

What Consumer Surveys Show About Direct-to-Consumer Advertising of Prescription Drugs

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Executive Summary

In August 1997, the Food and Drug Administration (FDA) reinterpreted its advertising regulations to permit brand advertising of prescription drugs on radio and television. Expenditures on direct-to-consumer (DTC) advertising have since increased from \$579 million in 1996 to \$2.6 billion in 2000. After a 2-year review, the FDA reaffirmed its policy in August 1999, while also announcing that it intended to conduct another review within 2 years.

The years since August 1997 have seen the appearance of a substantial body of survey research on the effects of DTC advertising. This research includes a 1999 survey by the FDA itself (which focused on respondents who had seen a physician within the past 3 months) and a series of surveys by *Prevention Magazine*, plus surveys partly devoted to DTC advertising from AARP (formerly the American Association of Retired Persons); the National Consumers League; and a joint enterprise of the Kaiser Family Foundation, the Public Broadcasting System NewsHour with Jim Lehrer, and the Harvard School of Public Health. This report is the product of a review of the leading published consumer surveys on DTC advertising; it focuses on the 1999 FDA survey and the 1999 and 2000 *Prevention* surveys, with additional results from the other surveys.

Advertising and Information

The leading surveys provide strong direct and indirect evidence that DTC advertising provides valuable information to consumers. Recall levels were very high: 72% in the FDA survey, and between 80% and 91% in the 2000 *Prevention* survey. Roughly half of those recalling ads were prompted to seek additional information, most often from physicians, including their own doctor. Twenty-seven percent in the FDA sample (and 14% in the 1999 *Prevention* survey) asked doctors about a condition they had not discussed before. These conditions ranged from diabetes and heart disease to arthritis, depression, and other undertreated conditions.

The results on risk information in advertising were striking. The bulk of respondents (on the order of 80% in the FDA survey) noticed information on benefits, risks, and warnings. Advertising did not tend to suppress risk information. In the FDA survey, for example, the recall rate for risk information (82%) was nearly as high as that for benefits (87%). Seventy percent *disagreed* with the statement that DTC ads "make it seem like a doctor is not needed to decide whether a drug is right for me."

Respondents tended to pay considerable attention to the detailed risk information in print ads. In the FDA survey, 40% read half or more of the information, and 85% said they would read all or almost all of the information if they were especially interested in the drug. The 1999 *Prevention* results were similar, as were those from the AARP survey.

Patient-Physician Discussions

Responses about patient-physician discussions triggered by advertising were overwhelmingly favorable. Large majorities in the FDA survey, for example, said their doctor welcomed their questions (81%), reacted as if those questions were an ordinary part of a visit (71%), and proceeded to discuss the drugs (79%). Only 4% said their physician "seemed angry or upset." Eighty-five percent of respondents were satisfied or very satisfied with their discussions with physicians about advertised drugs, while 62% agreed or strongly agreed that DTC ads helped them have better discussions with their physicians. In the 1999 *Prevention* survey, too, overwhelming majorities of respondents, typically well over 90%, reported favorable assessments of their talks with their doctors, and encountered no resentment or other unfavorable reaction from physicians. In a small proportion of the discussions motivated by advertising (26% in the 2000 *Prevention* survey), patients said that at some point they had requested prescriptions for specific brands, which they usually received.

Overall Attitudes Toward DTC Advertising

Overall attitudes toward DTC ads were very positive. In the FDA survey, those who liked seeing DTC ads outnumbered those who did not by nearly two to one. Eighty-six percent said the ads "help make me aware of new drugs," and 62% said DTC ads help them have better discussions with their physician about their health (It was 75% for those who had asked their physicians about a new condition as a result of seeing ads.). In the 1999 *Prevention* survey, large majorities thought that ads "allow people to be more involved with their health care" (76%), "help people make their own decisions about prescription medicines" (63%), and "educate people about the risks and benefits of prescription medicines" (72%).

