

October 2002

# PRESCRIPTION DRUGS

## FDA Oversight of Direct-to-Consumer Advertising Has Limitations



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## Abbreviations

|       |   |
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| CDER  | Center for Drug Evaluation and Research                     |
| DDMAC | Division of Drug Marketing, Advertising, and Communications |
| DTC   | direct-to-consumer  |
| FDA   | Food and Drug Administration                                |
| FFDCA | Federal Food, Drug and Cosmetic Act                         |
| HHS   | Department of Health and Human Services                     |
| NIHCM | National Institute for Health Care Management Foundation    |
| OCC   | Office of the Chief Counsel                                 |
| PhRMA | Pharmaceutical Research and Manufacturers of America        |



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United States General Accounting Office  
Washington, DC 20548

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October 28, 2002

The Honorable Susan Collins  
The Honorable Barbara Mikulski  
The Honorable James Jeffords  
United States Senate

The Honorable Nick Rahall  
The Honorable Joseph M. Hoeffel  
House of Representatives

Prescription drug spending increased at an annual rate of about 18 percent from 1997 through 2001 and is the fastest growing component of health care spending in the United States. Among the many reasons cited for this increase are growth in the number of patients diagnosed with conditions that can be treated with pharmaceuticals and the development of innovative drugs for some conditions.<sup>1</sup> Spending on direct-to-consumer (DTC) advertising of prescription drugs has tripled in recent years. Pharmaceutical companies promote their products directly to consumers through advertisements in magazines, newspapers, and consumer brochures; on the Internet; and on radio and television. They also promote their products to physicians by sending sales representatives to their offices, providing free samples for distribution to patients, and advertising in professional journals.

The potential consequences of print and broadcast DTC advertising have prompted much debate. Supporters of DTC advertising maintain that it educates consumers about medical conditions and care options and that the increased use of prescription drugs that DTC advertising encourages has improved the public's health. Critics of DTC advertising contend that it is sometimes misleading, leads consumers to seek prescription drugs when other treatments may be more appropriate, and causes some patients to ask their physician to prescribe new drugs that are more expensive but may not be more effective than older drugs. Critics also argue that pharmaceutical companies spend too much money on drug promotion rather than on research and development initiatives.

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<sup>1</sup>Robert W. Dubois, Anita J. Chawla, Cheryl A. Neslusan, Mark W. Smith, and Sally Wade, "Explaining Drug Spending Trends: Does Perception Match Reality?" *Health Affairs*, vol. 19 (2000), 231-39.

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The Food and Drug Administration (FDA) regulates the promotion of prescription drugs, including the content of DTC advertisements, under the authority of the Federal Food, Drug and Cosmetic Act (FFDCA).<sup>2</sup> The act sets general standards for FDA's regulation of prescription drug advertising directed to consumers and physicians. Regulations implementing the act require that advertisements present accurate information and fairly represent both the benefits and the risks of the advertised drug.<sup>3</sup> The Division of Drug Marketing, Advertising, and Communications (DDMAC) within FDA's Center for Drug Evaluation and Research (CDER) is responsible for implementing the regulations governing DTC advertising. Under the regulations, pharmaceutical companies are required to submit all drug advertisements to FDA when they are first disseminated to the public (that is, broadcast, published, or otherwise distributed).<sup>4</sup> In 1997, FDA issued draft guidance to clarify and offer options on how these regulations applied to advertisements broadcast directly to consumers on radio and television.<sup>5</sup> Since that time, the number of broadcast advertisements for prescription drugs has increased greatly. At the same time, the number of regulatory letters sent by FDA to pharmaceutical companies requesting that the companies remove misleading advertisements from circulation has decreased, leading some observers to question FDA's ability to enforce its regulations. Others argue that this decrease has occurred because pharmaceutical companies are doing a better job of meeting FDA's requirements.

In light of these developments, you asked us to (1) compare spending by pharmaceutical companies on DTC advertising with spending on all promotional activities and on research and development, (2) evaluate the effect of DTC advertising on prescription drug spending and utilization, and (3) evaluate the extent and effectiveness of FDA's oversight of DTC advertising since FDA issued its 1997 draft guidance for broadcast advertisements.

