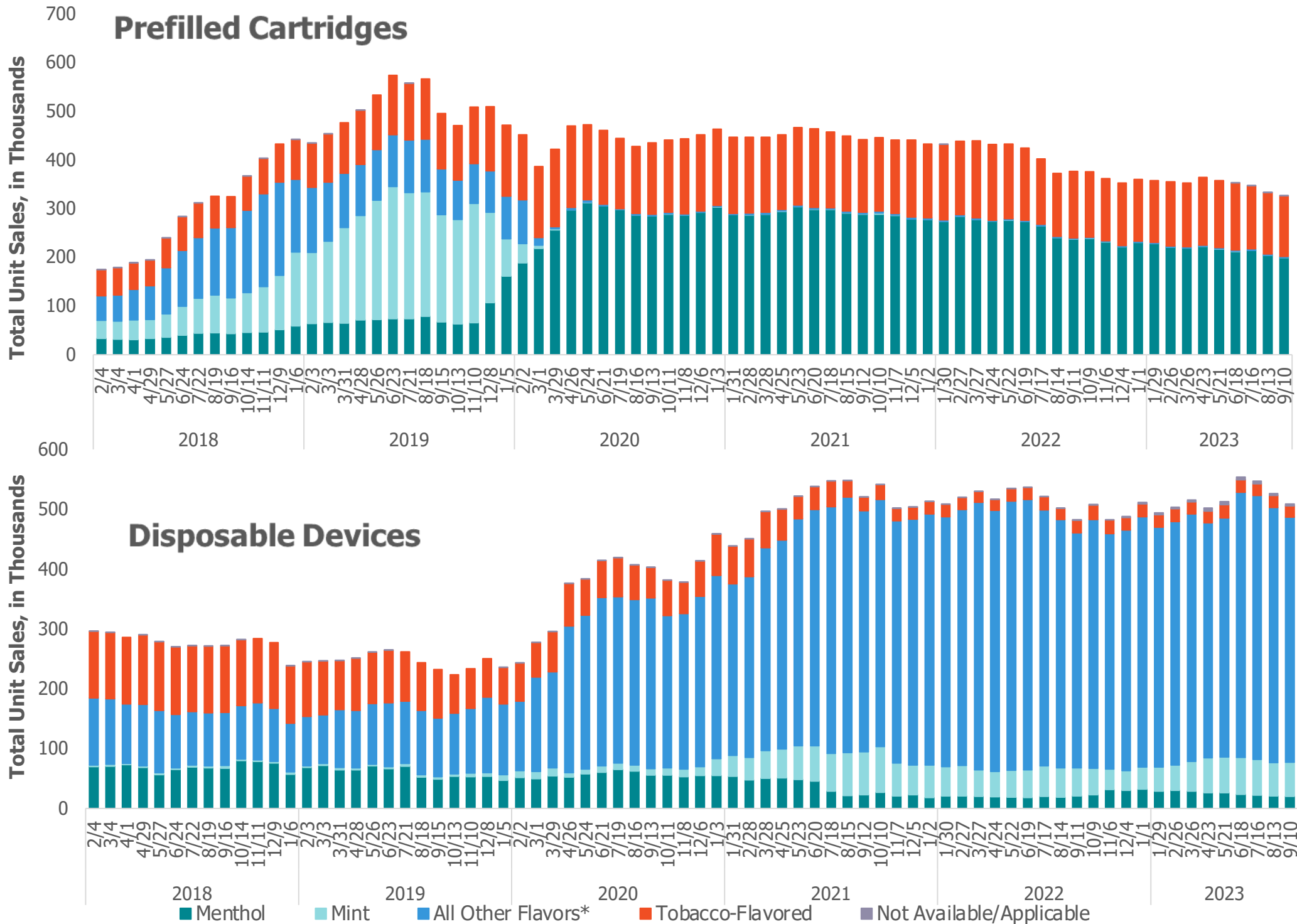
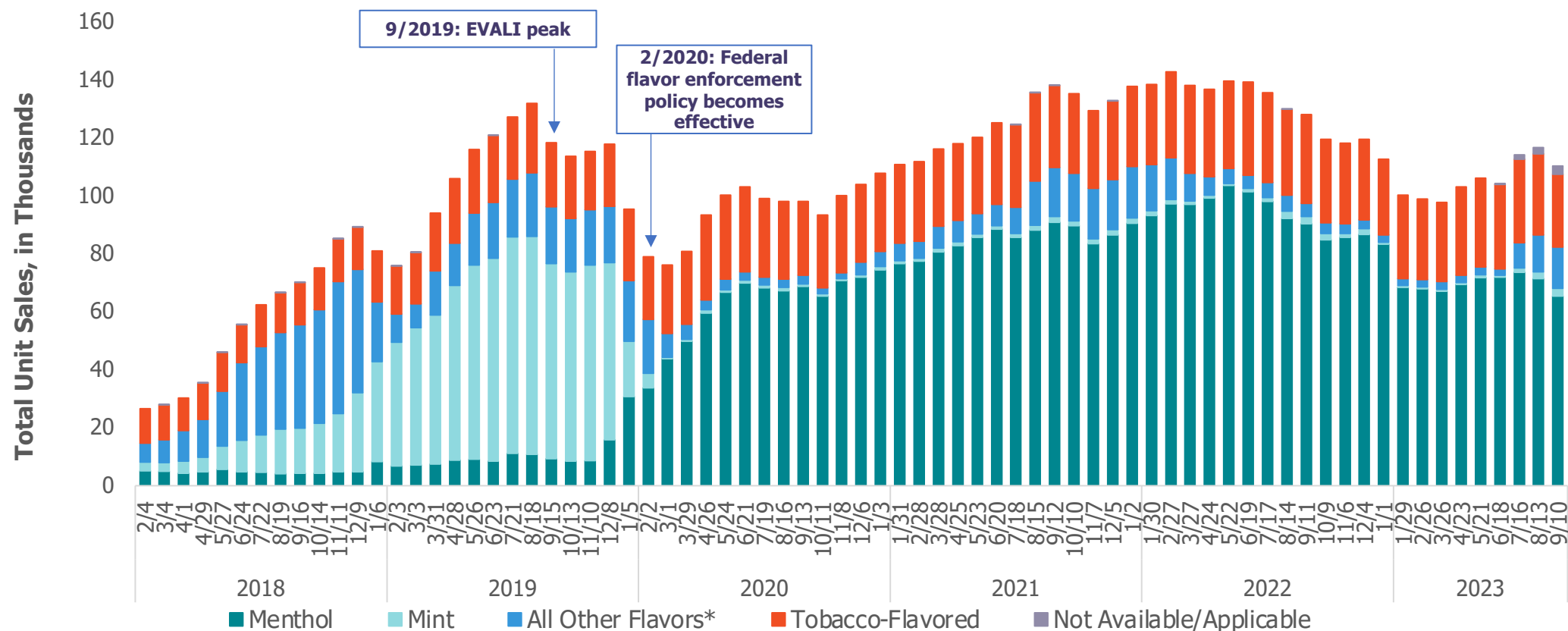


Figure 13. Maine E-Cigarette Unit Sales by Flavor, 4 Week Estimates 2/2018 – 9/2023*

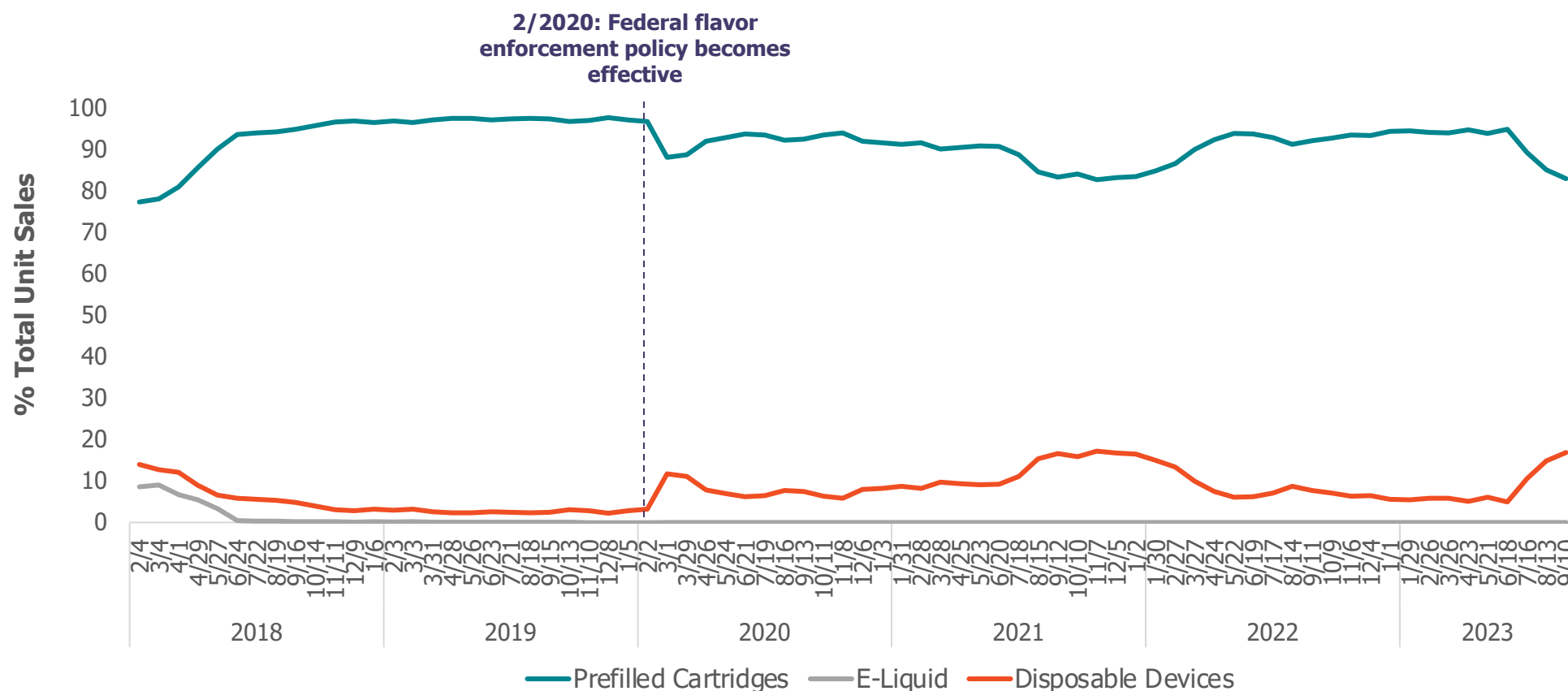


*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories 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 September 10, 2023, monthly e-cigarette unit sales increased by 39.7% from 78.9 to 110.3 thousand units.
- From February 2, 2020 to September 10, 2023:
 - Tobacco-flavored e-cigarette sales increased by 15.7% (from 21.6 thousand to 25.1 thousand); unit share decreased from 27.4% to 22.7%.
 - Non-tobacco-flavored e-cigarette sales increased by 43.7% (from 57.3 thousand to 82.3 thousand); unit share increased from 72.6% to 74.6%.
 - Menthol-flavored e-cigarette sales increased by 94.1% (from 33.7 thousand to 65.4 thousand); unit share increased from 42.7% to 59.3%.
 - Mint-flavored e-cigarette sales decreased by 49.3% (from 5.2 thousand to 2.6 thousand); unit share decreased from 6.5% to 2.4%.
 - All other-flavored e-cigarette sales decreased by 22.5% (from 18.4 thousand to 14.3 thousand); unit share decreased from 23.4% to 13.0%.

Figure 14. Maine E-Cigarette Unit Sales by Product Type, 4 Week Estimates 2/2018 – 9/2023*



*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 September 10, 2023:
 - Sales of disposable devices increased by 648.4% (from 2.5 thousand to 18.7 thousand); unit share increased from 3.2% to 16.9%.
 - Sales of prefilled cartridges increased by 19.9% (from 76.4 thousand to 91.6 thousand); unit share decreased from 96.8% to 83.1%.

Figure 15. Maine E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 2/2018 – 9/2023