Positive Spillovers From DTC Advertising

DTC ads have conferred substantial consumer benefits that have little to do with the specific brands being advertised. One spillover benefit was to emphasize the fact that virtually all prescription drugs are risky and have side effects. Another was the dissemination of information about treatments for conditions that consumers had not discussed with their physicians. While the discussions prompted by advertising often lead to a prescription for the advertised brand, that is by no means the rule. For many of the most-advertised conditions—obesity, diabetes, and elevated cholesterol, for example—physicians believe that behavioral and lifestyle changes are the first line of treatment. Thus, an additional spillover benefit from DTC advertising is to call consumers' attention to nondrug approaches to improved health. Finally, DTC ads probably improve patient compliance with drug therapies (helping to solve a large and long-standing problem). In response to a 2000 *Prevention* survey question—"Do ads make you more or less likely to take your medicine regularly?"—"more likely" outscored "less likely" by 22% to 3% (31% to 2% in 1999). In addition, in the 1999 survey, 33% said that prescription drug ads reminded them to have their prescriptions refilled. Both the 2000 and the 1999 *Prevention* surveys also found that advertising made patients feel better about the risks and the benefits of their medicines.

Conclusions

When the FDA reaffirmed its policy of permitting DTC advertising in August 1999, it stated, "FDA is unaware of any data supporting the assertion that the public health or animal health is being harmed, or is likely to be harmed, by the Agency's actions in facilitating consumer-directed broadcast advertising." Survey research, including the FDA's own, supports that view.

Survey research has largely ruled out the possibility that DTC advertising is causing systematic consumer deception, such as inappropriately downplaying risks and side effects. Rather, DTC advertising provides valuable information, and not just on obvious topics such as potential treatments and dosages, but also on associated risks. DTC advertising also motivates consumers to seek additional information from many sources, especially from physicians and pharmacists, and most importantly, on serious conditions that patients had not previously discussed with their doctors.

Consumers like DTC advertising. They think it helps them in making decisions and in talking to their doctors. They also encounter cooperation, and almost never resistance or resentment, when they talk to their doctors about what they have learned from advertising.

Possibly most important of all, DTC advertising yields significant spillover benefits that go to consumers rather than to advertisers. Such benefits range from heightened awareness of the inherently risky nature of prescription drugs to better compliance with drug therapies and even motivation to pursue lifestyle and behavioral changes that may obviate the need to use pharmaceuticals.

Overall, these survey results are strongly supportive of a situation in which consumers are motivated by advertising first to seek additional information—especially from physicians, particularly for previously untreated or inadequately treated conditions—and then to work with their doctor to reach a decision about what if any prescription drug to use.

Introduction and Background

The FDA began regulating prescription drug advertising in 1962. For some 2 decades afterward, prescription drug advertising was directed only at physicians and health care organizations. In the early 1980s, a few pharmaceutical manufacturers experimented with prescription drug ads that were directed at consumers.¹ The FDA quickly announced that such advertising was not inherently in violation of FDA law. In September 1982, however, the agency declared a "moratorium" on DTC advertising, to which the industry acceded.

The FDA lifted its DTC ad moratorium in 1985. In doing so, however, the FDA emphasized that advertisements directed at consumers must meet the same standards as those aimed at professionals. This meant that print ads would have to include a detailed "brief summary" of risk and other information, while broadcast ads would have to include a shorter but nonetheless lengthy "major statement" of risks. In addition, broadcast ads would have to make "adequate provision" to enable viewers to obtain full FDA-approved prescribing information. The broadcast requirements could not feasibly be met in either radio or TV ads. The practical effect was that broadcast ads either had to omit the name of the brand (leaving only the fact that a treatment existed for a condition) or had to omit mention of the condition to be treated (leaving a brand with no hint of its use). Despite these obstacles, DTC advertising gradually increased from very modest levels (\$12 million in 1989) to \$55 million in 1991, \$164 million in 1993, \$340 million in 1995, and \$579 million in 1996.¹

