

# **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 2017 to March 2021.

Please note this data brief has been updated since its original publication based on additional information that has become available about the definition of store types in Colorado and Utah data. This version has been updated on 7/30/2021.

#### Federal Legislative and Regulatory Initiatives

- Sales Restrictions: On December 20, 2019, a federal law was passed to raise the minimum age of sale of tobacco products, including e-cigarettes, to 21 years.
- Flavors: The U.S. Food and Drug Administration issued an enforcement policy, effective February 2020, prohibiting the sale of flavored prefilled cartridges e-cigarettes such as Juul and Vuse. This policy does not apply to tobacco-and menthol-flavored prefilled cartridges, e-liquids, or single use disposable products, such as Puff Bar and Mojo, which are available in a wide array of flavors.

#### Other Relevant Issues

- Between August 2019 and January 2020, federal, state, and local public health entities investigated a national outbreak of e-cigarette or vaping product use-associated lung injury (EVALI).
- Since March 2020, the coronavirus disease (COVID-19) pandemic has been affecting schools and businesses, including retail stores that sell e-cigarettes.

#### State and Local Legislative Initiatives

- As of March 2021, five states and over 300 local jurisdictions have enacted laws that prohibit sales of flavored tobacco products, including e-cigarettes.
- Local jurisdictions include cities (143), towns (159), unincorporated counties (12), full counties (6), tribes (3), and villages (1).
- More information about state and local policies can be found on the Truth Initiative's website.



## **States Presented in the Data Brief**

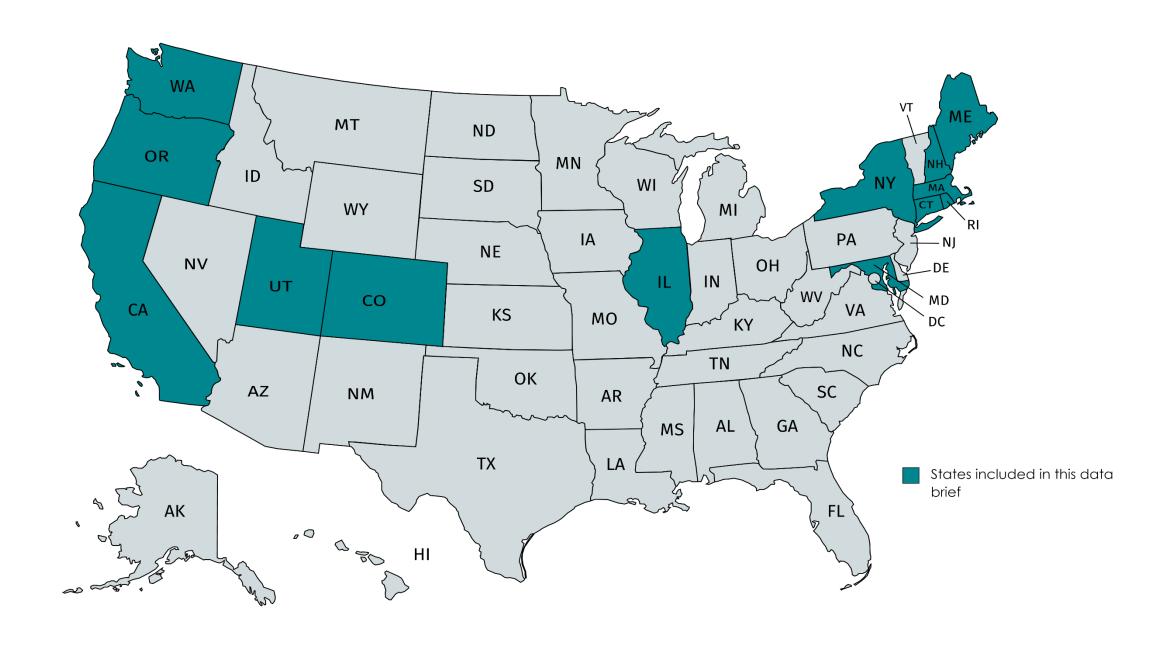
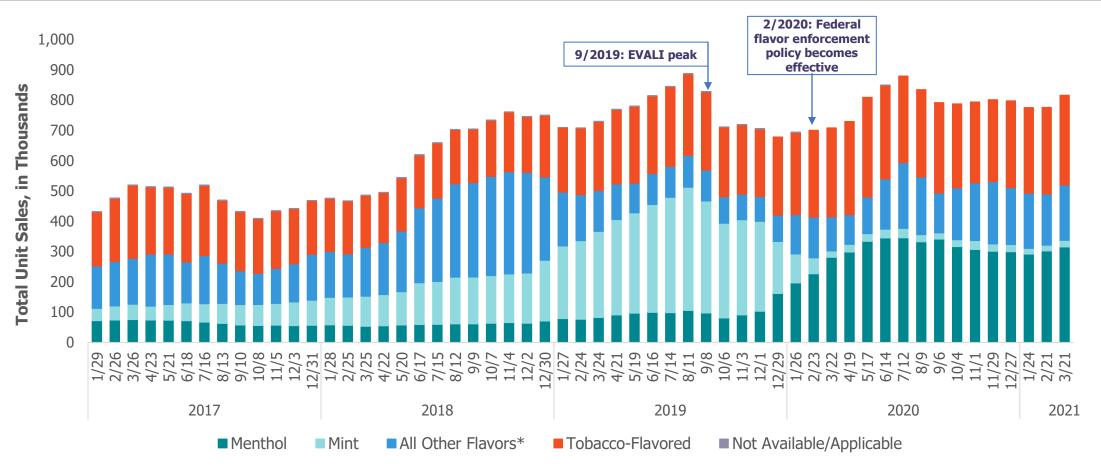


Figure 1. California E-Cigarette Unit Sales by Flavor, 4 Week Estimates 1/2017 – 3/2021\*

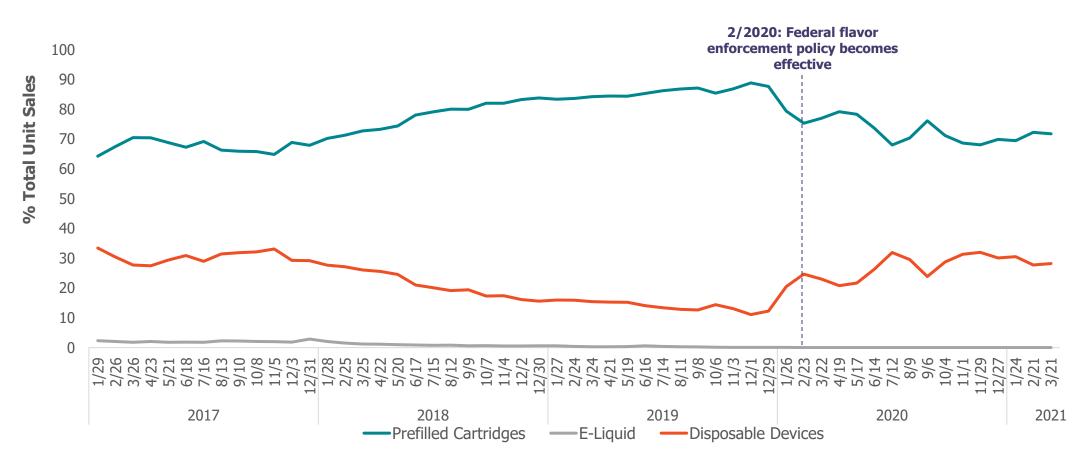


<sup>\*</sup>Sales data does not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories and devices sold without e-liquids were excluded (11.5% of total sales).

- From February 23, 2020 to March 21, 2021, monthly e-cigarette unit sales increased by 16.4% to 815.7 thousand units.
- From February 23, 2020 to March 21, 2021:
  - O Menthol-flavored e-cigarette sales increased by 39.1% (from 226.4 thousand to 315.0 thousand); market share increased from 32.3% to 38.6%.
  - O Tobacco-flavored e-cigarette sales increased by 3.2% (from 286.9 thousand to 296.1 thousand); market share decreased from 41.0% to 36.1%.
  - O Mint-flavored e-cigarette sales decreased by 58.8% (from 53.2 thousand to 21.9 thousand); market share decreased from 7.6% to 2.7%.
  - O All other-flavored e-cigarette sales increased by 36.3% (from 134.1 thousand to 182.7 thousand); market share increased from 19.1% to 22.4%.



Figure 2. California E-Cigarette Unit Sales by Product Type, 4 Week Estimates 1/2017 – 3/2021\*



<sup>\*</sup>Sales data does not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; prefilled cartridges include tanks, cartridges, and pods used in rechargeable and reusable e-cigarette device; disposable devices include nonrechargeable and nonreusable e-cigarette devices that are not intended to be refilled with e-liquid after being depleted; e-liquids are containers of the liquid used in e-cigarette devices, which typically contains a humectant (e.g., propylene glycol), nicotine, and flavoring.

- Following FDA's flavor enforcement policy, which prohibited the sale of flavored prefilled cartridges but exempted disposable devices and menthol and tobacco prefilled cartridges, between February 23, 2020 and March 21, 2021:
  - o Sales of disposable devices increased by 33.3% (from 172.8 thousand to 230.4 thousand); market share increased from 24.7% to 28.2%.
  - o Sales of prefilled cartridges increased by 10.9% (from 527.6 thousand to 585.3 thousand); market share decreased from 75.3% to 71.8%.



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

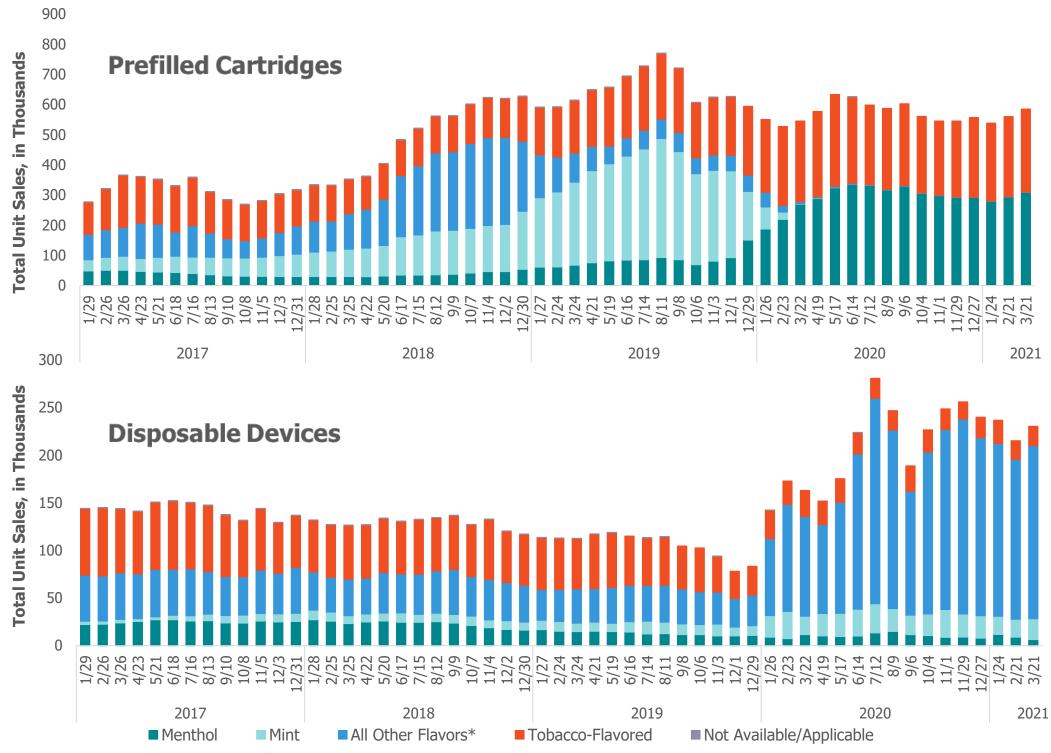
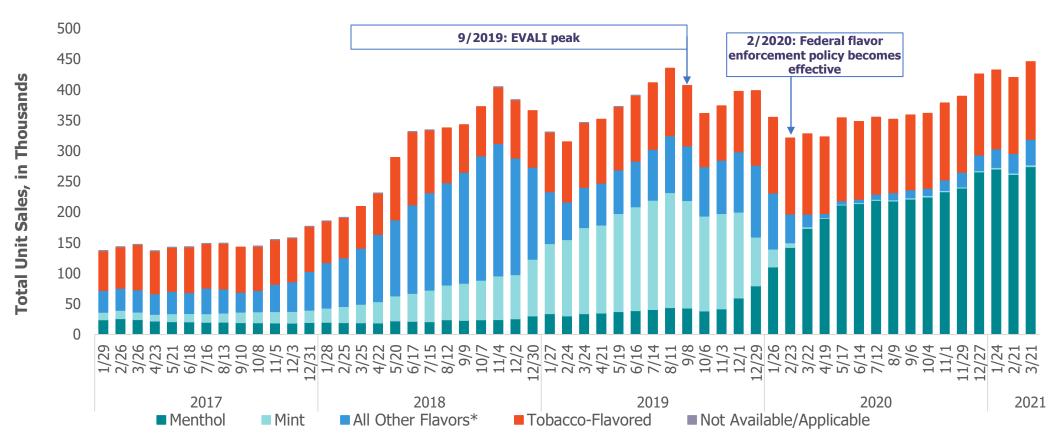


Figure 4. Colorado E-Cigarette Unit Sales by Flavor, 4 Week Estimates 1/2017 – 3/2021\*

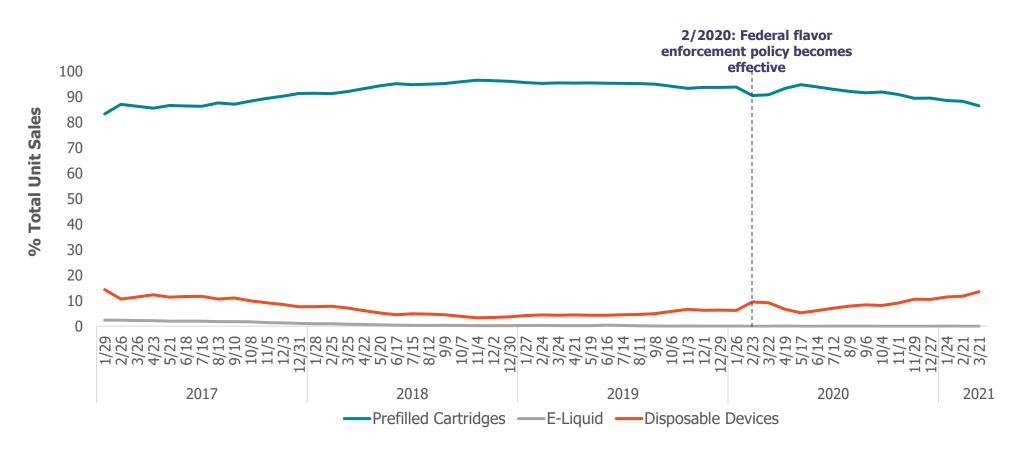


<sup>\*</sup>Sales data does not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories and devices sold without e-liquids were excluded (11.5% of total sales).