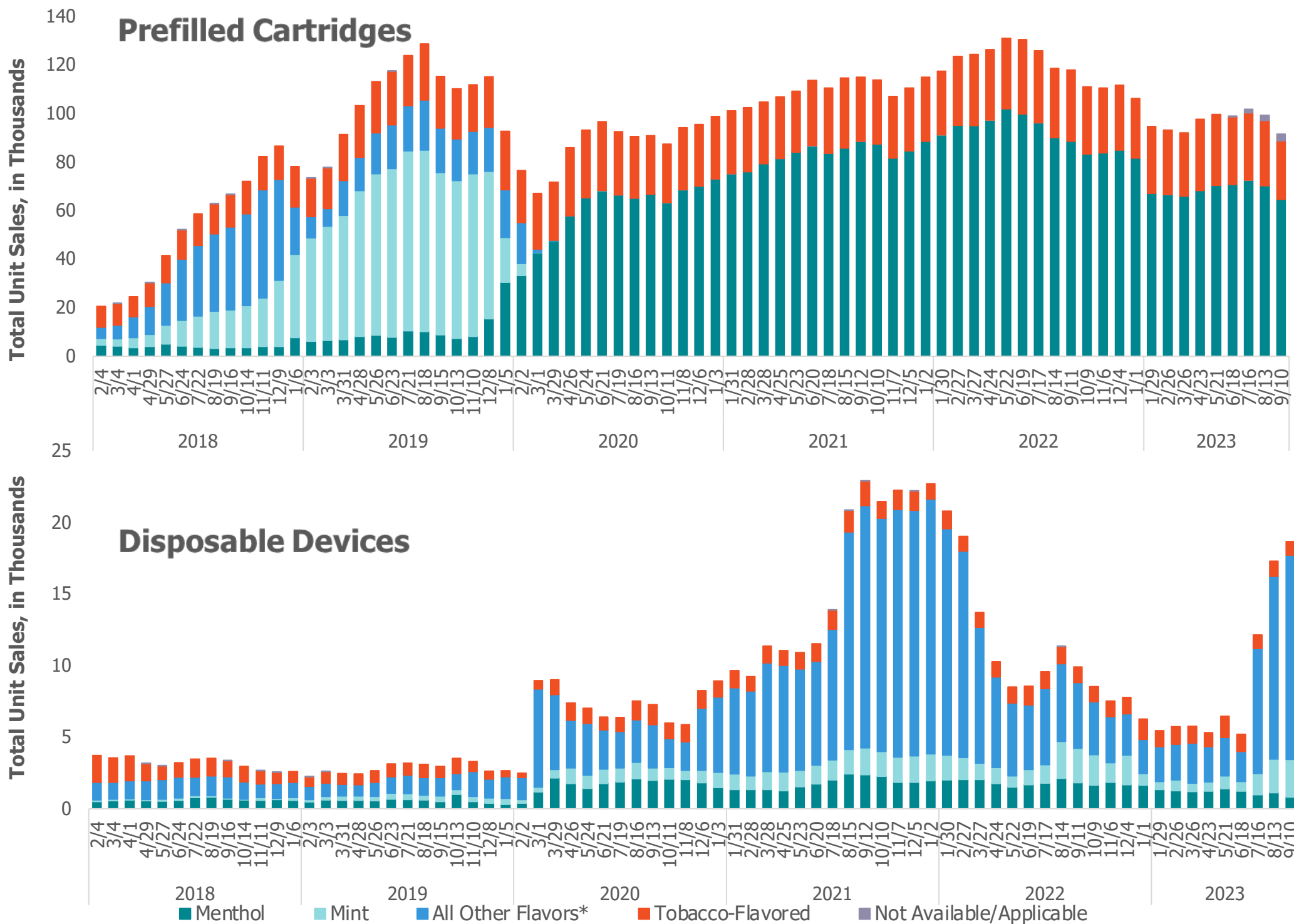
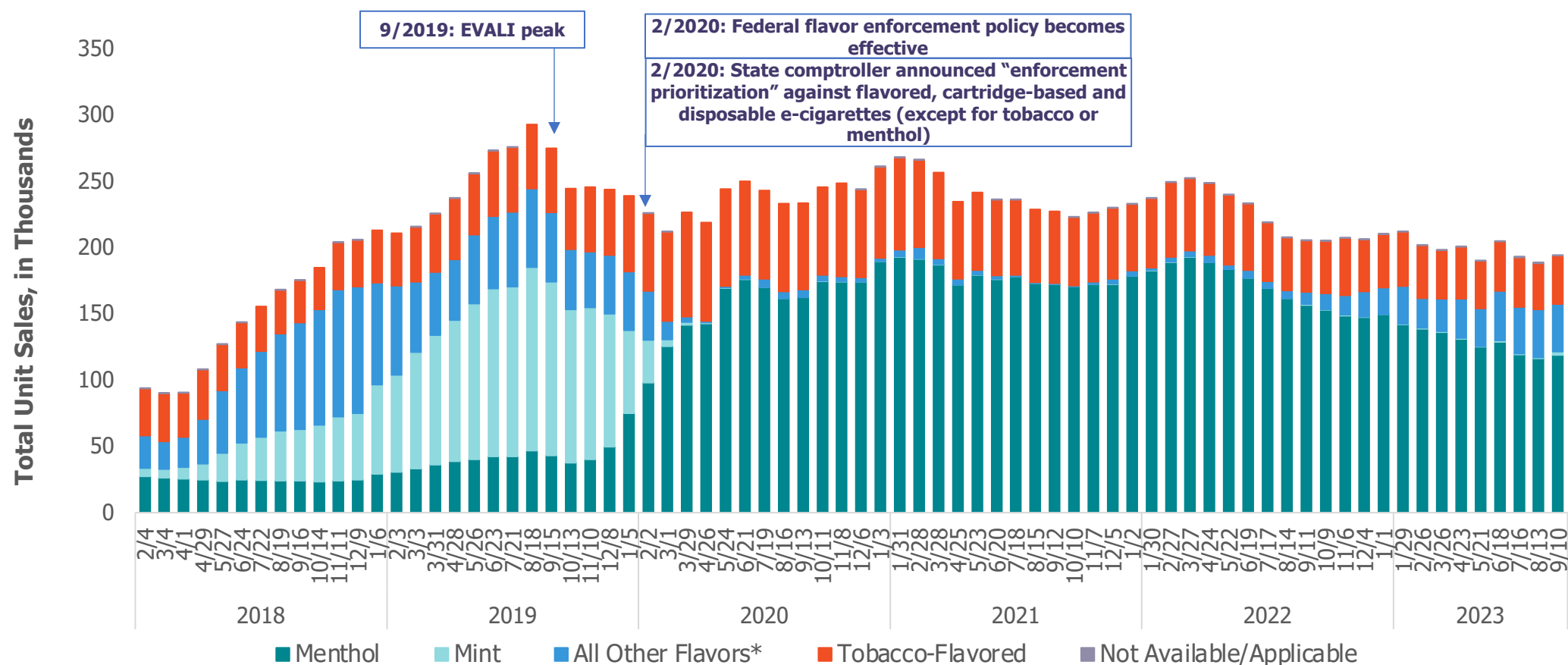


Figure 16. Maryland E-Cigarette Unit Sales by Flavor, 4 Week Estimates 2/2018 – 9/2023*

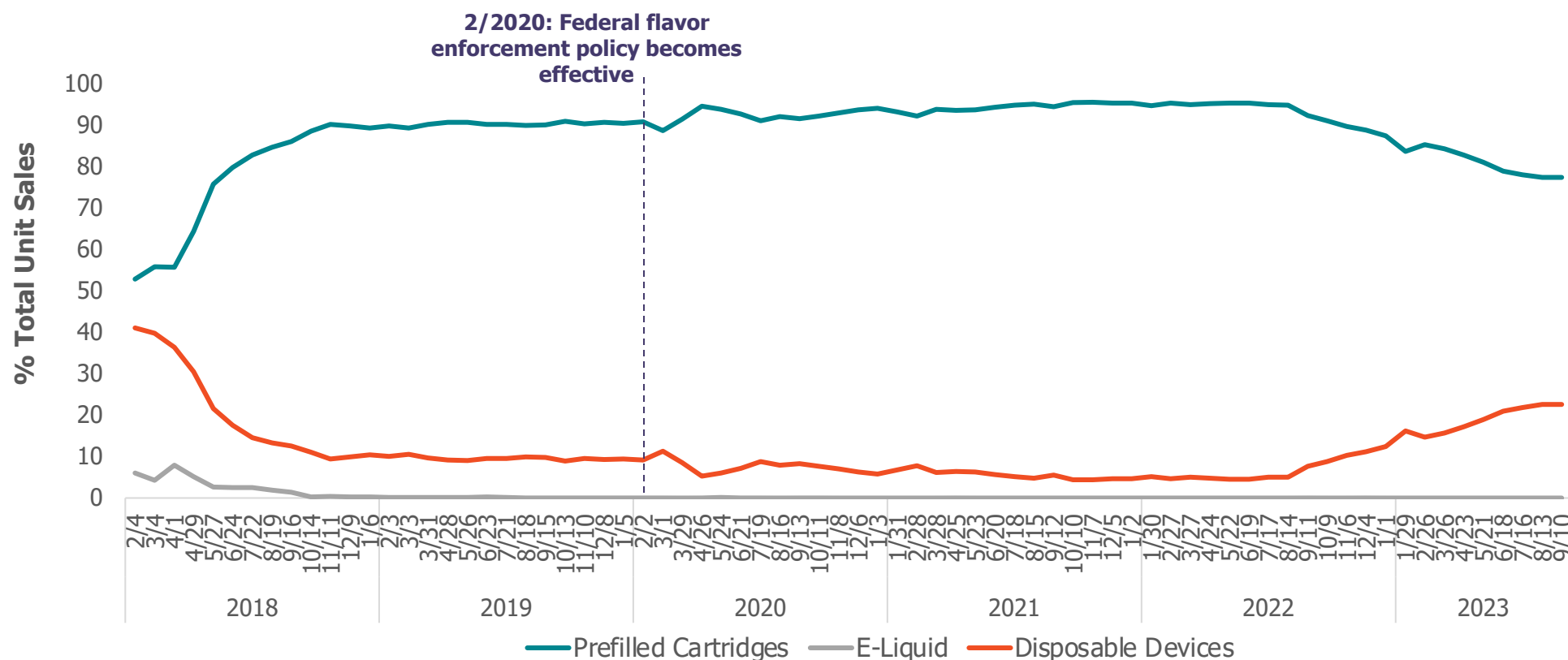


*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories 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 September 10 2023, monthly e-cigarette unit sales decreased by 14.0% from 225.8 to 194.2 thousand units.
- From February 2, 2020 to September 10, 2023:
 - Tobacco-flavored e-cigarette sales decreased by 37.2% (from 58.7 thousand to 36.9 thousand); unit share decreased from 26.0% to 19.0%.
 - Non-tobacco-flavored e-cigarette sales decreased by 5.9% (from 167.1 thousand to 157.2 thousand); unit share increased from 74.0% to 81.0%.
 - Menthol-flavored e-cigarette sales increased by 21.4% (from 98.0 thousand to 118.9 thousand); unit share increased from 43.4% to 61.2%.
 - Mint-flavored e-cigarette sales decreased by 92.3% (from 32.4 thousand to 2.5 thousand); unit share decreased from 14.3% to 1.3%.
 - All other-flavored e-cigarette sales decreased by 2.5% (from 36.8 thousand to 35.9 thousand); unit share increased from 16.3% to 18.5%.

Figure 17. Maryland E-Cigarette Unit Sales by Product Type, 4 Week Estimates 2/2018 – 9/2023*



*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 September 10, 2023:
 - Sales of disposable devices increased by 112.3% (from 20.7 thousand to 43.9 thousand); unit share increased from 9.2% to 22.6%.
 - Sales of prefilled cartridges decreased by 26.7% (from 205.1 thousand to 150.3 thousand); unit share decreased from 90.8% to 77.4%.

Figure 18. Maryland E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 2/2018 – 9/2023

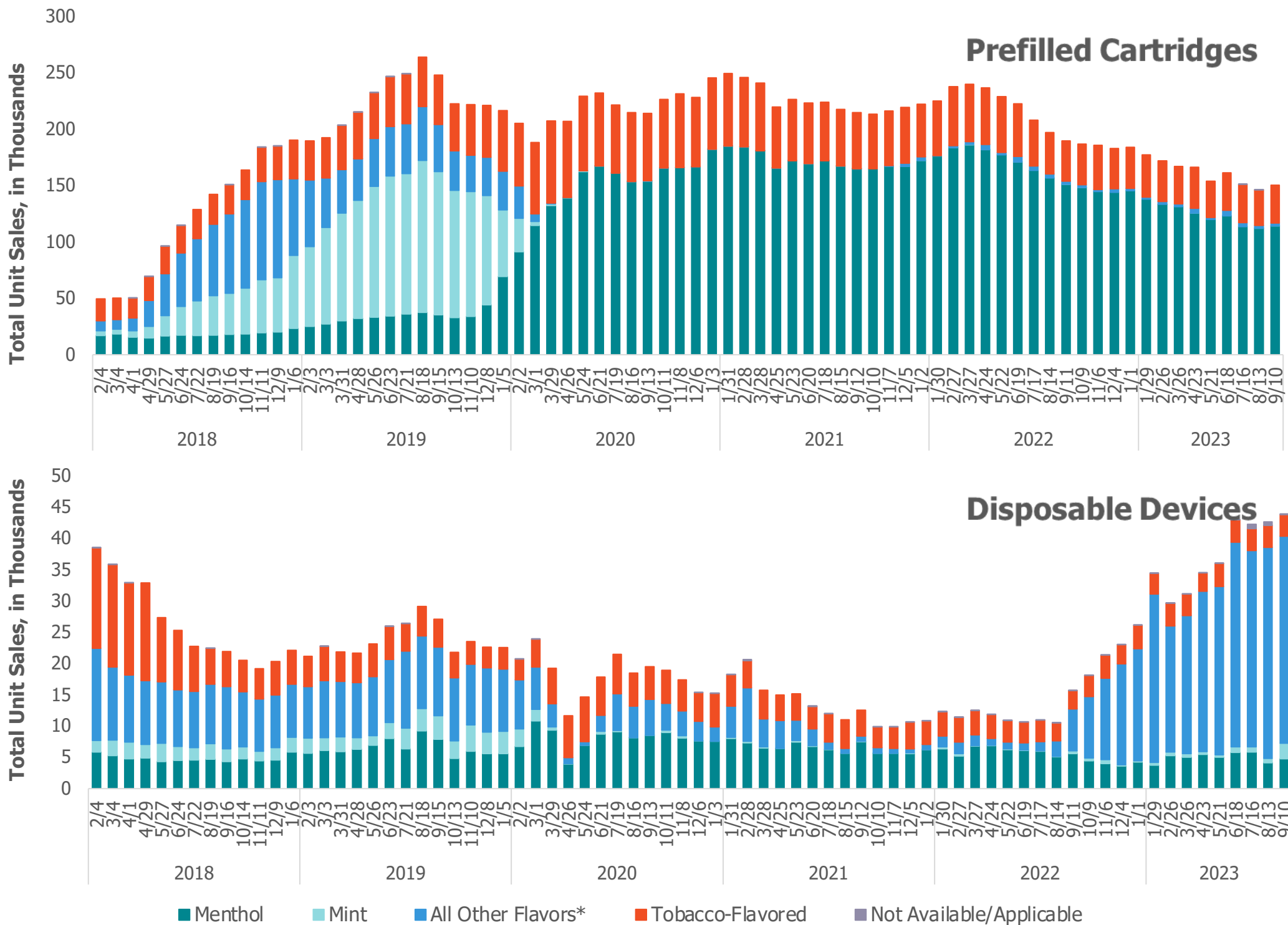
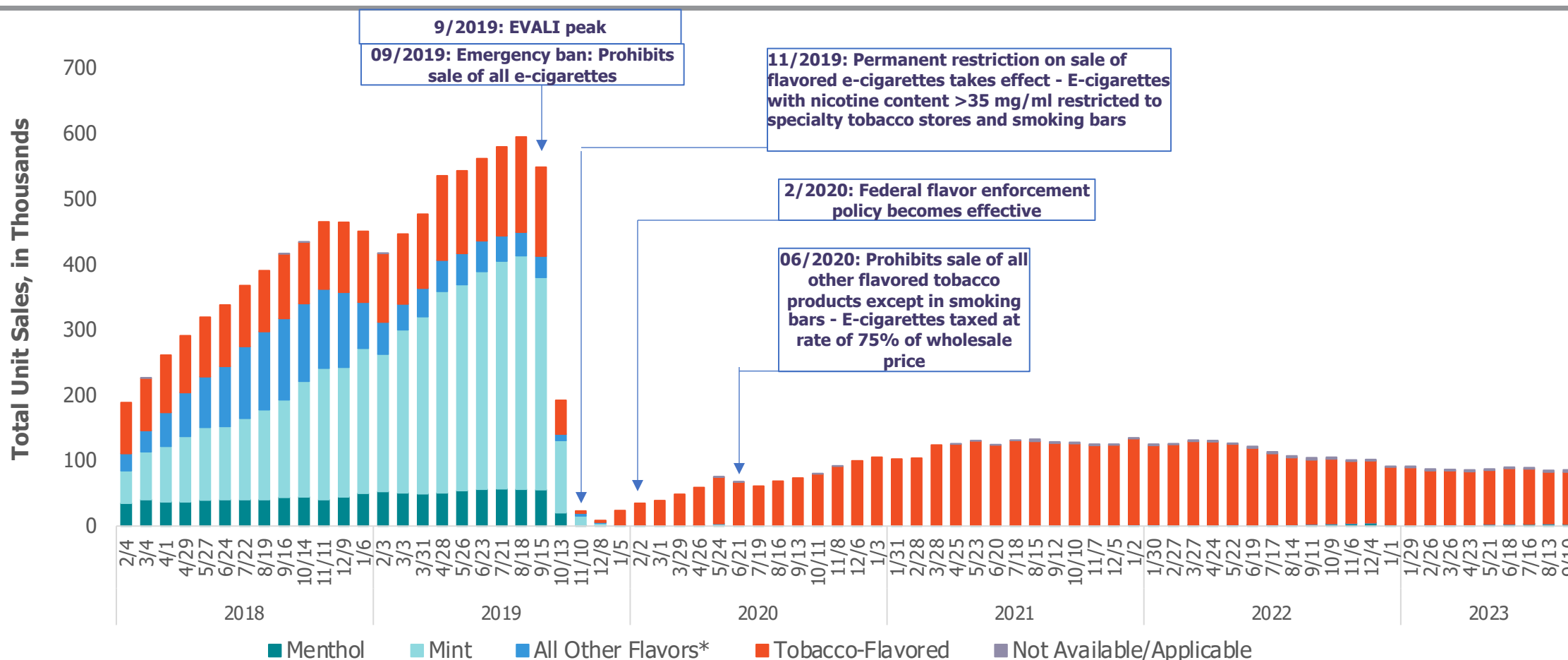