To assess the trends in spending on DTC advertising, overall promotion, and research and development, we reviewed recent reports from the pharmaceutical industry and other organizations. To analyze the effect of

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<sup>2</sup>21 U.S.C. § 502(n).

<sup>3</sup>21 C.F.R. § 202.1(e).

<sup>4</sup>21 C.F.R. § 314.81(b)(3)(i).

<sup>5</sup>The guidance was finalized in 1999.

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DTC advertising on drug spending and utilization, we reviewed studies on pharmaceutical sales, examined surveys of consumer responses to DTC advertising, and reviewed studies on the impact of DTC advertising.<sup>6</sup> To evaluate the extent and effectiveness of FDA's oversight of DTC advertising, we reviewed federal regulations, and regulatory letters, and interviewed officials from several offices within FDA, including DDMAC. We also interviewed pharmaceutical industry representatives and other key stakeholders, including public interest groups and representatives of the advertising industry. We conducted our work from February 2002 through September 2002 in accordance with generally accepted government auditing standards. See appendix I for a detailed discussion of our scope and methodology.

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## Results in Brief

Pharmaceutical companies spend more on research and development initiatives than on all drug promotional activities, including DTC advertising. According to industry estimates, pharmaceutical companies spent \$30.3 billion on research and development and \$19.1 billion on all promotional activities, which includes \$2.7 billion on DTC advertising, in 2001. Pharmaceutical companies have increased spending on DTC advertising more rapidly than they have increased spending on research and development. Between 1997 and 2001, DTC advertising spending increased 145 percent, while research and development spending increased 59 percent. Promotion to physicians accounted for more than 80 percent of all promotional spending by pharmaceutical companies in 2001. Total promotional spending was equivalent to 12 percent of drug sales in the United States in 2001.

DTC advertising appears to increase prescription drug spending and utilization. Drugs that are promoted directly to consumers often are among the best-selling drugs, and sales for DTC-advertised drugs have increased faster than sales for drugs that are not heavily advertised to consumers. Most of the spending increase for heavily advertised drugs is the result of increased utilization, not price increases. For example, between 1999 and 2000, the number of prescriptions dispensed for the most heavily advertised drugs rose 25 percent, but increased only 4 percent for drugs that were not heavily advertised. Over the same period,

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<sup>6</sup>In this report, we use three terms to describe the magnitude of prescription drug use. "Utilization" refers to the number of prescriptions dispensed. "Spending" and "sales" refer to the amount of money spent for prescription drugs and are a function of both utilization and price.

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prices rose 6 percent for the most heavily advertised drugs and 9 percent for the others. The concentration of DTC spending on a small number of drugs for chronic diseases that are likely to have high sales anyway and the simultaneous promotion of these drugs to physicians may contribute to increased utilization and thereby increase sales of DTC-advertised drugs. The recent research literature shows that DTC advertising may cause increases in drug utilization and sales in some cases. In addition, consumer surveys have consistently found that about 5 percent of consumers (or, by our estimate, about 8.5 million consumers annually) have both requested and received from their physician a prescription for a particular drug in response to seeing a DTC advertisement.

While generally effective at halting the dissemination of advertisements it reviews and identifies as misleading, FDA's oversight of DTC advertising has limitations. DDMAC focuses on advertisements that will be widely circulated or that are the most likely to impart misleading impressions of a drug to consumers. For example, DDMAC reviews all broadcast DTC advertisements because of the large number of people who will see them. FDA issues regulatory letters for a small percentage of the advertisements it reviews. From August 1997 through August 2002, FDA issued 88 regulatory letters for violative DTC advertisements. FDA officials told us that pharmaceutical companies that have received regulatory letters have invariably ceased dissemination of the misleading advertisement. However, FDA's oversight has not prevented some pharmaceutical companies from repeatedly disseminating new misleading advertisements for the same drug, and some pharmaceutical companies have failed to submit in a timely manner all newly disseminated advertisements to FDA for review. Furthermore, FDA's oversight has been adversely affected by a January 2002 change in its procedures for reviewing draft regulatory letters that was directed by the Department of Health and Human Services (HHS). This change has significantly increased the time between DDMAC's identification of a misleading advertisement and FDA's request to remove it from dissemination, with the result that some regulatory letters may not be issued until after the advertising campaign has run its course.