- From February 23, 2020 to March 21, 2021, monthly e-cigarette unit sales increased by 38.8% to 445.7 thousand units.
- From February 23, 2020 to March 21, 2021:
  - O Menthol-flavored e-cigarette sales increased by 92.9% (from 142.2 thousand to 274.3 thousand); market share increased from 44.3% to 61.5%.
  - O Tobacco-flavored e-cigarette sales increased by 2.0% (from 124.1 thousand to 126.5 thousand); market share decreased from 38.7% to 28.4%.
  - O Mint-flavored e-cigarette sales decreased by 61.9% (from 7.7 thousand to 2.9 thousand); market share decreased from 2.4% to 0.7%.
  - All other-flavored e-cigarette sales decreased by 10.9% (from 47.0 thousand to 41.9 thousand); market share decreased from 14.6% to 9.4%.



Figure 5. Colorado E-Cigarette Unit Sales by Product Type, 4 Week Estimates 1/2017 – 3/2021\*



<sup>\*</sup>Sales data does not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; prefilled cartridges include tanks, cartridges, and pods used in rechargeable and reusable e-cigarette device; disposable devices include nonrechargeable and nonreusable e-cigarette devices that are not intended to be refilled with e-liquid after being depleted; e-liquids are containers of the liquid used in e-cigarette devices, which typically contains a humectant (e.g., propylene glycol), nicotine, and flavoring.

- Following FDA's flavor enforcement policy, which prohibited the sale of flavored prefilled cartridges but exempted disposable devices and menthol and tobacco prefilled cartridges, between February 23, 2020 and March 21, 2021:
  - Sales of disposable devices increased by 97.2% (from 30.6 thousand to 60.3 thousand); market share increased from 9.5% to 13.5%.
  - Sales of prefilled cartridges increased by 32.7% (from 290.4 thousand to 385.4 thousand); market share decreased from 90.5% to 86.5%.



Figure 6. Colorado E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 1/2017 - 3/2021

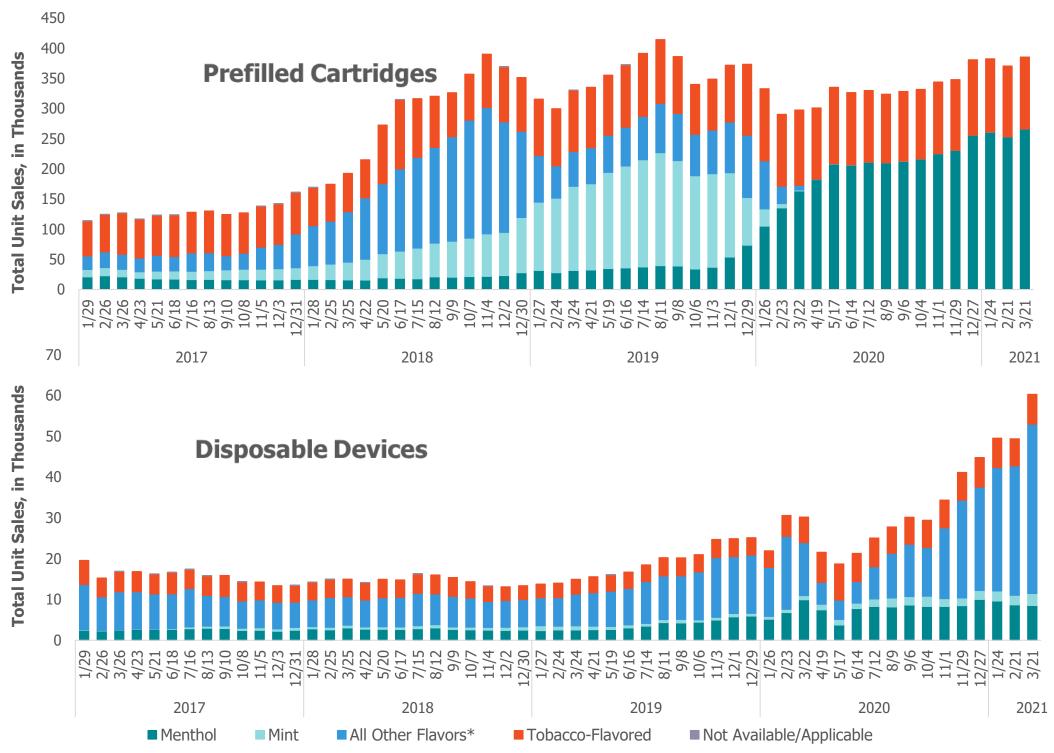
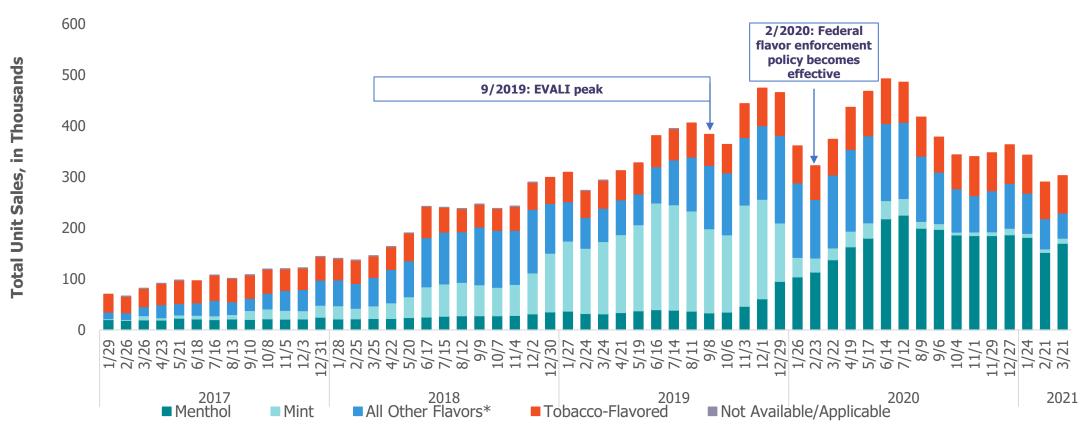


Figure 7. Connecticut E-Cigarette Unit Sales by Flavor, 4 Week Estimates 1/2017 – 3/2021\*

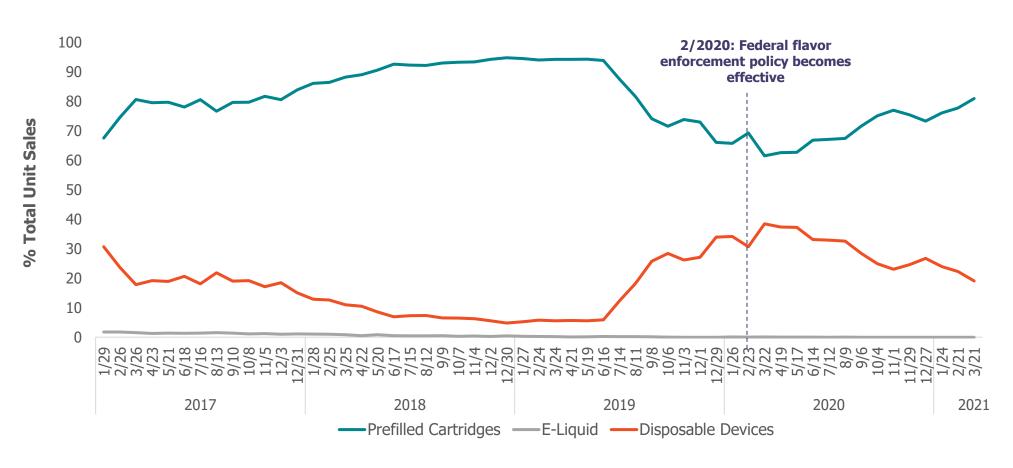


\*Sales data does not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories and devices sold without e-liquids were excluded (11.5% of total sales).

- From February 23, 2020 to March 21, 2021, monthly e-cigarette unit sales decreased by 6.1% to 302.3 thousand units.
- From February 23, 2020 to March 21, 2021:
  - O Menthol-flavored e-cigarette sales increased by 49.8% (from 113.2 thousand to 169.7 thousand); market share increased from 35.2% to 56.1%.
  - O Tobacco-flavored e-cigarette sales increased by 10.8% (from 66.1 thousand to 73.2 thousand); market share increased from 20.5% to 24.2%.
  - O Mint-flavored e-cigarette sales decreased by 62.7% (from 27.5 thousand to 10.3 thousand); market share decreased from 8.5% to 3.4%.
  - O All other-flavored e-cigarette sales decreased by 57.2% (from 115.0 thousand to 49.2 thousand); market share decreased from 35.7% to 16.3%.



Figure 8. Connecticut E-Cigarette Unit Sales by Product Type, 4 Week Estimates 1/2017 – 3/2021\*



<sup>\*</sup>Sales data does not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; prefilled cartridges include tanks, cartridges, and pods used in rechargeable and reusable e-cigarette device; disposable devices include nonrechargeable and nonreusable e-cigarette devices that are not intended to be refilled with e-liquid after being depleted; e-liquids are containers of the liquid used in e-cigarette devices, which typically contains a humectant (e.g., propylene glycol), nicotine, and flavoring.

- Following FDA's flavor enforcement policy, which prohibited the sale of flavored prefilled cartridges but exempted disposable devices and menthol and tobacco prefilled cartridges, between February 23, 2020 and March 21, 2021:
  - Sales of disposable devices decreased by 41.6% (from 98.8 thousand to 57.7 thousand); market share decreased from 30.7% to 19.1%.
  - Sales of prefilled cartridges increased by 9.7% (from 222.9 thousand to 244.6 thousand); market share increased from 69.3% to 80.9%.



Figure 9. Connecticut E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 1/2017 - 3/2021

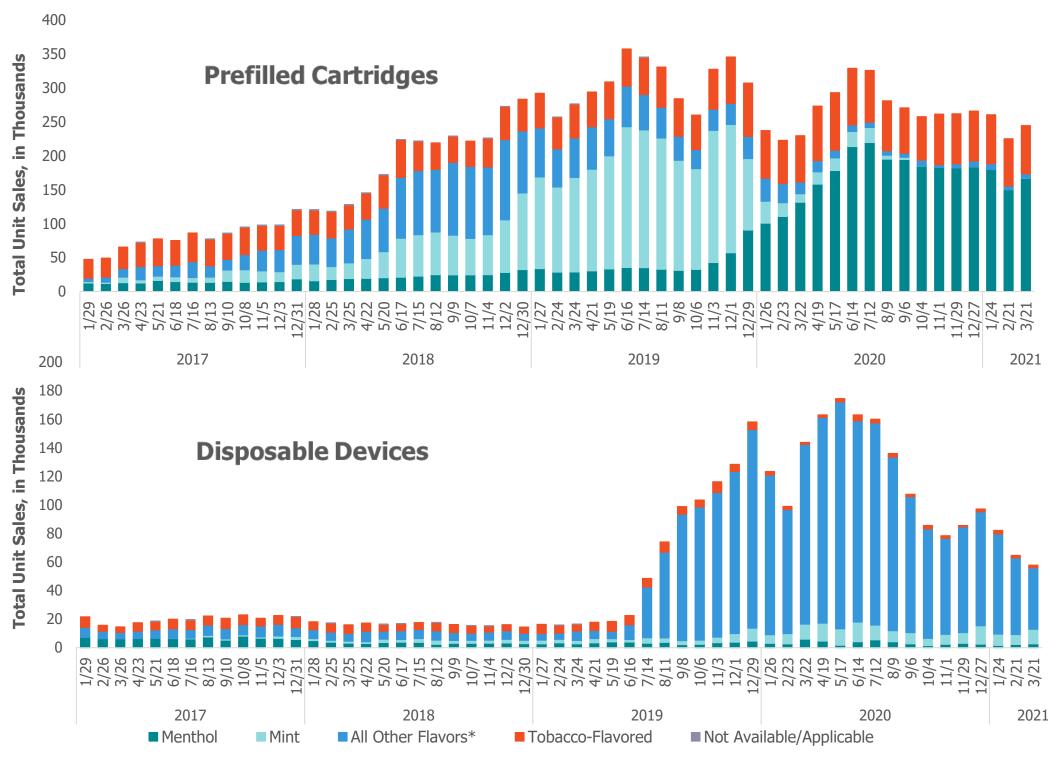
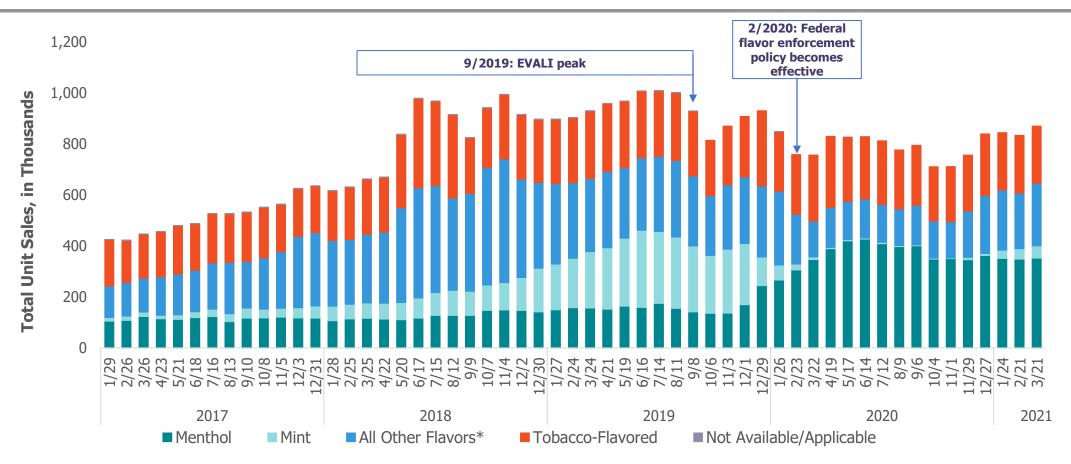


