## Tobacco's Deadly Secret: The Impact of Tobacco Marketing on Women and Girls

### **Written Testimony**

Tuesday May 14, 2002

## Dr. Elizabeth M. Whelan

As President and Founder of the American Council on Science and Health, a consumer education and advocacy group dedicated to providing consumers with scientifically sound health information based in New York City, I appreciate this opportunity to address this critical issue related to women's magazines and their dubious record in reporting the dangers of smoking to American women.

My background includes masters and doctoral degrees in epidemiology and public health from the Yale School of Medicine and Harvard School of Public Health. I have authored, co-authored, or edited over two dozen books on topics such as cigarette smoking, the relationship of nutrition, environment, lifestyle and human health, including Panic in the Pantry, Preventing Cancer, Toxic Terror, A Smoking Gun—How the Tobacco Industry Gets Away with Murder, and Cigarettes: What the Warning Label Doesn't Tell You. I also have made numerous editorial contributions to publications such as the Journal of the American Medical Association, the Wall Street Journal, the New York Times, the Washington Times and USA Today, among others.

Back in the early and mid-1970s, I began regularly contributing health-related consumer articles to popular women's magazines, including *Glamour*, *Harper's Bazaar* and others. My topics included how to reduce risks of cancer and heart disease and how to boost the odds of a healthy, successful pregnancy. Given that cigarette-smoking was then and is now the leading cause of preventable death in the United States, and that cigarette smoking is a major threat to a developing fetus, in my articles I necessarily focused on the dangers posed by smoking. I was astonished that my articles were regularly edited so that pejorative references to smoking were purged. On one occasion, I prepared an article on cancer and the environment for *Harper's Bazaar*—beginning with a section on lung cancer and the role of smoking. When the article came into print, I found the section on lung cancer buried in the back of the piece. In another case, I was assigned a piece called "protect your man from cancer." Of course, I focused on the role of smoking in the causation of lung, bladder, pancreatic, oral and other cancers—and the manuscript was returned with full payment noting that there were too many ads in the magazine that month to run the piece.

But this seems to have always been the "norm"—under-reporting or non-reporting of the dangers of cigarettes. Since the 1950s, when scientists first established beyond a doubt a causal association between cigarette smoking and premature disease and death, both broadcast and print media have faced charges of inadequately communicating to the pubic the serious and often fatal consequences of smoking. An article published in the *Columbia Journalism Review (CJR)* in 1978 surveyed the media coverage of cigarette smoking and noted that magazines rarely reported the hazards of cigarette smoking and those exceptions to this rule generally occurred in magazines that refused cigarette advertising.<sup>1</sup>

With my personal experience—having had my material on the dangers of smoking spiked from women's magazines—and the observations of the *CJR* review, I decided to take a close, quantitative look at the extent, or lack thereof, of coverage of issues related to cigarettes and health in women's magazines. The American Council on Science and Health continues to monitor this topic today and has conducted seven such surveys.

The first ACSH survey of popular magazines' coverage of smoking hazards was in 1982. ACSH examined the health-related articles in eighteen popular magazines, dating back to 1965, and found that, although the magazines covered a variety of health topics, there was a distinct lack of coverage on issues related to smoking.<sup>2</sup> Only one-third of the magazines surveyed reported the hazards of smoking both frequently and accurately. The majority either confused or obfuscated the facts, or failed to mention any health hazards of smoking. However, the quality of those that did was excellent. The magazines with the best coverage were *Reader's Digest*, 50 Plus, Good Housekeeping, Seventeen, Prevention and Time. Reader's Digest's crusade against smoking was unmatched in zeal, although Good Housekeeping and Prevention were also extremely informative about smoking dangers and adamant in telling their readers to quit. At the other extreme, Redbook and Ms. never discussed the hazards of smoking, while Mademoiselle, Cosmopolitan, and Parade rarely did.

The abundance of cigarette advertisements emerged as a likely factor in explaining the paucity of coverage. Out of eighteen magazines, only five did not accept cigarette advertising as a matter of policy, and these five magazines presented the best coverage of smoking and health. At a time when information concerning the

established impact of smoking on health was widespread in the scientific literature, and when the 1982 Surgeon General's report *The Health Consequences of Smoking- Cancer* revealed that an estimated 320,000 Americans would die that year as a result of cigarette smoking, the blackout on coverage of the health risks of smoking was truly astonishing.<sup>3</sup>

ACSH follow-up surveys in 1986<sup>4</sup> and 1990<sup>5</sup> reinforced earlier findings that a significant negative correlation existed between the number of pages of cigarette advertising accepted by a magazine and the percentage of total health articles in that magazine devoted to smoking as a cause of disease. For example, in the 1990 survey, *InHealth, Saturday Evening Post, Reader's Digest*, and *Good Housekeeping* had the highest percentages of cigarette articles per health topic articles out of the 20 magazines surveyed—and none accepted cigarette ads. On the contrary, *Better Homes and Gardens, Self, Madamoiselle*, and *Cosmopolitan* had the highest average numbers of cigarette ads per issue—and the absolute lowest percentage of cigarette articles per health topic articles.

Over the years, while failing to alert readers to the dangers of smoking, these magazines continued to warn women about remote or purely hypothetical dangers. For example, *Family Circle* warned readers to keep alarm clocks three to five feet from their beds to avoid cancer risk from emanating electromagnetic fields, and *Harper's Bazaar* recommended covering a halogen lamp with a plastic cover to block out potentially harmful UV rays.

While a 1996 ACSH survey of five months' worth of thirteen different women's magazines showed scanty coverage of the hazards of smoking, a great improvement was seen in these same magazines' coverage of the issue from the previous decade. \*McCall's carried a warning about the risks of secondhand smoke. \*Ladies' Home Journal mentioned the role of cigarette smoking in a discussion on the causes of colon cancer—a proven link that had not been widely covered in the popular media. \*Elle\* lamented that physicians frequently failed to inquire about women's smoking habits, while \*Woman's Day\* highlighted the importance of quitting smoking as a way to reduce stroke risk. \*Glamour\*, commenting on groups that claim a connection between abortion and increased risk of breast cancer, asked: "Why don't these groups tell women how dangerous it is to smoke?"

But such references to cigarettes represented only a fraction of these magazines' total health coverage. Hard-hitting discussions of the issue were few and far between, and many articles that mentioned smoking failed to put its health risks into perspective. For example, a *Woman's Day* article on "The Worst Health Mistakes Women Make..." ranked "putting off Pap smears" and "not exercising" high on the list and placed "still lighting up" low on the list. *Family Circle's* "41 Ways to Live Long" practically omitted smoking from the list, while *Glamour* failed to include smoking as a potential cause of infertility. And, while they were deemphasizing the risks from smoking, the magazines were playing up risks that were trivial at best or, at worst, non-existent—like warnings of "deadly" Red Dye #3, allergens in bio-engineered foods, and the threat posed by "Mad Cow" disease (a health problem that had never occurred in the U.S.). In this five-month time period, these magazines contained over 300 cigarette advertisements.

Surveys of popular women's magazines from 1997-2000 showed that although the reporting was getting better, there was still ample room for improvement. Magazines are under no obligation to educate the public on the dangers of cigarette smoking. However, if they do choose to cover health issues, readers would understandably expect that coverage to reflect their interests and also the relative significance of those health issues. Therefore, in those magazines choosing to present health information, one would expect cigarette smoking to receive attention commensurate with its ranking as the nation's leading cause of preventable, premature death.

In 1997, ACSH found that cigarette ads outweighed anti-smoking messages by six to one, and in 1998, the ratio had nearly doubled to eleven to one. [Appendix 1] In 2000, we saw the new addition of anti-tobacco ads, but the ratio of cigarette ads to anti-smoking messages was still ten to one. Even more astonishing, the total ratio of cigarette ad pages to full-fledged anti-smoking articles, was thirty to one. [Appendix 2]

The 1997 and 1998 women's magazines generally refrained from blatantly promoting tobacco in editorial copy and graphics, whereas previous ACSH surveys (1992 and 1996) had noted several articles or fashion spreads featuring photos of models smoking cigarettes. Several magazines identified smoking as a risk factor for serious health conditions, including its relationship with heart disease (*McCall's*, *Self*, and *Family Circle*), lung cancer (*McCall's* and *Madamoiselle*), and premature death (*McCall's* and *Woman's Day*) among others.

In 1999-2000, articles about the health effects of tobacco still made up less than one percent of the 2,414 health-related articles published. For example, the most frequently mentioned cancer was breast cancer with fifty-three articles, while only three magazines even mentioned lung cancer. And lung cancer, not breast cancer, is the leading cause of cancer death among women. These magazines are guilty of both omission and commission: not only do they not cover cigarette-related diseases, they also edit smoking mentions where they would otherwise typically be. For example, on *Glamour's* list of "8 Simple Health Savers" was advice on taking calcium supplements and working out, but there was no mention of stopping smoking. And *Elle's* "New Year's Resolutions" made no mention of the desirability of quitting smoking either. Out of all of the magazines analyzed, *Self* illustrated the greatest commitment to women's health by carrying the lowest number of tobacco advertisements (twelve) and the

highest number of anti-smoking messages (twenty-six). Thus, the total number of anti-smoking messages in *Self* magazines was more than double the number of cigarette ads.<sup>8</sup>

Why do magazines downplay the risks of smoking—and in some cases even promote the habit? Perhaps the editors don't want to be seen as "health nannies." Perhaps they feel that harping on the dangers of smoking is a "downer"—or perhaps they rationalize that most of their readers don't smoke anyway and so don't need to be reminded of the hazards. But in all likelihood, the primary reason a discussion of smoking's dangers remains largely outside the purview of these publications is because of what's inside—namely, a lot of cigarette advertisements. Since cigarette ads generally account for a substantial portion of the magazines' advertising revenues, it's understandable that the editors are reluctant to tell the truth about tobacco.