In light of the delay caused by the change in policy for review of draft DTC regulatory letters, we are recommending that HHS expedite the review of these letters to ensure that misleading DTC advertisements are withdrawn as soon as possible once identified. In its comments on a draft of this report, HHS explained that the purpose of the change in procedure was to ensure that the letters are based on a solid legal foundation and promote voluntary compliance. HHS agreed that it is important to issue DTC

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regulatory letters quickly and said that it intends to reduce the number of days that the letters are under review.

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## Background

Prescription drug spending and utilization have increased rapidly in recent years. Part of the increase is due to growth in the number of patients diagnosed with conditions that can be treated with pharmaceuticals and the development of innovative drugs for some conditions. The promotion of prescription drugs is regulated by FDA. FDA's regulations and subsequently issued guidance contain specific requirements and explanations regarding the content of advertisements that promote prescription drugs. When requirements are not met, FDA may issue a regulatory letter requesting that the advertisement be withdrawn or revised.

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## Reasons for Increased Prescription Drug Spending and Utilization

Prescription drug spending has risen steadily over the past decade. Spending on prescription drugs now represents 10 percent of health care expenditures in the United States, and adults aged 65 and older spend nearly 3 percent of their total household expenditures on medications.<sup>7</sup> Increases in overall drug spending are the result of three types of changes in drug prices and drug use: increases in utilization, that is, the number of prescriptions dispensed; price increases; and a shift from older drugs to new, more expensive drugs (newly marketed drugs are generally more expensive than older drugs in the same class). The National Institute for Health Care Management Foundation (NIHCM) reported that overall spending on prescription drugs in the United States increased 17.1 percent from 2000 to 2001: an increase in the number of prescriptions accounted for a 6.7 percent increase, price increases for a 6.3 percent increase, and shifts to higher-cost drugs for a 4.1 percent increase.<sup>8</sup>

Prescription drug utilization in the United States has shown a steady increase over the past decade. The number of prescriptions dispensed in retail pharmacies has grown at an average annual rate of 6 percent since

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<sup>7</sup>David H. Kreling, David A. Mott, Joseph B. Wiederholt, Janet Lundy, and Larry Levitt, *Prescription Drug Trends: A Chartbook Update*, pub. no. 3112 (Washington, D.C.: The Henry J. Kaiser Family Foundation, 2001).

<sup>8</sup>NIHCM Foundation, *Prescription Drug Expenditures in 2001: Another Year of Escalating Costs* (Washington, D.C.: NIHCM Foundation, 2002).

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1992, reaching nearly 3 billion in 2000.<sup>9</sup> Among the factors besides DTC advertising and promotion to physicians that may contribute to this increased utilization are an aging population that is more dependent on multiple medications for treatment; new medications for conditions that had less effective previous treatments, such as high cholesterol; and increased insurance coverage for medications. In addition, the number of patients diagnosed with chronic conditions for which pharmaceutical treatments are available has increased dramatically. For example, the number of people with arthritis, one of the most frequent causes of disability in the United States, increased from an estimated 38 million in 1990 to 43 million in 1997.<sup>10</sup> Furthermore, for some conditions, such as high cholesterol, increased drug utilization has resulted from biomedical research that has led to a broadening of the guidelines for treatment with drugs.<sup>11</sup>

Countries that do not allow DTC advertising and have publicly funded health systems have also experienced increased drug utilization, and therefore increased spending, because of these same factors. According to a drug marketing research firm, retail pharmacy sales from April 2001 through April 2002 rose 16 percent in the United States, 16 percent in Canada, 10 percent in Germany, and 12 percent in the United Kingdom.<sup>12</sup>

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## FDA's Requirements for the Content of DTC Advertisements

FDA regulations describe several types of prescription drug advertisements, including DTC advertisements, and the extent to which they are subject to regulation. One type, product claim advertisements, usually mentions a drug's name and the condition it is intended to treat and describes the risks and benefits associated with taking the medication.

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<sup>9</sup>Kreling, Mott, Wiederholt, Lundy, and Levitt, *Prescription Drug Trends: A Chartbook Update*, 8.

