



Tobacco Industry Analysis

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Notice

This presentation is based solely on an analysis conducted by Management Science Associates Inc. (MSAi) and does not necessarily reflect the opinion of any client. The definitions and analysis used in the presentation are based on general industry knowledge and typically represent the way a tobacco retailer may refer to the broad tobacco and nicotine delivery industry. Further, this presentation refers to tobacco and non-tobacco categories, that are often reported as cigarette only, cigars and pipe tobacco only, loose leaf only and electronic and other delivery systems only.

For purposes of this presentation, all of these categories are often referred to as one category using the phrase “nicotine delivery systems”, as that is a category grouping, that in MSAi’s experience, is used by most retail establishments. This presentation’s reference to “nicotine delivery systems” is in that context of the broadest retailer categorization of these various items.

Agenda

- ◆ Total US Nicotine Trends
- ◆ Growth & Decline of Nicotine Categories
- ◆ Trade Channel Analysis
- ◆ Google Trends
- ◆ Overview of Modern Oral Category
- ◆ Menthol Cigarette Analysis
- ◆ Flavored Cigar Trend Analysis
- ◆ Flavored Vapor Trend Analysis
- ◆ Impact of SET Increases (DC & OK)
- ◆ Impact of 21+ Legal Purchasing Age Restrictions – Massachusetts
- ◆ Impact of Flavor Restrictions
 - Duluth, MN
 - San Francisco, CA
 - Somerville, MA

Vapor Terminology

Disposables

Closed non-refillable single use atomizer.



e-Liquid

Bottles which are used to refill mods, vaporizers, or other vaping system.



Cartridges

Closed non-refillable cartridges that are used with an atomizer.



Kits

Selling unit that contains multiple items such as charging unit or accessory *as well as a cartridge or e-liquid bottle.*



Modern Oral Nicotine - Category Overview

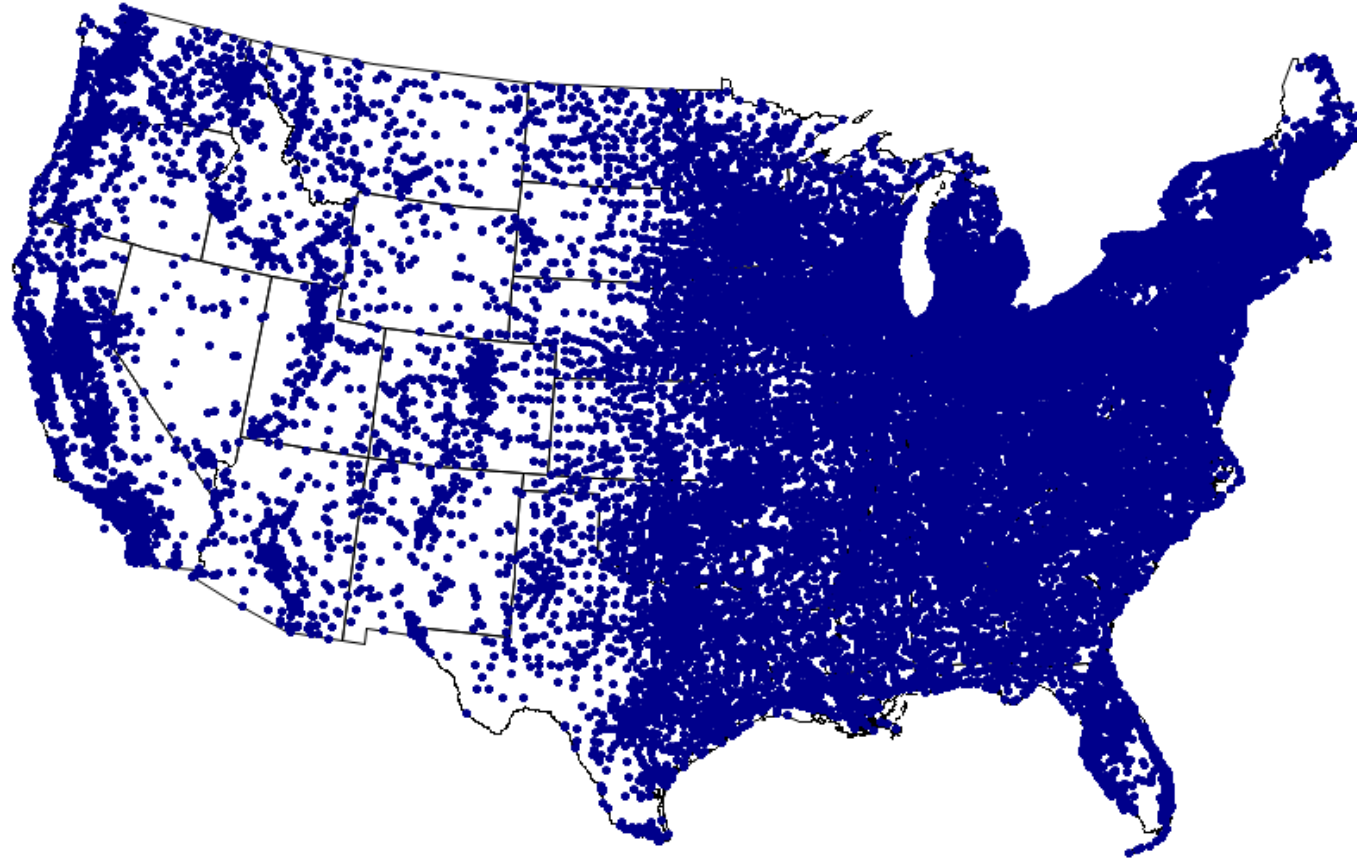
- ◆ The Modern Oral Nicotine category includes items marketed as tobacco-free nicotine products for oral consumption.



- ◆ These products are available in varying nicotine strengths and often come in pouch form, but can also include items in the form of toothpicks and lozenges.
- ◆ This growing category currently spans 7 different brand families.

TOTAL US NICOTINE TRENDS

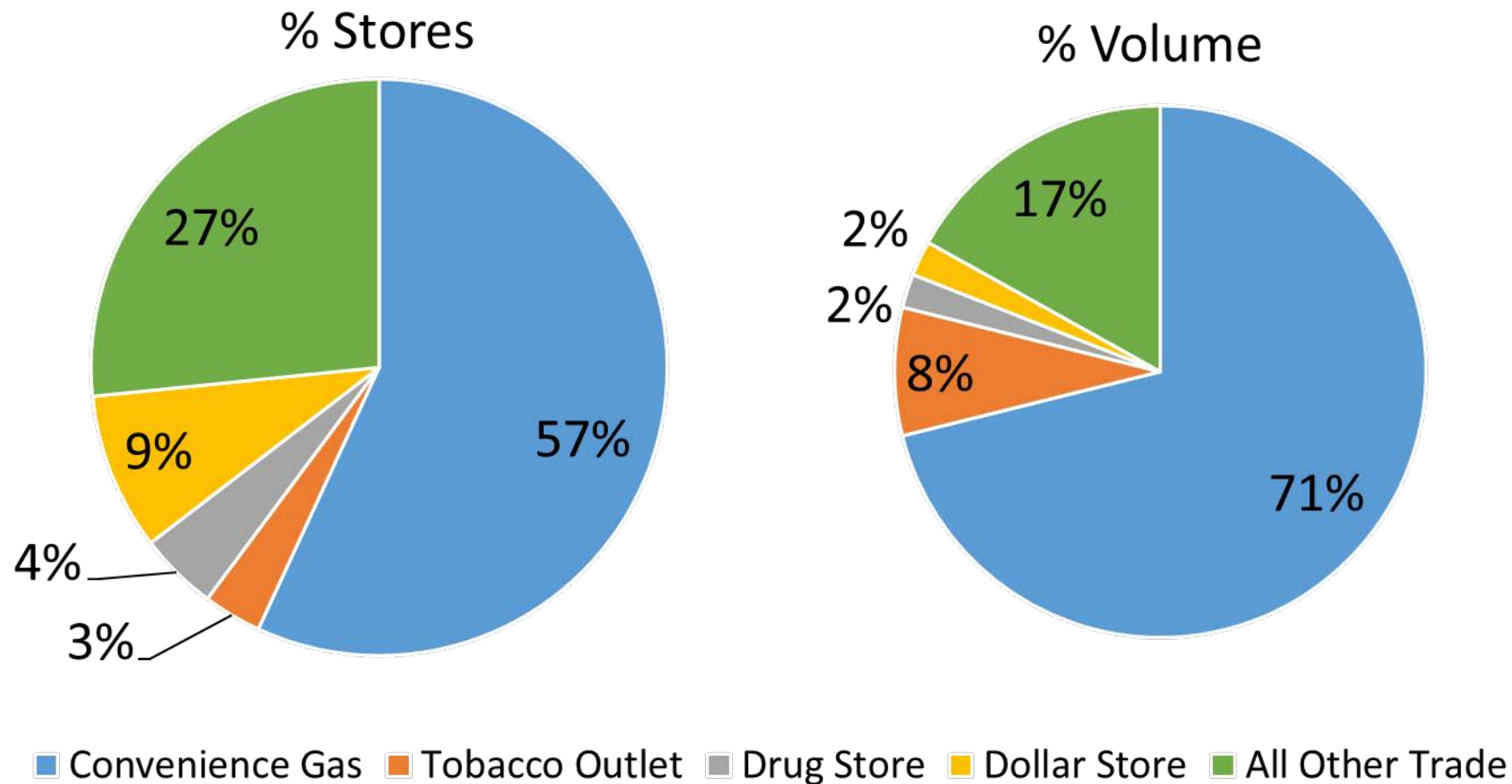
Total US Nicotine Trends



The following slides highlighting the Total US Nicotine Trends use just under 300,000 stores summarizing shipment-to-retail volume for these stores.

Nicotine Distribution by Trade Class for US

52 Weeks Ending Q2-2019



Total US Nicotine Trends – Consumer Units

% Change 52 Weeks Ending Q2-2019 vs. 52 Weeks Ending Q2-2018

	All Outlets	Convenience Gas	Tobacco Outlets	Drug Stores	Dollar Stores	All Other Outlets
Volume	-1.9%	-1.6%	-1.3%	-14.2%	5.4%	-2.7%
Distribution	1.8%	2.3%	2.6%	-6.9%	17.1%	-3.1%
Item Count	-2.3%	-2.1%	-1.5%	-2.3%	-3.7%	-0.8%

Volume in Consumer Units

Included Categories

- ◆ Cigarettes
- ◆ Large Cigars
- ◆ Little/Filtered Cigars
- ◆ Vapor
- ◆ Papers/Tubes/Wraps
- ◆ Roll Your Own
- ◆ Moist
- ◆ Snus
- ◆ Modern Oral Nicotine

Total US Nicotine Trends - Servings

% Change 52 Weeks Ending Q2-2019 vs. 52 Weeks Ending Q2-2018

	All Outlets	Convenience Gas	Tobacco Outlets	Drug Stores	Dollar Stores	All Other Outlets
Volume	-1.6%	-0.8%	-1.6%	-14.1%	2.5%	-4.2%
Distribution	1.8%	2.3%	2.6%	-6.9%	17.1%	-3.1%
Item Count	-2.3%	-2.1%	-1.5%	-2.3%	-3.7%	-0.8%

Volume in Serving Units

Included Categories

- ◆ Cigarettes
- ◆ Large Cigars
- ◆ Little/Filtered Cigars
- ◆ Vapor
- ◆ Papers/Tubes/Wraps
- ◆ Roll Your Own
- ◆ Moist
- ◆ Snus
- ◆ Modern Oral Nicotine

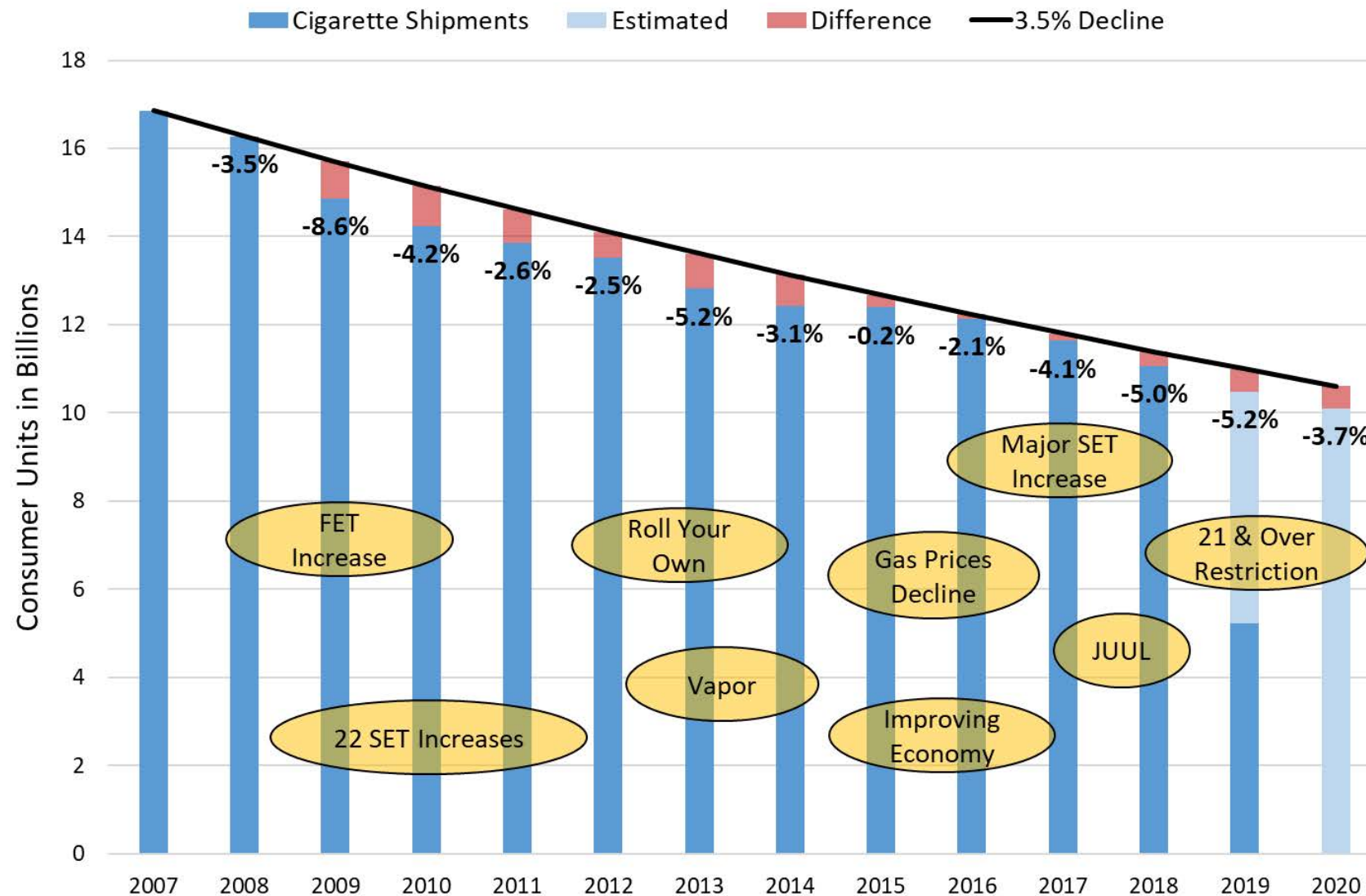
Total US Nicotine Share - Servings

Share of Nicotine 52 Weeks Ending Q2-2019 vs. 52 Weeks Ending Q2-2018

	Shr Q2-2018	Shr Q2-2019	Shr Change
Cigarettes	83.5%	80.5%	-3.0
Large Cigars	2.4%	2.5%	0.2
Little/Filtered Cigars	1.2%	1.2%	-0.03
Modern Oral	0.0%	0.1%	0.08
Moist	7.1%	7.1%	0.03
Papers/Tubes/Wraps	3.3%	3.2%	-0.01
Pipe Tobacco	0.01%	0.01%	0.00
Roll Your Own	0.001%	0.001%	0.00
Snus	0.3%	0.3%	0.01
Vapor	2.2%	5.0%	2.8

*Volume in
Serving
Units*

Overall Total US Cigarette Trends



Overall Total US Cigarettes Trends

% Change 52 Weeks Ending Q2-2019 vs. 52 Weeks Ending Q2-2018

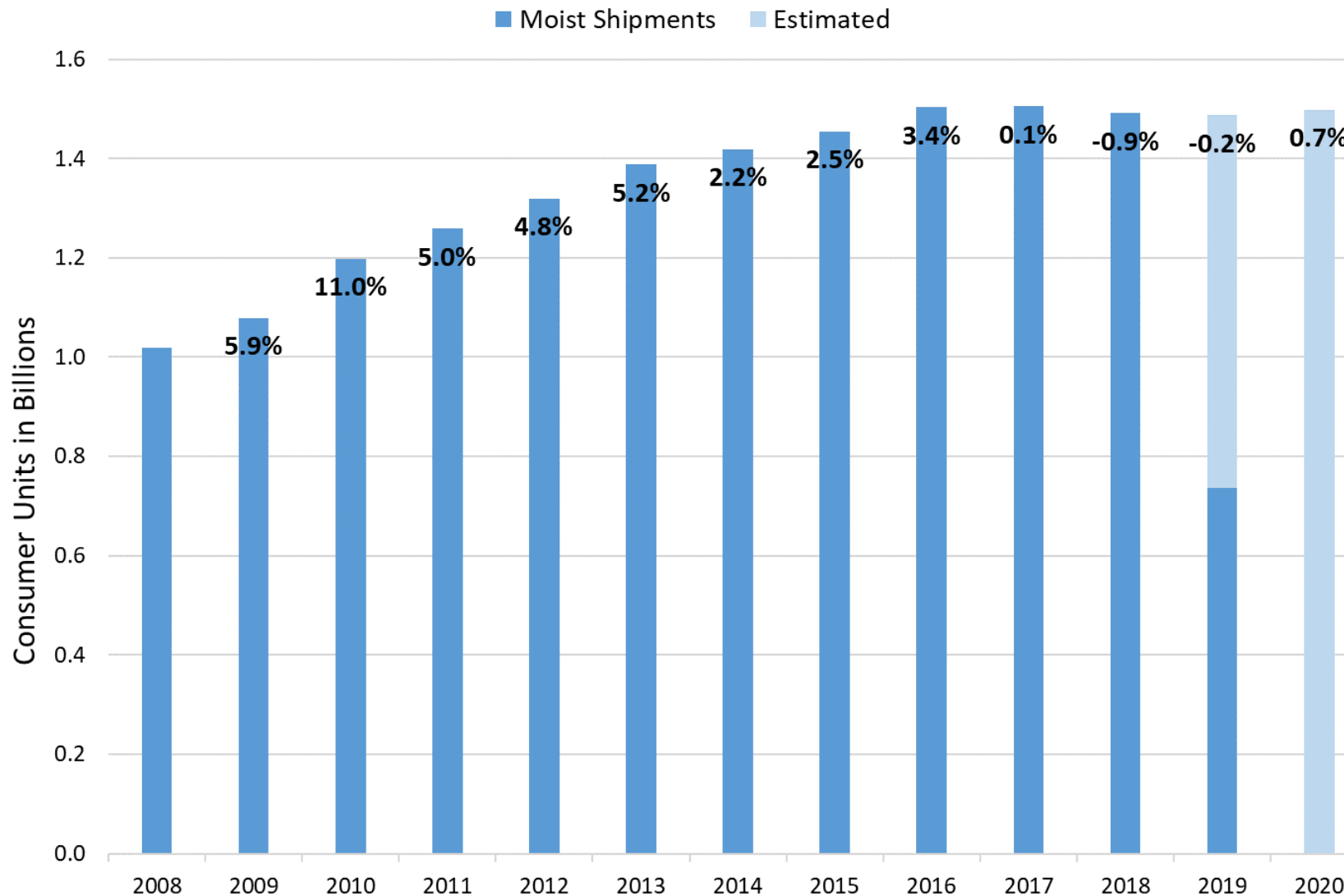
	All Outlets	Convenience Gas	Tobacco Outlets	Drug Stores	Dollar Stores	All Other Outlets
Volume						
Cigarettes	-5.0%	-4.8%	-3.1%	-16.0%	2.3%	-5.9%
Menthol	-4.3%	-4.0%	-0.7%	-16.2%	1.3%	-6.1%
Non-Menthol	-5.3%	-5.2%	-4.2%	-15.8%	2.8%	-5.7%
Distribution						
Cigarettes	-1.7%	-1.1%	0.4%	-7.8%	5.8%	-4.2%
Menthol	-1.6%	-1.3%	0.3%	-7.9%	5.6%	-3.8%
Non-Menthol	-1.6%	-1.1%	0.4%	-7.7%	6.0%	-4.2%
Items						
Cigarettes	-3.8%	-3.4%	-3.5%	-2.5%	-6.8%	-3.6%
Menthol	-3.5%	-2.9%	-3.1%	-1.9%	-6.2%	-2.6%
Non-Menthol	-4.1%	-3.7%	-3.7%	-2.8%	-7.3%	-4.1%

Overall Total US Cigar Trends

% Change 52 Weeks Ending Q2-2019 vs. 52 Weeks Ending Q2-2018

	All Outlets	Convenience Gas	Tobacco Outlets	Drug Stores	Dollar Stores	All Other Outlets
Volume						
Large Cigars	5.7%	6.6%	8.5%	-5.4%	16.7%	3.1%
Little/Filtered Cigars	-4.1%	-4.7%	-5.1%	4.0%	10.7%	-4.8%
Distribution						
Large Cigars	2.4%	2.4%	4.1%	-1.1%	19.4%	-4.1%
Little/Filtered Cigars	-1.1%	-2.3%	0.9%	6.7%	10.0%	-5.9%
Items						
Large Cigars	-0.1%	-0.4%	1.3%	1.2%	-0.6%	-0.1%
Little/Filtered Cigars	-4.7%	-4.6%	-5.4%	-3.4%	27.3%	-6.9%