Figure 10. Illinois E-Cigarette Unit Sales by Flavor, 4 Week Estimates 1/2017 – 3/2021\*

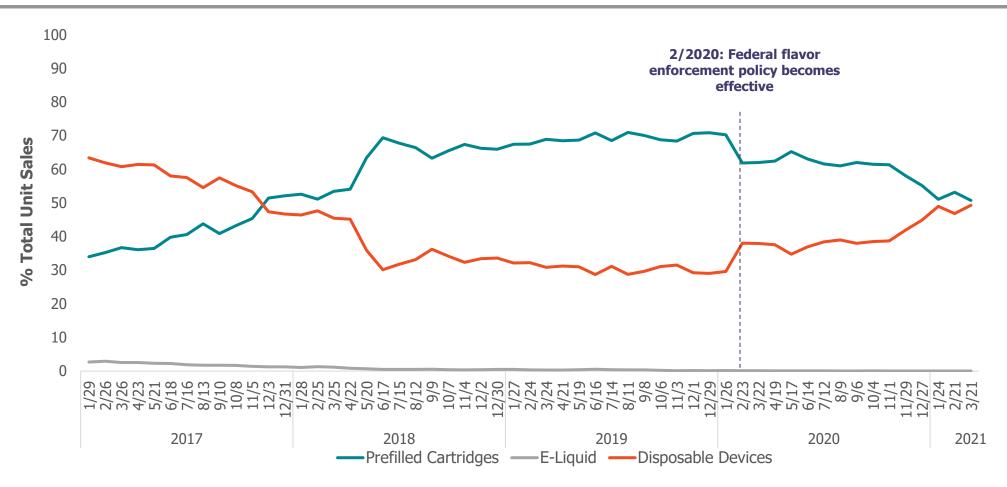


<sup>\*</sup>Sales data does not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories and devices sold without e-liquids were excluded (11.5% of total sales).

- From February 23, 2020 to March 21, 2021, monthly e-cigarette unit sales increased by 14.7% to 869.7 thousand units.
- From February 23, 2020 to March 21, 2021:
  - O Menthol-flavored e-cigarette sales increased by 15.2% (from 305.6 thousand to 352.0 thousand); market share increased from 40.3% to 40.5%.
  - O Tobacco-flavored e-cigarette sales decreased by 4.0% (from 233.5 thousand to 224.1 thousand); market share decreased from 30.8% to 25.8%.
  - O Mint-flavored e-cigarette sales increased by 110.0% (from 23.0 thousand to 48.4 thousand); market share increased from 3.0% to 5.6%.
  - All other-flavored e-cigarette sales increased by 25.2% (from 195.9 thousand to 245.3 thousand); market share increased from 25.8% to 28.2%.



Figure 11. Illinois E-Cigarette Unit Sales by Product Type, 4 Week Estimates 1/2017 – 3/2021\*



<sup>\*</sup>Sales data does not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; prefilled cartridges include tanks, cartridges, and pods used in rechargeable and reusable e-cigarette device; disposable devices include nonrechargeable and nonreusable e-cigarette devices that are not intended to be refilled with e-liquid after being depleted; e-liquids are containers of the liquid used in e-cigarette devices, which typically contains a humectant (e.g., propylene glycol), nicotine, and flavoring.

- Following FDA's flavor enforcement policy, which prohibited the sale of flavored prefilled cartridges but exempted disposable devices and menthol and tobacco prefilled cartridges, between February 23, 2020 and March 21, 2021:
  - Sales of disposable devices increased by 48.7% (from 288.3 thousand to 428.6 thousand); market share increased from 38.0% to 49.3%.
  - Sales of prefilled cartridges decreased by 6.0% (from 468.9 thousand to 441.0 thousand); market share decreased from 61.9% to 50.7%.



Figure 12. Illinois E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 1/2017 – 3/2021

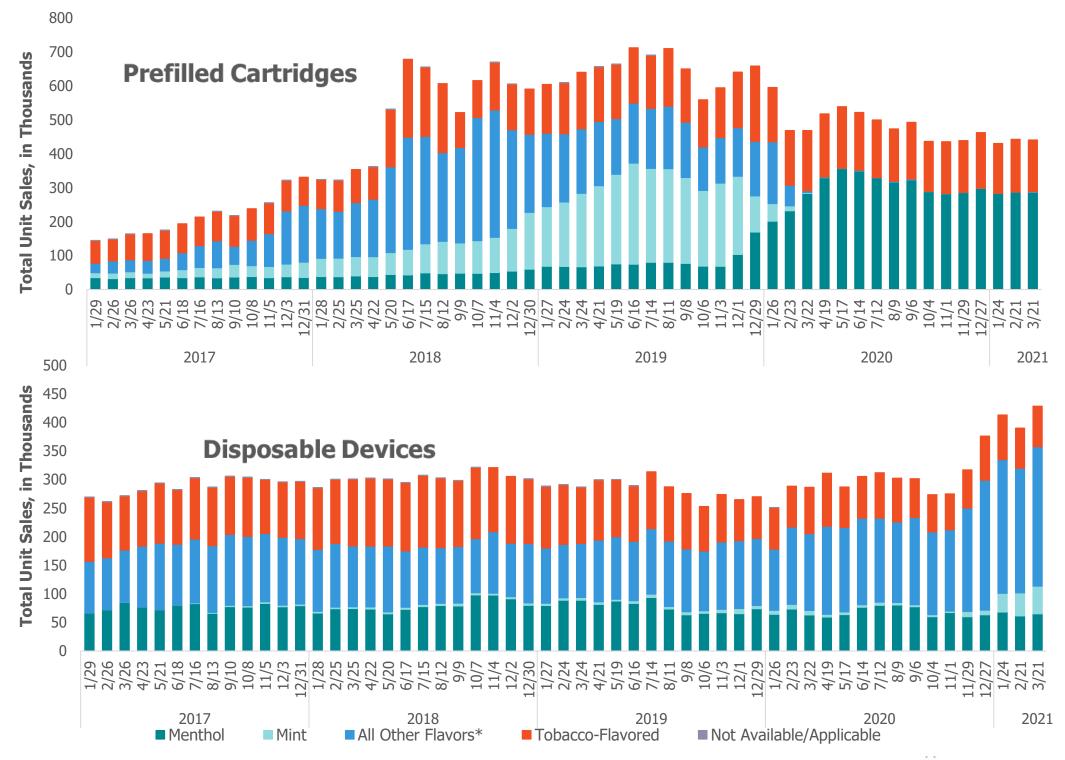
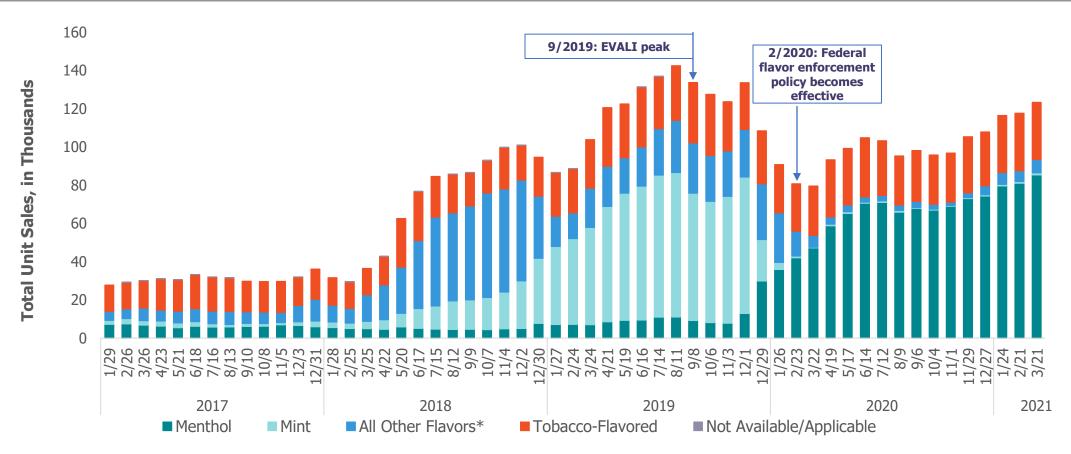


Figure 13. Maine E-Cigarette Unit Sales by Flavor, 4 Week Estimates 1/2017 – 3/2021\*

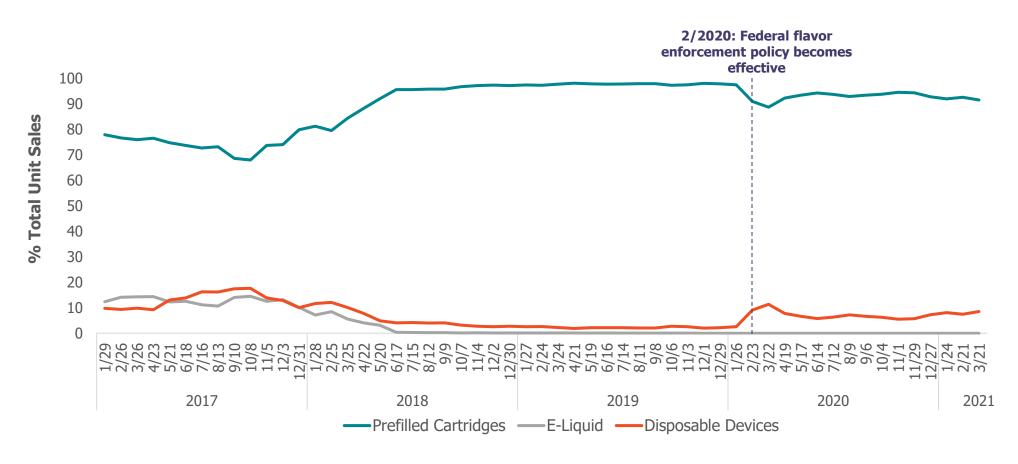


<sup>\*</sup>Sales data does not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories and devices sold without e-liquids were excluded (11.5% of total sales).

- From February 23, 2020 to March 21, 2021, monthly e-cigarette unit sales increased by 52.8% to 123.4 thousand units.
- From February 23, 2020 to March 21, 2021:
  - O Menthol-flavored e-cigarette sales increased by 103.2% (from 42.0 thousand to 85.4 thousand); market share increased from 52.1% to 69.2%.
  - O Tobacco-flavored e-cigarette sales increased by 20.4% (from 24.9 thousand to 29.9 thousand); market share decreased from 30.8% to 24.2%.
  - O Mint-flavored e-cigarette sales increased by 18.4% (from 0.9 thousand to 1.1 thousand); market share decreased from 1.1% to 0.9%.
  - O All other-flavored e-cigarette sales decreased by 46.1% (from 13.0 thousand to 7.0 thousand); market share decreased from 16.0% to 5.7%.



Figure 14. Maine E-Cigarette Unit Sales by Product Type, 4 Week Estimates 1/2017 – 3/2021\*



<sup>\*</sup>Sales data does not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; prefilled cartridges include tanks, cartridges, and pods used in rechargeable and reusable e-cigarette device; disposable devices include nonrechargeable and nonreusable e-cigarette devices that are not intended to be refilled with e-liquid after being depleted; e-liquids are containers of the liquid used in e-cigarette devices, which typically contains a humectant (e.g., propylene glycol), nicotine, and flavoring.

- Following FDA's flavor enforcement policy, which prohibited the sale of flavored prefilled cartridges but exempted disposable devices and menthol and tobacco prefilled cartridges, between February 23, 2020 and March 21, 2021:
  - o Sales of disposable devices increased by 43.5% (from 7.3 thousand to 10.5 thousand); market share decreased from 9.1% to 8.5%.
  - Sales of prefilled cartridges increased by 53.7% (from 73.4 thousand to 112.8 thousand); market share increased from 90.9% to 91.5%.



