

## RESEARCH PAPER

## Smoking, social class, and gender: what can public health learn from the tobacco industry about disparities in smoking?

E M Barbeau, A Leavy-Sperounis, E D Balbach

See end of article for authors' affiliations

Tobacco Control 2004;13:115–120. doi: 10.1136/tc.2003.006098

Correspondence to:  
Professor Elizabeth  
Barbeau, Dana-Farber  
Cancer Institute, Center for  
Community-Based  
Research, 44 Binney  
Street, SM268, Boston,  
MA 02115, USA;  
elizabeth\_barbeau@  
dfci.harvard.edu

Received  
12 September 2003  
Accepted 28 January 2004

**Objective:** To discover how the tobacco industry considers social class and gender in its efforts to market cigarettes in the USA, particularly to socially disadvantaged young women.

**Methods:** A systematic on-line search of tobacco industry documents using selected keywords was conducted, and epidemiological data on smoking rates reviewed.

**Results:** The two largest cigarette manufacturers in the USA consider "working class" young adults to be a critical market segment to promote growth of key brands. Through their own market research, these companies discovered that socially disadvantaged young women do not necessarily desire a "feminine" cigarette brand.

**Conclusions:** Considering the tobacco industry's efforts, alongside the persistent and growing disparities in cigarette smoking by social class, and the narrowing of differences in smoking by gender, it is concluded that additional tobacco control resources ought to be directed toward working class women.

Cigarette smoking follows a social class gradient in the USA and most developed countries. Beginning in youth, smoking initiation is positively correlated with being from a low income household and performing poorly in school.<sup>1–3</sup> In the USA, among the high school class of 1999, 12th graders with no plans to attend a four year college were 1.45 times more likely to smoke than their peers who planned to complete a four year degree.<sup>4</sup> Among adults, prevalence of cigarette smoking is associated with lower educational attainment,<sup>5–8</sup> working class occupations,<sup>8–10</sup> and lower income levels.<sup>7, 8, 11</sup> Thus, cigarette smoking is clearly associated with social disadvantage as defined by educational attainment, income, and occupational class. Cigarette smoking is the health behaviour that has the single largest impact on health inequalities.<sup>11</sup>

We sought to explore whether and how the tobacco industry considers social class and gender in its efforts to market cigarettes in the USA. More specifically, we focused on the industry's efforts to reach a critical target market—socially disadvantaged young adult females. For tobacco companies, recruiting young adults is of tremendous strategic importance, because most smokers stay with the brand they first use regularly. The industry even has a loosely-based acronym for young adults—FUBYAS—referring to younger adults who are choosing their first usual brand.<sup>12</sup> There have been recent reports that the tobacco industry recognises young adulthood as an important transition time and that it executes a range of marketing strategies to attract this demographic group.<sup>13, 14</sup> Among young adults, a focus on women is important, because the prevalence of smoking among women has been declining more slowly than among men, significantly narrowing the gender gap in recent decades.<sup>15</sup> In 2000, the prevalence of smoking among women was 24%, compared to 28% among men.<sup>8</sup>

We conducted a study to understand better the importance of working class young adults, particularly women, as a market for the tobacco industry, and how the industry profiles and market to them. We gathered and analysed internal tobacco industry documents made publicly available

through legal actions against the industry. We discuss implications of these findings for tobacco control efforts.

## METHODS

We searched internal company documents of the RJ Reynolds (RJR) and Philip Morris (PM) tobacco companies. These companies were chosen for two reasons. They are the largest US cigarette manufacturers, and thus their actions related to target marketing exert great influence on tobacco market and consumption patterns. Further, RJR's documents are a particularly rich source of industry information on target marketing to working class young adult women, because the company has spent the last few decades conducting research and devising strategies to compete with PM's Marlboro brand, which sells very well among this population segment. In 1999, 56.6% of women smokers aged 18–25 years, and 55.6% of girls aged 12–17 years, reported that the brand they used most often in the past month was Marlboro.<sup>15</sup> The majority of male adolescent and adult male smokers also smoke Marlboro.<sup>16, 17</sup> Older women are less likely to smoke Marlboro.<sup>15</sup> So called "women's brands", such as Capri and Virginia Slims, however, account for only 5–10% of the cigarette market, with the vast majority female smokers choosing gender neutral brands such as Marlboro.<sup>18</sup>