Overall Total US Moist Trends



Overall Total US Vapor Trends - Servings

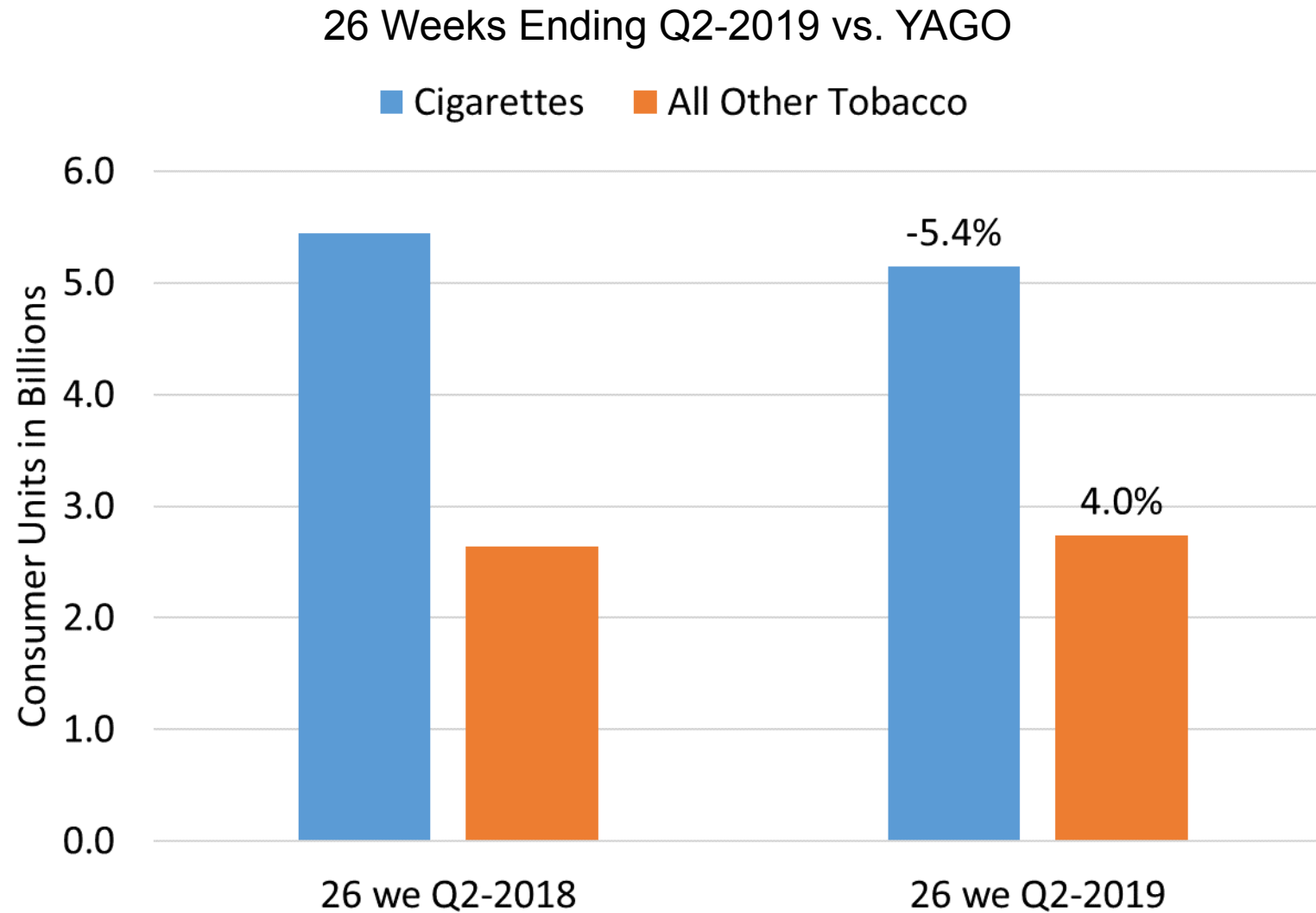
% Change 52 Weeks Ending Q2-2019 vs. 52 Weeks Ending Q2-2018

	All Outlets	Convenience Gas	Tobacco Outlets	Drug Stores	Dollar Stores	All Other Outlets
Volume						
Cartridges	160.6%	171.7%	85.8%	66.6%	-87.4%	173.9%
Disposables	3.0%	-0.5%	-4.9%	13.3%	332.5%	-15.7%
Kits	76.9%	72.4%	117.3%	-14.5%	-88.8%	193.0%
e-Liquid	-22.3%	-35.3%	0.2%	-95.4%	304.2%	-2.6%
Distribution						
Cartridges	18.0%	19.4%	18.4%	5.1%	-91.6%	22.3%
Disposables	1.3%	3.6%	-3.3%	2.9%	201.7%	-18.7%
Kits	20.5%	22.9%	17.7%	-14.3%	-40.7%	37.5%
e-Liquid	-55.0%	-56.5%	-14.7%	-81.1%	64.1%	-52.6%
Items						
Cartridges	26.8%	40.3%	28.3%	15.9%	-45.3%	33.3%
Disposables	-22.5%	-19.8%	-12.0%	1.7%	-1.6%	-13.2%
Kits	-12.7%	-9.0%	-11.6%	-13.3%	-46.3%	-13.2%
e-Liquid	-8.9%	-22.0%	-7.8%	-33.0%	231.5%	-1.6%

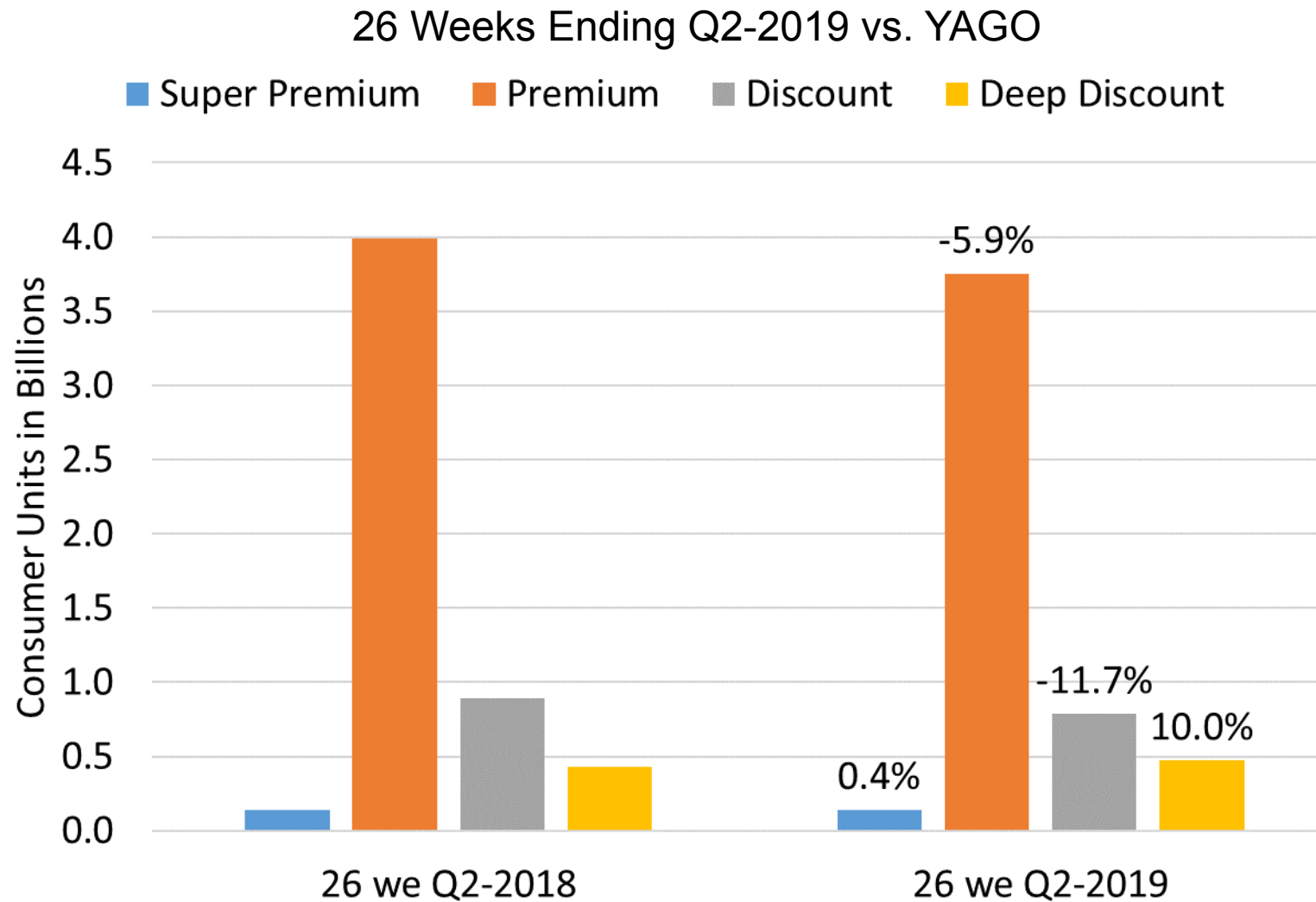
Volume in Serving Units

GROWTH AND DECLINE OF NICOTINE CATEGORIES

Cigarettes vs. All Other Tobacco



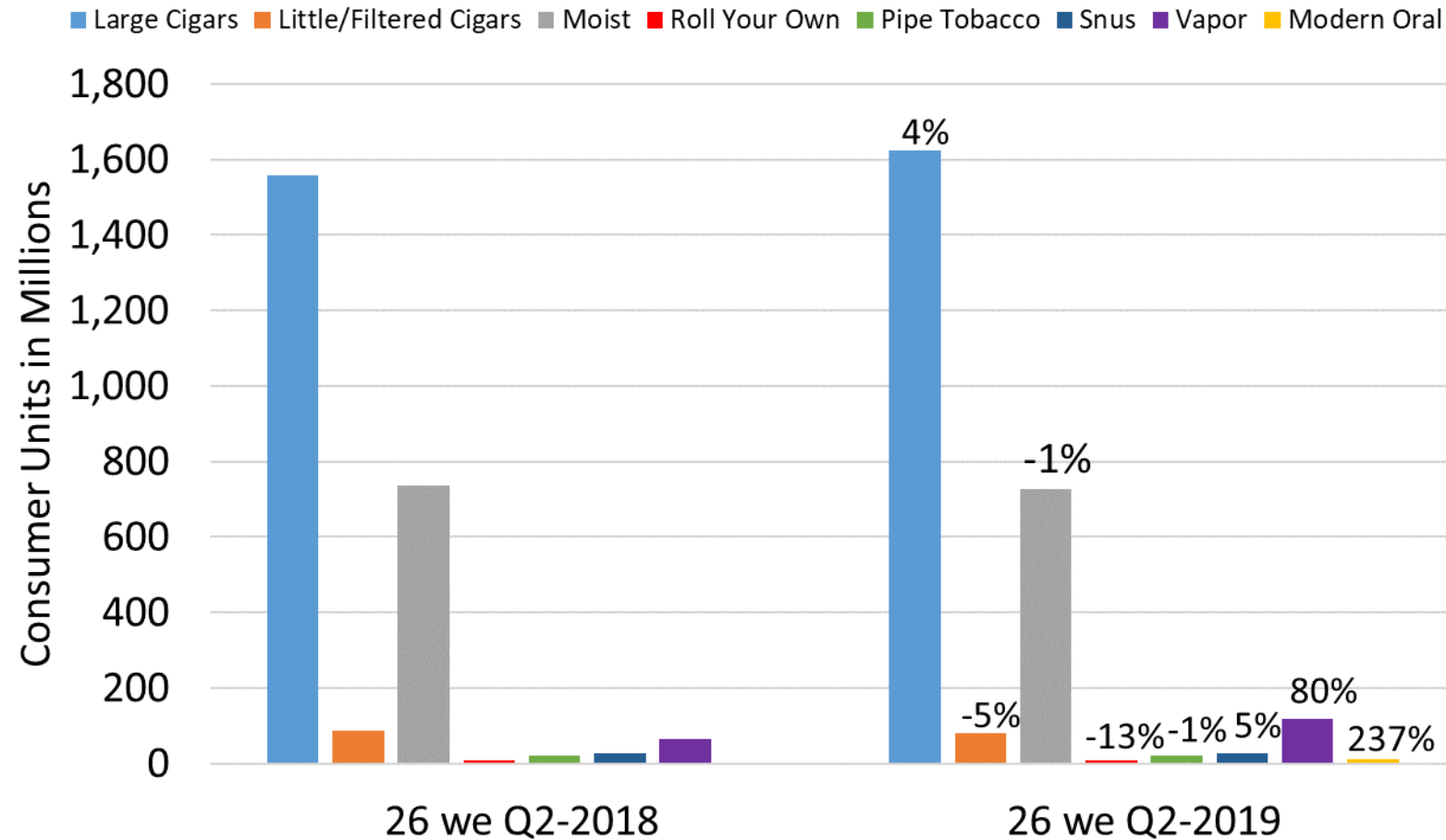
Overall Total US Cigarette Trends



Overall Cigarettes down 5.4%

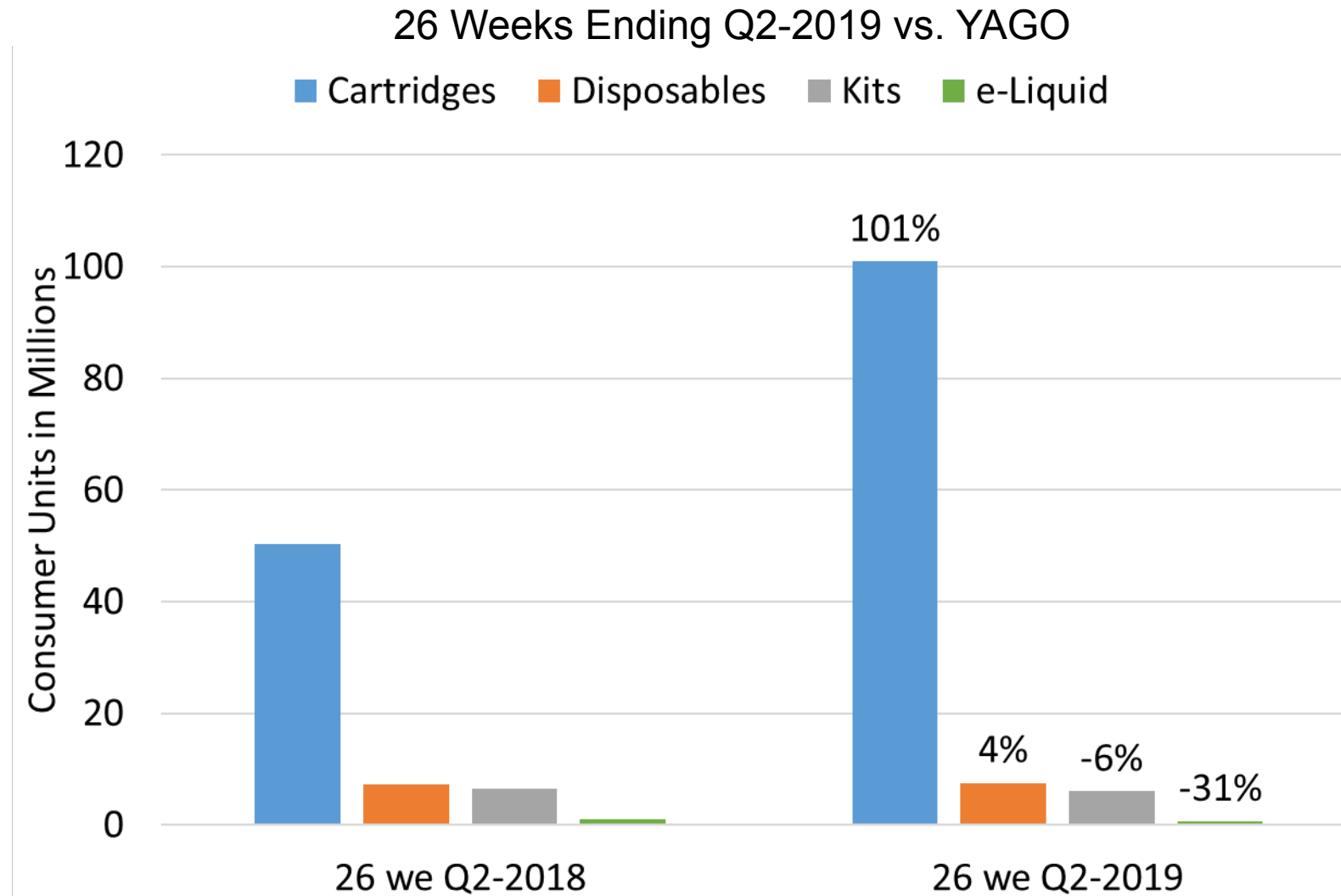
Breakdown of All Other Tobacco

26 Weeks Ending Q2-2019 vs. YAGO



All Other Tobacco up 4%

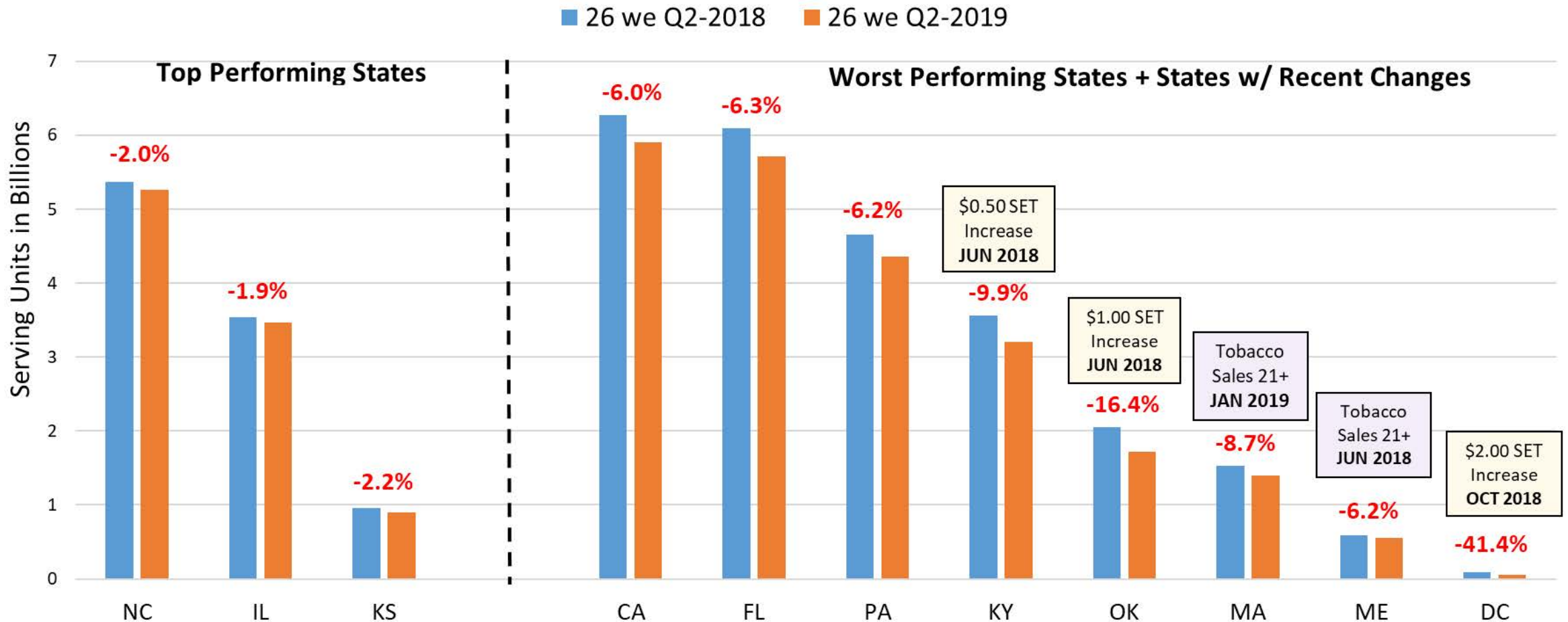
Overview of Vapor Category



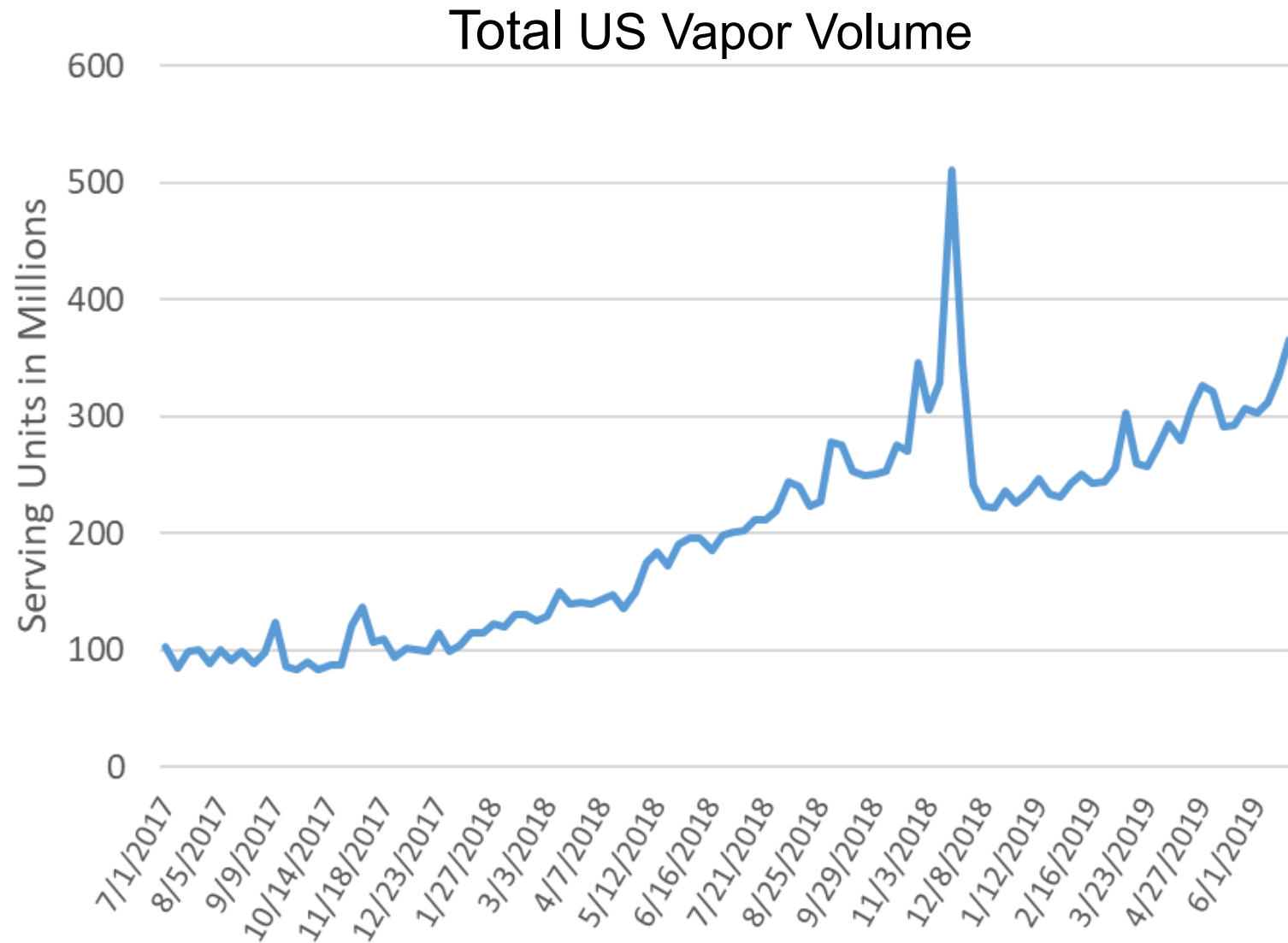
Vapor up 80%

Overall Total US Cigarette Trends

% Change 26 Weeks Ending Q2-2019 vs. 26 Weeks Ending Q2-2018
Total US Volume down 5.7%



