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# **Council for Tobacco Control**

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## **Effectiveness of an Intervention to Achieve Voluntary Reductions in Point-of-Purchase Tobacco Advertising**

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## Results of the Vista Community Clinic Oceanside P-O-P Campaign

### Introduction

Children and teenagers constitute 90 percent of all new smokers. The 1994 Surgeon General's Report concluded that cigarette advertising appears to increase young peoples' risk of smoking (SGR, Preventing Tobacco Use Among Young people, p. 78). Tobacco industry marketing campaigns portray smoking as fun, sexy, healthy, adventurous, and a way to achieve popularity and success. Such campaigns may be a stronger influence on youth smoking than exposure to peers or family members who smoke (*Tobacco Use In California, An Evaluation of the Tobacco Control Program, 1989-1993, UCSD, 1994*).

Youth are inundated with tobacco industry messages and images daily (SGR, 1994, Preventing Tobacco Use Among Young People, p. 68). In a 1993 survey of San Diego youth, over 90 percent of adolescents reported being exposed to tobacco advertising. Cigarette ads are usually placed where young people are a captive audience--near schools, churches and neighborhood stores (CDHS, 1997). Results from an assessment of almost 6,000 California retail locations showed that stores located within 1,000 feet of schools had (a) a higher number of tobacco ads and promotions overall, and (b) more ads close to candy and at children's eye level (three feet and below). Results from San Diego County indicated that (a) stores displayed an average of 18 tobacco ads each, and (b) almost 50% of stores had tobacco ads next to candy displays (CDHS, 1997).

In the city of Oceanside (San Diego County), community health agencies reported that the Coast Highway area had an over-concentration of alcohol/tobacco retail outlets displaying tobacco advertising. Project staff from a community clinic conducted key informant interviews and reviewed data from the Substance Abuse Prevention Coalition and the Oceanside Partners for Healthy Neighborhoods Collaborative. Research indicated that three neighborhoods in Oceanside (Coast Highway, Mission Road and Oceanside Boulevard) had a high prevalence of alcohol, tobacco and other drug use. Residents cited a critical need to work in the area known as Coast Highway, given its popularity with youth from throughout the county, and its proximity to a high school. Project staff and volunteers toured the three neighborhoods in Oceanside and confirmed that the Coast Highway area contained twice the number of tobacco retailers (31, 13, and 11, respectively) per mile than the other two areas.

Based on this information, an 18-month intervention was designed to persuade a minimum of 40% of the 30 Coast Highway merchants to voluntarily eliminate tobacco advertisements and promotions within three feet of candy and/or at children's eye level (below three feet from the floor). The purpose of this study was to evaluate the effectiveness of this intervention.

## Methods

### *Setting*

Oceanside, a coastal city of 140,500 residents in north San Diego County, markets itself as the ideal mid-point city for companies that do business in San Diego and Los Angeles counties. The median age is 30 and the ethnic distribution is 64% White, 23% Hispanic, 7% African-American and 6% Asian/Pacific Islander and Other. As Oceanside borders a military base, it is home to many active duty and retired military personnel. Much like the other 17 cities in the county, Oceanside is viewed as politically conservative in nature.

The Coast Highway area of Oceanside is a commercial and residential area, which cuts through the center of downtown and contains many independently-owned small businesses, including 30 retail stores that sell tobacco. Coast Highway is considered a tourist corridor because it is a few blocks east of the ocean. City officials, whose ultimate goal is to remake Oceanside into a tourist destination, have targeted the Coast Highway area for redevelopment.

### *Study Design*

To evaluate the intervention, a two-group pre-/post-test design was used. From a California Department of Health Services, Tobacco Control Section list of the 105 tobacco retail outlets located in the city of Oceanside, the 30 stores on Coast Highway were identified as the intervention group. Thirty additional stores from throughout the city served as control stores.

### *Measures*

A retail advertising survey protocol originally developed by the California Department of Health Services/Tobacco Control Section for the 1996 statewide assessment (known as Operation Storefront) was modified to create a *Merchant Advertising Survey* for this study. Key study variables included numbers of tobacco ads counted in store interiors and exteriors by location (below three feet, near candy). Promotional items (lighters, caps, t-shirts, key chains, mugs, ashtrays or other small gift items) were also counted, as were the number of anti-tobacco signs on display.