ACSH last surveyed magazines in the year 2000. There have been some substantive changes in cigarette advertising since then. The year 2000 marked the beginning of anti-tobacco ads placed in a variety of magazines (including those surveyed over the past two decades by ACSH) by the American Legacy Foundation, which was created with funds from the 1998 Master Settlement Agreement to promote tobacco prevention and control. In June 2000, Philip Morris announced that it would be pulling cigarette ads from forty-two magazines, specifically those with two million or more readers under eighteen or with a teen readership of greater than fifteen percent. Included on the list were several magazines used in ACSH's surveys. This action was in response to accusations that it violated provisions of the Master Settlement Agreement by continuing to market tobacco to kids. Other tobacco companies, such as R.J. Reynolds, refused to follow the Philip Morris lead, claiming that restricted advertising would not impact youth smoking.

It will be interesting to see how the reduction in cigarette advertising will affect the future editorial content of women's magazines. There is reason to believe that the reporting on the dangers of cigarette smoking will improve now that there are fewer cigarette ads and more anti-smoking ads. For example, the March 2002 issue of Self—which had run twelve tobacco ads in the previous survey period—contained a two-page article on smoking cessation (that issue did not contain any tobacco ads). A review of the 2001 issues of Woman's Day (there are eighteen issues per year)—conducted specifically for this testimony—shows twenty-two tobacco ads, four anti-tobacco ads, and at least a few articles mentioning smoking's role in lung cancer, stroke, osteoporosis, and unhealthy skin. In the previous one-year survey, Woman's Day had a total of thirty-nine cigarette ads, no anti-tobacco ads, and one anti-smoking article.

While the coverage by women's magazines of the dangers of cigarette smoking may improve—that is yet to be seen—we must recall the astonishing blackout on coverage documented by the ACSH surveys from 1965 to 2000. Women who are now in their mid 50's and are being diagnosed with lung cancer, emphysema and more from smoking, are the same women who were reading magazines in the 1960s and 1970s, which intentionally withheld and distorted the health risks of smoking—while using their pages to promote cigarettes as glamorous, sexy—and yes, safe.

### References

- 1. Smith, R.C. The Magazines' Smoking Habit. Columbia Journalism Review, 1978, vol. 16, no. 5, pp. 29-31.
- 2. Dale, Kristin. "ACSH Survey: Which magazines report the hazards of smoking?" ACSH News & Views, May/June 1982, Vol 3.
- 3. The Health Consequences of Smoking- Cancer: A Report from The Surgeon General, 1982. U.S. Department of Health and Human Services.
- 4. White, Larry and Elizabeth Whelan. "How Well Do American Magazines Cover the Health Hazards of Smoking?" ACSH News & Views, May/June 1986, Vol.7.
- 5. The ACSH 1990 Survey: An Evaluation of Reporting on the Health Hazards of Smoking in American Magazines. American Council on Science and Health, 1990.
- 6. Whelan, Elizabeth M. "Health Advice in Women's Magazines: Up in Smoke?" Priorities for Health, Vol 8 No. 3, 1996.
- Lukachko, Alicia and Elizabeth M. Whelan. "You've Come a Long Way...Or Have You? Popular Women's Magazines Are Still Downplaying the Risks of Smoking." American Council on Science and Health, 1999.
- 8. Maroney, Catherine. "Tobacco and Women's Health: A Survey of Popular Women's Magazines, August 1999-August 2000." American Council on Science and Health, 2001.

### APPENDIX 1

You've Come a Long Way . . . or Have You? Popular Women's Magazines Are Still Downplaying the Risks of Smoking

by Alicia Lukachko, M.P.H. and Elizabeth M. Whelan, Sc.D., M.P.H., M.S. March 1999

## **Executive Summary**

The National Health Council reports that 35 per-cent of American adults of both sexes rely on magazines for health news. Each month, millions of American women look to their favorite women's magazines as primary sources of health information. This is not surprising: Many consumer magazines devote whole sections of each issue to health topics, and their editors sift through mountains of medical news to bring their readers stories that are both catchy and easy to understand. But in the editorial pursuit of novelty, some important health messages—particularly about the risks of smoking—are often overlooked.

For years the American Council on Science and Health (ACSH) has surveyed the accuracy and relevance of the health and smoking coverage in 13 popular women's magazines. \* Over the past decade these surveys have noted significant improvements in the magazines' overall health coverage. Today's women's magazines focus less on hyperbole-laden exposés of oddball health scares and more on major causes of disease and death. Blatant promotions of smoking have faded, while mentions of smoking's dangers have increased dramatically. Such mentions were virtually absent 10 years ago.

Despite this progress, however, ACSH's most recent two-year survey (covering the May through September issues of 13 different magazines in both 1997 and 1998, for a total of 130 individual issues) found that popular women's magazines continue to downplay the hazards of cigarette smoking. When com-pared to the ample spreads given over to such health topics as nutrition and exercise, the space devoted to information about smoking is glaringly scant.

ACSH's latest survey found a decline of more than 50 percent from spring-summer 1997 to spring-summer 1998 in the number of antismoking messages the women's magazines published. (For purposes of the ACSH survey, an "antismoking message" is defined as an article or a mention that discourages smoking. An "article" is defined as a piece of writing that generally exceeds 150 words. A "mention" is defined as a few isolated lines or an editorial comment about smoking that occurs in an article or editorial on a subject other than smoking.)

Smoking is the leading cause of preventable death in the United States today, yet articles about tobacco made up fewer than 1 percent of all the health-related articles in the magazines surveyed in 1997–1998. During this period only one out of 519 health-related articles in the 13 magazines surveyed featured smoking. In contrast, 53 articles—roughly 10 percent—focused on nutrition. Eating a balanced diet is, of course, an important aspect of maintaining one's health, but warnings about smoking certainly deserve at least as much space as tips on good nutrition.

On the whole, women's magazines send mixed signals about smoking. ACSH's latest survey found relatively few antismoking messages, and the messages that were found were undermined by the magazines' general lack of information on tobacco risks. In some cases, magazines offered inappropriate and unscientific recommendations with regard to tobacco; in other cases, articles about tobacco-related diseases de-emphasized or neglected the role played by smoking.

But far more disturbingly, most popular women's magazines continued to advertise tobacco products even as the magazines' editors proclaimed a commitment to their readers' health. On average, the magazines surveyed carried about three cigarette ads per issue, for a total of 399 such ads over the two 5-month periods covered. In 1997 cigarette ads outweighed antismoking messages by a ratio of six to one; in 1998 that ratio almost doubled, to a rate of 11 cigarette ads for every mention of smoking's risk.

Women's magazines' juxtaposition of tobacco ads with antismoking information may weaken the potentially powerful health messages the magazines' editors seem to want to convey. One page warns readers about the perils of smoking; the next promotes cigarettes. The hypocrisy of magazines' advocating healthy lifestyles while continuing to advertise cigarettes compromises not only the health of America's women, but the credibility of their favorite magazines.

### Introduction

The American Council on Science Health (ACSH) has been playing "visitor from Mars" again: posing as a recently arrived, health-conscious "E.T." who decides to survey the contents of America's women's magazines to learn how to prevent premature disease and death. As in previous surveys, ACSH has examined how 13 popular women's magazines choose to address the issue of smoking and health. This latest study indicates that while women's magazines are editorially unequivocal about certain topics (the benefits of low-fat diets and exercise, for example), they continue to downplay the dangers of smoking.

### Methods

ACSH's latest survey covered two 5-month periods: May through September 1997 and May through September 1998. The study involved the following magazines: Cosmopolitan, Elle, Family Circle, Glamour, Harper's Bazaar, Ladies' Home Journal, Mademoiselle, McCall's, New Woman, Redbook, Self, Vogue and Woman's Day.

In an attempt to include a broad spectrum of magazines and readers in the survey, ACSH sampled a wide variety of women's magazines aimed at different reader-ships. The magazines surveyed varied greatly in terms of total numbers of female readers, from a low of about 2.5 million women (Harper's Bazaar) to a high of about 23 million (Family Circle). The median ages of readers ranged from a low of 27 (Mademoiselle) to a high of 46 (Ladies' Home Journal). In all, 130 individual issues were analyzed. (See Table 1, page 22.)

Assessing the quality of the health coverage in these magazines is not simple. Women's magazines present health issues to their readers in a variety of ways, using forms that differ from traditional self-contained, bylined articles running several columns or pages in length. These magazines frequently offered their health information in snippets: as factoids, sidebars, and short pieces running to only a few paragraphs—even to only a few sentences. This survey was not designed to deter-mine the relative impact of such varying formats on the average reader.

In all the magazines surveyed, information about smoking was usually offered in short forms; often, only in what this survey has defined as a "mention"—a one-or two-line item or a passing comment about smoking in an article on a topic other than smoking. For the purposes of the survey—and to account for the fact that most of the smoking information presented in these magazines came in shorter forms—the term "article" is used to refer both to traditional articles and to shorter pieces (generally those exceeding 150 words) that focus on the topic specified (e.g., either the general subject of "health" or a more specific topic, such as "heart disease"). "Mentions" of smoking, as defined above, were counted separately. Finally, any "article" or "mention" that served to discourage smoking was considered an antismoking "message."

In tabulating cigarette ads for the survey, every full page of cigarette advertising was counted as one ad. Cigarette ads spanning two or more pages thus were counted as two or more separate ads.

## **General Health Coverage**

## A Commitment to Health

Each of the 13 magazines surveyed showed an editorial commitment to health. All had clearly identified health sections and regularly ran numerous, easy-to-read, health-focused articles. The regular health sections in these magazines bore such headings as "Health and Fitness" (Glamour and Cosmopolitan); "Wellness" (New Woman) and "Your Body" (Mademoiselle). (See Table 2, page 22.)

The average number of health-related articles per issue for the periods of May through September 1997 and May through September 1998 was approximately eight; the total number of health-related articles in all magazines for the two 5-month periods surveyed was over 1,000 (see Table 3, page 23).

Over the two periods surveyed, Self and Glamour ran the greatest number of health articles, with 10-issue totals of 172 and 167, respectively. At the other end of the spectrum, Harper's Bazaar ran the fewest health articles—a mere 23 over the ten issues studied. But regard-less of the variations in the numbers of health articles carried by individual magazines, the issue of women's health appeared to be a priority for all.

