

# Making an Impact through POS Work: Youth Prevention & Tobacco Retailer Regulation

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**Arizona Tobacco Summit**

Tuesday, October 27, 2015

1 pm Youth Prevention Moderated Session

# Disclosures & Acknowledgments

**Study Funding.** Funding provided by University Cancer Research Fund to UNC Lineberger Comprehensive Cancer Center at UNC Chapel Hill and grant number U01 CA154281 from the National Cancer Institute at the National Institutes of Health as part of the ASPIRE study (Advancing Science and Policy in the Retail Environment)

**Other Funding.** AE Myers is the Executive Director of the 501(c)(3) nonprofit organization, Counter Tools, from which she receives compensation. Counter Tools/UNC software tools were *NOT* used in this study.

**COPENHAGEN BLACK**  
SUGAR FREE  
SMALL BATCH  
COPENHAGEN  
The product is not a safe alternative to cigarettes.

**RED LABEL**  
HIGH STRENGTH FLAVOUR  
**MARLBORO**

**DISCOVER**  
REGULAR MENTHOL  
Marlboro

**Marlboro**  
Full Flavour  
Menthol



 **COUNTER TOBACCO**



NCE 1913



**SPECIAL OFFER**  
**\$ 4.55**  
**SPECIAL PRICE PLUS TAX**

**CAMEL**  
**EXTRA \$2.50 OFF**  
**PACKS**



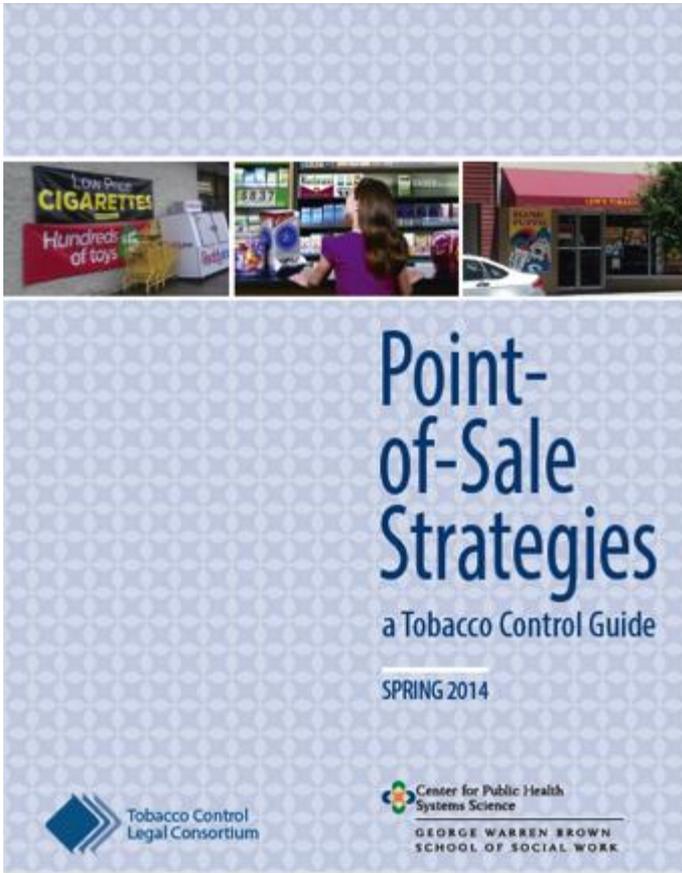
**CAMEL**  
**SINCE 1913**  
**SPECIAL OFFER**  
**WHEN YOU BUY 2 PACKS**  
**\$3.30 PER PACK**



What are “POS Strategies”?



# Policy Option Domains\*

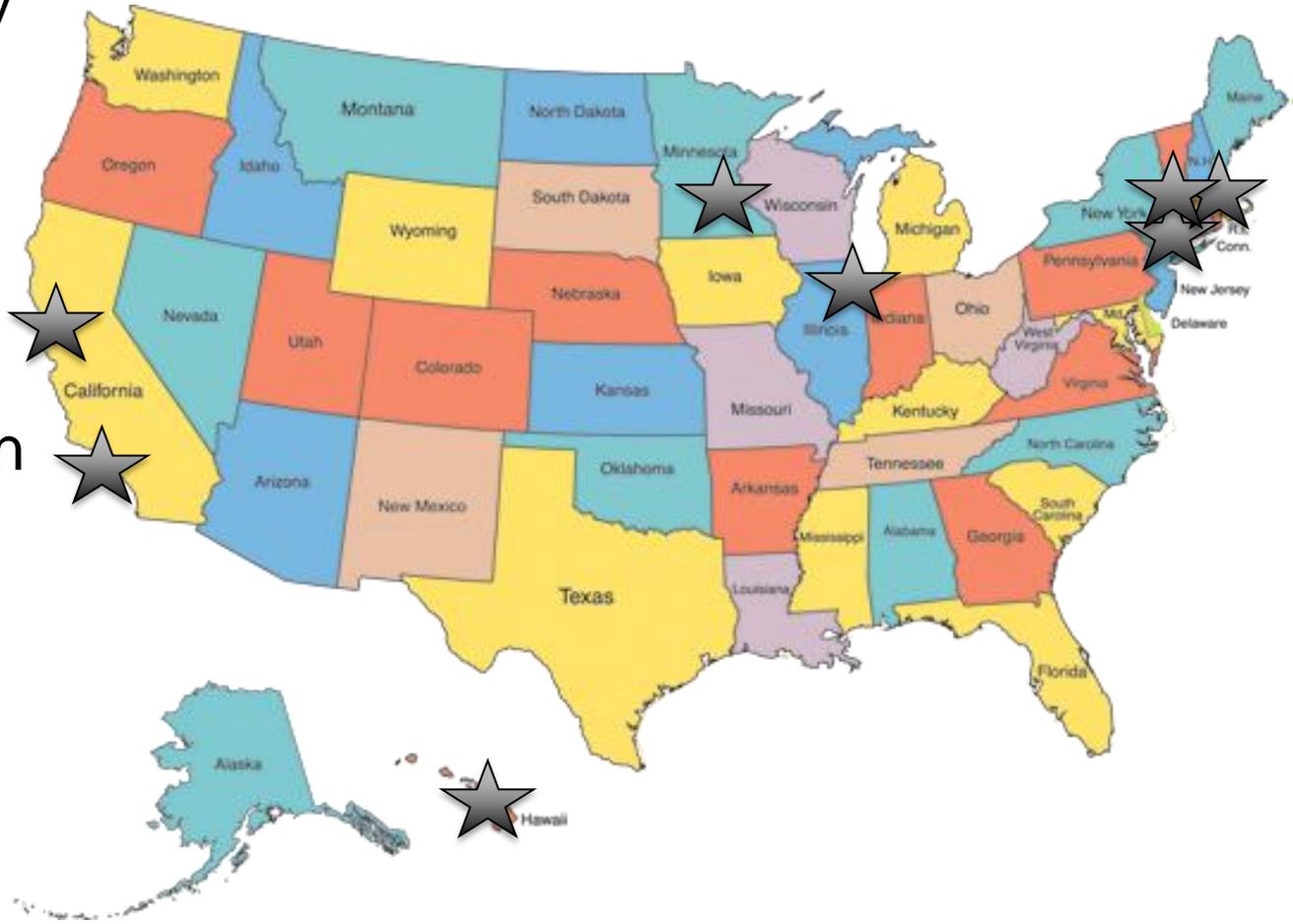


1. Reducing number, location, density, and types of tobacco retail outlets
2. Increasing the cost of tobacco products through non-tax approaches
3. Implementing prevention and cessation messaging
4. Restricting point-of-sale advertising
5. Restricting product placement
6. Other (flavor, minimum package size)

\*See menu of >25 policies in the POS Strategies Guide

# POS Policy Case Studies

1. Retailer density
2. Sales bans in pharmacies
3. Coupon redemption ban
4. Flavor ban
5. Tobacco 21
6. Combinations



# Tobacco Retailer Licensing

- Licensing is like the binder that holds other tobacco control policies inside
- All tobacco control laws can be *enforced* through TRL ordinance



# Retailer Density

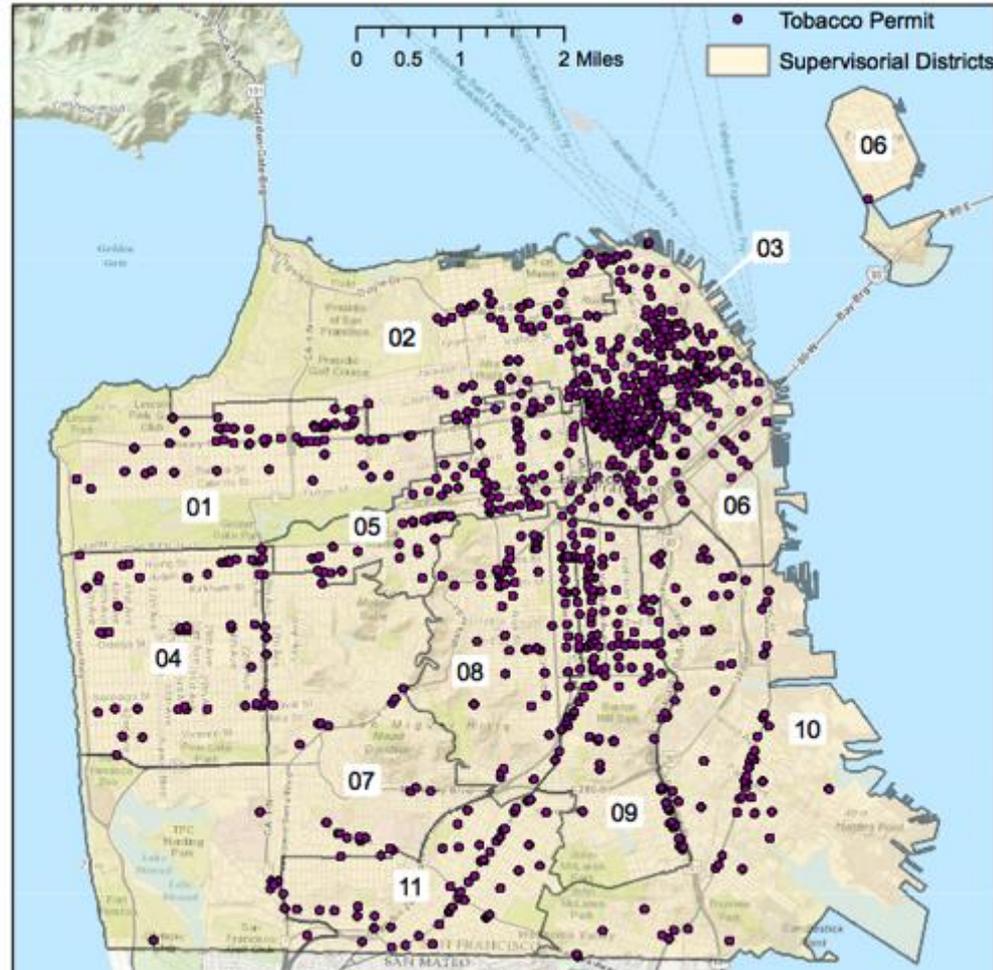
## San Francisco, CA: Tobacco Sales Reduction Act

- Cap of 45 tobacco sales permits in each district
- Youth Leadership Institute
- Tobacco Use Reduction Force
- Arab-American Grocers Association

## Other examples:

- Huntington Park, CA
- Amherst, MA

San Francisco Tobacco Permits - 2014



# Tobacco-Free Zones near Schools and Parks

New Orleans, Louisiana



**TOBACCO POLICY Update** January 2011

### Federally Funded Initiative Inspires Change in Santa Clara County Policies

In 2010, the Santa Clara County Public Health Department was awarded a \$6.9 million federal grant from the American Recovery and Reinvestment Act for tobacco prevention efforts. Entitled "Communities Putting Prevention to Work" (CPPW), the two-year program focuses on expanding community capacity and implementing policy, environmental and system changes in communities and schools. Santa Clara County is one of only 50 communities in the nation and one of just three counties in California to receive funds.