In the meantime, consumer interest in participating in their own health care decisions grew apace, even as the growth of managed care tended to reduce traditional exchanges between physicians and patients about drug therapy and its alternatives. Drug therapy assumed far greater importance in medical care and in health care expenditures, a reflection of the accelerated pace of pharmaceutical research and development. The medical community issued a series of statements that many serious medical conditions, including obesity, elevated cholesterol, depression, and diabetes, remained undertreated despite the availability of effective drug therapy.²

In August 1997, the FDA issued a preliminary Guidance to industry that amounted to a major reinterpretation of FDA law.³ The Guidance reiterated traditional requirements, stating that in addition to being nondeceptive, prescription drug advertising must meet a rigorous set of informational requirements to:

- Present a fair balance between information about effectiveness and information about risk.
- Include a thorough, major statement conveying all of the product's most important risk information in consumer-friendly language.
- Communicate all information relevant to the product's indication (including limitations to use) in consumer-friendly language.

But the new interpretation made it clear that radio and TV ads could satisfy FDA standards by including something far simpler than the "major statement" previously required. Radio and TV advertising could now achieve "adequate balance" by including a very concise summary of risks and related information (often via voice-over), while also specifying sources for more complete information: an 800 number; an Internet website address; either concurrent print ads or information on specific, publicly accessible locations such as pharmacies; and a statement that information is available from all physicians and pharmacists. The FDA also stated that it

would review its policy after 2 years, and that in the meantime it encouraged interested parties to provide additional information and research on the effects of DTC ads.

DTC advertising quickly accelerated in the wake of the August 1997 announcement, fueled mainly by increases in TV advertising. Criticism of DTC ads also surged, however, especially criticism by the physician community.⁴ On the other hand, the Federal Trade Commission (FTC) argued that DTC advertising could be valuable for consumers.⁵ In 2000, the American Medical Association issued a statement that concluded, "If used appropriately, direct-to-consumer (DTC) advertising has the potential to increase patient awareness about treatment options and enhance patient-physician communication. Advertising directly to the public educates patients, enabling them to better understand and participate in medical care."⁶ The statement emphasized that this observation applied only to advertisements that "do not distort information and mislead patients." Also in the wake of the August 1997 policy change, much of the research reviewed below was conducted.

In August 1999, the FDA issued a final Guidance on DTC advertising.⁷ The exact requirements remained essentially unchanged from the August 1997 version. The FDA explicitly stated that it had not seen compelling evidence that DTC advertising, on the whole, had tended to cause any of the harms of which it had been accused. The FDA reiterated its 1997 plan, however, to conduct an evaluation of the effects of DTC advertising during the 2 years following issuance of this final Guidance.⁸ In March 2001, the FDA announced that it was preparing to conduct another consumer survey plus a survey of physicians about DTC advertising, and it invited comments on survey design and on the effects of DTC advertising.⁹

In taking this initiative, the FDA was cognizant of the ongoing trend toward greater patient participation in their own health care. In discussing the FDA's policy of permitting DTC ads, the FDA official in charge of DTC ad regulation noted in January 2000 that "It's consistent with the whole trend toward consumer empowerment. We believe there is a certain public health benefit associated with letting people know what's available."¹⁰ The increasingly rapid movement of drugs from prescription to over-the-counter (OTC) status—more than 600 in the past 2 decades, including in recent years such potent drugs as nicotine patches, the anti-inflammatory drug Naproxen, and treatments for vaginal yeast infections—is another conscious response to that trend.

