



Changes in California's E-Cigarette and Cigarette Sales Following a Law Prohibiting Flavored Tobacco Products Sales

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Disclosures

This research was funded by the Bloomberg Initiative to Reduce Tobacco Use through the CDC Foundation with a grant from Bloomberg Philanthropies.

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the CDC and CDC Foundation. Use of brand names is for identification and informational purposes only. It does not imply an endorsement by CDC and/or Health and Human Services of any product, service, or enterprise.

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This research was funded by Bloomberg Initiative to Reduce Tobacco Use through the CDC Foundation with a grant from Bloomberg Philanthropies

	Tobacco Industry	E-cigarette & nicotine product industry (excluding pharma)	Pharma Industry
The work being presented has received funding or other means of support from any of the following sources:	No	No	No
Any of the authors have received funding (including consultancy) from any of the following sources in the past 5 years:	No	No	No



Background

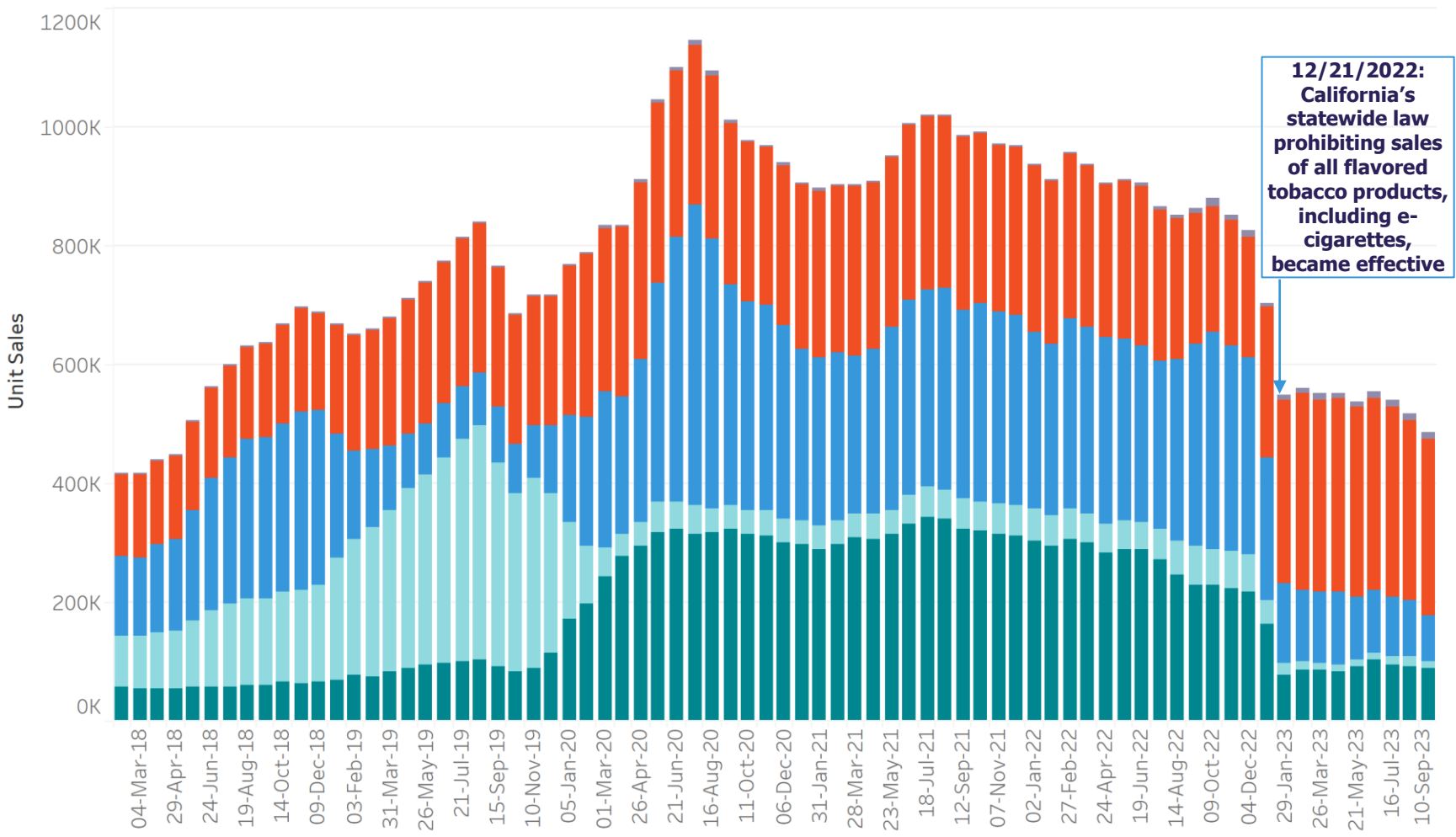
- Effective December 21, 2022, California prohibited the sale of non-tobacco flavored e-cigarettes, menthol cigarettes, and cigars (except premium cigars).
- California has 39 million residents and is among the most racially diverse US states.
- Cigarette manufacturers rapidly introduced “non-menthol” cigarette products containing synthetic coolants and/or marketed with signifiers of flavor such as colors (blue, green, silver), color names and descriptors implying cooling sensations.
- This study assesses changes in retail sales before and after the California law was implemented for e-cigarettes and cigarettes, overall and by flavor type and product type.