Figure 15. Maine E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 1/2017 – 3/2021

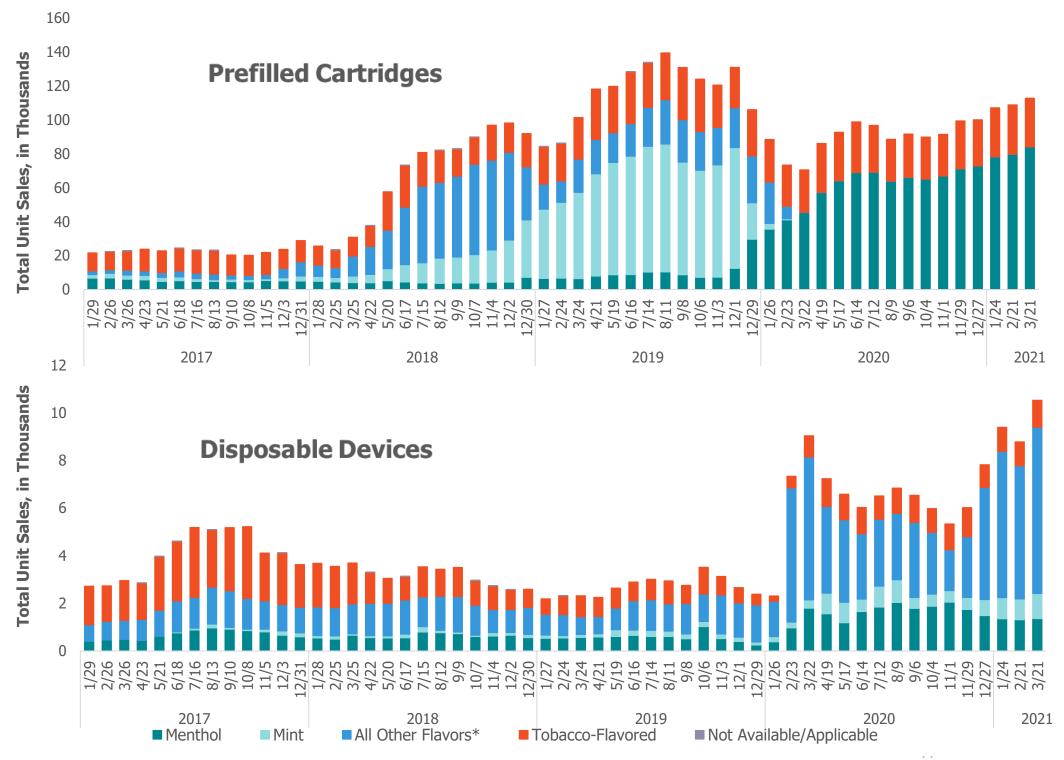
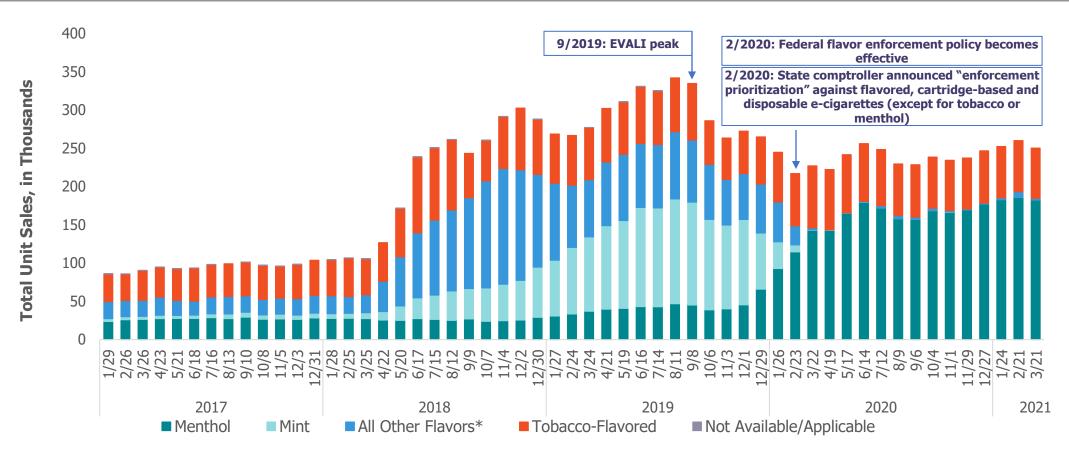


Figure 16. Maryland E-Cigarette Unit Sales by Flavor, 4 Week Estimates 1/2017 – 3/2021\*

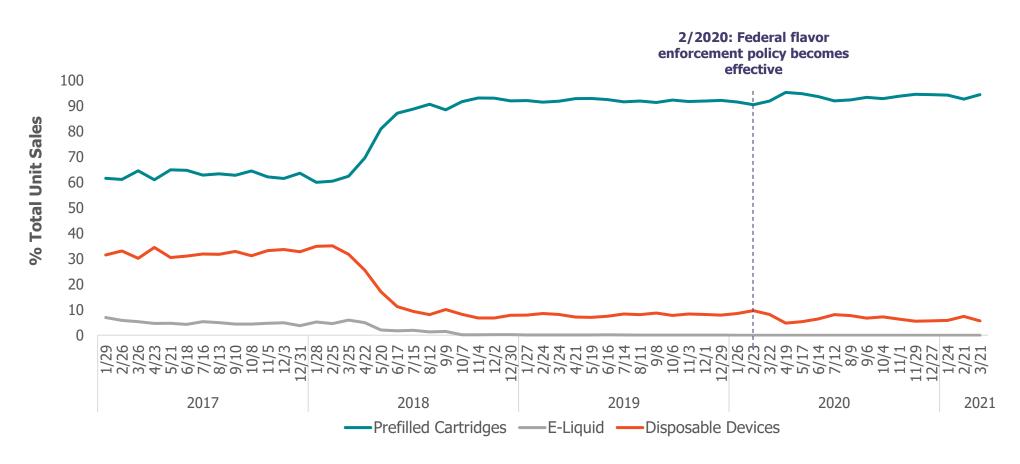


<sup>\*</sup>Sales data does not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories and devices sold without e-liquids were excluded (11.5% of total sales).

- From February 23, 2020 to March 21, 2021, monthly e-cigarette unit sales increased by 15.3% to 250.3 thousand units.
- From February 23, 2020 to March 21, 2021:
  - O Menthol-flavored e-cigarette sales increased by 59.2% (from 114.6 thousand to 182.5 thousand); market share increased from 52.8% to 72.9%.
  - O Tobacco-flavored e-cigarette sales decreased by 4.3% (from 68.5 thousand to 65.6 thousand); market share decreased from 31.6% to 26.2%.
  - O Mint-flavored e-cigarette sales decreased by 100.0% (from 9.1 thousand to 0.0 thousand); market share decreased from 4.2% to 0.0%.
  - O All other-flavored e-cigarette sales decreased by 91.0% (from 24.9 thousand to 2.2 thousand); market share decreased from 11.5% to 0.9%.



Figure 17. Maryland E-Cigarette Unit Sales by Product Type, 4 Week Estimates 1/2017 – 3/2021\*



<sup>\*</sup>Sales data does not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; prefilled cartridges include tanks, cartridges, and pods used in rechargeable and reusable e-cigarette device; disposable devices include nonrechargeable and nonreusable e-cigarette devices that are not intended to be refilled with e-liquid after being depleted; e-liquids are containers of the liquid used in e-cigarette devices, which typically contains a humectant (e.g., propylene glycol), nicotine, and flavoring.

- Following FDA's flavor enforcement policy, which prohibited the sale of flavored prefilled cartridges but exempted disposable devices and menthol and tobacco prefilled cartridges, between February 23, 2020 and March 21, 2021:
  - o Sales of disposable devices decreased by 32.4% (from 20.9 thousand to 14.1 thousand); market share decreased from 9.6% to 5.6%.
  - Sales of prefilled cartridges increased by 20.4% (from 196.3 thousand to 236.2 thousand); market share increased from 90.4% to 94.4%.



Figure 18. Maryland E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 1/2017 – 3/2021

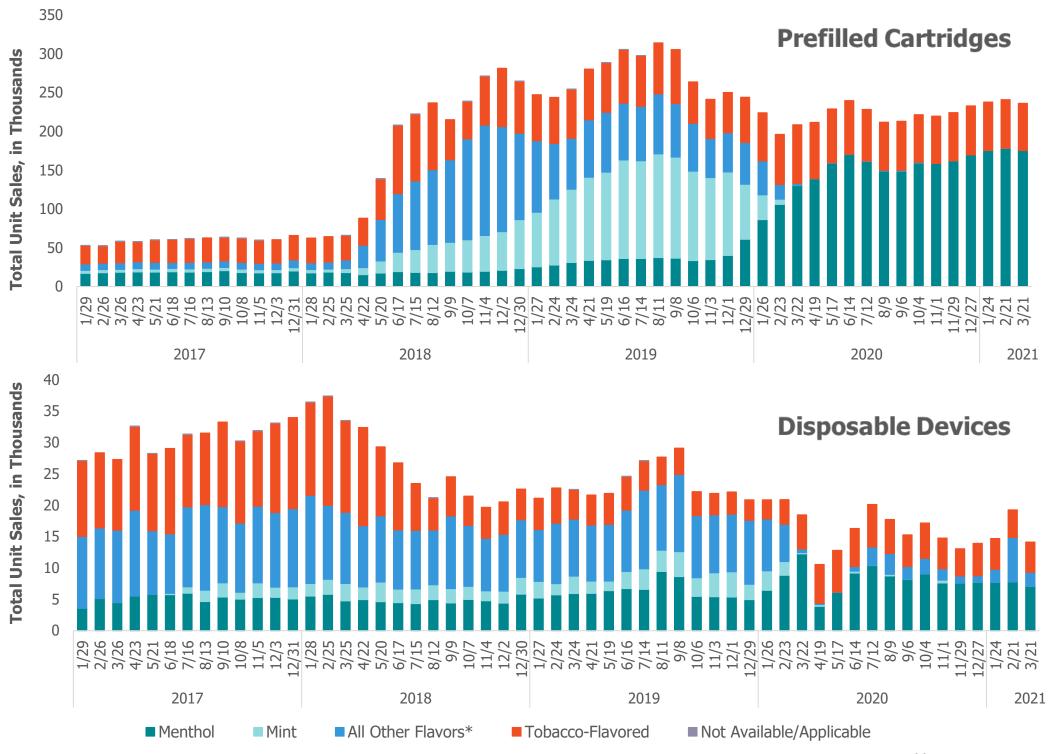
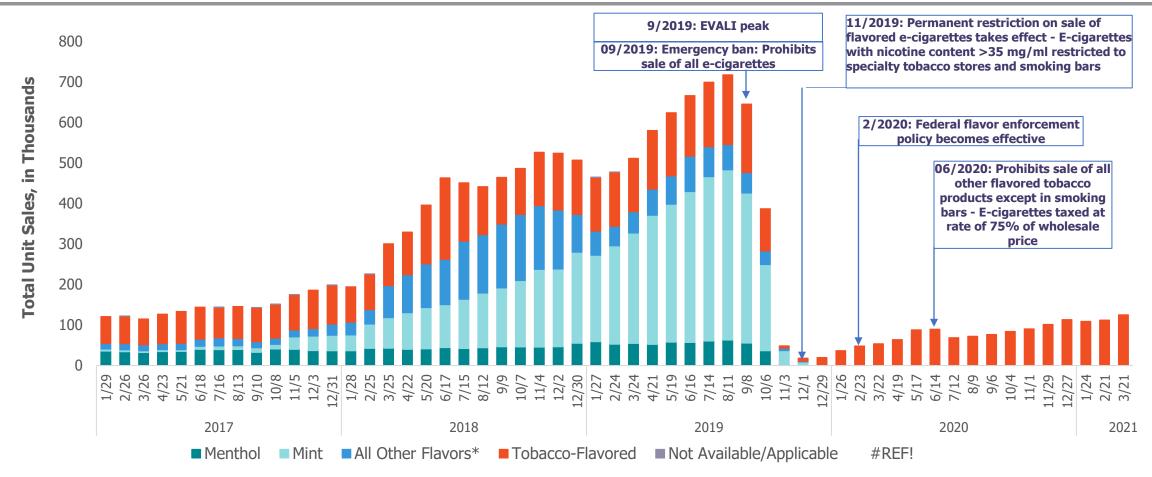


Figure 19. Massachusetts E-Cigarette Unit Sales by Flavor, 4 Week Estimates 1/2017 – 3/2021\*



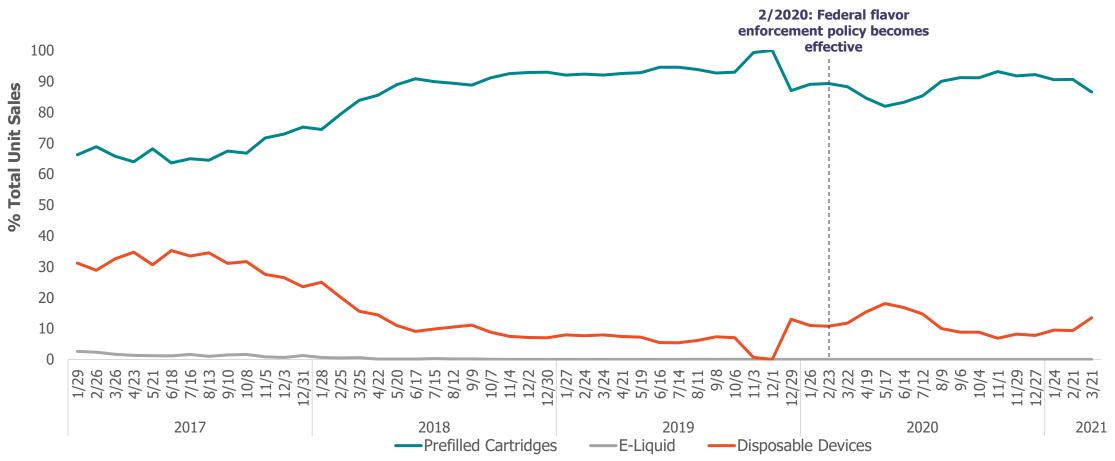
<sup>\*</sup>Sales data does not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories and devices sold without e-liquids were excluded (11.5% of total sales).

#### Trends of Unit Sales by Flavor (9/8/19-3/21/21)

- Following Massachusetts's flavored e-cigarette restrictions, monthly e-cigarette total unit sales decreased by 80.6% from September 8, 2019 to March 21, 2021 (from 645.2 thousand to 125.0 thousand).
- From September 8, 2019 to March 21, 2021:
  - O Menthol-flavored e-cigarette sales decreased by 100.0% (from 55.3 thousand to 0.0 thousand); market share decreased from 8.6% to 0.0%.
  - O Tobacco-flavored e-cigarette sales decreased by 26.0% (from 169.0 thousand to 125.0 thousand); market share increased from 26.2% to 100.0%.
  - O Mint-flavored e-cigarette sales decreased by 100.0% (from 370.4 thousand to 0.0 thousand); market share decreased from 57.4% to 0.0%.
  - O All other-flavored e-cigarette sales decreased by 100.0% (from 50.6 thousand to 0.0 thousand); market share decreased from 7.8% to 0.0%.



Figure 20. Massachusetts E-Cigarette Unit Sales by Product Type, 4 Week Estimates 1/2017 – 3/2021\*



<sup>\*</sup>Sales data does not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; prefilled cartridges include tanks, cartridges, and pods used in rechargeable and reusable e-cigarette device; disposable devices include nonrechargeable and nonreusable e-cigarette devices that are not intended to be refilled with e-liquid after being depleted; e-liquids are containers of the liquid used in e-cigarette devices, which typically contains a humectant (e.g., propylene glycol), nicotine, and flavoring.