We use widely accepted methods for searching tobacco industry documents<sup>19, 20</sup> through the on-line UCSF Tobacco Documents Library and Tobacco Documents Online. We conducted an initial search to explore RJR's and PM's documents pertaining to creation of the RJR cigarette brand Dakota, because this product, though discontinued in 1990, was intended to appeal to working class young women.<sup>15</sup> Dakota's internal code name was Project VF (virile female), and we searched this and related terms including virile segment, less educated, young female, low income, blue collar, and pink collar. These initial searches returned several hundred documents, which in turn led to a second tier of

**Abbreviations:** PM, Philip Morris; RJR, RJ Reynolds; TDO, Tobacco Documents On-line; YAF, young adult female

searches to follow document trails of key memos, company officials, research studies, and strategic marketing and brand creation plans. All of these documents were initially coded by one of us (ALS) as “major”, “minor”, or “trivial” in relation to our research aim.<sup>19</sup> Those deemed major were printed (n = 135). All of us read the major documents individually and then discussed and reached consensus on our findings.<sup>21</sup>

We searched certain key words (Project VF, virile, young female, YAF (young adult female), blue collar, and pink collar at Tobacco Documents On-line (TDO). The TDO allows for full text searching of the documents. No additional documents were found, leading us to believe that we had reached theoretical saturation.

We selected and present here documents and direct quotes that are illustrative of the major themes we identified through analysis.

## RESULTS

### Market segmentation studies

RJR and PM defined market segments of current and potential future smokers by a variety of variables, including demographic characteristics, product and price preferences, and attitudes, values, and beliefs. In the early 1980s, RJR defined six market segments: virile, traditional, coolness, stylish, moderation/concerned, and savings.<sup>22</sup> Of particular significance to our report is the virile segment, which contained over half (59.5%) of all male smokers and 40.5% of female smokers and more young adults than other segments.<sup>12, 23</sup> Documents indicate that “relative to all smokers, the virile core is younger, more male, less well educated and includes fewer blacks.”<sup>23</sup> About a third of virile smokers have an income between \$15 000 and \$25 000, and two thirds do not have college degrees.<sup>24</sup> The virile core “believe in fitting in, have less social confidence, are less health-conscious”.<sup>23</sup> Their image wants revolve around “macho, rugged, someone who likes to take risks, adventurous, lots of sex appeal”.<sup>23</sup> They are most likely to smoke Marlboro, Winston, and Camel cigarette brands.<sup>23</sup>

PM likewise developed market segments, and some of these are age and gender specific. Similar to RJR’s virile smoker, PM’s “maverick” female smokers are young adult women who are “fiercely independent and like fun and excitement”.<sup>25</sup> They prefer to socialise with others who are “adventurous”, “not career oriented”, “tomboyish”, and “rebellious”.<sup>25</sup>

Marketing success among “virile” young adults is critical to these two companies’ sales. A 1986 RJR report on market share held by their six market segments indicated that the virile segment showed share-of-market stability since about 1960, despite overall declines in domestic cigarette sales.<sup>26</sup> At that time, of the three major brands comprising the segment (Marlboro, Winston, and Camel), only Marlboro was showing growth. RJR concluded that Marlboro’s “...growth has resulted from a steady influx of Younger Adult Smokers. As a result of Marlboro’s ability to attract Younger Adult Smokers, the Virile segment remains an important entry point for these smokers. In total, the Virile Segment currently accounts for 59.8% of 18–20 year old smokers.”<sup>26</sup>

RJR redefined its market in 1990 based on a set of segment characteristics, including: smokers’ general attitudes; adjectives they use to describe themselves; attitudes about smoking issues; attitudes about cigarette costs, value, and brand imagery.<sup>27</sup> Within each of these segments, there were then additional sub-segments—for example, differentiated on general attitudes. The marketing efforts could thus be responsive to a particular sub-segment of smokers who share attitudes, and furthermore, sub-segments could be combined to yield more refined and narrowly focused characterisation of market opportunities. Thus, RJR’s segmentation studies

evolved over time, but maintained a strong focus on characterising the attitudes, wants, and aspirations of smokers, the majority of whom are working class.

### Targeting the young and less educated

RJR documents from the mid 1980s reveal the company’s desire to compete more effectively with Philip Morris’ Marlboro brand. In a report entitled “Analysis of the Virile Segment”,<sup>12</sup> an RJR official presented a detailed analysis of young adult Marlboro smokers that RJR hoped to recruit:

The loyal Marlboro younger adults can be characterized as having a ‘working class/ present oriented’ mindset... and worry about their lives of today. The younger adults who have switched from the brand have wants and attitudes reflecting an ‘aspirational/future oriented’ mindset... [they] plan for their successful futures... The concept of a working class/ present oriented mindset is fully consistent with lowered levels of education. Previous analyses have shown that our market is much less highly educated than consumers in general, with the younger adult smokers becoming much less educated... in the future, marketing to a working class/present oriented mindset will be even more important in appealing to younger adult smokers.<sup>12</sup>

