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# Associations Between Cigarette Print Advertising and Smoking Initiation Among African Americans

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## Abstract

**Objectives** The objective of this study was to examine changes in the annual number of cigarette advertisements in magazines with a predominantly African-American audience following the broadcast ban on tobacco, and whether fluctuations in cigarette print advertising targeting African Americans during the late-1970s until the mid-1980s were associated with declines in smoking initiation.

**Design** We tabulated the annual number of cigarette advertisements from magazines with large African-American readerships (Ebony, Essence, and Jet) from 1960 to 1990. Advertisements were coded depending on whether they featured African-American models. We calculated the incidence rate of regular smoking initiation from 1975 to 1990 for African-American 14–25 years old using data from the 1992–1993, 1995–1996, 1998–1999, and 2001–2002 Tobacco Use Supplements of the Current Population Survey.

We examined whether trends in smoking initiation coincided with trends in cigarette advertising practices among African Americans.

**Results** The annual aggregated number of printed cigarette advertisements in Ebony, Essence, and Jet magazines increased at least five-fold starting in 1971, following the broadcast ban on cigarette advertising. A decrease in the percentage of ads by Brown & Williamson that showed African-American models was positively correlated ( $r = 0.30$ ) with declines in the incidence rate of smoking initiation among African Americans from the late-1970s to the mid-1980s.

**Conclusion** The tobacco industry adapted quickly following the broadcast ban on cigarettes by increasing print advertising in African-American magazines. However, changes in print advertising practices by were associated with declines in smoking initiation among African Americans from the late-1970s to mid-1980s.

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**Keywords** Tobacco · Advertising · Race/ethnicity · African Americans

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## Introduction

Research has consistently demonstrated an association between cigarette advertising and increased smoking initiation [1]. For example, increased cigarette marketing in the form of the “Joe Camel” campaign is associated with increased adolescent smoking initiation in the 1990s [2, 3], while the Virginia Slims “You’ve come a long way baby” campaign has been cited as a major factor that contributed to sharp increases in smoking initiation among women since the 1960s [4, 5]. In 1971, the United States Congress enacted a ban on all broadcast (e.g., TV and radio) advertising of cigarettes in the country. This was followed by a subsequent

decline in adolescent smoking initiation that would last until the mid-1980s [6]. The tobacco industry then shifted a substantial proportion of its advertising focus on print media, leading to a subsequent dramatic increase in the number of magazine advertisements for cigarettes [7, 8]. From 1970 to 1990, tobacco industry's investment in magazine advertisements increased from \$50,018,000 to \$328,143,000 [9]. The frequency of magazine ads, therefore, can be considered a general indicator of advertising strategies used by the tobacco industry. This may be particularly relevant following the ban on broadcast advertising when advertising expenditures were concentrated on less expensive venues such as print advertising in magazines, newspapers, and other periodicals.

Thus, with this shift, print advertising targeted towards a specific race/ethnic group and its association with smoking is of particular interest. Only a few prior studies have examined strategies used by the tobacco industry to target African Americans through magazine print media and established greater exposure to cigarette advertisements among African Americans [10–13]. However, these studies did not examine the association between the annual number of cigarette advertisements in African-American-focused print media with the incidence of smoking initiation among African Americans.

There have been well-documented declines in adolescent smoking initiation among African Americans that began in the late-1970s and continued until the mid-1980s [14–16]. This decline was steeper compared to that of non-Hispanic whites [17–19] and is noteworthy because it led to the unprecedented declines in African-American adult daily smoking prevalence that began in the early 1990s [17, 20]. Identifying possible factors associated with the large declines in smoking initiation among African Americans during the 1970s and 1980s may provide important additional information linking cigarette advertising practices with tobacco use initiation.

We examined changes in the annual number of cigarette advertisements in magazines with a predominantly African-American audience following the broadcast ban on tobacco. We also studied whether a shift in the focus of targeted advertising to African Americans was associated with declines in smoking initiation rates among African-American adolescents and young adults. We quantified the advertising for cigarette brands popular with African Americans in magazines with high African-American readerships from the mid-1970s up to 1990. The most popular cigarette brand among African Americans during this time period was a product produced by Brown and Williamson (B&W), Kool cigarettes [21]. Previous research has highlighted how B&W's Kool brand became the top selling cigarette among African Americans by 1969 [21]. Although Kool's dominance peaked in the mid-1970s, it remained the number one brand among African Americans until the mid-1980s [22]. We then compared findings on cigarette brand advertising with initiation rates among African-American adolescents and young adults

during the same time period. We hypothesized that changes in advertising for brands popular with African Americans would correspond to decreases in African-American smoking initiation. Identifying possible associations between targeted cigarette advertising and smoking initiation behavior builds on previous literature by providing additional evidence linking these factors among African Americans, a population group significantly impacted by tobacco-related disease [23–26].