Given popular women's magazines' apparent commitment to health, one would expect them to cover the major causes of morbidity and mortality among their readers—to run articles on such topics as heart disease, cancer, stroke, respiratory disease, and motor-vehicle accidents. And, because these magazines tend to pay particular attention to disease prevention, one would also expect them to focus on the leading preventable causes of premature death.

According to the Centers for Disease Control and Prevention (CDC) and other health authorities, cigarette smoking is the principal cause of preventable death in the United States today. Abuse of alcohol and other drugs,

neglect of preventive care, inappropriate treatments, and various lifestyle factors such as reckless driving and promiscuous sexual behavior are other leading preventable causes of premature death. But although American women's magazines have improved the quality and scope of their health reporting over the years in which ACSH has been conducting its surveys, the magazines still fail to accurately reflect current public health statistics in the health-related topics they choose to cover.

## **Health Hyperbole**

Previous ACSH surveys noted a tendency in women's magazines to shun coverage of leading causes of death and well-established preventive measures in favor of covering hyped health risks. A 1992 ACSH survey criticized women's magazines for exaggerating the seriousness of such "threats" as cancer-causing electromagnetic fields around alarm clocks and refrigerators; the emission of radiation by computers; dangerous thrill rides at amusement parks; and, yes, the weather.

Such sensationalized health coverage can still be found from time to time in current issues of women's magazines. This latest survey unearthed articles that alarmed readers about such rare or purely hypothetical risks as

- the biological hazards of indoor air (May 1997 Self);
- hair-washing injuries (May 1997 Glamour);
- lead contamination from hair dye (June 1997 Self):
- lightning strikes and wild-animal attacks (August 1998 Ladies' Home Journal);
- increased lung-cancer risk from breathing diesel fumes (September 1998 McCall's);
- miscarriages associated with organic chemical contaminants—trihalomethanes (THMs)—in tap water (July 1998 Redbook);
- the hazards of sex in a hot tub (July 1997 Glamour); and—Deborah Kerr and Burt Lancaster take note—
- the hazards of sex on the beach (July 1998 Glamour).

### **Getting Better, but Room for Improvement**

Sensational health stories aside, the magazines studied in this survey offered sound coverage of many timely and relevant health issues. Articles discussed heart disease, cancer, osteoporosis, asthma, and alcohol-related illness. Several magazines accurately covered such current health debates as the controversy over food irradiation; the now-banned combination diet pill "fen-phen" (fenfluramine plus phentermine); the popular anti-impotence drug Viagra; and tamoxifen, a "designer estrogen" recently approved by the U.S. Food and Drug Administration to lower the incidence of breast cancer. The women's magazines surveyed also stressed the importance of healthy behavior, advising readers to eat a varied diet, to get preventive screening for disease, to exercise, to practice safe sex, and to use seat belts. Articles routinely highlighted the dangers of excessive sun exposure, drunk driving, and the failure to wear bicycle helmets.

Some topics received heavy coverage to the exclusion of other important health stories, however. The magazines surveyed devoted article after article to premenstrual syndrome (PMS); to the benefits of vitamin supplements; to alternative medicine; and to such evergreen women's-magazine staples as headaches, stress, and weight loss. Yet heart disease, the leading killer of American women, was relegated to a few meager moments in the spotlight. Of 519 health-related articles published over five months in 1998, only 10 were about heart disease (see Table 4, page 24).

In the same months of May through September 1998, there were 20 articles on breast cancer but only two on lung cancer (see Table 4). Breast cancer strikes 180,000 women each year, more than any other cancer. It is, without question, an important women's health issue. Nevertheless, lung cancer, not breast cancer, is the leading cause of cancer death among American women. In every year since 1987, more women have died from lung cancer than from breast cancers.1 And lung cancer mortality rates for women continue to increase.1 In spite of these sobering—and readily available—statistics, however, the magazines surveyed rarely discussed lung cancer.

The Division of Cancer Prevention and Control of the National Cancer Institute (NCI) reported findings similar to ACSH's in a 1997 study assessing cancer coverage in women's magazines. The NCI study concluded that women's magazines' cancer coverage "focused mostly on breast and skin cancers and neglected two very important cancers—lung and colon."2

Cigarette smoking also received relatively little coverage in the women's magazines surveyed by ACSH. In 1998 the number of articles on nutrition was 53 times greater than the number of articles on tobacco (see Tables 4 and 5, page 24). In view of the many illnesses related to tobacco use, one would think that warnings about the dangers of smoking would be at least as important to these magazines' health-conscious editors as recommendations for a good diet.

## Coverage of Cigarette Smoking: One Step Forward, Two Steps Back

### Risks and Rates of Cigarette Smoking

The CDC estimates that cigarette smoking—America's leading cause of preventable death—claims over 430,000 lives per year in the U.S. alone. One fifth of all deaths from heart disease (the leading cause of death among both men and women) result from tobacco use. Smoking accounts for about one third of all cancer deaths and is the single most important cause of lung cancer: Eighty-seven percent of lung cancers are caused by smoking. Smoking also contributes to many other malignancies, among them tumors of the bladder, esophagus, larynx, mouth, and pancreas.1

Although the prevalence of adult smoking has dropped significantly since the 1960s (from 42% then to 25% today), the rate of decline has slowed over the past decade. Today, roughly 23 percent of all women smoke; according to the National Health Interview Survey (NHIS), the highest percentage of use (26.8%) is among women aged 25 to 44. Also, according to the Youth Risk Behavior Surveys (YRBS), cigarette use among high school students increased by 32 percent between 1991 and 1997.

The American Lung Association notes that women who smoke are 12 times more likely than nonsmoking women to die prematurely from lung cancer. Each year, smoking is implicated in approximately 70,000 respiratory system—related cancers in women.1 And tobacco use is a significant risk factor in several other diseases and complications that primarily affect women, notably osteoporosis and infertility.3

## One Step Forward: Reporting on Smoking Risks

Compared to past ACSH surveys that reported a complete absence in the magazines studied of information about the hazards of tobacco, this survey revealed what appears to be a positive trend in women's magazines toward greater and more accurate reporting of smoking risks. The latest ACSH survey found a total of 54 antismoking messages over the two 5-month periods studied (See Table 6, page 25).

In 1997 and 1998 women's magazines generally refrained from blatantly promoting tobacco in editorial copy and graphics. Previous ACSH surveys (1992 and 1996) had noted several articles or fashion spreads featuring photos of models smoking cigarettes. Such examples appear to be dwindling but have not disappeared entirely: In its July 1998 "fitness" issue Elle managed to glamorize smoking in two articles. The first included a picture of a popular female comedian who—as Elle took pains to inform its readers in a caption—needs "nicotine to relax." The second, an intimate interview with actress Minnie Driver, offered readers an enticing description of this potential role model ritualistically lighting up a cigarette.

Studies have shown that the inclusion of cigarettes in fashion spreads causes young people who view these lifestyle-fantasy images to associate smoking with attributes that they value. Furthermore, the seemingly nonchalant inclusion of smoking in such pictures validates young people's belief that smoking is a normal part of everyday life.4 And this finding may not be limited to "young people": It seems very likely that people of any age can be influenced by the perceived behavior of celebrities they admire.

On a more positive note, many of the magazines surveyed responsibly identified smoking as a risk factor for serious health conditions. Readers were told of the relationship between smoking and

- heart disease (May 1997 McCall's; July 1997 Self; June 1998 Family Circle; August 1998 Family Circle);
- lung cancer (June 1998 McCall's; August 1998
- Mademoiselle; September 1998 McCall's);
- colorectal cancer (May 1998 McCall's);
- cancers of the esophagus, bladder, kidney, and pancreas (August 1997 Woman's Day);
- lung disease (September 1998 Self);
- osteoporosis (June 1997 Woman's Day; August 1997 Cosmopolitan; July 1998 McCall's);
- depression (August 1998 Self);
- infertility (July 1998 Self);
- low birth weight and infant death (September 1997 Glamour);
- breech birth (May 1997 Glamour);
- sleep apnea (June 1997 Vogue; June 1997 Ladies' Home Journal);
- asthma (September 1997 New Woman);
- headache (June 1997 Woman's Day);
- vision problems (September 1998 Self);
- cramps (May 1997 Self);
- allergies (May 1997 Woman's Day; June 1997 Woman's Day);
- gum disease (June 1997 Elle);

- premature aging (June 1997 Mademoiselle); and
- premature death (June 1997 McCall's; May 1998 Woman's Day).

Several magazines offered tips and encouragement to readers trying to quit smoking (May 1997 Glamour; May 1997 New Woman; June 1997 Mademoiselle; September 1998 Family Circle). One article, in the July 1997 issue of Self, condemned cigarette manufacturers for targeting women and urged the preventive-medicine community to develop antismoking campaigns geared toward young women.

Among the relatively few articles specifically about tobacco, several deserve to be singled out for their strong antismoking statements. In August 1998 Mademoiselle ran a short piece entitled "Lung Cancer Is a Woman's Disease." The article addressed the misconception—held by many Americans—that breast cancer is the leading cause of cancer death among women. Mademoiselle gave its readers the relevant lung cancer/smoking statistics and advised women to "kick the habit" because this real leading cause of women's cancer deaths is highly preventable.

In September 1997, in an article called "Who Said Cigars Were Cool?", Vogue urged its readers to ponder the following before joining the rush to light up a newly trendy cigar: "cancer, heart disease, brown teeth, bad breath, wrinkled skin and looking really silly." Two things stood out about this piece. It was noteworthy, first, that Vogue chose to devote a full page to an article about smoking, making this piece exceptional for its length as well as its message. It was also noteworthy, however, for an unfortunate omission: The article's health warnings stopped with its condemnation of cigars. The piece ignored cigarettes, the form of smoking most hazardous to women.