Noting the significance of capturing the young working class market, an RJR report entitled “Younger Adult Smokers” stated: “The renewal of the market stems almost entirely from 18 year-old smokers. No more than 5% of smokers start after age 24.”<sup>28</sup> Among young adult smokers, the “less educated, working class smokers are becoming more important ... females will be as important (or more important) than males”.<sup>28</sup> The report went on to note that while young adults are becoming more goal oriented than the previous generation, they are “not very big goals, however,” and stressed that in order to reach this market effectively, marketing programmes must “reach them [younger adults] in their own environment and speak to them in their own language”.<sup>28</sup> RJR was distressed to note in another report that its own brand sales account for only 20% of younger adult smokers, which it considered to be less than its “fair share”.<sup>26</sup>

An RJR report entitled “Less educated... Today’s trend... Tomorrow’s market???” discussed the growing number of young adult smokers without college degrees.<sup>29</sup> While the market overall would become more educated owing to the aging of the very well educated baby bubble (over age 35 at time of this report), the younger adult market (18–34) would become less educated. Furthermore, the report cited evidence indicating that “since the onset of the anti-smoking campaigns, people with higher educational aspirations have been increasingly less likely to smoke”, and that it would take about 20 years for this trend to have an impact on the market as a whole.<sup>29</sup>

RJR was interested in the effect the less educated smoker market trend would have on sales of current and future brands. They concluded: “brands targeted at younger adults are marketing to smokers without a college background. Emphasis should be placed on marketing strategies relevant/meaningful to this type of smoker.”<sup>29</sup> Underscoring the need to see marketing to the less educated segment as a core activity, one not necessarily specific to any one brand, the report explained:

...the ‘less educated’ smoker does not represent a new brand opportunity in the traditional sense of a new/emerging market opportunity. It is not new. It is not unique.

It is not a 'niche.' An opportunity exists for any brand to develop a more meaningful marketing plan by increased sensitivity to the educational background of the market as a whole and their specific target market, and how this in turn affects lifestyles, attitudes and values.<sup>29</sup>

Additional reports noting the importance of the working class young adult smoker market continued into the 1990s.<sup>30–31</sup> In a study entitled "Prime Prospect Study", PM recapitulated data gathered by the US Public Health Service on prevalence of smoking among 18–34 year olds, those without a college degree, and those earning less than \$30 000 per year.<sup>32</sup> A 1994 report prepared for PM advised that the demographics of the 18–24 year old market of smokers are white, single, not college educated, disproportionately blue collar, lower income, and have a downscale lifestyle.<sup>33</sup> A year later, another PM report noted that "Blue collar smokers will comprise a larger share of smokers in 1995", citing the growing gap in smoking prevalence between blue collar and white collar workers observed in government reports on smoking.<sup>34</sup>

At RJR, a senior vice president for brand business units identified the young adult working class group as one of four key positioning opportunities for the 1990s:

This group is driven by the 18–24 year old smokers... Today, this contemporary group is not searching for the independent realism of the 60s, but instead, is looking for an escape from the stressful, hardworking life of the working class establishment of which they will become a part. We call this mindset as [sic] irreverent, less serious approach to life. Irreverent smokers don't aspire to be more like upscale, conservative groups. They don't want to sit at a desk or wear suits. They work at blue-collar service jobs and want to leave at quitting time. The point of the paycheck is evening and weekend fun. They dream of things like hot cars, Harley's, winning the lottery or fame with their own rock band. Their passion is for living for excitement, feeling, and color.<sup>35</sup>

### Targeting working class young women: the "virile female" and the "maverick"

In considering brands to target working class smokers, however, women received separate attention from RJR and PM. In its 1986 strategic plan for new brands, RJR identified three new initiatives to target younger adult smokers.<sup>26</sup> One of these was project YF (young female), intended to create a new brand to attract young females aged 18–24 years, because "research indicates that these smokers represent a significant, yet untapped opportunity for RJRT".<sup>26</sup>

In 1988, the effort to target young women was subsumed under Project Delta, an effort to design brands for all young adults, including men, women, and African Americans.<sup>36</sup> Under Project Delta, Project YF became Project VF (virile female). In documents related to Project VF, RJR's intent to target young adult working class women is evident. They were specifically concerned about how to lure smokers from the virile segment's most popular brand—Marlboro. In an early memo to the Project VF team, a key project leader explained that the objective of Project VF was to "replace Marlboro as the most relevant brand among younger adult female smokers", and the target was "18–20 year old virile female smokers".<sup>37</sup> The target was comprised of young women of whom the "majority [has] no education beyond high school" and are "primarily blue/ open collar workers" and whose "long-term earning potential... [is] low to middle income". The target market was described as a group that

