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Tobacco Industry Direct Mail Receipt and Coupon Use Among Young Adult Smokers

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Abstract

Objective—To examine young adult smokers' receipt of tobacco industry direct mail and use of coupons to purchase cigarettes.

Method—A total of 699 young adults from a 2011 national survey who reported smoking every day/some days provided self-report data on past-six month receipt of direct mail and past-six month use of coupons to purchase cigarettes. Multivariable logistic regression models were used to calculate adjusted odds of direct mail receipt and coupon use.

Results—Overall, 25.1% of young adult smokers reported receiving direct mail from a tobacco company and 24.2% had used a coupon to buy cigarettes in the past 6 months. Direct mail receipt and coupon use to purchase cigarettes were significantly higher among females, daily smokers, and whites. Nearly 70% of smokers who received direct mail had also used a coupon to purchase cigarettes in the preceding 6 months. Brand websites were the most commonly reported means of joining a direct mailing list.

Conclusion—This study adds to limited research showing receipt of direct mail and use of price reducing coupons by young adults. Also, higher rates of direct mail receipt and coupon use among females suggest these strategies may be especially effective in encouraging smoking in females.

Introduction

Young adults are a population of interest for both the tobacco industry and tobacco control. Despite a general decline in smoking among adults, prevalence remains high for young

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adults, (1, 2) this age group poses challenges to tobacco control, as it includes young adults who are just beginning to smoke, occasional or someday smokers, smokers transitioning from someday to daily smoking, and daily smokers. Although smoking typically begins before age 18, over 10% of current smokers start smoking between ages 18 and 26. (1, 2) Consumption also increases in young adulthood, with one-third of occasional smokers transitioning to daily smoking between the ages of 18 and 26. (1, 2)

Tobacco industry marketing to young adults aims to encourage initiation as well as progression to established smoking. (3) While considerable research effort has focused on tobacco industry marketing in general, little attention has been given to tobacco industry direct mail, a form of direct marketing that transmits brand messages and distributes incentives (e.g., coupons, promotional gifts) directly to those on the industry's extensive databases. (4) Distribution of coupons through direct mail is particularly common, as studies report 69% (5) to 87% (6) of direct mail carrying coupons.

Data regarding the receipt and influence of tobacco industry direct mail and coupons are limited. The earliest finding, from 2001, shows one in three adult smokers in New Jersey having received direct mail. (7) More recent research documents direct mail and coupon receipt by both youth and young adults (including non-smokers) and an association with initiation and continued or even increased consumption. (8-10) As such, this study examines young adult (ages 18-34) smokers' receipt of tobacco industry direct mail as well as their use of coupons to purchase cigarettes.

Methods

We examined data from the 2011 National Young Adult Health Survey (NYAHS). The NYAHS sampling methodology are reported elsewhere. (11) In brief, the NYAHS is a random-digit dial cell phone survey of 18 to 34 year olds about health behavioral risk factors, including tobacco use, attitudes, susceptibility, and experiences.

While the 2011 NYAHS included 2871 participants, our 2014 analysis utilized data from 699 young adults who reported smoking every day or some days. Primary outcomes were past-6 month receipt of direct mail ("In the last 6 months, have you received mail addressed to you from a tobacco company such as coupons, sweepstakes promotions or gift offers?") and past-6 month use of coupons to purchase cigarettes ("In the last 6 months, have you used coupons to buy cigarettes, smokeless tobacco, or other types of tobacco?"). We examined differences in responses to each outcome by gender, race/ethnicity, age, cigarettes per day, past-year quit attempt, and intention to quit using adjusted chi-square tests. Characteristics that were significantly associated with either outcome were entered into 2 multivariable logistic regression models to calculate adjusted odds of (1) direct mail receipt and (2) coupon use. Statistical significance was indicated by a p-value of less than 0.05 (Wald-F Chi-Square). A series of Yes/No question assessed ever receipt of direct e-mail from a tobacco company and ever visiting a brand website, as well as the most common ways to join a direct mailing list (e.g., "Have you ever signed up for mailings at a brand website?"). Sampling weights adjusted for nonresponse and the varying probabilities of

selection to yield nationally representative estimates, and SUDAAN statistical software was used to account for the complex sample design.

Results

Overall, 25.1% of young adult smokers reported receiving direct mail from a tobacco company and 24.2% had used a coupon to buy cigarettes in the past 6 months (Table 1). Nearly 70% of smokers who received direct mail had also used a coupon to purchase cigarettes in the preceding 6 months, as compared to 9% who had not received direct mail (Wald-F Chi-Square, $p<0.0001$). The odds of receiving direct mail were significantly greater for females relative to males, 25 to 29 year-olds and 30 to 34 year-olds relative to 18 to 20 year-olds, and white non-Hispanics relative to non-whites and Hispanics. Odds of coupon use to purchase cigarettes were significantly greater for females relative to males, white non-Hispanics relative to non-whites and Hispanics, and daily smokers relative to some-day smokers.

The most commonly reported means of potentially joining a direct mailing list was signing up for mailings on a brand website (Table 2). Of those receiving direct mail, about 58% reported ever visiting a tobacco brand website and 49% had received email from a tobacco company.

Discussion

Our study found that about a quarter of young adult smokers in the US, ages 18-34, reported receiving tobacco industry direct mail and a similar proportion used coupons to purchase cigarettes within the past 6 months. Additionally, these outcomes were highly associated, with coupon use being 7 times more prevalent among direct mail receivers than non-receivers. Consistent with previous studies, prevalence of direct mail receipt was higher among older young adults (8), females (8,10), more frequent smokers (8), and whites (8).