## Methods

### Study Overview

We tallied the annual number of cigarette advertisements in African-American-focused magazines (Ebony, Essence, and Jet) from 1960 to 1990 to examine how the tobacco industry shifted a substantial proportion of its advertising focus on print media before and after the broadcast advertising ban on tobacco. We then examined the relationship between cigarette advertising and African-American adolescent and young adult smoking initiation rates between 1975 and 1990. We selected 1975 because by this time the large increase in print advertising of cigarettes had occurred and advertising data across magazines became more consistent. We selected 1990 as our endpoint because this is the period of time after the documented declines in African-American adolescent smoking initiation.

Two sources of data were utilized for this study. We calculated African-American adolescent and young adult smoking initiation rates using population-based survey data obtained from the 1992–93, 1995–96, 1998–99, and 2001–02 Tobacco Use Supplements to the Current Population Survey (TUS CPS). The advertising data were obtained from a much larger dataset of 85,470 cigarette advertisements that spanned 102 years (1900–2002) of advertising from 18 popular magazines in the USA. For this study, we focused our examination of advertisements on three magazines with large African-American readerships, Ebony, Essence, and Jet. We selected these three magazines based upon data from a mailed survey of 3071 youth conducted by MediaMark Research, Inc. which revealed that these periodicals were read most frequently among African-Americans 18 years and older, as well as African Americans between the ages of 18 and 24. Both Ebony and Jet were read most frequently by African-American adolescents between the ages of 12 and 17. Although cigarette advertisements from all three magazines were reviewed and coded between the year of magazine inception (Ebony, 1945; Essence, 1970; Jet, 1951) and 2002, we report on the period between 1960 and 1990 for reasons stated above.

## Cigarette Advertisements

The collection of the cigarette advertising data from *Ebony*, *Essence*, and *Jet* was carried out over a 2 year period from 2002 to 2003. A total of four research assistants examined every issue of *Ebony*, *Essence*, and *Jet* magazines for cigarette advertisements. The research assistants reviewed and coded several elements comprising each cigarette advertisement such as the brand advertised, the slogan of the ad, the size of the ad, and the thematic content of the advertisement. If an advertisement displayed human models (i.e., ads that pictured a person or persons, but not ads that showed only scenery without people), the race/ethnicity of the models were coded as follows: Non-Hispanic white, African American, Asian/Pacific Islander, Hispanic/Latino, and unknown (could not be determined from the picture). In ads that featured multiple models, the race/ethnicity of each model was coded. Ads featuring African-American models were classified as more direct targeting of African Americans (i.e., compared to ads *Ebony*, *Essence*, and *Jet* where the race/ethnicity of models was not African American). Each cigarette advertisement was reviewed and coded by two different research assistants. This double data entry system minimized data entry errors and ensured the same criteria were being used to code the content of ads. Differences between data coders were resolved during weekly quality assurance meetings. For each calendar year from 1975 to 1990, we calculated the percentage of each race/ethnicity featured in these cigarette ads. Ads were classified based on whether the brand advertised was sponsored by one of four of the largest tobacco manufacturers in the USA (B&W, Lorillard, Philip Morris [PM], and RJ Reynolds [RJR]).

We examined whether the percentage of ads in *Ebony*, *Essence*, and *Jet* that showed African-American models changed over time and corresponded to similar changes in African-American adolescent and young adult smoking initiation. Given the target audience of these magazines, we reasoned that a large proportion of the advertisements featuring people would include African-American models and decreases in those proportions would be associated with declines in smoking initiation.

## Tobacco Use Supplements to the Current Population Survey Procedures and Sampling

The national Current Population Survey (CPS) periodically includes a special Tobacco Use Supplement (TUS), which was the source of the initiation rate data for this analysis. The CPS is a continuous survey (over 56,000 households/month) conducted by the U.S. Bureau of the Census, primarily to monitor labor force indicators for the civilian non-institutionalized US Population age 15 years and older. The complete CPS methodology is published elsewhere (Bureau

of Labor Statistics & U.S. Census Bureau, 2002). Briefly, the CPS includes a probability sample, based on a stratified sampling scheme of clusters of four neighboring households identified from the most recent decennial census, updated from building permits and other sources. TUS were included for the months of September, January, and May in 1992–1993, 1995–1996, 1998–1999, and 2001–2002. For analysis purposes, data from all 12 surveys were combined.