Figure 19. Massachusetts E-Cigarette Unit Sales by Flavor, 4 Week Estimates 2/2018 – 9/2023*

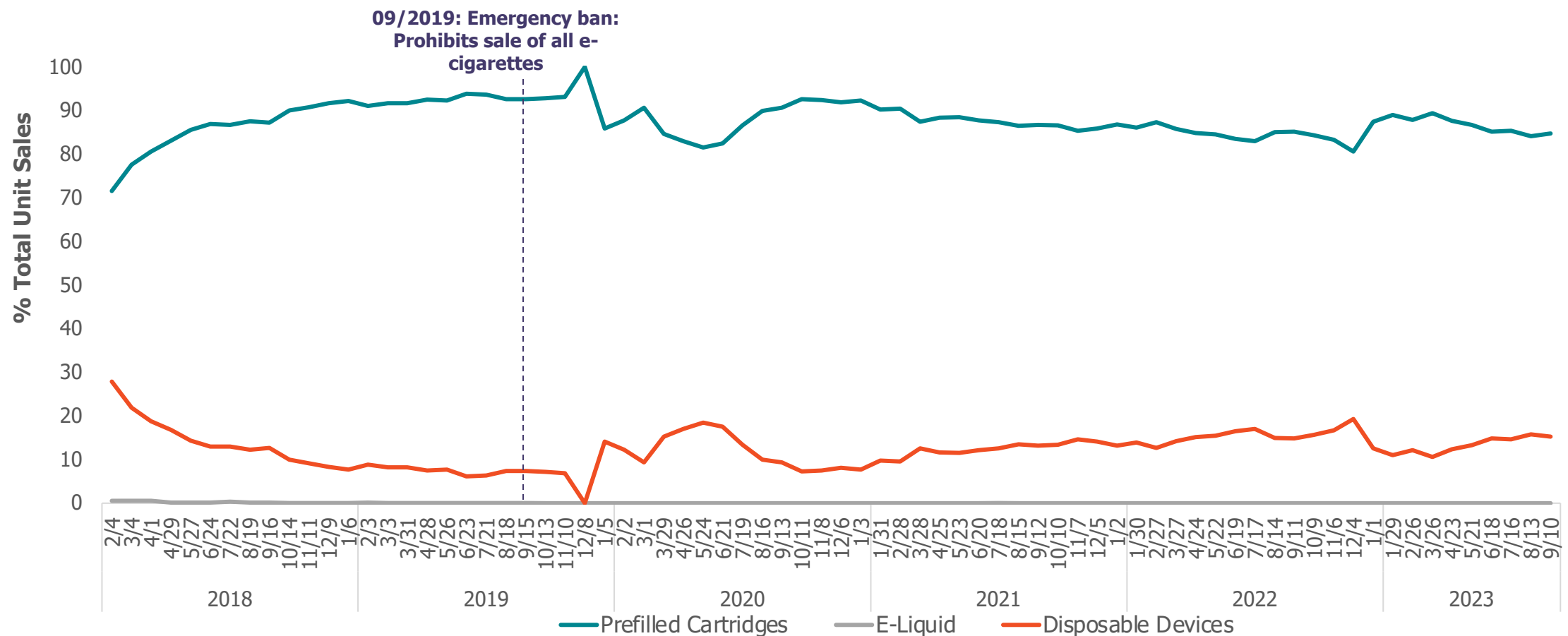


*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories 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 84.4% from September 15, 2019 to September 10, 2023 (from 549.1 thousand to 85.8 thousand). During this period, monthly e-cigarette total unit sales of flavors other than tobacco decreased by 99.2% (from 413.0 thousand to 3.2 thousand).
- From September 15, 2019 to September 10, 2023:
 - Tobacco-flavored e-cigarette sales decreased by 41.9% (from 136.1 thousand to 79.2 thousand); unit share increased from 24.8% to 92.2%.
 - Non-tobacco-flavored e-cigarette sales decreased by 99.2% (from 413.0 thousand to 3.2 thousand); unit share decreased from 75.2% to 3.7%.
 - Menthol-flavored e-cigarette sales decreased by 95.0% (from 55.6 thousand to 2.8 thousand); unit share decreased from 10.1% to 3.3%.
 - Mint-flavored e-cigarette sales decreased by 100.0% (from 325.0 thousand to 0.0 thousand); unit share decreased from 59.2% to 0.0%.
 - All other-flavored e-cigarette sales decreased by 98.9% (from 32.4 thousand to 0.4 thousand); unit share decreased from 5.9% to 0.4%.

Figure 20. Massachusetts E-Cigarette Unit Sales by Product Type, 4 Week Estimates 2/2018 – 9/2023*



*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 September 10, 2023:
 - Sales of disposable devices decreased by 67.7% (from 40.6 thousand to 13.1 thousand); unit share increased from 7.4% to 15.3%.
 - Sales of prefilled cartridges decreased by 85.7% (from 508.5 thousand to 72.7 thousand); unit share decreased from 92.6% to 84.7%.

Figure 21. Massachusetts E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 2/2018 – 9/2023

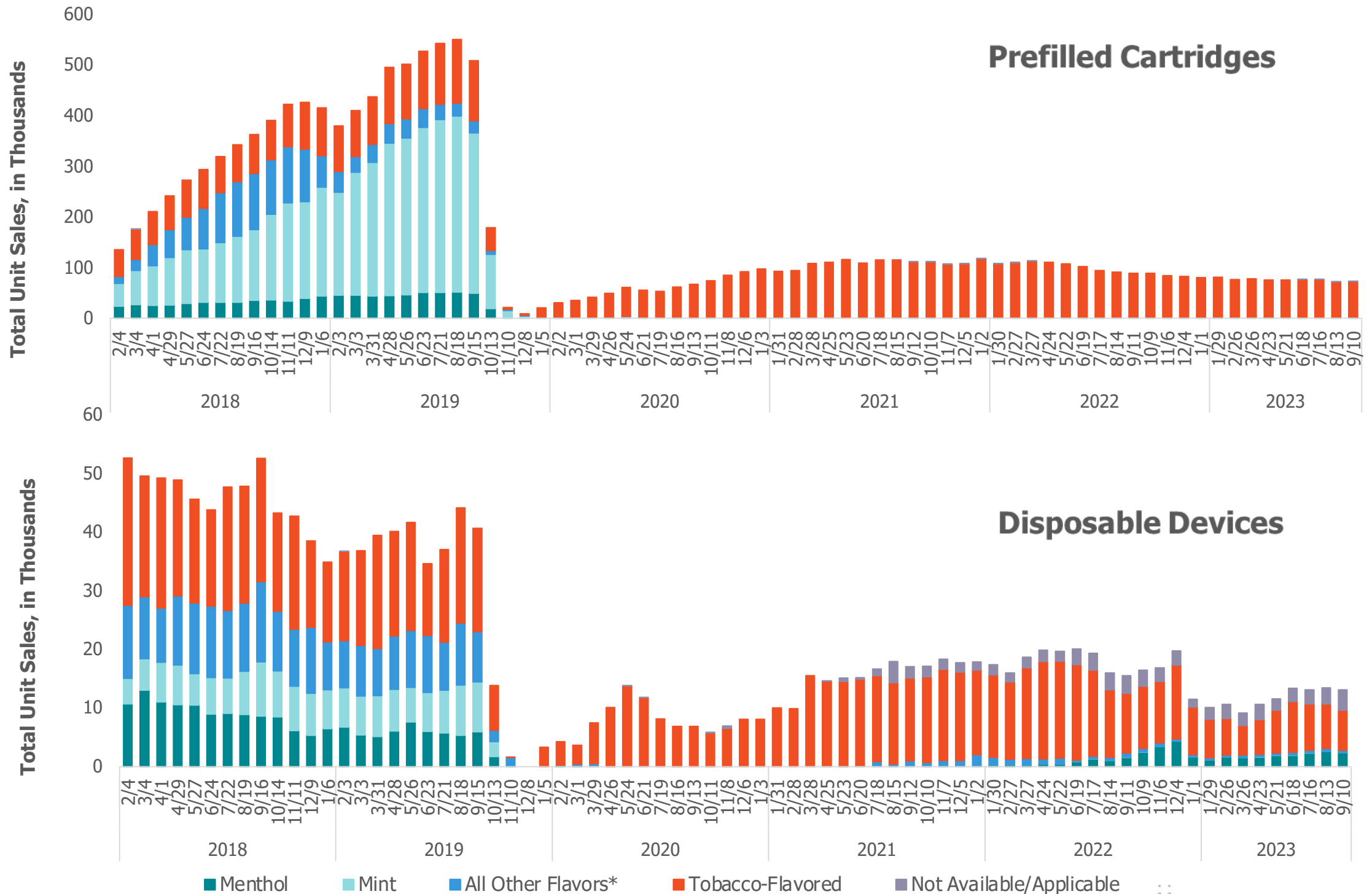
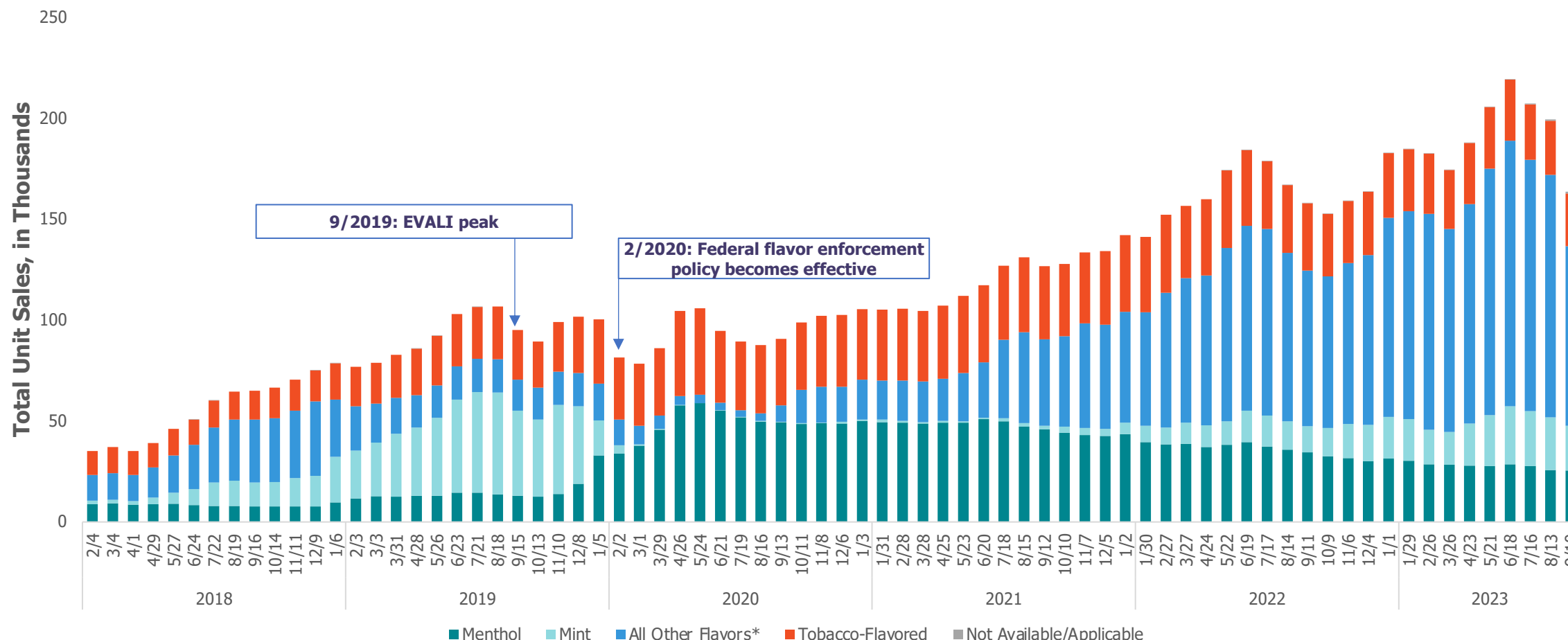


Figure 22. Minnesota E-Cigarette Unit Sales by Flavor, 4 Week Estimates 2/2018 – 9/2023*