# Two Step Back: Mixed Messages About Smoking

On the whole, the women's magazines covered in this latest survey tended to send mixed messages about cigarette smoking. The magazines provided readers with relatively little information about the dangers of smoking, downplayed or overlooked smoking's role in tobacco-related diseases, and sometimes offered readers unscientific and inappropriate recommendations. Furthermore, by accepting and running cigarette advertising, these magazines contradicted their editorial anti-smoking messages.

## Scarcity of Information About Smoking

Considering the number of articles these magazines ran on nutrition and health in general, the number of antitobacco messages was meager.

From May through September 1997 tobacco-related articles made up approximately one percent of all health-related articles (six smoking articles out of 552). In the same months in 1998 this already minuscule percentage fell to 0.2% (one smoking article out of 519). Over that five-month period in 1998, the magazines surveyed ran 44 articles on nutrition and only one on smoking—a significant drop in smoking coverage from 1997. The total number of antismoking messages in the 13 magazines over the comparable five-month periods fell 54 percent, from 37 in 1997 to 17 in 1998. (See Tables 5 and 6, pages 24 and 25.)

As mentioned, full-length articles on smoking—those that ran longer than a few short paragraphs or sentences—were rare. Most of the antismoking messages tabulated in this survey took the form of factoids, snippets, and sidebars. Admittedly, it is hard to judge the relative impact of full articles and short-form snippets on readers. But the fact that these magazines rarely bothered to devote more than a few lines to smoking seemed to say, however implicitly, that tobacco is not a leading threat to women's health.

## Neglect or De-emphasis of the Role Smoking Plays in Tobacco-Related Disease

In marked contrast to the many responsible mentions the surveyed magazines made of smoking, several articles neglected or de-emphasized the role of smoking in their discussions of tobacco-related diseases.

An article in August 1998 Vogue failed to mention abstinence from smoking as a factor in the prevention of osteoporosis. (The article did mention increased calcium intake, resistance training, and hormone replacement therapy.) A June 1998 McCall's article discussed ways to pre-vent heart disease and colon cancer, but did not include the simple advice not to smoke. Another McCall's article, in May 1997, cited triggers and treatments for asthma, but ignored the effects of cigarette smoke—a known exacerbating factor for the condition. And an August 1997 Family Circle article about heart disease cited drinking purple grape juice, taking aspirin, and eating a varied diet as preventive measures, but neglected to mention refraining from tobacco.

In other articles, the hazards of smoking, although noted, were downplayed. Apiece in September 1998 Redbook listed the top nine ways to prevent cancer. The article's recommended steps began with consuming less red meat and more fish, eating tomatoes and soy, and using the microwave for cooking. Quitting smoking was mentioned in the fine print of the article's introduction, but that particularly crucial way to prevent cancer was conspicuously absent from the article's boldly featured "Top 9."

Another piece, this time in August 1998 Ladies' Home Journal, opened as follows:

You've heard the recommendations for preventing heart disease so many times, you can probably recite them from memory: Watch your weight, exercise, don't smoke. . . . All are important, but exciting new research points to ways you can lower your risk even more.

Here, the jaded tone of the prose seemed to trivialize well-established science in favor of sensationalized preliminary studies. LHJ's readers were subtly encouraged to overlook a humdrum litany of healthy behaviors (among them the vital admonition, "don't smoke") in favor of "exciting new research." The lead paragraph further misled LHJ readers by suggesting (erroneously) that by following dietary practices guided by the new research—in this case, research on vitamin E, folic acid, and fish oil—readers could "lower . . . risk even more" than they could by sticking with proven practices.

## Unscientific and Inappropriate Recommendations

In some instances articles that discussed the dangers of smoking offered unscientific and inappropriate recommendations to readers.

An article about lung cancer in September 1997 Ladies' Home Journal described the effects of lung cancer on the body and noted that 87 percent of such cancers are caused by a preventable behavior—smoking. The article went on to advise readers that if they must smoke, they should eat carrots.

Some epidemiological evidence has suggested an association between beta-carotene and a reduced risk of lung cancer, but those benefits (if any) would certainly not outweigh the harmful effects of smoking. One large study found, in fact, that ingesting beta-carotene slightly increased the risk of lung cancer in smokers.5

An August 1998 Family Circle article on medical screening discouraged readers from smoking cigarettes before a blood-pressure screening. But this advice, however prudent, missed the obvious point: People should abstain from smoking at all times, not just before a medical screening.

### Juxtaposing Cigarette Ads with Antitobacco Messages

A 1998 study by the Society for the Advancement of Women's Health Research reported that 17 of the 21 largest circulation women's magazines carried some tobacco advertising.6 Thus, despite many of these publications' apparent commitment to women's health, they continued to advertise a deadly product—cigarettes. Arrayed around articles detailing the serious health risks of cigarettes were glossy, sexy ads showing healthy-looking people smoking. Such images conflicted with the magazines' antismoking messages and could certainly have confused readers, especially younger ones, about the real dangers of smoking.

Over the two periods covered by the latest ACSH survey, the amount of cigarette advertising varied greatly from publication to publication (see Table 7, page 25). The total number of cigarette ads a magazine ran over one of the 5-month periods ranged from lows of two (Harper's Bazaar, May through September 1997) and zero (New Woman, May through September 1998) to highs of 32 (Cosmopolitan, May through September 1997) and 35 (Vogue, May through September 1998). Over the 10 months studied (May through September 1997 and May through September 1998), the 13 magazines surveyed carried an average of three cigarette ads per issue. Mademoiselle, Cosmopolitan, Vogue, and Glamour ran the most cigarette ads over the survey periods; Harper's Bazaar, Family Circle, and Self were among those that carried the fewest.

The magazines surveyed demonstrated some significant shifts in their tobacco advertising between spring-summer 1997 and the same period in 1998. Vogue's cigarette advertising increased from 21 ads over five months in 1997 to 35 ads in the same five months in 1998. Glamour showed a similar increase, from 21 ads in 1997 to 32 in 1998. But cigarette advertising in other magazines decreased over the same period: Total cigarette advertising in McCall's and Redbook declined by about half.

The cigarette advertising in women's magazines may be undermining the magazines' potentially powerful antismoking messages. Research has shown that women's magazines that carry cigarette ads are less likely to run articles on smoking.4,6 ACSH's survey did not detect the above-mentioned relationship (possibly due to the ACSH survey's relatively small sample size and short, staggered study periods), but the 13 magazines studied clearly promoted cigarette use through the advertisements they ran far more often than they discouraged smoking through their editorial content.

In 1997 the ratio of cigarette ads to smoking messages in the 13 magazines surveyed was 6 to 1 (see Table 8, page 26). By 1998 this imbalance had almost doubled, with tobacco ads outweighing smoking information by a factor of 11 to 1. A 1998 study examining women's magazines and tobacco in Europe also reported that positive images of smoking in tobacco advertisements were more common in many magazines than coverage of smoking and health.4

## Leader of the Pack

On a more positive note, the total number of cigarette ads carried by all of the magazines surveyed (May through September 1997 and May through September 1998) fell by about 14 percent. A single magazine—New Woman—may deserve some of the credit for this decline.

Since Rodale Press bought New Woman at the end of 1997, the magazine has turned away tobacco advertising. Rodale, a publisher of health-oriented magazines and books, says that "it actively practices what it preaches." And, according to publisher Laura McEwen, the tobacco-free New Woman has experienced no negative effects, either financial or otherwise, from its rejection of cigarette ads.

## Conclusion

Compared to those of a decade ago, today's popular women's magazines have come a long way in providing readers with sound and relevant health information. Women's magazines routinely run articles addressing leading causes of morbidity and mortality and offer their readers some warnings about smoking risk. Unfortunately, these accomplishments may be diminished by the mixed messages the magazines still send about tobacco. Future researchers might do well to investigate the relative effects that side-by-side cigarette advertisements and antismoking messages have on the women who read these magazines.

The glaring shortage of information in women's magazines about the health effects of smoking and the hypocrisy of these magazines' claiming to promote healthy lifestyles while advertising tobacco are both difficult to dismiss.

Some editors and publishers argue that their readers are already aware of the perils of smoking, so there's no need to "nanny" them. But these same editors continue to run articles on the dangers of obesity, a presumably equally well-known (and well-publicized) risk factor for heart disease, diabetes, post-menopausal breast cancer, and other health problems.

Some publishers hide behind the legality of cigarettes. Yet smoking, regardless of its legal status, remains the leading cause of preventable death in America today. No matter how these publishers may try to excuse their actions, they still can't get around the fact that magazines that accept cigarette ads are promoting a deadly product to their readers.

If magazines really want to promote women's health, they should present the risks of smoking accurately—and they should reject cigarette advertising.

It's that simple. America's women's magazines should follow the lead of New Woman—one of their own—and "kick the habit."

### References

- 1. American Cancer Society. Cancer Facts and Figures. Atlanta, GA: American Cancer Society; 1999.
- 2. Gerlach KK, Marino C, Hoffman-Goetz L. Division of Cancer Prevention and Control, National Cancer Institute. Cancer coverage in women's magazines: What information are women receiving? *J Cancer Ed.* 1997 (Winter);12(4):240–244.
- 3. American Council on Science and Health. What the Warning Label Doesn't Tell You. Amherst, NY: Prometheus Books: 1997.
- 4. Amos A, Bostock C, Bostock Y. Women's magazines and tobacco in Europe. *Lancet*. 1998;352:786.
- 5. The Alpha-Tocopherol, Beta Carotene Cancer Prevention Study Group. The effect of vitamin E and beta carotene on the incidence of lung cancer and other cancer in male smokers. *N Engl J Med*. 1994;330:1029–1035.
- 6. Society for the Advancement of Women's Health Research. Cigarette advertising in women's magazines. *JNCI*. 1998;90:1257.