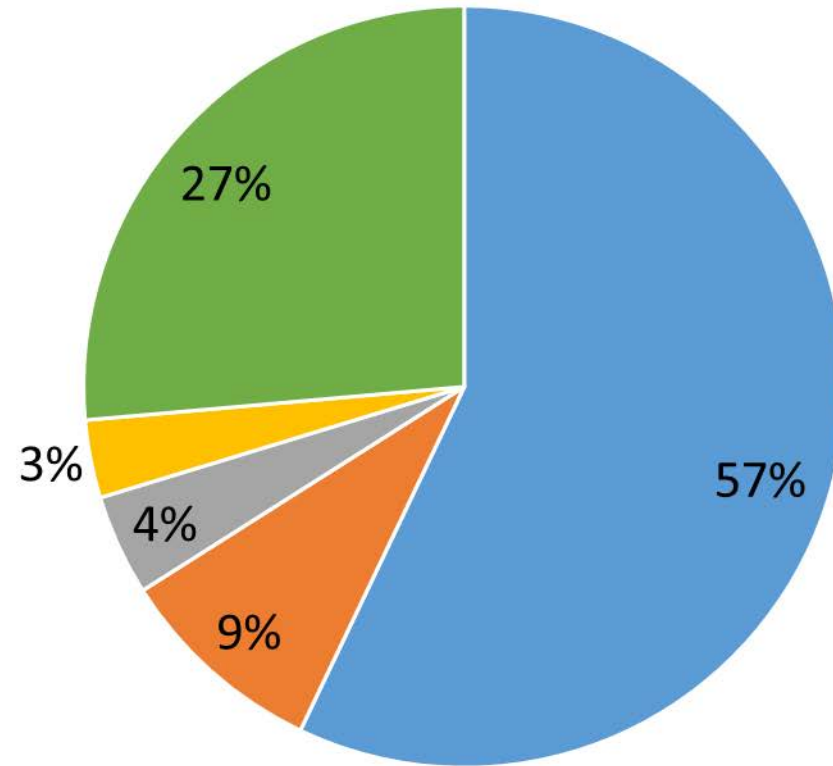
Vapor Trends



TRADE CHANNEL ANALYSIS

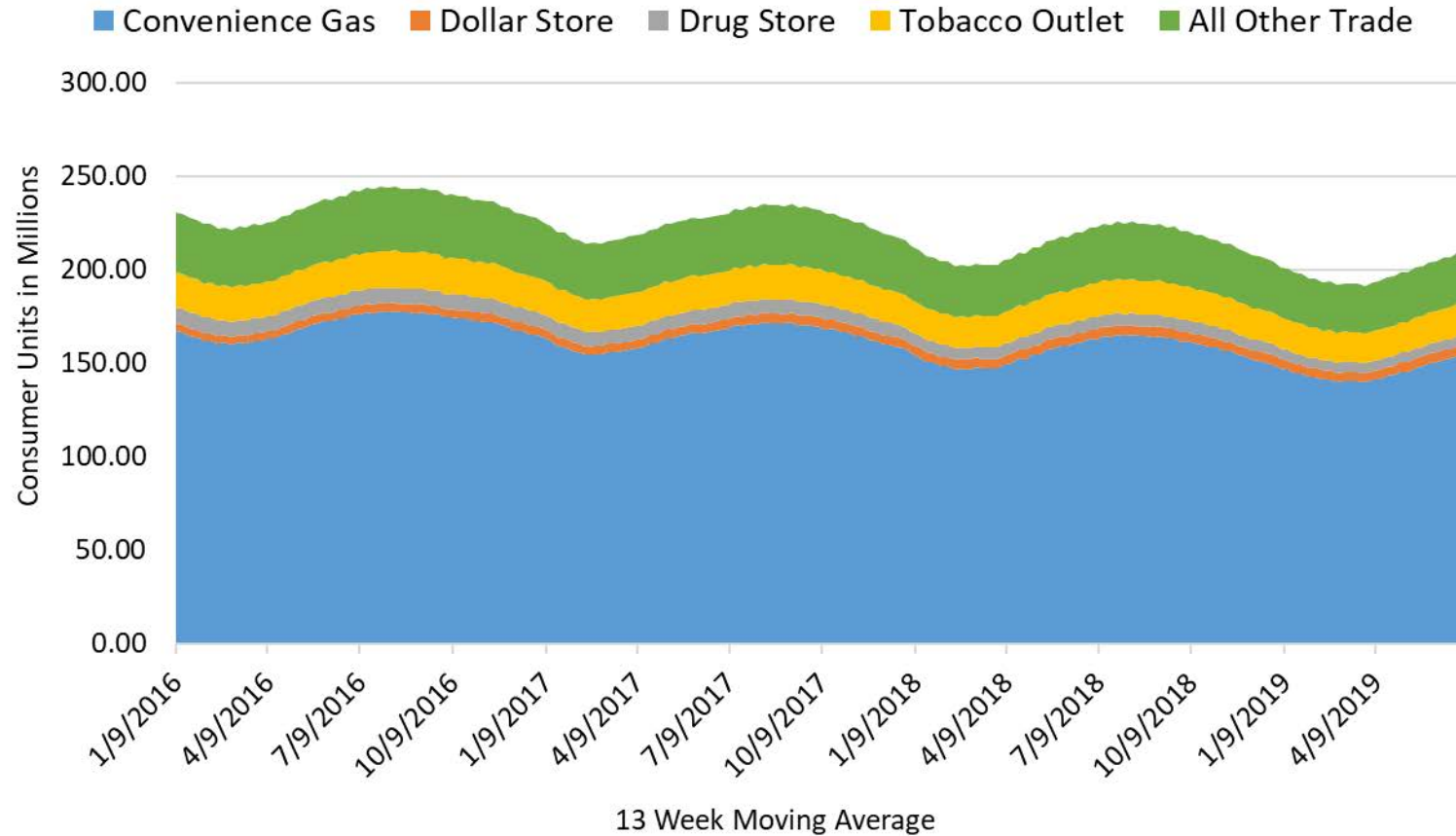
Cigarette Distribution

■ Convenience Gas ■ Dollar Store ■ Drug Store ■ Tobacco Outlet ■ All Other Trade



Q2 '19 vs. YAGO	Convenience Gas	Dollar Store	Drug Store	Tobacco Outlet	All Other Trade
Change	-1,789	813	-1,196	26	-3,030
% Change	-1%	4%	-10%	0%	-4%

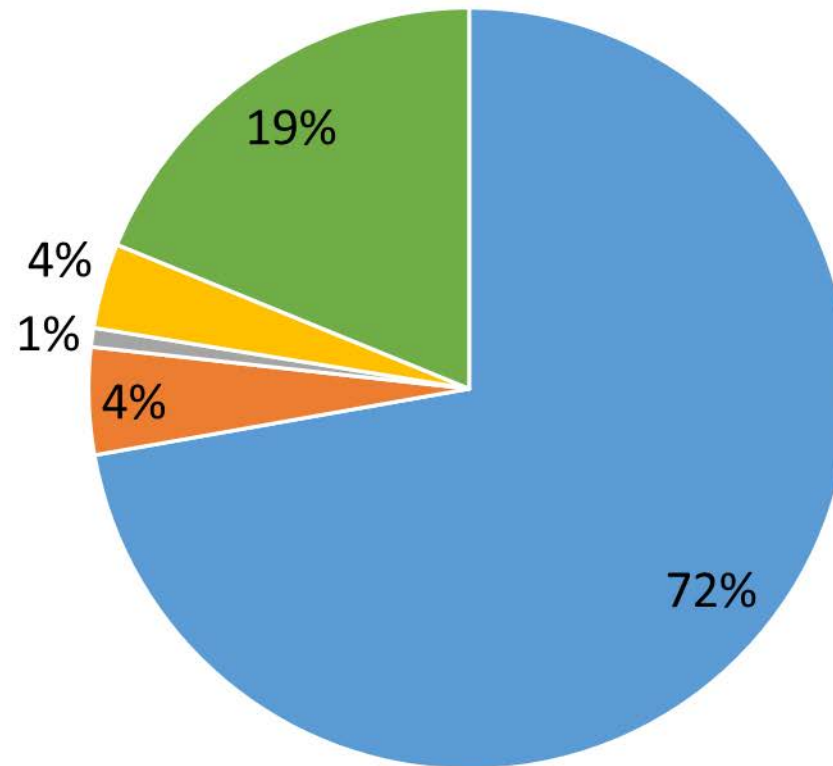
Cigarette Volume



Q2'19 vs. YAGO	Convenience Gas	Dollar Store	Drug Store	Tobacco Outlet	All Other Trade
Change	-116,599,478	253,761	-16,550,056	-10,270,525	-27,463,492
% Change	-6%	0%	-19%	-5%	-7%

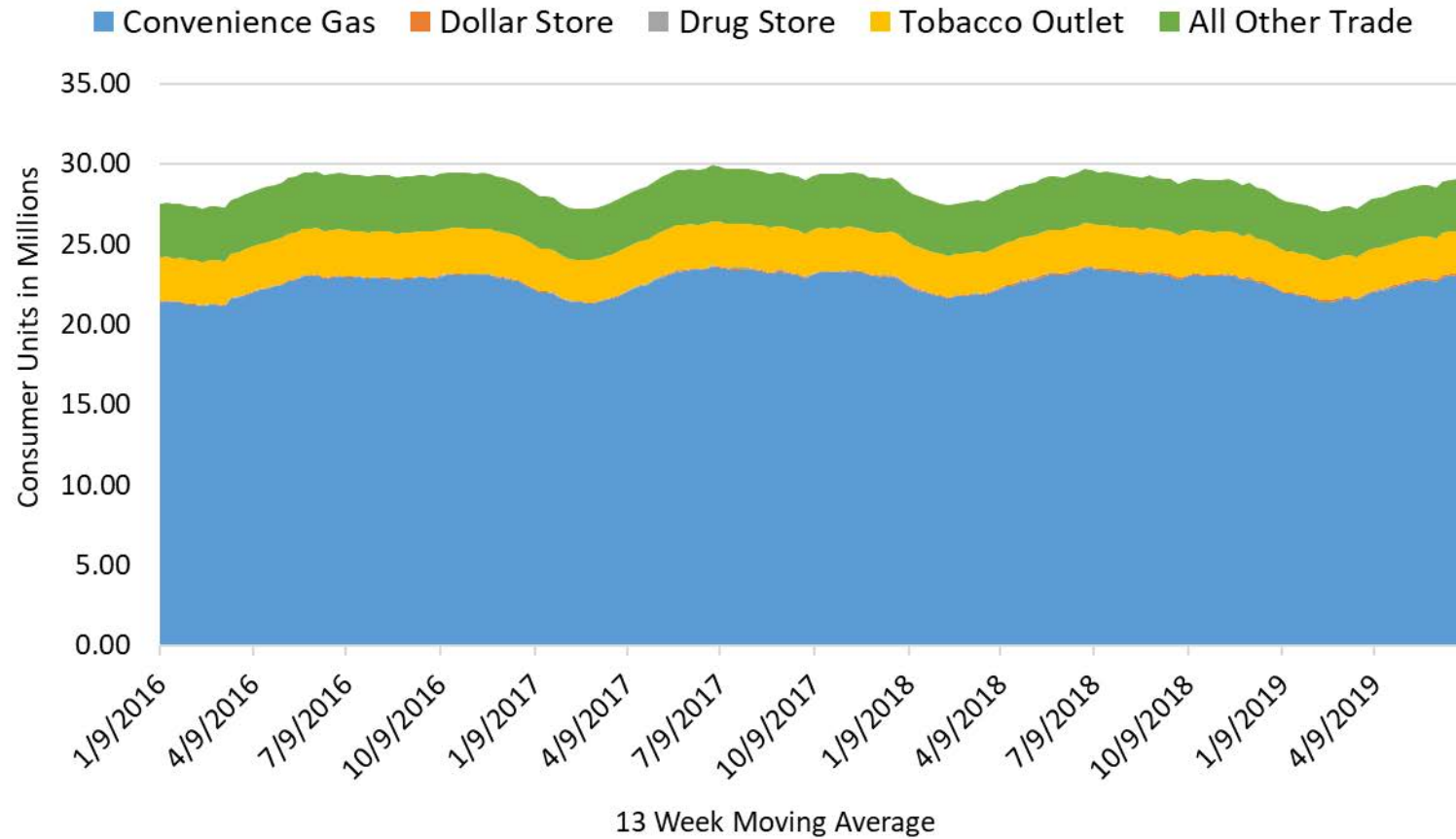
Moist Distribution

■ Convenience Gas ■ Dollar Store ■ Drug Store ■ Tobacco Outlet ■ All Other Trade



Q2 '19 vs. YAGO	Convenience Gas	Dollar Store	Drug Store	Tobacco Outlet	All Other Trade
Change	-1,310	360	323	-10	-1,176
% Change	-1%	5%	32%	0%	-4%

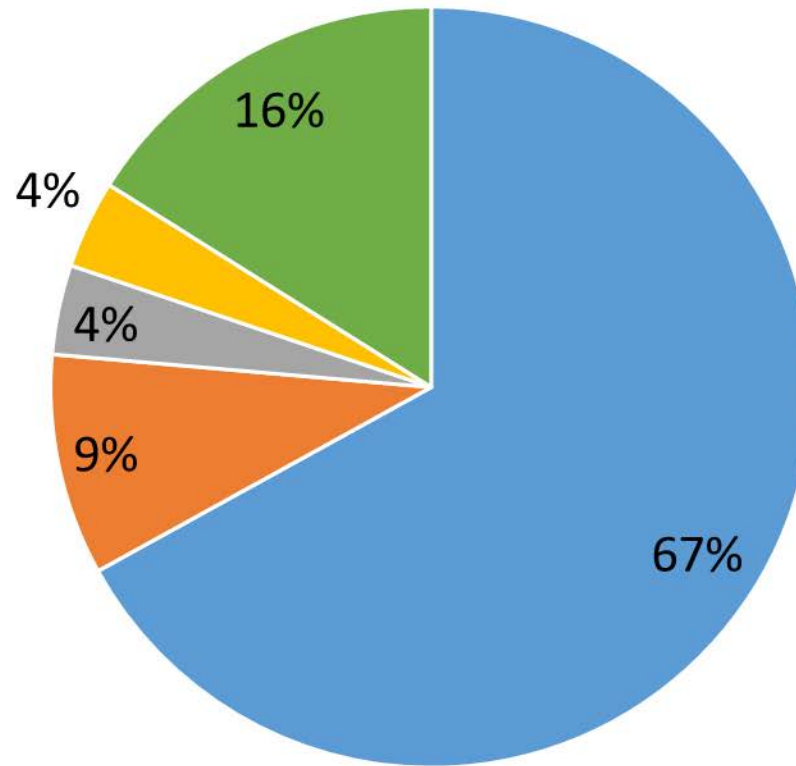
Moist Volume



Q2'19 vs. YAGO	Convenience Gas	Dollar Store	Drug Store	Tobacco Outlet	All Other Trade
Change	-3,853,601	21,509	-22,740	-728,724	-1,570,560
% Change	-1%	2%	-7%	-2%	-4%

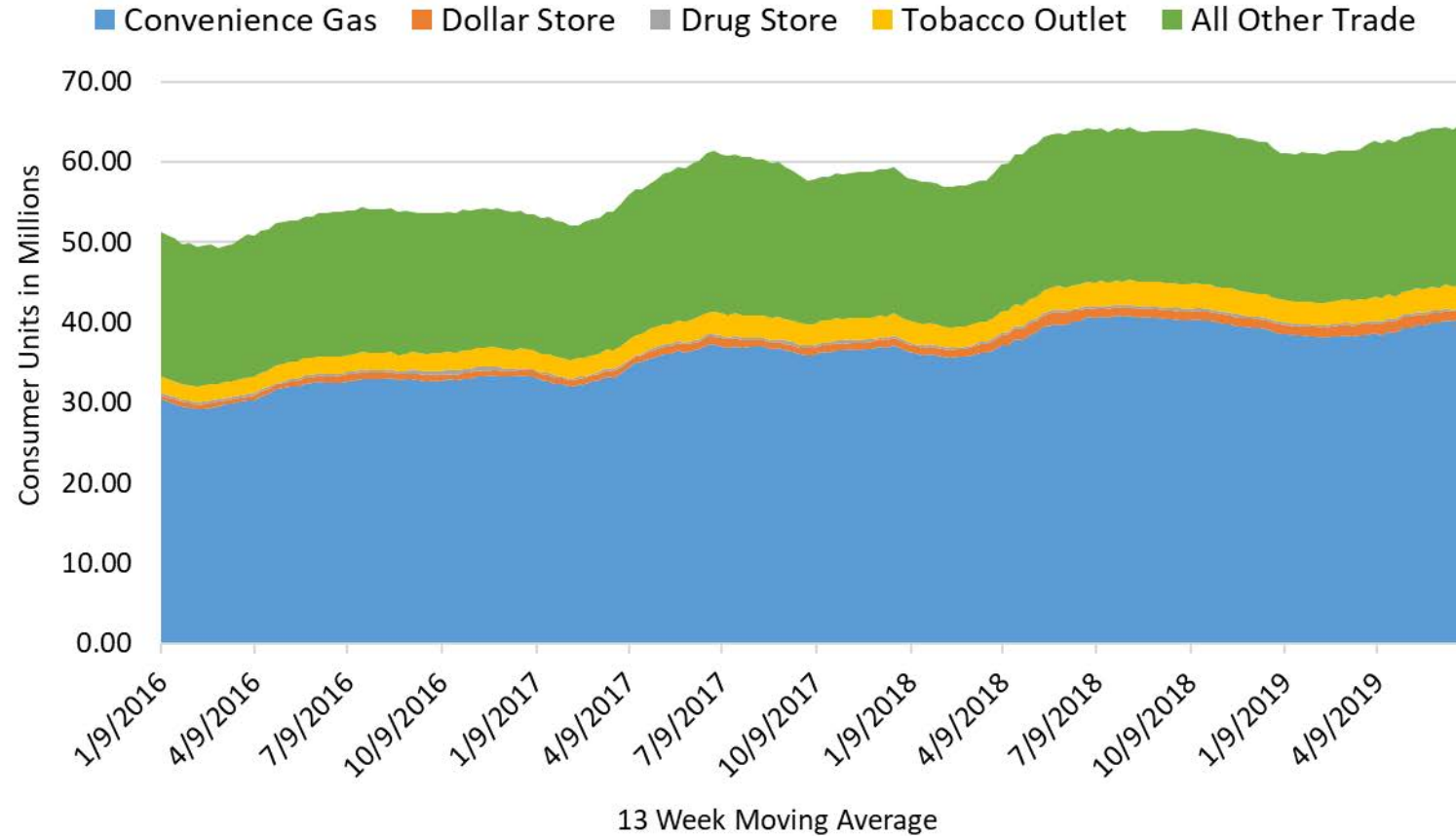
Large Cigar Distribution

■ Convenience Gas ■ Dollar Store ■ Drug Store ■ Tobacco Outlet ■ All Other Trade



Q2 '19 vs. YAGO	Convenience Gas	Dollar Store	Drug Store	Tobacco Outlet	All Other Trade
Change	1,126	2,367	-278	101	-1,626
% Change	1%	17%	-4%	2%	-6%

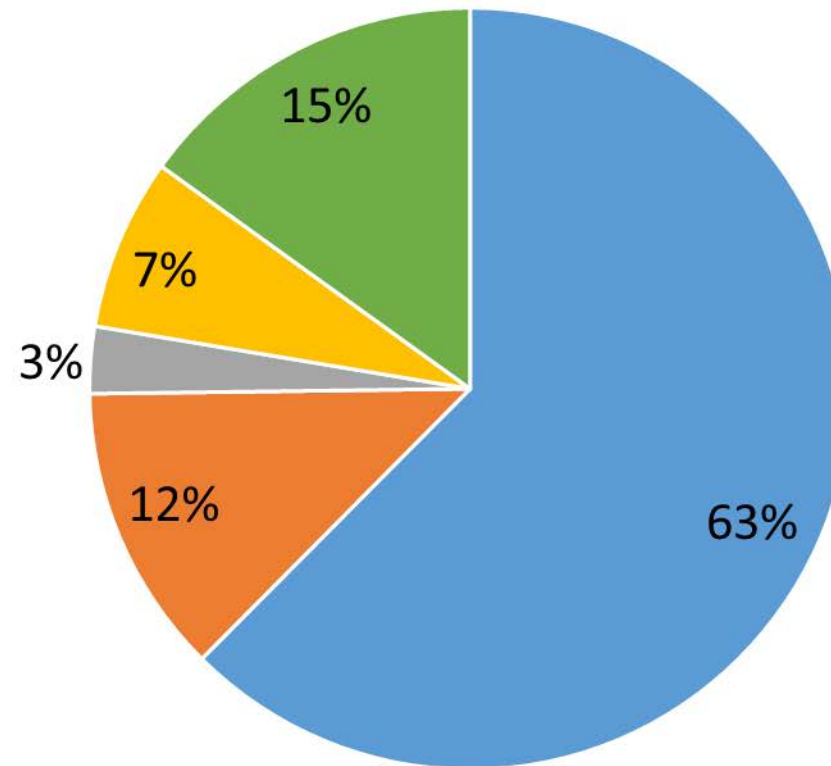
Large Cigar Volume



Q2'19 vs. YAGO	Convenience Gas	Dollar Store	Drug Store	Tobacco Outlet	All Other Trade
Change	6,469,976	-1,275,831	-187,190	1,650,226	8,063,404
% Change	1%	-7%	-5%	5%	3%