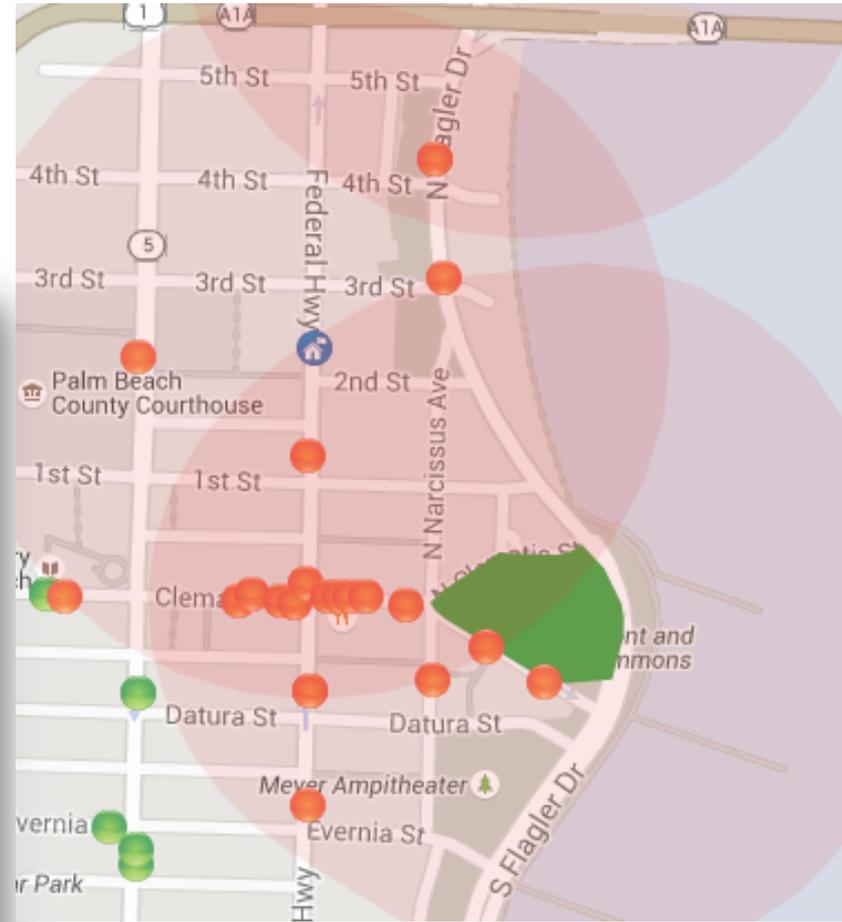
**Recent Successes:**

- The City of San Jose, adopted a strong tobacco retail licensing ordinance in January 2011. The ordinance requires the 800 retailers operating in San Jose to obtain an annual license to sell tobacco, and includes every generation, including license suspension and revocation, for illegal selling tobacco to minors or for any violation of local, state or federal regulations.
- The Santa Clara County Board of Supervisors adopted three new tobacco prevention policies:
  - The Smoking Pollution Control Ordinance further protects non-smokers from the negative health effects of secondhand smoke in public areas.
  - The Multi-Unit Residence Ordinance protects non-smokers within their homes against secondhand smoke exposure and
  - The Tobacco Retailer Permit Ordinance limits tobacco sales near schools.
- The Saratoga City Council adopted a new comprehensive smoke-free policy for recreational/park areas including parking areas.

**Program Goals**

- Create and implement an aggressive media and marketing campaign to educate the public about the health risks associated with exposure to secondhand smoke, to encourage people to stop smoking, and to discourage youth from starting to smoke.
- Limit tobacco sales to youth through licensing of tobacco retailers.
- Engage youth and young adults to promote tobacco prevention policies.
- Expand cessation support

Santa Clara County, California



West Palm Beach, FL  
Store Mapper Policy Tester:  
Schools and Parks

# Sales Ban in Pharmacies

## San Francisco, CA

- Includes big box retailers and grocery stores

## Boston, MA

- Includes pharmacies, drug stores, health care facilities, and educational facilities

## Other examples:

- Rock County, MN
- CVS

No doctor  
would ever  
prescribe  
tobacco...  
so why do  
pharmacies  
sell it?

---

52% of all pharmacies in New York State  
still sell tobacco products.

It's time to end this practice.  
Lend your support at [BreatheFreely.org](http://BreatheFreely.org)

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# Coupon Redemption Ban

## Providence, RI

- Ban on accepting coupons that make tobacco products cost less than listed retail price
- Meaningful penalties
- Won in 2<sup>nd</sup> Circuit Court of Appeals

## Other examples:

- Boston and others, MA
- New York City



Offer void in MA and where prohibited.

# Flavor Ban\*

\*excludes menthol, mint, wintergreen

## Minneapolis

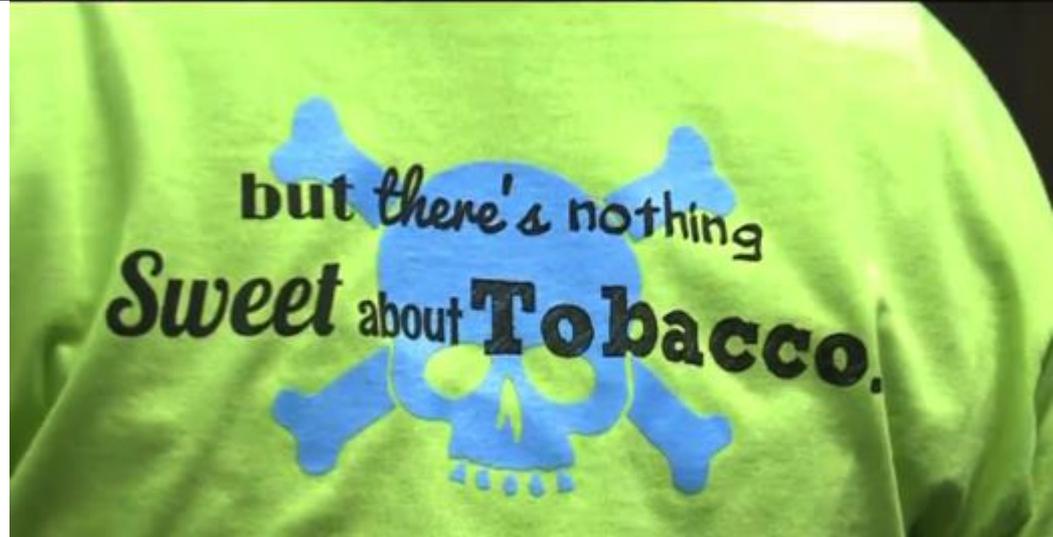
- Effective January 2016
- Affects c-stores
- Minneapolis Youth Congress

## New York City

- “Tobacco bar” exception
- Appeal: regulates sales, not manufacturing

## Other examples:

- Providence, RI
- New York State Assembly Bill 1179



# Tobacco 21

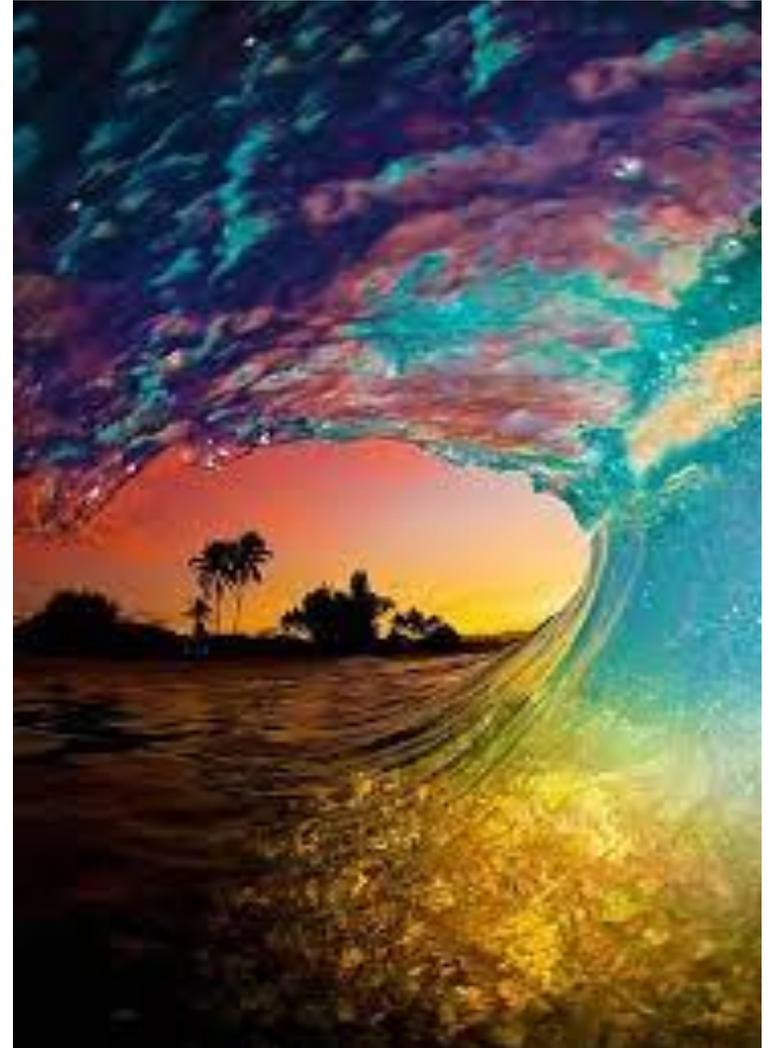
## Hawaii

- Effective January 2016
- IOM report
- Youth testimony

## Other examples:

*68 localities in 8 states*

- California
- Hawaii
- Illinois
- Massachusetts
- Missouri
- New Jersey
- New York
- Ohio