Table 1: Total Readership and Median Age of Female Readers of 13 Women's Magazines

| Magazine             | Number of Female Readers (000) | Median Age of Female Readers |
|----------------------|--------------------------------|------------------------------|
| Cosmopolitan         | 12,329                         | 32.4                         |
| Elle                 | 3,580                          | 30.6                         |
| Family Circle        | 20,988                         | 45.0                         |
| Glamour              | 10,750                         | 31.3                         |
| Harper's Bazaar      | 2,458                          | 41.6                         |
| Ladies' Home Journal | 14,855                         | 46.3                         |
| Mademoiselle         | 5,331                          | 27.6                         |
| McCall's             | 14,357                         | 44.4                         |
| New Woman            | 4,215                          | 37.2                         |
| Redbook              | 11,009                         | 41.2                         |
| Self                 | 3,994                          | 33.1                         |
| Vogue                | 7,353                          | 33.0                         |
| Woman's Day          | 20,736                         | 44.1                         |

Table 2: Titles of Health Sections in Popular Women's Magazines

| Magazine             | Title of Health Section                     |
|----------------------|---|
| Cosmopolitan         | Health and Fitness                          |
| Elle                 | Beauty/Fitness/Health                       |
| Family Circle        | Beauty, Fashion, Fitness and Health         |
| Glamour              | Health and Fitness                          |
| Harper's Bazaar      | Beauty and Health                           |
| Ladies' Home Journal | Health                                      |
| Mademoiselle         | Your Body                                   |
| McCall's             | McCall's Health                             |
| New Woman            | Wellness                                    |
| Redbook              | Health & Fitness                            |
| Self                 | Mind/Body; Medical; Nutrition; Peak Fitness |
| Vogue                | Health and Beauty                           |
| Woman's Day          | Health                                      |

Table 3: Total Health-Related Articles, May–September 1997 and May–September 1998

| Magazine (Ranked<br>by Number of<br>Health-Related<br>Articles) | Health-Related Articles,<br>May–September 1997 | Magazine (Ranked by<br>Number of Health-<br>Related Articles) | Health-Related Articles,<br>May-September 1998 |
|---|--|---|--|
| Glamour   | 98   | Self  | 99   |
| Self  | 73   | Glamour   | 68   |
| New Woman   | 56   | New Woman   | 63   |
| Ladies' Home<br>Journal   | 56   | Redbook   | 60   |
| Redbook   | 47   | Cosmopolitan  | 38   |
| Cosmopolitan  | 41   | Family Circle   | 38   |
| Family Circle   | 34   | McCall's  | 33   |
| McCall's  | 32   | Woman's Day   | 32   |
| Woman's Day   | 32   | Ladies' Home Journal  | 28   |
| Vogue   | 26   | Mademoiselle  | 20   |
| Elle  | 25   | Vogue   | 15   |
| Mademoiselle  | 22   | Harper's Bazaar   | 13   |
| Harper's Bazaar   | 10   | Elle  | 12   |
| Total   | 552  | Total   | 519  |

Table 4: Total Health-Related Articles by Topic, May-September 1998

| Magazine                | Articles on Heart<br>Disease | Articles on<br>Nutrition | Articles on Breast<br>Cancer | Articles on Lung<br>Cancer |
|-------------------------|------------------------------|--------------------------|------------------------------|----------------------------|
| Cosmopolitan            | 0                            | 3                        | 3                            | 0                          |
| Elle                    | 2                            | 1                        | 0                            | 0                          |
| Family Circle           | 2                            | 4                        | 3                            | 0                          |
| Glamour                 | 0                            | 5                        | 0                            | 0                          |
| Harper's Bazaar         | 0                            | 1                        | 0                            | 0                          |
| Ladies' Home<br>Journal | 1                            | 2                        | 2                            | 0                          |
| Mademoiselle            | 0                            | 3                        | 0                            | 1                          |
| McCall's                | 0                            | 4                        | 0                            | 1                          |
| New Woman               | 2                            | 8                        | 5                            | 0                          |
| Redbook                 | 0                            | 5                        | 4                            | 0                          |
| Self                    | 2                            | 14                       | 2                            | 0                          |
| Vogue                   | 0                            | 0                        | 0                            | 0                          |
| Woman's Day             | 1                            | 3                        | 1                            | 0                          |
| Total                   | 10                           | 53                       | 20                           | 2                          |

Table 5: Smoking Mentions\* and Smoking Articles,\*\* May-September 1997 and May-September 1998

| Magazine             | Smoking Mentions,<br>May–September<br>1997 | Smoking Articles,<br>May–September<br>1997 | Smoking Mentions,<br>May–September<br>1998 | Smoking Articles,<br>May–September<br>1998 |
|----------------------|--|--|--|--|
| Cosmopolitan         | 1  | 0  | 1  | 0  |
| Elle                 | 1  | 0  | 0  | 0  |
| Family Circle        | 1  | 0  | 3  | 0  |
| Glamour              | 5  | 1  | 0  | 0  |
| Harper's Bazaar      | 0  | 1  | 1  | 0  |
| Ladies' Home Journal | 3  | 0  | 1  | 0  |
| Mademoiselle         | 1  | 1  | 0  | 1  |
| McCall's             | 1  | 0  | 3  | 0  |
| New Woman            | 2  | 2  | 0  | 0  |
| Redbook              | 1  | 0  | 1  | 0  |
| Self                 | 6  | 1  | 5  | 0  |
| Vogue                | 1  | 0  | 0  | 0  |
| Woman's Day          | 8  | 0  | 1  | 0  |
| Total                | 31   | 6  | 16   | 1  |

<sup>\*</sup> A "mention" is defined as a few isolated lines or an editorial comment about smoking that occurs in an article or editorial on a subject other than smoking.

<sup>\*\*</sup> An "article" is defined as a piece of writing that generally exceeds 150 words.

### **APPENDIX 2**

# Tobacco and Women's Health: A Survey of Popular Women's Magazines August 1999–August 2000

# Written for the American Council on Science and Health by Catherine L. Maroney, M.A., M.P.A.

## **Executive Summary**

Many women—young and old—devote a significant amount of time to reading women's magazines. Some turn to these publications for relaxation and/or to review the latest fashions, but others also seek reliable lifestyle and health information. Those seeking medical advice will often depend more on these magazine articles than on their doctors or other healthcare professionals.

Is their trust justified? According to the Centers for Disease Control and Prevention's (CDC) Office of Women's Health, approximately 22 million adult women currently smoke cigarettes and more than 140,000 women die each year from smoking-related diseases. Yet, research has shown that popular women's magazines give little or no coverage to some of the most serious health conditions that result from smoking cigarettes (Whelan, 1996). During the 1970s, the health topics covered in popular women's magazines were found not to include lung cancer or the other myriad dangers of cigarette smoking, despite knowledge that the death rates from lung cancer, emphysema, and heart disease—and the number of women smokers—were all increasing (Weston & Ruggiero, 1985). Popular magazines among African-American women from 1987 to 994 also did not cover tobacco-related cancers (Hoffman-Goetz et al., 1997).

In contrast to the shortage of health articles addressing the negative aspects of smoking, women's magazines were found to carry a high number of cigarette advertisements (Krupka et al., 1990). More disturbing, however, was the apparent message of independence, self-reliance, attractiveness, and leanness of female smokers often portrayed in these advertisements. Additionally, those women's magazines that included cigarette advertisements were reported to have little or nothing to say about the hazards of smoking (Warner et al., 1992).

Thus, the American Council on Science and Health (ACSH) evaluated a representative sample of women's magazines (12 women's magazines with a large female readership for the period from August 1999 through August 2000) to determine the quantity and nature of their health, lifestyle and fitness messages. We used as an indicator the magazines' acceptance of cigarette advertisements. We then assessed the presence of smoking-related messages in their articles and photographs. Finally, we evaluated the quality and nature of the magazines' health messages. Of particular interest was how the magazines' coverage of the profound health problems associated with smoking, especially lung cancer, compared to that of other real or alleged health risks.

The ACSH survey revealed that these women's magazines accepted cigarette advertisements and published many health-related articles, but that the overwhelming majority of these articles focused on fitness, mental health, nutrition, gynecology, and diet; less than one percent of the health-related articles had an anti-smoking theme. Moreover, there was no shortage of cigarette ads. These findings show the hypocrisy of women's magazines that advocate for healthy lifestyles yet continue to publish cigarette advertisements and fail to provide adequate coverage on the health-related consequences of smoking.

## Introduction

The American Council on Health (ACSH) is once again looking at how popular women's magazines address the issue of smoking and health. In past studies, ACSH examined the content of 13 popular women's magazines and found that they sent mixed signals about smoking to their readers. On one hand these magazines appeared to have a commitment to health, yet most published a significant number of cigarette advertisements or neglected to include basic information on the negative health-related consequences of cigarette smoking.

What did magazines tell their readers this time? ACSH evaluated a representative sample of twelve magazines directed at women for the validity of their health, lifestyle and fitness messages. This time, the focus was upon how their coverage of smoking-related illnesses, especially lung cancer, compares to that of other real or alleged health risks.

### Methods

ACSH's latest survey covered a 13-month period, from August 1999 to August 2000. The twelve magazines included in the analysis were Cosmopolitan, Elle, Family Circle, Glamour, Harper's Bazaar, Ladies'

Home Journal, Mademoiselle, McCall's, Redbook, Self, Vogue, and Woman's Day. These magazines were chosen based on their large numbers of women readers (Table 1) (Papazian, 1997). These magazines were the same magazines included in the previous ACSH study in 1997–1998 except for New Woman, which ceased publication. The median ages of readers ranged from a low of 27 (Mademoiselle) to a high of 46 (Ladies' Home Journal).

A total of 160 individual issues were analyzed out of a possible 166 (96 percent). The 6 issues not analyzed were unavailable through either public libraries or the respective magazine's back issue department and did not introduce bias to the study. Among the 12 magazines included in the study, 10 publish 1 issue per month, while Woman's Day and Family Circle publish 2 issues during the months of September, November, February, April, and June, and 1 issue for each of the remaining months.

Health information in these magazines was offered in a wide variety of forms, including one-line mentions, short articles of a few paragraphs, and lengthy, in-depth pieces. For each magazine, ACSH counted the number of health-related articles, flagging those that focused on the effects of smoking. Any health information given in less than a page was deemed a "short article," while any health-related article of a page or longer was a "long article." Health articles that covered the negative aspects of smoking, such as lung cancer, were included in the totals for both health-related articles and anti-smoking-related articles.