Little/Filtered Cigar Distribution

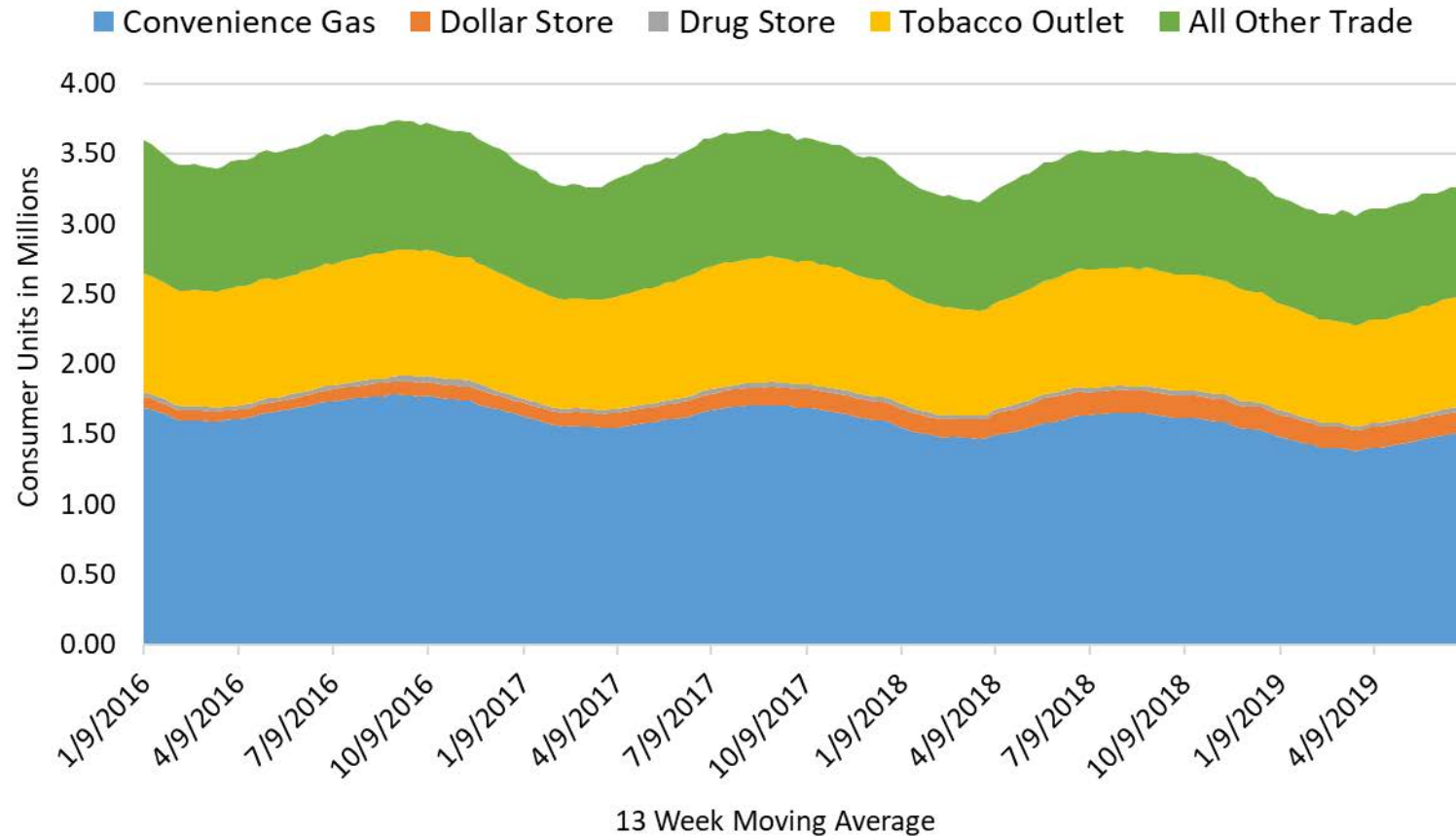
■ Convenience Gas ■ Dollar Store ■ Drug Store ■ Tobacco Outlet ■ All Other Trade



13 Weeks Ending Q2-2019

Q2 '19 vs. YAGO	Convenience Gas	Dollar Store	Drug Store	Tobacco Outlet	All Other Trade
Change	-1,569	-412	24	-15	-635
% Change	-4%	-5%	1%	0%	-6%

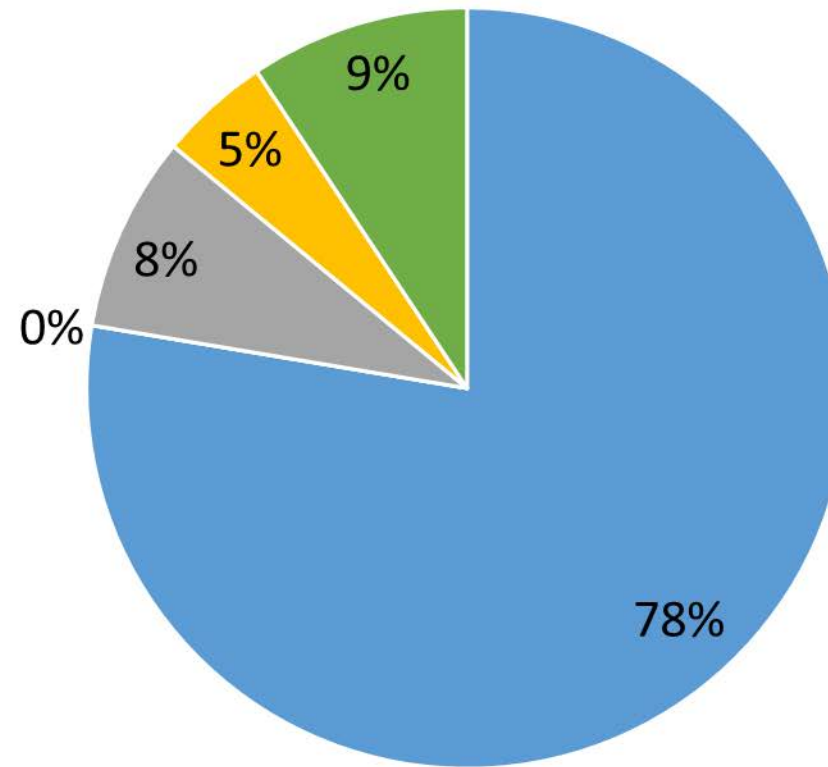
Little/Filtered Cigar Volume



Q2'19 vs. YAGO	Convenience Gas	Dollar Store	Drug Store	Tobacco Outlet	All Other Trade
Change	-1,423,906	-245,360	9,950	-533,107	-521,662
% Change	-7%	-11%	3%	-5%	-5%

Cartridge Distribution

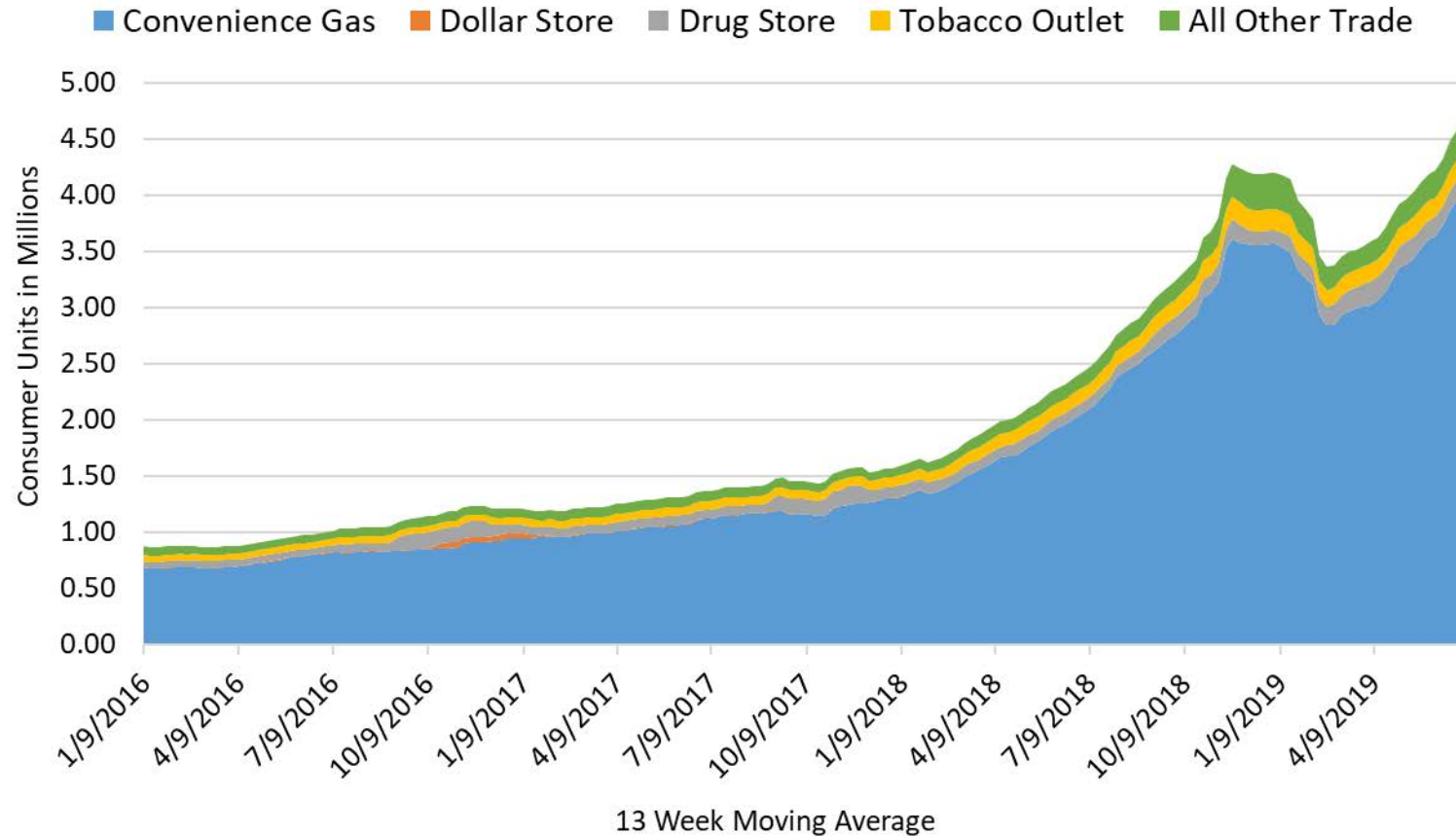
■ Convenience Gas ■ Dollar Store ■ Drug Store ■ Tobacco Outlet ■ All Other Trade



13 Weeks Ending Q2-2019

Q2 '19 vs. YAGO	Convenience Gas	Dollar Store	Drug Store	Tobacco Outlet	All Other Trade
Change	12,182	-40	176	610	2,580
% Change	21%	-89%	2%	17%	44%

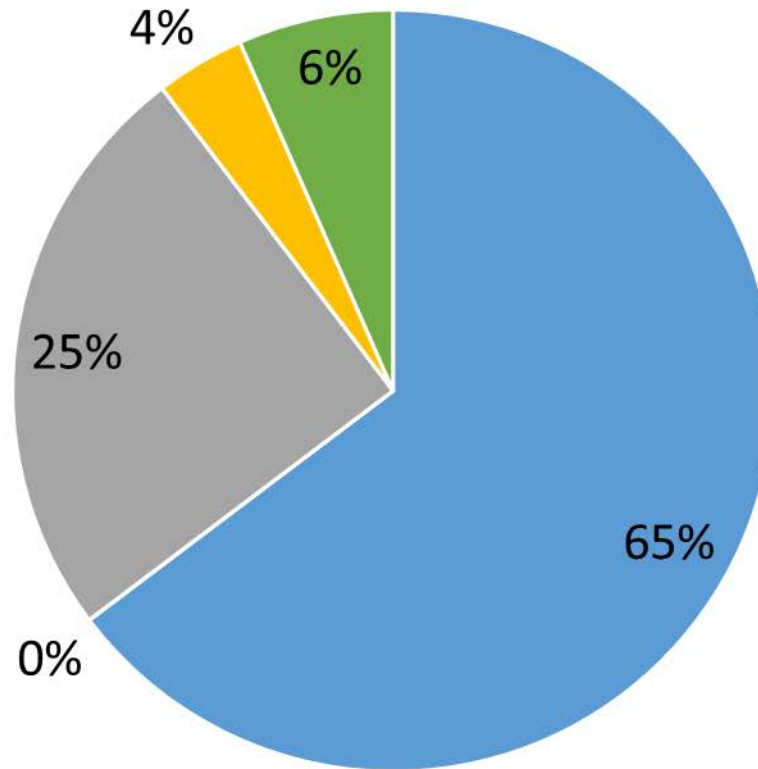
Cartridge Volume



Q2'19 vs. YAGO	Convenience Gas	Dollar Store	Drug Store	Tobacco Outlet	All Other Trade
Change	21,421,597	-8,293	1,112,979	604,761	1,349,518
% Change	91%	-93%	85%	38%	84%

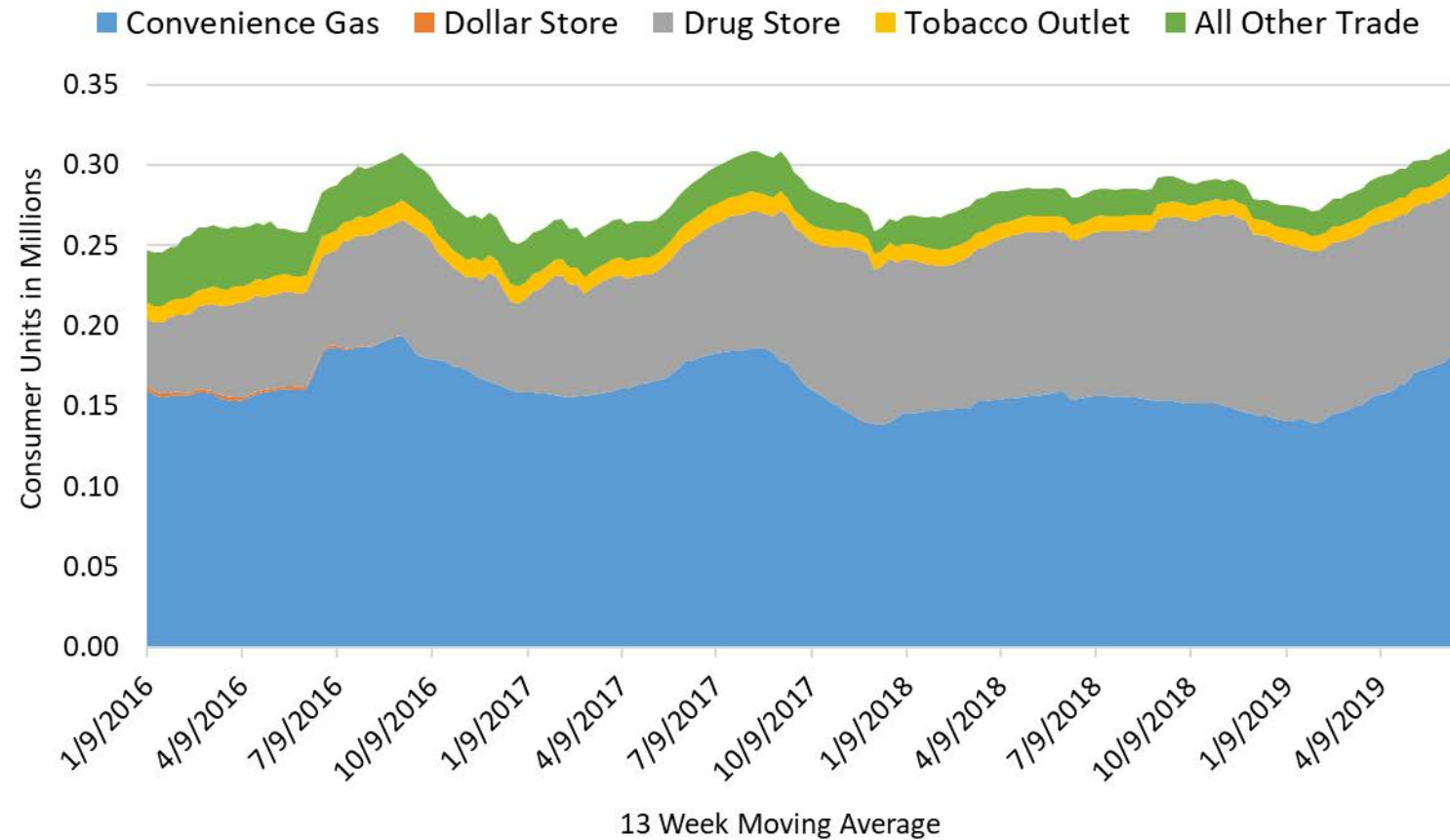
Disposable Distribution

■ Convenience Gas ■ Dollar Store ■ Drug Store ■ Tobacco Outlet ■ All Other Trade



Q2 '19 vs. YAGO	Convenience Gas	Dollar Store	Drug Store	Tobacco Outlet	All Other Trade
Change	269	0	18	21	-177
% Change	2%	0%	0%	2%	-10%

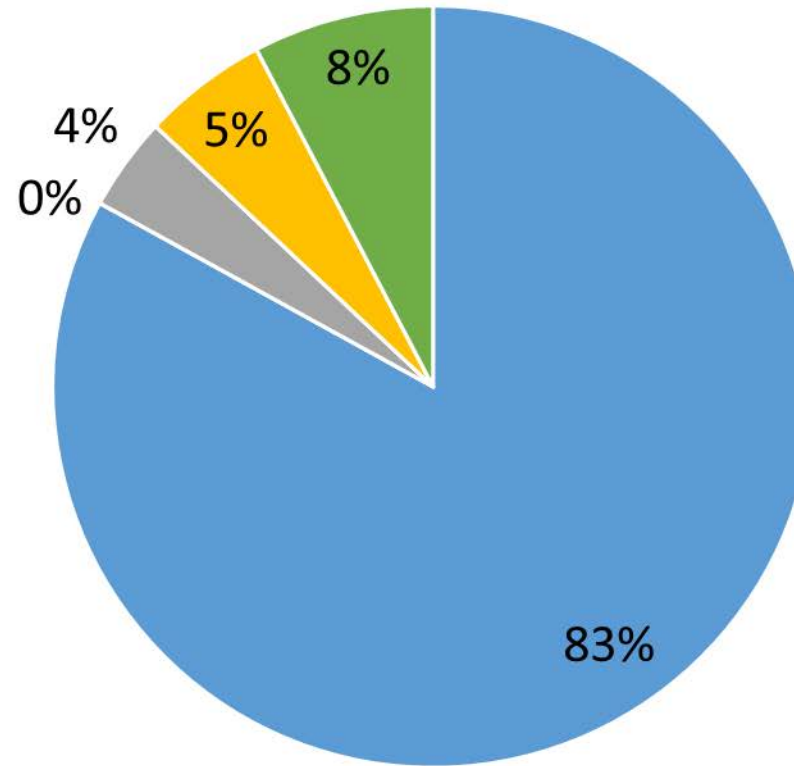
Disposable Volume



Q2'19 vs. YAGO	Convenience Gas	Dollar Store	Drug Store	Tobacco Outlet	All Other Trade
Change	185,136	7	51,440	7,277	-5,369
% Change	9%	0%	4%	6%	-2%

Kit Distribution

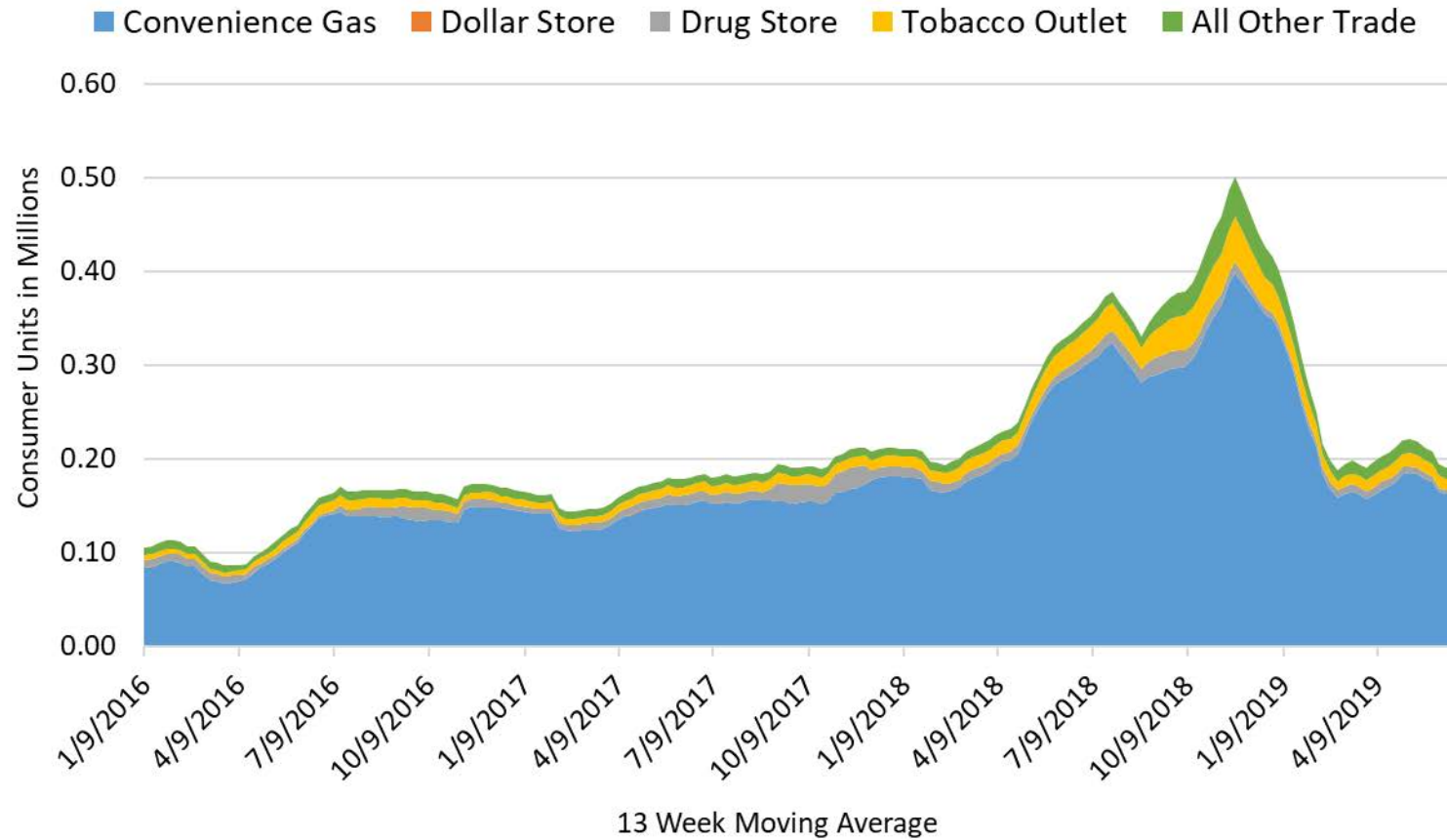
■ Convenience Gas ■ Dollar Store ■ Drug Store ■ Tobacco Outlet ■ All Other Trade



13 Weeks Ending Q2-2019

Q2 '19 vs. YAGO	Convenience Gas	Dollar Store	Drug Store	Tobacco Outlet	All Other Trade
Change	-1,604	-2	-729	-219	746
% Change	-5%	-76%	-35%	-11%	41%