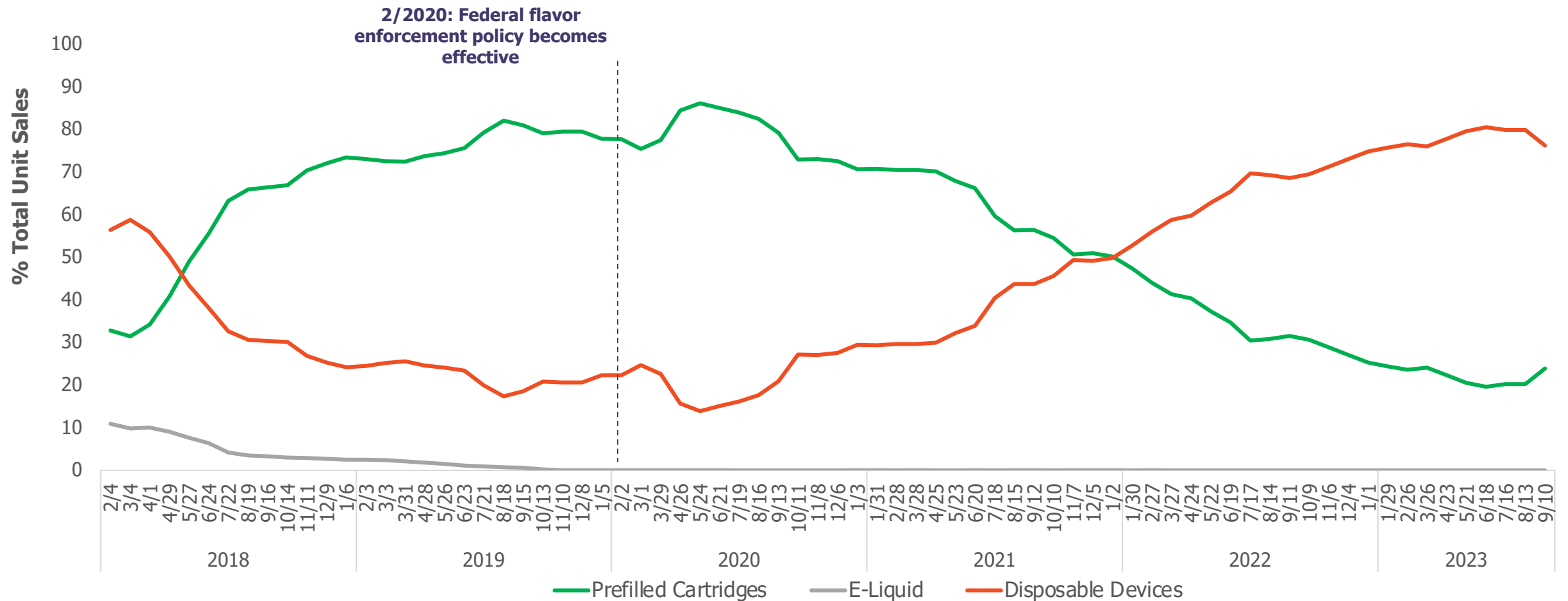


*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories 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 September 10, 2023, monthly e-cigarette unit sales increased by 100.7% from 81.6 to 163.7 thousand units.
- From February 2, 2020 to September 10, 2023:
 - Tobacco-flavored e-cigarette sales decreased by 15.3% (from 30.8 thousand to 26.1 thousand); unit share decreased from 37.8% to 15.9%.
 - Non-tobacco-flavored e-cigarette sales increased by 169.3% (from 50.7 thousand to 136.6 thousand); unit share increased from 62.2% to 83.5%.
 - Menthol-flavored e-cigarette sales decreased by 24.9% (from 33.9 thousand to 25.5 thousand); unit share decreased from 41.6% to 15.6%.
 - Mint-flavored e-cigarette sales increased by 453.4% (from 4.0 thousand to 22.1 thousand); unit share increased from 4.9% to 13.5%.
 - All other-flavored e-cigarette sales increased by 594.8% (from 12.8 thousand to 89.0 thousand); unit share increased from 15.7% to 54.4%.

Figure 23. Minnesota E-Cigarette Unit Sales by Product Type, 4 Week Estimates 2/2018 – 9/2023*



*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 September 10, 2023:
 - Sales of disposable devices increased by 584.3% (from 18.2 thousand to 124.7 thousand); unit share increased from 22.3% to 76.2%.
 - Sales of prefilled cartridges decreased by 38.4% (from 63.3 thousand to 39.0 thousand); unit share decreased from 77.7% to 23.8%.

Figure 24. Minnesota E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 2/2018 – 9/2023

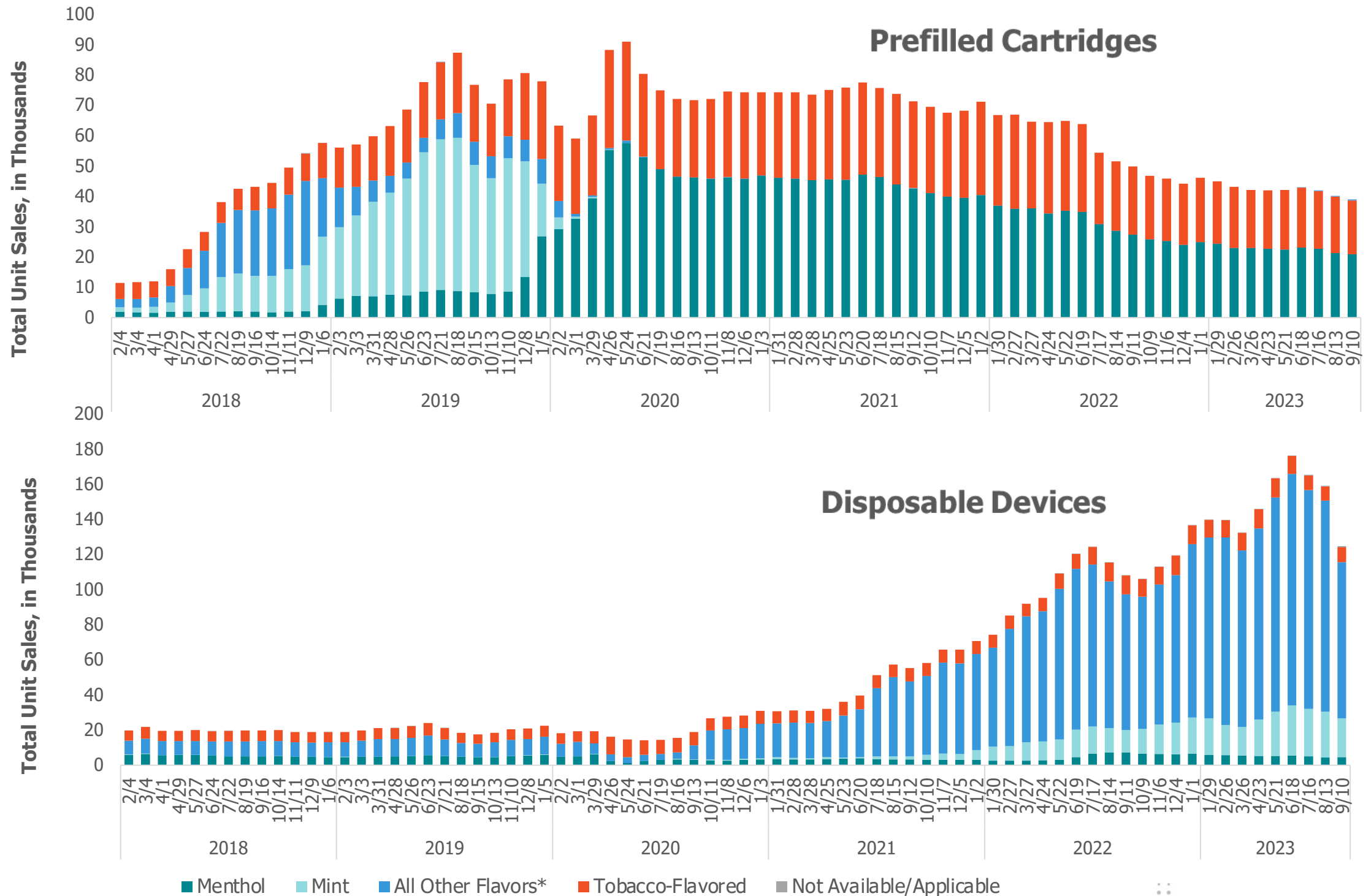
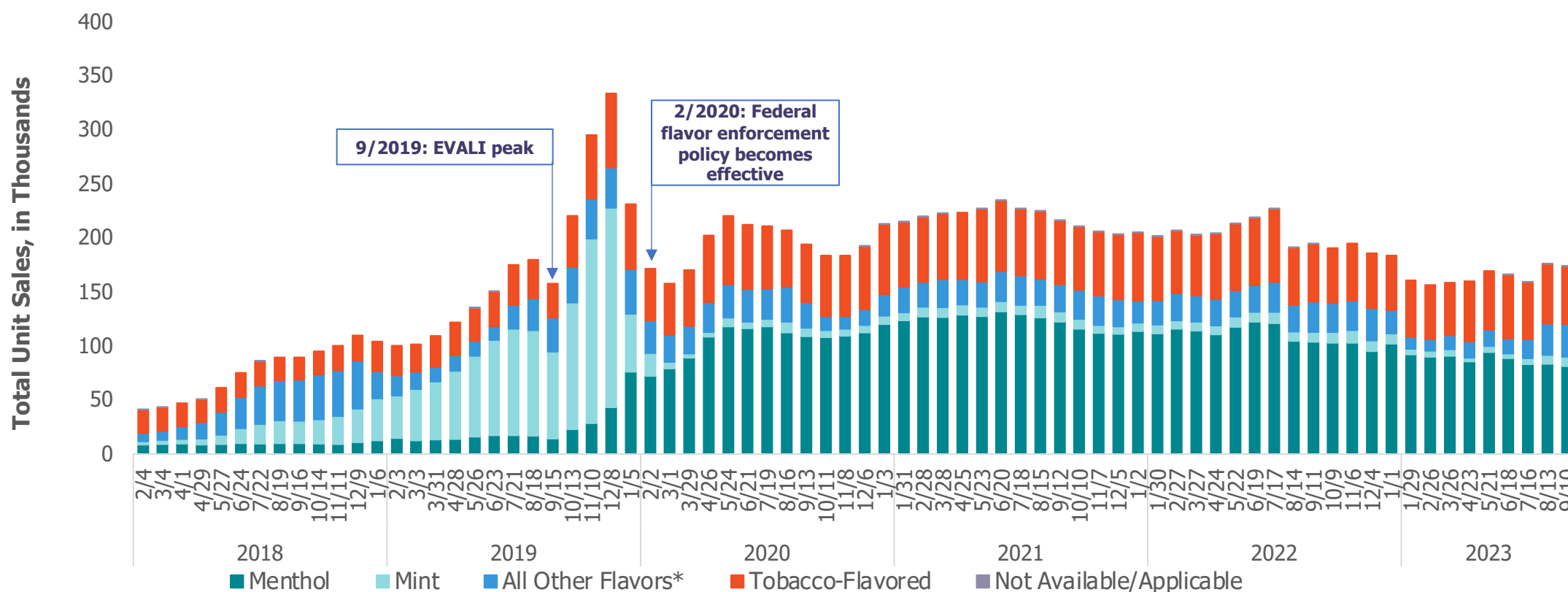


Figure 25. New Hampshire E-Cigarette Unit Sales by Flavor, 4 Week Estimates 2/2018 – 9/2023*

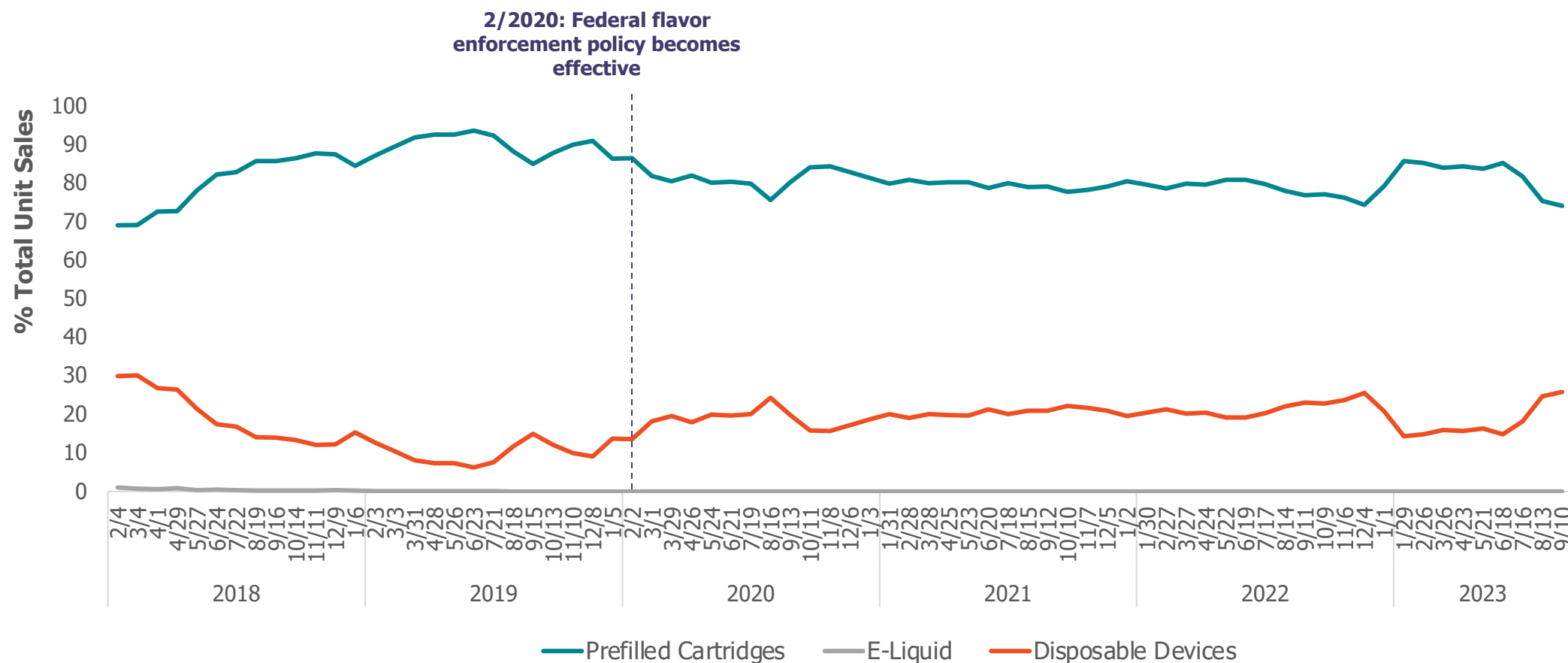


*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories 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 September 10, 2023 monthly e-cigarette unit sales increased by 1.3% from 171.8 to 174.0 thousand units.
- From February 2, 2020 to September 10, 2023:
 - Tobacco-flavored e-cigarette sales increased by 10.5% (from 48.4 thousand to 53.4 thousand); unit share increased from 28.2% to 30.7%.
 - Non-tobacco-flavored e-cigarette sales decreased by 2.5% (from 123.4 thousand to 120.4 thousand); unit share decreased from 71.8% to 69.2%.
 - Menthol-flavored e-cigarette sales increased by 12.1% (from 72.3 thousand to 81.1 thousand); unit share increased from 42.1% to 46.6%.
 - Mint-flavored e-cigarette sales decreased by 58.2% (from 21.1 thousand to 8.8 thousand); unit share decreased from 12.3% to 5.1%.
 - All other-flavored e-cigarette sales increased by 1.6% (from 30.0 thousand to 30.4 thousand); unit share increased from 17.45% to 17.49%.

Figure 26. New Hampshire E-Cigarette Unit Sales by Product Type, 4 Week Estimates 2/2018 – 9/2023*



*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 September 10, 2023:
 - Sales of disposable devices increased by 93.3% (from 23.3 thousand to 45.0 thousand); unit share increased from 13.6% to 25.9%.
 - Sales of prefilled cartridges decreased by 13.1% (from 148.5 thousand to 129.0 thousand); unit share decreased from 86.4% to 74.1%.