DTC advertising in the past year has continued to accelerate, reaching a total of approximately \$1.8 billion in 1999 and \$2.6 billion in 2000.¹¹ Criticism from physicians, health care providers, managed care, and insurance firms has continued relatively unabated, however. Among the accusations are that DTC advertising deceives consumers, raises drug prices, induces inappropriate prescribing, unnecessarily occupies the time and attention of physicians and pharmacists, and raises health care costs. A late 1997 poll of physicians found a strong majority desiring that DTC advertising for prescription drugs be reduced or eliminated.^{12,13} In addition, DTC ads have caused tension between U.S. regulatory authorities and the governments of Canada and European Union nations, none of which permits DTC ads and all of which view such ads with distaste.¹⁴ On the other hand, a 1998 editorial in *Lancet*, a leading British medical journal, suggested that the European Union and other nations should rethink their opposition to DTC advertising.¹⁵

Very little attention, however, has been given to a growing body of consumer research on the actual effects of DTC advertising. Valuable consumer surveys have come from the FDA, *Prevention Magazine*, and other sources. These surveys illuminate several essential topics. One is the effect of advertising on consumer information. Here lay the FDA's core concerns about deception, particularly regarding risks vs benefits, along with such key matters as the role of advertising in consumer search for information and in the behavior of patients who are

already taking prescription drugs. Other topics covered by the surveys include the effect of DTC ads on discussions between patients and physicians and on prescribing by physicians, as well as overall consumer attitudes toward DTC advertising. Finally, the surveys shed light on the question of spillovers from DTC ads—that is, how advertisements affect information and behavior beyond matters directly related to the advertised brand itself.

Leading Consumer Surveys on DTC Advertising

Consumer surveys have become a highly developed tool for marketing and opinion research, while also assuming an important role in advertising regulation by the FDA and FTC. A number of firms and organizations have undertaken consumer surveys on DTC advertising and its effects. All the surveys discussed here were telephone surveys that employed random digit dialing to obtain a reasonably representative sample of the population.

Two efforts stand out. The FDA's survey, "Attitudes and Behaviors Associated with Direct-to-Consumer (DTC) Promotion of Prescription Drugs," was conducted in spring 1999 by the market research firm Market Facts. Although the FDA has never formally released this survey, it has made the survey materials (including data) available at its website, and FDA staff have discussed the results at conferences and other public gatherings.¹⁶

The FDA survey was quite long (58 questions, some with subparts). Interviewers explained that the survey was being conducted to assist the FDA, which may have enhanced respondent cooperation. For the 1,081 completed interviews, 59% of respondents were between ages 25 and 54, and 73% fell between ages 25 and 64. Because the FDA was especially interested in patient-physician interactions, the interviewers oversampled persons who had visited a physician within 3 months, ensuring that such persons comprised 80% of the completed interviews. The FDA has emphasized the results for this group, and this report does the same: Unless otherwise stated, all results are for those who had seen a physician within 3 months. Clearly, the FDA survey is especially valuable for its ability to assess such questions as whether DTC advertising causes difficulties in patient-doctor relationships.

In 1997, *Prevention Magazine* conducted a consumer survey that included a number of questions about DTC ads. In 1998 and 1999, the magazine conducted surveys devoted entirely to DTC advertising. The 2000 survey, however, involved consumers from five European nations as well as the United States, and included other topics in addition to DTC advertising. As a result, the DTC section was substantially shorter than in the 1998 and 1999 surveys. The 2000 survey, with a sample size of 1,222, was conducted from June 12 to June 28 by Princeton Survey Research Associates. Because the 1999 survey included many questions not asked in 2000, this report cites results from both years. The fact that the 2000 results tended to be highly consistent with the 1999 results indicates that the 1999 data continue to be of great interest.^{17,18}

Several other efforts also provide valuable information. In December 1998, AARP commissioned a consumer survey of 1,310 persons.¹⁹ Conducted by ICR/International Communications Research, this survey oversampled respondents over the age of 50, with the results weighted to represent the overall U.S. population. The survey dealt only with print advertising. Much simpler than the FDA and *Prevention* surveys, the AARP survey included only 14 questions (a few of them with subparts), compared to more than 50 for the FDA and *Prevention* surveys, respectively. One consequence of this economy was that some topics were addressed rather abruptly without questions to set the stage.