We examined TUS CPS data reported by individuals who were age 25 years and older at the time of the survey interview. We included all individuals who were classified as African American ( $n = 20,706$ ). This sample had a mean age of 38.9 years, and 56.2 % were female.

## TUS CPS Survey Measures

Two questions were used to examine the smoking initiation among adults. All TUS CPS surveys for all years included the question, “Have you smoked at least 100 cigarettes in your entire life?” Respondents who answered “yes” were classified as “ever smokers.” All ever smokers were then asked, “How old were you when you first started smoking cigarettes fairly regularly?” To calculate the age of onset of regular smoking, we included only ever smokers who gave a valid starting age between 14 and 25 years. This age range was selected so as to encompass delayed smoking initiation among African Americans that has been previously reported [19, 27, 28]. Each smoker’s current age at the time of the survey was then subtracted from the date they completed the survey in order to estimate their year of birth. The age of regular smoking onset was then added to the year of birth to estimate the calendar year in which persons began to smoke fairly regularly.

## Computation of Initiation Rates

We reconstructed the age of each respondent for each calendar year of interest between 1975 and 1990. For each year, we computed the age-specific denominator (for each age from 14 through 25 years) as the sum of the weights for African-American respondents who had not started smoking up to that particular year. Thus, the denominator in the rate computation is the sum of the weights for all African Americans for each age in a given year who were at risk to start smoking. We then used the sum of the weights of African-American individuals who started to smoke in that year as the numerator in the rate computation.

## Data Analysis for the TUS CPS and Tobacco Advertisements

The TUS CPS has composite weights associated with each respondent that can be used to generate population-based estimates. Once base weights are developed that reflect the

probability that a person is sampled, the weights are further adjusted to reflect the United States population at the time of the survey. We used a SAS-callable version of SUDAAN<sup>23</sup>, with balanced-repeated-replicates, to compute estimates and 95 % confidence intervals for the calculation of smoking initiation rates. SAS software version 9.2 was used for the computation of estimates of tobacco advertising.

## Results

### Number of Ads in African-American Magazines that were for Cigarettes

As can be seen in Fig. 1, print advertising of tobacco products increased in magazines popular with African Americans (Ebony, Essence, and Jet) following the tobacco industry's removal of cigarette ads from television in 1970. There were approximately 50 cigarette advertisements annually in these magazines from 1960 to 1970. The combined number of cigarette advertisements in these magazines then increased approximately five-fold from 1970 to 1971, to over 250 each year. The number increased to 320 by 1976 but then slowly decreased to 257 by 1981. Following this decreasing trend, the number of cigarette ads in these magazines increased sharply to 368 by 1983. However, starting in 1985, the number of ads began to decrease so that by 1990 there were a total of 186 cigarette ads in Ebony, Essence, and Jet.

### Percentage of Ads Showing African-American Models

For the cigarette ads sponsored by Lorillard, PM, and RJR, the annual percentage of cigarette ads in which featured African-American models was consistently over 95 % and mostly 100 %. The top and middle panels of Fig. 2 show trends for

Lorillard and PM, respectively. For these two companies, in 1983, 1984, 1986, and again in 1989, the percentage of cigarette ads that featured African-American models dipped slightly to approximately 95 %. The bottom panel of Fig. 2 shows that the percentage of cigarette ads featuring African-American models for RJR was at least at 98 % in each year.