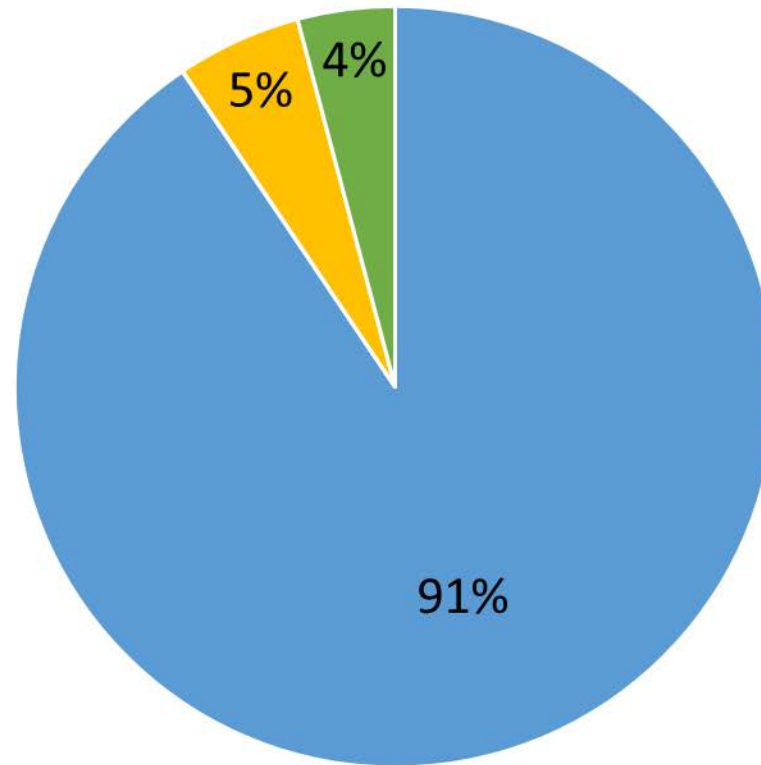
Kit Volume



Q2'19 vs. YAGO	Convenience Gas	Dollar Store	Drug Store	Tobacco Outlet	All Other Trade
Change	-977,725	-1	-33,977	-80,740	47,712
% Change	-30%	-4%	-30%	-32%	36%

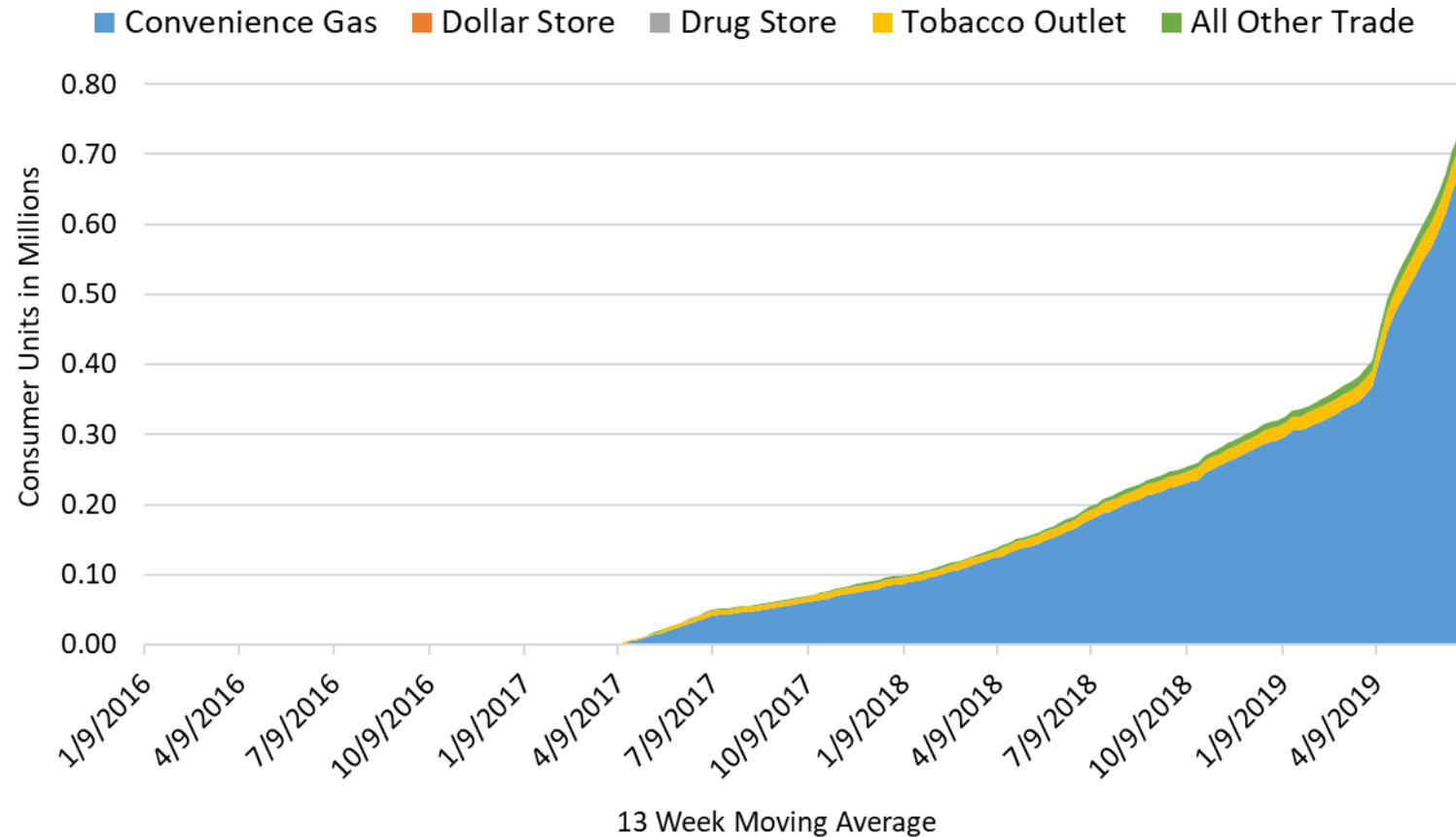
Modern Oral Distribution

■ Convenience Gas ■ Dollar Store ■ Drug Store ■ Tobacco Outlet ■ All Other Trade



Q2 '19 vs. YAGO	Convenience Gas	Dollar Store	Drug Store	Tobacco Outlet	All Other Trade
Change	8,131	0	2	460	411
% Change	149%	0%	413%	138%	196%

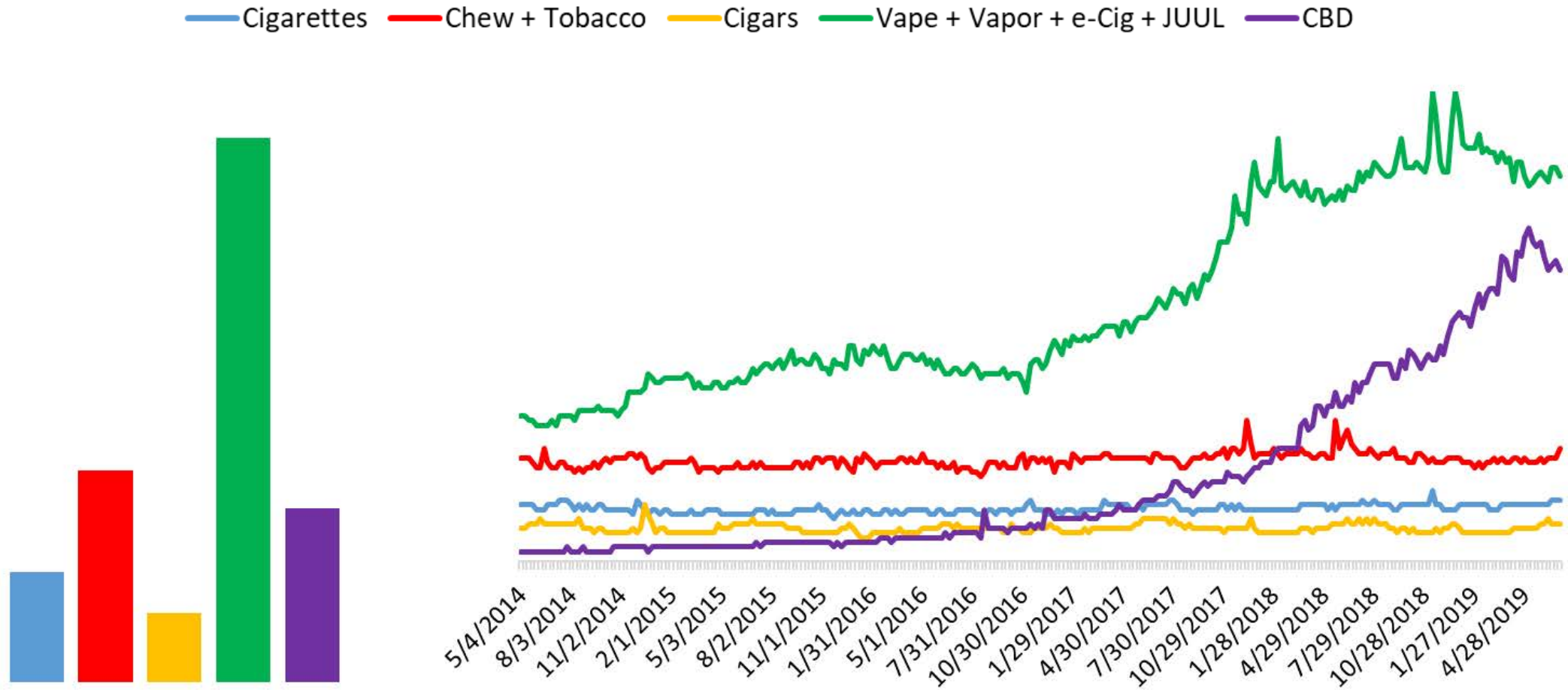
Modern Oral Volume



Q2 '19 vs. YAGO	Convenience Gas	Dollar Store	Drug Store	Tobacco Outlet	All Other Trade
Change	4,960,388	0	1,150	270,539	180,213
% Change	261%	0%	882%	173%	349%