In August 1998, the National Consumers League commissioned Opinion Research Corporation to conduct a telephone survey of 1,013 adult consumers on the general topic of health information.²⁰ The survey included 8 very simple questions on DTC advertising (all DTC advertising, not just print ads).

Finally, in October 2000, the Kaiser Family Foundation released the results of a consumer survey on prescription drugs, performed in conjunction with the PBS NewsHour with Jim Lehrer, and the Harvard School of Public Health. The survey was conducted between July 26 and September 5, 2000, and fielded by ICR/International Communications Research. With a sample size of 1,701, the survey included 6 questions on DTC ads,^{21,22} including a few that replicated some of the questions in the 1999 *Prevention* survey.

DTC Advertising and Consumer Information

Awareness of DTC Advertising

All the surveys found very high levels of awareness of DTC ads. Seventy-two percent of the FDA respondents recalled seeing a prescription drug ad in the past 3 months (mostly on television), and most respondents recalled seeing several ads [questions 5, 6, and 8]. The level of unaided recall for DTC ads was even higher in the 2000 *Prevention* survey: Eighty percent said they had seen or heard ads for medicines that required prescriptions [question 26]. This represents a leveling off after an upward trend from 63% in the 1997 survey, 70% in 1998, and 81% in 1999. Awareness in the 1999 survey was consistent across age groups except for those over age 73, for whom it was only 58%. A series of follow-up questions revealed substantially higher levels of aided recall. In the 2000 survey, questions about ads for individual brands found 91% awareness of at least some ads [questions 27-28]. Television ads achieved substantially higher levels than print ads in the 1999 survey (89% vs 59%), while radio and newspapers were behind at about 25% [question 7]. (Follow-up questions on DTC ads were directed at all *Prevention* respondents who recalled any ads).

The other surveys, all asking for unaided recall of DTC ads, also found very high awareness levels. Ninety-one percent of the PBS NewsHour-Kaiser-Harvard survey respondents recalled seeing DTC ads. The AARP survey, restricted to print ads, found a 65% recall level, while the National Consumers League, dealing with both print and broadcast ads, found 80% awareness.

Information-Seeking Triggered by DTC Advertising

Half of the FDA respondents who recalled seeing ads said that DTC ads had caused them to seek additional information [question 13]. Those respondents sought information from a variety of sources, including books, friends, the Internet, and the news media. The most common sources, however, were physicians (81% talked to their own doctor and 22% talked to another doctor), followed by pharmacists (52%) [question 14, in which respondents could indicate more than one source]. The results are summarized in Table 1.

**Table 1. Where Respondents Sought Further Information
When Prompted by Ads**

Question 14: "Did you look for further information?" (May say "Yes" to more than one.)	
By talking to your doctor	81%
By talking to a pharmacist	52%
In a reference book	36%
By talking to a nurse	33%
By asking a friend, relative, or neighbor	30%
By making an appointment with a doctor	27%
By talking to a doctor other than your own doctor	22%
On the Internet	18%
By calling the 1-800 number in the ad	18%
In a magazine	14%
In a newspaper	7%
By doing something else	5%
Don't know/refused	1%

Adapted from: Food and Drug Administration, Center for Drug Evaluation and Research, Division of Drug Marketing, Advertising, and Communications. Attitudes and behaviors associated with direct-to-consumer (DTC) promotion of prescription drugs: main survey results. Available at: <http://www.fda.gov/cder/ddmac/dtcindex.htm>. Accessed May 1, 2001.

A striking finding in the FDA survey was that 27% of those recalling ads said DTC ads had at some time caused them to talk to their doctor about a specific medical condition or illness for the first time [question 15]. The proportion was only 14% in the 1999 Prevention survey, presumably because unlike the FDA, Prevention did not oversample persons who had recently seen a doctor. The FDA survey also asked whether respondents were likely to ask their doctor about a drug that was advertised to treat a condition that was "bothering you." A remarkable 80% said they were somewhat or very likely to ask [question 32].