### *Data Collection*

In July 1997, project staff trained 10 youth and 5 adult volunteers to complete the baseline survey. Assessors were instructed to count tobacco advertisements and promotions in the interiors and exteriors of the 60 study stores. In May 1999, 15 new youth and adult volunteers were recruited and trained to conduct the post-intervention assessment. Due to store closures (N = 6) or cessation of tobacco product sales (N = 1), data were collected for 49 matched pairs of stores (27 intervention and 22 controls)--82% of the original study sample.

### *Description of the Intervention*

In August 1997, project staff formed a Task Force consisting of 20 community members to develop an 18-month community action plan to reduce tobacco advertising that targeted children. The action plan included key strategies, potential problems, and recommended solutions and described the role of teens in implementing the intervention.

Within a month, educational materials were developed and pilot tested with merchants in a non-intervention city. After modifications, resource packets including letters of support from the city mayor and two business associations were distributed to the 30 intervention stores.

Project staff then visited each store and asked merchants to voluntarily reduce their tobacco advertising. With program participation, merchants were promised media recognition (newspaper articles/advertisements, informational brochures, television spots, public service announcements and cinema screen ads) promoting them as community partners in preventing youth tobacco use.

Media recognition for participating merchants was distributed on a quarterly basis for one year. Merchants were also asked to promote the intervention by acting as media spokespersons (be featured in news articles or appear in public service announcements). Six months into the intervention, a media event was held to recognize participating merchants where Task Force members presented merchants with framed certificates signed by the mayor.

Throughout the final 12 months of the intervention, monthly site visits were conducted in order to maintain rapport with merchants and to monitor continued compliance with intervention objectives. Visits typically were 10 minutes in length during which time project staff reinforced the objective of the campaign and provided copies of the media coverage for participation.

### *Data Analysis*

Survey data was entered and analyzed using SPSSX. Data were examined to determine if significant reductions in the mean number of tobacco ads were achieved between experimental groups, over time, using a MANOVA statistical test. Data were also examined to determine if the proportion of intervention stores with tobacco advertising increased over time.

## **Results**

### *Agreement to Participate*

At the onset of the 18-month intervention, 12 (40%) intervention stores agreed to participate by signing pledges to remove tobacco advertising/promotions within three feet

of candy and/or at children's eye level. Project staff monitored compliance during monthly site visits. At the conclusion of the intervention, nine (30%) intervention stores were actively participating in the campaign.

*Site Visit Dose*

Of the 30 stores targeted for participation in the intervention, 12 actively took part in at least some of the intervention activities. These stores received a total of 207 site visits by project staff, for a total of approximately 35 hours of contact.

*Media Coverage*

The project was successful in achieving a wide range of media coverage during the intervention. Table 1 lists the various media generated during the intervention.

Table 1. Media Coverage Of Intervention Activities

<b>Type of Media</b>	<b>Date Received</b>
Four News Articles	North County Times (10/28/97), San Diego Union-Tribune (11/12/97), North County Times (2/19/98), El Latino (4/10/98)
1000 POP Campaign Informational Brochures	Distributed throughout Oceanside at health fairs, community resource centers, library and intervention stores (1/1/98-12/31/98)
1 Television Spot	San Diego Station KUSI (appeared 2/12/98)
7 Video Public Service Announcements	Distributed to 7 English and Spanish San Diego Television Stations (6/30/98)
Cinema Screen Ad	Oceanside Cinema Star Theatre (Appeared 11/27/98-3/12/99)
Newspaper Advertisement	El Latino (Appeared 12/25/98-1/21/99)

*Quantity of Tobacco Advertising and Promotion*

At baseline, surveys revealed tobacco advertising to be most popular by candy racks, and more prevalent in the interior of stores than in the exterior. Overall, advertising was more prevalent than were use of promotional items. Results indicated that of the 56 stores surveyed, the majority of stores placed tobacco advertisements and promotional items near candy (68.5% and 35.2%, respectively). Exactly half of the stores displayed tobacco advertising on the store interior, while 39.3% of stores had advertising on the exterior. With respect to promotions, about one-third (30.4%) of stores displayed items

in the interior and 26.8% in the exterior. There were no significant differences in the baseline rates between intervention and control stores with respect to tobacco advertising and promotion.