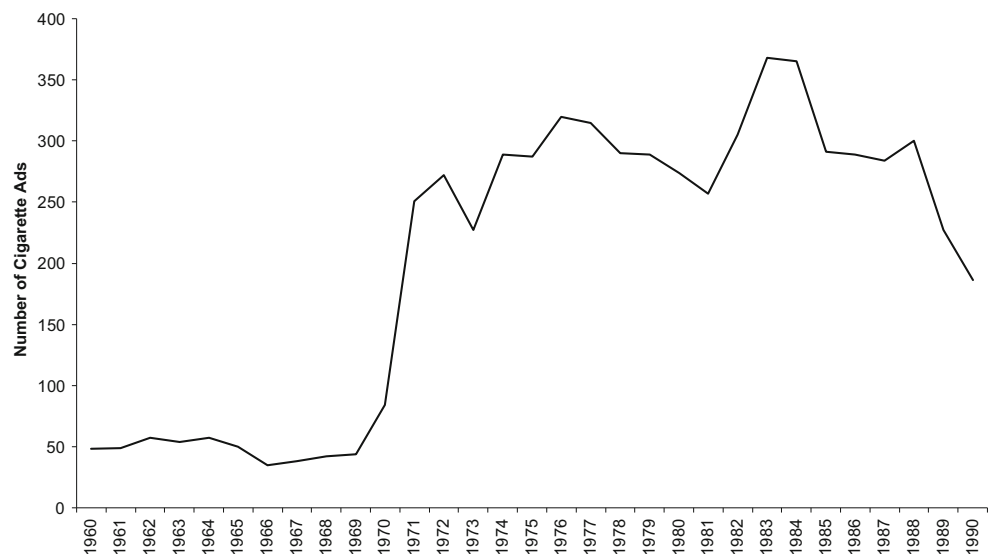
Figure 3 illustrates the annual percentage of cigarette ads sponsored by B&W that featured African-American models (solid line). From 1975 to 1978, this percentage was almost 100 %. This percentage dipped to about 89 % in 1979 and climbed back up to 100 % in 1980. In 1981, this percentage decreased again to about 93 %, and by 1982 it fell to about 76 %. After an increase in 1983 to about 86 %, the percentage decreased dramatically to approximately 64 % in 1984. It would remain at this approximate level until 1986. Then, beginning in 1987, the percentage of B&W's ads that featured African-American models climbed back up to 100 % and remained at that level until 1990.

### Incidence of Smoking Initiation among African Americans 14–25 years of Age

Figure 3 (dotted line) also shows the annual incidence rate of regular smoking initiation among African Americans ages 14–25 years from 1975 to 1990. The incidence rate was approximately 4 % from 1975 to 1977. The rate then fell to about 3.3 % in 1978 and increased slightly to 3.5 % in 1979. A steady annual decline began in 1980, when the rate fell to approximately 2.9 %, and continued on to 1986, when the rate was about 1.9 %. The incidence rate remained approximately at this level until 1989. By 1990, the initiation rate decreased to 1.5 %.

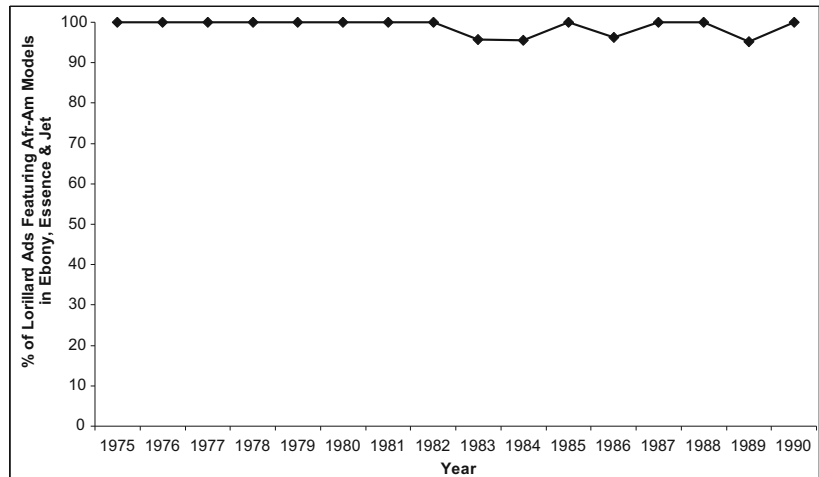
Data points from the two curves in Fig. 3 were moderately correlated with each other ( $r = 0.30$ ) such that the period of decline in B&W's cigarette ads featuring