ACSH also counted any mention of smoking in articles that were unrelated to health. These were called "smoking mentions" and were further classified as pro-smoking (such as reference to an actor's chain-smoking habit) or anti-smoking (such as an admonition to quit smoking in an article about dermatology and wrinkles). Any pictures of famous people and/or models smoking or holding cigarettes were also counted as pro-smoking mentions. The broader term "smoking message" was used to encompass any anti-smoking article and/or smoking mention. Finally, the numbers of cigarette and anti-tobacco advertisements were both counted. For the ads, each full page of advertisement equaled one ad; for example, a two-page spread of a Virginia Slims ad counted as two ads.

During the process of tabulating the health articles, ACSH recorded the main topic for each article. "Fitness" articles included anything dealing with exercise and its health benefits. "Mental Health" articles covered topics such as stress, depression, energy level, and mental illness. "Nutrition" articles encompassed foods for health and supplements, whereas the category "Diet" included articles that were geared towards weight-loss. "Gynecology" articles focused on issues such as contraceptives, sexually transmitted diseases, and sexual health.

### Results

## **Commitment to General Health**

The magazines examined in the study were found to be self-committed to general health, but failed to cover the number one cause of cancer death in women: lung cancer.

From August 1999 through August 2000, there were 2,414 health-related articles published among the issues analyzed. The trends across all the magazines include a huge preponderance of information about getting in shape, shedding those unwanted 5 pounds, and sex-related health topics filled with advice on ways to improve your love life. The most frequently covered topics in descending order were fitness (338 articles; 14 percent), mental health (245 articles; 10 percent), nutrition (243 articles; 10 percent), gynecology (218 articles; 9 percent), and diet (168 articles; 7 percent). (See Table 2.)

The magazines often had trivial—or nonexistent—health risks highlighted in their articles, such as the harms associated with consumption of exotic cheese, instead of articles that focused on the more serious health conditions having scientific evidence showing harm.

Although cigarette smoking is the leading cause of preventable premature death in the United States, only 1 percent (24 articles) of all the health-related articles had an anti-smoking theme (see Table 3). Even then, only two of these anti-smoking articles were more than one-page long—"The Killer Cancer Doctors Ignore," appearing in the September 1999 issue of McCall's, and "The Scary Truth About Social Smoking," in the December 1999 issue of Mademoiselle. There was a disparity of anti-smoking articles among the magazines; Self accounted for the majority of the anti-smoking articles (54 percent), while both Vogue and Glamour had none. The rest of the magazines each had one anti-smoking article, with the exceptions of Family Circle and McCall's, which had two each. Regarding cigarette ads, there was an average of 4.5 cigarette ads per magazine issue. In all, only 4 of the 12 magazines published anti-tobacco ads (see Table 3).

## Lung Cancer—Not Breast Cancer—is the Leading Cause of Cancer Death among Women

Imprecise coverage of these two health topics may contribute to the misconception that breast cancer, not lung cancer, is the leading cause of cancer death among women. While breast cancer is a serious women's health issue, and the most common form of cancer in American women, it is lung cancer that kills more women than any other cancer. Between the years 1960 and 1996, deaths from lung cancer among women increased by more than 400

percent—exceeding breast cancer deaths every year since the mid-1980s, according to the Centers for Disease Control and Prevention. By the mid-1990s, the American Cancer Society (ACS) estimated that annually approximately 64,300 women died from lung cancer and 44,300 died from breast cancer. According to a 2001 report, Women and Smoking: A Report of the Surgeon General, nearly 68,000 women will die from lung cancer this year—27,000 more than those who will die from breast cancer (http://www.cdc.gov/tobacco/sgr/sgr\_forwomen/ataglance.htm).

In the survey, the most frequently mentioned cancer was breast cancer with 53 articles (see Table 4). Of those magazines that did publish anti-smoking articles, only three magazines mentioned lung cancer. McCall's was the only magazine with a long article specifically on lung cancer, while Family Circle and Ladies' Home Journal were the only other magazines to mention lung cancer. On the contrary, the same number of magazines offered information over the 13 months on how to survive a shark attack. Moreover, in the one long article that discussed lung cancer, the risks associated with smoking seemed to be downplayed. That is, instead of highlighting the 90 percent of lung cancer patients who are smokers, it focused on the 10 percent of patients who are nonsmokers. This type of information conveys the notion that cigarette smoking is not a major risk factor for lung cancer. Thus both the quantity and quality of lung cancer coverage is deficient and may mislead women into believing that it is not as serious a condition as it truly is.

### Heart Disease

Inasmuch as heart disease is the number one killer of American women, it is gratifying that compared to previous studies by ACSH, heart disease is receiving better magazine coverage. Five of the 12 magazines had short articles on the topic, with Family Circle tallying nine short articles and Self including 11 short articles. Nevertheless, many people still remain vastly under-educated as to the risk factors and warning signs of heart disease. According to the American Heart Association, smoking more than doubles the risk of a heart attack in both men and women. This fact needs to be emphasized more. ACSH found short articles that recommended lifestyle changes such as eating a healthy breakfast every day, reducing stress, and drinking tea to ward off heart disease. While these may lower the risk of heart attack, one of the biggest factors that contribute to heart disease is smoking. Indeed, not one magazine included a long article on heart disease.

## What the Warning Label Doesn't Tell You

When, or if, these magazines included information regarding the health effects of smoking, they typically highlighted lung cancer with the occasional mention of heart disease. There is much evidence, however, that shows cigarette smoking is associated with many other diseases and health problems. Many of these health problems were covered extensively in these magazines, but they failed to disclose that smoking is a contributing risk factor.

According to the ACS, smoking tobacco accounts for at least 30 percent of all cancer deaths. Although approximately 90 percent of lung cancers can be attributed to such smoking, it is also associated with cancer at many other sites: bladder, cervical, esophageal, laryngeal, kidney, pancreatic, and stomach cancer are just some of the smoking-related cancers often overlooked. And it isn't just cancer. Other smoking-related conditions that might develop include chronic bronchitis, emphysema, vascular disease, asthma, cataracts and even the common cold.

Finally, many of these magazines—especially Self, McCall's, and Harper's Bazaar—included articles on infertility and pregnancy. All of the long articles that dealt with these issues focused on expensive, alternative options for when there is difficulty conceiving, including egg donation, in vitro fertilization, and various high-tech procedures. Not addressed among these pages, however, was that fertility rates of women who smoke are about 30 percent lower than non-smokers and that male smokers have been found to have decreased sperm count and impaired sperm motility (ACSH, 1996). Would it not be more responsible for the magazines to educate their readers on factors that may affect their ability to conceive, rather than just offering advice on the expensive alternatives available?

## **Beauty Secrets for Beautiful Skin**

Smoking cigarettes, or just being around those who are smoking, can have negative effects for your skin. First, smoking results in the constriction of blood vessels, thus reducing the amount of blood and nutrients that flow to the skin. Second, the tobacco smoke in the air can irritate the skin's surface and potentially dry it (ACSH, 1996). Both exposures may significantly damage the skin. The consequences include increased wrinkling and a higher risk of psoriasis and, possibly, the development of severe acne.

The magazines covered in this analysis included a substantial number of articles on dermatology, or in the broader sense, skin care: 26 short articles and 15 long articles. "The Doctors' Guide to Great Skin," "Turn Back the Clock," and "Saving Face" were just some of the long articles that had pages of "expert" advice on ways to keep that healthy glow. If you have prematurely aging skin—broken blood vessels around your cheeks or nose, fine lines or a

sallow cast to your complexion—Glamour exclaims that you have been "less than religious about applying sunscreen." Other articles, in addition to applying sunscreen, recommended getting 8 hours of sleep a night, drinking 8 glasses of water daily, and eating a balanced diet; none mentioned quitting smoking or reducing exposure to secondhand smoke.

### Role Models

It was not uncommon to read an article about a celebrity and learn of his/her thoughts and/or habits concerning smoking. For instance, in Glamour, the television actress Kathy Griffin wrote, "if you are an actress, you're not supposed to eat at all. You're supposed to chain-smoke and drink coffee." In a December 1999 Elle interview with supermodel Milla Jovovich the reader learned that "soap, water, moisturizer, and cigarettes" are her beauty secrets.

These pro-smoking mentions, however, were not limited to the rich and famous. The magazines typically featured articles that provided insight into the minds of the opposite sex. Under sections that alluded to what men think, messages targeted young women and appeared to encourage them to start or continue smoking as a way to project a sexy and sophisticated image that many men would find more attractive. For instance, in a June 2000 Glamour article a female reader is quoted: "When I noticed a good looking guy fishing for a cigarette, I thought, this is my chance, so I quickly took out a lighter. But since I am not a smoker, it took a few tries for the flame to catch, and I wound up looking like a big dork while he sat there waiting with a cigarette dangling out of his mouth."

In another issue, under a section called "Glamour asks, Men Answer," one male respondent confessed that he found it sexy when his girlfriend blew rings of smoke. In all fairness to Glamour, however, they also asked men, "What makes you lose her number?" and printed the response, "If she smokes. I hate the smell of smoke in women's clothes and hair. How can you get close to someone like that? It's like you're smoking a cigarette when you kiss them."

### A Picture is Worth a Thousand Words

Women may find themselves sitting in a waiting room or standing in line at the grocery store with only a limited amount of time available. As a result, rather than becoming engrossed in an article, they merely flip through the pages to glance at the photographs of glamorous models and movie stars. Tobacco advertisements of beautiful women and pictures of celebrities with cigarettes glamorize smoking to magazine readers. Indeed, Vogue had over four times the number of pro-smoking mentions than anti-smoking mentions. Further, all of the pro-smoking mentions in Vogue consisted of pictures of people holding and/or smoking a cigarette. Harper's Bazaar and Elle also contained pictures that portrayed pro-smoking images, but Harper's Bazaar had no space devoted to anti-smoking mentions (see Table 3).