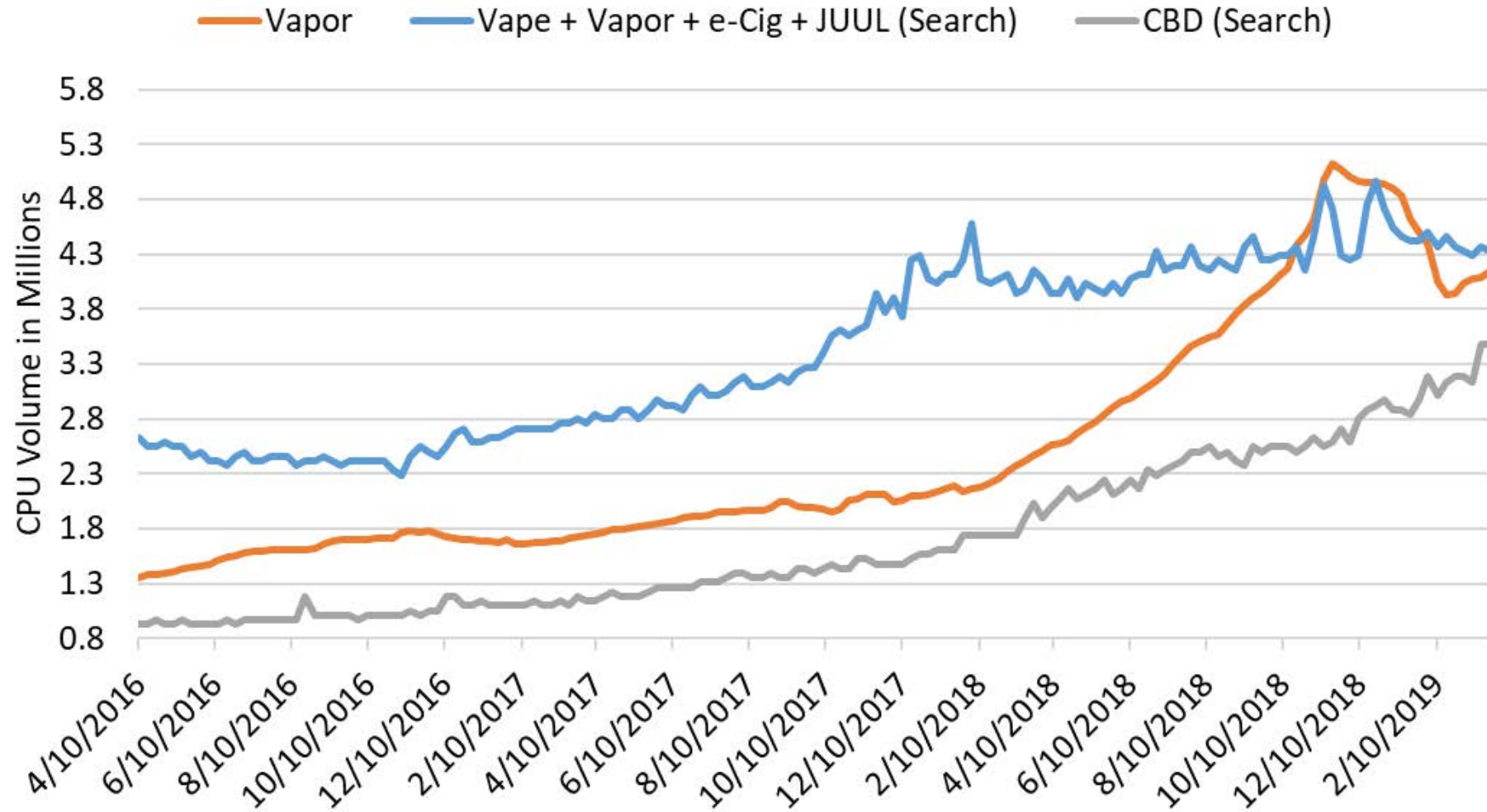
GOOGLE TREND ANALYSIS

Overall Google Trends



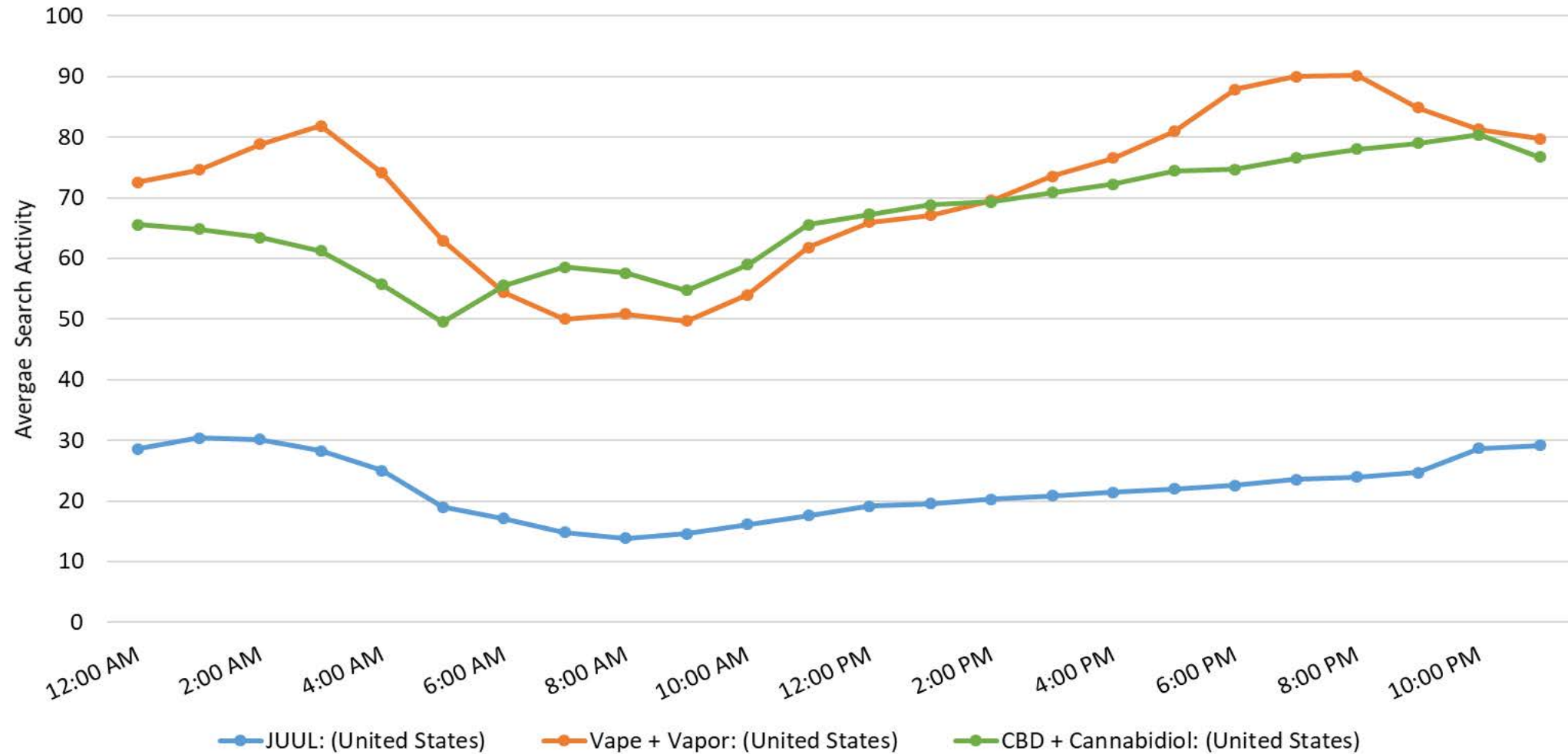
Google Trend Data as of June 30th, 2019

Vapor Google Trends



Google Trend Data as of June 23rd, 2019

Hourly Vapor Google Trends

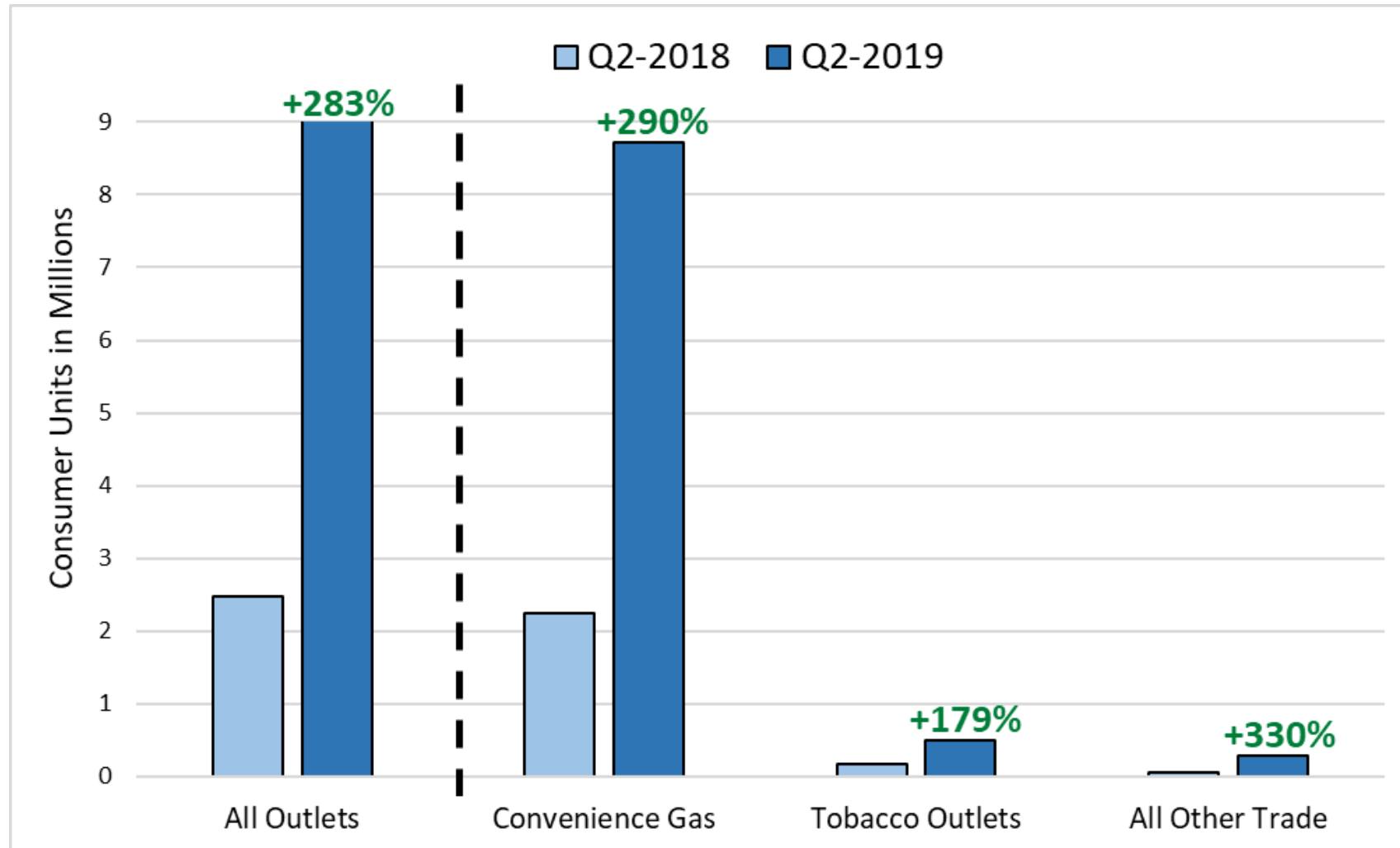


Google Trend Data as of July 22rd, 2019

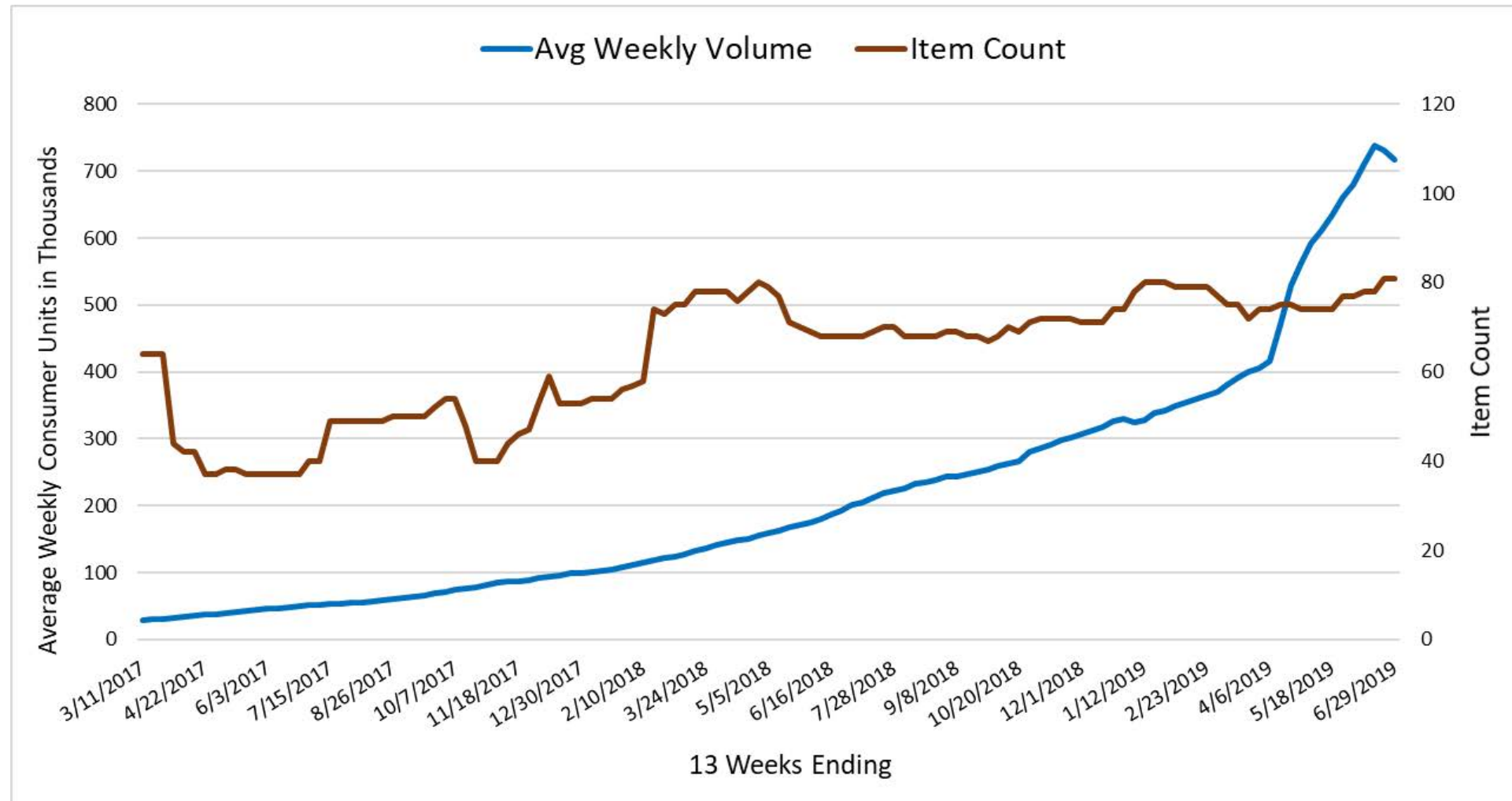
MODERN ORAL NICOTINE TRENDS ANALYSIS

Modern Oral Nicotine Trend by Trade Channel

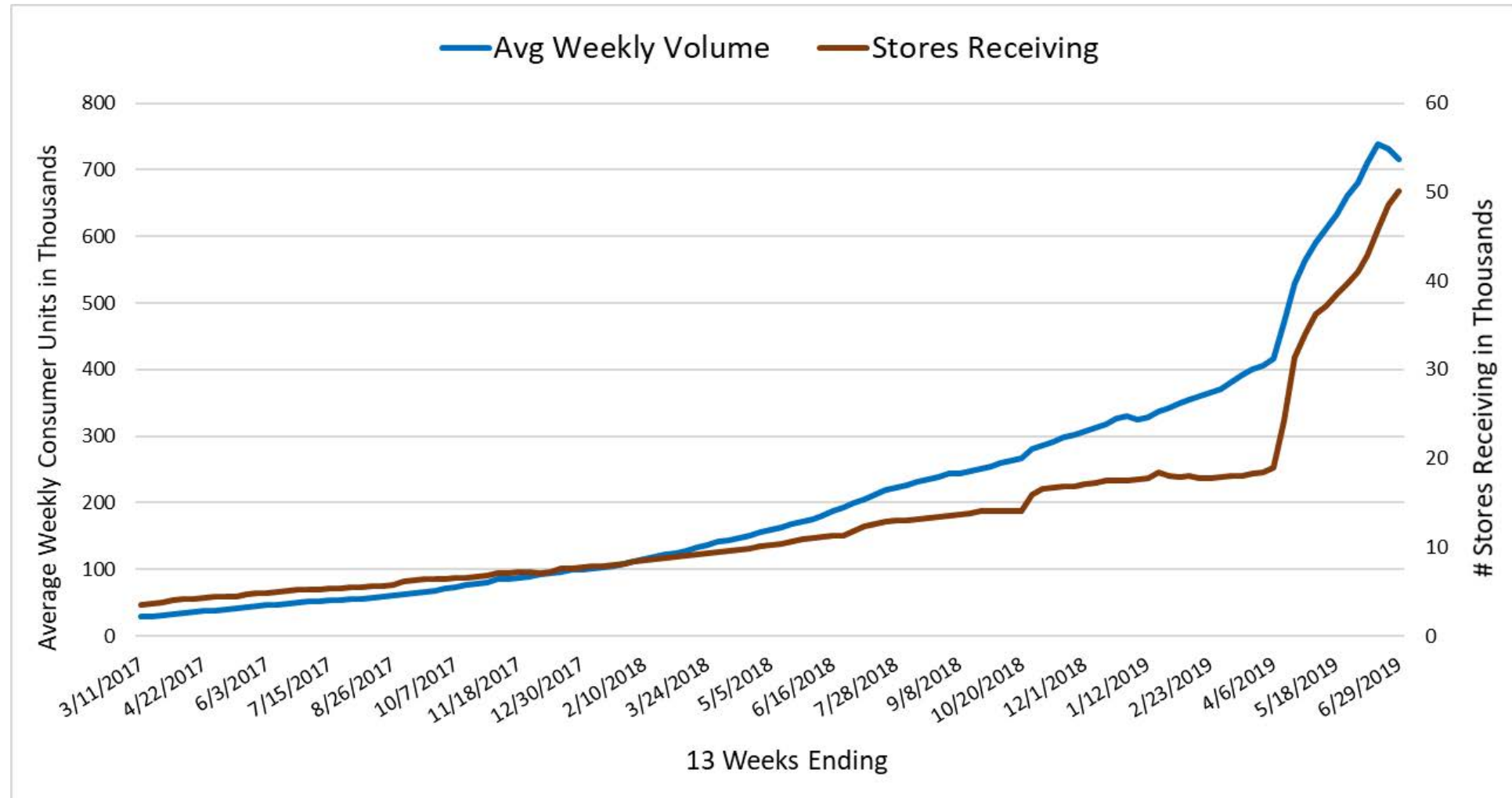
Modern Oral Nicotine Volume Q2-2019 vs. YAGO



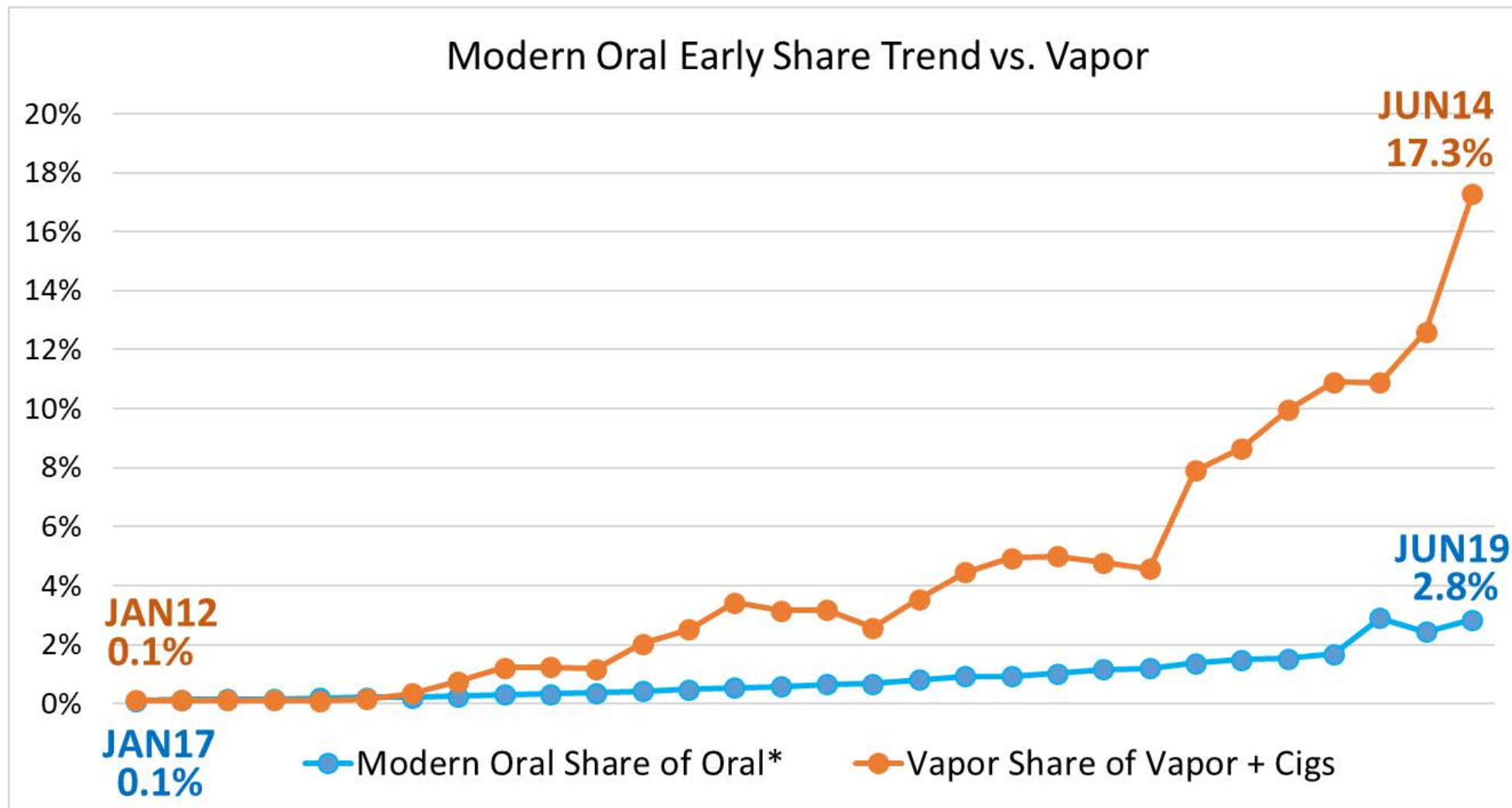
Modern Oral Nicotine Volume & Item Count



Modern Oral Nicotine Volume & Distribution



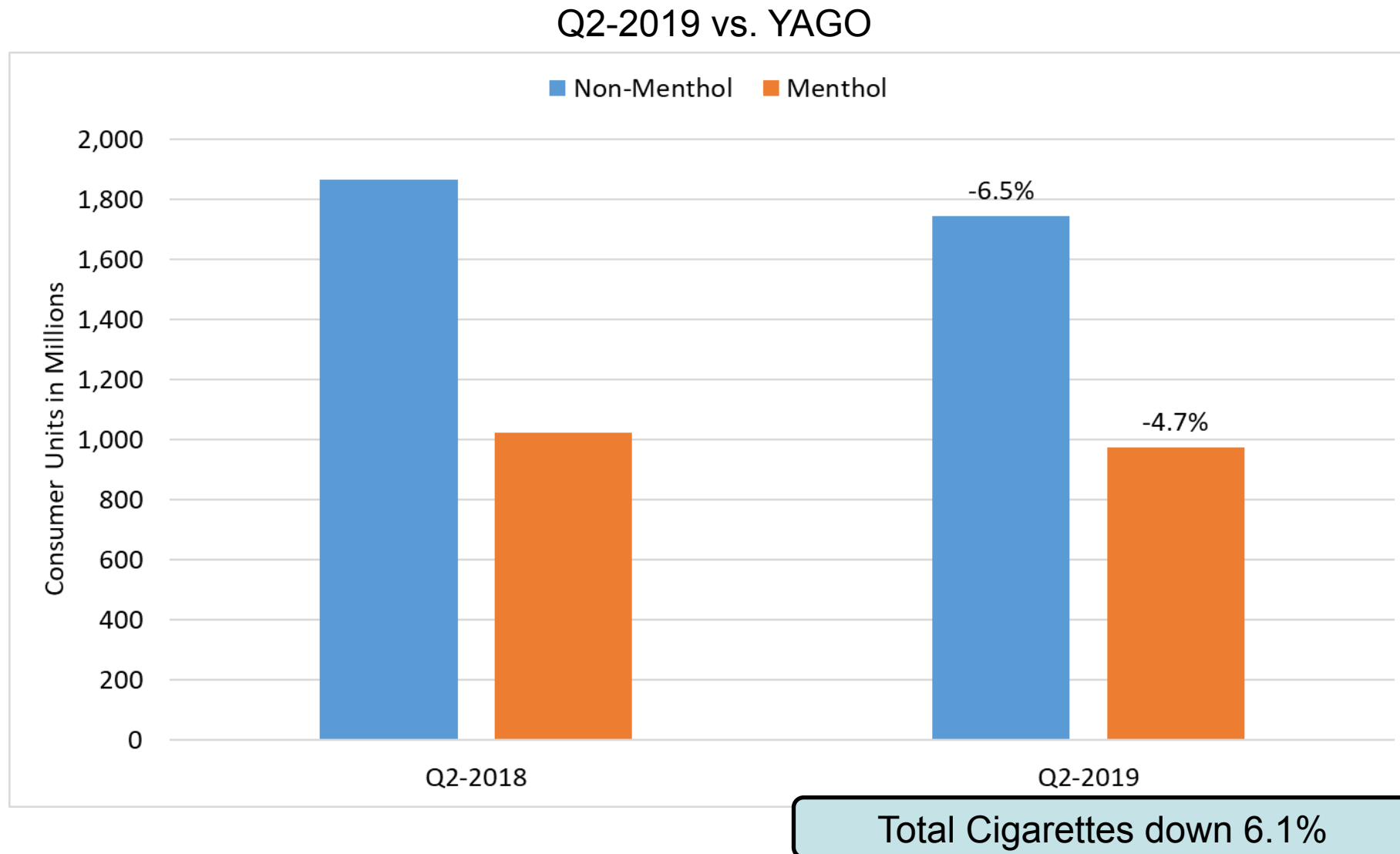
Modern Oral Nicotine Trend vs. Vapor - Servings



*Oral = Moist + Snus + Modern Oral

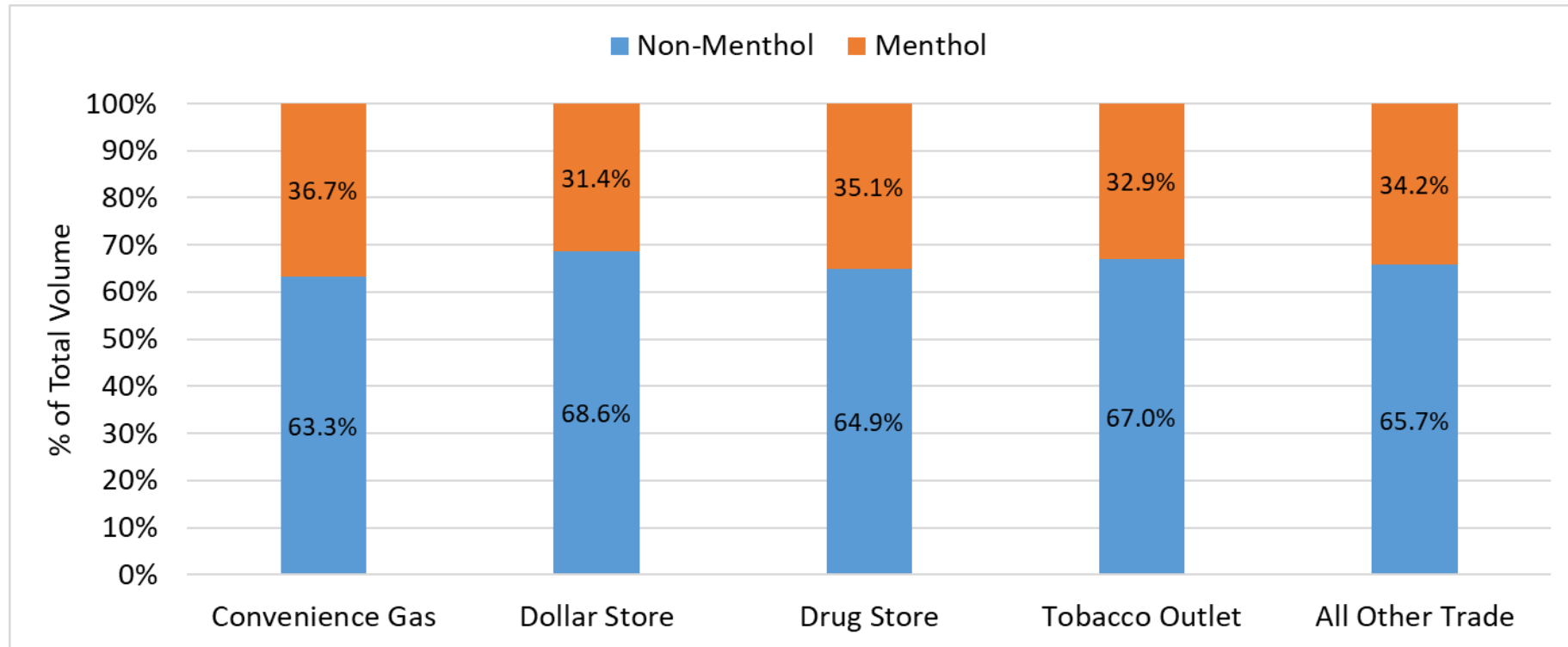
MENTHOL CIGARETTES TRENDS ANALYSIS

Cigarette Volume by Flavor Type



Cigarette Volume by Flavor Type and Trade Channel

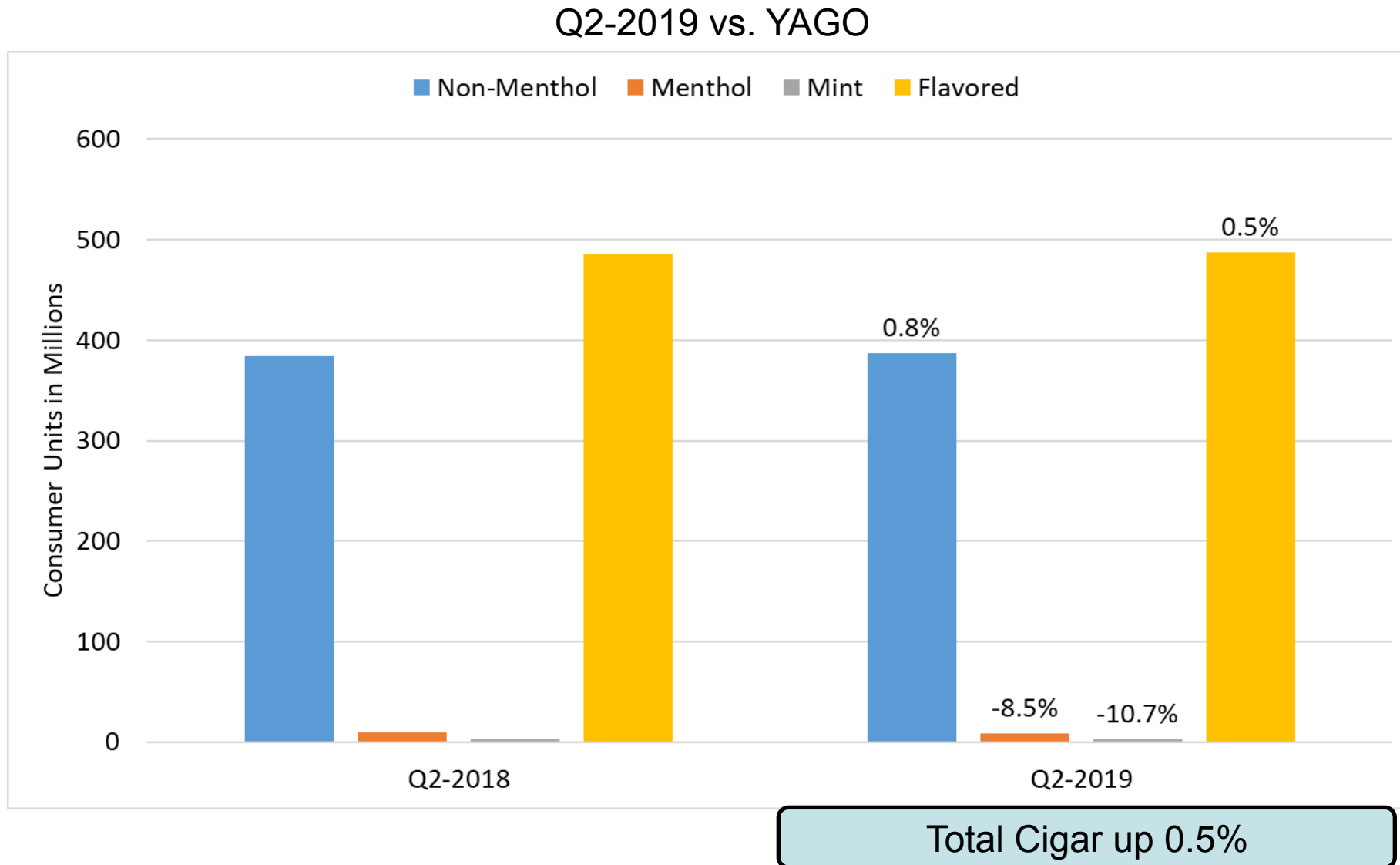
Share of Trade Channel Volume by Flavor Type, Q2-2019



Q2-2019 vs. YAGO					
Flavor	Convenience Gas	Dollar Store	Drug Store	Tobacco Outlet	All Other Trade
Non-Menthol	-6.2%	1.7%	-20.6%	-4.9%	-7.9%
Menthol	-3.8%	-3.6%	-20.5%	-0.9%	-8.4%