# Combinations

Flavor Ban + School Buffer Zone

- Chicago, IL

Retailer Density + Retailer Buffer Zone

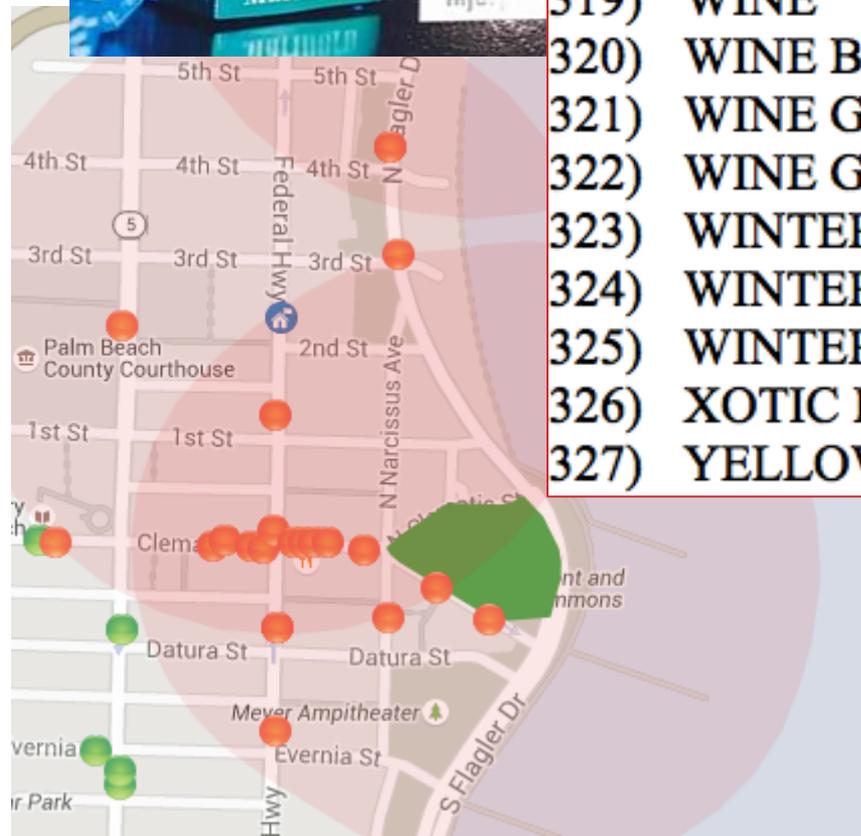
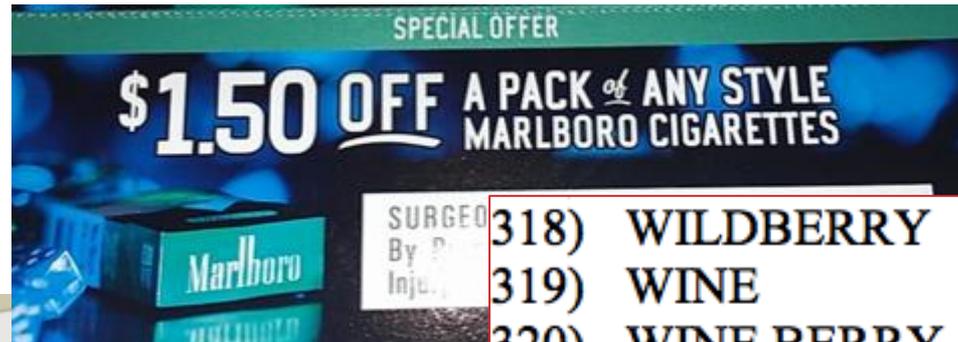
- San Francisco, CA

Multi-Pack

Discount/Coupon

Redemption Ban + Flavor Ban

- Providence, RI



- 318) WILDBERRY
- 319) WINE
- 320) WINE BERRY
- 321) WINE GRAPE B
- 322) WINE GRAPES
- 323) WINTERGREEN
- 324) WINTERGREEN BLEND
- 325) WINTERGREEN CHEW
- 326) XOTIC BERRY
- 327) YELLOW CAKE

# POS Strategies & Best Practices



# First things first. This we know:

## Exposure to POS tobacco

- Price promotions;
- Product displays and advertisements;
- Retail marketing



- Tobacco use initiation
- Tobacco use maintenance
- Difficulty quitting

*“Several studies met key criteria for causality: 4 indicated a dose–response association, 2 prospective studies were identified, and evidence from intervention studies supported the reversibility of the association.” p. 2, [Robertson, et al., 2014](#).*

# Theoretically, then:

Exposure to tobacco

- Price promotions;
- Product displays and advertisements;
- Retailing/retail marketing



- Lower initiation rates
- Lower consumption/use
- Easier to quit

# CDC 2014 Best Practices

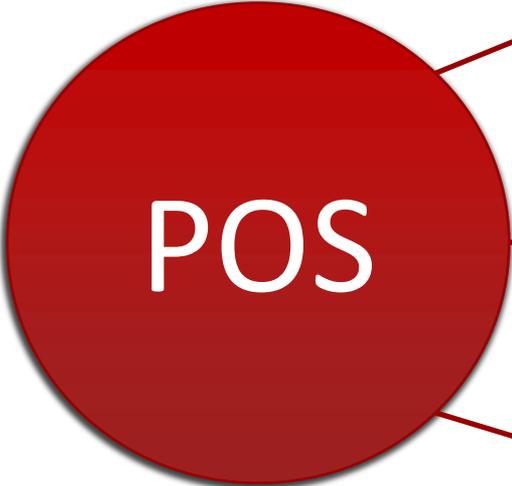


## Best Practices for Comprehensive Tobacco Control Programs

2014

1. Preventing initiation of tobacco use among youth and young adults
2. Promoting quitting among adults and youth
3. Eliminating exposure to secondhand smoke, and
4. Identifying and eliminating tobacco-related disparities among population groups

# POS fits CDC 2014 Best Practices



POS

1. Preventing initiation of tobacco use among youth and young adults
2. Promoting quitting among adults and youth
3. Eliminating exposure to secondhand smoke, and
4. Identifying and eliminating tobacco-related disparities among population groups

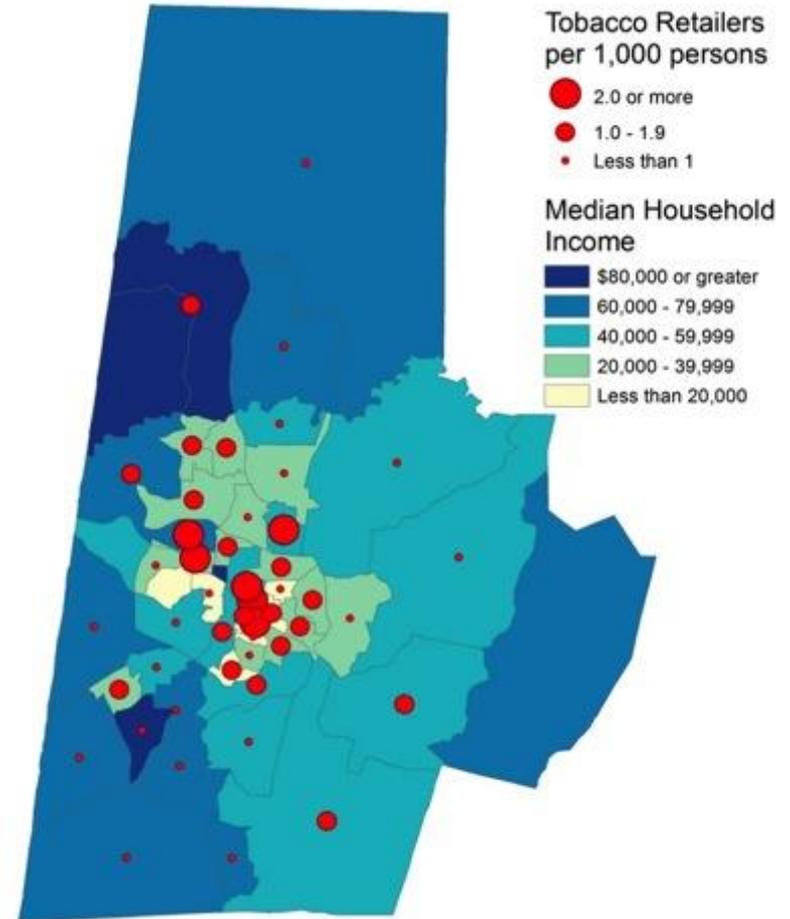
# Potential Impact of POS Policies

What could we achieve?



# The problem with tobacco retailer density

- ✓ Higher retailer density yields greater tobacco ad exposure and product use<sup>1-4</sup>

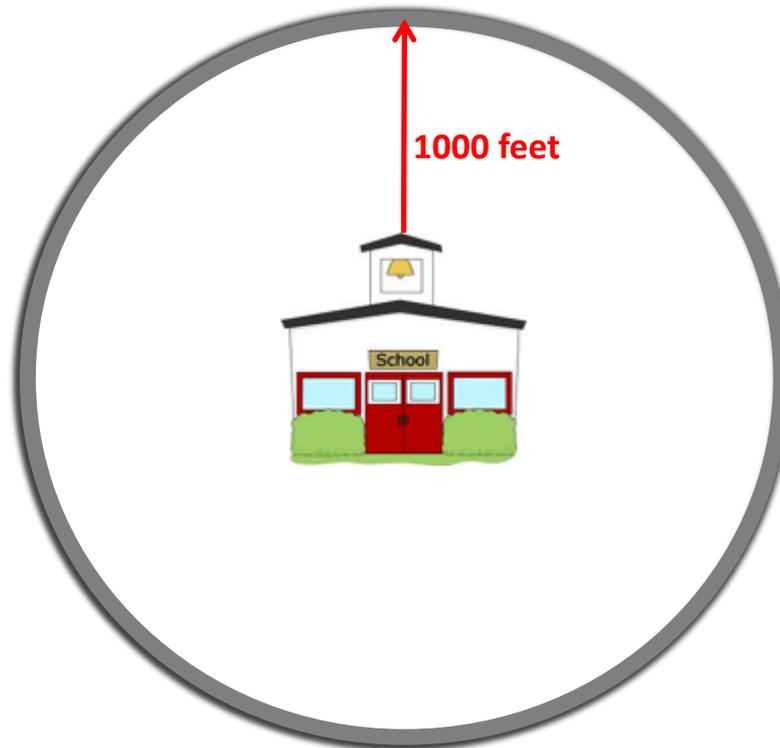


# Density reduction: 3 testable public health policy solutions

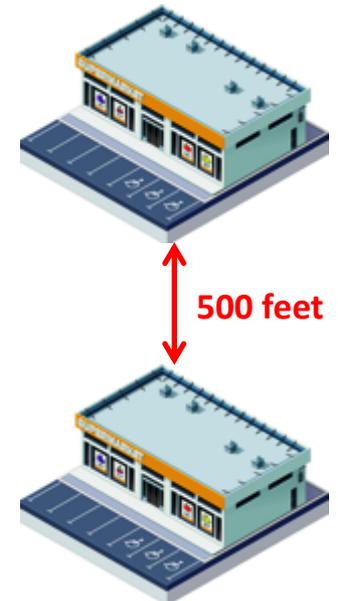
1. Prohibiting tobacco product sales in pharmacies



