

# Impact of Community and Store Level Factors on Youth Access to Tobacco



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## GOALS

-Controlling access is one of the established strategies for reducing consumption of substances harmful to health, in particular tobacco, alcohol, and illicit drugs. It is, however, not known how efficacious these access management strategies are, partly because there are no good ways of measuring access restriction and partly because factors that improve rates of access restriction are also unknown. Long-term sustainability, therefore, also remains limited.

-The study uses data collected as part of a larger evaluation of the impact of Assurances of Voluntary Compliance (AVC) in corporate owned retail stores. CORS, State Attorney Generals in 2002 signed Assurances of Voluntary Compliance (AVC) with several national retailers to address patterns of illegal sales of tobacco products to minors.

-The earlier analysis of the data showed that there was no overall linear trend in compliance and that most managers and staff answered most questions on policy successfully. The program was successful in educating employees about the importance of compliance about the rules but it did not produce longitudinal, linear improvements.

-The purpose of this study was not to conduct an overall assessment of the program impact but rather to study how market and store factors influenced compliance in the context of the AVC.

## Research Questions

Does matching sales associates to neighborhood racial demographics influence compliance to tobacco-sales-to-minors laws?

Does ethnic tailoring of store products have a significant marginal impact on compliance to tobacco-sales-to-minors-law?

Does a culturally sensitive managerial supervision style influence compliance to tobacco-sales-to-minors-law?

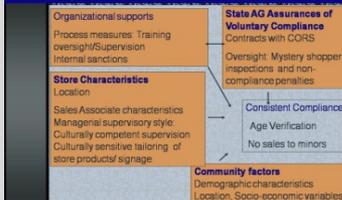
## BACKGROUND

-States: Attorney Generals in 2002 signed Assurances of Voluntary Compliance (AVC) with several national retailers to address patterns of illegal sales of tobacco products to minors. The AVC signed by Attorneys Generals for 43 states with Exxon Mobil (EM) is perhaps the most significant. EM has: 1) Revised training, 2) established supervisor responsibilities and 3) conducts quarterly "mystery shopper" inspections of all company-operated retail stores.

-The literature, however, shows a complex interaction of cultural variables and tobacco-sales-to-minors even in the light of laws that prevent youth access to tobacco. For example, studies show that youth in minority areas are more likely to be sold tobacco than youth in predominantly white communities also that male sales associate are more likely to sell tobacco to youth than female sales associates (Conroy, Lindquist, Alcaraz, 1997).

-We hypothesize that (1) compliance behavior will be influenced by store personnel's racial concordance with area market racial composition; racial (and other) attitudes of CORS personnel, manager cultural competence and cultural tailoring, and (2) that compliance with sales-to-minor laws in high minority markets will be lower than for stores in low minority market areas.

## Conceptual framework



## METHODS

Design:

Cross-sectional and

Longitudinal designs

Sample: 460 CORS

50% All with failed mystery shopper inspections

50% Random sample of passed inspections

66% response rate

Data sources:

Sales associates and managers surveys

Census data

Quarterly mystery shopper inspections

Dependent Variable

• Consistent compliance to sales to minors policy defined as 100% pooled compliance based on 7 quarterly mystery shopper data over two-years

Independent Variables

• Sales Associate-to-Area racial concordance

• Culturally sensitive-tailoring of store products

• English signage vs. other language

• Culturally Competent supervision style

Covariate

• Perceived procedural changes by CORS Sales Associates and Managers

• Respondent characteristics

Demographics including age, race/ethnicity and gender

Smoking status

Attitudinal variables



## Knowledge of Tobacco-Sales-to- Minors-Law by Store Location

	Correct Response	Percent correct		p	N
		Low minority	High minority		
What is the minimum age to purchase cigarettes or other tobacco in your state	18 years vs. other	93.0%	91.8%	.800	1296
According to store policy, when someone asks to purchase cigarettes or other tobacco, you should check their age if they appear	Under 30	85.5%	78.4%	.021	1279
To check their age, you should Ask to see an ID	Yes	98.8%	99.4%	.393	1300
To check their age, you should Ask if they are over 18.	NO	96.2%	94.5%	.186	1285
If you need to see an ID, driver's license for this state is okay	Strongly agree	85.5%	84.1%	.559	1299
If you need to see an ID, driver's license from any state is okay	Strongly agree	90.6%	89.3%	.506	1284

## Cross-sectional Changes in Compliance by Store Location

Compliance	Base Line		End Period	
	Low minority N=226	High minority N=70	Low minority N=226	High minority N=70
None	12.3%	11.4%	10.2%	15.7%
Partial	43.4%	47.1%	22.1%	30.0%
consistent	44.3%	41.4%	67.7%	54.3%
			.827	0.046

## Percent Compliant at Various Cut-off Points

Compliance Cut-off Point	n	Percent
=>60%	196	64.9
=>70%	150	49.7
=>80%	115	38.1
100%	74	24.5

## FINDINGS

Quarterly Compliance Over Time



## Predictors of 100% 15-Month Compliance

	OR	P	95.0% C.I.	
			Lower	Upper
High minority Area (>=35%)	0.394	0.026	0.17	0.89
Non-English Signage store display	5.249	0.001	2.01	13.72
Perceived peer compliance (Other SA ask ID, check id, do math)	2.404	0.006	1.28	4.51
Number of inspections	0.523	0.001	0.36	0.76
Non-compliant at baseline	0.359	0.110	0.10	1.26
Constant	2.864	0.197		

## SUMMARY OF FINDINGS

- Sales associates exhibited high knowledge of tobacco sales-to-minors laws
- There was little or no difference in tobacco-sales to minors laws between high minority and low minority neighborhood stores
- Stores in high Minority neighborhood stores were, however, less likely to have long-term compliance
- Including store signage in other Languages was positively associated with long-term compliance
- The perception that other sales associates were complying was positively associated with long-term compliance
- There was, however, an inverse association between number of inspections and consistent compliance
- Base-line compliance was not associated with long-term compliance

## CONCLUSION

- There appears to be a complex interaction between client, sales associate and store factors influencing tobacco sales to minors.
- There are currently no good compliance measures
- Long term sustainability of 100% compliance adherence will require Culturally competent store-level supervision and culturally tailoring of store signage