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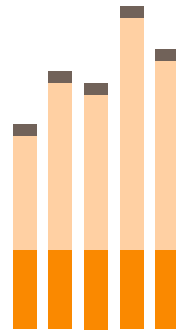
Economic Research Informing Tobacco Control Policy

Evaluating implementation of Chicago's city ordinance restricting sales of flavored tobacco products near schools

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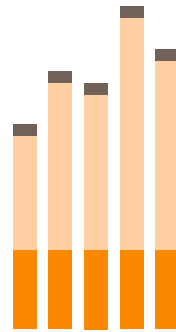
UIC INSTITUTE FOR HEALTH
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AT CHICAGO RESEARCH AND POLICY



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Background

Flavored Tobacco Use Among Youth

• Almost three-quarters (70.0%) of all current U.S. youth tobacco users attending middle and high school had used at least one flavored cigarette product in the last 30 days:

- 63.3% used flavored e-cigarette
 - 60.6% used flavored hookah tobacco
 - 63.5% used flavored cigar
 - 58.8% used flavored smokeless tobacco,
 - 53.6% used menthol cigarettes
 - 42.3% used tobacco in pipes.
- This represents 3.26 million youth or 12% of the student population. Among all high school students, 17.9% had currently used at least one flavored product compared to only 5.8% who had only used nonflavored tobacco products.

(2014 NYTS, MMWR / October 2, 2015 / Vol. 64 / No. 38)

The Chicago Flavor Ban

➤ The City of Chicago passed a policy banning the sale of flavored tobacco products from all retail establishments located within 500 feet of all schools.

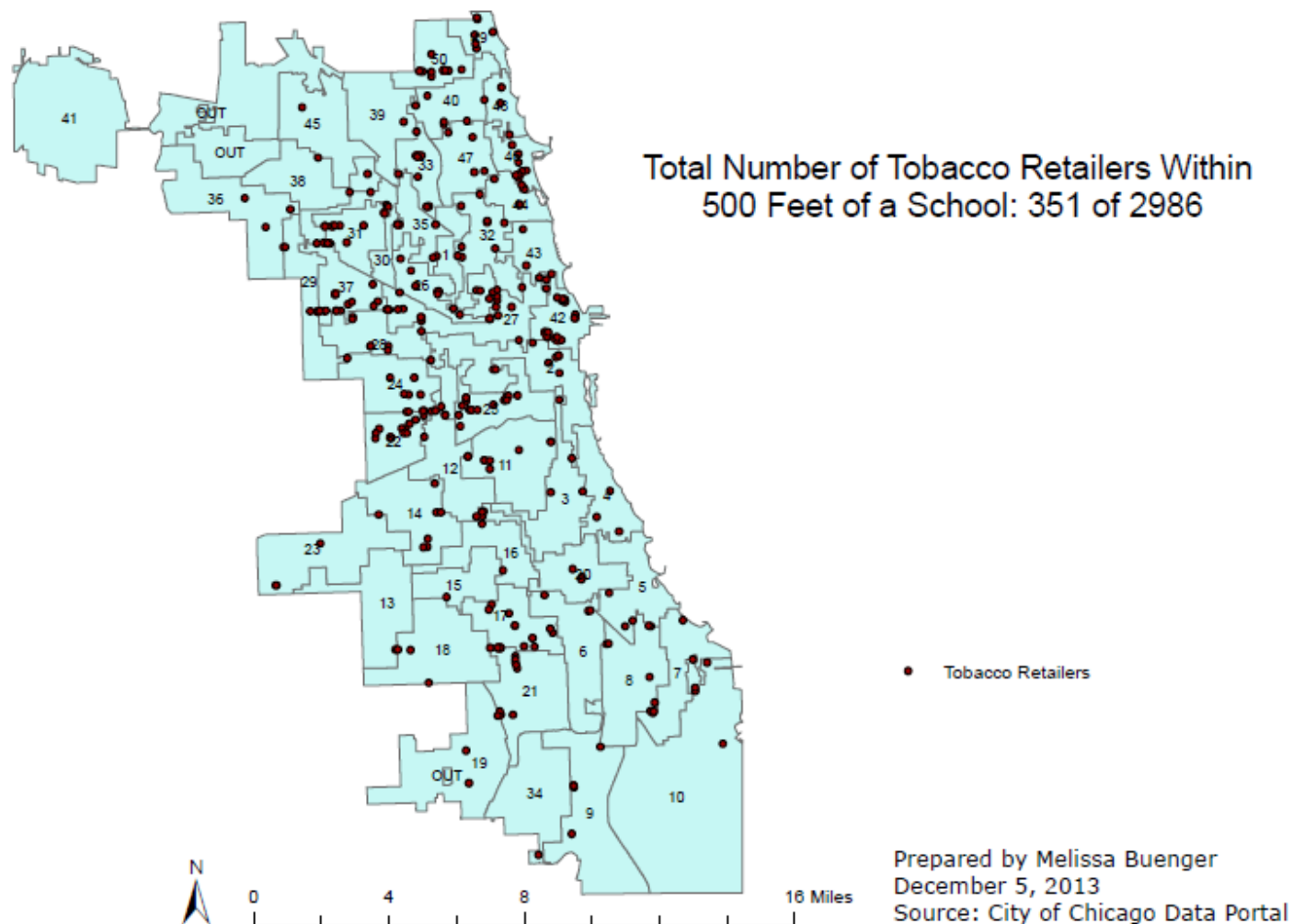
The policy includes:

- Menthol Tobacco Products
- All Flavored Tobacco Products (e.g., cigarettes, cigars, cigarillos, vapor products, smokeless products)
- E-cigarettes (a vapor product)

Flavored Tobacco Definition:

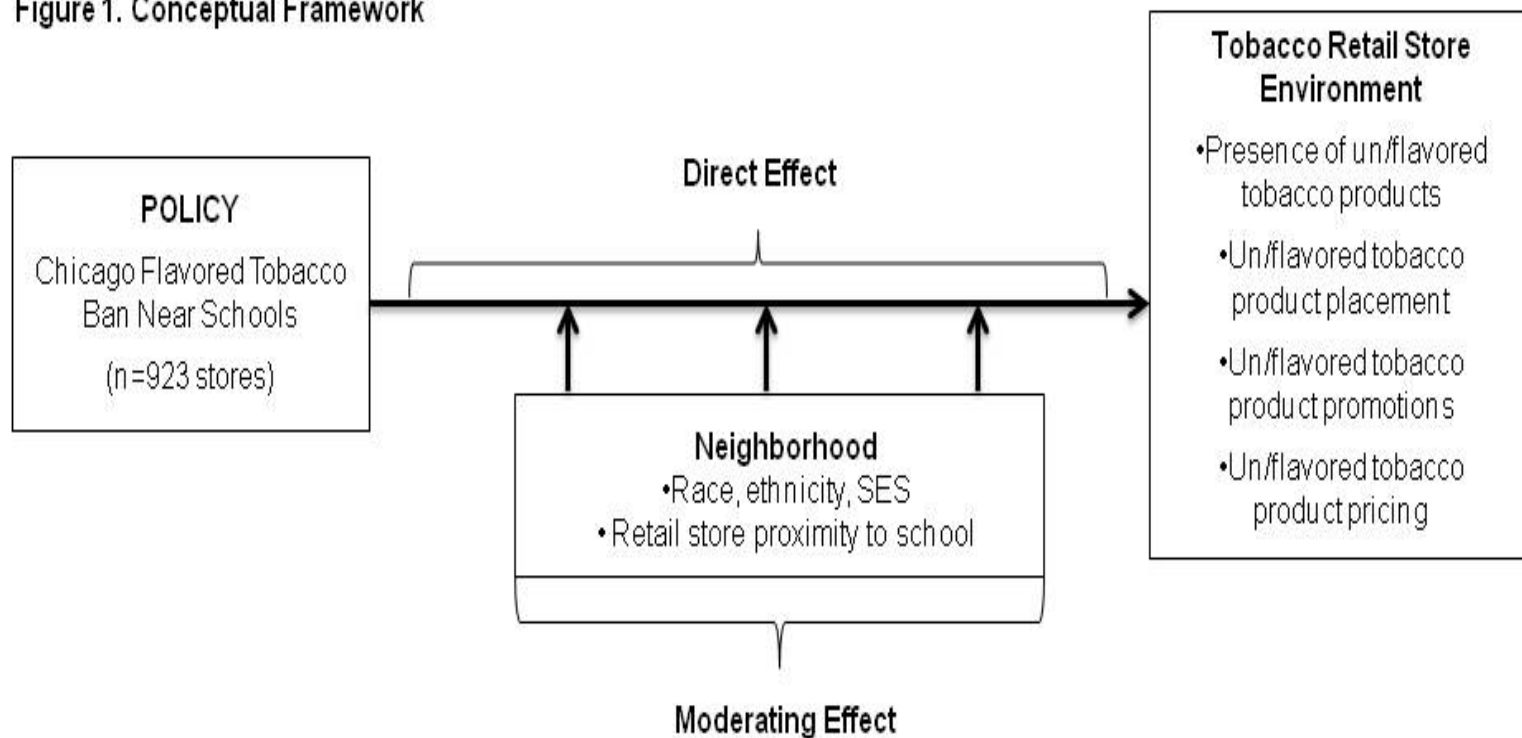
"Flavored tobacco product" means any tobacco product that contains a constituent that imparts a characterizing flavor. As used in this definition, the term "characterizing flavor" means a distinguishable taste or aroma, other than the taste or aroma of tobacco, imparted either prior to or during consumption of a tobacco product, including, but not limited to, tastes or aromas of menthol, mint, wintergreen, chocolate, vanilla, honey, cocoa, any candy, any dessert, any alcoholic beverage, any fruit, any herb, and any spice; provided, however, that no tobacco product shall be determined to have a characterizing flavor solely because of the use of additives or flavorings or the provision of ingredient information. A public statement or claim made or disseminated by the manufacturer of a tobacco product, or by any person authorized or permitted by the manufacturer to make or disseminate such statements, that a tobacco product has or produces a characterizing flavor shall establish that the tobacco product is a flavored tobacco product."