Data and Methods

- California e-cigarette and cigarette point-of-sale data were licensed from Circana (California Multi Outlet + Convenience, Week Ending January 30, 2022, through Week Ending September 10, 2023).
- The data capture sales in retail stores, including convenience stores, gas stations, grocery stores, drugstores/pharmacies, mass merchandiser outlets, club stores, dollar stores, and military sales. Internet and vape shops are not available.
- E-cigarettes were coded by flavor (tobacco, menthol, mint, and all other flavor) and device type (prefilled cartridges and disposable devices). Cigarettes were coded as non-menthol or menthol.
- As first identified by prior literature (Page et al., 2023), cigarette products with synthetic cooling chemicals were aggregated (e.g., Camel Crisp, Camel Crush Oasis, Newport EXP, Newport Green).
- E-cigarette unit sales were standardized as one unit being equal to five prefilled cartridges, one disposable device, or one e-liquid bottle. 20 cigarettes equaled one cigarette unit.
- Sales are summed in 4-week periods during January 2018 - September 2023.
- Data based on custom research by CDC Foundation using Circana (formerly IRI) retail POS.

Results: E-cigarette Unit Sales

Figure 1: California E-cigarette Unit Sales by Flavor, 2018-2023

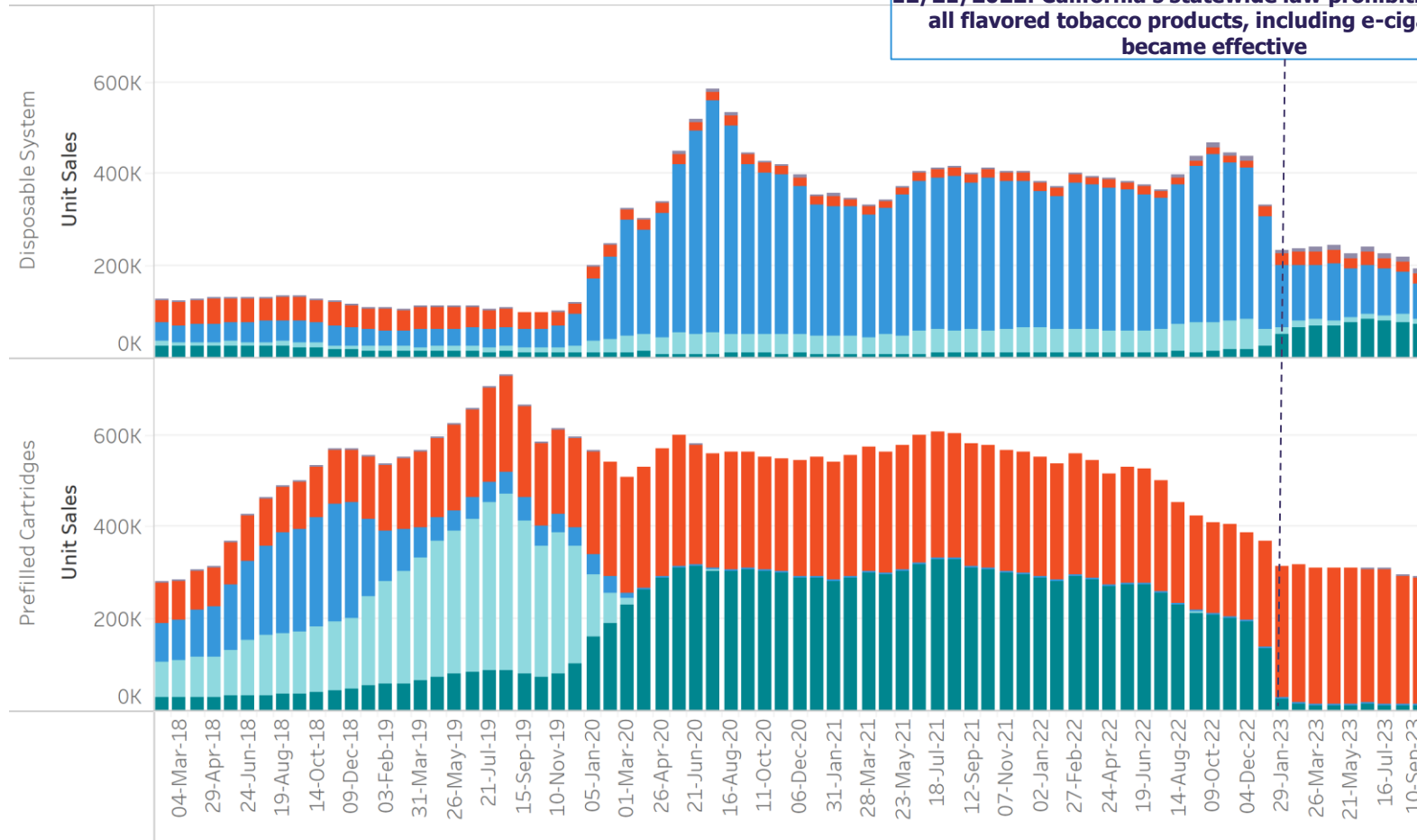


- Flavors**
- Unknown
 - Tobacco
 - Other Flavors
 - Mint
 - Menthol

- Following implementation of California’s law, total monthly e-cigarette unit sales decreased by 41.0% on September 10, 2023, compared to the period before the law (ending December 4, 2022).
- This decline represents 34.9% of the national decline (339.0 thousand of 971.4 thousand units) that occurred during this period.
- From December 4, 2022, to September 10, 2023:
 - Tobacco flavor share increased from 24.7% to 61.1%.
 - Non-tobacco flavor share decreased from 74.1% to 36.4%.

Figure 2: Unit Sales of Disposable E-cigarettes Declined in 2023 but Accounted for the Majority of Non-compliant Flavor Sales

12/21/2022: California's statewide law prohibiting sales of all flavored tobacco products, including e-cigarettes, became effective