Figure 27. New Hampshire E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 2/2018 – 9/2023

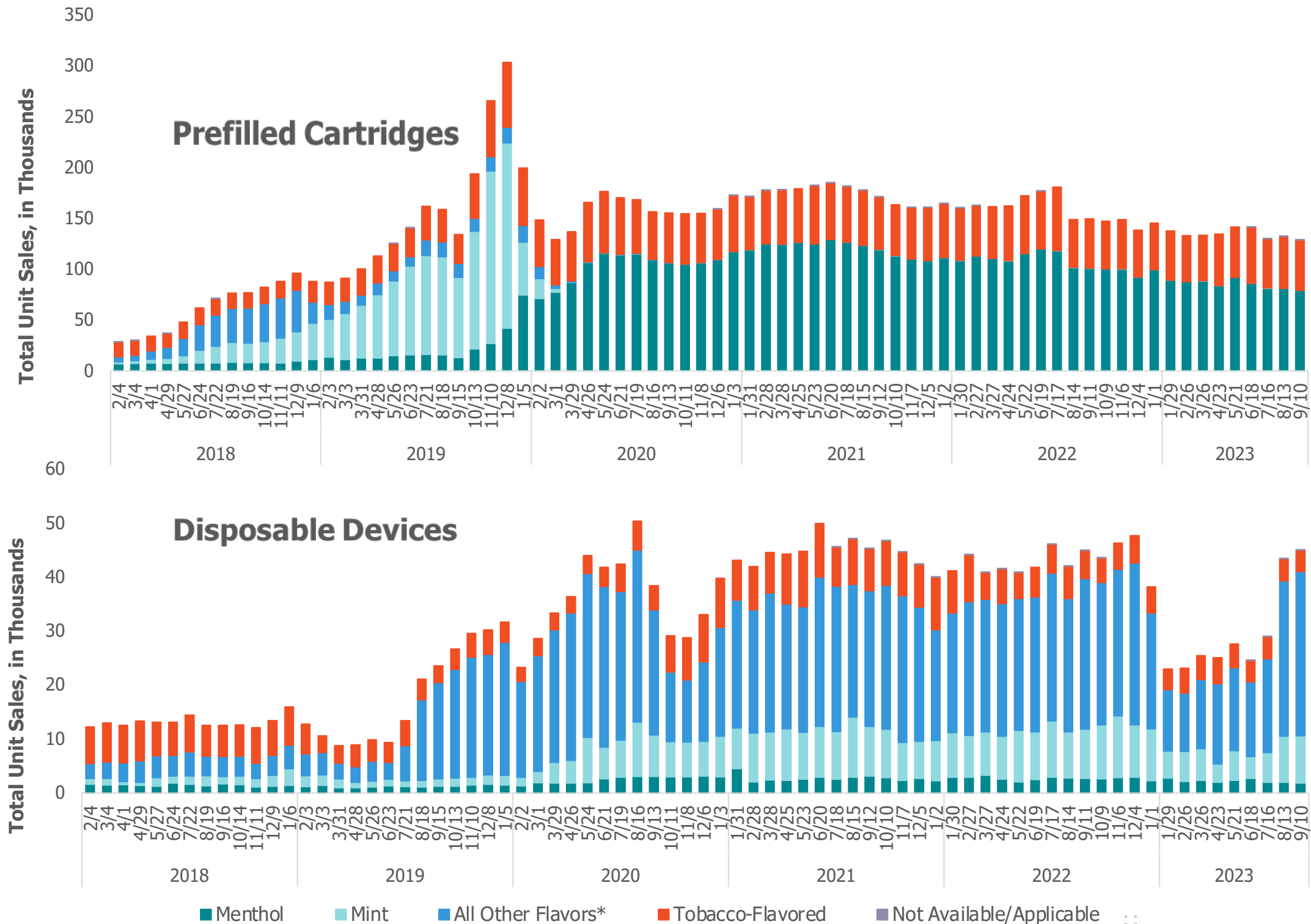
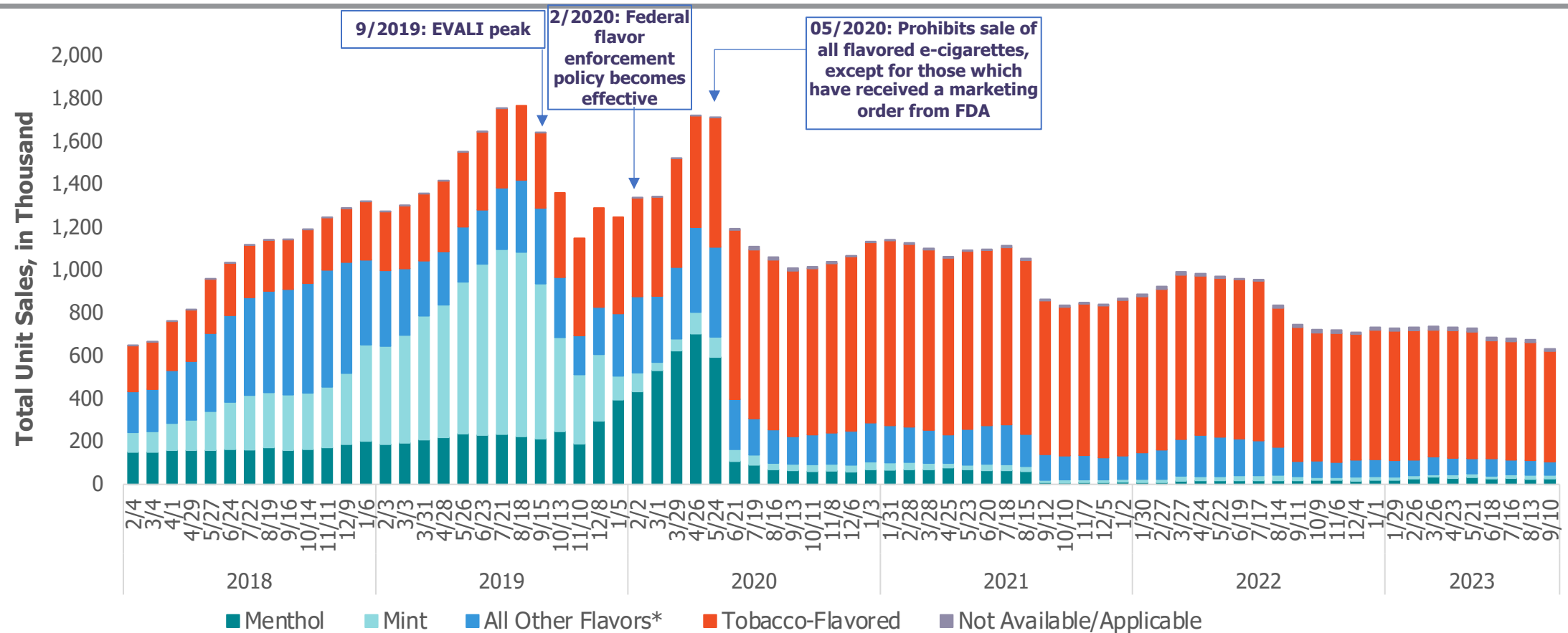


Figure 28. New York E-Cigarette Unit Sales by Flavor, 4 Week Estimates 2/2018 – 9/2023*

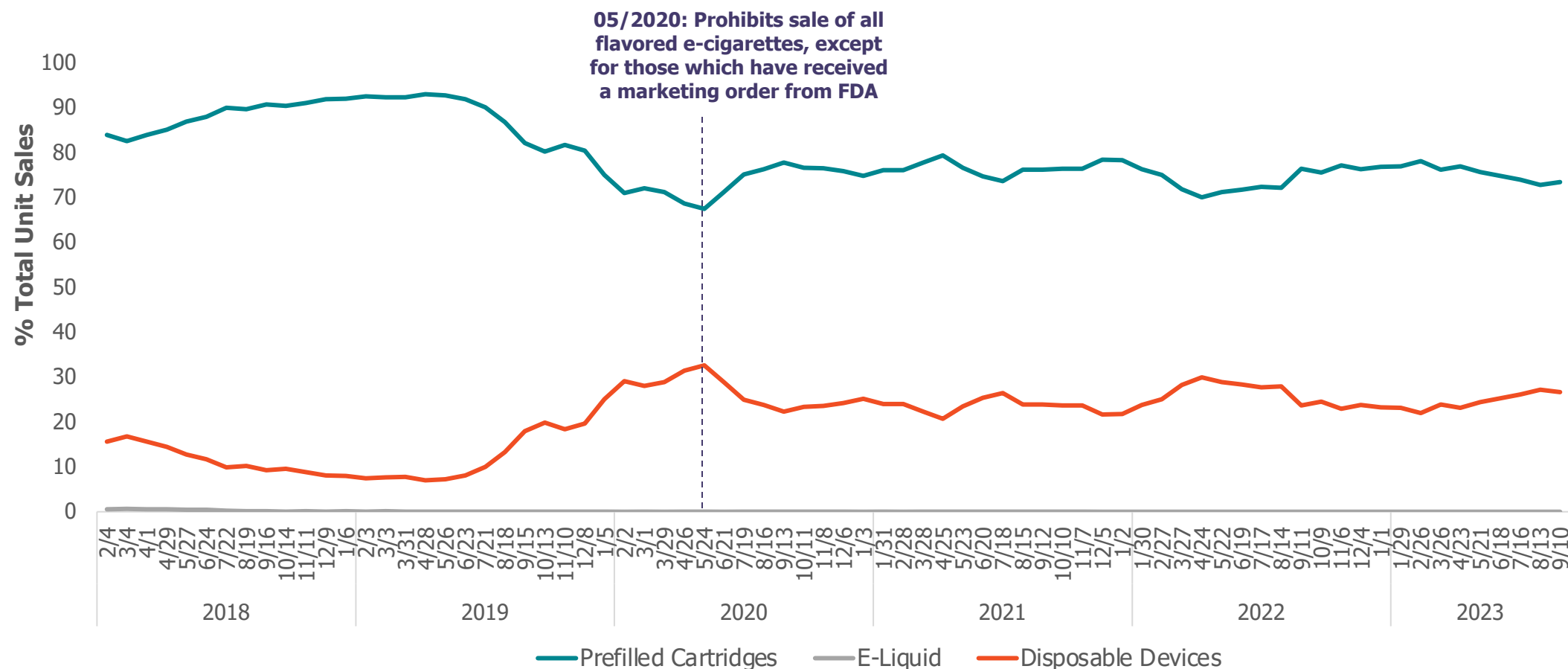


*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories 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 63.1% between May 24, 2020 and September 10, 2023 (from 1713.8 thousand to 632.5 thousand). During this period, monthly e-cigarette total unit sales of flavors other than tobacco decreased by 90.4% (from 1106.6 thousand to 106.2 thousand).
- From May 24, 2020 to September 10, 2023:
 - Tobacco-flavored e-cigarette sales decreased by 14.7% (from 604.8 thousand to 515.7 thousand); unit share increased from 35.3% to 81.5%.
 - Non-tobacco-flavored e-cigarette sales decreased by 90.4% (from 1106.6 thousand to 106.2 thousand); unit share decreased from 64.6% to 16.8%.
 - Menthol-flavored e-cigarette sales decreased by 95.6% (from 594.5 thousand to 25.9 thousand); unit share decreased from 34.7% to 4.1%.
 - Mint-flavored e-cigarette sales decreased by 81.0% (from 93.9 thousand to 17.9 thousand); unit share decreased from 5.5% to 2.8%.
 - All other-flavored e-cigarette sales decreased by 85.1% (from 418.2 thousand to 62.4 thousand); unit share decreased from 24.4% to 9.9%.
- As of September 10, 2023, disposable e-cigarettes represent 90.6% 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 – 9/2023*



*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 September 10, 2023:
 - Sales of disposable devices decreased by 69.8% (from 558.5 thousand to 168.4 thousand); unit share decreased from 32.6% to 26.6%.
 - Sales of prefilled cartridges decreased by 59.8% (from 1155.3 thousand to 464.1 thousand); unit share increased from 67.4% to 73.4%.

Figure 30. New York E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 2/2018 – 9/2023