"respond[s] to the emotional more than the rational; more of a 'feeling' versus 'thinking' orientation".<sup>37</sup>

A few years later in 1989, project VF introduced a new brand to be named "Dakota" (fig 1). The typical Dakota smoker was described in documents as:

an 18–24 year old female who... primarily exhibits traditionally 'masculine' character traits... independent, streetwise, somewhat tough, yet approachable... Her aspirations are very short term in focus... The Dakota smoker is fairly downscale with a high school education or less and generally has an 'unskilled' job... she will not smoke a product her boyfriend or male 'buddies' find unacceptable... she is not professionally ambitious.<sup>37</sup>

Marketing strategies were to include "high-impact outdoor advertising" and "field marketing activities" that were to be "low key, relying primarily on programs that blend with the target's environment rather than create a new environment".<sup>37</sup> Understanding Marlboro's appeal in this age group was crucial in Dakota's development. In creating the brand, the developers were conscious of the "Bottom line: is it something Marlboro might do?"<sup>37</sup>

Many of the advertising themes planned for Dakota mirrored those of Marlboro. PM documents indicate that the company viewed Dakota as a potential threat to Marlboro. For example, one document reveals that PM was devising an intervention trial to test Marlboro's ability to compete with Dakota. PM would attempt to disrupt sales of Dakota in one test market city by boosting their own brands' promotions, while not intervening in another "control" test market city.<sup>38</sup> The objective was to see if Marlboro smokers were indeed susceptible to the lure of Dakota. During this same timeframe, an anonymous insider leaked information about the brand to public health advocacy groups who alerted the public.<sup>15</sup> Dakota brand performed poorly in test marketing, leading to cancellation of the brand's launch,<sup>39</sup> though we found no evidence that this was due to PM's planned test market interruptions, or to efforts by the public health community.

PM's own research on Marlboro indicates that women's images of Marlboro are consistent with men's, and these images are also consistent with the intended images for Dakota: "independent, popular/every day person... Smoking a 'man's brand' says she's a 'real woman... Doesn't need the



Figure 1 Advertisement for Dakota cigarettes. Source: The Richard W. Pollay 20th Century Tobacco Advertising Collection. [http://roswell.tobaccodocuments.org/pollay/images/Dako01.07\\_display.jpg](http://roswell.tobaccodocuments.org/pollay/images/Dako01.07_display.jpg).



'crutch' of feminine badge."<sup>40</sup> In PM focus groups, the Virginia Slims smoker, in contrast, was characterised by women participants as "prissy", "stylish", and "status conscious", compared to women who smoked Marlboro, who were seen as "adventurous", "casual", and "outgoing."<sup>25</sup> In other words, both tobacco companies recognised the importance of capturing the "virile" female, but also discovered that she did not necessarily desire a "feminine" brand.<sup>25 37</sup>

PM continued into the 1990s to recognise the importance of reaching working class women smokers, as evidenced in this statement:

Smoking will continue to be skewed more heavily toward the less educated... Smoking among females has increased among those who have not graduated from high school and remained about the same among high school graduates. As with males, it has declined sharply among females who have been to college... These changing profiles, coupled with an aging population, may have particular impact on PM-USA, whose demographic profile is skewed to younger, better educated, and high income smokers.<sup>34</sup>

## DISCUSSION

A basic premise of business sales is to try to sell more of product to those who are already buying it.<sup>41</sup> Epidemiologic data on smoking prevalence indicates that those who are already consuming cigarettes are more likely to be socially disadvantaged.<sup>7 8 15 42</sup> Thus, although this is the first peer reviewed report of evidence from tobacco companies' own internal documents that they have heavily targeted the socially disadvantaged, including working class young women, the findings should not surprise tobacco control advocates and researchers. Other reports have documented industry behaviour regarding advertising and promotions to women.<sup>15 18 43</sup> This study complements those by detailing how purposefully PM and RJR targeted working class women.

The value of the findings rests in our ability to use them to assess and challenge current approaches in light of this evidence, and to identify potential new directions for research and practice. That is, how can the tobacco control community use this information to stem growing class based disparities, and particularly, how should we shape tobacco control efforts for working class young women. We discuss the implications of our findings with respect to counter-advertising messages, venues for tobacco control activities, and tobacco control policies.