2. Prohibiting tobacco product sales within 1000 feet of schools

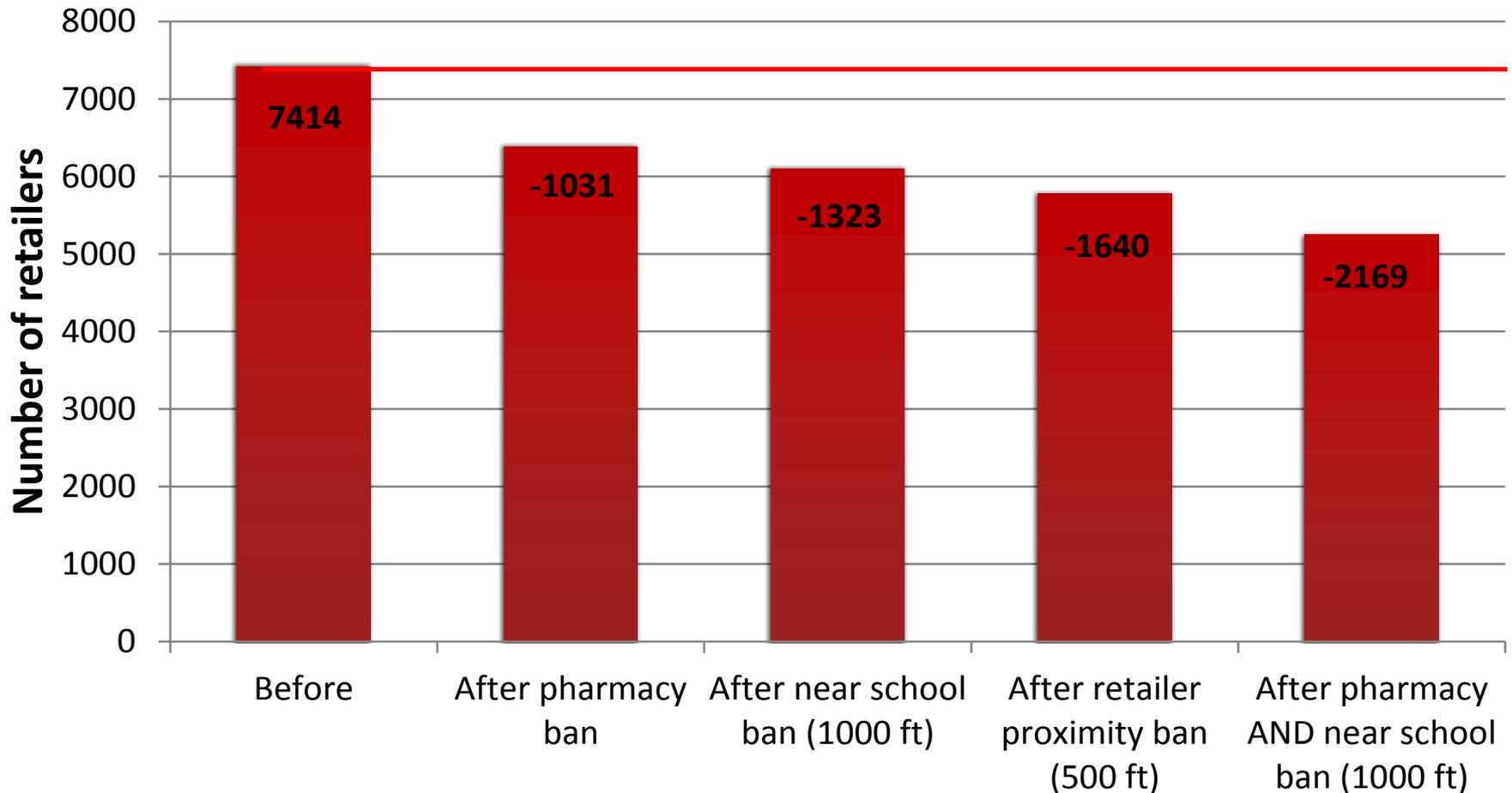


3. Requiring at least 500 feet between tobacco product retailers



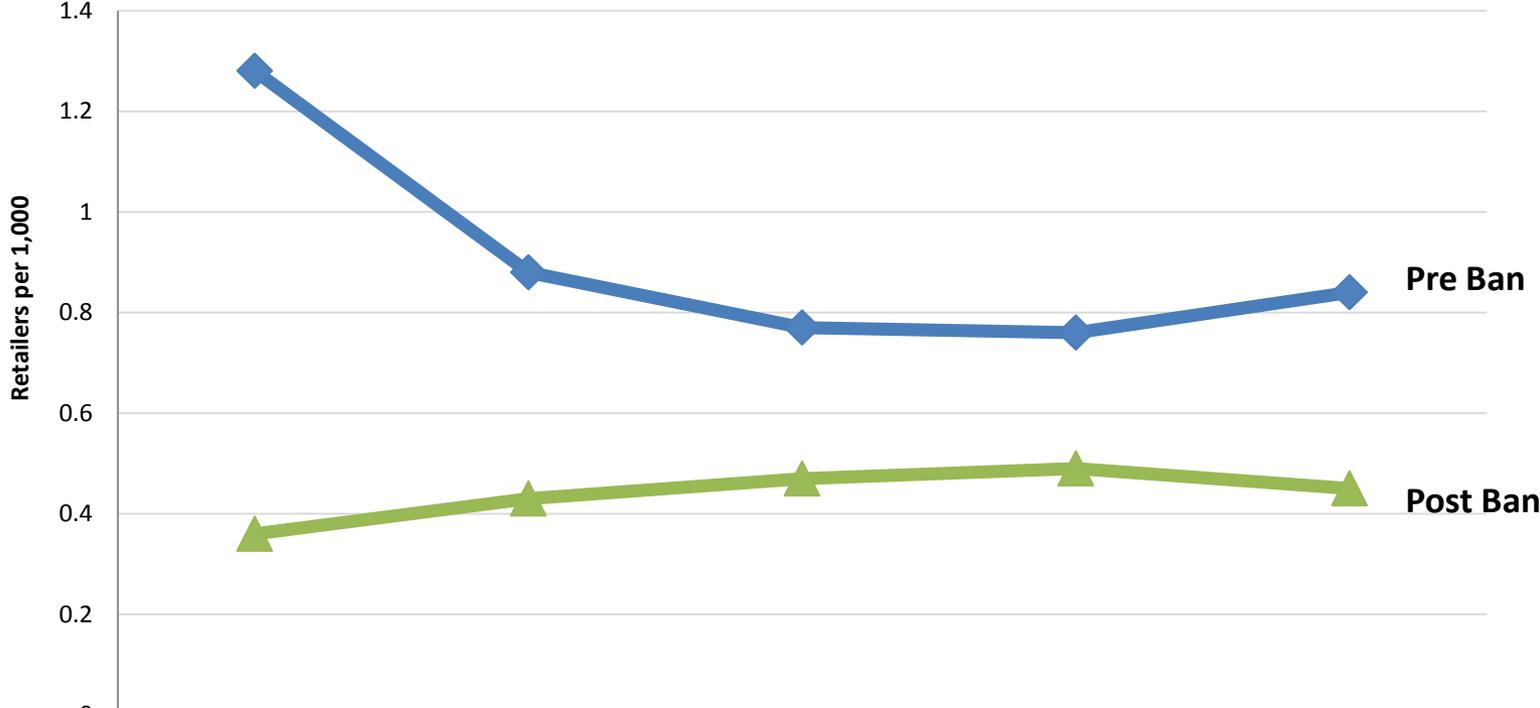
# Results: Number of retailers removed

Results using North Carolina statewide tobacco retailer list (7,414 stores)



# Projected impact on disparities of 1000-ft ban

## New York Density by Income Level

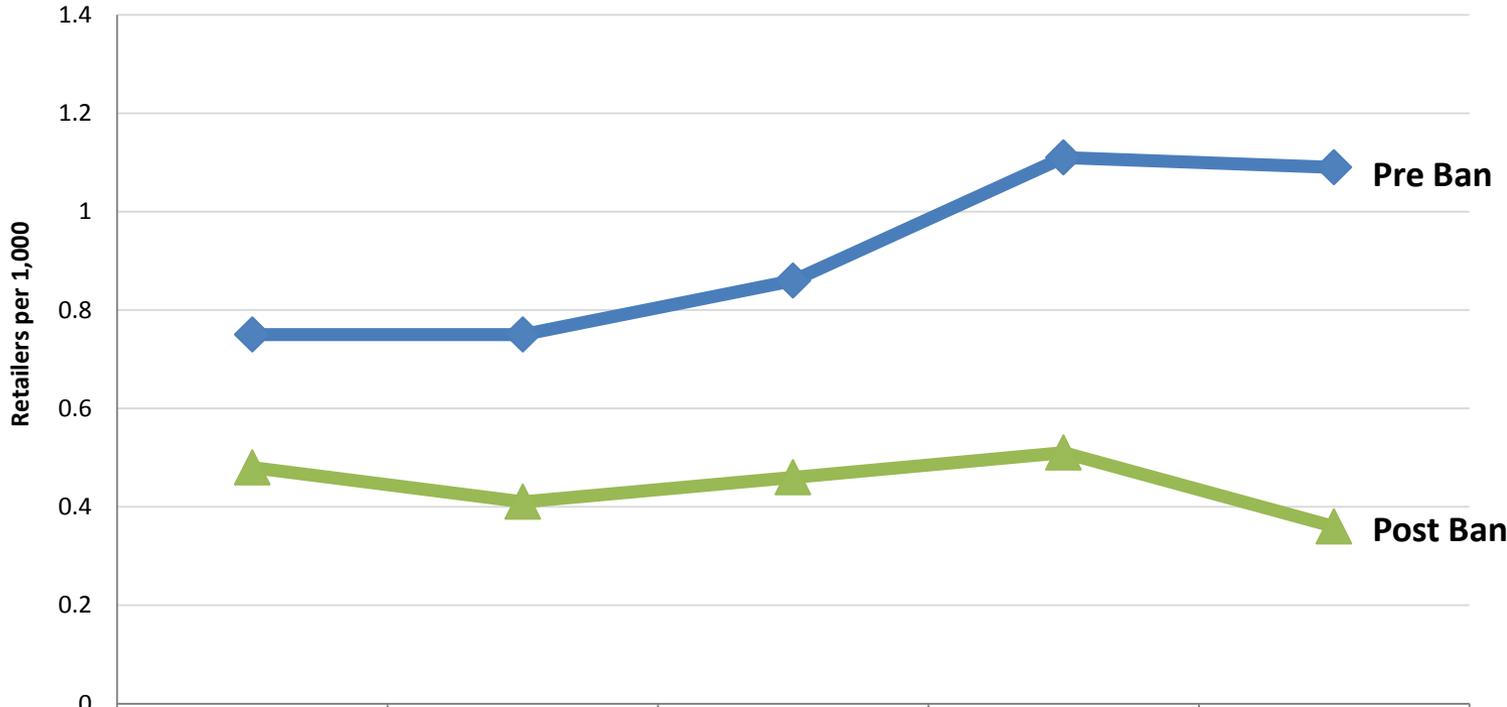


	1 (low)	2	3	4	5 (high)
Pre Ban	1.28	0.88	0.77	0.76	0.84
Post Ban	0.36	0.43	0.47	0.49	0.45

Ribisl, et al. (Under Review) Reducing tobacco related disparities through point-of-sale regulation: Differential impact of banning tobacco product sales near schools.

