

# Teenage Exposure to Cigarette Advertising in Popular Consumer Magazines

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*The tobacco industry indicates that it does not advertise in magazines that reach a high percentage of young people. To avoid reaching teens, current tobacco industry practice is to use circulation data to assess the number of young people who receive a magazine. Results from the reported study demonstrate that using circulation data is not an accurate method for estimating the size of the teenage audience. The authors analyze readership data from 1998 and construct specific media schedules to examine the extent to which teenagers are reached by popular consumer magazines that contain cigarette advertising. Results reveal that tobacco marketers routinely reach a high percentage of teenagers 12–17 years of age when placing advertisements in popular consumer magazines.*

**D**oes cigarette advertising in popular consumer magazines reach a large number of teenagers? This article examines the number of teenagers 12–17 years of age who read magazines containing tobacco advertising. In an era of increased scrutiny and litigation, magazine advertising remains a key element in tobacco company marketing practices. Although studies have shown that tobacco marketers advertise in magazines read by teenagers (Albright et al. 1988; King et al. 1998) and that the images appeal to youths (Altman et al. 1987), there is currently no published work that examines how many teenagers 12–17 years of age are reached by such advertising.

Teenagers represent a population at risk with respect to tobacco use. Approximately 43% of high school students have used cigarettes, smokeless tobacco, or cigars in the last 30 days. From 1991 to 1997, smoking prevalence among U.S. high school students rose from 27.5% to 36.4% as measured by smoking one or more cigarettes in the last 30 days (U.S. Department of Health and Human Services 1998a). Recent work indicates that from 1988 to 1996, the incidence of first use of cigarettes increased by 30% and of first daily use by 50% among teenagers 12–17 years of age and that 74.8% of adults who have ever smoked initiated the behavior before the age of 18 (U.S. Department of Health and Human Services 1998b).

Researchers have explored the relationship between teenage smoking and advertising. Several studies conclude that teenagers are sensitive to cigarette advertising and that cigarette advertising is associated with teenage smoking. In a longitudinal study, Pierce and colleagues (1998) conclude that teenagers who are receptive to tobacco advertising are more likely to smoke. Pollay and colleagues (1996) find that the quantity of cigarette brand advertising (share-of-voice)

in magazines, newspapers, Sunday supplements, and outdoor media is associated with brand shares, particularly for teenagers. Results reveal that brand choices among teenagers are significantly related to cigarette advertising and that the relationship between brand advertising and brand choice is significantly stronger among teenagers than adults. Moreover, teenagers smoke the most heavily advertised cigarettes at a disproportionately higher rate than adults (U.S. Department of Health and Human Services 1994). Finally, other empirical work points out that teenagers are sensitive to cigarette advertising. For example, the initiation of cigarette smoking among girls younger than 18 years, as measured by National Health Interview Surveys, increased dramatically with the introduction and advertising of women's cigarettes (Pierce, Lee, and Gilpin 1994). A longitudinal study from 1993 to 1997 among Massachusetts youths indicates a significant correlation between exposure to brand-specific advertising and brand initiation (Pucci and Siegel 1999).

## Cigarette Advertising in Magazines

Because of increased specialization, there are roughly 2000 consumer magazines available to various audiences (Katz 1995). Magazines are regarded as a selective medium with respect to reaching and targeting audiences. In addition to selectivity, magazines offer advertisers excellent reproduction quality, long message life, and the opportunity for readers to get involved with both the editorial content and advertising.

The November 1998 Master Settlement Agreement (1998) among 46 states and 5 territories with major cigarette producers Phillip Morris Companies, R.J. Reynolds Tobacco, Lorillard Tobacco, and Brown and Williamson places some restrictions on product marketing, such as outdoor advertising. Specifically, the settlement calls for the elimination of outdoor advertising that is not at a retail establishment, transit advertising, cartoons (in any tobacco advertising, marketing, or packaging), product placement in the media, and tobacco merchandising (brand names cannot appear on any nontobacco item). The agreement does not address magazine advertising or in-store displays—allowing

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signs of up to 14 square feet at retail establishments—nor does it restrict the level of advertising spending. Other forms of sales promotion and advertising remain intact or are only partially addressed. Tobacco companies can keep human figures such as the Marlboro man, and each tobacco company can keep one sponsorship with restrictions.