### Counter-advertising messages

Over the last century, the tobacco industry has made various types of appeals to women, including touting cigarettes as a way to curb hunger and achieve thinness, as "torches of freedom" symbolising emancipation from male domination, and as vehicles for attracting men.<sup>18 43</sup> Our report adds to the literature on this topic by revealing that the tobacco industry's own internal research indicates that the majority of young women who are likely to smoke respond to gender neutral or "masculine" imagery, as opposed to overtly "feminine" imagery. The two largest US cigarette manufacturers targeted young women of lower socioeconomic position in the USA during the 1980s and into the early 1990s by using male imagery that appeals to the "virile" and "maverick" young woman who "primarily exhibits traditionally 'masculine' character traits... independent, street-wise, somewhat tough, yet approachable".

These findings raise questions, then, about how tobacco control messages for young working class women in the USA ought to be crafted. Is it necessary or even desirable to use messages that are overtly feminine or that appeal to concerns that are specific to women? Will appeals to these women as wives and mothers be effective? Graham's study of poor white women in the UK with caregiving responsibilities found that smoking is an important way in which they cope with their exhaustion, stress, and social isolation.<sup>44 45</sup> In a focus group study of girls aged 13–18 years from a diverse range of socioeconomic backgrounds, Banwell and Young<sup>46</sup> discovered ways in which young women use smoking to establish their social identity; those who smoked were described by non-smokers as "tough", "cool", "sexy", and "tarty". These research findings, along with the tobacco industry's assessment of the image needs that are met through cigarette brand choice, suggest that additional research is needed to understand the perceived benefits that working class women derive from smoking. These findings may, in turn, suggest counter-advertising messages that should be tested for effectiveness in rigorous studies involving working class young women. Messages that reinforce women's value in their traditional roles (wives, mothers, caregivers) may well not appeal to a demographic that prefers to see itself as independent and a little rebellious.

### Venues for tobacco control activities

We reported that in efforts to attract young working class women to smoking, the tobacco industry seeks to blend into their natural social environments, a finding supported by Ling and colleagues.<sup>14</sup> Others have reported increased tobacco industry promotions targeting young adults, including bar and nightclub promotions.<sup>13 14 47 48</sup> Taken together, these findings suggest that the tobacco control community should also be active in working class venues, for example, by promoting smoke free bars and nightclubs or by partnering with working class organisations to promote use of cessation services. Several labour unions in the USA have begun to offer smoking cessation programmes for their members<sup>49</sup>; tobacco control organisations could help to expand these efforts, even just by reaching out to unions to provide information on existing and free or low cost cessation resources. In worksite based smoking cessation efforts, emphasis should be placed on reaching workers who are in lower status jobs and thus more likely to smoke,<sup>50</sup> such as manufacturing, construction, and service workers. Others in the USA have reported on interventions for low income women through health clinics, and Women, Infants, and Children (WIC) nutrition programmes.<sup>15</sup> In the UK, where attention has been called to health inequalities associated with smoking,<sup>51</sup> funds have been allocated toward helping working class women quit smoking.<sup>52</sup>

In light of our findings, we question the growing number of efforts nationwide to reduce smoking through college campus initiatives, and whether some of these resources ought not be diverted to reach non-college bound young adults. The increase in college campus based tobacco control initiatives may be spurred, in part, by reports of increased tobacco use among college students. Wechsler and colleagues<sup>53</sup> reported a 6% increase (22.3% to 28.5%) in 30 day smoking prevalence among a nationally representative sample of students attending four year colleges between 1993 and 1997.<sup>53</sup> A more recent report, however, based on 1997–99 data, indicated that smoking rates among this population remained unchanged, though students were using other forms of tobacco.<sup>54</sup> Responding to trends in tobacco use among college students through campus based initiatives is important, but will only reach a small proportion of young adults and will not reach those at greatest risk of

## What this paper adds

Differences in smoking prevalence by gender have narrowed in recent decades, raising concerns about women's smoking. Moreover, cigarette smoking is associated with social disadvantage.

This is the first study in the literature to reveal how the tobacco industry targets working class women, based on tobacco industry documents. The findings provide evidence for future directions in tobacco control efforts among socially disadvantaged women.

continuing to smoke into later adulthood. The prevalence of current smoking (defined as smoking every day or some days) among 18–24 year old women who do *not* graduate from a four year college remains alarmingly high in comparison to graduates. Smoking prevalence is 44% among young women who earn a high school equivalency degree (GED), compared to 12% among female college graduates.<sup>7</sup> Furthermore, in addition to being a lower risk group, college students represent a minority of young adults. Three quarters of the US population have not graduated from a four year college.<sup>55</sup> Therefore, college campus initiatives play an important and yet decidedly limited role in stemming tobacco use among young women, particularly working class young women. Because young women attending four year colleges are least likely to smoke into later adulthood, we recommend that organisations that wish to focus tobacco control resources toward college campuses do so with community colleges.