Licensed Tobacco Retailers Within 500 Feet of Public and Private Schools by Chicago Ward, 2013



Conceptual Framework

Figure 1. Conceptual Framework



Study Aims

Aim 1: Using data collected from retail store observation audits, determine whether product availability, placement, promotion, and price of all tobacco products has been affected by the ban on the sales of flavored tobacco products within 500 feet of schools.

- a. Are there differences between licensed tobacco retail outlets affected by the ban located within 500 feet of schools (n=454), licensed tobacco retail outlets located within 501-1000 feet of schools (n=273), and licensed tobacco retail outlets located beyond 1000 feet of schools (n=273)?
- b. Do these differences change over time?

Secondary Aim 1a: Determine whether the ban has affected the retail market for tobacco products in general.

- a. Has the policy led to store closures or any relocation of affected licensed retail outlets beyond the 500 feet boundary?
- b. Has the policy led to any reduction in the number of licenses issued or not renewed?
- c. Has there been any voluntary implementation of the flavored tobacco product ban among licensed retail outlets among those located beyond 500 feet of schools?

Study Design Cont'd

- ✓ We plan to evaluate the impact of the new policy by collecting data on flavored tobacco product availability, placement, promotion and price at different time points:
 - Initial pre-policy implementation (baseline): **April-May; December 2014**
 - Second pre-policy implementation (baseline): **June-August, 2015**
 - Post-implementation: **(May-June, 2016)**



Standardized Tobacco Assessment for Retail Settings (STARS): Chicago 2014

1. a. Date of visit: ___/___/___ c. Start Time: ___:___ am/pm
 b. CODER ID: ___/___ d. End Time: ___:___ am/pm

2. STORE ID: 14 _____

3. a. **Actual Store Name:** _____
 b. Actual store name matches the assigned store name?
 Yes
 No

4. a. **Actual Store Address:** _____
 b. Actual address matches the assigned address?
 Yes
 No

5. Can you survey this store? [If not, then select an option below and **STOP**]
 Yes, I can
 No, store does not exist
 No, store is closed
 No, under 18 not allowed to enter
 No, membership or fee required to enter
 No, environment unsafe for me
 No, asked to leave before completing the survey
 Other (SPECIFY): _____