- Following FDA's flavor enforcement policy, which prohibited the sale of flavored prefilled cartridges but exempted disposable devices and menthol and tobacco prefilled cartridges, between February 23, 2020 and March 21, 2021:
  - Sales of disposable devices increased by 225.9% (from 5.2 thousand to 16.9 thousand); market share increased from 10.7% to 13.5%.
  - o Sales of prefilled cartridges increased by 151.4% (from 43.0 thousand to 108.2 thousand); market share decreased from 89.3% to 86.5%.



Figure 21. Massachusetts E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 1/2017 - 3/2021

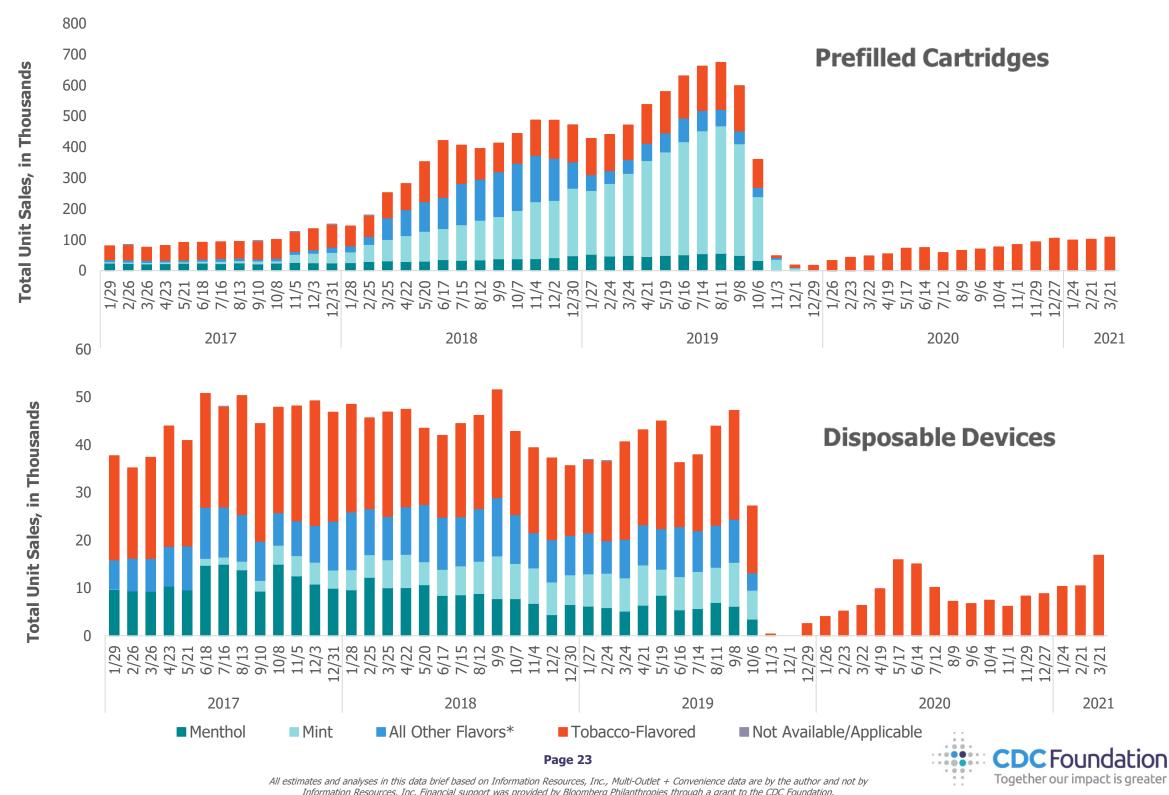
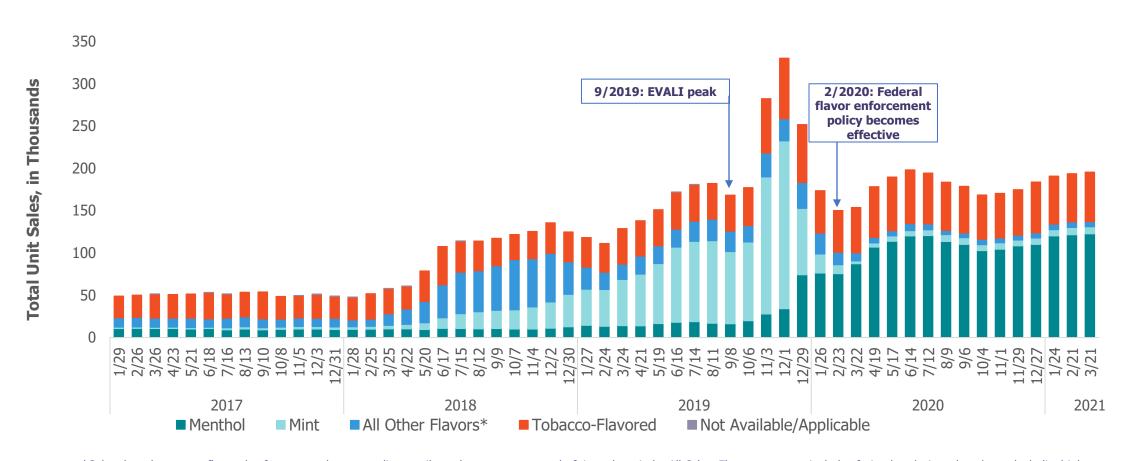


Figure 22. New Hampshire E-Cigarette Unit Sales by Flavor, 4 Week Estimates 1/2017 – 3/2021\*

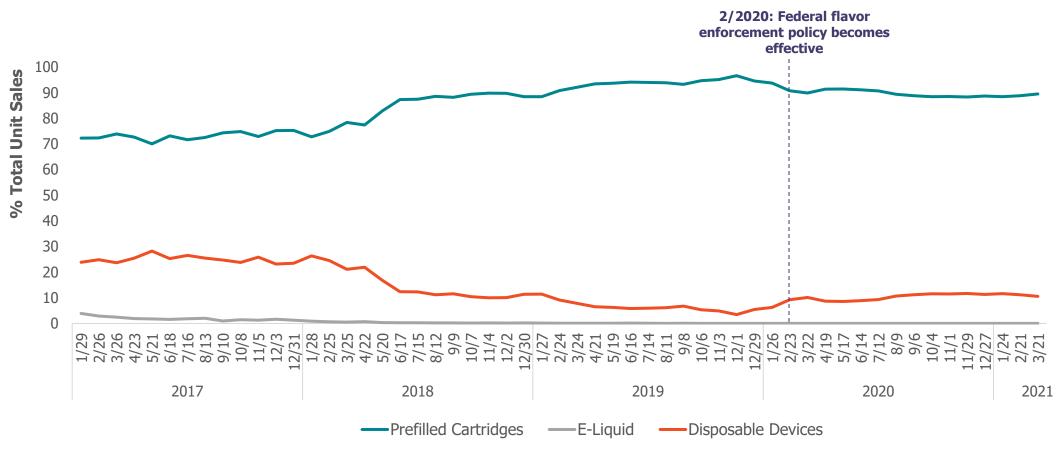


<sup>\*</sup>Sales data does not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories and devices sold without e-liquids were excluded (11.5% of total sales).

- From February 23, 2020 to March 21, 2021, monthly e-cigarette unit sales increased by 30.2% to 195.6 thousand units.
- From February 23, 2020 to March 21, 2021:
  - O Menthol-flavored e-cigarette sales increased by 62.4% (from 75.5 thousand to 122.6 thousand); market share increased from 50.3% to 62.7%.
  - O Tobacco-flavored e-cigarette sales increased by 18.7% (from 49.4 thousand to 58.7 thousand); market share decreased from 32.9% to 30.0%.
  - Mint-flavored e-cigarette sales decreased by 22.7% (from 10.6 thousand to 8.2 thousand); market share decreased from 7.1% to 4.2%.
  - O All other-flavored e-cigarette sales decreased by 58.5% (from 14.6 thousand to 6.1 thousand); market share decreased from 9.7% to 3.1%.



Figure 23. New Hampshire E-Cigarette Unit Sales by Product Type, 4 Week Estimates 1/2017 – 3/2021\*



<sup>\*</sup>Sales data does not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; prefilled cartridges include tanks, cartridges, and pods used in rechargeable and reusable e-cigarette device; disposable devices include nonrechargeable and nonreusable e-cigarette devices that are not intended to be refilled with e-liquid after being depleted; e-liquids are containers of the liquid used in e-cigarette devices, which typically contains a humectant (e.g., propylene glycol), nicotine, and flavoring.

- Following FDA's flavor enforcement policy, which prohibited the sale of flavored prefilled cartridges but exempted disposable devices and menthol and tobacco prefilled cartridges, between February 23, 2020 and March 21, 2021:
  - Sales of disposable devices increased by 48.2% (from 13.9 thousand to 20.6 thousand); market share increased from 9.3% to 10.5%.
  - Sales of prefilled cartridges increased by 28.4% (from 136.3 thousand to 175.0 thousand); market share decreased from 90.7% to 89.5%.



Figure 24. New Hampshire E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 1/2017 – 3/2021

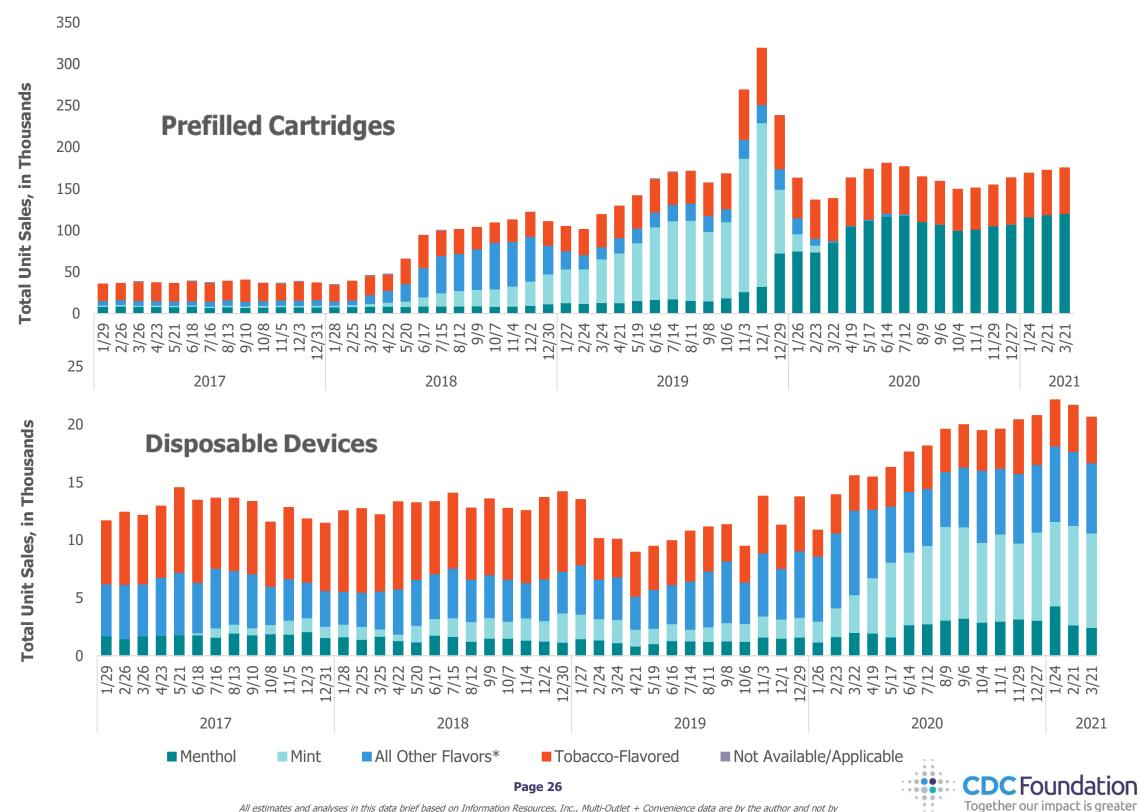
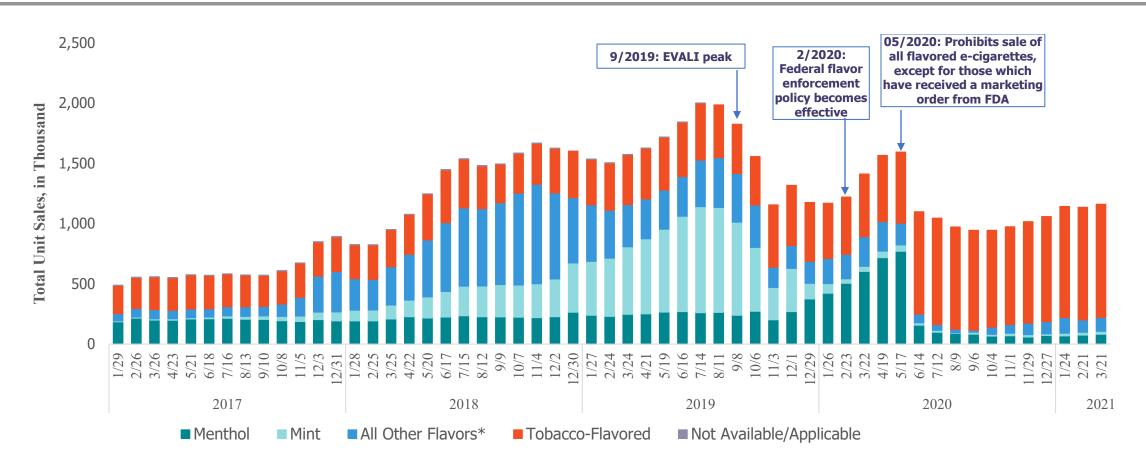


Figure 25. New York E-Cigarette Unit Sales by Flavor, 4 Week Estimates 1/2017 – 3/2021\*



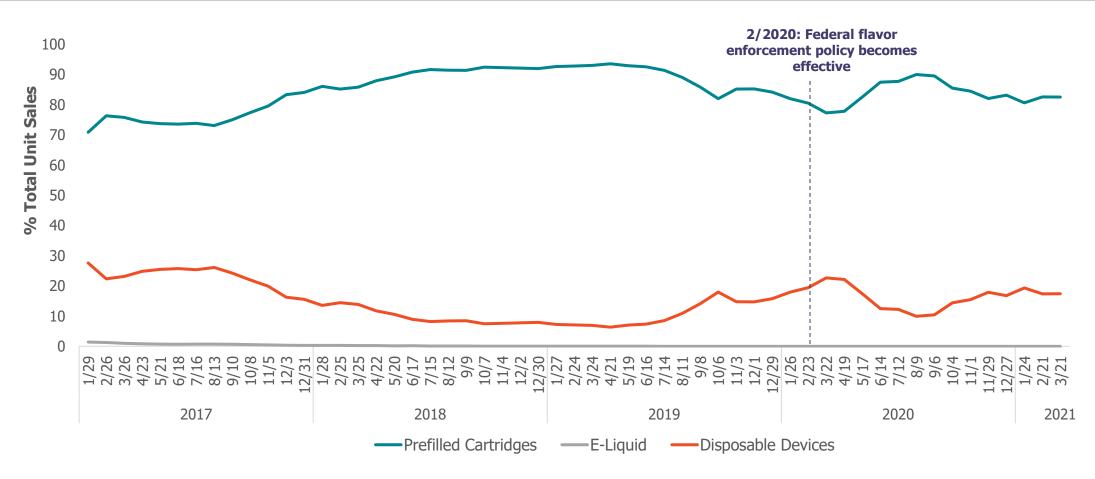
<sup>\*</sup>Sales data does not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories and devices sold without e-liquids were excluded (11.5% of total sales).