## Tobacco control policies

The direction for tobacco control suggested by this paper reinforces the recommendations of three landmark reports on women and smoking,<sup>15 56 57</sup> which called for gender sensitive approaches to tobacco control policy, some of which emphasise the importance of social class. Such policies include, for example, government allocation of sufficient funds for programmes that reach poor women and girls,<sup>57</sup> pursuit of research to understand the differential impact of tobacco control policies and intervention and their health consequences on women (and others),<sup>15 58</sup> protection of the human rights of girls and women,<sup>57</sup> and investment in education for women and girls as a way to develop skills and improve capacity to fight against tobacco.<sup>57</sup> Graham has also argued for investment in education and policies to raise the living standards of young women as avenues for improvements in overall health status and in reducing social inequalities in smoking prevalence.<sup>3 59</sup>

A potential limitation of the study is that we may not have discovered all tobacco industry documents related to our research aim. Our search strategy was systematic and rigorous, though it is conceivable that with over 36 million pages of documents available, we may have overlooked some relevant ones. This study addressed a subset of tobacco industry marketing activities, namely product creation to appeal to market segments, product positioning in relation to other brands, and to a lesser extent, advertising. We did not address other strategies in the marketing mix such as pricing and promotions. Our study was limited to an examination of gender and class. We recognise that there are important racial and ethnic issues in relation to smoking behaviour, and further that class and race/ethnicity are intertwined, such that people of colour are more often members of socially disadvantaged classes. There have been recent reports in the literature of tobacco industry marketing efforts aimed at

African Americans,<sup>36 60</sup> and thus we felt it important to address gender and class in its own report.

This study adds to the literature by revealing that the tobacco industry views working class young adults, and women in particular, as important markets, and how the tobacco industry profiles and markets to these groups. Considering the tobacco industry's efforts, alongside the persistent and growing disparities in cigarette smoking by social class, and the narrowing of the gender gap in smoking, we conclude that additional tobacco control resources ought to be directed toward these at-risk groups.

## Authors' affiliations

**E M Barbeau, A Leavy-Sperounis**, Dana-Farber Cancer Institute, Center for Community-Based Research, Boston, Massachusetts, USA