**Fig. 1** Annual Total Number of Cigarette Ads in Ebony, Essence, and Jet (1960–1990)

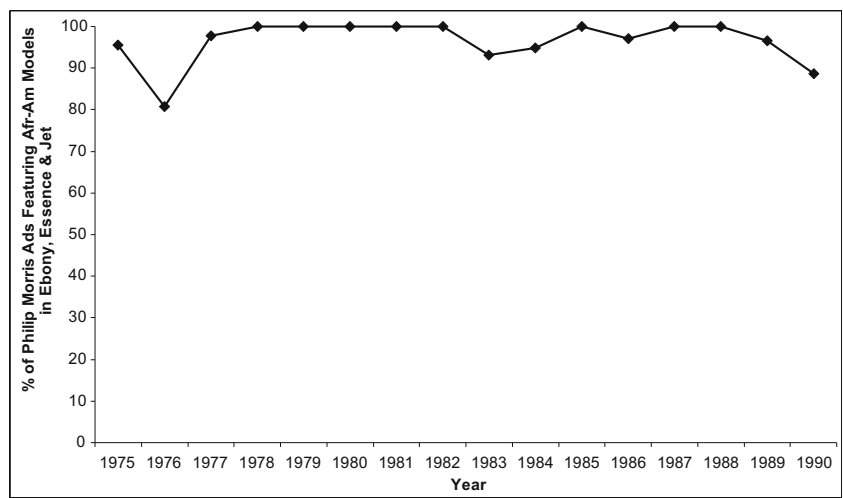


**Fig. 2** Percentage of cigarette ads in Ebony, Essence, and Jet that featured African American models for Lorillard, Philip Morris, and RJ Reynolds

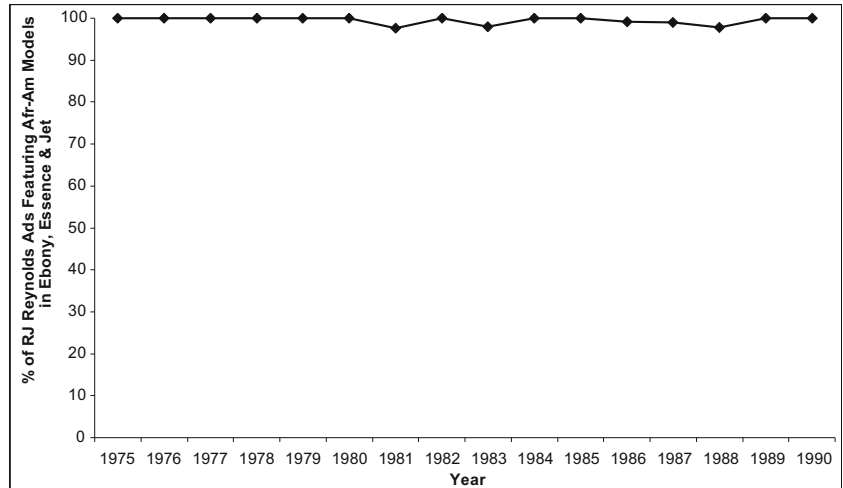
*Lorillard*



*Philip Morris*



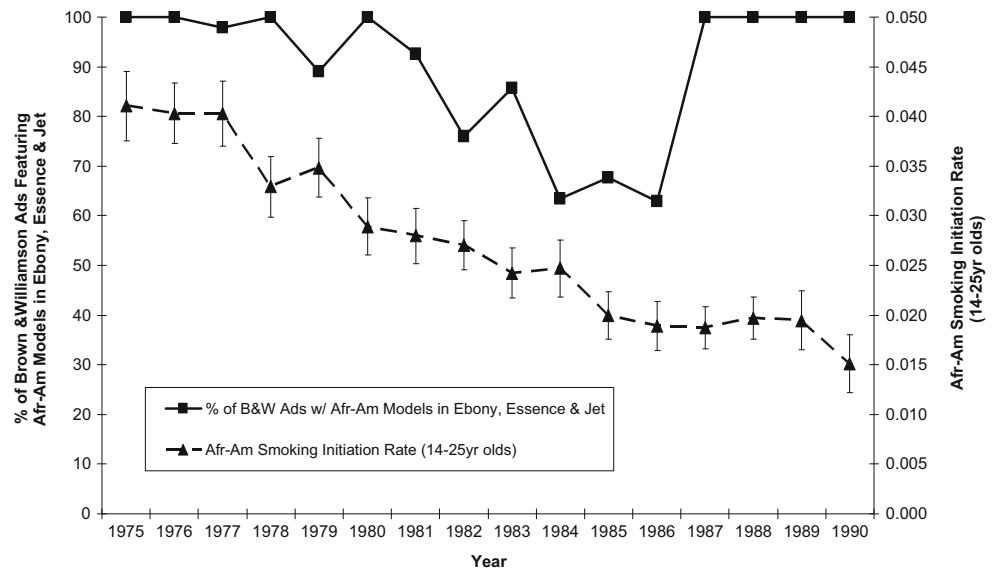
*RJ Reynolds*



African-American models was similar to the period of decline for the incidence rate of regular smoking.