#### **Trends of Unit Sales by Flavor (5/17/20-3/21/21)**

- Following New York's flavored e-cigarette restriction, monthly e-cigarette total unit sales decreased by 27.2% between May 17, 2020 and March 21, 2021 (from 1594.0 thousand to 1161.0 thousand).
- From May 17, 2020 to March 21, 2020:
  - O Menthol-flavored e-cigarette sales decreased by 89.5% (from 770.3 thousand to 81.0 thousand); market share decreased from 48.3% to 7.0%.
  - O Tobacco-flavored e-cigarette sales increased by 59.0% (from 592.1 thousand to 941.2 thousand); market share increased from 37.1% to 81.1%.
  - O Mint-flavored e-cigarette sales decreased by 53.6% (from 52.5 thousand to 24.4 thousand); market share decreased from 3.3% to 2.1%.
  - O All other-flavored e-cigarette sales decreased by 36.1% (from 179.1 thousand to 114.4 thousand); market share decreased from 11.2% to 9.9%.



Figure 26. New York E-Cigarette Unit Sales by Product Type, 4 Week Estimates 1/2017 – 3/2021\*



<sup>\*</sup>Sales data does not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; prefilled cartridges include tanks, cartridges, and pods used in rechargeable and reusable e-cigarette device; disposable devices include nonrechargeable and nonreusable e-cigarette devices that are not intended to be refilled with e-liquid after being depleted; e-liquids are containers of the liquid used in e-cigarette devices, which typically contains a humectant (e.g., propylene glycol), nicotine, and flavoring.

- Following FDA's flavor enforcement policy, which prohibited the sale of flavored prefilled cartridges but exempted disposable devices and menthol and tobacco prefilled cartridges, between February 23, 2020 and March 21, 2021:
  - o Sales of disposable devices decreased by 14.7% (from 237.4 thousand to 202.5 thousand); market share decreased from 19.5% to 17.4%.
  - Sales of prefilled cartridges decreased by 2.4% (from 982.3 thousand to 958.4 thousand); market share increased from 80.5% to 82.6%.



Figure 27. New York E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 1/2017 – 3/2021

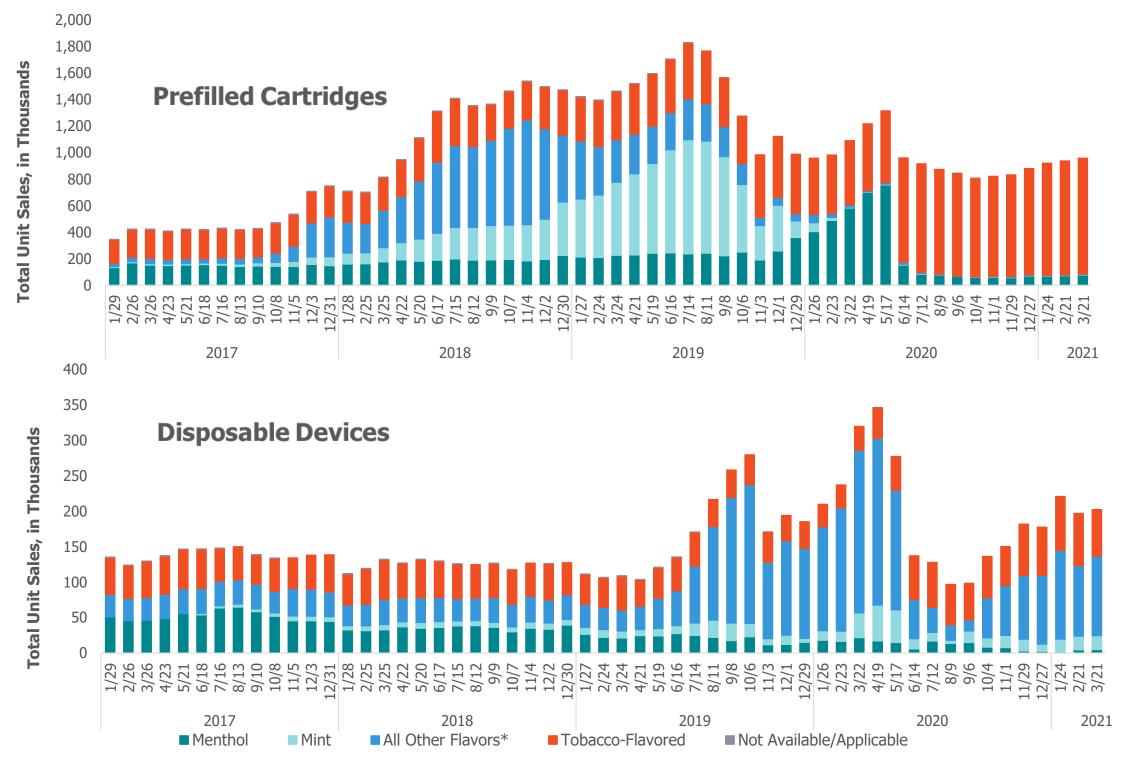
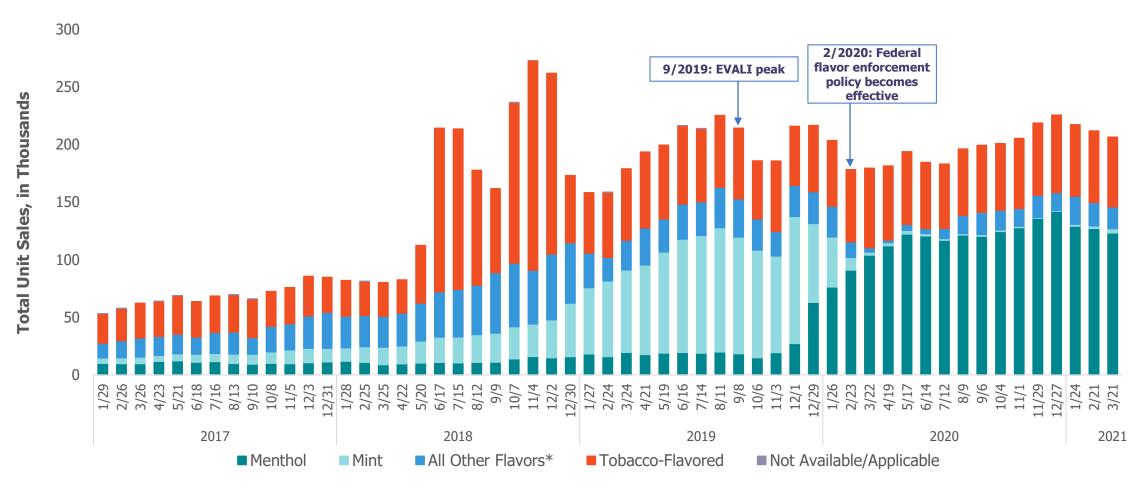


Figure 28. Oregon E-Cigarette Unit Sales by Flavor, 4 Week Estimates 1/2017 – 3/2021\*

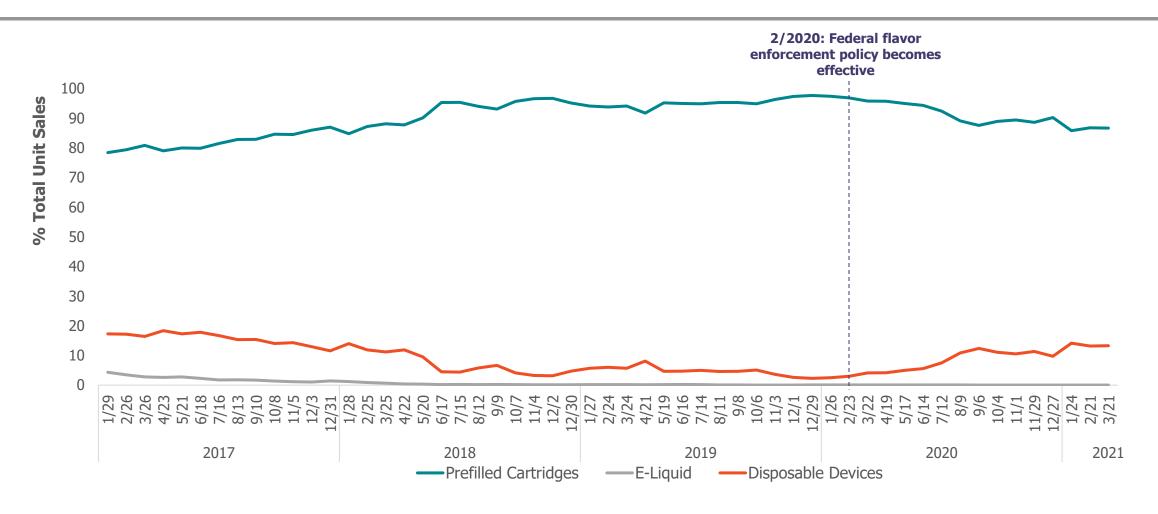


\*Sales data does not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories and devices sold without e-liquids were excluded (11.5% of total sales).

- From February 23, 2020 to March 21, 2021, monthly e-cigarette unit sales increased by 15.8% to 206.5 thousand units.
- From February 23, 2020 to March 21, 2021:
  - Menthol-flavored e-cigarette sales increased by 35.5% (from 90.9 thousand to 123.2 thousand); market share increased from 51.0% to 59.7%.
  - O Tobacco-flavored e-cigarette sales decreased by 3.6% (from 63.0 thousand to 60.8 thousand); market share decreased from 35.3% to 29.4%.
  - O Mint-flavored e-cigarette sales decreased by 65.8% (from 10.9 thousand to 3.7 thousand); market share decreased from 6.1% to 1.8%.
  - O All other-flavored e-cigarette sales increased by 40.0% (from 13.4 thousand to 18.8 thousand); market share increased from 7.5% to 9.1%.



Figure 29. Oregon E-Cigarette Unit Sales by Product Type, 4 Week Estimates 1/2017 - 3/2021\*



<sup>\*</sup>Sales data does not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; prefilled cartridges include tanks, cartridges, and pods used in rechargeable and reusable e-cigarette device; disposable devices include nonrechargeable and nonreusable e-cigarette devices that are not intended to be refilled with e-liquid after being depleted; e-liquids are containers of the liquid used in e-cigarette devices, which typically contains a humectant (e.g., propylene glycol), nicotine, and flavoring.

- Following FDA's flavor enforcement policy, which prohibited the sale of flavored prefilled cartridges but exempted disposable devices and menthol and tobacco prefilled cartridges, between February 23, 2020 and March 21, 2021:
  - Sales of disposable devices increased by 413.5% (from 5.3 thousand to 27.4 thousand); market share increased from 3.0% to 13.3%.
  - Sales of prefilled cartridges increased by 3.6% (from 172.8 thousand to 179.0 thousand); market share decreased from 96.9% to 86.7%.