Table 2 presents the proportion of stores with tobacco advertisements and promotions by experimental group over time. With regards to advertising, there was a trend for intervention stores to remove tobacco advertisements near candy, though this difference, from 74% to 48%, was not statistically significant. Note the non-significant increase in the proportion of control stores displaying ads on the interior and exterior over time while the intervention proportions remained stable. With regards to tobacco promotions, significantly more intervention stores stopped displaying items in the store interior, while significantly more control stores stopped displaying promotional items in the store exterior. Also, there was a trend for intervention and control stores to remove promotions by candy, though these changes were not significant.

Table 2. Proportion of Stores With Tobacco Ads by Condition over Time

	<b>CONDITION (I=27; C=22)</b>	<b>PRE-TEST Percent</b>	<b>POST-TEST Percent</b>
<b>ADVERTISING</b>			
Interior (below 3 ft)	Intervention	63	63
	Control	35	60
Exterior (below 3 ft)	Intervention	56	56
	Control	23	36
Near Candy	Intervention	74	48
	Control	60	40
<b>PROMOTIONS</b>			
Interior (below 3 ft)	Intervention*	<b>33</b>	<b>4</b>
	Control	25	5
Exterior (below 3 ft)	Intervention	22	3
	Control*	<b>32</b>	<b>5</b>
Promotions Near Candy	Intervention	37	0
	Control	35	5

\* p<.05

At baseline among the 56 study stores, surveyors counted an average of 2.9 interior tobacco ads and 1.3 exterior ads per store. Less than one (0.7) promotional item was found on average in the interior and exterior of each store. Analysis by condition revealed significant differences at baseline with more tobacco advertisements and

promotions overall in intervention stores. [One point of caution in interpreting these differences is that the number of ads/promos per store was not normally distributed and reflected in the high standard deviations (Table 3)].

Table 3. Mean Number of Tobacco Ads and Promotions at Stores by Condition over Time

	CONDITION	PRE-TEST Mean (SD)	POST-TEST Mean (SD)
<b>ADVERTISING</b>			
Interior (below 3 ft) *	Intervention	<b>4.6</b> (6.5)	<b>4.5</b> (8.4)
	Control	<b>1.3</b> (2.1)	<b>7.7</b> (17.3)
Exterior (below 3 ft)	Intervention	2.0 (2.6)	1.6 (2.4)
	Control	0.8 (1.7)	0.9 (1.4)
Near Candy	Intervention	3.6 (4.5)	4.0 (5.9)
	Control	3.6 (6.5)	3.8 (6.7)
<b>PROMOTIONS</b>			
Interior (below 3 ft) *	Intervention	<b>1.1</b> (2.2)	<b>0.0</b> (0.4)
	Control	<b>0.2</b> (0.6)	<b>0.0</b> (0.2)
Exterior (below 3 ft)	Intervention	0.6 (1.5)	0.0 (0.2)
	Control	1.0 (2.4)	0.5 (2.3)
Near Candy	Intervention	1.2 (2.3)	0.0 (0.0)
	Control	1.0 (2.3)	0.0 (0.2)

\*  $p < .10$

Table 3, presents the average number of tobacco advertisements and promotions by experimental group over time. With regards to advertising, there was a trend for the intervention stores to maintain their number of ads while control stores increased interior advertising six-fold. Tobacco advertisements near candy increased in both experimental groups, though this increase was not significant. With regards to promotions, intervention and control stores virtually eliminated all promotions. However, these changes were not significant perhaps due to the small sample size, or the very low number of items counted at baseline.