Furthermore, the periods when B&W's cigarette ads featured almost exclusively African-American models

**Fig. 3** Percentage of B&W cigarette ads in *Ebony*, *Essence*, and *Jet* that featured African American models, and the incidence of smoking initiation for African Americans ages 14–25 years



coincided with periods when the incidence rate of regular smoking initiation was flat.

## Discussion

The annual aggregated number of cigarette advertisements in magazines with a predominantly African-American audience (*Ebony*, *Essence*, and *Jet*) increased about 500 % following the ban on broadcast advertising of cigarettes. Although not causal, this study highlights an important positive association between fluctuations in targeted cigarette advertising to fluctuations in smoking initiation. The decline in smoking initiation among African Americans from the late-1970s to mid-1980s was moderately associated with changes in the print advertising of cigarettes by B&W. From 1975 to 1977, when initiation rates were fairly stable, the percentage of cigarette ads sponsored by B&W in which the models featured were African American was consistently around 100 %. As smoking initiation rates declined in the late-1970s to the mid-1980s, the percentage of cigarette ads with African-American models decreased correspondingly, to as low as 63 % in 1986. Then, in the late-1980s, possibly in response to the decreasing initiation rates associated with their changes in advertising, the percentage of B&W cigarette ads featuring African-American models increased back up to 100 %. This sudden increase corresponds with a leveling in the smoking initiation rate among African Americans ages 14–25 years. It appears that the lack of clear messages targeting African Americans could have undermined effectiveness of B&W's advertisements.

The most popular cigarette brand among African Americans during this time period was a product produced by B&W, *Kool* cigarettes [21]. Previous research has highlighted how B&W's *Kool* brand became the top selling cigarette among African Americans by 1969 [21]. Although *Kool*'s dominance peaked

in the mid-1970s, it remained the number one brand among African Americans until the mid-1980s [29]. However, its decline in popularity among African-American smokers may be due to other changes in B&W's marketing strategies. It is possible that the marketing of *Kool* by B&W targeted its existing audience and focused its efforts on this population segment as it aged. That is, as the *Kool* smoker aged, the marketing strategies employed by B&W may have focused on what would be most appealing to that current age group, all the while lessening their focus on recruiting new, younger smokers (adolescents). Interestingly, as *Kool*'s market share was declining, RJR's *Newport* brand of cigarettes was gaining popularity, primarily by targeting younger smokers [21]. By 1983, more than half of *Newport* smokers were younger than 25 years old, the youngest of the major cigarette brands [21, 30]. By the late 1980s, *Newport* had overtaken *Kool* as the market share leader. *Kool*'s documented decline in market share [29, 30] may be related to this possible change in marketing strategy.

Despite the apparent correlation between B&W advertising and smoking initiation trends, it is difficult to determine the temporal association between the two and causal inferences cannot be made from these data. It should also be noted that this is just one possible explanation or a component of the various factors that played a role in the decrease in African-American smoking initiation during that time. It has been documented that the social acceptability of smoking decreased in the African-American community during the late-1970s and on through the 1980s [18, 19, 22, 31]. This widespread cultural phenomenon might have been a stronger influence on the declining rates of smoking initiation among African Americans during this time period. We also note that, although the recall of one's age of regular smoking initiation may have presented a potential bias, previous work has supported the validity of such recall [23, 32, 33]. In examining various cohorts from large national smoking datasets, Gilpin and

colleagues found no evidence of a systematic trend in the reporting of older or younger ages of smoking initiation based on the respondent's age when surveyed [33]. Finally, although we could not calculate the proportion of cigarette advertisements in *Ebony*, *Essence*, and *Jet*, the sheer increase in the number of advertisements in magazines with large African-American readerships illustrates an important shift in the tobacco industry's advertising strategy after the broadcast ban on cigarette advertising.

## Conclusion

The tobacco industry adapted quickly following the broadcast ban on cigarettes by substantially increasing print advertising in African-American magazines. The lack of a clear focus in an influential cigarette brand's advertising strategies can be associated with decreases in the intended outcome (smoking initiation among African Americans). This highlights the importance of targeted advertising on smoking initiation and contributes evidence linking tobacco industry marketing campaigns to smoking initiation [34]. Public health advocates, and more recently the Food and Drug Administration, have suggested that strongly restricting or eliminating tobacco advertising may be an essential step in reducing smoking initiation.