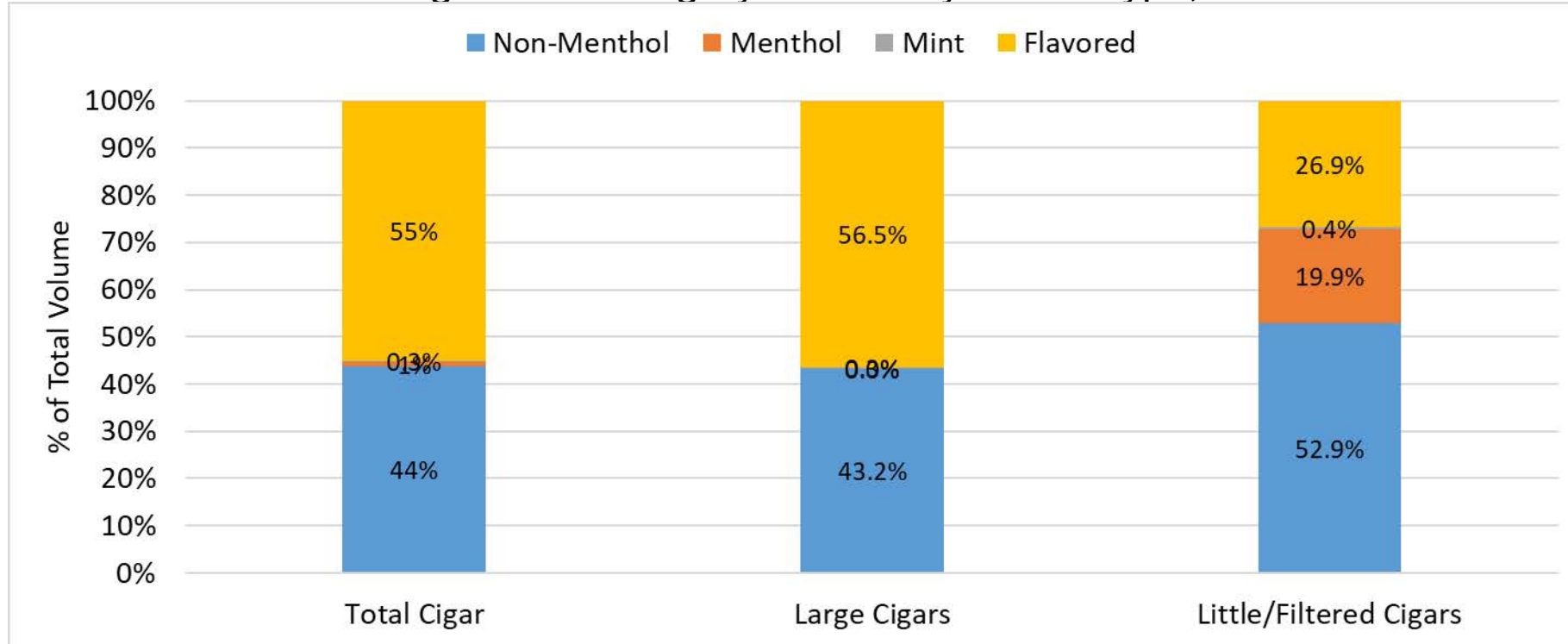
FLAVORED CIGAR TRENDS ANALYSIS

Total Cigar Volume by Flavor Type



Cigar Volume by Flavor Type and Sub-Category

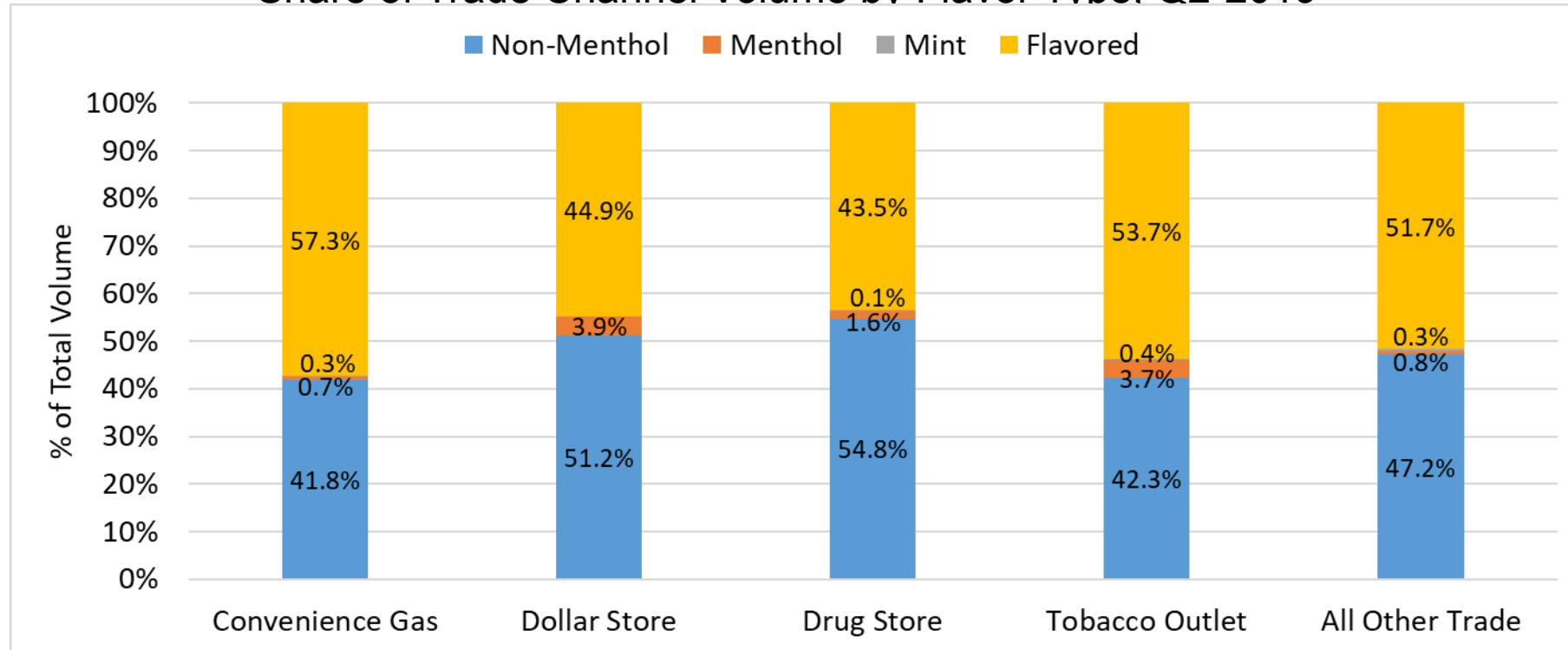
Share of Cigar Sub-Category Volume by Flavor Type, Q2-2019



Q2-2019 vs. YAGO			
Flavor	Total Cigar	Large Cigars	Little/Filtered Cigars
Non-Menthol	0.8%	1.3%	-7.0%
Menthol	-8.5%	75.1%	-8.5%
Mint	-10.7%	-12.4%	21.3%
Flavored	0.5%	0.7%	-7.1%

Total Cigar Volume by Flavor Type and Trade Channel

Share of Trade Channel Volume by Flavor Type, Q2-2019

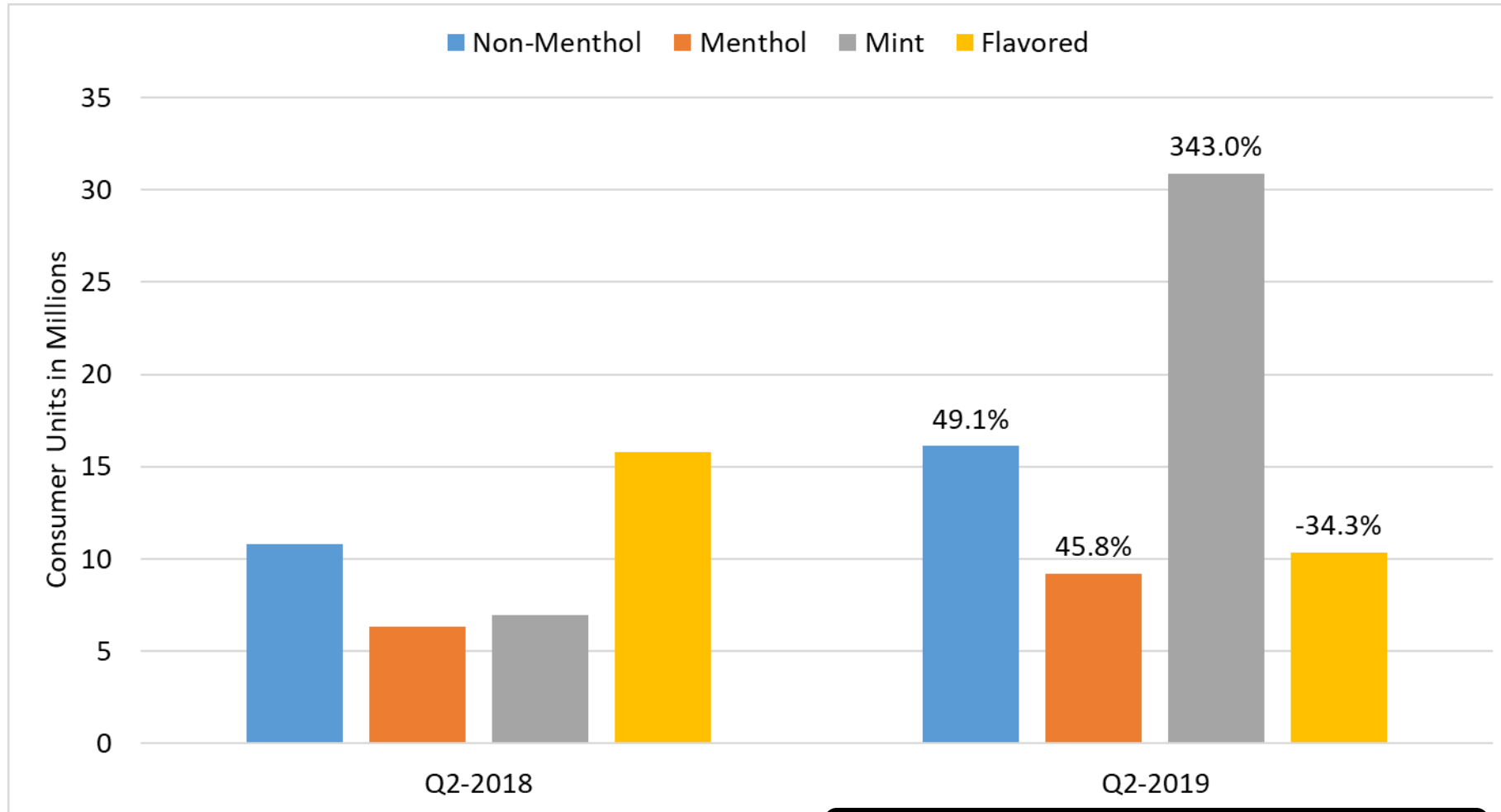


Q2-2019 vs. YAGO					
Flavor	Convenience Gas	Dollar Store	Drug Store	Tobacco Outlet	All Other Trade
Non-Menthol	-1.3%	1.9%	-6.2%	-5.2%	5.7%
Menthol	-9.5%	-0.8%	-1.4%	-7.2%	-10.2%
Mint	-11.1%	-	-5.3%	1.5%	-12.8%
Flavored	-0.4%	-5.3%	-15.1%	2.4%	2.9%

FLAVORED VAPOR TRENDS ANALYSIS

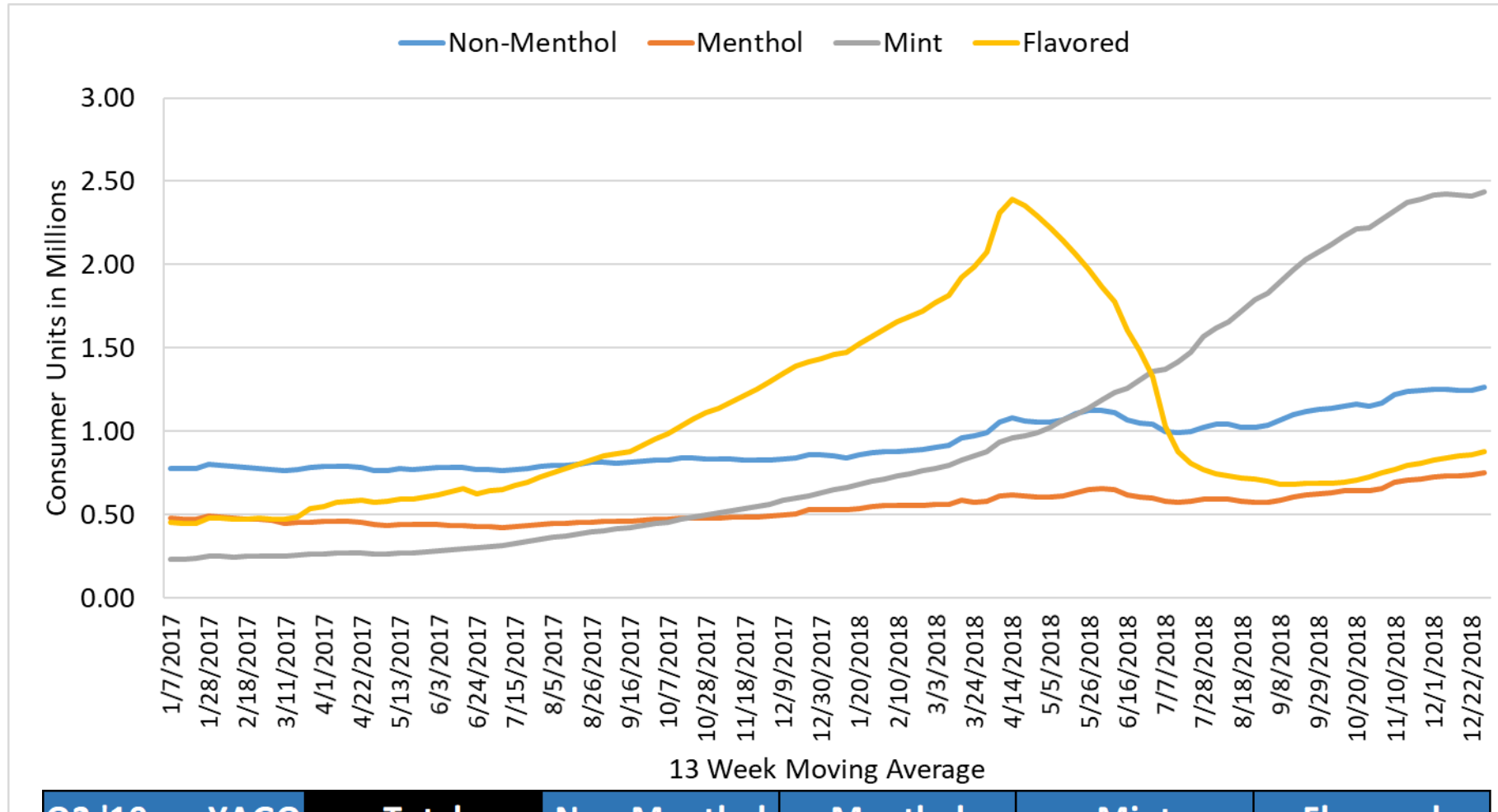
Total Vapor Volume by Flavor Type

Q2-2019 vs. YAGO



Total Vapor up 69%

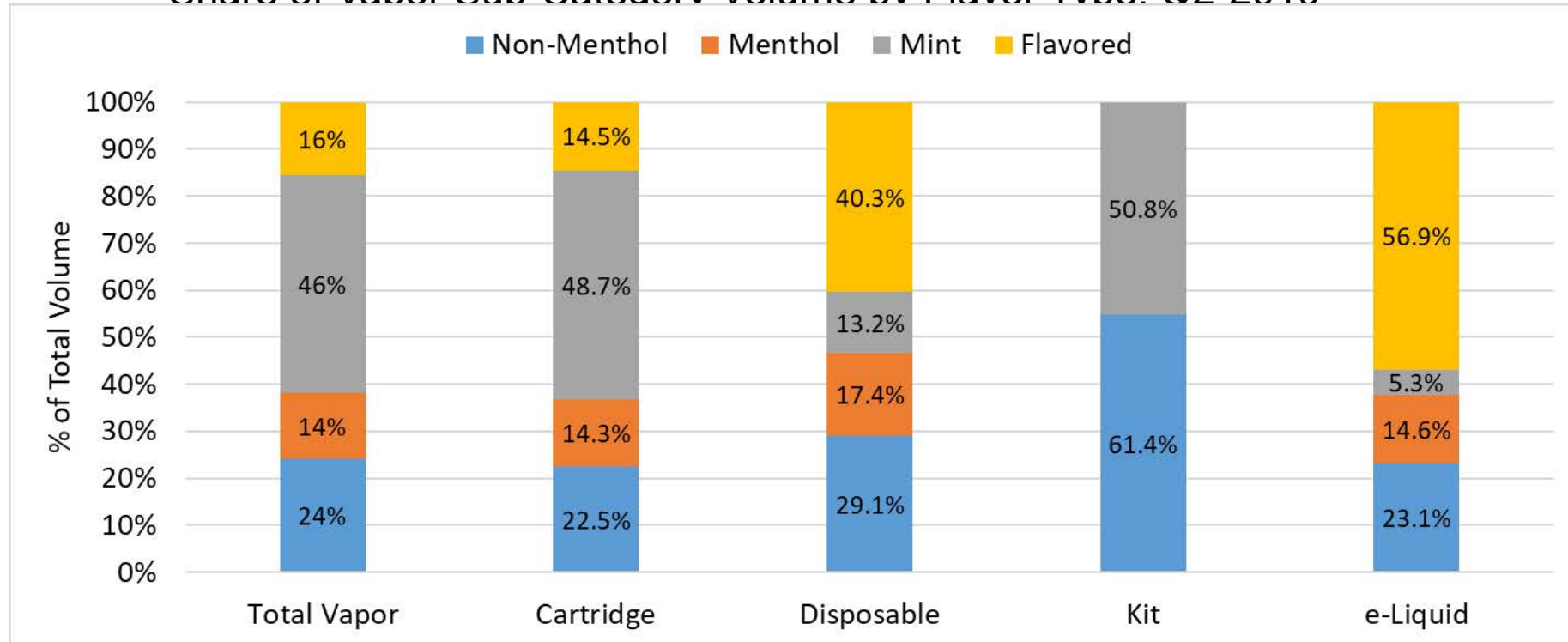
Total Vapor Volume by Flavor Type



Q2 '19 vs. YAGO	Total	Non-Menthol	Menthol	Mint	Flavored
Change	26,687,505	5,306,596	2,897,089	23,884,947	-5,401,127
% Change	67.0%	49.1%	45.8%	343.0%	-34.3%

Vapor Volume by Flavor Type and Sub-Category

Share of Vapor Sub-Category Volume by Flavor Type, Q2-2019

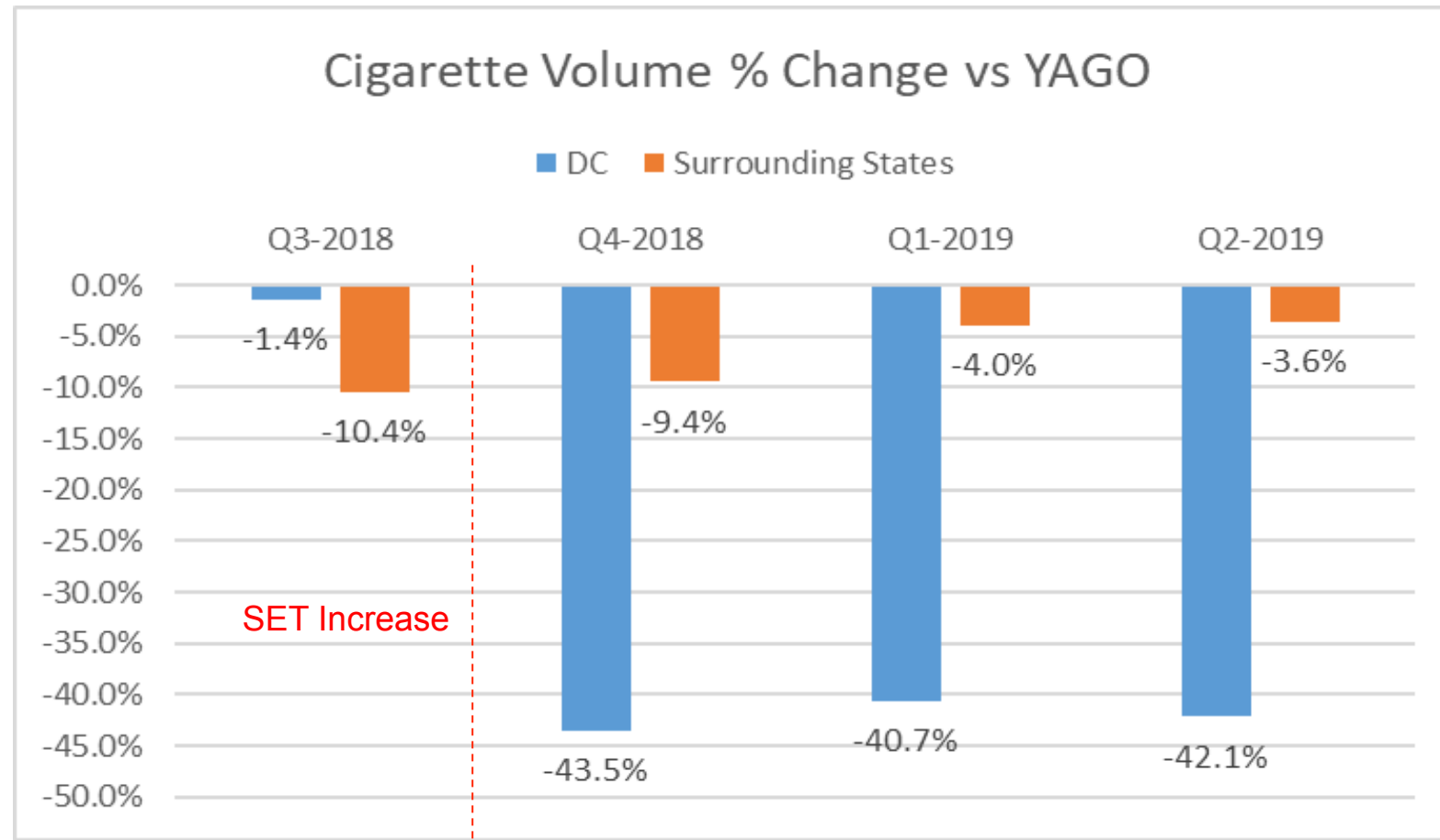


Q2-2019 vs. YAGO					
Flavor	Total Vapor	Cartridge	Disposable	Kit	e-Liquid
Non-Menthol	49.1%	78.4%	-6.2%	-24.9%	-35.8%
Menthol	45.8%	70.5%	7.2%	-100.0%	-53.7%
Mint	343.0%	343.5%	40.5%	N/A	-16.1%
Flavored	-34.3%	-29.0%	18.7%	-100.0%	-15.1%

IMPACT OF SET INCREASES

SET Impact on Cigarettes in DC

In October 2018, DC increased the SET on cigarettes from \$2.50 to \$4.50 per pack (80% increase).