In 1999, the major tobacco companies spent \$442.7 million on magazine advertisements. The jump, as reported by Competitive Media Reporting, was an increase of 37% over 1998 (Fairclough 2000). The percentage and/or absolute dollars spending on cigarette advertising in magazines was predicted to rise, in part, as a result of the elimination of outdoor advertising. The Federal Trade Commission (FTC) provides the most specific overall industry spending as reported by the tobacco companies. Because of a lag in reporting the data, the FTC data are generally not as current yet provide insight to overall spending patterns.

In 1997, cigarette companies spent \$237 million in magazine advertising, which accounted for 4.2% of their total advertising (newspaper, magazine, outdoor, transit, point-of-sale, specialty item, and direct mail) and promotion (e.g., promotional allowances, sampling distribution, public entertainment, coupons/retail, value-added promotion, Internet) expenditures. Magazine advertising accounted for 41% of traditional measured media advertising (newspaper, magazine, outdoor, transit) for cigarettes (FTC 1999).

In several forums, tobacco industry representatives have stated that they do not advertise in magazines that reach a high percentage of young people. The position of Phillip Morris has evolved in recent years. In May 1999, James J. Morgan, former president and chief executive officer of Phillip Morris, stated that his company does not place advertisements in any magazines for which people under the age of 21 years compose more than 20% of the readers: "If it's more than 20 percent circulation to people under 21, a cigarette ad may not be placed in that magazine" (*Engle v. R.J. Reynolds Tobacco Co. et al.* 1999, p. 34778). In October 1999, the Philip Morris U.S.A. Web site emphasized that, in keeping with the tobacco industry code, the company does not advertise in publications primarily directed to people under 21 years of age, and it reviews samples of publications and other evidence, such as circulation data (i.e., number of copies sold), to meet the standards (Philip Morris U.S.A. 1999). Both Phillip Morris and Brown and Williamson have voluntarily pledged not to place advertisements in any magazine whose readership under the age of 21 years is more than 15% (Fairclough 2000). However, in June 2000, Philip Morris stated that it will no longer advertise in any publication in which readers younger than 18 years constitute 15% or more of the total readers or in magazines that have more than 2 million readers under 18 years. Philip Morris also proposed that a new methodology be established to determine readership (*New York Times* 2000).

At the time of this writing, the media placement policy has in part been governed by data obtained from the Audit Bureau of Circulation. However, although this organization verifies publishers' records and circulation statements regarding such items as single-issue circulation, new and renewal subscriptions, and paid versus nonpaid subscriptions, it does not verify who reads various magazines. Advertising media planners know that there is a large dif-

ference between circulation and readership for magazines. The difference between circulation and readership is aptly noted by Sissors and Bumba (1995, p. 51), when they observe that circulation data do not accurately reflect the number of readers in a vehicle's audience: "A single unit of circulation means one copy of a periodical distributed, but for every copy distributed, there could be as many as six different readers. We cannot determine the size of a vehicle's audience only by looking at its circulation."

It is not accurate to use only circulation figures to determine who is reached by cigarette advertising in magazines. Audience reports by services such as Mediamark Research Inc. (MRI) and Simmons Market Research Bureau Inc. (SMRB) provide estimates on the number of readers of specific magazines (Davis 1997).<sup>1</sup> Both MRI and SMRB are routinely used by advertising media planners to identify magazines that reach specific target audiences. The Food and Drug Administration (FDA 1996) specifically noted the importance of using readership data to determine teenage exposure to advertising.

Readership data give a better picture of the number of teenagers with the opportunity to see (OTS) cigarette advertising than circulation data. Although OTS (also known as vehicle exposure) is by no means a perfect measure of teenagers' exposure to cigarette advertising in magazines, there are currently no data available in the literature that provide an accurate estimate of actual advertising exposure. Lancaster, Kreshel, and Harris (1986) point out that there is a tremendous range of weights applied to these data to estimate advertising exposure (from 10% to 100%, with an average of 52.5%). Several executives in these authors' survey of media directors at the top 225 U.S. advertising agencies qualified the weights they provided, noting that the weights varied by media category, product type, creative aspects, client, campaign objectives, message unit size, and audience importance.