A strong relationship between tobacco advertising and smoking initiation has been established and highlights the significant impact of media exposure on tobacco use [34]. Results from this study build on previous research on exposure to cigarette advertisements among African Americans [10–13] and on other marketing channels utilized by the tobacco industry (including point of sale targeting, funding of organizations/corporate social responsibility, club sponsorships and ties with the African American press) [22, 35] by linking fluctuations in targeted tobacco advertising to changes in cigarette smoking initiation among African Americans. With the recent changing climate in tobacco advertising (e.g., internet and social media), research on its impact on the initiation of tobacco product usage (including cigarettes, electronic cigarettes, little cigars and cigarillos, etc.) should be conducted, particularly among those who are significantly affected by tobacco-related diseases.

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## References

- Lovato CY, Litrownik AK, Elder J, Nuñez-Liriano A, Suarez D, Talavera GA. Cigarette and alcohol use among migrant Hispanic adolescents. *Fam Commun Heal*. 1994;16(4):18–31.
- DiFranza JR, Richards JW, Paulman PM, et al. RJR Nabisco's cartoon camel promotes camel cigarettes to children. *J Am Med Assoc*. 1991;266(22):3149–53. doi:10.1001/jama.266.22.3149.
- Pierce JP, Choi WS, Gilpin EA, Farkas AJ, Berry CC. Tobacco industry promotion of cigarettes and adolescent smoking. *J Am Med Assoc*. 1998;279(7):511–5. doi:10.1001/jama.279.7.511.
- Hammond D, Doxey J, Daniel S, Bansal-Travers M. Impact of female-oriented cigarette packaging in the United States. *Nicotine Tob Res*. 2011;13(7):579–88. doi:10.1093/ntr/ntr045.
- Toll BA, Ling PM. The Virginia slims identity crisis: an inside look at tobacco industry marketing to women. *Tob Control*. 2005;14(3):172–80. doi:10.1136/tc.2004.008953.
- Pierce JP, Distefan JM, Hill D. Adolescent smoking. In: Boyle P, Gray N, Henningfield J, Seffrin J, Zatonski W, editors. *Tobacco and public health: science and policy*. New York: Oxford University Press, Inc; 2004. p. 315–28.
- Gilpin EA, Pierce JP. Trends in adolescent smoking initiation in the United States: is tobacco marketing an influence? *Tob Control*. 1997;6:122–7.
- King III C, Siegel M. The master settlement agreement with the tobacco industry and cigarette advertising in magazines. *N Engl J Med*. 2001;345(7):504–11. doi:10.1056/NEJMsa003149.
- Federal Trade Commission. Cigarette report for 2011. 2013. <https://www.ftc.gov/sites/default/files/documents/reports/federal-trade-commission-cigarette-report-2011/130521cigarettereport.pdf>.
- Cummings KM, Giovino G, Mendicino AJ. Cigarette advertising and black-white differences in brand preference. *Public Health Rep*. 1987;102(6):698–701.
- Landrine H, Klonoff EA, Fernandez S, et al. Cigarette advertising in black, Latino, and white magazines, 1998–2002: an exploratory investigation. *Ethn Dis*. 2005;15(1):63–7.
- Balbach ED, Gasior RJ, Barbeau EM. R.J. Reynolds' targeting of African Americans: 1988–2000. *Am J Public Health*. 2003;93(5):822–7. doi:10.2105/AJPH.93.5.822.
- Primack BA, Bost JE, Land SR, Fine MJ. Volume of tobacco advertising in African American markets: systematic review and meta-analysis. *Public Health Rep*. 2007;122(5):607–15. doi:10.2307/20057184.
- Johnston LD, O'Malley PM, Bachman JG, Schulenberg JE. Decline in teen smoking appears to be nearing its end. 2005. [www.monitoringthefuture.org](http://www.monitoringthefuture.org). Accessed 9 December, 2006.
- Wallace JM, Bachman JG, O'Malley PM, Johnston LD, Schulenberg JE, Cooper SM. Tobacco, alcohol, and illicit drug use: racial and ethnic differences among U.S. high school seniors, 1976–2000. *Public Health Rep*. 2002;117(Suppl 1):S67–75.
- Anderson C, Burns DM. Patterns of adolescent smoking initiation rates by ethnicity and sex. *Tob Control*. 2000;9(Suppl II):II4–8. doi:10.1136/tc.9.suppl\_2.ii4.
- Johnston LD, O'Malley PM, Bachman JG, Schulenberg JE. Monitoring the future: National Survey Results on drug use, 1975–2009: volume I, secondary school students (NIH publication no. 10–7584). National Institute on Drug Abuse: Bethesda, MD; 2010.
- Oredein T, Foulds J. Causes of the decline in cigarette smoking among African American youths from the 1970s to the 1990s. *Am J Public Health*. 2011;101(10):4–15. doi:10.2105/AJPH.2011.300289.
- Trinidad DR, Gilpin EA, Lee L, Pierce JP. Has there been a delay in the age of regular smoking onset among African Americans? *Ann Behav Med*. 2004;28(3):152–7. doi:10.1207/s15324796abm2803\_2.
- Trinidad DR, Messer K, Gilpin EA, Al-Delaimy WK, White MM, Pierce JP. The California tobacco control Program's effect on adult smokers: (3) similar effects for African Americans across states. *Tob Control*. 2007;16(2):85–90. doi:10.1136/tc.2006.016873.