Flavors

- Unknown
- Tobacco
- Other Flavors
- Mint
- Menthol

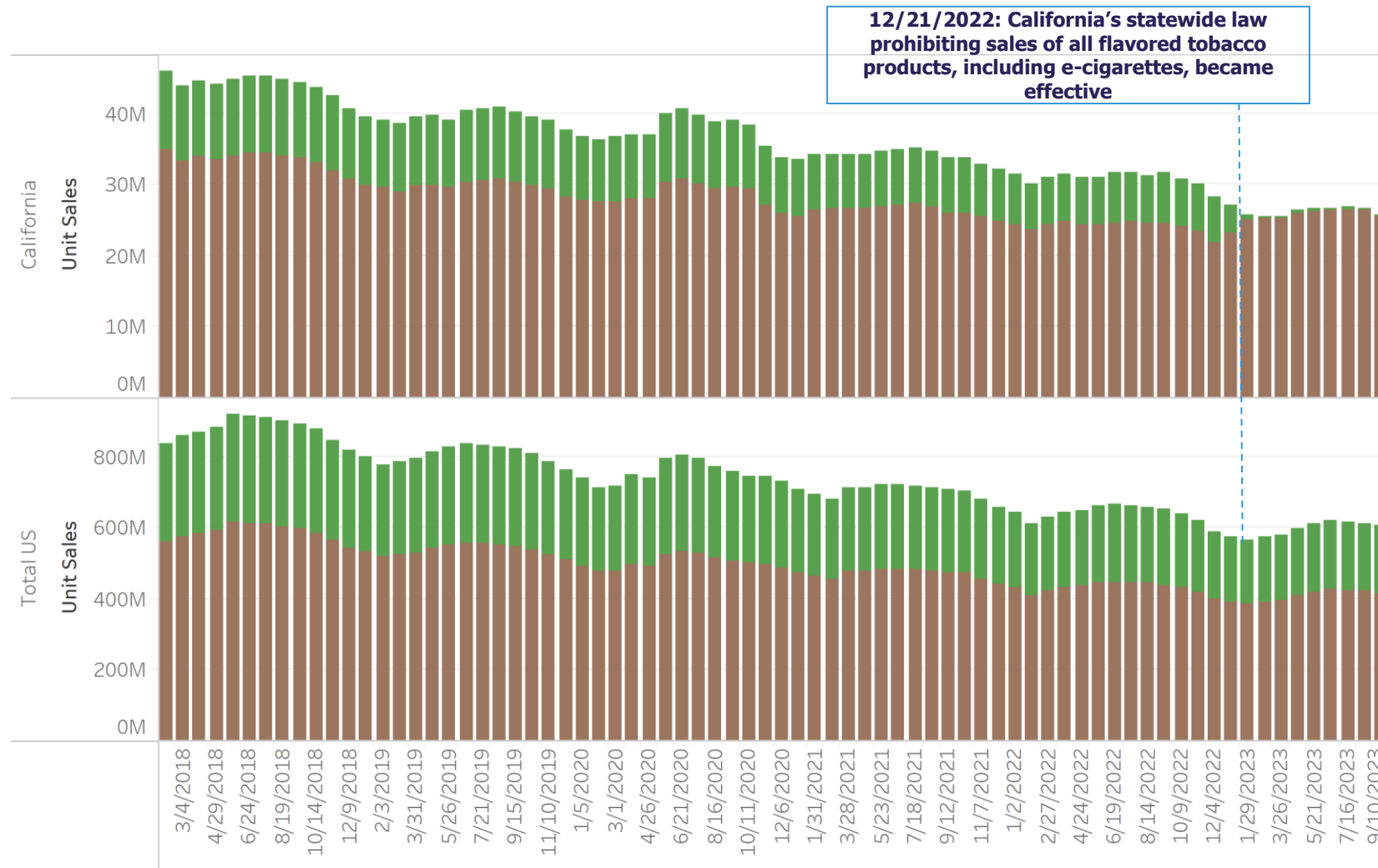
Comparing the period post implementation of California's law (September 10, 2023) to the period before the law (December 4, 2022):

- Disposable unit sales declined two times more than pre-filled cartridge sales (-56.1% vs. -24.1%).
- As of September 2023, 83.5% of disposable unit sales were non-tobacco flavored, vs. 5.2% of pre-filled cartridge sales.

Disposable e-cigarettes accounted for 91.4% of prohibited flavored sales by September 2023.