Figure 30. Oregon E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 1/2017 – 3/2021

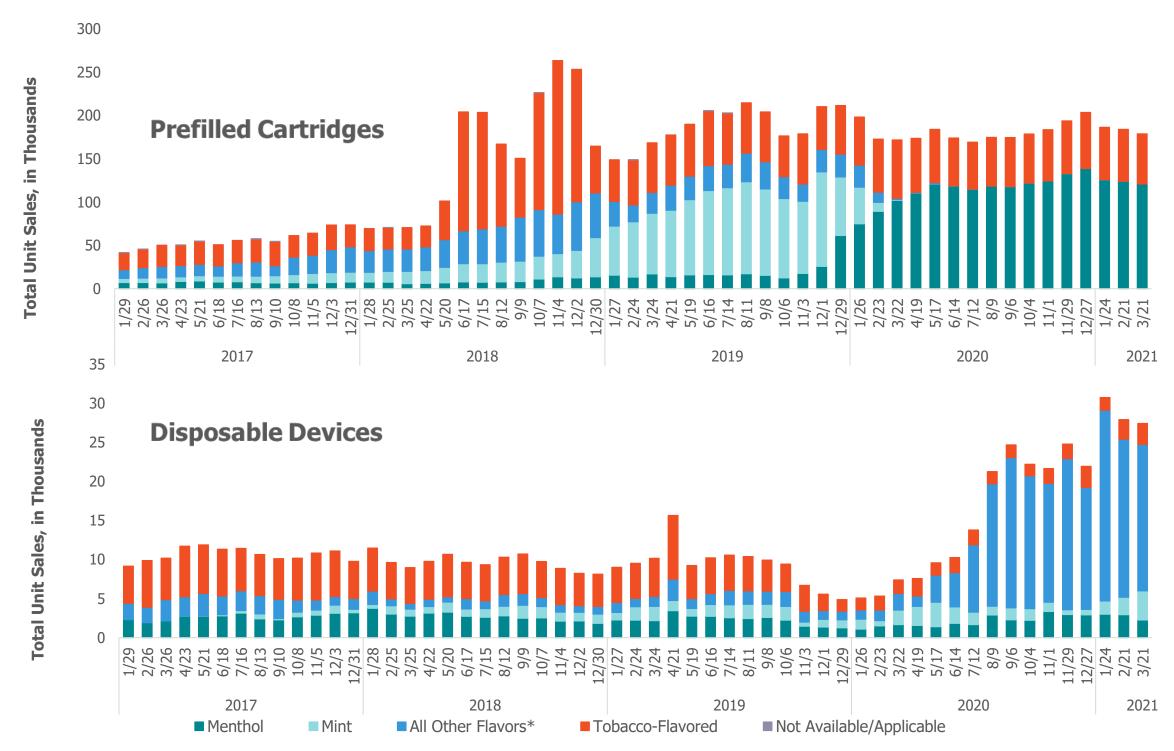
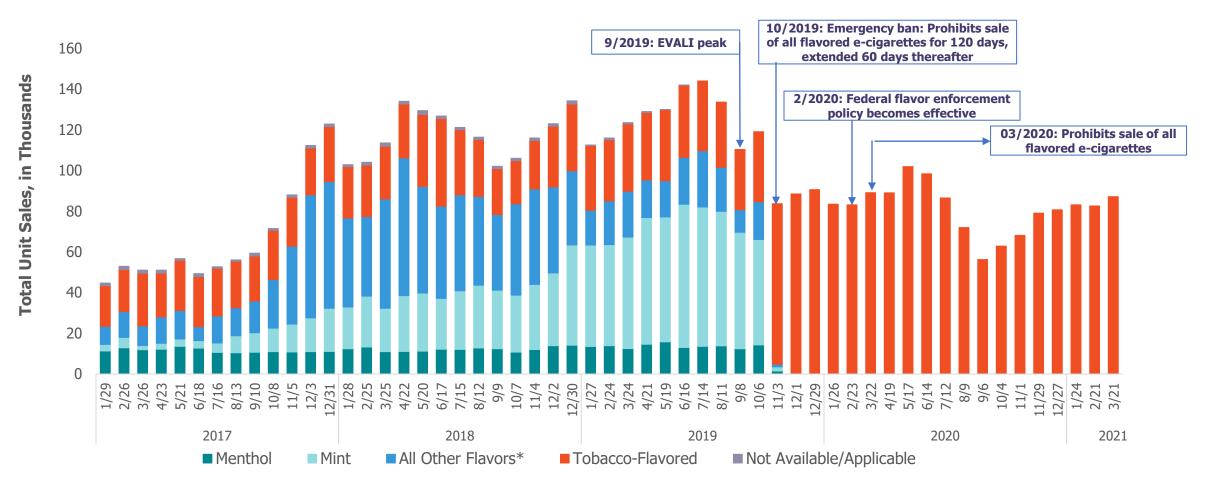


Figure 31. Rhode Island E-Cigarette Unit Sales by Flavor, 4 Week Estimates 1/2017 – 3/2021\*



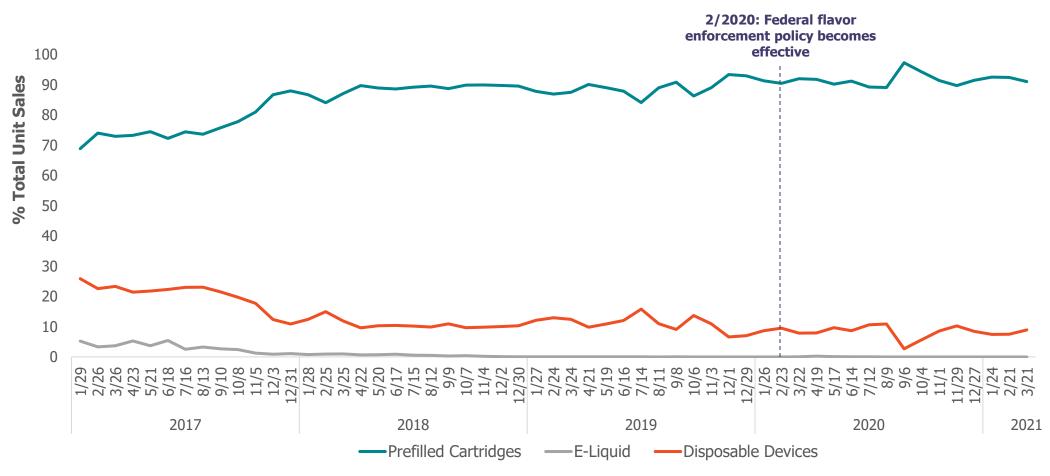
\*Sales data does not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories and devices sold without e-liquids were excluded (11.5% of total sales).

#### **Trends of Unit Sales by Flavor (10/6/19-3/21/21)**

- Following Rhode Island's flavored e-cigarette restriction, monthly e-cigarette total unit sales decreased by 26.8% from October 6, 2019 to March 21, 2021 (from 119.0 thousand to 87.1 thousand).
- From October 06, 2019 to March 21, 2021:
  - Menthol-flavored e-cigarette sales decreased by 100.0% (from 14.3 thousand to 0.0 thousand); market share decreased from 12.0% to 0.0%.
  - O Tobacco-flavored e-cigarette sales increased by 153.8% (from 34.3 thousand to 87.1 thousand); market share increased from 28.8% to 100.0%.
  - O Mint-flavored e-cigarette sales decreased by 100.0% (from 51.8 thousand to 0.0 thousand); market share decreased from 43.5% to 0.0%.
  - O All other-flavored e-cigarette sales decreased by 99.9% (from 18.6 thousand to 0.01 thousand); market share decreased from 15.6% to 0.0%.



Figure 32. Rhode Island E-Cigarette Unit Sales by Product Type, 4 Week Estimates 1/2017 – 3/2021\*



<sup>\*</sup>Sales data does not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; prefilled cartridges include tanks, cartridges, and pods used in rechargeable and reusable e-cigarette device; disposable devices include nonrechargeable and nonreusable e-cigarette devices that are not intended to be refilled with e-liquid after being depleted; e-liquids are containers of the liquid used in e-cigarette devices, which typically contains a humectant (e.g., propylene glycol), nicotine, and flavoring.

- Following FDA's flavor enforcement policy, which prohibited the sale of flavored prefilled cartridges but exempted disposable devices and menthol and tobacco prefilled cartridges, between February 23, 2020 and March 21, 2021:
  - Sales of disposable devices decreased by 1.4% (from 7.9 thousand to 7.8 thousand); market share decreased from 9.5% to 8.9%.
  - Sales of prefilled cartridges increased by 5.5% (from 75.2 thousand to 79.3 thousand); market share increased from 90.5% to 91.1%.



Figure 33. Rhode Island E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 1/2017 - 3/2021

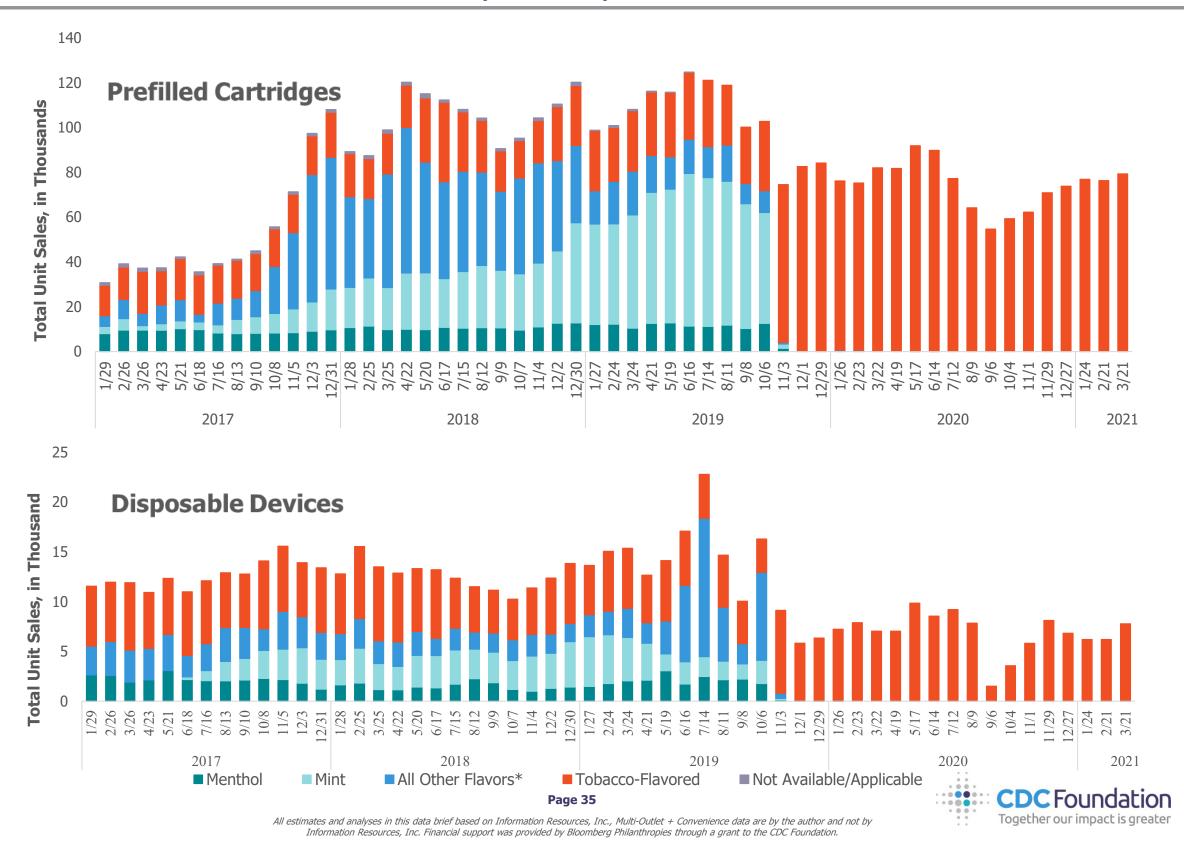
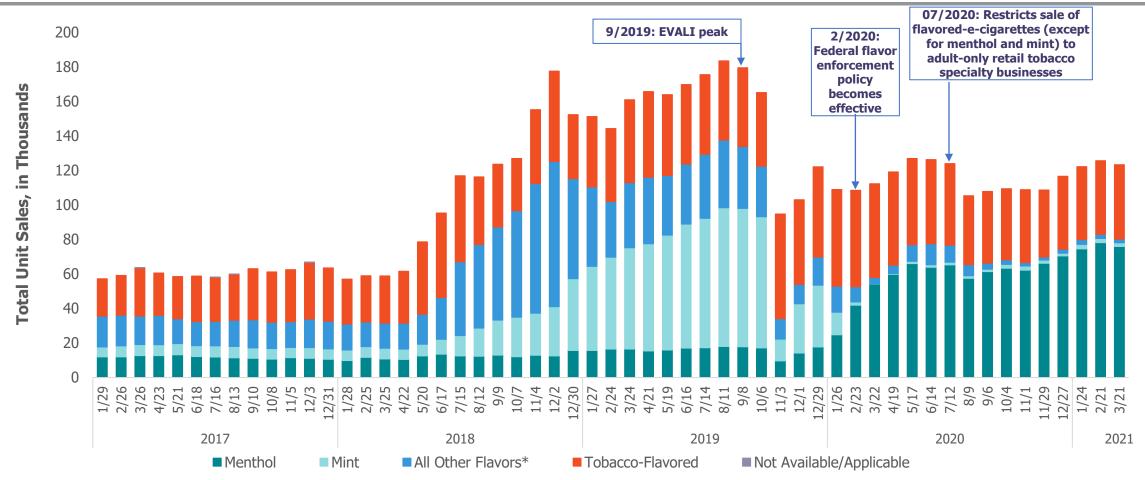


Figure 34. Utah E-Cigarette Unit Sales by Flavor, 4 Week Estimates 1/2017 – 3/2021\*

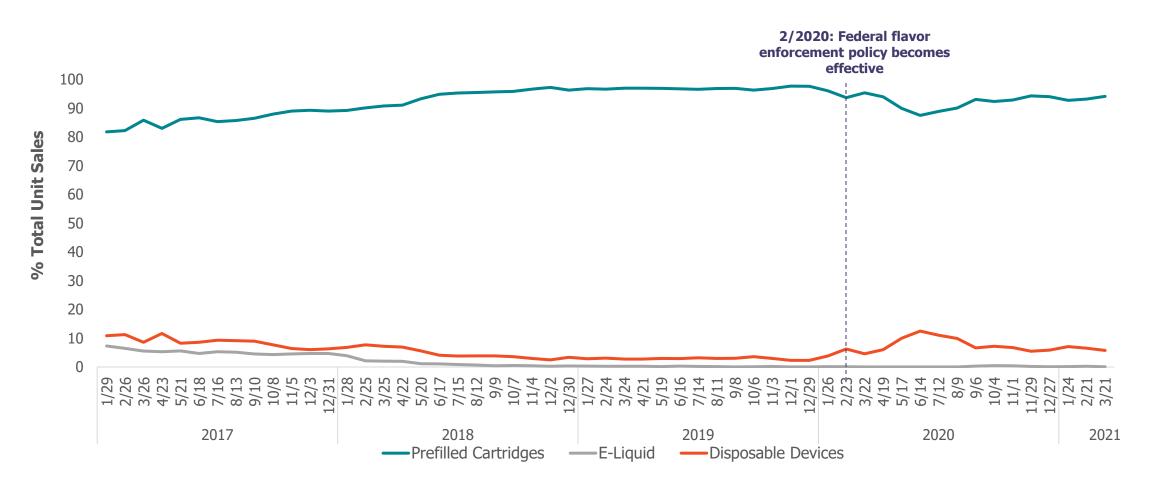


<sup>\*</sup>Sales data does not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories and devices sold without e-liquids were excluded (11.5% of total sales).