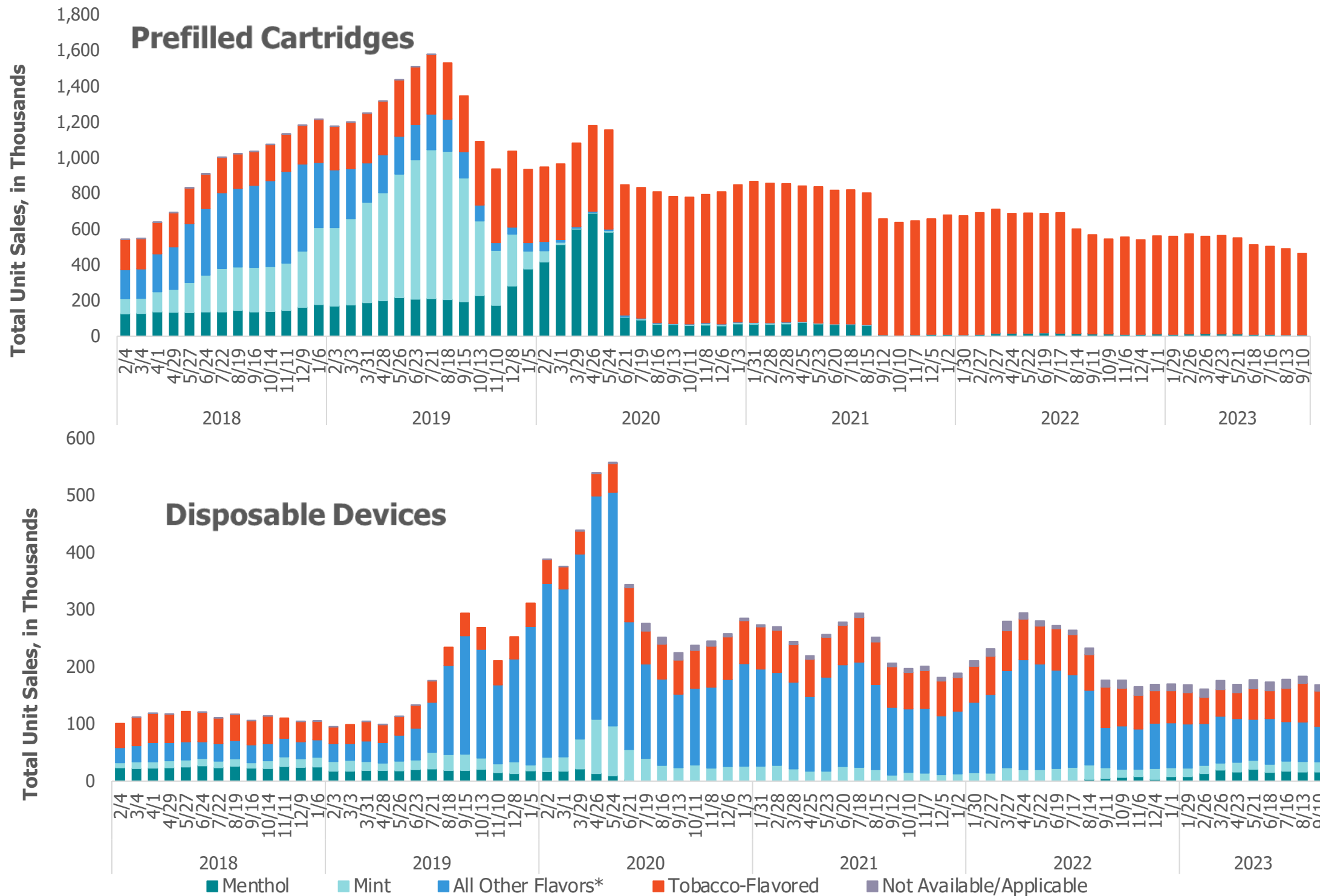
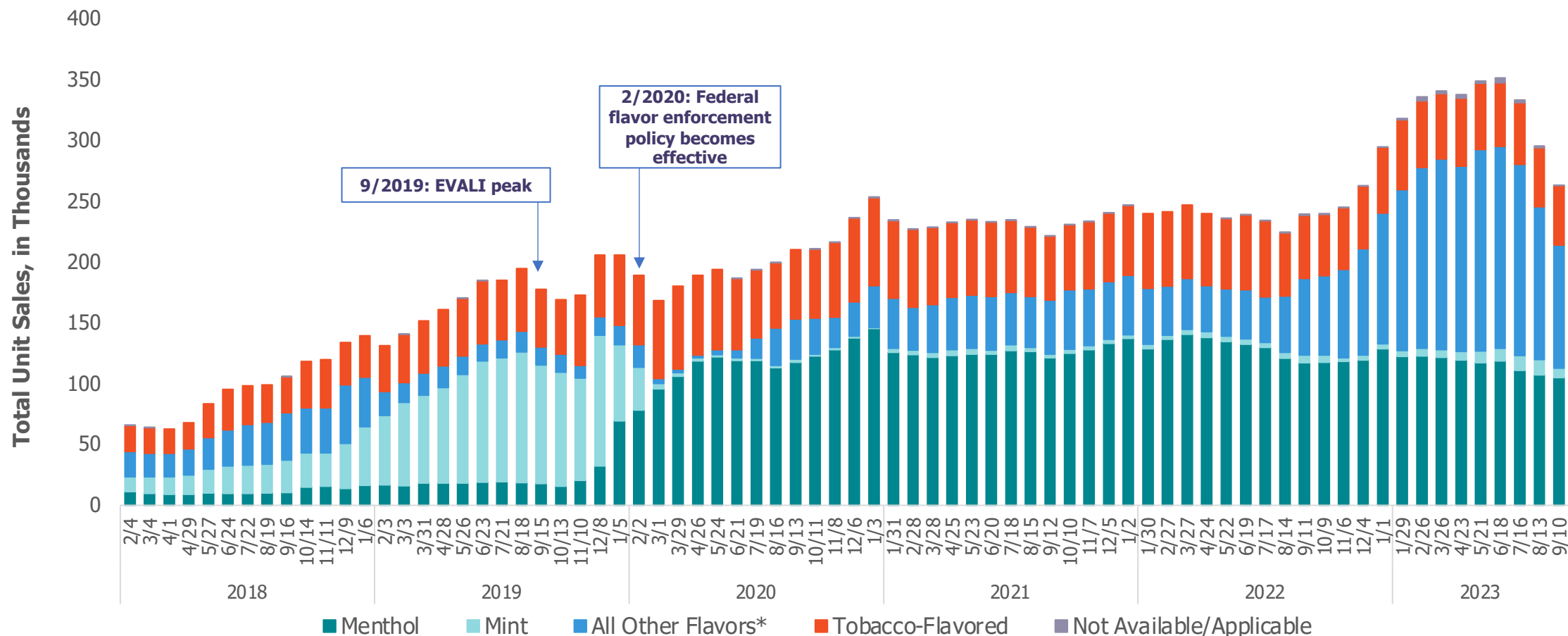


Figure 31. Oregon E-Cigarette Unit Sales by Flavor, 4 Week Estimates 2/2018 – 9/2023*

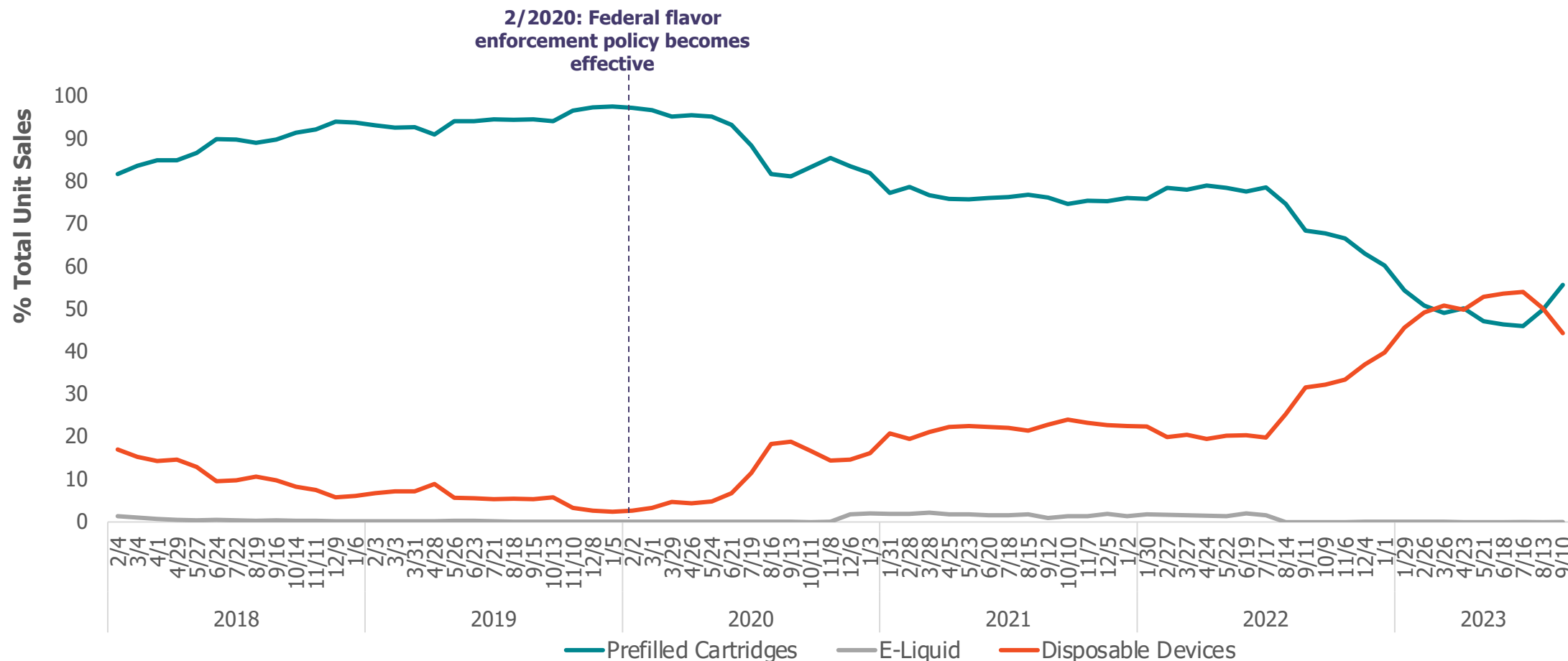


*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories 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 September 10, 2023, monthly e-cigarette unit sales increased by 39.1% from 189.4 to 263.4 thousand units.
- From February 2, 2020 to September 10, 2023:
 - Tobacco-flavored e-cigarette sales decreased by 15.0% (from 57.4 thousand to 48.7 thousand); unit share decreased from 30.3% to 18.5%.
 - Non-tobacco-flavored e-cigarette sales increased by 62.3% (from 132.0 thousand to 214.2 thousand); unit share increased from 69.7% to 81.3%.
 - Menthol-flavored e-cigarette sales increased by 34.2% (from 78.3 thousand to 105.1 thousand); unit share decreased from 41.4% to 39.9%.
 - Mint-flavored e-cigarette sales decreased by 77.9% (from 35.3 thousand to 7.8 thousand); unit share decreased from 18.7% to 3.0%.
 - All other-flavored e-cigarette sales increased by 452.2% (from 18.3 thousand to 101.2 thousand); unit share increased from 9.7% to 38.4%.

Figure 32. Oregon E-Cigarette Unit Sales by Product Type, 4 Week Estimates 2/2018 – 9/2023*



*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 September 10, 2023:
 - Sales of disposable devices increased by 2188.5% (from 5.1 thousand to 116.6 thousand); unit share increased from 2.7% to 44.3%.
 - Sales of prefilled cartridges decreased by 20.3% (from 184.2 thousand to 146.8 thousand); unit share decreased from 97.3% to 55.7%.

Figure 33. Oregon E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 2/2018 – 9/2023

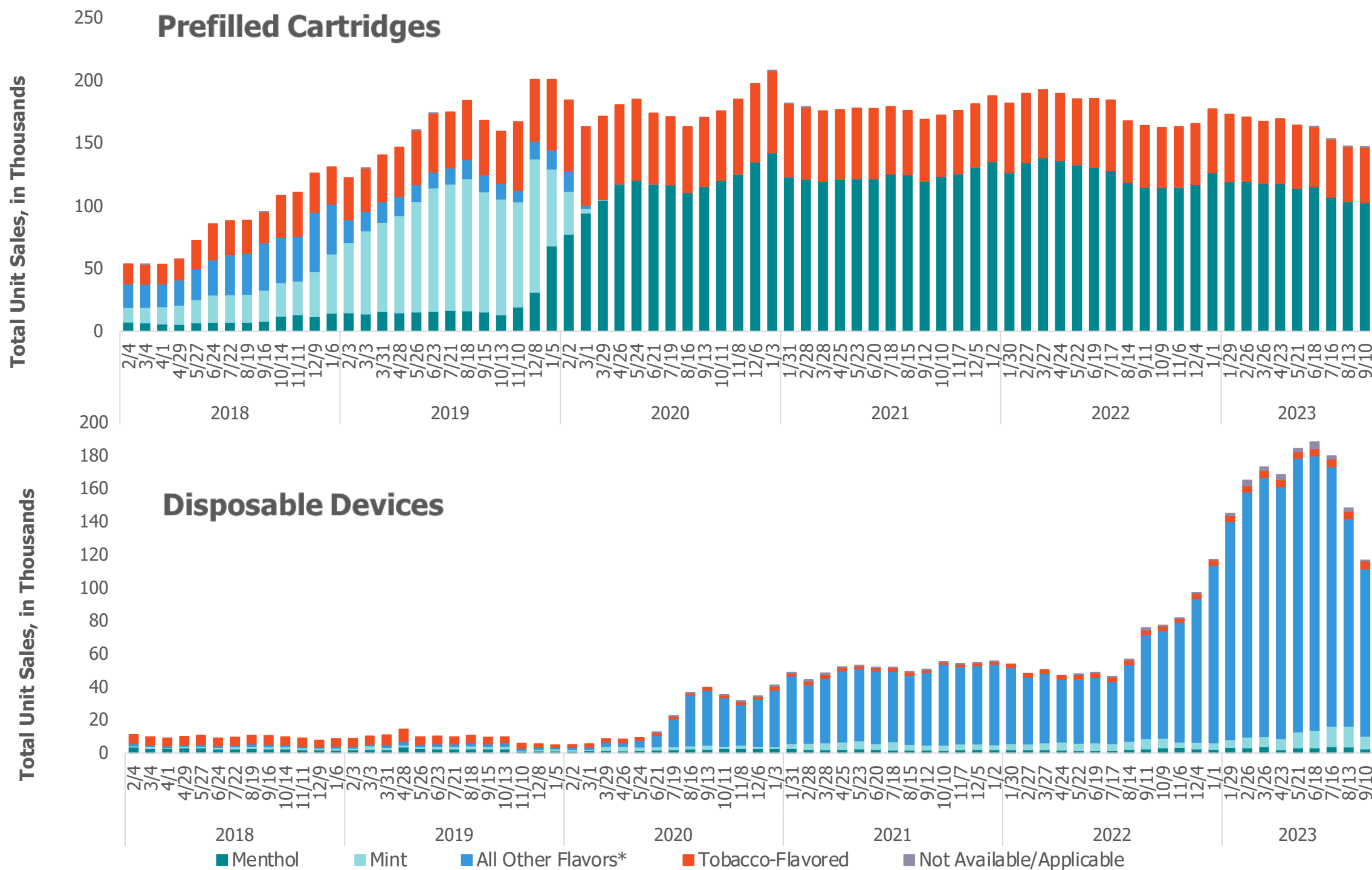
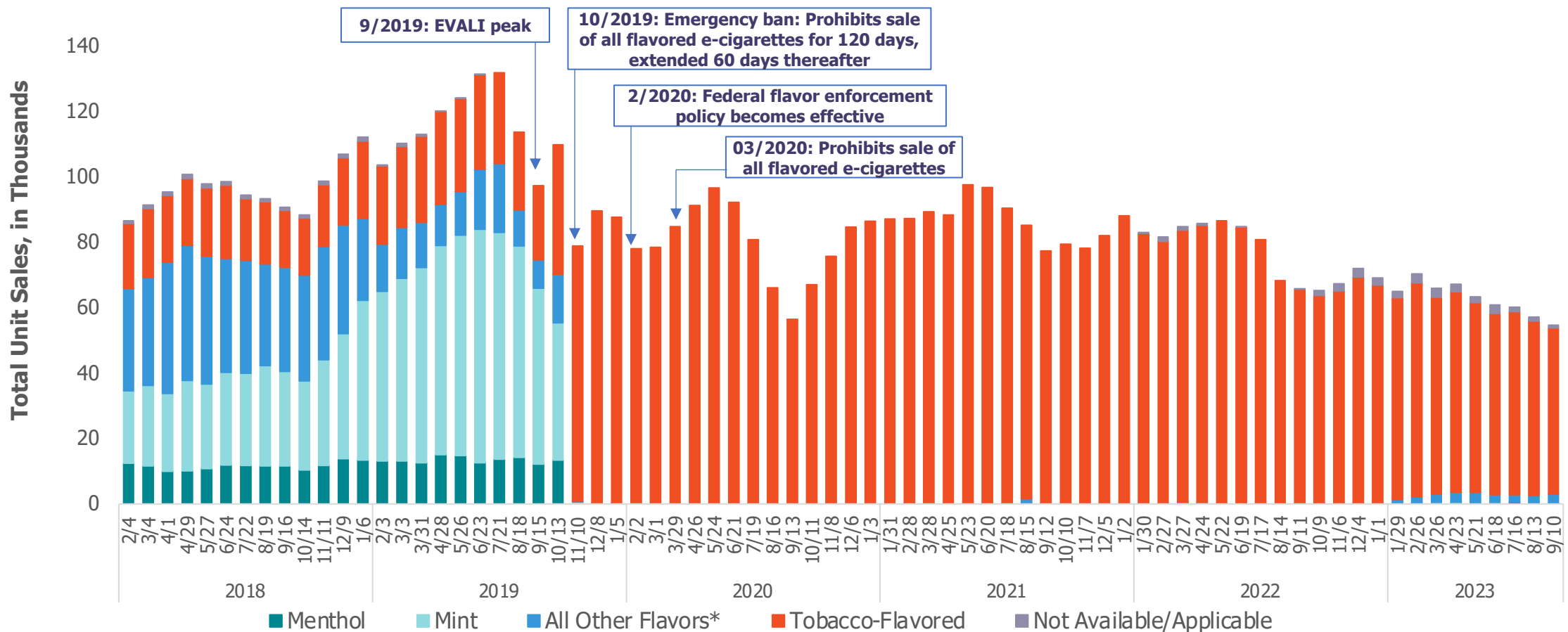