DTC Advertising and Risk-Benefit Information

The FDA was obviously interested in learning whether DTC ads tend to emphasize the benefits of prescription drugs while downplaying the risks. A series of detailed questions reveal a remarkably balanced assessment. Asked what kinds of information they saw in ads, 87% of respondents said, "the benefits of the drug," while 82% said, "risks or side effects," and 81%, "who should not take the drug" [question 7]. Respondents were also asked what kinds of information the ads did not provide enough of: Fifty-nine percent said ads do not give enough

information about risks and related matters, but 49% said ads do not give enough information on the *benefits* of drugs [questions 36, 38].

The survey also addressed readership of the fine-print risk information in print ads. Forty percent said they read half or more of that information, and another 26% said they read a little of it. Moreover, a remarkable 85% said they would read all or almost all of the information if they were especially interested in the drug [questions 11-12]; see Table 2.

Table 2. Readership of Print Risk Information

	Question 11: "How much, if any, of the small-print information would you say you usually read?"	Question 12: "If you were especially interested in the advertised drug for some reason, how much, if any, of the small print information would you read?"
All	15%	73%
Almost all	11%	12%
About half	14%	8%
Only a little	26%	3%
None	30%	4%
Did not notice fine print	3%	
Have never seen newspaper/magazine ads	1%	
Don't know/refused	1%	0.2%
Sample size	688	682

Adapted from: Food and Drug Administration, Center for Drug Evaluation and Research, Division of Drug Marketing, Advertising, and Communications. Attitudes and behaviors associated with direct-to-consumer (DTC) promotion of prescription drugs: main survey results. Available at: <http://www.fda.gov/cder/ddmac/dtcindex.htm>. Accessed May 1, 2001.

The FDA survey asked several broad questions about the relationship between DTC advertising and the nature of prescription drugs. One question asked whether ads make drugs seem better than they really are, and 58% agreed that they did [question 37]. In a sense, however, this is a rather low level of agreement. For decades, consumer surveys on advertising have found that roughly 70% of consumers expect advertisements to be strongly biased in favor of the product. Consumers are routinely skeptical of advertising.²³ The FDA survey revealed that the nearly universal assumption that advertising exaggerates benefits applies to DTC ads, although with somewhat less force.

We must remember that these ads are for products that can be obtained only after getting a physician's prescription. In one question, 70% agreed that ads provided sufficient information for them to talk to their doctor about the drug [question 40, whose responses paralleled those to similar questions in the 1999 Prevention survey]. When asked whether DTC ads "make it seem like a doctor is not needed to decide whether a drug is right for me," 70% disagreed [question 39]. Finally, in responding to a question that is particularly relevant for debates over DTC

advertising, just 29% agreed that ads are allowed only for the “safest” prescription drugs [question 43].

The *Prevention* surveys also addressed consumer perceptions of risk information in advertising. The most comprehensive question was this one, asked in 1999:

Does the information in these ads about the possible risks of taking the prescription medicine make you MORE confident or LESS confident about the overall safety of the medicine—or doesn't it make a difference in the way you feel about the overall safety of the medicine? [question 9]

Thirty-six percent said the ads made them “less confident,” as opposed to 24% who said “more confident” and 34%, who found “no difference.” This is a striking result, suggesting that in the course of providing a mix of positive and negative aspects of drugs, DTC ads raise awareness of risk even as they raise awareness of medical conditions and treatments. It is consistent with findings from consumer research conducted in the mid-1980s by the FDA, research that paved the way to the lifting of the FDA's moratorium on DTC advertising.²⁴⁻²⁶