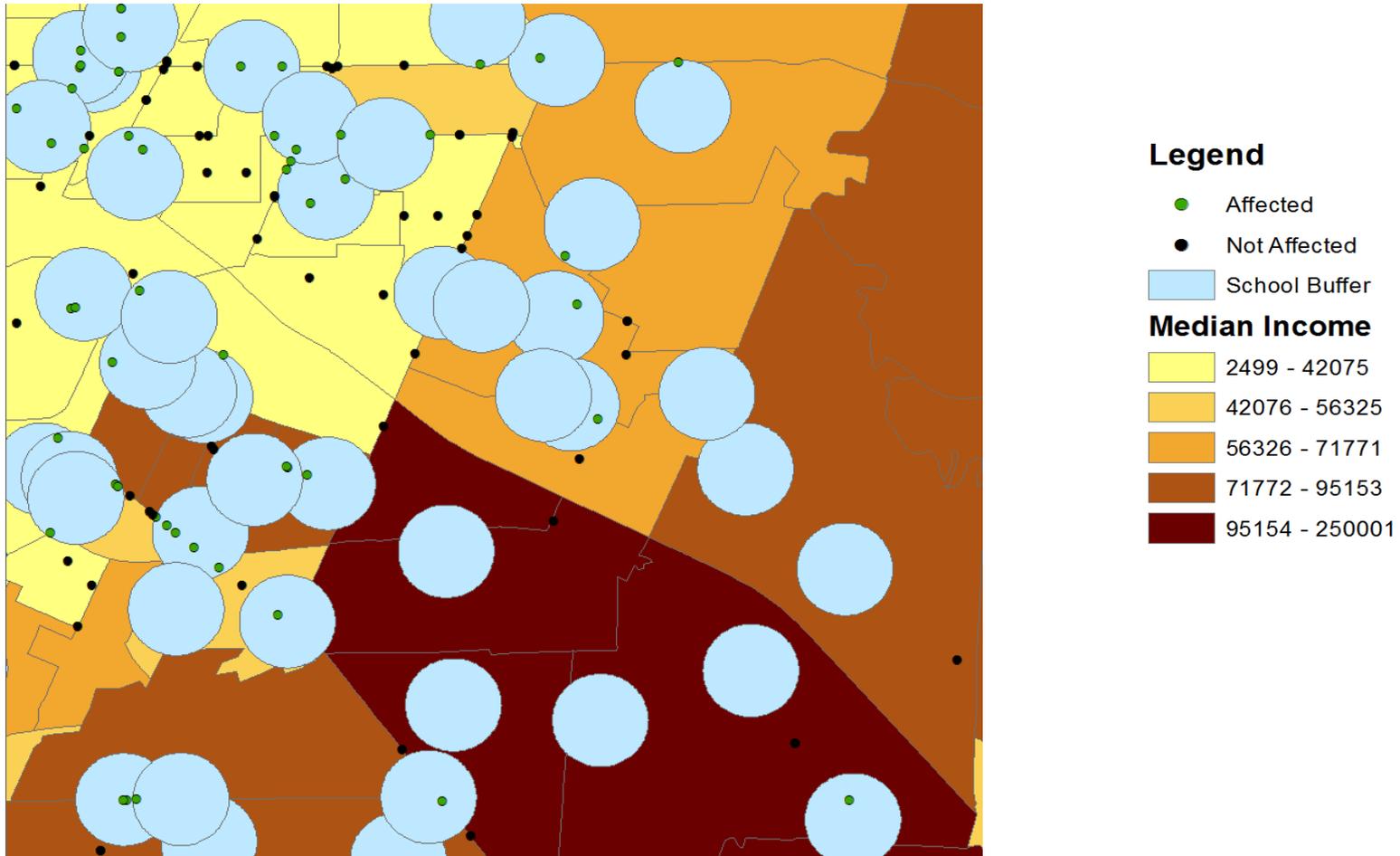
# Projected impact on Disparities of 1000 ft ban

## New York Density by % Black Level



	1 (low)	2	3	4	5 (high)
Pre Ban	0.75	0.75	0.86	1.11	1.09
Post Ban	0.48	0.41	0.46	0.51	0.36

# School ban impact varies by income



Questions?  
Thank you!

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[aemyers@live.unc.edu](mailto:aemyers@live.unc.edu)  
[@aem\\_forhealth](#)



# Removing tobacco product displays

BEFORE



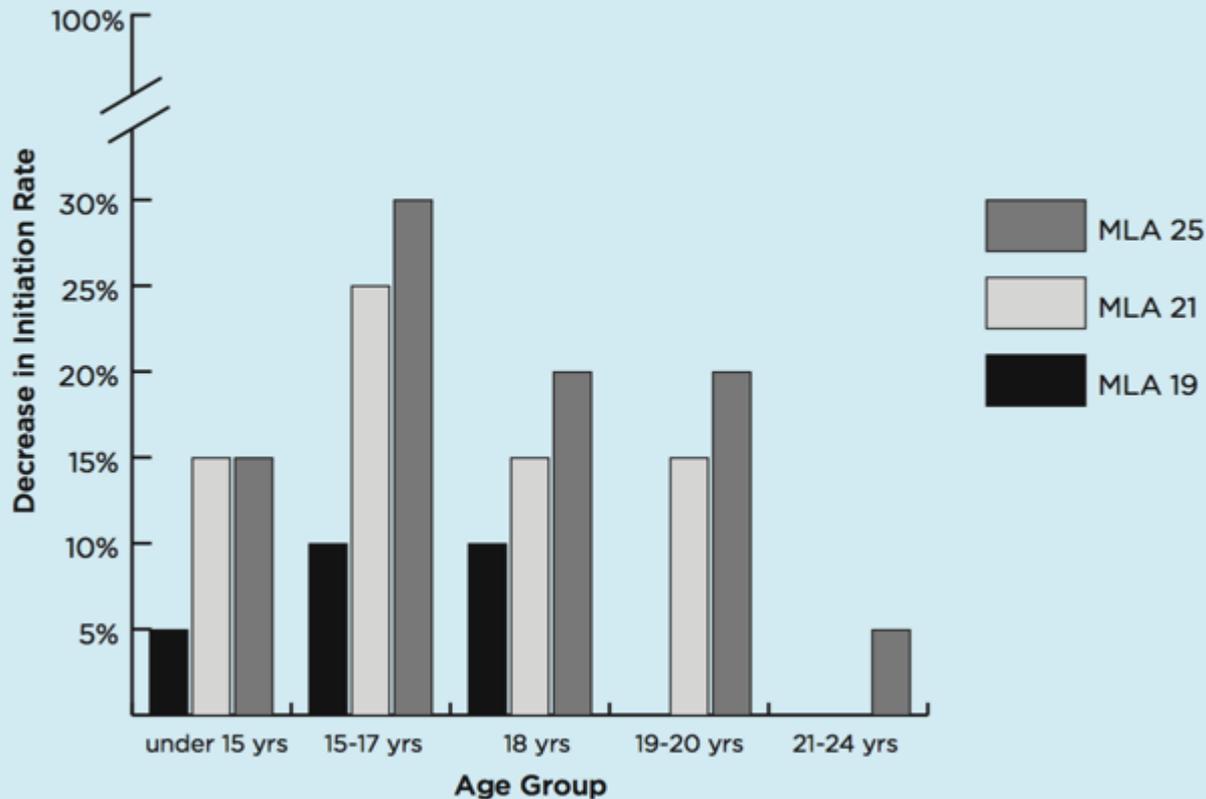
AFTER



- >400 daily adult smokers, recruited via exit interviews, before & after ban
- After the ban:
  - Fewer smokers “noticed” the displays
  - Fewer smokers reported making spontaneous purchases
  - Fewer claimed the displays influenced their purchase decisions

# Raising the MLA ... Tobacco 21

FIGURE: Committee Estimates Regarding Effects on Initiation Rates

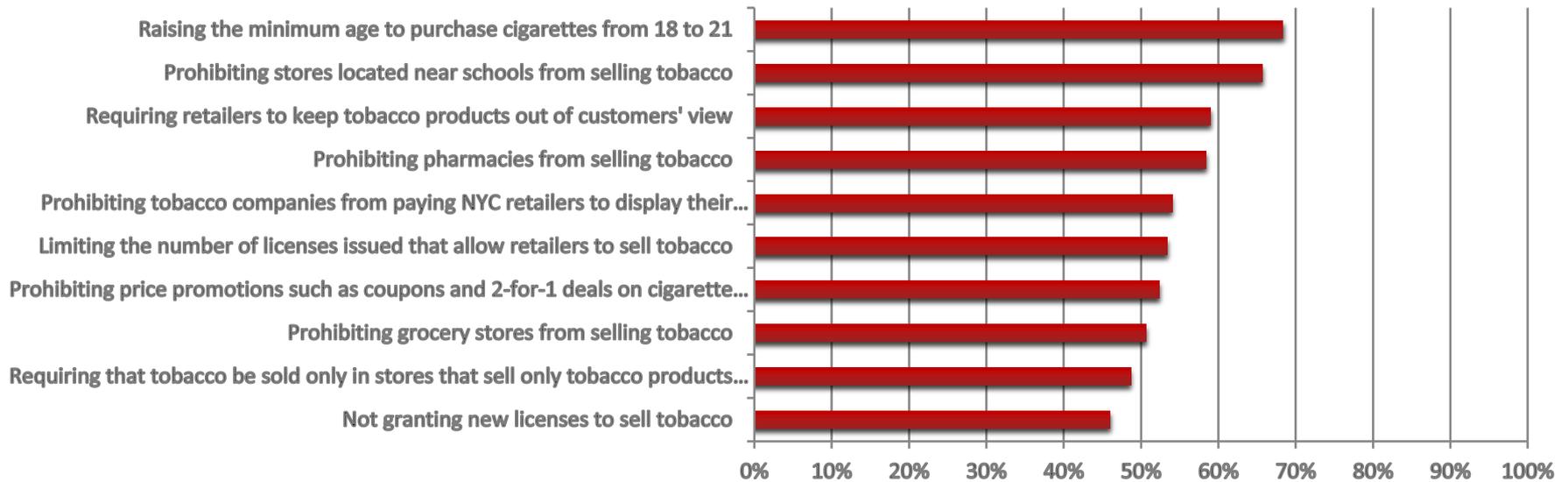


Raising the minimum age of legal access (MLA) or minimum legal sales age (MLSA) will reduce initiation, particularly among youth ages 15 to 17



# Public opinion on retail-based strategies

## Farley, et al., 2013: Mean overall public support for retail-based tobacco control strategies, Waves 1-3, NYC



“...Retail-based strategies are consistently supported by the public, providing useful information for jurisdictions examining emerging tobacco control strategies.”