It is clear that cigarette advertising in magazines reaches teenagers. Albright and colleagues (1988) find that the proportion of cigarette advertisements in magazines with a substantial youth readership increased from 1972 to the time of their study. King and colleagues (1998) determine that cig-

<sup>1</sup> *Simmons Teen Report* and *Mediamark Teen Mark Report* use somewhat different methods of data collection. Data for the 1998 *Simmons Teen Report* used in this study were collected in personal in-home interviews with a national probability sample of 2373 respondents between the ages of 12 and 19 years. Respondents are teens who reside in households with adults who were interviewed for the 1997 fall survey of American readership study. In the first phase of the research, teens are interviewed to collect information on their usage of print media and cable television and their demographic information. In the second phase, usage of other broadcast media, product usage/ownership, and psychographic data are collected through self-administered questionnaires. Data are weighted largely on the basis of Census sources to conform to sex, age, education, county size, locality type, and race of the estimated 23,455,000, 12-17-year-olds in the U.S. population. Average issue audience estimates are based on a self-reported recent reading concept. Data for the teen readership and estimated schedules used in this study can be obtained by purchasing the 1998 *Simmons Teen Report* and associated *Simmons Choices 2* software, which would enable others to replicate or extend the analysis. *Mediamark's 1998 Teen Mark Report* data are collected through a self-administered survey completed in the respondents' homes. These data are also weighted largely on the basis of Census sources, and average issue audience estimates are based on self-reported frequency of reading the past four issues.

arete brands most heavily used by teenagers are more likely to be advertised in magazines with higher levels of youth readership than brands smoked by adults. After controlling for total magazine readership, the percentage of youth readers, advertising costs, and expenditures, youth cigarette brands were significantly more likely to advertise in magazines with a higher proportion of youth readers. Readers 12–17 years of age were more likely to be exposed to advertising for brands that were most popular among that cohort.

Finally, it is possible that a large number of adolescents would be in contact with tobacco advertising even with a standard stating that teenagers under 18 years could not exceed 20% of a magazine's total readership. For example, approximately 17% of the *Sports Illustrated* readership is composed of teenagers who are between 12 and 17 years of age. This translates to reaching more than 5 million or more than 22% of all teenagers 12–17 years of age with each average issue (Mediamark Research Inc. 1998). The FDA is no doubt cognizant that some consumer magazines with less than 20% under-18 readership still reach a large number of young people. The FDA (1995) proposed that advertising in any publication with youth (under-18) readership more than 15% or more than 2 million children and adolescents under 18 be limited to a text-only, black-and-white format. There has been a continued concern about the absolute number of adolescents reached, in addition to the percentage reached. For example, the FTC's (1968) *Report to Congress, Pursuant to the Federal Cigarette Labeling and Advertising Act* noted the superficiality of a standard that studied the percentage of children reached irrespective of the actual number reached by cigarette commercials on television.

## Research Questions

In this study, we use well-accepted industry data and estimation procedures to examine the extent to which teenagers between the ages of 12 and 17 years report reading popular consumer magazines that contain tobacco advertising. Understanding the degree to which teenagers are reached by tobacco advertising in popular consumer magazines aids understanding with respect to limiting such exposure. Estimating youth exposure to cigarette advertising extends previous work that finds that the proportion of cigarette advertisements has increased in youth magazines (Albright et al. 1988) and that cigarette brands smoked by young people are more heavily advertised in such magazines (King et al. 1998).

Although research has documented that cigarette advertising in magazines encountered by younger audiences has increased and that adolescents are likely to be exposed to advertising for cigarette brands that are popular among that group, no study has estimated the likely amount of exposure to popular consumer magazines that contain tobacco advertising. Therefore, the initial research question in this study asks,

- Q<sub>1</sub>: To what extent do teenagers between the ages of 12 and 17 years report reading individual popular consumer magazines that contain tobacco advertising?

In addition, as do most marketers, tobacco companies use a combination of magazines in their media schedules. These schedules deliver both message reach and frequency to the

target audiences. This study also examines how much cigarette advertising young people potentially encounter when tobacco companies use a combination of magazines:

- Q<sub>2</sub>: What is the estimated reach of teenagers between the ages of 12 and 17 years when tobacco advertisers use a combination of popular consumer magazines?
- Q<sub>3</sub>: What is the estimated frequency with which teenagers between the ages of 12 and 17 years are reached when tobacco advertisers use a combination of consumer magazines?