For the period studied, the total ratio of cigarette ad pages to anti-smoking articles was 30:1. Ranking the highest—that is, the worst—was Cosmopolitan, with 128 cigarette ads for every 1 anti-smoking article, followed by Glamour, with 115 cigarette ads and no articles. The only magazine to have slightly more anti-smoking articles compared to cigarette ads was Self (12 cigarette ads). The total average number of cigarette advertisements per month, however, remained steady at 4 or 5, with the exception of a high average of 9 in December 1999 and a low average of 3 in April 2000 (see Table 5).

# **Making the List**

The blatant condoning of cigarette use, in the form of pro-smoking pictures and mentions, has declined from the level seen in previous ACSH studies, but the anti-smoking reporting does not appear to have increased. It is not enough simply to "stay neutral" on this issue—the readers of these magazines need to be informed of the enormity of the health effects of smoking. To avoid this issue, however, is not really to remain neutral; it downplays the importance of abstaining from tobacco, as if it were not an important health factor. Such "non-reporting" is most evident in general health articles, such as how to delay aging and the top 10 ways to live longer or avoid cancer, very few of which mention quitting smoking as one of the "top 10" or crucial factors. For example, Glamour lists "8 Simple Health Savers," that include such advice as taking a calcium supplement and forming a workout clique, but readers are not advised to discard their cigarettes. In the January issue of Elle, a two-page article encourages its readers to hide from the sun, stop crash dieting, take vitamins, and get to the gym, because these New Year's Resolutions, a "precious few—the kind that can dramatically change the way you look and feel—are worth keeping." On the other hand, Family Circle did include quitting smoking as number 12 under its list of "20 Ways to Add Years to Your Life." We wonder, however, if it would have remained on the list—losing out to eating soy and avoiding unnecessary x-rays—had the list been reduced to 10 rather than 20 ways to add years. In fact, not smoking should be number 1 on all these lists.

## Whom Can You Trust?

### Congratulate Your "Self"

The lack of serious reporting of the health-related consequences of cigarette smoking sends the message, however implicit, that smoking is not an important issue to the readers of these magazines. Self should be applauded for including at least one (and up to 4) anti-smoking messages in 12 of the 13 issues studied. Out of all the magazines analyzed, Self illustrated the greatest commitment to health by carrying the lowest number of tobacco advertisements and the highest number of anti-smoking messages of all the magazines. In addition to this achievement, the total number of anti-smoking messages compared to cigarette ads in Self magazine was more than double.

While Self illustrated a commitment to health by carrying very little tobacco advertising (0–2 pages/issue) and the largest number of anti-smoking messages of all the magazines, we should encourage them to go further. Just as Self magazine has the "Self Challenge" every year which encourages readers to team up and support each other to change their nutrition and fitness habits over the course of 3 months, they could easily challenge their readers to quit smoking.

## **Vogue: One Step Forward and Two Steps Back**

While magazines such as Self are improving, others, such as Vogue, are regressing. In March 1999, ACSH presented Vogue with the Council's first-ever "Shattering the Smoke Screen of Silence" award for its publication of a feature article criticizing smoking. However, our August 1999 to August 2000 study found over half of the issues of Vogue included pictures of models and/or famous people smoking. There were no anti-smoking articles in any of the issues, and only 3 anti-smoking mentions. Vogue is primarily a fashion magazine with little health reporting; but, when the magazine did cover health issues, the focus was on such topics as breast cancer, eating disorders, fertility, plastic surgery, and dermatology. While these issues are important for the readers of Vogue, smoking is at least as, if not more, important.

### A New Era

## Coming of Age: Anti-Tobacco Advertisements

This year marked the beginning of anti-tobacco advertisements, in keeping with the tobacco settlement guidelines. In magazines such as the Ladies' Home Journal, which are targeted toward women with children, Phillip Morris ads featuring milk and cookies encouraged smoking parents not to leave cigarettes where their children could find them. In August 2000, one of these ads was published on the back cover of a magazine. Magazines such as Mademoiselle, which are targeted toward a younger audience, featured ads from thetruth.com, sponsored by the American Legacy Foundation. These hard-hitting ads utilize slogans such as "Tobacco advertising. It's like peer pressure with a \$15,000,000 a day budget." While it is not part of this study to determine the impact of these advertisements, it is interesting to note the ratio of cigarette ads to anti-tobacco ads in the few magazines (4 in total) that did carry the anti-tobacco ads. Is an average ratio of 1 anti-tobacco ad to every 32 cigarette ads really enough to catch the attention of young readers?

# Hope for the Future

In June 2000, Philip Morris announced it would be pulling cigarette advertisements from 42 magazines: those with 2 million or more readers under 18 or with a teen readership of greater than 15 percent. Included on the list were several magazines used in this study: Cosmopolitan, Elle, Glamour, Mademoiselle, Self, and Vogue. This change was not expected to take place until the October 2000 issue of these magazines. While the average number of cigarette ads per monthly issue dropped from a total average of 6 in August 1999 to 4 in August 2000, it was not a steady decline. Rather, there was a fluctuation during the year with a high average of 9 in December 1999 and a low average of 3 in April 2000. Some researchers have suggested that magazines include a larger number of cigarette ads during the early winter months in order to counter New Year's resolutions to quit the habit (Basil et al., 2000).

It will be of particular interest to see if other tobacco companies follow in the steps of Philip Morris and pull their ads from these magazines. However, a decrease in the number of cigarette ads should not be a reason for magazine editors to decrease the number of anti-smoking articles. Findings from past studies indicate that a decrease in the proportion of magazines accepting cigarette advertising might also result in a decrease in the coverage given to the health-related aspects of smoking (Amos et al., 1991).

## Conclusion

In the past, ACSH conducted similar surveys of popular women's magazines. In 1997, ACSH found that cigarette ads outweighed anti-smoking messages by six to one, and in 1998, the ratio almost doubled to eleven to one. Unfortunately, this ACSH study reveals that there was not much improvement by the year 2000: cigarette ads outnumbered anti-smoking messages—which included the new addition of anti-tobacco advertisement —by ten to one. Furthermore, articles about the health effects of tobacco still made up less than one percent of all the health-related articles published.

If magazine editors find ample room to publish articles on staying fit and living a healthy lifestyle, then they should be able to devote some of this space to articles covering the serious health consequences associated with smoking. If not, they should at least mention the hazards of smoking in these health-related articles. Instead, these magazine editors are guilty of both omission and commission. Not only do they not cover cigarette-related diseases; they also edit out articles from where they would otherwise naturally be, such as in lists of how to live a long and healthy life. Meanwhile, they publish a plethora of cigarette ads and pro-smoking images that glamorize smoking.

This study demonstrates the lack of coverage of lung cancer and other health-related consequences from smoking in popular women's magazines. That these magazines publish a substantial number of cigarette advertisements and health-related articles on various topics, but do not cover the health consequences related to smoking, is a disservice to their readers.

#### References

American Council on Science and Health (1996). Cigarettes: What the Warning Label Doesn't Tell You.

Amos, A., Jacobson, B., & White, P. (1991). Cigarette advertising policy and coverage of smoking and health in British women's magazines. *Lancet*, 337(8733):93–6.

Hoffman-Goetz, L., Gerlach, K.K., Marino, C., & Mills, S.L. (1997). Cancer coverage and tobacco advertising in African-American women's popular magazines. *Journal of Community Health*, 22(4):261–70.

Krupka, L.R., Vener, A.M., & Richmond, G. (1990). Tobacco-Advertising in gender-oriented popular magazines. *Journal of Drug Education*, 20(1):15–29.

Papazian, Ed. Magazine Dimensions '98. New York, NY: Media Dynamics, Inc., 1997.

Warner, K.E., Goldenhar, L.M., & McLaughlin, C.G. (1992). Cigarette advertising and magazine coverage of the hazards of smoking: A statistical analysis. *New England Journal of Medicine*, 326(5):305–9.

Weston, L.C., Ruggiero, J.A. (1985–86 Winter). The popular approach to women's health issues: A content analysis of women's magazines in the 1970's. *Women and Health*, 10(4):47–62.

Whelan, E.M. (1996). Health advice in women's magazines: Up in smoke. Priorities, 8(3):16–17.

Women and Smoking: A Report of the Surgeon General—2001. http://www.cdc.gov/tobacco/sgr/sgr\_forwomen/ataglance.htm

TABLE 1. Total Readership and Median Age of Female Readers of 12 Women's Magazines (Papazian, 1997)

|                      | Numbers of Female | Median Age of  |
|----------------------|-------------------|----------------|
| Magazine             | Readers (000)     | Female Readers |
| Cosmopolitan         | 12,329            | 32.4           |
| Elle                 | 3,580             | 30.6           |
| Family Circle        | 20,988            | 45.0           |
| Glamour              | 10,750            | 31.3           |
| Harper's Bazaar      | 2,458             | 41.6           |
| Ladies' Home Journal | 14,855            | 46.3           |
| Mademoiselle         | 5,331             | 27.6           |
| McCall's             | 14,357            | 44.4           |
| Redbook              | 11,009            | 41.2           |
| Self                 | 3,994             | 33.1           |
| Vogue                | 7,353             | 33.0           |
| Woman's Day          | 20,736            | 44.1           |

TABLE 2. Number of Health-related Articles (Short or Long) for the Five Most Represented Health Topics, August 1999–August 2000

| Magazine             | Issues Analyzed | Fitness | Mental Health | Nutrition | Gynecology | Diet |
|----------------------|-----------------|---------|---------------|-----------|------------|------|
| Cosmopolitan         | 13              | 32      | 3             | 5         | 42         | 37   |
| Elle                 | 12              | 4       | 3             | 0         | 5          | 2    |
| Family Circle        | 17              | 19      | 16            | 11        | 5          | 17   |
| Glamour              | 13              | 19      | 13            | 16        | 37         | 8    |
| Harper's Bazaar      | 13              | 10      | 0             | 11        | 4          | 0    |
| Ladies' Home Journal | 13              | 6       | 6             | 13        | 7          | 10   |
| Mademoiselle         | 11              | 3       | 4             | 7         | 11         | 2    |
| McCall's             | 13              | 12      | 5             | 26        | 4          | 12   |
| Redbook              | 13              | 11      | 59            | 10        | 43         | 20   |
| Self                 | 13              | 207     | 73            | 142       | 46         | 56   |
| Vogue                | 13              | 1       | 2             | 1         | 0          | 1    |
| Woman's Day          | 16              | 14      | 61            | 1         | 14         | 3    |
| TOTAL                | 160             | 338     | 245           | 243       | 218        | 168  |

<sup>\*</sup>Fitness articles included anything dealing with exercise and its health benefits.