Figure 34. Rhode Island E-Cigarette Unit Sales by Flavor, 4 Week Estimates 2/2018 – 9/2023*

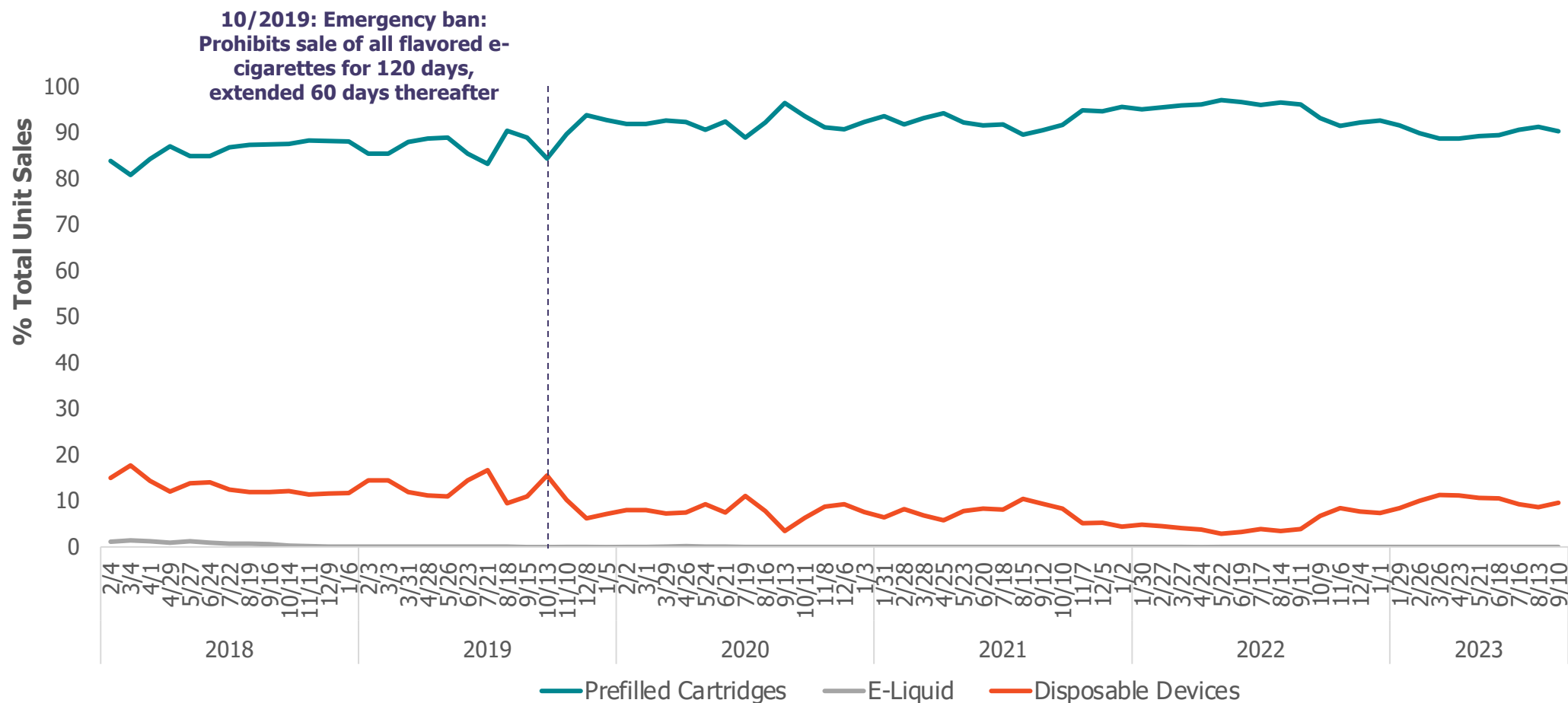


*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories 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 50.2% from October 13, 2019 to September 10, 2023 (from 109.7 thousand to 54.6 thousand). During this period, monthly e-cigarette total unit sales of flavors other than tobacco decreased by 95.8% (from 70.1 thousand to 3.0 thousand).
- From October 13, 2019 to September 10, 2023:
 - Tobacco-flavored e-cigarette sales increased by 28.4% (from 39.6 thousand to 50.8 thousand); unit share increased from 36.1% to 93.1%.
 - Non-tobacco-flavored e-cigarette sales decreased by 95.8% (from 70.1 thousand to 3.0 thousand); unit share decreased from 63.9% to 5.4%.
 - Menthol-flavored e-cigarette sales decreased by 98.8% (from 13.5 thousand to 0.2 thousand); unit share decreased from 12.3% to 0.3%.
 - Mint-flavored e-cigarette sales decreased by 99.7% (from 41.8 thousand to 0.1 thousand); unit share decreased from 38.1% to 0.2%.
 - All other-flavored e-cigarette sales decreased by 81.9% (from 14.9 thousand to 2.7 thousand); unit share decreased from 13.5% to 4.9%.

Figure 35. Rhode Island E-Cigarette Unit Sales by Product Type, 4 Week Estimates 2/2018 – 9/2023*



*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 September 10, 2023:
 - Sales of disposable devices decreased by 69.2% (from 17.1 thousand to 5.2 thousand); unit share decreased from 15.5% to 9.6%.
 - Sales of prefilled cartridges decreased by 46.7% (from 92.7 thousand to 49.4 thousand); unit share increased from 84.5% to 90.4%.

**Figure 36. Rhode Island E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates
2/2018 – 9/2023**

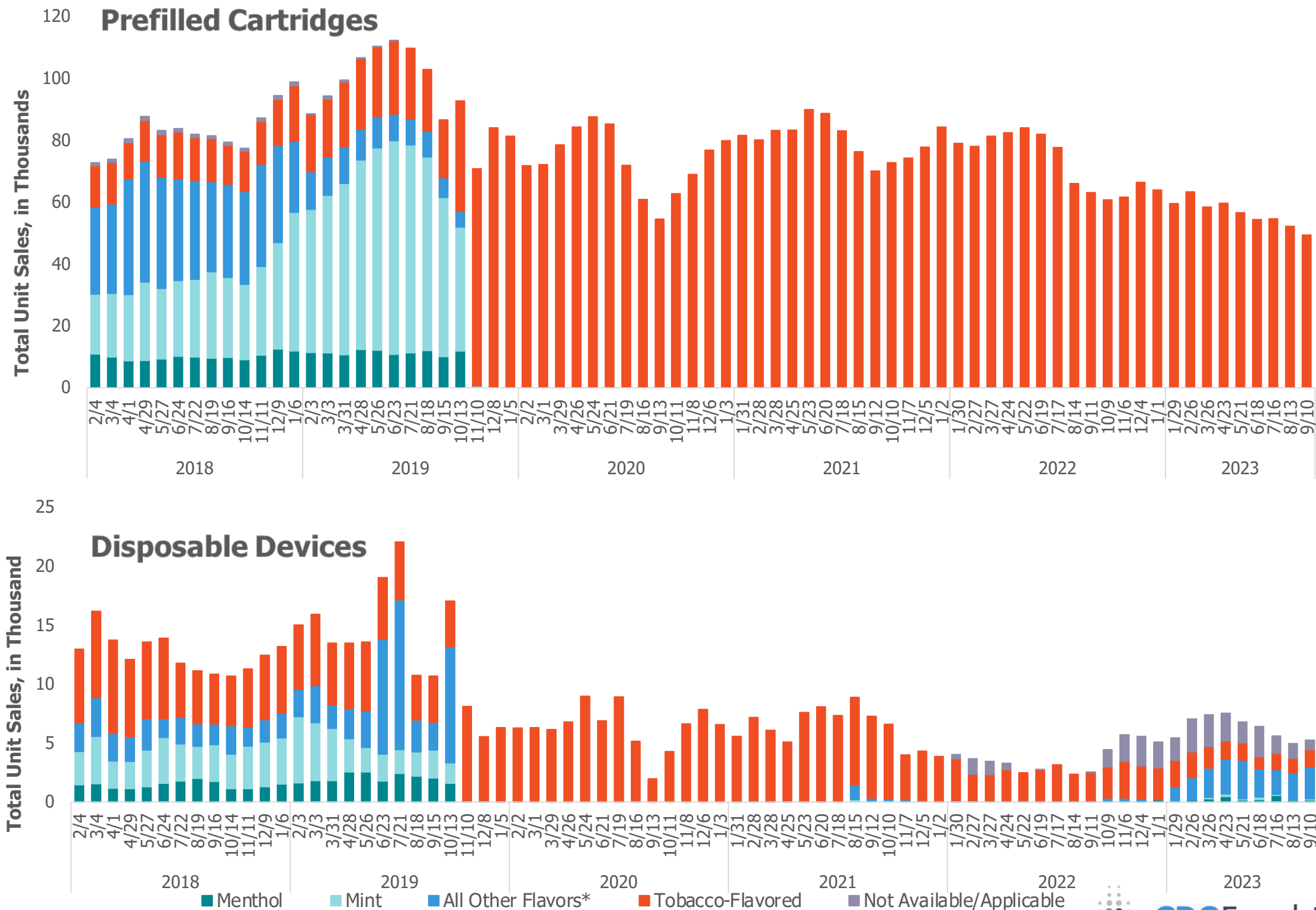
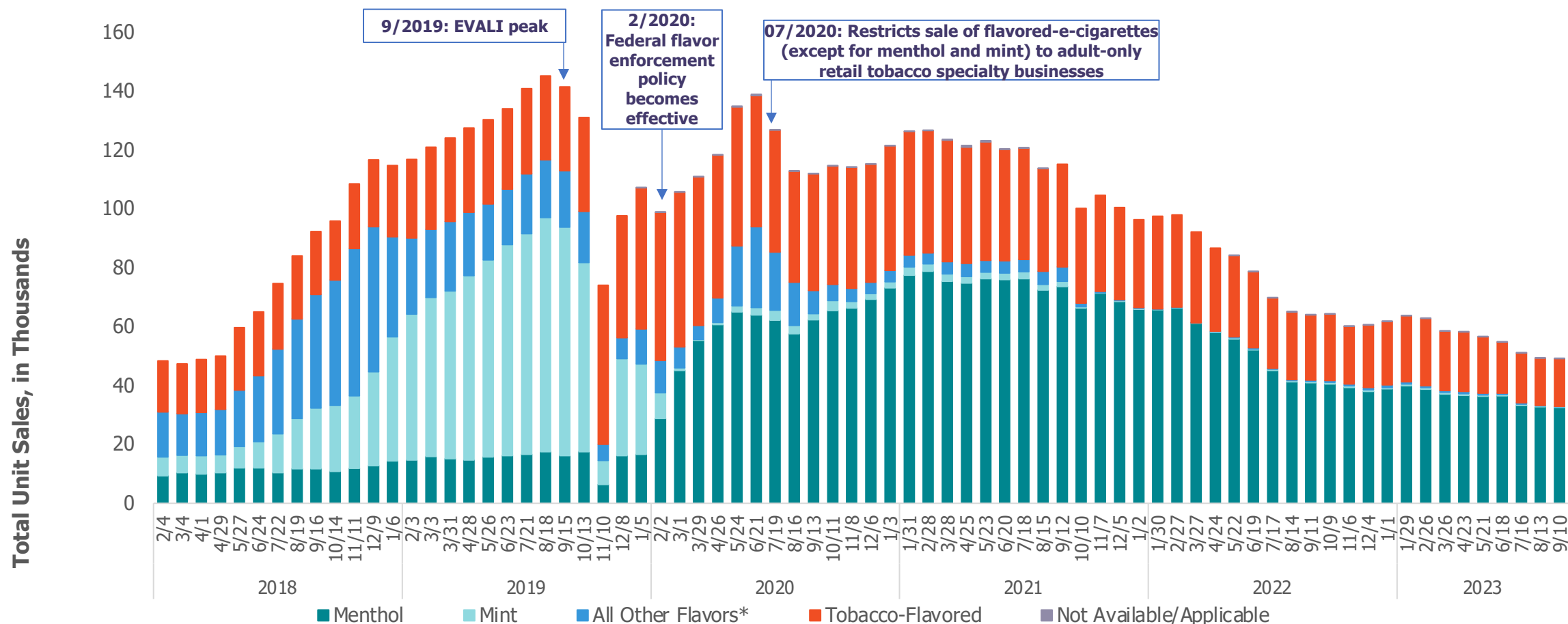


Figure 37. Utah E-Cigarette Unit Sales by Flavor, 4 Week Estimates 2/2018 – 9/2023*