**E D Balbach**, Community Health Program, Tufts University, Medford, Massachusetts, USA

## REFERENCES

- 1 **US Department of Health and Human Services**. *Preventing tobacco use among young people. A report of the Surgeon General, 1994*. Atlanta, Georgia: Public Health Service, Centers for Disease Control and Prevention, Office on Smoking and Health, 1994. (US Government Printing Office Publication No S/N 017-001-00491-0.)
- 2 **Voorhees CC**, Schreiber GB, Schumann BC, *et al*. Early predictors of daily smoking in young women: the national heart, lung, and blood institute growth and health study. *Prev Med* 2002;**34**:616–24.
- 3 **Graham H**, Der G. Influences on women's smoking status. *Eur J Public Health* 1999;**9**:137–41.
- 4 **University of Michigan**. The Monitoring the Future Study. 1999. <http://monitoringthefuture.org/data/99data.html>.
- 5 **Pierce JP**, Fiore MC, Novotny TE, *et al*. Trends in cigarette smoking in the United States. Educational differences are increasing. *JAMA* 1989;**261**:56–60.
- 6 **Cavelaars AE**, Kunst AE, Geurts JJ, *et al*. Educational differences in smoking: international comparison. *BMJ* 2000;**320**:1102–7.
- 7 **Anon**. Cigarette smoking among adults—United States. 2000. *MMWR Morb Mortal Wkly Rep* 2002;**51**:642–5.
- 8 **Barbeau E**, Krieger N, Soobader M. Working class matters: socioeconomic disadvantage, race/ethnicity, gender and smoking in the National Health Interview Survey, 2000. *Am J Public Health* 2004;**94**:230–9.
- 9 **Bang KM**, Kim JH. Prevalence of cigarette smoking by occupation and industry in the United States. *Am J Indust Med* 2001;**40**:233–9.
- 10 **Covey LS**, Zang EA, Wynder EL. Cigarette smoking and occupational status: 1977 to 1990. *Am J Public Health* 1992;**82**:1230–4.
- 11 **Jarvis MJ**, Wardle H. Social patterning of individual health behaviors: the case of cigarette smoking. In: Marmot M, Wilkinson RG, eds. *Social determinants of health*. New York: Oxford University Press, 1999:240–55.
- 12 **RJ Reynolds**. Analysis of the virile segment. 1986. Bates No. 505923292–3295. <http://legacy.library.ucsf.edu/tid/iqd94d00>
- 13 **Ling PM**, Glantz SA. Using tobacco-industry marketing research to design more effective tobacco-control campaigns. *JAMA* 2002;**287**:2983–9.
- 14 **Ling PM**, Glantz SA. Why and how the tobacco industry sells cigarettes to young adults: Evidence from industry documents. *Am J Public Health* 2002;**92**:908–16.
- 15 **US Department of Health and Human Services, Public Health Service, Office of the Surgeon General**. *Women and smoking: a report of the Surgeon General*. Washington DC: US Department of Health and Human Services, 2001.
- 16 **Barker D**. Changes in the cigarette brand preferences of adolescent smokers—United States, 1989–1993. *MMWR Morb Mortal Wkly Rep* 1994;**43**:577–81.
- 17 **Cummings KM**. Comparison of the cigarette brand preferences of adult and teenaged smokers—United States, 1989 and 10 U.S. communities, 1988 and 1990. *MMWR Morb Mortal Wkly Rep* 1992;**41**:169–73, 179–81.
- 18 **Kaufman NJ**, Nichter M. The marketing of tobacco to women: global perspectives. In: Samet J, Yoon S-Y, eds. *Women and the tobacco epidemic: challenges for the 21st century*. Geneva: World Health Organization, 2001:69–98. <http://www.invat.org/whoreport.pdf>
- 19 **Balbach E**, Barbeau E, Gasior R. Tobacco industry documents: comparing the Minnesota Depository and internet access. *Tobacco Control* 2002;**11**:68–72.
- 20 **Malone RE**, Balbach ED. Tobacco industry documents: treasure trove or quagmire? *Tobacco Control* 2000;**9**:334–8.
- 21 **Borkan J**. Immersion/crystallization. In: Crabtree B, Miller W, eds. *Doing qualitative research*, 2nd ed. Thousand Oaks, California: Sage Publications, 1999:179–94.
- 22 **McCann R**. 1981 market overview: Product perspective by segment. 1982. R.J. Reynolds. Bates No. 500119052–9057. <http://legacy.library.ucsf.edu/tid/ebv89d00>
- 23 **Reynolds RJ**. Virile segment: The right stuff. 1983. Bates No. 505921996–2005. <http://legacy.library.ucsf.edu/tid/zxd94d00>
- 24 **Reynolds RJ**. Virile segment demographics. 1982. Bates No. 505538492–532. <http://legacy.library.ucsf.edu/tid/sdl15d00>