Mental Health articles included stress, depression, and mental illness.

Nutrition articles included foods for health and supplements.

Gynecology articles included contraceptives, STDs, and sexual health.

Diet articles included weight-loss information.

TABLE 3. Number of Cigarette Ads, Health-Related Articles, and Smoking-related Messages in 12 Women's Magazines, August 1999–August 2000

|                 |          |           | Anti-   | Long     | Short    | Anti-    | Anti-    | Anti-   | Pro-           |
|-----------------|----------|-----------|---------|----------|----------|----------|----------|---------|----------------|
|                 | Issues   | Cigarette | Tobacco | Health   | Health   | Smoking  | Smoking  | Smoking | Smoking        |
| Magazine        | Analyzed | Ads       | Ads     | Articles | Articles | Mentions | Articles | Message | Mentions       |
| Cosmopolitan    | 13       | 128       | 0       | 28       | 176      | 2        | 1        | 3       | 0              |
| Elle            | 12       | 55        | 0       | 29       | 53       | 4        | 1        | 5       | 5 (1 picture)  |
| Family Circle   | 17       | 22        | 1       | 83       | 123      | 8        | 2        | 10      | 1              |
| Glamour         | 13       | 115       | 0       | 46       | 107      | 3        | 0        | 3       | 1              |
| Harper's Bazaar | 13       | 42        | 0       | 18       | 38       | 0        | 1        | 1       | 6 (4 pictures) |
| Ladies' Home    | 13       | 43        | 1       | 73       | 105      | 1        | 1        | 2       | 0              |
| Journal         |          |           |         |          |          |          |          |         |                |
| Mademoiselle    | 11       | 92        | 4       | 30       | 58       | 1        | 1        | 2       | 0              |
| McCall's        | 13       | 48        | 0       | 62       | 61       | 5        | 2        | 7       | 0              |
| Redbook         | 13       | 39        | 1       | 74       | 183      | 3        | 1        | 4       | 0              |
| Self            | 13       | 12        | 0       | 147      | 642      | 13       | 13       | 26      | 0              |
| Vogue           | 13       | 85        | 0       | 34       | 24       | 3        | 0        | 3       | 13 (pictures)  |
| Woman's Day     | 16       | 39        | 0       | 79       | 141      | 8        | 1        | 9       | 0              |
| TOTAL           | 160      | 720       | 7       | 703      | 1711     | 51       | 24       | 75      | 26             |

TABLE 4. Average Number of Cigarette Advertisements in Monthly Issues of 12 Women's Magazines. August 1999–August 2000

| Magazine        | 8/99 | 9/99 | 10/99 | 11/99 | 12/99 | 1/00 | 2/00 | 3/00 | 4/00 | 5/00 | 6/00 | 7/00 | 8/00 |
|-----------------|------|------|-------|-------|-------|------|------|------|------|------|------|------|------|
| Cosmopolitan    | 9    | 10   | 8     | 7     | 17    | 8    | 22   | 12   | 6    | 7    | 5    | 12   | 5    |
| Elle            | 5    | 5    |       | 3     | 8     | 4    | 7    | 3    | 5    | 3    | 5    | 4    | 3    |
| Family Circle   | 4    | 2    | 3     | 2     | 2     | 1    | 0    | 1    | 1    | 1    | 1    | 0    | 1    |
| Glamour         | 8    | 8    | 7     | 8     | 17    | 6    | 5    | 11   | 7    | 8    | 11   | 11   | 8    |
| Harper's Bazaar | 5    | 5    | 1     | 3     | 9     | 3    | 3    | 2    | 3    | 2    | 3    | 3    | 0    |
| Ladies' Home J. | 5    | 2    | 3     | 3     | 8     | 4    | 3    | 3    | 0    | 4    | 3    | 3    | 2    |
| Mademoiselle    | 9    | 8    | 11    | 7     | 11    |      | 5    | 9    | 3    |      | 7    | 13   | 9    |
| McCall's        | 5    | 3    | 3     | 4     | 11    | 3    | 3    | 3    | 1    | 2    | 4    | 3    | 3    |
| Redbook         | 3    | 3    | 3     | 3     | 10    | 3    | 2    | 2    | 2    | 3    | 1    | 2    | 2    |
| Self            | 1    | 1    | 0     | 0     | 0     | 2    | 2    | 2    | 0    | 2    | 0    | 2    | 0    |
| Vogue           | 7    | 9    | 5     | 9     | 13    | 5    | 4    | 4    | 3    | 7    | 11   | 3    | 5    |
| Woman's Day     | 5    | 4    | 1     | 1     | 2     |      | 2    | 3    | 3    | 3    | 2    | 4    | 4    |
| AVERAGE         | 6    | 5    | 4     | 4     | 9     | 4    | 5    | 5    | 3    | 4    | 4    | 5    | 4    |

TABLE 5. Ratios of Breast Cancer Articles to Anti-Smoking Articles in 12 Women's Magazines, August 1999–August 2000

| Magazine             | Issues Analyzed | Breast Cancer Articles | Anti-Smoking Articles | Ratio |
|----------------------|-----------------|------------------------|-----------------------|-------|
| Cosmopolitan         | 13              | 3                      | 1                     | 3:1   |
| Elle                 | 12              | 0                      | 1                     | 0:1   |
| Family Circle        | 17              | 9                      | 2                     | 9:2   |
| Glamour              | 13              | 2                      | 0                     | 2:0   |
| Harper's Bazaar      | 13              | 4                      | 1                     | 4:1   |
| Ladies' Home Journal | 13              | 4                      | 1                     | 4:1   |
| Mademoiselle         | 11              | 0                      | 1                     | 0:1   |
| McCall's             | 13              | 4                      | 2                     | 2:1   |
| Redbook              | 13              | 8                      | 1                     | 8:1   |
| Self                 | 13              | 15                     | 13                    | 1.2:1 |
| Vogue                | 13              | 1                      | 0                     | 1:0   |
| Woman's Day          | 16              | 3                      | 1                     | 3:1   |
| TOTAL                | 160             | 53                     | 24                    | 2.2:1 |

Table 6: Total Antismoking Messages (Articles + Mentions), May-September 1997 and May-September 1998

| Magazine             | Total Antismoking Messages, May–<br>September 1997 | Total Antismoking Messages,<br>May–September 1998 |
|----------------------|--|---|
| Cosmopolitan         | 1  | 1   |
| Elle                 | 1  | 0   |
| Family Circle        | 1  | 3   |
| Glamour              | 6  | 0   |
| Harper's Bazaar      | 1  | 1   |
| Ladies' Home Journal | 3  | 1   |
| Mademoiselle         | 2  | 1   |
| McCall's             | 1  | 3   |
| New Woman            | 4  | 0   |
| Redbook              | 1  | 1   |
| Self                 | 7  | 5   |
| Vogue                | 1  | 0   |
| Woman's Day          | 8  | 1   |
| Total                | 37   | 17  |

Table 7: Total Cigarette Ads, May-September 1997 and May-September 1998

| Magazine             | Total Cigarette Ads,<br>May–September<br>1997 | Magazine             | Total Cigarette Ads,<br>May-September<br>1998 |
|----------------------|---|----------------------|---|
| Cosmopolitan         | 32  | Vogue                | 35  |
| Mademoiselle         | 31  | Glamour              | 32  |
| Glamour              | 23  | Mademoiselle         | 31  |
| Vogue                | 21  | Cosmopolitan         | 29  |
| New Woman            | 19  | Elle                 | 14  |
| Redbook              | 18  | McCall's             | 10  |
| McCall's             | 18  | Redbook              | 9   |
| Elle                 | 14  | Ladies' Home Journal | 8   |
| Woman's Day          | 12  | Woman's Day          | 8   |
| Ladies' Home Journal | 9   | Self                 | 4   |
| Family Circle        | 8   | Harper's Bazaar      | 4   |
| Self                 | 7   | Family Circle        | 1   |

| Harper's Bazaar | 2   | New Woman | 0   |
|-----------------|-----|-----------|-----|
| Total           | 214 | Total     | 185 |

Table 8: Ratios of Cigarette Ads to Antismoking Messages, May–September 1997 and May–Septembver 1998

| Magazine (Ranked by<br>Number of Cigarette<br>Ads) | Cigarette Ads/Antismoking<br>Messages, May–September<br>1997 | Magazine (Ranked by<br>Number of Cigarette Ads) | Cigarette Ads/Antismoking<br>Messages, May–September<br>1998 |
|--|--|---|--|
| Cosmopolitan                                       | 32/1   | Vogue   | 35/0   |
| Mademoiselle                                       | 31/2   | Glamour   | 32/0   |
| Glamour  | 23/6   | Mademoiselle                                    | 31/1   |
| Vogue  | 21/1   | Cosmopolitan                                    | 29/1   |
| New Woman  | 19/4   | Elle  | 14/0   |
| Redbook  | 18/1   | McCall's  | 10/3   |
| McCall's   | 18/1   | Redbook   | 9/1  |
| Elle   | 14/1   | Ladies' Home Journal                            | 8/1  |
| Woman's Day  | 12/8   | Woman's Day                                     | 8/1  |
| Ladies' Home<br>Journal                            | 9/3  | Self  | 4/5  |
| Family Circle                                      | 8/1  | Harper's Bazaar                                 | 4/1  |
| Self   | 7/7  | Family Circle                                   | 1/3  |
| Harper's Bazaar                                    | 2/1  | New Woman                                       | 0/0  |
| Total Ratio  | 214/37 = 6:1   | Total Ratio                                     | 185/17 = 11:1  |