## Method

We used data from MRI's 1998 *Teen Mark Report* to generate a list of popular consumer magazines with a teenage composition (percentage of readers 12–17 years of age relative to total audience of the magazine) of 15% or higher. This yielded a list of 34 magazines. A cutoff of 15% enabled us to explore magazines that fell into the proposed FDA criteria. Some of the magazines were eliminated from this list because they did not accept cigarette advertising (e.g., *Sassy*, *YM*, *Teen*, *Seventeen*). Initially, a simple content analysis was performed on up to three of the most recent available issues of the remaining magazines to determine whether they ordinarily contain cigarette advertising. This analysis showed that all the magazines on the list contained cigarette advertising. The list of the remaining magazines was cross-checked with the 1998 *Simmons Teen Report* (SMRB 1998). Magazines not reported by SMRB were also dropped from this study. Fourteen consumer magazines that contain cigarette advertising and have a teenage readership composition of at least 15% remained on the list.

We generated and analyzed four sample magazine schedules to determine the percentage of teens 12–17 years of age with an OTS advertising in the schedule of magazines (reach) and the estimated number of times these teens were exposed (average frequency) using the Metheringham Plus media model available through the *Simmons Choices 2* software, which SMRB makes available for estimating the reach and frequency of media schedules to its Choices 2 clients. Metheringham Plus uses a variation of the Metheringham beta binomial media model. The Metheringham model is accurate under normal circumstances (Rust 1986, p. 12). However, it tends to overestimate reach and underestimate frequency for some schedules. For very large media schedules, Metheringham tends to have diminishing reach levels when additional vehicles are added. Finally, Metheringham is most accurate when schedules include magazines that reach similar audiences (Rust 1986, p. 27). The Metheringham Plus model has been modified to correct previous diminishing reach problems associated with the original Metheringham model.

Of the four schedules, one contained all 14 of the magazines remaining on the list, one contained the magazines that had a predominantly female readership (*Mademoiselle* and *Vogue*), one contained predominantly male audience magazines (*Hot Rod*, *Motor Trend*, *Sport*, *Sports Illustrated*, and *Sporting News*), and one contained magazines with a music orientation (*Vibe*, *Rolling Stone*, and *Spin*).

We subsequently conducted a content analysis of the 1998 issues of 11 of the magazines used in the sample schedules to verify that the proposed schedules might rea-

**Table 1. Teen Composition, Readership, and Coverage Among Selected Consumer Magazines**

Magazines	Percent Composition of Teens (12-17)	Readership Among Teens (12-17)	Percent Coverage of Teens (12-17)
<i>Vibe</i>	43.6	2,370,000	10.40
<i>Sport</i>	31.5	2,011,000	8.8
<i>Spin</i>	30.5	1,189,000	5.2
<i>Hunting</i>	27.0	910,000	4.0
<i>The Sporting News</i>	24.6	1,040,000	4.6
<i>Hot Rod</i>	23.3	2,068,000	9.1
<i>Rolling Stone</i>	20.3	2,219,000	9.7
<i>Popular Science</i>	20.1	1,566,000	6.9
<i>Car Craft</i>	19.1	698,000	3.1
<i>Vogue</i>	19.0	2,033,000	9.0
<i>Sports Illustrated</i>	17.1	5,069,000	22.3
<i>Mademoiselle</i>	16.7	1,108,000	4.9
<i>Motor Trend</i>	16.3	1,141,000	5.0
<i>Jet</i>	15.2	1,629,000	7.2

Notes: Base = 22,783,000 projected teen population aged 12-17 years.  
Source: MRI's *Teen Mark Report*.

sonably be used by cigarette companies. These eleven included *Vogue*, *Mademoiselle*, *Spin*, *Rolling Stone*, *Hot Rod*, *Jet*, *Motor Trend*, *Popular Science*, *Sport*, *Sports Illustrated*, and *Sporting News*. Most, but not all, issues of each of these magazines were available. The remaining three magazines (*Vibe*, *Hunting*, and *Car Craft*) were not included because 1998 issues could not be obtained in a timely fashion through interlibrary loan or from the publishers. Each of the 11 magazines contained cigarette advertisements for Phillip Morris and R.J. Reynolds brands. Advertisements for Kool cigarettes were found in all the magazines except *Vogue*, and advertisements for Marlboro were found in all the magazines except *Jet* and *Popular Science*. On the basis of this analysis, we determined that the proposed schedules were indeed reasonable.