<sup>10</sup>Centers for Disease Control and Prevention, "Prevalence of Arthritis—United States, 1997," *MMWR*, vol. 50 (2001), 334-6.

<sup>11</sup>National Institutes of Health, *Third Report of the National Cholesterol Education Program (NCEP) Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III), Executive Summary*, NIH pub. no. 01-3670 (Rockville, Md.: NIH, May 2001.)

<sup>12</sup>IMS Health, Inc., "IMS Health Reports 11% Growth in Retail Pharmacy Drug Sales for the 12 Months to April 2002" (Fairfield, Ct.: IMS Health, 2002), <http://www.imshealth.com/public/structu> (downloaded September 26, 2002). Based on sales from wholesalers to retail pharmacies, with sales measured in U.S. dollars at a constant exchange rate.

The regulations specify, among other things, that product claim advertisements (1) cannot be false or misleading; (2) must present a fair balance between the risks and the benefits of a drug product; (3) must reveal facts that are material to the representations made in the advertisement or the consequences of using the product as advertised; and (4) must, depending on the medium, either disclose all the risks listed in the product’s labeling or make “adequate provision” to disseminate the approved product labeling through other means to the advertisement’s audience. Table 1 shows some of the requirements for print and broadcast product claim advertisements.

**Table 1: Selected Requirements for Contents of Print and Broadcast Product Claim Advertisements**

| <b>Advertising medium</b> | <b>Regulatory requirements</b>   | <b>Explanation</b>   |
|---------------------------|--|--|
| Print and broadcast       | Cannot be false or misleading  | Must present information that is not inconsistent with product label   |
|                           | Must present fair balance  | Must include risks and benefits of a drug product  |
|                           | Must present “facts material”  | Must present information relevant to representations made, and describe consequences that may result from recommended use  |
| Print only                | Must describe risks  | Must disclose all risks in a product’s labeling  |
| Broadcast only            | Must describe risks  | Must present major side effects and contraindications <sup>a</sup> in audio or audio and visual form   |
|                           | Must make “adequate provision” for directing consumers to labeling information, or provide a brief summary of all necessary information related to risks | Must provide additional sources where consumers can find complete information, such as a toll-free telephone number, a Web site, and a print advertisement in a magazine, and by contacting their physicians; otherwise must summarize risks |

<sup>a</sup>Contraindications are symptoms or conditions that make a drug treatment inadvisable.

Sources: 21 C.F.R. § 202; FDA, *Guidance for Industry. Consumer-directed Broadcast Advertisements* (Washington, D.C.: FDA, Aug. 1997).

In 1997, FDA issued draft guidance on how broadcast product claim DTC advertisements could communicate information about the risks of using a drug by finding mechanisms by which to get the product labeling

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information to consumers, and thereby meet the adequate provision portion of its regulations.<sup>13</sup> Before this provision of the regulation was clarified in 1997, pharmaceutical companies generally had to provide all of the risk information associated with the medication during the broadcast advertisement. Including all of this risk information in a broadcast DTC advertisement increased the length of the advertisement to the point that such advertising was largely impractical. After the guidance was issued, pharmaceutical companies had an alternative to the requirement that all risks in broadcast advertisements be disclosed. Pharmaceutical companies could meet the regulatory requirements by presenting the major side effects, either in audio or in audio and visual form, and by telling consumers where to find additional information, including how or where to obtain the approved product labeling.

A second type of advertisement is reminder advertisements. These may disclose the name of the product and dosage form (e.g., tablet, syrup) or cost information, but they are not permitted to present its intended use or to make any claims or representations about the product. Under FDA regulations, reminder advertisements are exempt from the risk disclosure requirements.

A third type of advertisement is help-seeking advertisements, which are not regulated by FDA. They do not identify drugs by name and generally discuss a disease or condition and advise the print or broadcast audience to “see your doctor” for possible treatments.

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## FDA Regulatory Letters

In an effort to stop dissemination of misleading DTC advertisements, FDA sends regulatory letters to companies that are in violation of its regulations. These letters are of two types—untitled letters and warning letters. Untitled letters address violations such as overstating the effectiveness of the drug, suggesting a broader range of indicated uses than the drug has been approved for, and making misleading claims because of inadequate context or lack of balanced risk information. Warning letters address more serious violations, including safety or health risks, or continued violations of the act. Warning letters advise a pharmaceutical firm that FDA may take further enforcement actions, such as seeking judicial remediation, without notifying the company, and

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<sup>13</sup>FDA, *Guidance for Industry: Consumer-directed Broadcast Advertisements* (Washington, D.C.: FDA, Aug. 1997).