Results: Cigarette Unit Sales

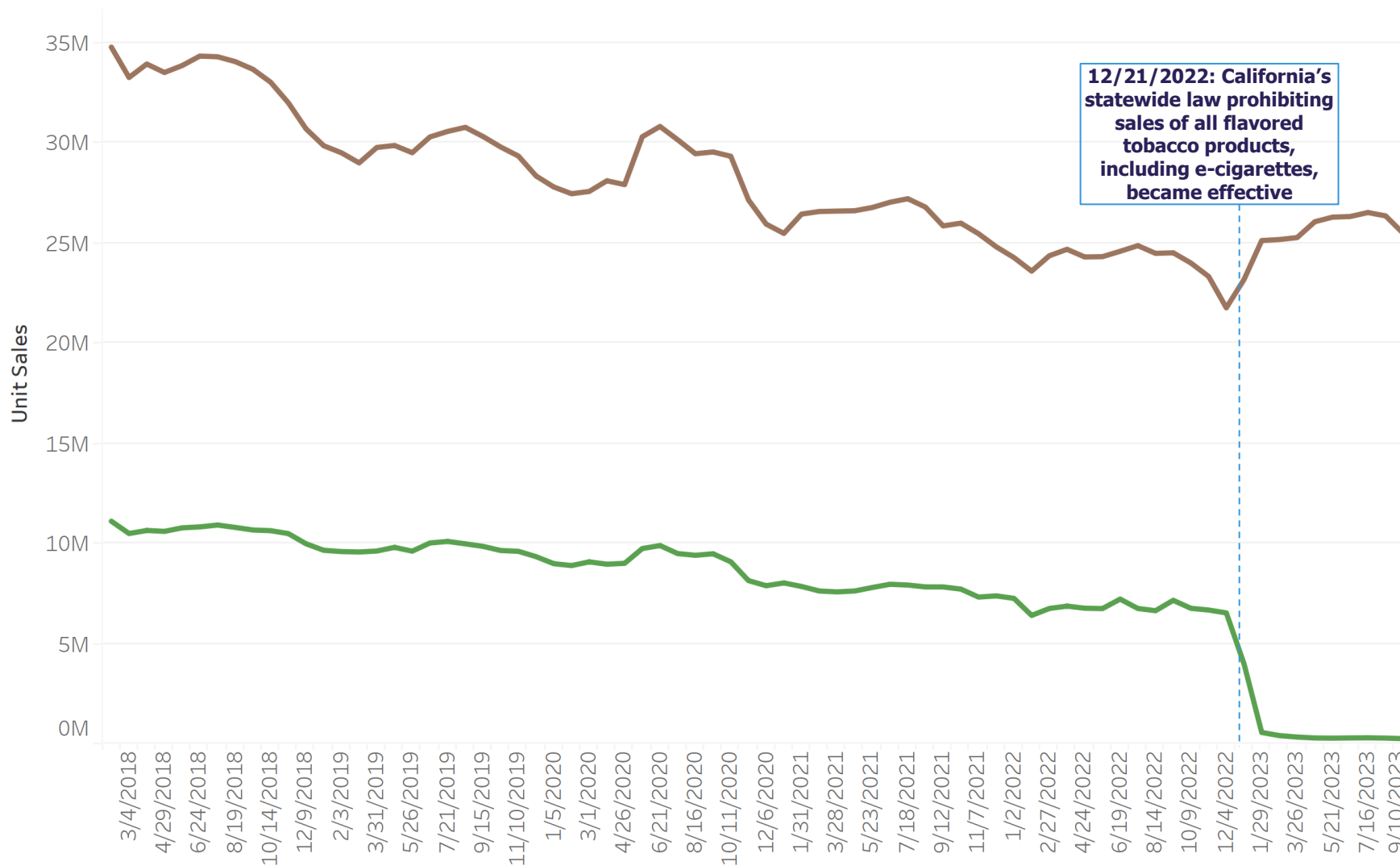
Figure 4: Cigarette Unit Sales: California vs. Total U.S., 2018-2023



- In California, overall cigarette unit sales declined by 9.1% (2.6 million units) between December 4, 2022, and September 10, 2023.
- In Total U.S. during this period, overall cigarette unit sales increased by 2.4% (14.0 million units).
- In California, by September 2023, unit share of menthol cigarettes was 1.0% (245.2 thousand units) (vs. 31.4% in Total U.S.).
- This does not include “non-menthol” cigarette products containing synthetic coolants that the industry has marketed as replacements for menthol smokers (e.g., Newport Non-Menthol Green and Camel Crisp Non-Menthol Green).