## Results

Table 1 shows magazine readership data for teenagers 12-17 years of age based on MRI data. The first column, percent composition, indicates what percentage of each magazine's readership is made up of teenagers. Column 2 indicates the estimated number of readers aged 12-17 years that is reached by each publication. The third column shows the percentage of all teenagers aged 12-17 that each of the magazines reaches (coverage). For example, 43.6% of *Vibe*'s reported readers are aged 12-17 (percent composition). The estimated number of teen readers of the average issue of *Vibe* is 2,370,000 (readership), which represents 10.4% of those aged 12-17 years (percent coverage of the average issue). In contrast, teenagers aged 12-17 constitute 17.1% of all *Sports Illustrated* readers. The average issue of *Sports Illustrated* is read by 22.3% (more than 5 million) of teens in this age group.

The importance of understanding both the teen composition and the projected audience size can be seen in Table 1. Whereas teenagers 12-17 years of age represent a larger percentage of the readers of *Vibe* than *Sports Illustrated*, the number of 12-17 teenage readers is more than doubled for

**Table 2. Percentage of Teens Reached and Average Frequency with a Combination of Selected Magazines**

	Teens 12-17	Males 12-17	Females 12-17
Percentage reach	66.1	78.3	52.9
Average frequency	2.1	2.3	1.7

Notes: Results are for one insertion in each selected magazine, including *Vibe*, *Sport*, *Spin*, *Hunting*, *The Sporting News*, *Hot Rod*, *Rolling Stone*, *Popular Science*, *Car Craft*, *Vogue*, *Sports Illustrated*, *Mademoiselle*, *Motor Trend*, and *Jet*.

*Sports Illustrated* (2.3 million versus 5 million). The potential for reaching a larger number of teens aged 12-17 years is greater for *Sports Illustrated*.

It is common for advertisers to use a combination of magazines in an advertising media schedule to increase both the reach of their message and the frequency with which the message will be seen. Tables 2 and 3 represent estimated potential reach and frequency if certain magazines are used in combination.

Table 2 indicates the potential reach and average frequency of exposure to cigarette advertising by teens if a tobacco marketer placed an advertisement in one issue of each of the 14 magazines. Of all teenagers, 66% would be reached an average of two times. Moreover, this particular group of magazines is skewed to male readers 12-17 years of age, as noted by the 78% total reach of this group. The reach among female teens by this particular group of magazines is 52.9%.

Magazines in this analysis were then grouped by type (i.e., women's magazines, men's magazines, and music magazines) and considered in a schedule of three insertions per publication with the Metheringham Plus media program. As is shown in Table 3, a schedule containing just three insertions each in *Mademoiselle* and *Vogue* yielded an esti-

Table 3. Percentage of Teens Reached by Sample Magazine Schedules

Magazines	Number of Insertions in 12 Months	Females 12-17 Years of Age	Males 12-17 Years of Age	Teens 12-17 Years of Age
<i>Mademoiselle</i>	3			
<i>Vogue</i>	3			
Percentage reach		38.8		
Average frequency		2.37		
<i>Hot Rod</i>	3			
<i>Motor Trend</i>	3			
<i>Sport</i>	3			
<i>Sporting News</i>	3			
<i>Sports Illustrated</i>	3			
Percentage reach			81	
Average frequency			3.91	
<i>Rolling Stone</i>	3			
<i>Spin</i>	3			
<i>Vibe</i>	3			
Percentage reach				37.5
Average frequency				2.56

mated reach of 38.8% of female teens aged 12-17 years an average of 2.4 times each. The five mostly male-oriented publications yielded a reach of 81% and an average frequency of 3.9 times. The music-oriented magazine schedule was estimated to achieve 37.5% reach at an average frequency of 2.6 times. This analysis suggests that cigarette advertisers could reach a large number of teenagers aged 12-17 years even with limited magazine schedules.

## Discussion

Is cigarette advertising in popular consumer magazines likely to reach a large number of teenagers? The answer is yes. The results of this study indicate that the practice of placing tobacco advertising in some popular consumer magazines results in reaching a substantial number of teenagers between the ages of 12 and 17 years.

This study confirms that a new overall policy is needed to govern the placement of advertising in popular magazines. As noted, the new Phillip Morris policy eliminates the use of advertising in many of the vehicles in this study. Such a move is certainly a step in the right direction and can reduce teenage exposure to cigarette advertising in magazines. It is also important for the other members of the cigarette industry to develop and adhere to similar policies.