# Retailers compliant after display bans

**TABLE 1—Percentage of Stores With Select Tobacco Promotions Over 4 Waves of Data Collection: Ontario, Canada, 2005–2009**

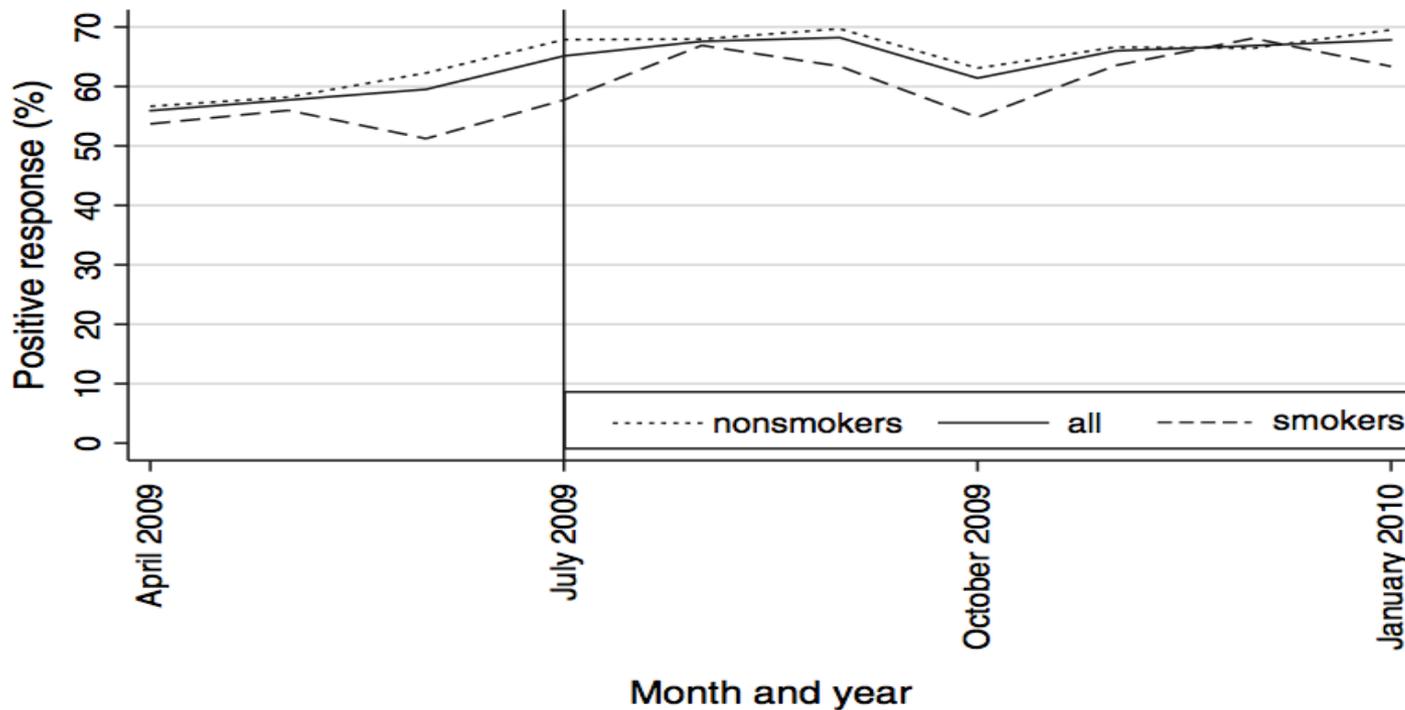
Promotion Type	Wave of Data Collection			
	2005 (n=481), %	2007 (n=433), %	2008 (n=403), %	2009 (n=374), %
Visible cigarettes	100.0	100.0	0.02	0.04
Countertop displays <sup>a</sup>	46.2	0.0	0.0	0.0
Indoor signs <sup>a</sup>	30.8	3.5	0.1	0.2
Side panels on powerwall <sup>a</sup>	14.3	0.5	0.0	0.0
Outdoor signs <sup>a</sup>	20.7	0.7	0.2	0.08

*Note.* A total of 107 stores shut down at some point during data collection and therefore incomplete data was collected for at least one wave.

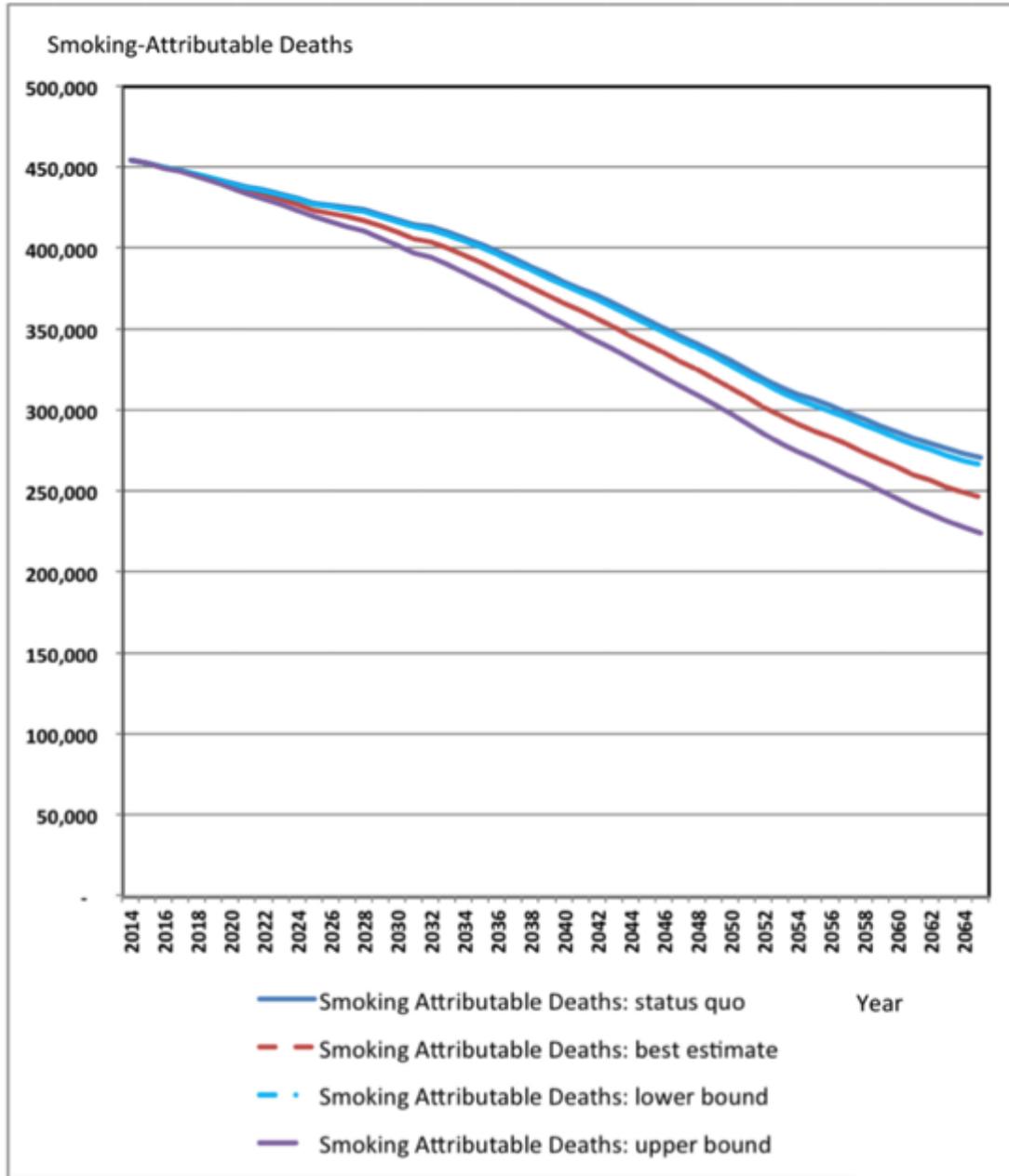
<sup>a</sup>Prohibited as part of the May 2006 restrictions. Note that the “indoor signs” measure does not include the indoor signs that continued to be allowed after the May 2008 total display ban (signs not exceeding maximum size, with black text on white background, not visible from outside the store, with no brand identified, and no more than 3 such signs).

- 99.8% compliance following implementation of the display ban
- “Ban on product displays and other price signs and ads is a critical tobacco-control policy”

# Removing tobacco product displays



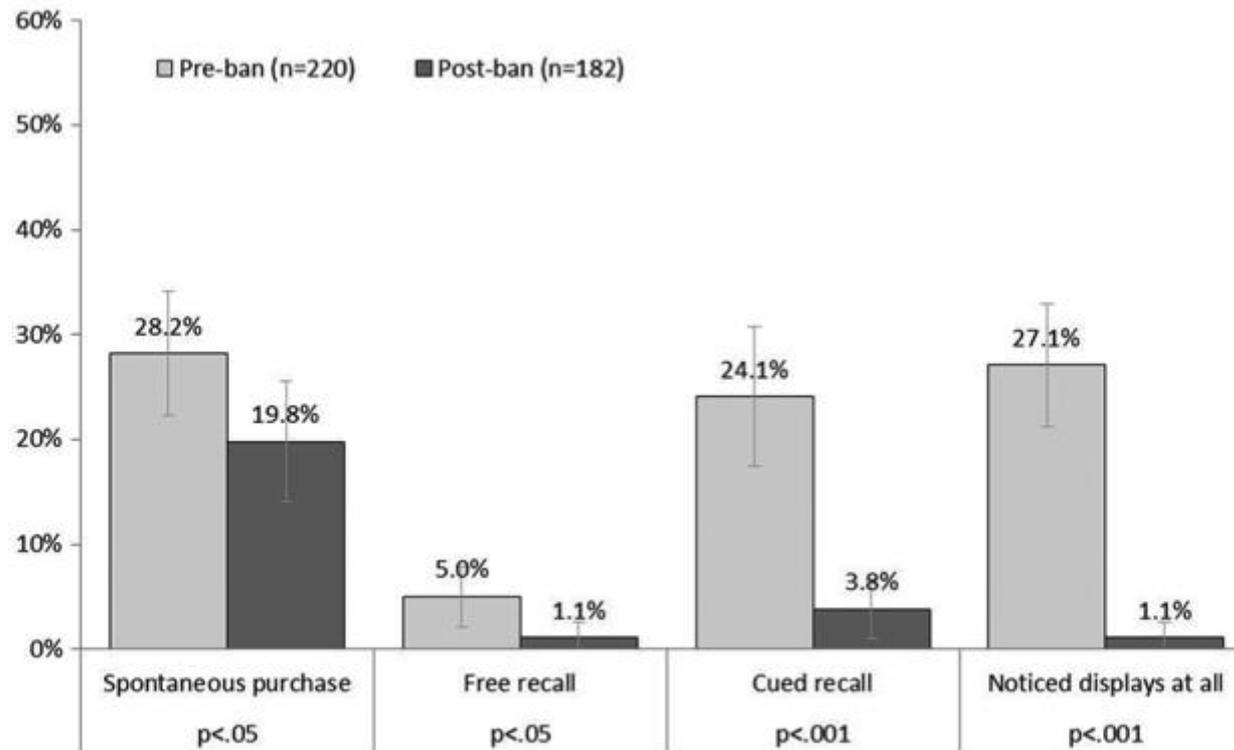
**Figure 2** Support for a complete ban on tobacco displays among adults, overall and according to smoking status.



# SimSmoke: Tobacco product display and advertising

Figure 2. Smoking-attributable deaths, with and without a POS display and advertising ban, 2014-2065, SimSmoke Projections. Levy DT, Lindblom EN, Fleischer NL, Thrasher J, Mohlman MK, Zhang Y, Monshouwer K, Nagelhout GE. Public health effects of restricting retail tobacco product displays and ads. Tobacco Regulatory Science. 2015 April; 1(1):61-75.