EXTERIOR

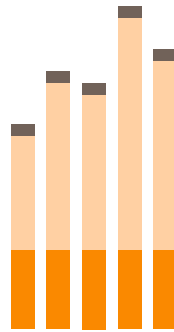
6. Which products are advertised outside the store (on windows/doors, building, sidewalk, or elsewhere)?	7. IF "YES" to #6, what flavors are advertised? (SELECT ALL THAT APPLY)							
	a. Unflavored	b. Menthol/ Mint/Ice	c. Fruit/ Sweet/Candy	d. Alcohol	e. Herb/Spice	f. Other	g. Unspecified	
a. Cigarettes	<input type="checkbox"/> Yes → <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No PPA? <input type="checkbox"/> Yes	<input type="checkbox"/> Yes <input type="checkbox"/> No PPA? <input type="checkbox"/> Yes	<input type="checkbox"/> Yes <input type="checkbox"/> No PPA? <input type="checkbox"/> Yes	<input type="checkbox"/> Yes <input type="checkbox"/> No PPA? <input type="checkbox"/> Yes	<input type="checkbox"/> Yes <input type="checkbox"/> No PPA? <input type="checkbox"/> Yes	<input type="checkbox"/> Yes <input type="checkbox"/> No PPA? <input type="checkbox"/> Yes	
b. Cigarillos/little cigars	<input type="checkbox"/> Yes → <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No PPA? <input type="checkbox"/> Yes	<input type="checkbox"/> Yes <input type="checkbox"/> No PPA? <input type="checkbox"/> Yes	<input type="checkbox"/> Yes <input type="checkbox"/> No PPA? <input type="checkbox"/> Yes	<input type="checkbox"/> Yes <input type="checkbox"/> No PPA? <input type="checkbox"/> Yes	<input type="checkbox"/> Yes <input type="checkbox"/> No PPA? <input type="checkbox"/> Yes	<input type="checkbox"/> Yes <input type="checkbox"/> No PPA? <input type="checkbox"/> Yes	
c. E-cigarettes (includes hookah/vape pens), disposable	<input type="checkbox"/> Yes → <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No PPA? <input type="checkbox"/> Yes	<input type="checkbox"/> Yes <input type="checkbox"/> No PPA? <input type="checkbox"/> Yes	<input type="checkbox"/> Yes <input type="checkbox"/> No PPA? <input type="checkbox"/> Yes	<input type="checkbox"/> Yes <input type="checkbox"/> No PPA? <input type="checkbox"/> Yes	<input type="checkbox"/> Yes <input type="checkbox"/> No PPA? <input type="checkbox"/> Yes	<input type="checkbox"/> Yes <input type="checkbox"/> No PPA? <input type="checkbox"/> Yes	
d. E-cigarettes (includes hookah/vape pens), refillable	<input type="checkbox"/> Yes → <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No PPA? <input type="checkbox"/> Yes	(Diagonal lines)					<input type="checkbox"/> Yes <input type="checkbox"/> No PPA? <input type="checkbox"/> Yes
e. E-juice (liquid nicotine)	<input type="checkbox"/> Yes → <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No PPA? <input type="checkbox"/> Yes	<input type="checkbox"/> Yes <input type="checkbox"/> No PPA? <input type="checkbox"/> Yes	<input type="checkbox"/> Yes <input type="checkbox"/> No PPA? <input type="checkbox"/> Yes	<input type="checkbox"/> Yes <input type="checkbox"/> No PPA? <input type="checkbox"/> Yes	<input type="checkbox"/> Yes <input type="checkbox"/> No PPA? <input type="checkbox"/> Yes	<input type="checkbox"/> Yes <input type="checkbox"/> No PPA? <input type="checkbox"/> Yes	
f. E-cigars	<input type="checkbox"/> Yes → <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No PPA? <input type="checkbox"/> Yes	<input type="checkbox"/> Yes <input type="checkbox"/> No PPA? <input type="checkbox"/> Yes	<input type="checkbox"/> Yes <input type="checkbox"/> No PPA? <input type="checkbox"/> Yes	<input type="checkbox"/> Yes <input type="checkbox"/> No PPA? <input type="checkbox"/> Yes	<input type="checkbox"/> Yes <input type="checkbox"/> No PPA? <input type="checkbox"/> Yes	<input type="checkbox"/> Yes <input type="checkbox"/> No PPA? <input type="checkbox"/> Yes	
g. Chew, moist or dry snuff, dip, or snus	<input type="checkbox"/> Yes → <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No PPA? <input type="checkbox"/> Yes	<input type="checkbox"/> Yes <input type="checkbox"/> No PPA? <input type="checkbox"/> Yes	<input type="checkbox"/> Yes <input type="checkbox"/> No PPA? <input type="checkbox"/> Yes	<input type="checkbox"/> Yes <input type="checkbox"/> No PPA? <input type="checkbox"/> Yes	<input type="checkbox"/> Yes <input type="checkbox"/> No PPA? <input type="checkbox"/> Yes	<input type="checkbox"/> Yes <input type="checkbox"/> No PPA? <input type="checkbox"/> Yes	