Additional questions addressed more specific aspects of risk and benefit communication. Respondents in the 1999 survey thought that ads were moderately better at providing information about benefits (56% said excellent or good, for TV ads), than they were at providing information about annoying side effects (43%) or serious warnings (46%) [questions 10, 16]. Significantly, these numbers were almost constant regardless of whether respondents were asked about TV or print ads (an example of how brief risk information can be as salient as detailed information, something that was also found in the FDA's research²⁴⁻²⁶). Large majorities in the 2000 survey thought that the information in ads on both risks and benefits was sufficient to prepare patients to ask a physician about risks and benefits (57% and 62% majorities for TV ads, respectively) [questions 30-31]. In the 1999 survey, virtually all respondents (90%) remembered that TV ads included advice to see a physician, and 70% recalled that ads contained an 800 number for additional information [question 13].

Of those recalling print ads, 54% recalled that the ads contained technical information (such as the “brief summary” of side effects required by FDA regulations). Thirty-seven percent recalled either skimming the summary, looking for key information, or reading most of the summary [question 21]. Several questions explored this topic further, revealing that readership of the fine print was higher for those taking a prescription drug, and highest for those taking the advertised drug. Only 35% thought the technical information was “very clear,” however, documenting a long-standing situation of which the FDA is well aware.¹ Finally, 86% of those who at least skimmed the fine print said it provided sufficient information for them to ask their doctors about risks associated with the drug [question 23]. Of special interest is the fact that those who gave higher ratings to the adequacy of risk information in ads were more likely to have discussed an advertised drug with their doctor, and the same relationship held for those who had brought up a new medical condition with the physician (based on cross-tabulations).

One other aspect of the 2000 *Prevention* survey is noteworthy here. That survey asked how often physicians provided various kinds of risk information about the drugs they prescribed. This topic was not addressed in the FDA survey. The *Prevention* survey found that patients who had spoken with their doctor about an advertised drug were substantially more likely to receive information about side effects (64% vs 54% for serious side effects; 56% vs 47% for annoying, nonserious side effects).¹⁸

In the AARP survey, responses on risk information were mixed but were largely consistent with the positive findings of the FDA and *Prevention* surveys. Forty-five percent thought DTC ads did not contain enough risk information. A later question, however, revealed that 32% of respondents did not notice the fine-print risk information in ads, and of those who did, 36% rarely or never read it. Eighty percent of those who did read the fine-print information, however, found it useful. Twenty-one percent (of all respondents, not just those who had read the risk information) agreed that ads portrayed drugs as being less risky than they really were, but 51% said ads made risks seem about the same as they really were, and 17% thought that ads made risks seem worse than they really were. Moreover, 75% agreed that "If I needed the drug, the information provided in the ad would help me discuss my treatment options with my doctor." This is very comparable to responses to similar questions in the FDA and *Prevention* surveys.

The AARP also asked a series of questions about receiving risk-benefit information from physicians. Fifty-four percent said their doctor "usually" talks to them about the risks and potential side effects of drugs being prescribed, while 18% said doctors "sometimes" did this, 18% "rarely," and 9% "never." Physicians talked less frequently about alternative prescription drugs (43% usually and 27% rarely or never) or about nonprescription drugs (35% usually, 35% rarely or never).

The other two surveys addressed risk information briefly. In the National Consumers League survey, 76% said they read some or almost all of the small-print information in print ads [question 6]. Roughly half of respondents to the PBS NewsHour-Kaiser-Harvard survey thought ads were good or excellent at conveying product benefits (58%), side effects (45%), and the condition to be treated (52%).

DTC Advertising and Information—An Assessment

These consumer surveys yielded a number of useful findings on the relationship between DTC advertising and consumer knowledge about prescription drugs. We should immediately note that the surveys contained many questions that could easily have revealed a strong tendency for DTC advertising to downplay the risks of prescription drugs. The results, however, strongly indicate the absence of a bias against risk information. In the FDA survey, for example, there was little difference in the prominence of benefits vs risks or warnings, and 70% disagreed with the statement that DTC ads "make it seem like a doctor is not needed to decide whether a drug is right for me." In a response to a 1999 *Prevention* survey question about whether advertising made respondents feel more or less confident about drug safety, 70% said "no difference" or "less confident" [question 9].