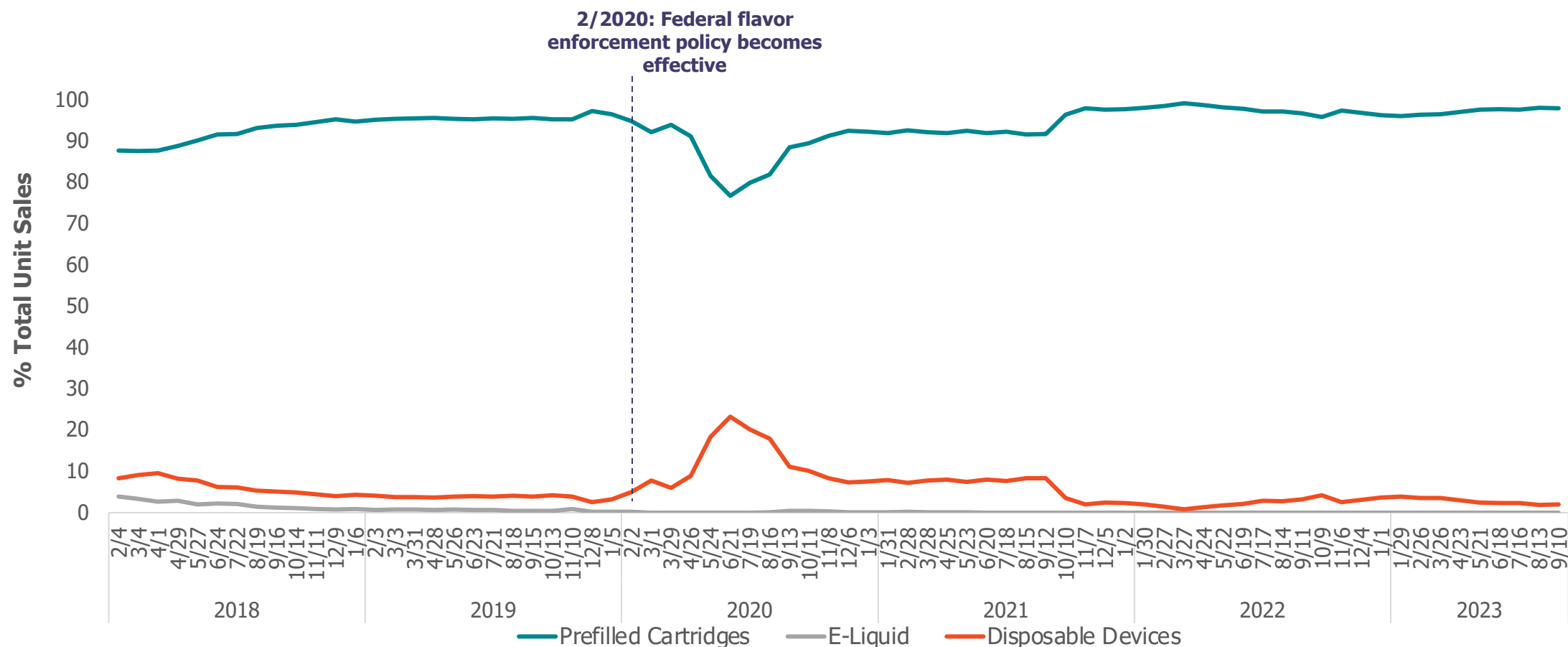


*Sales data do not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories 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 September 10, 2023, monthly e-cigarette unit sales decreased by 50.2% from 98.9 to 49.2 thousand units.
- From February 2, 2020 to September 10, 2023:
 - Tobacco-flavored e-cigarette sales decreased by 67.9% (from 50.3 thousand to 16.2 thousand); unit share decreased from 50.8% to 32.8%.
 - Non-tobacco-flavored e-cigarette sales decreased by 32.1% (from 48.6 thousand to 33.0 thousand); unit share increased from 49.2% to 67.1%.
 - Menthol-flavored e-cigarette sales increased by 13.0% (from 28.8 thousand to 32.5 thousand); unit share increased from 29.1% to 66.1%.
 - Mint-flavored e-cigarette sales decreased by 97.4% (from 8.8 thousand to 0.2 thousand); unit share decreased from 8.9% to 0.5%.
 - All other-flavored e-cigarette sales decreased by 97.6% (from 11.0 thousand to 0.3 thousand); unit share decreased from 11.1% to 0.5%.

Figure 38. Utah E-Cigarette Unit Sales by Product Type, 4 Week Estimates 2/2018 – 9/2023*



*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 September 10, 2023:
 - Sales of disposable devices decreased by 79.6% (from 4.9 thousand to 1.0 thousand); unit share decreased from 5.0% to 2.0%.
 - Sales of prefilled cartridges decreased by 48.6% (from 93.8 thousand to 48.2 thousand); unit share increased from 94.9% to 98.0%.

Figure 39. Utah E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 2/2018 – 9/2023

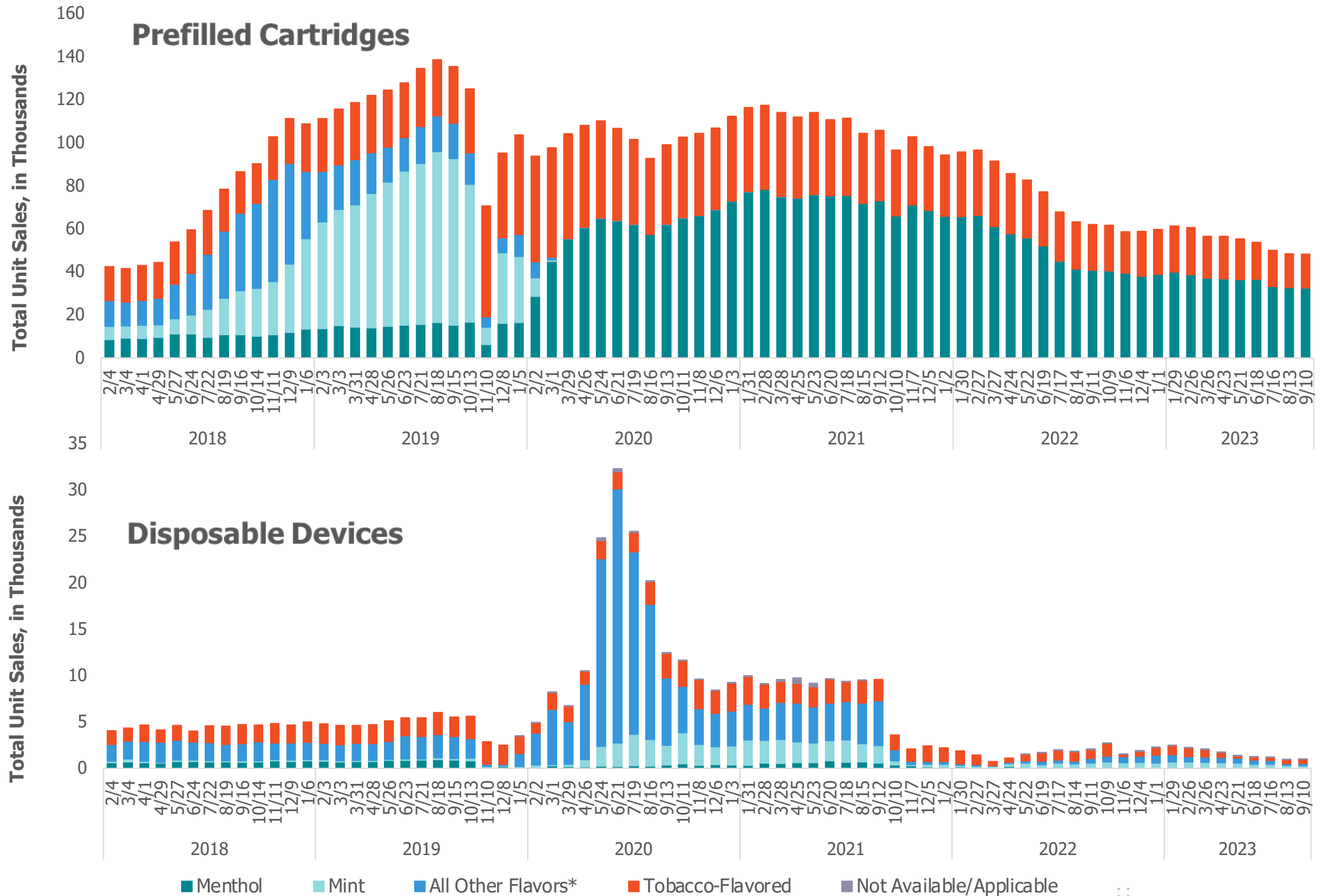
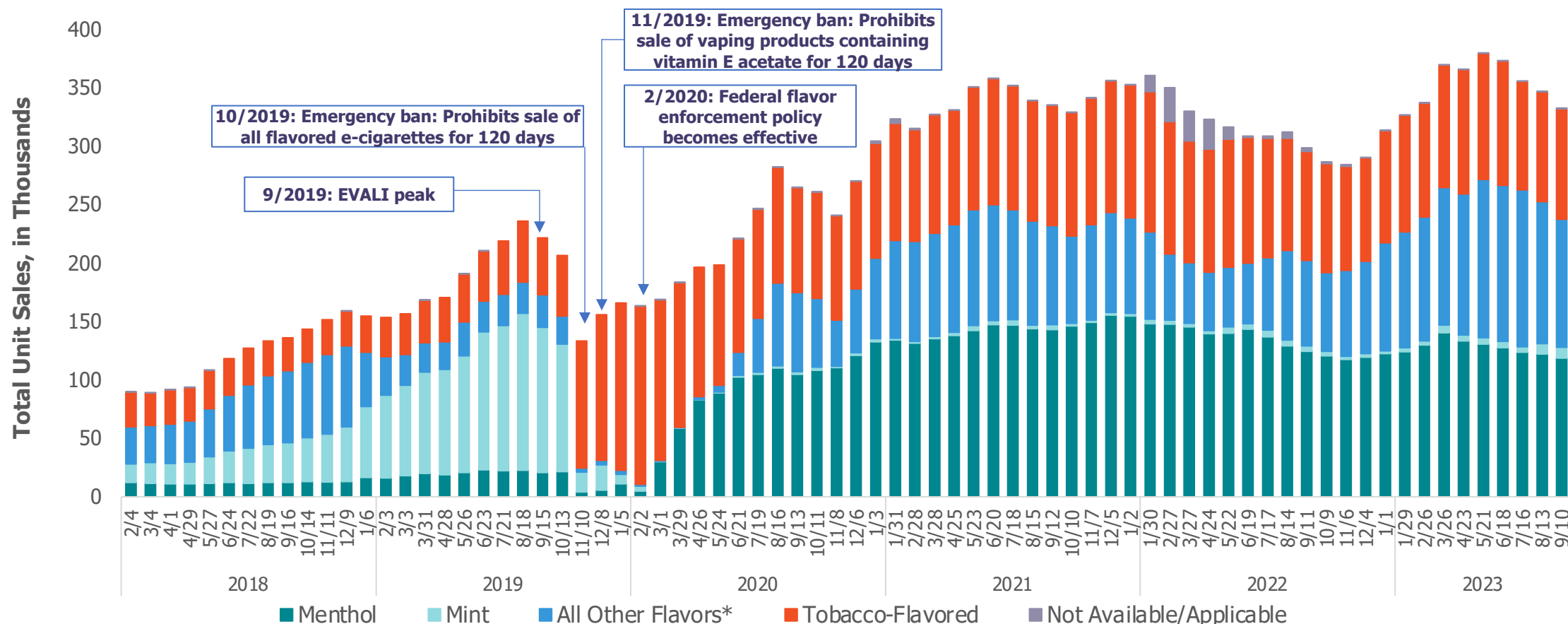


Figure 40. Washington E-Cigarette Unit Sales by Flavor, 4 Week Estimates 2/2018 – 9/2023*



*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.

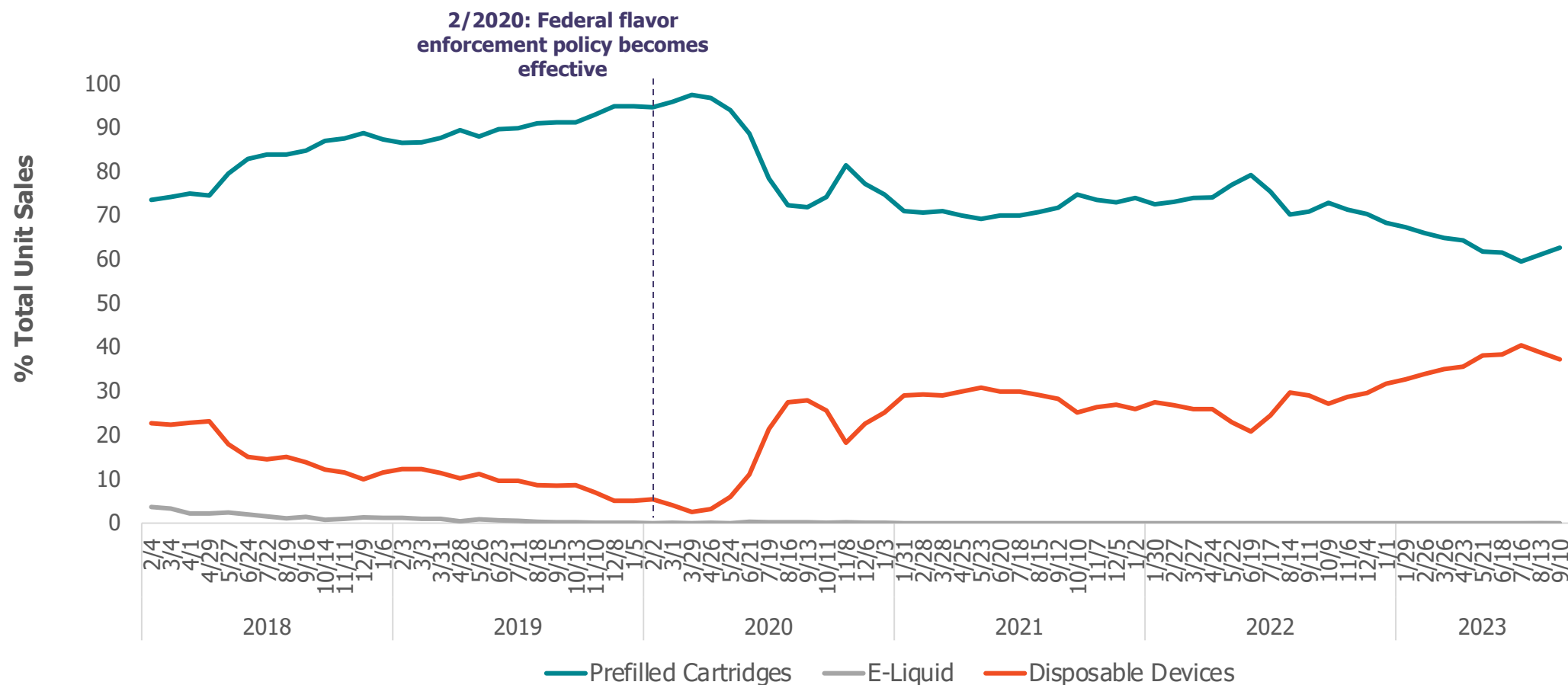
Trends of Unit Sales by Flavor (10/13/19 - 2/2/20)

- 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 September 10, 2023, monthly e-cigarette unit sales increased by 103.8% from 163.4 to 333.0 thousand units.
- From February 2, 2020 to September 10, 2023:
 - Tobacco-flavored e-cigarette sales decreased by 38.2% (from 152.8 thousand to 94.3 thousand); unit share decreased from 93.5% to 28.3%.
 - Non-tobacco-flavored e-cigarette sales increased by 2129.1% (from 10.7 thousand to 237.8 thousand); unit share increased from 6.5% to 71.4%.
 - Menthol-flavored e-cigarette sales increased by 2262.8% (from 5.0 thousand to 118.7 thousand); unit share increased from 3.1% to 35.6%.
 - Mint-flavored e-cigarette sales increased by 128.1% (from 4.2 thousand to 9.5 thousand); unit share increased from 2.6% to 2.9%.
 - All other-flavored e-cigarette sales increased by 7390.1% (from 1.5 thousand to 109.6 thousand); unit share increased from 0.9% to 32.9%.

Figure 41. Washington E-Cigarette Unit Sales by Product Type, 4 Week Estimates 2/2018 – 9/2023*



*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 September 10, 2023:
 - Sales of disposable devices increased by 1311.3% (from 8.8 thousand to 124.0 thousand); unit share increased from 5.4% to 37.2%.
 - Sales of prefilled cartridges increased by 35.1% (from 154.6 thousand to 208.9 thousand); unit share decreased from 94.6% to 62.7%.

Figure 42. Washington E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 2/2018 – 9/2023