TOBACCO PRODUCTS	18. Cigarettes	19. Cigarillos/little cigars	20. E-cigarettes (includes hookah/vape pens), disposable	21. E-cigarettes (includes hookah/vape pens), refillable
a. Sold here?	<input type="checkbox"/> Yes <input type="checkbox"/> No → GO TO #19	<input type="checkbox"/> Yes <input type="checkbox"/> No → GO TO #20	<input type="checkbox"/> Yes <input type="checkbox"/> No → GO TO #21	<input type="checkbox"/> Yes <input type="checkbox"/> No → GO TO #22
b. Flavors sold? (SELECT ALL THAT ARE VISIBLE)	<input type="checkbox"/> Unflavored <input type="checkbox"/> Menthol/Mint/Ice	<input type="checkbox"/> Unflavored <input type="checkbox"/> Menthol/Mint/Ice <input type="checkbox"/> Fruit/Sweet/Candy <input type="checkbox"/> Alcohol <input type="checkbox"/> Herb/Spice <input type="checkbox"/> Other	<input type="checkbox"/> Unflavored <input type="checkbox"/> Menthol/Mint/Ice <input type="checkbox"/> Fruit/Sweet/Candy <input type="checkbox"/> Alcohol <input type="checkbox"/> Herb/Spice <input type="checkbox"/> Other	<input type="checkbox"/> Unflavored <input type="checkbox"/> Menthol/Mint/Ice <input type="checkbox"/> Fruit/Sweet/Candy <input type="checkbox"/> Alcohol <input type="checkbox"/> Herb/Spice <input type="checkbox"/> Other
c. Single items sold here?	<input type="checkbox"/> Yes <input type="checkbox"/> No → GO TO #19e			
d. Are any single items advertised for less than \$1?	<input type="checkbox"/> Yes <input type="checkbox"/> No			
e. Product within 12 inches of toys, candy, gum, slushy/soda machines, or ice cream?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
f. Ad within 3 feet of the floor?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
g. Self-service display?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
h. Any price promotions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
i. Cross-product promotion with cigarettes?	<input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No

TOBACCO PRODUCTS	22. E-juice (liquid nicotine)	23. E-cigars	24. Chew, moist/dry snuff, dip, or snus
a. Sold here?	<input type="checkbox"/> Yes <input type="checkbox"/> No → GO TO #23	<input type="checkbox"/> Yes <input type="checkbox"/> No → GO TO #24	<input type="checkbox"/> Yes <input type="checkbox"/> No → GO TO #25a
b. Flavors sold? (SELECT ALL THAT ARE VISIBLE)	<input type="checkbox"/> Unflavored <input type="checkbox"/> Menthol/Mint/Ice <input type="checkbox"/> Fruit/Sweet/Candy <input type="checkbox"/> Alcohol <input type="checkbox"/> Herb/Spice <input type="checkbox"/> Other	<input type="checkbox"/> Unflavored <input type="checkbox"/> Menthol/Mint/Ice <input type="checkbox"/> Fruit/Sweet/Candy <input type="checkbox"/> Alcohol <input type="checkbox"/> Herb/Spice <input type="checkbox"/> Other	<input type="checkbox"/> Unflavored <input type="checkbox"/> Menthol/Mint/Ice <input type="checkbox"/> Fruit/Sweet/Candy <input type="checkbox"/> Alcohol <input type="checkbox"/> Herb/Spice <input type="checkbox"/> Other
c. Single items sold here?	<input type="checkbox"/> Yes <input type="checkbox"/> No → GO TO #22e	<input type="checkbox"/> Yes <input type="checkbox"/> No → GO TO #23e	
d. Are any single items advertised for less than \$1?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
e. Product within 12 inches of toys, candy, gum, slushy/soda machines, or ice cream?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
f. Ad within 3 feet of the floor?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
g. Self-service display?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
h. Any price promotions?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
i. Cross-product promotion with cigarettes?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes, with cigarettes <input type="checkbox"/> Yes, with cigarillos/cigars <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No

Flavor Examples

Menthol/ Mint/ Ice	Fruit/ Sweet/ Candy	Alcohol	Herb/ Spice
Fresh Frost Peppermint Spearmint Wintergreen Winterchill Mint Ice Menthol	Apple (green, wild) Cherry Chocolate Cream Grape (white, red) Honey Java/ Coffee Peach Strawberry Vanilla Espresso Almond	Bourbon Cognac Margarita Peach Schnapps Piña Colada Spiced Rum Whiskey Wine Wine Grape	Clove Cinnamon Nutmeg