Our findings point to the need for further research on the extent to which direct mail and price reducing coupons reach and influence young adult smoking behavior, including initiation, consumption and transition from infrequent to regular smoking. By reducing the cost of cigarettes, coupons likely encourage smoking initiation and almost certainly facilitate continued and even increased smoking by easing the financial transition to daily and continued smoking. Data showing higher rates of receipt of direct mail and use of coupons by females is particularly concerning and suggest that these strategies may be especially effective in encouraging smoking in women.

Not surprisingly, given the presence of coupons in direct mailings, nearly 70% of those who received direct mail had also used a coupon to purchase cigarettes in the preceding 6 months. However, because direct mail is not the only potential source of coupons and our study did not establish how coupons were acquired we cannot determine the extent to which redeemed coupons were obtained through direct mail. Future research should address this.

Study findings also highlight the connection between direct mail and other forms of direct marketing. Almost half of those who received direct mail also reported receiving industry

email in the past 6 months and over half had visited a tobacco brand website. Brand website registration was the most common way of signing up for direct mail, suggesting these websites not only provide the industry with a means of ongoing promotion with consumers, but also generate a significant number of young adult names for industry databases.

This study is subject to several limitations commonly found in survey research. Analyses were generally limited to data from 699 current smokers; this relatively small sample size may have limited the power to detect associations between covariates and direct mail receipt and coupon use. Additionally, this study assessed self-reported direct mail receipt and coupon use in the previous six months only, and inferences beyond this time frame are not possible. Finally, the cross-sectional nature of this study does not allow assessment of causal relationships.

Conclusion

Young adulthood is a time of both smoking initiation and progression to established smoking. As such, it is particularly concerning that young adult smokers report receiving direct mail and using coupons, two largely unregulated industry tactics that have been associated with initiation and continued smoking. (8-10) Future efforts should explore these tactics and their impact on young adult smoking. Moreover, research is needed to determine what policy and/or educational strategies could effectively counter their influence.

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Prevalence of Direct Mail Receipt and Cigarette Coupon Use among Current Smokers - 2011 National Young Adult Health Survey

Table 1

	Received Direct Mail in Past 6 Months					Used Coupon to Buy Cigarettes in Past 6 Months						
	%	CI	P-Value ^a	AOR	(95% CI)	p-value ^a	%	CI	P-Value ^a	AOR	(95% CI)	p-value ^a
Overall	25.1	20.7, 30.2	-			0.0027	24.2	19.7, 29.4	-			0.0251
Gender			0.0013						0.0134			
Male	17.9	13.5, 23.4		1.00	---		18.6	13.6, 25.0		1.00	---	
Female	34.2	26.5, 42.9		2.21	(1.32, 3.71)		31.3	23.9, 39.9		1.87	(1.08, 3.24)	
Age Group			0.0001			0.0004			0.2664			0.2846
18 to 20 Years	10.3	5.8, 17.8		1.00	---		16.2	7.3, 32.3		1.00	---	
21 to 24 Years	17.1	10.9, 25.8		1.71	(0.75, 3.90)		23.3	16.0, 32.7		1.38	(0.46, 4.11)	
25 to 29 Years	37.8	29.0, 47.4		4.56	(2.11, 9.83)		30.7	22.5, 40.3		2.05	(0.36, 6.05)	
30 to 34 Years	24.8	16.6, 35.5		2.43	(1.02, 5.79)		21.5	13.3, 32.8		1.07	(0.33, 3.53)	
Race/Ethnicity			0.0017			0.0395			0.0005			0.0155
White, Non-Hispanic	31.9	25.4, 39.2		1.00	---		32.0	25.5, 39.4		1.00	---	
Non-white or Hispanic	16.9	11.9, 23.4		0.57	(0.33, 0.97)		15.0	9.9, 22.2		0.48	(0.26, 0.87)	
Current Smoking Status			0.0231			0.1535			<0.0001			0.004
Daily	29.1	23.3, 35.7		1.58	(0.84, 2.96)		32.1	25.9, 39.0		2.97	(1.41, 6.24)	
Some Days	18.1	11.9, 26.5		1.00	---		10.3	5.7, 17.9		1.00	---	
Cigarettes per Day ^b			0.3284			0.5779			0.0728			0.3061
< 20	24.5	19.3, 30.6		1.00	---		35.3	24.5, 47.7		1.00	---	
20 +	30.1	21.2, 40.8		1.21	(0.62, 2.37)		23.0	17.9, 29.1		1.47	(0.70, 3.07)	
Past-year Quit Attempt ^c			0.5546			0.8773						
Yes	26.4	20.3, 33.5					24.1	18.0, 31.4				
No	23.6	17.6, 30.7					24.9	18.5, 32.5				
Intention to Quit ^c			0.3208			0.4343						
Next 6 Months	27.3	21.4, 34.2					23.0	17.2, 30.0				
No Intention to Quit	22.3	15.6, 30.7					27.2	19.6, 36.5				

^aWald-F Chi Square Test^bFor someday smokers, number smoked on smoking days;

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Excluded from multivariable regression models due to non-significant association with outcomes
AOR, Adjusted Odds Ratio (gender, age group, race/ethnicity, current smoking status, and cigarettes/day)

Prevalence of Select Direct Marketing Features and Strategies among Direct Mail Recipients - 2011 National Young Adult Health Survey

	%	CI	
Potential Means of Joining Direct Mailing List			
Redeemed Coupon with Name and Address	43.1	32.8	54.0
Ever Entered a Cigarette Brand Sweepstakes	33.2	23.7	44.2
Shared Contact Info with Rep at Bar/Club	34.4	24.8	45.4
Signed up for Mailings at Brand Website	60.3	49.5	70.1
Ever Received Email from Tobacco Company	48.8	37.9	59.9
Ever Visited Tobacco Brand Website	58.4	47.7	68.4