Menthol Info (group)
■ MENTHOL
■ NON MENTHOL
■ Unknown

Figure 5: California Cigarette Unit Sales Trends by Menthol Flavor, 2018-2023

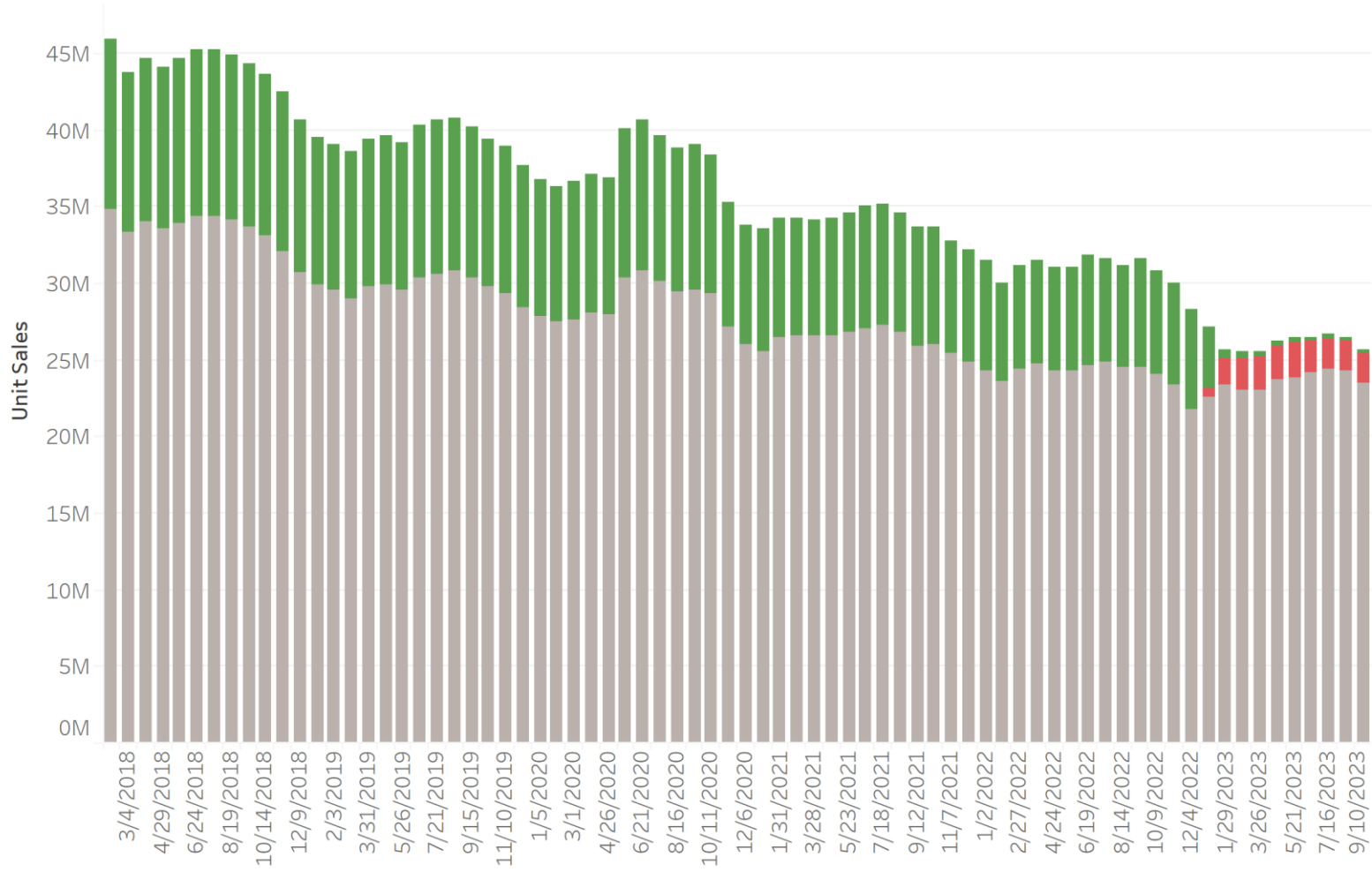


During December 2022 and September 2023:

- Menthol cigarette sales decreased by 96.2% (6.3 million units), while nonmenthol cigarette sales increased by 17.1% (3.7 million units).
- The increase in non-menthol cigarette sales (including new non-menthol cooling cigarettes) offset 58.7% of the decline in menthol unit sales in California.

Menthol Info (group)
■ MENTHOL
■ NON MENTHOL

Figure 6: Unit Sales of New Non-menthol Cooling Cigarettes Increased in California After Implementation



Flavor
■ Menthol
■ Nonmenthol Cooling
■ Nonmenthol Regular
■ Unknown

- During December 2022 - September 2023, the percentage of new non-menthol cigarette sales (i.e., containing cooling chemicals other than menthol) increased from 0.0% to 7.6% (2.0 million units) in California (vs. from 0.0% to 0.4% (2.1 million units) in Total U.S.).

Conclusions

- California's statewide flavor law appears to be associated with a decline in unit sales of e-cigarettes and cigarettes.
- The tobacco industry continues to market products that deliver multisensory flavor experiences in jurisdictions with flavored tobacco sales restrictions.
- Tobacco products with cooling features marketed as 'non-menthol' could offset the public health impact of flavored tobacco sales restrictions.
- Monitoring sales of these products could accelerate these declines and inform policy implementation.

References

1. Page MK, Paul EE, Leigh NJ, *et al.* Still 'Cool': tobacco industry responds to state-wide menthol ban with synthetic coolants. *Tobacco Control* Published Online First: 27 July 2023. doi: 10.1136/tc-2023-058149



Thank you!

Acknowledgements: Fatma Ali, Adam Leventhal, Megan Diaz, Kristy Marynak

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