The surveys also supply direct and indirect evidence that DTC advertising provides valuable information to consumers. The bulk of respondents (on the order of 80% in the FDA survey) noticed information on benefits, risks, and warnings. Substantial proportions read some or all of the fine-print risk information in print ads, and readership was much higher for those who had a special interest in the advertised drug. The high levels of awareness about and attention to DTC ads also strongly suggest that consumers gained information about a variety of medical conditions, potential therapies, alternative dosages, and other important topics, as an inevitable by-product of competitive advertising. The potential value of this kind of information from advertising is clear from the AARP survey results, in which 27% of respondents said their doctors seldom or never discussed pharmaceutical risks, and another 18% said physicians did so only sometimes, while 27% said their doctors rarely or never discussed alternative drug therapies.

The surveys also suggest that DTC ads motivated consumers to seek additional information from numerous sources, including, of course, their own doctors. Of special importance is the finding that DTC ads opened up new topics for consumers to investigate. Given the overwhelming numbers who are aware of DTC ads, it is notable that between 14% and 27% of them (in the 1999 *Prevention* and FDA surveys, respectively) said DTC ads caused them to ask their doctors about a medical condition they had not previously discussed. These results are consistent with the fact that many of the most heavily advertised drugs treat conditions that are widely believed by the medical community to be undertreated. Such conditions include elevated cholesterol, depression, obesity, diabetes, and hypertension.²

Patient-Physician Discussions

The surveys discussed here provide much useful information about discussions between patients and their physicians. One finding suggests that advertising has yet to play a major role in patients' plans for their appointments. The FDA survey asked whether respondents (all of them, not just those recalling ads) had seen or heard anything that made them want to ask a specific question in their last visit to a doctor. Only 21% said they had. Among reasons for asking a question, advertisements (46%) ranked equally with news media (45%) and somewhat higher than friends (28%) and other doctors (23%) [question 19]. (The numbers for advertising and news media take into account the overlap that occurred because respondents could choose more than one category for advertising and for news media.)

A number of questions (again, asked of all respondents, not just those recalling ads) focused on what transpired in the doctor's office. Two thirds of respondents were already on prescription medications. Fifty-four percent of them expected no change in prescriptions, while most of the rest expected either to switch to another drug or to get a new drug for a different condition [question 21]. When respondents were asked in several ways for the reasons why they thought they might receive a new prescription, ads generally ranked well below past prescription history, information from friends or relatives, and previous discussion with physicians. Responses citing broadcast ads ranged from 4% to 12%, and for print ads, from 3% to 6% (respondents could give multiple reasons) [questions 23a-c].

A substantial proportion were prepared to ask about a prescription drug. Of those who did not expect simply to continue their medication, about one third said they asked their doctor whether there was a prescription drug for their condition [question 24]. Thirteen percent asked about a specific brand (amounting to about 9% of the entire group who had seen physicians in the past 3 months). Eight percent mentioned a specific ad, and 4% brought some kind of information with them (not necessarily an ad, however) [questions 25-26].

A crucial part of the FDA survey asked about physicians' reactions to their patients' questions. Respondents said that physicians tended to react favorably when patients mentioned ads or asked about specific brands, as can be seen in Table 3. Large majorities said their doctor welcomed their questions (81%), reacted as if those questions were an ordinary part of a visit (71%), and proceeded to discuss the drugs with the patient (79%). Only 4% said their physician "seemed angry or upset" [question 28]. Equally important, of those who had not asked such questions of their physicians, only 3% expected to encounter an adverse reaction if they were to ask such a question in the future [question 33]. Eighty-five percent of respondents were satisfied or very