- 25 **Ellis N.** Young adult female presentation. 1993. Philip Morris. Bates No. 2041335514-70. <http://legacy.library.ucsf.edu/tid/uvq76e00>
- 26 **Reynolds RJ.** New brands strategic plan. 1986. Bates No. 502753602-4536. <http://legacy.library.ucsf.edu/tid/vaj78d00>
- 27 **Reynolds RJ.** Segmentation 1990/1991 (900000/910000). 1991. Bates No. 508552055-2083. <http://legacy.library.ucsf.edu/tid/ceg93d00>
- 28 **Reynolds RJ.** Established brands strategic planning meeting 4-22/23 1985 (850422-850423). Younger adults smokers. 1985. Bates No. 505643331-43. <http://legacy.library.ucsf.edu/tid/yrb15d00>
- 29 **Reynolds RJ.** Less educated, today's trend, tomorrow's market. 1985. Bates No. 504634586-4610. <http://legacy.library.ucsf.edu/tid/mxd65d00>
- 30 **Reynolds RJ.** RJR media analysis younger adult smokers background. 1985. Bates No. 505424564-4575. <http://legacy.library.ucsf.edu/tid/tay15d00>
- 31 **Reynolds RJ.** Are younger adult smokers important? 1994. Bates No. 502996233-6339. <http://legacy.library.ucsf.edu/tid/rss68d00>
- 32 **Philip Morris.** Prime Prospect Study. 1993. Bates No. 2041145595-687. <http://legacy.library.ucsf.edu/tid/zys17e00>
- 33 **Romann and Tannenholz.** Cigarette concepts for young adult male smokers. pp.2041601862-2041601885, UCSF Legacy Tobacco Documents Library: Philip Morris.
- 34 **Philip Morris.** Philip Morris USA Five year plan 910000-950000. 1991. Bates No. 2045813321-3498. <http://legacy.library.ucsf.edu/tid/cbj02a00>
- 35 **Iauco D.** Management Meeting. August 28, 1990. (900828). 1990. RJ Reynolds. Bates No. 509109872-9886. <http://legacy.library.ucsf.edu/tid/xye83d00>
- 36 **Balbach ED,** Gasior RJ, Barbeau EM. R.J. Reynolds' Targeting of African Americans: 1988-2000. *Am J Public Health* 2003;**93**:822-7.
- 37 **Reynolds RJ.** Project VF recommended next steps. 1989. Bates No. 507174576-4586. <http://legacy.library.ucsf.edu/tid/jon54d00>
- 38 **Raporte J.** Dakota. 1990. Philip Morris. Bates No. 2048563205-6. <http://legacy.library.ucsf.edu/tid/qkx65e00>
- 39 **Reynolds RJ.** Winston future status. 1991. Bates No. 508996109-6116. <http://legacy.library.ucsf.edu/tid/uzl83d00>
- 40 **Philip Morris.** Review of recent research on Marlboro. 1991. Bates No. 2040841951-979. <http://legacy.library.ucsf.edu/tid/bji16e00>
- 41 **Best RJ.** *Market based management: Strategies for growing customer value and profitability.* 2nd ed. Upper Saddle River, New Jersey: Prentice Hall, Inc, 1999.
- 42 **Giovino GA,** Pederson L, Trosclair A. The prevalence of selected cigarette smoking behaviors by occupational class in the United States. In: *Work, smoking, and health: a NIOSH scientific workshop.* Washington DC: NIOSH, 2000.
- 43 **Amos A,** Haglund M. From social taboo to "torch of freedom": the marketing of cigarettes to women. *Tobacco Control* 2000;**9**:3-8.
- 44 **Graham H.** Women's smoking and family health. *Soc Sci Med* 1987;**25**:47-56.
- 45 **Graham H.** *When life's a drag: women, smoking and disadvantage.* London: HMSO, 1993.
- 46 **Banwell C,** Young D. Rites of passage: smoking and the construction of social identity. *Drug and Alcohol Review* 1993;**12**:377-85.
- 47 **Sepe E,** Ling PM, Glantz SA. Smooth moves: bar and nightclub tobacco promotions that target young adults. *Am J Public Health* 2002;**92**:414-19.
- 48 **Sepe E,** Glantz SA. Bar and club tobacco promotions in the alternative press: targeting young adults. *Am J Public Health* 2002;**92**:75-8.
- 49 **Barbeau E,** Yaus K, McLellan D, et al. Organized labor, public health, and tobacco control policy: a dialogue toward action: conference report and joint recommendations for action. *New Solutions: A Journal of Occupational and Environmental Health Policy* 2001;**11**:121-39.
- 50 **Gritz ER,** Thompson B, Emmons K, et al. Gender differences among smokers and quitters in the Working Well Trial. *Prev Med* 1998;**27**:553-61.
- 51 **Richardson K,** Crosier A. Smoking and health inequalities. Action on Smoking and Health. <http://www.ash.org.uk/html/policy/inequalitiesfacts.pdf>.
- 52 **Department of Health.** *Smoking kills: a white paper on tobacco.* London: Department of Health, 1998.
- 53 **Wechsler H,** Rigotti NA, Gledhill-Hoyt J, et al. Increased levels of cigarette use among college students: a cause for national concern. *JAMA* 1998;**280**:1673-8.
- 54 **Rigotti NA,** Lee JE, Wechsler H. U.S. College students' use of tobacco products: Results of a national survey. *JAMA* 2000;**284**:699-705.
- 55 **US Bureau of the Census.** *Statistics about business size (including small business).* 2002.
- 56 **Samet J,** Yoon S-Y, eds. *Women and the tobacco epidemic: challenges for the 21st century.* Geneva: World Health Organization, 2001. <http://www.inwat.org/whoreport.pdf>
- 57 **International Women Against Tobacco.** The Kobe Declaration. 1999. <http://www.inwat.org/kobe.htm>.
- 58 **Christofides N.** How to make policies more gender sensitive. In: Samet J, Yoon S-Y, eds. *Women and the tobacco epidemic: challenges for the 21st century.* Geneva: World Health Organization, 2001:165-76. <http://www.inwat.org/whoreport.pdf>
- 59 **Graham H.** Promoting health against inequality: using research to identify targets for intervention - a case study of women and smoking. *Health Education Journal* 1998;**57**:292-302.
- 60 **Yerger VB,** Malone RE. African American leadership groups: smoking with the enemy. *Tobacco Control* 2002;**11**:336-45.