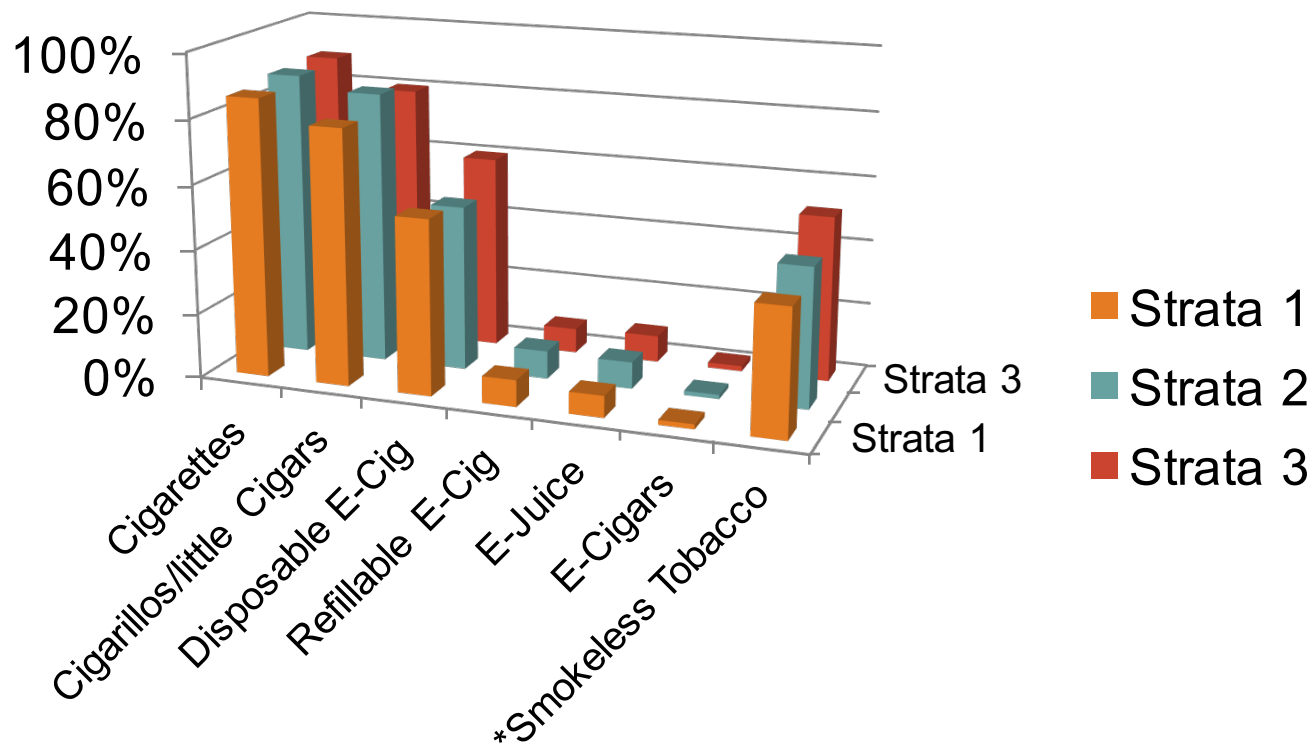


Baseline Results

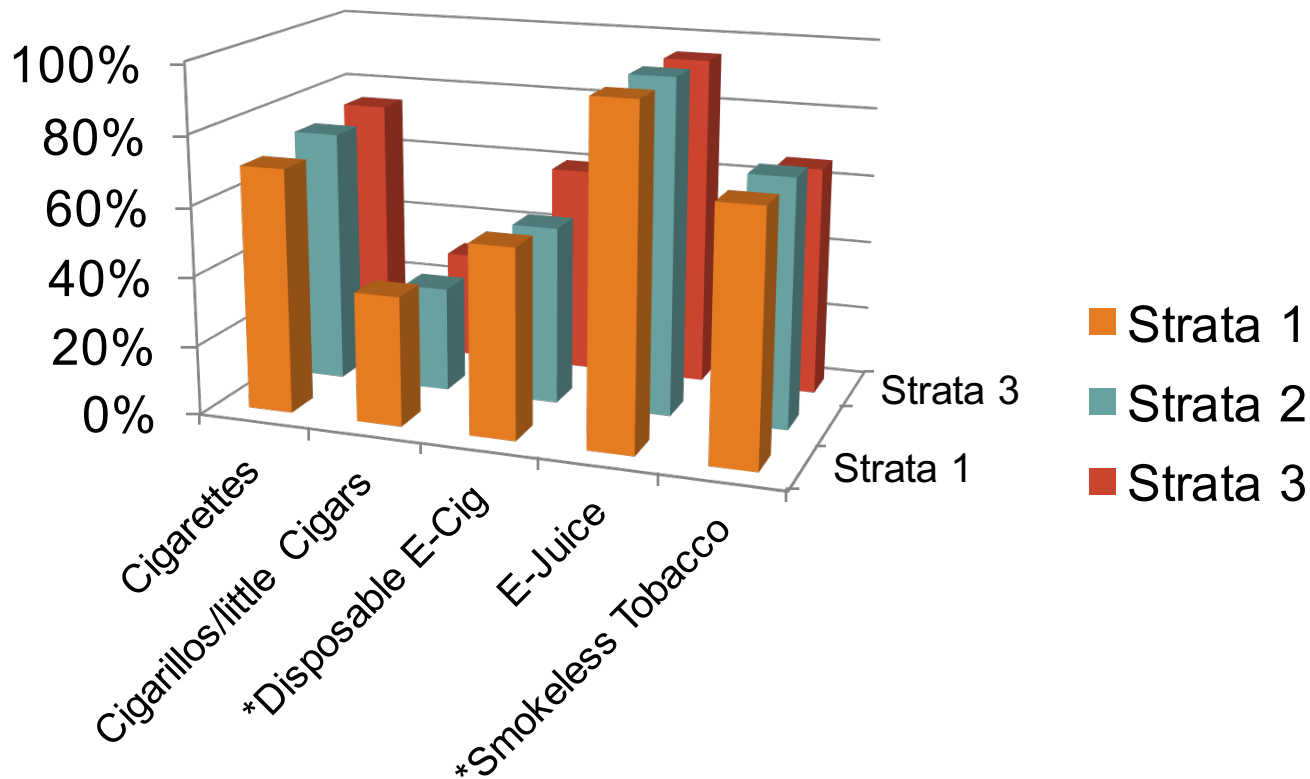
Distribution of Final Sample

Predominant Racial Group	Distance in feet from school			Total
	<500	501 to 1000	>1000	
White	49	44	67	160
	14.5%	13.8%	19.9%	16.1%
African American	110	122	112	344
	32.4%	38.2%	33.2%	34.6%
Hispanic/Latino	85	70	61	216
	25.1%	21.9%	18.1%	21.7%
Other/none	95	83	97	275
	28.0%	26.0%	28.8%	27.6%
Total	339	319	337	995
	100.0%	100.0%	100.0%	100.0%

Presence of Tobacco Products by Strata



Presence of Flavored Tobacco Products by Strata

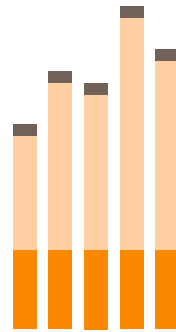


Most Common Flavors across Tobacco Products

Flavor	Cigarillo	Disposable E-Cig	E-Juice	Smokeless Tobacco
Menthol		X	X	X
Fruit	X	X	X	X
Alcohol	X		X	
Herb			X	
Other	X		X	

Average Flavored Tobacco Product Pricing

Product	Strata 1	Strata 2	Strata 3
2-pack Grape Swisher Sweets Cigarillo	\$1.49	\$1.32	\$1.47
2-pack Silver White Owl Cigarillo	\$1.51	\$1.21	\$1.44
Disposable Magnificent Menthol Blu E-Cig	\$10.31	\$9.97	\$10.21
Cheapest Price Single Flavored E-Hookah Pen	\$9.96	\$8.73	\$9.03



Future Plans

Next Steps

- ✓ Analyze second baseline data
- ✓ Collect post-implementation data: **(May-June, 2016)**
- We will revisit all baseline stores.
 - ✓ **355 retailers** located within 500 feet of a school (census of all retailers)
 - ✓ **273 retailers** located between 501 and 1000 feet of schools (sample of retailers)
 - ✓ **273 retailers** located >1000 feet of schools (sample of retailers)

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