21. Sutton CD, Robinson RG. The marketing of menthol cigarettes in the United States: populations, messages, and channels. *Nicotine Tob Res.* 2004;6(Suppl 1):S83–91. doi:10.1080/14622203310001649504.
22. Yerger VB, Malone RE. African American leadership groups: smoking with the enemy. *Tob Control.* 2002;11(4):336–45. doi:10.1136/tc.11.4.336.
23. U.S. Department of Health and Human Services. Tobacco Use among U. S. Racial/ethnic Minority Groups—African Americans, American Indians, and Alaska Natives, Asian Americans and Pacific Islanders, and Hispanics: A Report of the Surgeon General (Report No: 017–001–00527-4). Atlanta, GA; 1998.
24. American Lung Association. Too many cases, too many deaths: lung cancer in African Americans. *Disparities Lung Health Ser* 2010. <http://www.lung.org/assets/documents/research/ala-lung-cancer-in-african.pdf>. Accessed 28 May, 2016.
25. Xu J, Murphy SL, Kochanek KD, Bastian BA. Deaths: final data for .2013 Natl Vital Stat Reports. 2016;64(2):54–59. Atlanta, GA: Centers for Disease Control and Prevention, National Center for Health Statistics. [http://www.cdc.gov/nchs/data/nvsr/nvsr58/nvsr58\\_19.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr58/nvsr58_19.pdf) Accessed May 28, 2016.
26. Heron M. Deaths: leading causes for 2010. *Natl Vital Stat Reports.* 2013;62(2). Atlanta, GA: Centers for Disease Control and Prevention, National Center for Health Statistics. <http://www.cdc.gov/nchs/fastats/lcod.htm> \n<http://www.ncbi.nlm.nih.gov/pubmed/24364902> Accessed 28 May, 2016.
27. Geronimus AT, Neidert LJ, Bound J. Age patterns of smoking in US black and white women of childbearing age. *Am J Public Health.* 1993;83(9):1258–64.
28. Trinidad DR, Gilpin EA, Lee L, Pierce JP. Do the majority of Asian-American and African-American smokers start as adults? *Am J Prev Med.* 2004;26(2):156–8. doi:10.1016/j.amepre.2003.10.008.
29. Cummings KM, Brown A. The rise and fall of youth cigarette brands. Poster Presented at the Tobacco Control Investigators Meeting: Synthesizing Research for the Public’s Health, June 2–4, 2004, San Diego, CA.
30. Caraballo RS, Asman K. Epidemiology of menthol cigarette use in the United States. *Tob Induc Dis.* 2011;9(Suppl 1):S1.
31. Ellickson PL, Orlando M, Tucker JS, Klein DJ. From adolescence to young adulthood: racial/ethnic disparities in smoking. *Am J Public Health.* 2004;94(2):293–9.
32. Brigham J, Lessov-Schlaggar CN, Javitz HS, et al. Validity of recall of tobacco use in two prospective cohorts. *Am J Epidemiol.* 2010;172(7):828–35. doi:10.1093/aje/kwq179.
33. Gilpin EA, Lee L, Evans N, Pierce JP. Smoking initiation rates in adults and minors: United States, 1944-1988. *Am J Epidemiol.* 1994;140(6):535–43.
34. National Cancer Institute. *The Role of the Media in Promoting and Reducing Tobacco Use* (NIH Pub. No. 07–6242). Bethesda, MD: U.S. Department of Health and Human Services, National Institutes of Health, National Cancer Institute; 2008.
35. Ling PM, Glantz SA. Using tobacco-industry marketing research to design more effective tobacco-control campaigns. *J Am Med Assoc.* 2002;287(22):2983–9.