#### *Quantity of Anti-Tobacco Signs*

At baseline the 56 study stores displayed less than two (1.8) anti-tobacco signs each. Control stores displayed a significantly greater number of STAKE Act signs when

compared to intervention stores. Table 4 presents the proportion of stores displaying STAKE Act or other anti-tobacco signage by condition over time. Post-intervention, while STAKE Act signs displayed decreased slightly, significantly more intervention stores (85%) displayed at least one anti-tobacco sign. Table 5, presents the mean number of STAKE Act and anti-tobacco signs displayed in stores by condition. Overall, both groups increased their amount of anti-tobacco signage.

Table 4. Proportion of Stores Displaying STAKE Act or Anti-Tobacco Signage by Condition over Time

SIGNS	CONDITION	PRE-TEST	POST-TEST
		Percent	Percent
STAKE Act (>1)	Intervention	44	41
	Control	80	60
Other Anti-Tobacco (>1)	Intervention	<b>37</b>	<b>85</b>
	Control	30	45

Table 5. Mean Number of STAKE Act and Other Anti-Tobacco Signs Displayed at Stores by Condition over Time

SIGNS	CONDITION	PRE-TEST	POST-TEST
		Mean	Mean
STAKE Act	Intervention	0.7	0.5
	Control	1.5	1.8
Other Anti-Tobacco	Intervention	0.5	1.7
	Control	1.1	1.6

## Discussion

The educational/media intervention designed to achieve voluntary reductions in point-of-purchase tobacco advertising was not effective. It is important to note, however, that the intervention group did make changes in the right direction, despite the fact that the merchants targeted for intervention had high baseline rates of tobacco advertising and promotion. At baseline intervention stores more likely to display tobacco ads and promotions in store interiors, exteriors, and by candy. Intervention stores were less likely to display STAKE Act signs inside their stores. These findings were not surprising given that the Coast Highway area stores were targeted because of the reported pro-tobacco influences present. Selection bias may affect the comparability of the intervention and control groups, in that there may be inherent differences in intervention and control stores that were not captured. However, random selection of the control stores strengthened the design and minimized the observed differences between groups.

When project staff approached merchants to recruit them for the intervention, the majority (60%) declined to participate. Many merchants feared losses of tobacco industry promotional fees. At the initial intervention site visit, 12 merchants signed pledges and removed tobacco ads near candy and children's eye level. Yet within the first month, nine of the 12 merchants were out of compliance. Throughout the 18-month intervention, project staff brought copies of the signed pledges, media coverage, and informational brochures to remind merchants about the requirements of the program. By intervention-end three merchants had dropped out of the campaign. Anecdotal reports from project staff indicated that merchants were reluctant to alienate the tobacco industry marketing representatives that immediately replaced the removed ads and promotions during *their* store visits.

Even though the intervention did not produce significant changes in the amount of tobacco advertising and promotion at the intervention stores, the campaign did raise community awareness regarding tobacco industry marketing practices. One merchant interviewed by a newspaper was quoted as saying that the tobacco industry offered him cash to offset shoplifting if he would use self-service tobacco displays in his store.

While this intervention was an example of an unsuccessful attempt at achieving voluntary reductions in tobacco advertising that targets children, this intervention did lay the groundwork for tobacco control policy development in not only the study city, but two adjacent cities as well. The lessons learned proved invaluable when 8 months into the intervention, project staff provided city leaders with technical assistance to develop an ordinance to eliminate self-service tobacco displays.

## **Conclusions and Recommendations**

Based on the results of this study, a media and educational campaign to achieve reductions in point-of-purchase tobacco advertising by voluntary means should not be seen as an effective way of reducing tobacco advertising that targets children. Fewer than the targeted 40% of merchants agreed to participate in the study. After the intervention ended, it was doubtful that the nine participating merchants remained in compliance without the constant support from project staff. Given the turnover in retail and project staffs over time, the sustainability of this type of intervention is improbable.

This type of intervention, however, was useful in raising community awareness regarding tobacco industry advertising practices and educating city officials regarding policy solutions. Post-intervention, project staff used the results of this study to help amend the city ordinance and eliminated tobacco advertisements near candy and at children's eye level. This strategy should be much more effective in reducing tobacco advertising that targets children and will contribute to community norm change regarding the acceptability of tobacco products.