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

This brief report highlights trends in national e-cigarette sales from January 2017 to July 2021.

- E-Cigarette Use
  - The 2020 National Youth Tobacco Survey (NYTS), released in September 2020, showed that current e-cigarette use was 19.6% among high school students and 4.7% among middle school students. Although these data show a decline since 2019 when e-cigarette use among youth peaked (at 27.5% and 10.5%, respectively), 3.6 million U.S. youth still currently used e-cigarettes in 2020, and more than 8 in 10 used flavored e-cigarettes.1

- Federal Legislative and Regulatory Initiatives
  - 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.
  - 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.

- 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 July 2021, six states and over 300 local jurisdictions have enacted laws that prohibit sales of flavored tobacco products, including e-cigarettes.

Key Findings

- Estimated national e-cigarette unit sales hit record high for the third month in a row, reaching 23.80 million units by July 11, 2021.
- Following FDA’s flavor enforcement policy in February 2020, national total e-cigarette unit sales increased by 60.8% from February 23, 2020 to July 11, 2021.
- Since the release of 2020 NYTS findings, e-cigarette sales increased by 42.8% between September 6, 2020 and July 11, 2021.
- As of July 11, 2021, all non-tobacco flavored e-cigarettes accounted for 75.4% of the national e-cigarette market, and menthol e-cigarette sales accounted for 38.4% of the market.
- The market shares of disposable e-cigarettes and menthol-flavored prefilled cartridges significantly increased in 2020, likely influenced by the federal enforcement policy that exempted these flavors and product types.

Conclusion: Restrictions that exempt certain flavors and product types are likely to shift sales to the products and flavors that remain on the market, deterring progress in reducing overall use. Comprehensive policies that prohibit all non-tobacco flavored e-cigarettes, including flavored disposable e-cigarettes, may reduce e-cigarette sales, reduce youth access to flavored e-cigarettes, and ultimately reduce youth e-cigarette use.

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

- From February 23, 2020 to July 11, 2021, total monthly e-cigarette unit sales increased by 60.8% to 23.8 million units.
- From February 23, 2020 to July 11, 2021, sales of non-tobacco flavored e-cigarettes (mint, menthol and other flavors) increased by 84.7% (from 9.7 million to 17.9 million).
- Since the release of 2020 NYTS data, total sales increased by 42.8% between September 6, 2020 and July 11, 2021.
- From February 23, 2020 to July 11, 2021:
  - Menthol-flavored e-cigarette sales increased by 43.6% (from 6.4 million to 9.1 million); market share decreased from 43.0% to 38.4%.
  - Tobacco-flavored e-cigarette sales increased by 15.1% (from 5.1 million to 5.8 million); market share decreased from 34.3% to 24.6%.
  - Mint-flavored e-cigarette sales increased by 51.1% (from 0.7 million to 1.0 million); market share decreased from 4.4% to 4.2%.
  - All other-flavored e-cigarette sales increased by 189.7% (from 2.7 million to 7.8 million); market share increased from 18.3% to 32.9%.
Figure 2. National E-Cigarette Unit Sales by Product Type, 4 Week Estimates 1/2017 – 7/2021*

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

- Following FDA’s flavor enforcement policy, which prohibited the sale of flavored prefilled cartridges but exempted disposable devices and menthol and tobacco prefilled cartridges, between February 23, 2020 and July 11, 2021:
  - Sales of disposable devices increased by 249.2% (from 2.8 million to 9.7 million); market share increased from 18.8% to 40.8%.
  - Sales of prefilled cartridges increased by 17.4% (from 12.0 million to 14.1 million); market share decreased from 81.1% to 59.2%.
- Since the release of 2020 NYTS findings, between September 6, 2020 and July 11, 2021:
  - Sales of disposable devices increased by 143.6% (from 4.0 million to 9.7 million); market share increased from 23.9% to 40.8%.
  - Sales of prefilled cartridges increased by 11.2% (from 12.7 million to 14.1 million); market share decreased from 76.1% to 59.2%.

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*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.
Figure 3. National E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 1/2017 – 7/2021
Figure 4. National E-Cigarette Unit Sales by Product Type and Flavor, 4 Week Estimates 1/2017 – 7/2021

Prefilled Cartridges

Disposable Devices

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