The concern regarding teenage exposure to advertising is based on studies that indicate that teenagers are sensitive to cigarette advertising and that cigarette advertising is associated with teenage smoking (Pierce, Lee, and Gilpin 1994; Pollay et al. 1996; U.S. Department of Health and Human Services 1994). Recent work shows a significant correlation between exposure to brand-specific advertising in magazines and brand initiation (Pucci and Siegel 1999).

Our study shows that even limited magazine schedules potentially expose a large number of teenagers to cigarette advertising. A finding that teenagers are exposed to cigarette advertisements in these current popular magazines does not demonstrate intent on the part of the tobacco industry to reach such markets. Representatives of the tobacco industry

state that they do not wish to sell products to teenagers, and the tobacco industry code prohibits advertising in publications primarily directed to people under 21 years of age. The use of the word "primarily" as a key industry standard remains ambiguous and open to interpretation and does not present an actionable criterion.

If there is a genuine concern for limiting underage exposure to tobacco advertising, these advertisements should be banned from several popular consumer magazines that now contain it. The practice of using circulation data to measure teen audience size is not adequate for gauging how many teenagers are reached by a magazine. Furthermore, data from this study reveal that the standard of not placing advertisements in magazines that have more than 15% circulation to people under 21 still allows a large portion of teenagers to be exposed to cigarette advertisements in popular magazines.

Popular consumer magazines play a prominent role in tobacco advertising. It is easy to reach a high percentage of teenagers on a regular basis using magazines such as those found in Table 1. Regulators need a measurable and definable standard. Data from the study provide empirical support to suggest that the 1995 FDA proposal is on the right track.

Policymakers are charged with the responsibility to develop an appropriate standard regarding how many teenagers and children are reached by tobacco advertising. Our findings confirm that any policy created to limit the exposure of magazine advertising to young people needs to consider both the percentage and the absolute number of young readers. Findings also suggest that policymakers need to consider that teens are often exposed to more than one magazine, which results in multiple exposures to cigarette advertisements.

A comprehensive magazine youth readership study is necessary and quite feasible. In a 1996 analysis, the FDA indicated a willingness to use SMRB, MRI, or other methods. During the same analysis, others stated that survey organizations such as SMRB and MRI would need to make method-

ological changes to assess the 1995 standards (FDA 1996). For example, only a small percentage of magazines is included in the surveys by these organizations. We believe adding magazines and more precisely tailoring the sample and procedure to youths under the age of 18 are entirely possible. Other methods, such as eye tracking and recognition, could be used to assess the rate at which teens actually see cigarette ads in magazines. Such information could provide weights to supplement the opportunity to see data.

The data presented here have some limitations. This analysis relies on data collected by syndicated data sources. Although SMRB and MRI are the most commonly used syndicated sources for national advertisers to gauge readership for magazines, they are limited by the way data are collected (self-report), the response rate, and the way the teen sample is drawn. In addition, measures of audience size that are available through these sources provide estimates of the audience size for a particular magazine vehicle, which is not the same as the size of the audience exposed to a specific advertisement. All readers of a magazine will not read or look at every advertisement in the magazine (Jugenheimer, Barban, and Turk 1992). Measures of vehicle audience size provide an estimate of the potential size of the audience for a magazine advertisement, and data from our study indicate that substantial portions of teenagers between the ages of 12 and 17 years are exposed to cigarette advertising in popular magazines.