- From February 23, 2020 to March 21, 2021, monthly e-cigarette unit sales increased by 13.7% to 123.4 thousand units.
- From February 23, 2020 to March 21, 2021:
  - O Menthol-flavored e-cigarette sales increased by 81.2% (from 41.9 thousand to 75.9 thousand); market share increased from 38.6% to 61.6%.
  - O Tobacco-flavored e-cigarette sales decreased by 22.8% (from 55.9 thousand to 43.2 thousand); market share decreased from 51.6% to 35.0%.
  - O Mint-flavored e-cigarette sales increased by 18.5% (from 1.8 thousand to 2.1 thousand); market share increased from 1.65% to 1.72%.
  - O All other-flavored e-cigarette sales decreased by 75.9% (from 8.8 thousand to 2.1 thousand); market share decreased from 8.2% to 1.7%.



Figure 35. Utah E-Cigarette Unit Sales by Product Type, 4 Week Estimates 1/2017 – 3/2021\*



<sup>\*</sup>Sales data does not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; prefilled cartridges include tanks, cartridges, and pods used in rechargeable and reusable e-cigarette device; disposable devices include nonrechargeable and nonreusable e-cigarette devices that are not intended to be refilled with e-liquid after being depleted; e-liquids are containers of the liquid used in e-cigarette devices, which typically contains a humectant (e.g., propylene glycol), nicotine, and flavoring.

- Following FDA's flavor enforcement policy, which prohibited the sale of flavored prefilled cartridges but exempted disposable devices and menthol and tobacco prefilled cartridges, between February 23, 2020 and March 21, 2021:
  - o Sales of disposable devices increased by 5.1% (from 6.8 thousand to 7.1 thousand); market share decreased from 6.3% to 5.8%.
  - Sales of prefilled cartridges increased by 14.3% (from 101.6 thousand to 116.1 thousand); market share increased from 93.7% to 94.1%.



Figure 36. Utah E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 1/2017 – 3/2021

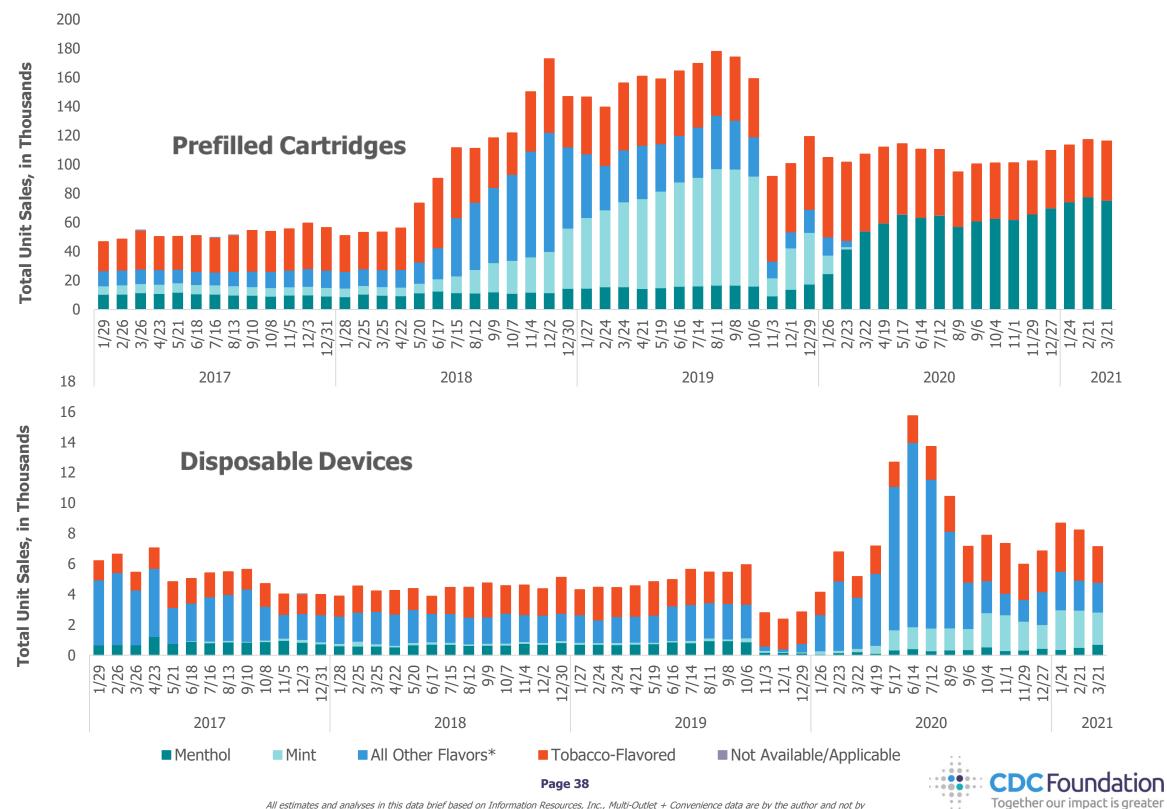
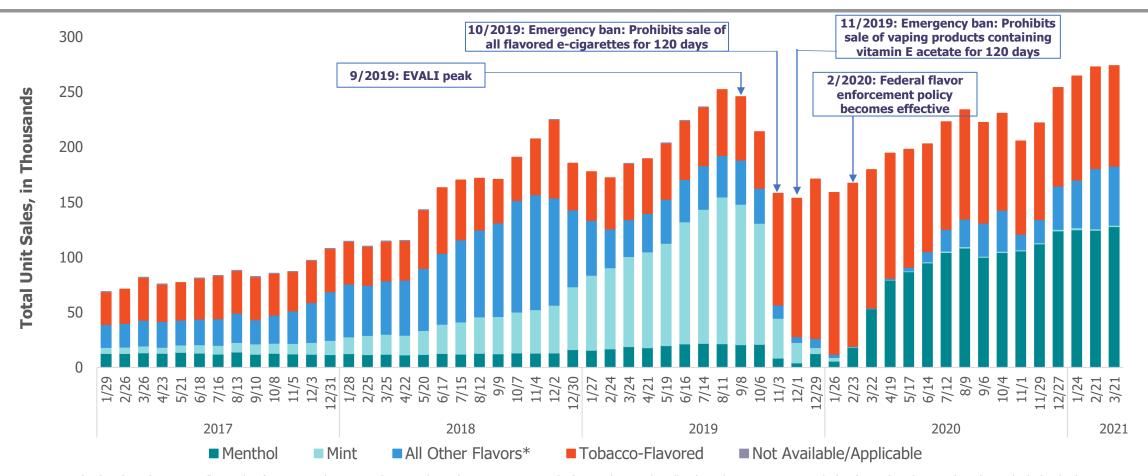


Figure 37. Washington E-Cigarette Unit Sales by Flavor, 4 Week Estimates 1/2017 – 3/2021\*



<sup>\*</sup>Sales data does not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; All Other Flavors category includes fruit, clove/spice, chocolate, alcoholic drink (such as wine, cognac, or other cocktails), candy/desserts/other sweets, some other flavor; e-cigarette accessories and devices sold without e-liquids were excluded (11.5% of total sales).

#### **Trends of Unit Sales by Flavor (10/6/19 - 01/26/20)**

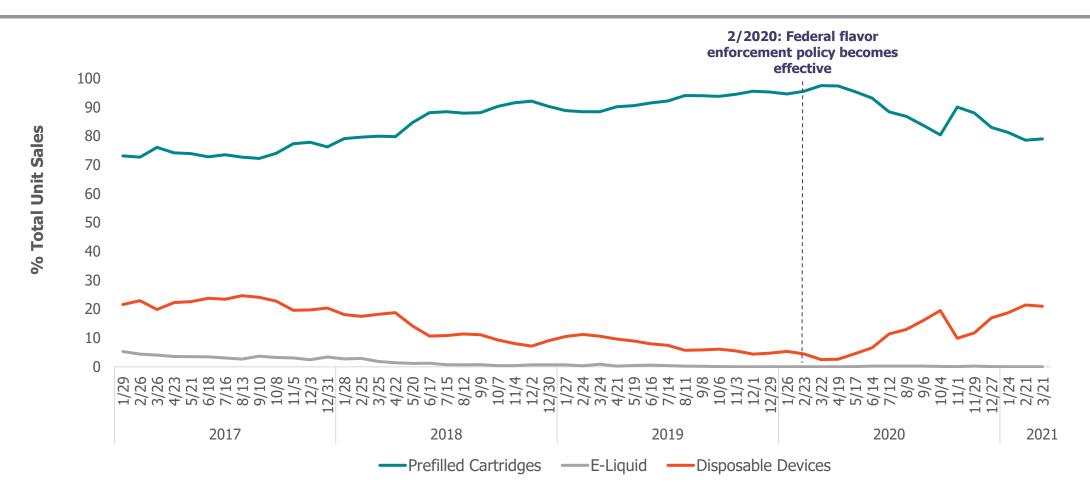
• Following Washington's flavored e-cigarette restriction, monthly e-cigarette total unit sales decreased by 25.8% from October 6, 2019 to January 26, 2020 (from 214.0 thousand to 158.7 thousand).

#### **Trends of Unit Sales by Flavor (02/23/20 - 3/21/21)**

- Monthly e-cigarette total unit sales increased by 63.9% from February 23, 2020 to March 21, 2021 (from 167.2 thousand to 274.0 thousand).
- From February 23, 2020 to March 21, 2021:
  - Menthol-flavored e-cigarette sales increased by 611.8% (from 18.0 thousand to 127.8 thousand); market share increased from 10.7% to 46.6%.
  - O Tobacco-flavored e-cigarette sales decreased by 38.3% (from 148.0 thousand to 91.3 thousand); market share decreased from 88.5% to 33.3%.
  - O Mint-flavored e-cigarette sales increased by 182.3% (from 0.5 thousand to 1.4 thousand); market share increased from 0.3% to 0.5%.
  - O All other-flavored e-cigarette sales increased by 7526.5% (from 0.7 thousand to 53.6 thousand); market share increased from 0.4% to 19.5%.



Figure 38. Washington E-Cigarette Unit Sales by Product Type, 4 Week Estimates 1/2017 – 3/2021\*

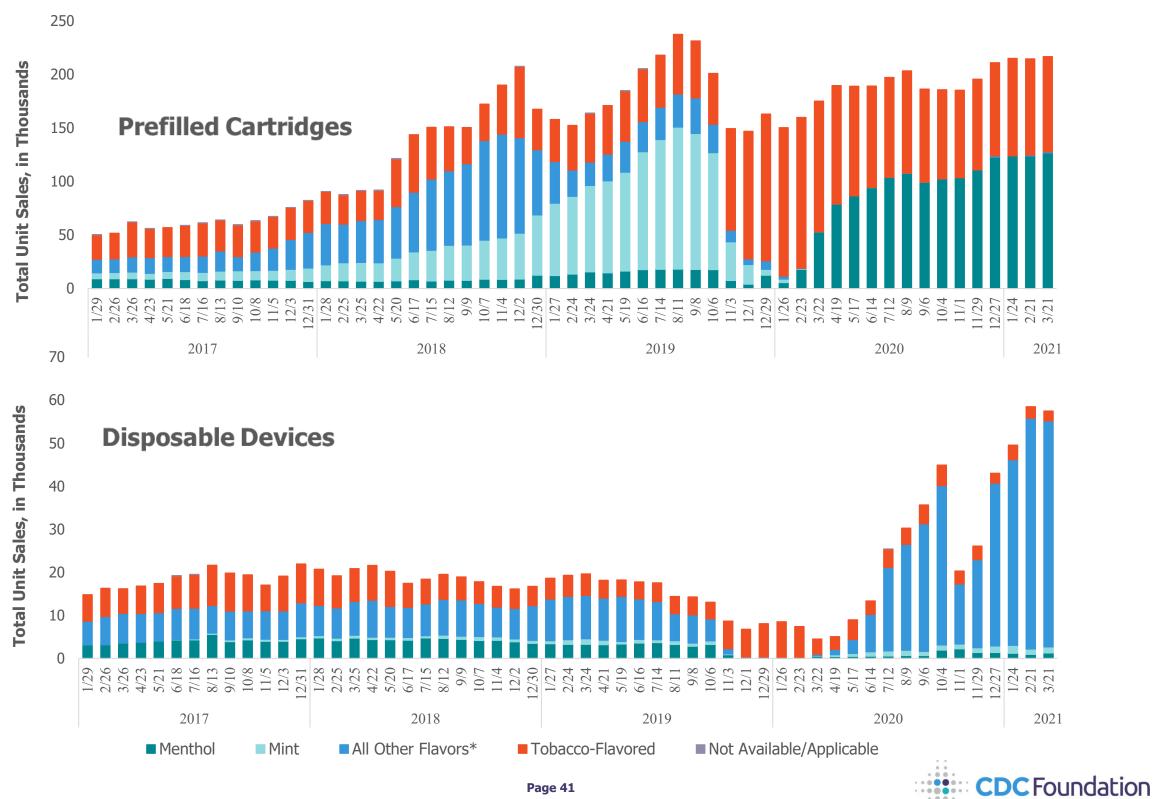


<sup>\*</sup>Sales data does not reflect sales from vape shops or online retailers; dates represent end of 4-week periods; prefilled cartridges include tanks, cartridges, and pods used in rechargeable and reusable e-cigarette device; disposable devices include nonrechargeable and nonreusable e-cigarette devices that are not intended to be refilled with e-liquid after being depleted; e-liquids are containers of the liquid used in e-cigarette devices, which typically contains a humectant (e.g., propylene glycol), nicotine, and flavoring.

- Following FDA's flavor enforcement policy, which prohibited the sale of flavored prefilled cartridges but exempted disposable devices and menthol and tobacco prefilled cartridges, between February 23, 2020 and March 21, 2021:
  - Sales of disposable devices increased by 677.5% (from 7.4 thousand to 57.5 thousand); market share increased from 4.4% to 21.0%.
  - Sales of prefilled cartridges increased by 35.5% (from 159.8 thousand to 216.5 thousand); market share decreased from 95.6% to 79.0%.



Figure 39. Washington E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 1/2017 - 3/2021



Together our impact is greater