# Appendix: Carter, Phan, Mills, 2015

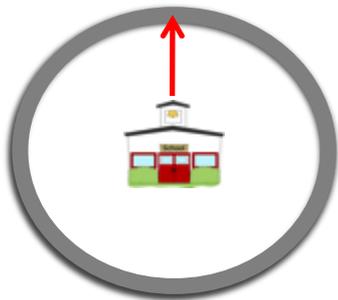


**Figure 2** Proportions (with 95% CIs) of smokers before versus after the tobacco display ban making spontaneous purchases, mentioning the display via free recall and cued recall and reporting noticing the displays at all.

# Methods: ID pharmacies and proximity to schools, retailers



- Code known RX, not known RX
- Online store locaters; proportions for remainder



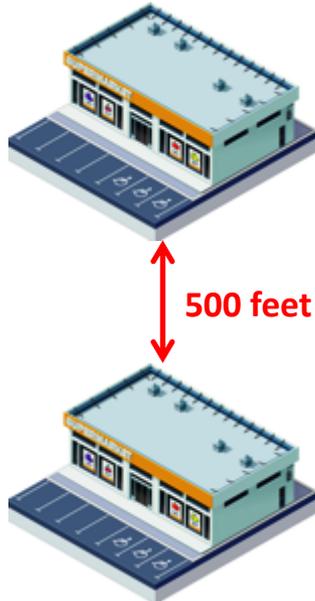
- Point and parcel data
- Add 1,000 foot buffer zone to parcel
- Add 1,611\* foot buffer zone to point



- Random choice analysis script in Python for ArcMap
- Identify proximity relationships at 500 feet
- Randomly delete; iterate to zero relationships
- Run 1,000 times; use mean number removed

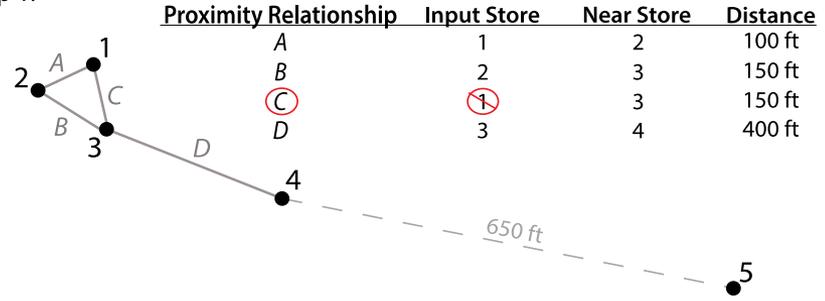
## Policy:

Requiring at least 500 feet between tobacco product retailers

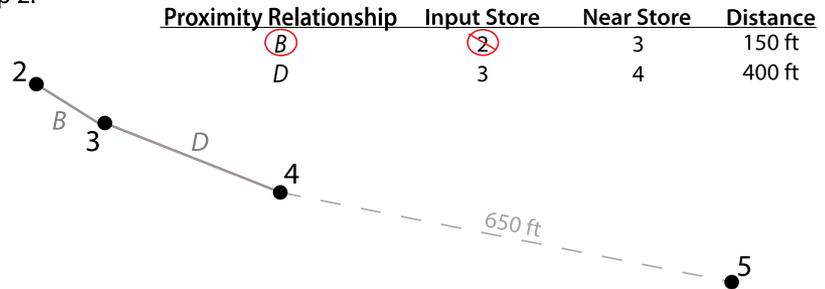


## Random choice-removal proximity analysis

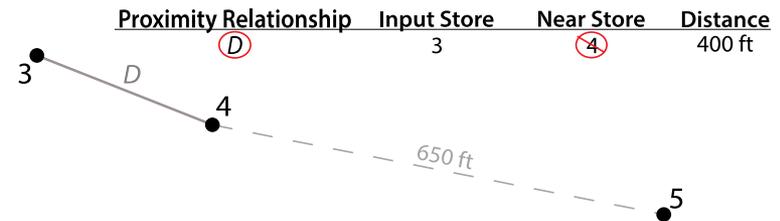
Step 1:



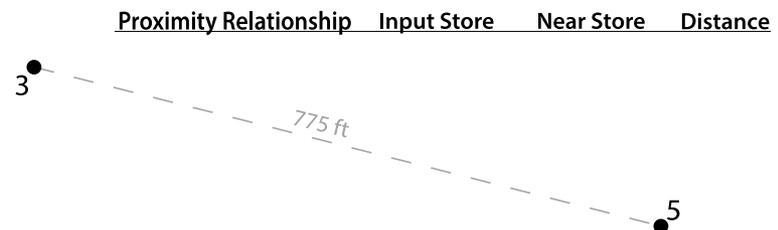
Step 2:



Step 3:

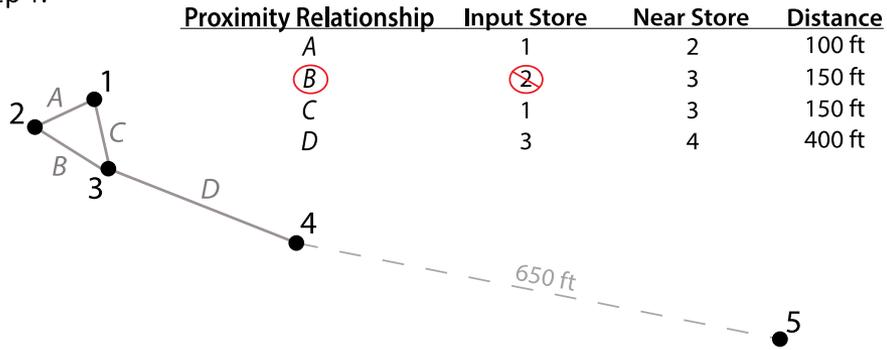


Step 4:

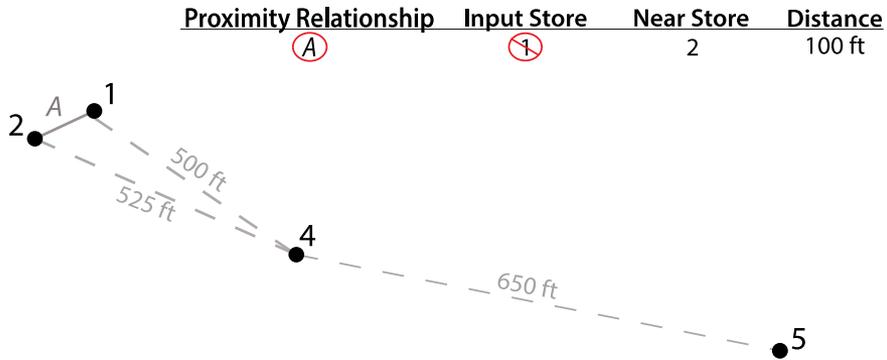


# Random choice-removal proximity analysis

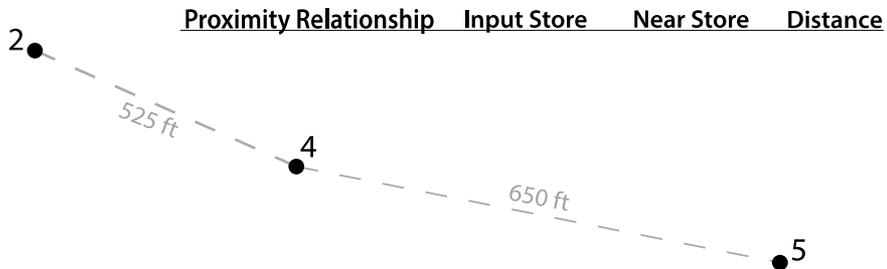
Step 1:



Step 2:



Step 3:



# Methods: ID pharmacies,

**Step 1.** Code known pharmacies (e.g. CVS)

**Step 2.** Code known *not* pharmacies (e.g., Exxon)



**Step 3A.** Hand verify remainder with online store locator descriptions

OR



**Step 3B.** Assign proportion pharmacies based on chain-specific percentage in large NC city

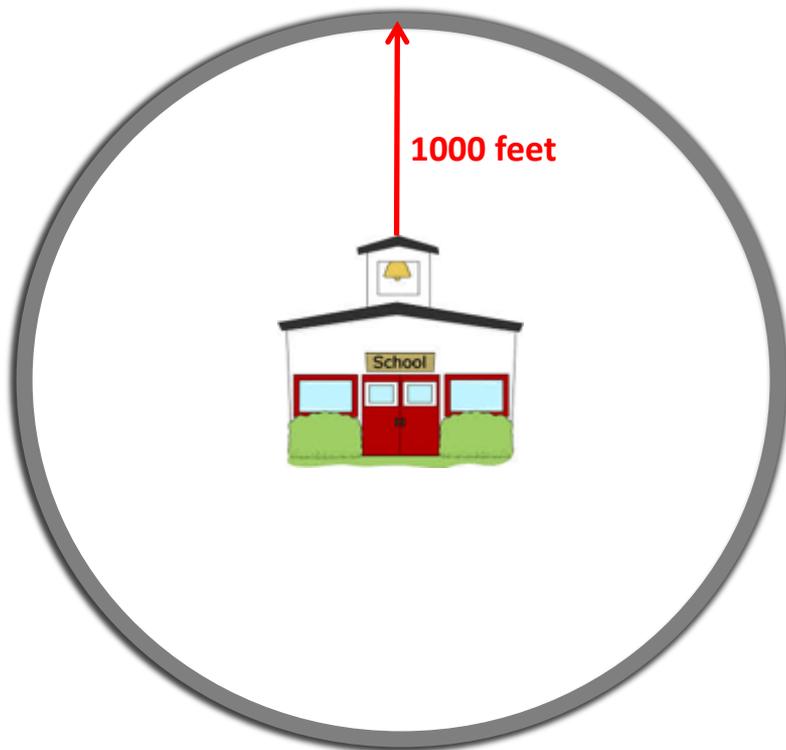
# Methods: Retailer proximity to schools

**Step 1.** School point location data for North Carolina

**Step 2.** School parcel location data for gold standard 3-county list

**Step 3.** Add buffer zone to point or parcel

Parcel = 1,000-foot buffer  
Point = 1,611-foot buffer\*



\* 611 feet = average distance from the parcel centroid to the parcel boundary for the 3 gold-standard counties.

# Methods: Retailer proximity to another retailer

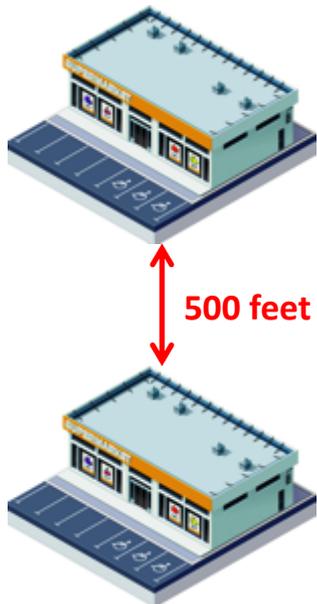
**Step 1.** Custom random choice analysis script in Python for ArcMap

**Step 2.** Identify all proximity relationships at 500 ft

**Step 3.** Randomly delete one retailer from each proximity relationship

**Step 4.** Continue iteratively until zero proximity relationships

**Step 5.** Run 1,000 times; use mean number removed





**Youth and Community Engagement Activities**

**A Point of Sale Photovoice Project**

**Advocate Against Youth Targeting**

**Special Edition POS Scavenger Hunt**

**Point-of-Sale Scavenger Hunt**

**Tobacco Retailer Nation**

**Walking Tobacco Audit**

**Tobacco Free Pharmacies**

**Webinar Archive**

**Data Collection Tools**

**Public Opinion Survey**

**Store Assessment Tools**

**Evidence Summaries**

**POS Report to the Nation**

**Rebutting Economic Arguments Against**

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## REBUTTING ECONOMIC ARGUMENTS AGAINST POS

The tobacco industry often argues against health promoting policies, citing devastating financial consequences for retailers and in particular for convenience stores that sell tobacco products. Tobacco control policies focused on the retail environment, such as bans on price discounts, coupon redemption and the removal of tobacco products from pharmacy shelves have been the target of significant push back. Economic concerns raised typically center around job loss, store closures and the financial burden incurred by retailers to comply with progressive point-of-sale (POS) policies.