## References

- Albright, Cheryl L., David G. Altman, Michael D. Slater, and Nathan Maccoby (1988), "Cigarette Advertisements in Magazines: Evidence for a Differential Focus on Women's and Youth Magazines," *Health Education Quarterly*, 15 (2), 225-33.
- Altman, David G., Michael D. Slater, Cheryl L. Albright, and Nathan Maccoby (1987), "How an Unhealthy Product Is Sold: Cigarette Advertising in Magazines, 1960-1985," *Journal of Communication*, 37 (4), 95-106.
- Davis, Joel J. (1997), *Advertising Research*. Upper Saddle River, NJ: Prentice Hall.
- Engle v. R.J. Reynolds Tobacco Co. et al. (1999), Case No. 94-08273 CA22, Dade Co., Miami, Fl., (May 18), 34777-80.
- Fairclough, Gordon (2000), "Are Cigarette Ads in Teen Magazines Angling for Teens?" *Wall Street Journal*, (May 17), B1, B4.
- Federal Trade Commission (1968), *Report to Congress, Pursuant to the Federal Cigarette Labeling and Advertising Act*, (June 30), 11-12.
- (1999), *Report To Congress for 1997, Pursuant to the Federal Cigarette Labeling and Advertising Act*, 21.
- Food and Drug Administration (1995), "Regulations Restricting the Distribution of Cigarettes and Smokeless Tobacco Products to Protect Children Adolescents, Proposed Rule," 60 *Fed. Reg.* 155 (August 11).
- (1996), "Rules and Regulations," 61 *Fed. Reg.* 168, 4513-18 (August 28).
- Jugenheimer, Don W., Arnold M. Barban, and Peter B. Turk (1992), *Advertising Media Strategy and Tactics*. Dubuque, IA: Wm. C. Brown Communications.
- Katz, Helen E. (1995), *The Media Handbook*. Lincolnwood, IL: NTC Business Books.
- King, Charles, Michael Siegel, Carolyn Celbucki, and Gregory N. Connolly (1998), "Adolescent Exposure to Cigarette Advertising in Magazines," *Journal of the American Medical Association*, 279 (7), 516-20.
- Lancaster, Kent M., Peggy J. Kreshel, and Joya R. Harris (1986), "Estimating the Impact of Advertising Media Plans: Media Executives Describe Weighting and Timing Factors," *Journal of Advertising*, 15 (3), 21-29.
- Mediamark Research Inc. (1998), *Mediamark 1998 Teen Mark Report*. New York: Mediamark Research Inc.
- National Association of Attorneys General (1998), *Master Settlement Agreement with the Tobacco Industry*, (accessed October 15, 1999), [available at <http://www.awmanet.org/members/master.html>].
- New York Times* (2000), "Phillip Morris to Suspend Some Ads," (June 5), [available at <http://www.nytimes.com/>].
- Phillip Morris U.S.A. (1999), *Our Responsibility—Responsible Marketing*, (accessed May 17, 1999) [available at <http://www.philipmorrisusa.com/DisplayPageWithTopic.asp?ID=64>].
- Pierce, John P., Won S. Choi, Elizabeth A. Gilpin, A.J. Farkas, and Charles C. Berry (1998), "Tobacco Industry Promotion of Cigarettes and Adolescent Smoking," *Journal of the American Medical Association*, 279 (7), 511-15.
- , Lora Lee, and Elizabeth A. Gilpin (1994), "Smoking Initiation by Adolescent Girls, 1944 Through 1988," *Journal of the American Medical Association*, 271 (8), 608-11.
- Pollay, Richard W., S. Siddarth, Michael Siegel, Anne Haddix, Robert K. Merritt, Gary A. Giovino, and Michael P. Eriksen (1996), "The Last Straw? Cigarette Advertising and Realized Market Shares Among Youths and Adults, 1979-1993," *Journal of Marketing*, 60 (April), 1-16.
- Pucci, Linda A. and Michael Siegel (1999), "Exposure to Brand-Specific Cigarette Advertising in Magazines and Its Impact on Youth Smoking," *Preventive Medicine*, 29 (5), 313-20.
- Rust, Roland (1986), *Advertising Media Models: A Practical Guide*. Lexington MA: Lexington Books.
- Simmons Market Research Bureau (1998), *Choices 2*. New York: Simmons Market Research Bureau.
- (1998), *Simmons 1998 Teen Report*. New York: Simmons Market Research Bureau.
- Sissors, Jack Z. and Lincoln Bumba (1995), *Advertising Media Planning*. Lincolnwood, IL: NTC Business Books.
- U.S. Department of Health and Human Services (1994), *Morbidity and Mortality Weekly Report: Changes in the Cigarette Brand Preferences of Adolescent Smokers—United States, 1989-1993*, 43 (32), 577-81 [available at <http://www2.cdc.gov/mmwr/>].
- (1998a), *Morbidity and Mortality Weekly Report: April 3, 1998, Tobacco Use Among High School Students—United States, 1997*, 47 (12), 229-33 [available at <http://www2.cdc.gov/mmwr/>].
- (1998b), *Morbidity and Mortality Weekly Report: Incidence of Initiation of Cigarette Smoking—United States, 1965-1996*, 47 (39), 837-40 [available at <http://www2.cdc.gov/mmwr/>].

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