Surrounding States: MD and VA

IMPACT OF CHANGES IN LEGAL TOBACCO PURCHASING AGE

Age 21 Tobacco Restriction State Overview

Q2-2019 Volume Share –

States With Current or Future Age 21+ Restriction

*6 states with current 21+ restrictions
+11 states with 21+ restrictions planned within 2 years*

TOTAL INDUSTRY	CIGARETTES	VAPOR	MOIST
11%	11%	13%	6%
34%	34%	42%	28%

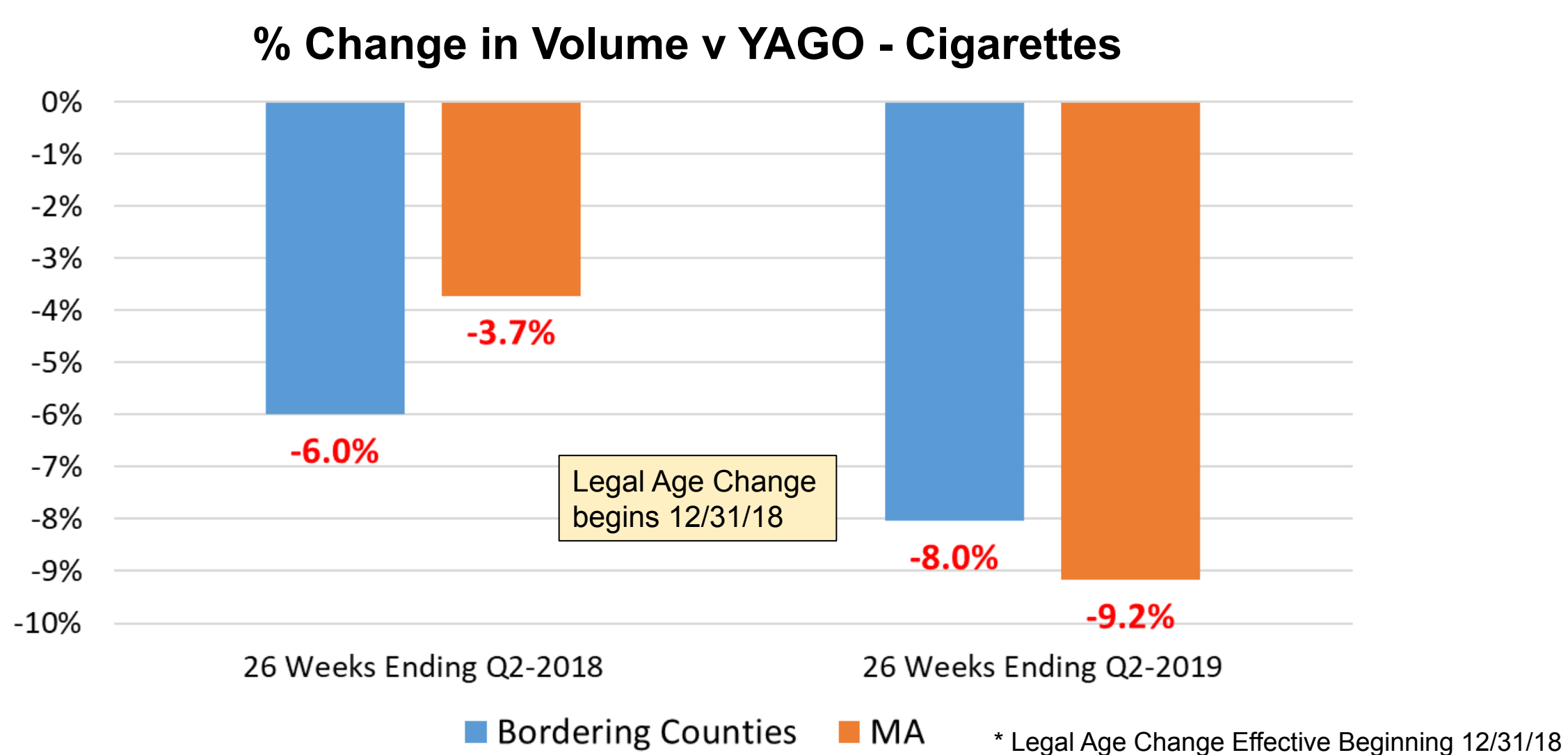
Currently 21+

- ♦ Hawaii
- ♦ California
- ♦ New Jersey
- ♦ Oregon
- ♦ Maine
- ♦ Massachusetts

21+ Within 2 Years

- ♦ D.C.
- ♦ Illinois
- ♦ Virginia
- ♦ Delaware
- ♦ Arkansas
- ♦ Texas
- ♦ Connecticut
- ♦ Maryland
- ♦ New York
- ♦ Washington
- ♦ Utah

Massachusetts Raises Legal Tobacco Sales Age to 21

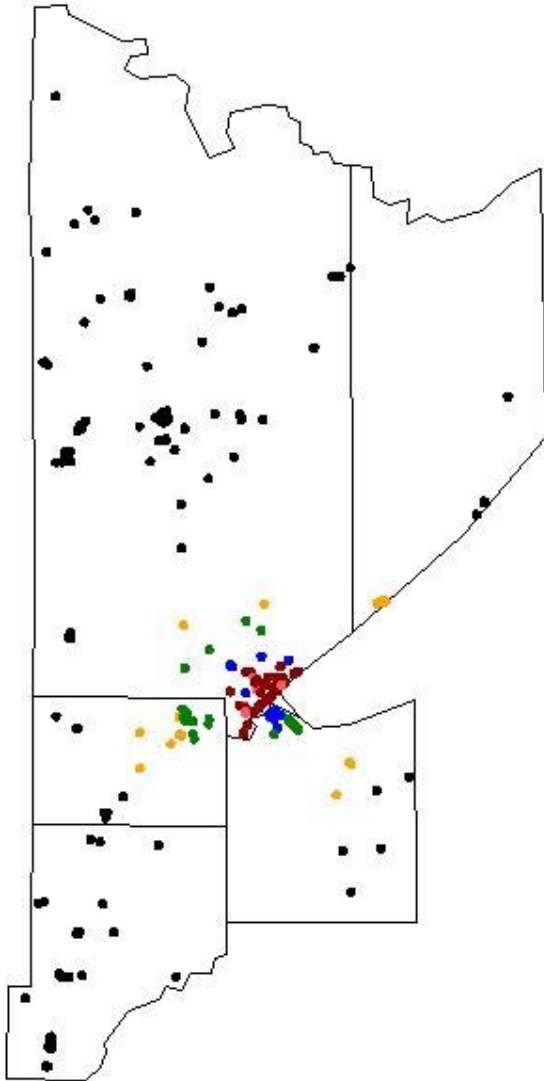


IMPACT OF FLAVOR AND VAPOR BANS

Duluth, Minnesota Flavored Tobacco Restriction

- ◆ Effective June 1st, 2018, Duluth, Minnesota restricted the sale of flavored products to adult only smoke shops. Such items are:
 - Menthol Cigarettes
 - Wintergreen / Mint Moist Tobacco
 - Chocolate, Vanilla, Candy or Fruit Vapor Items
- ◆ Only stores that prohibit persons under the age of 18 from entering at all times AND derive at least 90% of their revenue from the sale of tobacco can sell flavored tobacco products.

Duluth, Minnesota Flavored Tobacco Restriction



- ◆ Red – Flavored Products Banned (69 Stores)
- ◆ Light Red – Less than 1 Mile (14 Stores)
- ◆ Blue – Less than 5 Miles (29 Stores)
- ◆ Green – Less than 10 Miles (32 Stores)
- ◆ Yellow – Less than 25 Miles (20 Stores)
- ◆ Black – Greater than 25 Miles (185 Stores)

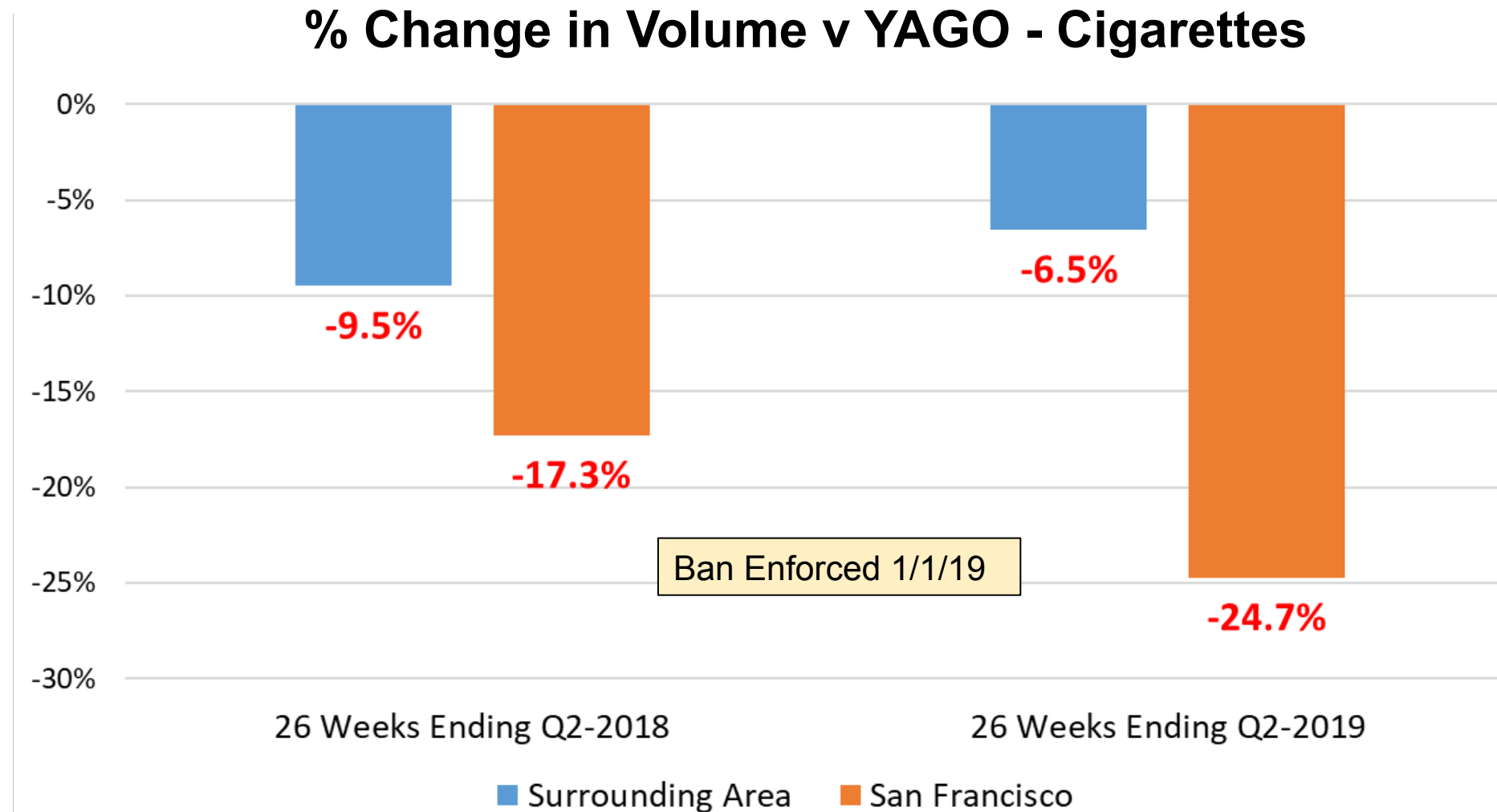
Impact on Cigarettes

% Change in Volume (Jan '19 through June '19 vs. Jan '18 through June '18)

	<u>Total</u>	<u>Restricted Stores</u>	<u><= 1 Mile</u>	<u><= 5 Miles</u>	<u><= 10 Miles</u>	<u><= 25 Miles</u>	<u>> 25 Miles</u>
Total	-5.6%	-28.0%	26.5%	-1.3%	1.2%	-4.2%	-2.8%
Non-Menthol	-4.2%	-9.1%	-4.7%	-4.9%	0.9%	-4.7%	-3.0%
Menthol	-11.0%	-99.1%	105.4%	10.7%	2.0%	-2.0%	-1.8%

- ◆ Overall Cigarette volume decrease by 5.6% in the post time period, with a majority of the decrease from menthol cigarettes.
- ◆ While Menthol volume virtually went away in Restricted Stores, stores within 1 Mile and within 5 miles saw substantial increase in volume.

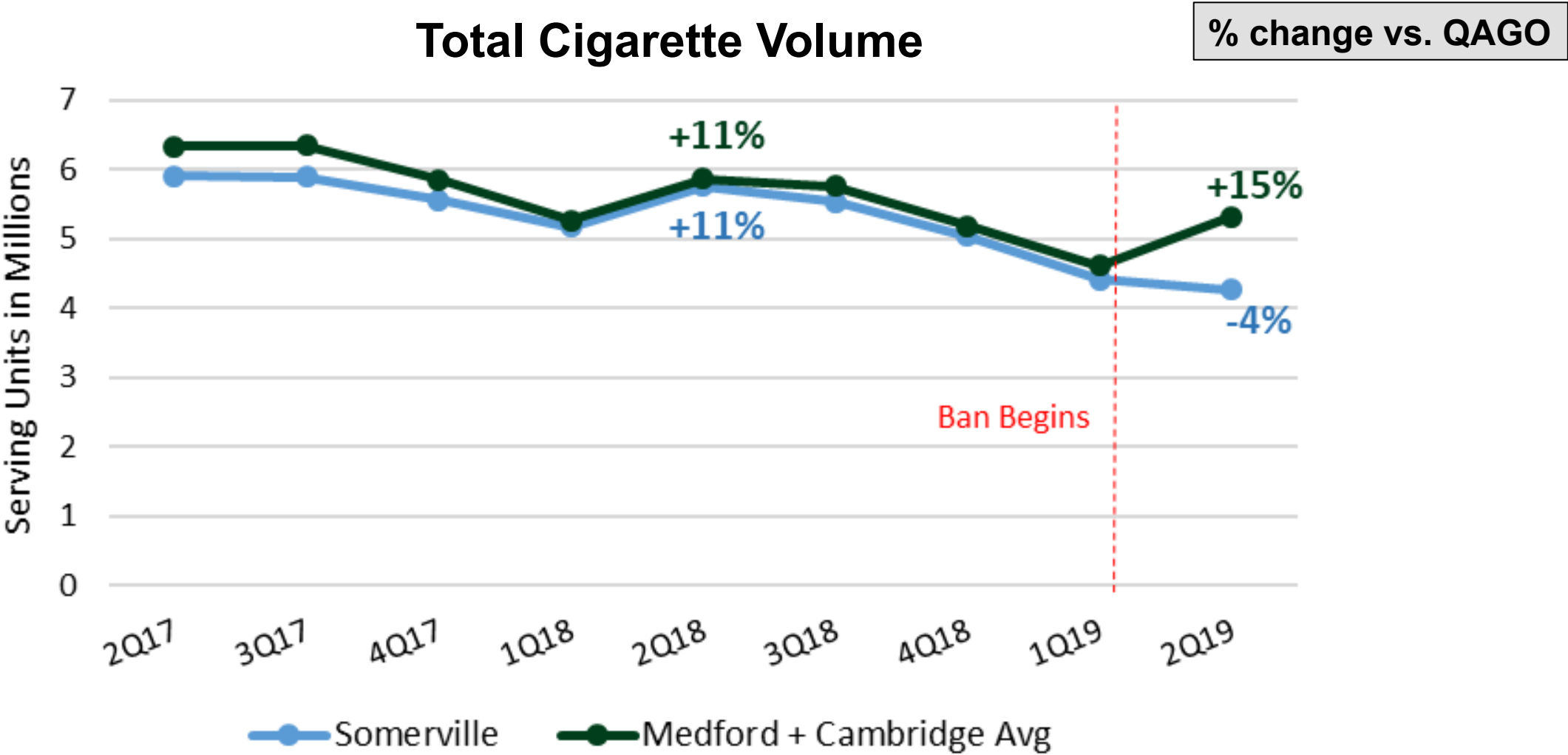
San Francisco Bans Sale of All Flavored Tobacco Products*



Surrounding Area includes Oakland, Alameda, and Daly City

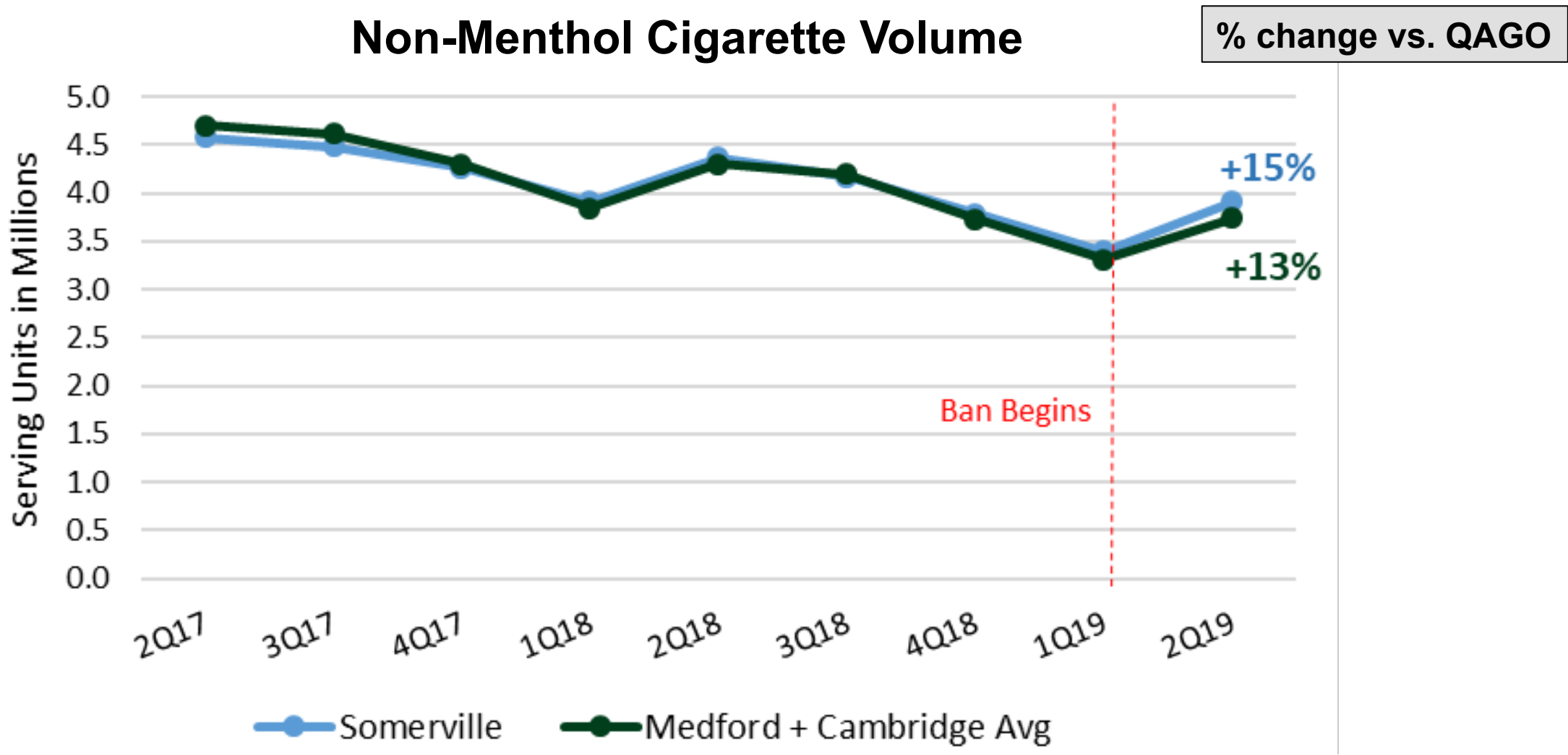
**includes Mint & Menthol flavored items*

Somerville, MA Ban of Menthol Cigs & All Vapor*



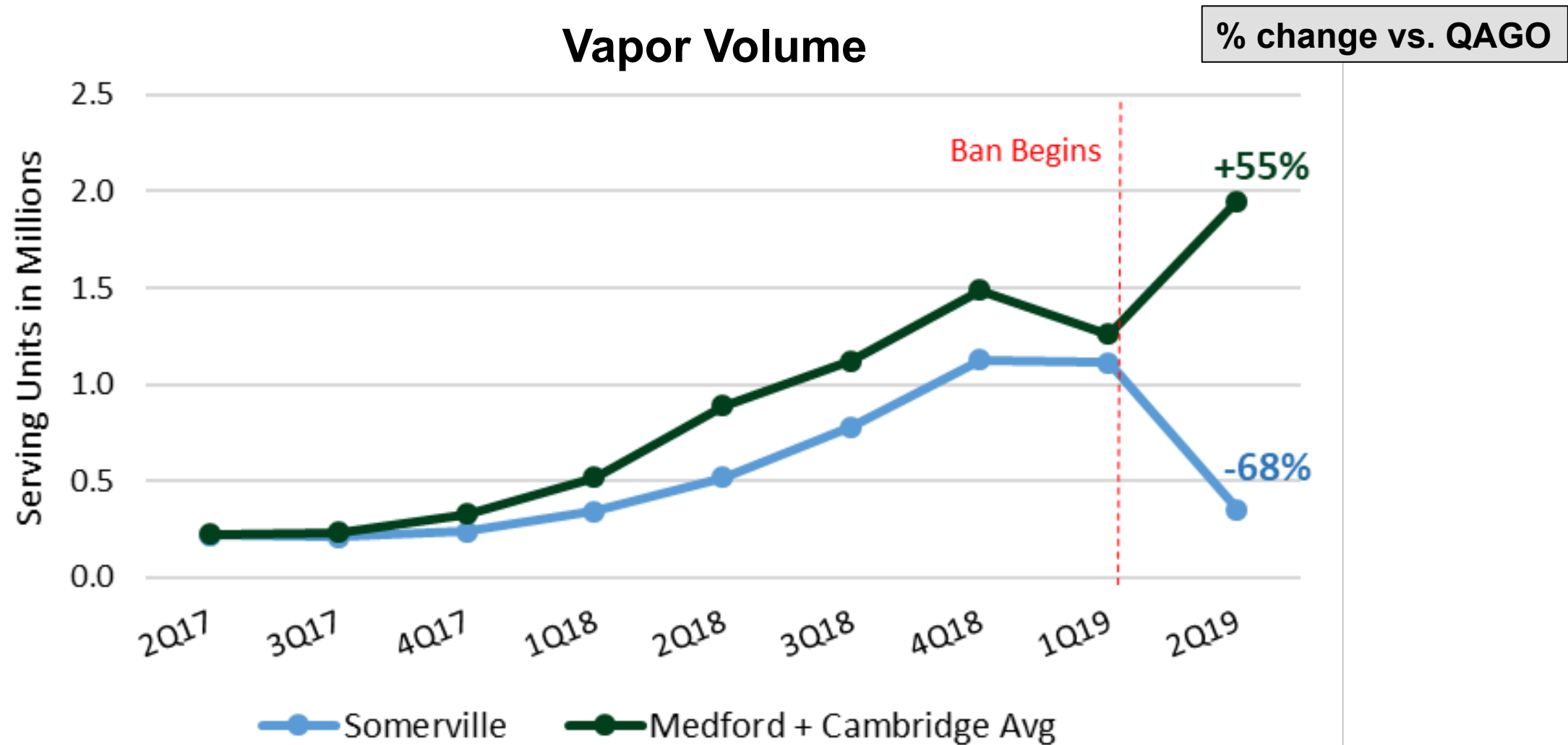
**menthol cigs and all e-cigarette products restricted to sale in 21+, adult-only tobacco stores on April 1*

Somerville, MA Ban of Menthol Cigs & All Vapor*



**menthol cigs and all e-cigarette products restricted to sale in 21+, adult-only tobacco stores on April 1*

Somerville, MA Ban of Menthol Cigs & All Vapor*



**menthol cigs and all e-cigarette products restricted to sale in 21+, adult-only tobacco stores on April 1*

Key Findings

- **The nicotine category declined at a higher than usual 1.6%, but remains a key convenience category**
- **Cigarette sales approximately two times the unit volume of all other tobacco categories combined**
- **Super premium and deep discount cigarettes, large cigars, snus, modern oral, and vapor are growing categories**
- **Dollar Stores continue to grow their tobacco business**
- **Manage inventory/SKU quantities based on local/state regulations**