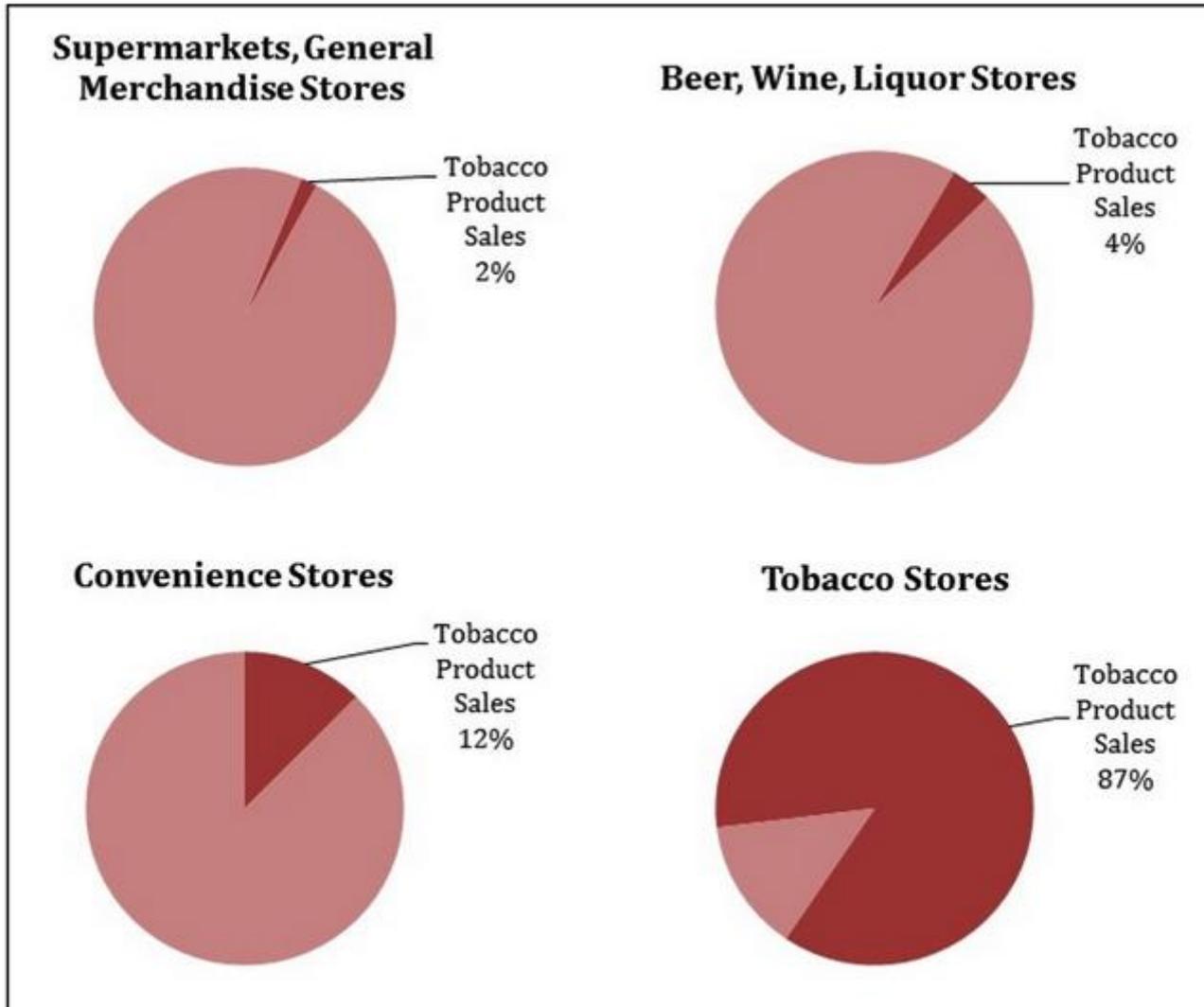
### Why is there concern for the retail industry— specifically convenience stores?

A majority of tobacco industry revenue funnels through retailers. According to data from the US Department of Commerce, in 2002, 93% of all tobacco sales were generated by the following retail categories: 1) convenience stores, 2) supermarkets and general merchandise stores, 3) tobacco stores and 4) beer, wine and liquor stores (See Figure 1).<sup>[1]</sup> Sales data reported were collected from retail establishments with at least one or more paid employees<sup>[1]</sup> As outlined by Table 1, nearly 51% of all tobacco retail sales, equaling approximately \$26 billion, occurred in convenience stores.<sup>[1]</sup> 95% of convenience stores sell tobacco products and tobacco sales comprised 12.4% of convenience store sales in 2002 (See Figure 2).<sup>[1]</sup> The data reveal the importance of the convenience store to the tobacco industry as it is a primary channel for tobacco product distribution.

Table 1: 2002 Sales Revenues for Grouped Retail Establishments for all 50 US States

Retail Category	Sales Generated from Tobacco Products* (Billions)	Percentage of All Tobacco Retail Sales	Percentage of Sales from Tobacco Products
1. Convenience Stores**	\$25.7	50.6%	12.4%
2. Supermarkets, General Merchandise Stores	\$14.8	29.1%	1.8%
3. Tobacco Stores	\$5.7	11.2%	86.9%
4. Beer, Wine, Liquor	\$1.2	2.4%	4.4%

Figure 2: Percent of Total Annual Sales Generated by Tobacco Products by Retail Category, 2002



Source: Based on data from US Census of Retail Trade 2002; Ribisl KM, Evans WN, Feighery EC. Falling cigarette consumption in the U.S. and the impact upon tobacco retailer employment. In: Bearman P, Neckerman K, Wright L, eds. Social and Economic Consequences of Tobacco Control Policy. New York:Columbia University Press, 2011.

## RESPONSES TO ECONOMIC CONCERNS SURROUNDING TOBACCO CONTROL

### **Economic Concern #1: Increased financial burden among smaller retailers**

Due to the lower overall profit margins earned by locally owned retail outlets, POS tobacco control measures like display bans, are met with strong opposition from smaller retailers. Owners of these outlets fear that the implementation of tobacco display bans will result in reduced sales and the loss of tobacco industry financial incentives to display ads at the point of sale. It is also argued that the additional costs to implement enclosures necessary to comply with the requirements of a tobacco display ban can be costly for small retailers.

**Research's Response:** Retail display bans have been implemented in several countries such as Iceland (2001), Thailand (2005), Ireland (2009) and several Canadian provinces[3].

#### Economic Impact of Display Ban in Canada

In Canada, convenience stores feared that the enforcement of a tobacco display ban would ruin retail sales [3]. In Saskatchewan, Canada, a tobacco display ban was implemented in 2002 and then lifted during October of 2003 to 2005 due to a court appeal. In 2005, the tobacco display ban was reinstated. During 2000-2005, Saskatchewan tobacco sales only fell slightly below national Canadian sales [3]. Thomson and colleagues indicated that a drastic drop in sales was likely not observed because the economic impact of changes in experimentation, initiation and addiction will take several years to manifest. This delayed effect should allow retailers time to diversify product offerings in order to compensate for the impending decrease in tobacco sales [3].

Furthermore, after the implementation of display bans, tobacco industry reports submitted to Health Canada reveal that annual payments to Saskatchewan tobacco retailers experienced modest decreases: 3% between 2004 and 2005, and 8% between 2005 and 2006 [3]. Although a slight decrease in annual payments was observed, retailers were still receiving incentive payments from the tobacco industry after the display ban was implemented. This demonstrates that the tobacco industry's incentive program originally designed to pay retailers to display their POS advertisements evolved into paying retailers to handle and sell the full range of their tobacco product brands [3].



## Economic Concern #2: Significant job loss to the retail industry

It is often cited that decreased production and sales of tobacco products will decrease job availability and result in negative consequences for the economy [2]. A typical tactic of the tobacco industry is to highlight the interdependence that the economy shares with tobacco production in order to raise concerns surrounding the financial impact of decreasing tobacco product sales [2]. Since US retail outlets selling tobacco employ several million individuals, job loss is a major concern when considering the economic impact of tobacco control efforts [1].

**Research's Response:** In 2011, Researchers Ribisl, Evans and Feighery sought to understand the economic impact of markedly reducing US cigarette consumption on retail establishments selling tobacco products by creating a model to mimic the implementation of the Institute of Medicine's 2007 tobacco control recommendations. To conduct the analysis, the researchers used past data on cigarette sales, cigarette tax rates, and employment from 1990 to 2004 to estimate what would happen to retail jobs and revenues if there was a large drop in smoking rates.

The study found that overall employment for the US retail industry would be expected to remain relatively unchanged despite a substantial decrease in cigarette consumption.<sup>[1]</sup> While some stores, such as tobacco outlets, will experience a greater burden of unemployment rates, other store types selling a variety of goods other than tobacco will be able to drive profits from their other product offerings.<sup>[1]</sup> Money that was once spent on tobacco products are predicted to shift to other services and merchandise.<sup>[1]</sup> Because profits driven by other products increased, lowered tobacco sales at stores did not harm levels of overall retail employment.<sup>[1]</sup>



### **Economic Concern #3: Increased store closures among smaller retailers**

Another fear capitalized upon by the tobacco industry to blockade POS policies is the notion that tobacco control policies will cause small retailers, such as convenience stores, to shut down their businesses due to decreased revenue caused by lost tobacco sales.

**Research's Response:** To determine if tobacco control policies have a negative impact on convenience store businesses, Chaloupka and Huang analyze the impact of smoke free air policies and state cigarette excise taxes on the density of convenience stores in the US. Convenience store density is determined by the opening and closing of stores, which is related to a store's profitability. Prior research has established that both smoke free air policies and higher state excise taxes decrease tobacco use [4]. Analyzing the convenience store density trend between 1997 and 2009 revealed that overall convenience store density increased with declines observed only in single years 2000 and 2007 [4]. The average convenience store density in a state increased from 207 convenience stores per million people in 1997 to 230 in 2009 [4]. These findings demonstrate that during a period of greater adoption of smoke free air policies and higher state cigarette excise taxes that convenience stores were not harmed by these tobacco control measures.

### **Conclusion**

Several studies [1, 3, 4] have assessed the economic impact of tobacco control efforts on retail outlets. These studies show that POS tobacco control measures do not pose negative long term effects to the overall retail economy.