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generally ask the firm to conduct a new advertising campaign to correct inaccurate impressions left by the advertisement. A company that receives either type of letter from FDA is asked to submit a written response to the agency within 14 days describing the remedial actions it has taken.

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## Pharmaceutical Companies Spend More on Research and Development than on DTC Advertising

Pharmaceutical companies spend more on research and development than on DTC advertising or on all promotional activities combined, according to industry sources. Nonetheless, spending for DTC advertising has increased much faster than spending for all promotional activities or for research and development. More than 80 percent of all promotional spending is directed toward physicians rather than consumers.

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## Despite Rapid Growth in Spending on DTC Advertising, Pharmaceutical Companies Spend More on Research and Development

According to industry analyses, spending on research and development was more than 10 times higher than spending on DTC advertising in 2001.<sup>14</sup> Pharmaceutical companies spent an estimated \$30.3 billion on research and development and \$19.1 billion on all promotional activities, including \$2.7 billion on DTC advertising in 2001. However, the growth rate of spending on DTC advertising is higher than the rate of increase for spending on total promotion or spending on research and development. As table 2 shows, from 1997 through 2001, spending on DTC advertising increased from \$1.1 billion to an estimated \$2.7 billion, spending on total promotion increased from \$11.0 billion to an estimated \$19.1 billion, and research and development spending increased from \$19.0 billion to an estimated \$30.3 billion.

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<sup>14</sup>Pharmaceutical Research and Manufacturers of America, *Pharmaceutical Industry Profile 2002* (Washington, D.C.: Pharmaceutical Research and Manufacturers of America, 2002); IMS Health Integrated Promotional Services, "Total U.S. Promotional Spending by Type, 2001" (Fairfield, Ct.: IMS Health, 2002), <http://www.imshealth.com/public/structu> (downloaded July 17, 2002). We did not independently verify the amounts reported by the Pharmaceutical Research and Manufacturers of America and IMS Health. However, many researchers have consistently cited these data sources, and they represent the best available information.

**Table 2: DTC Advertising Spending Compared to Spending on Total Promotion and Research and Development from 1997 to 2001**

| Dollars in billions          |       |       |       |       |                   |   |
|------------------------------|-------|-------|-------|-------|-------------------|---|
|                              | 1997  | 1998  | 1999  | 2000  | 2001              | Percentage spending increase, 1997-2001 |
| DTC                          | \$1.1 | \$1.3 | \$1.8 | \$2.5 | \$2.7             | 145                                     |
| Total promotion <sup>a</sup> | 11.0  | 12.5  | 13.9  | 15.7  | 19.1              | 74                                      |
| Research and development     | 19.0  | 21.1  | 22.7  | 26.0  | 30.3 <sup>b</sup> | 59                                      |

<sup>a</sup>Total promotion includes DTC advertising.

<sup>b</sup>Estimated spending on research and development.

Sources: For 1997 to 2000 data, Pharmaceutical Research and Manufacturers of America, *Pharmaceutical Industry Profile 2002*, 18, 75; for 2001 promotional spending estimates, IMS Health, "Total U.S. Promotional Spending by Type, 2001."

In recent years there has been a shift of DTC advertising from print media to television broadcasts.<sup>15</sup> The percentage of DTC spending devoted to print advertisements declined from 74 percent in 1997 to 35 percent in 2001. Conversely, spending on television advertising increased from 25 percent of all DTC spending in 1997 to 64 percent in 2001. Prescription drug promotion on television escalated from 25 percent to 53 percent of the total spending on DTC advertising from 1997 to 1998.

## Most Promotional Spending Is Directed to Physicians

Most promotional spending is targeted to physicians. In each year from 1997 to 2001, providing samples to office-based and hospital-based physicians and sending sales representatives to meet with physicians (practices known as sampling and detailing, respectively) accounted for more than 80 percent of expenditures on promotional activities.<sup>16</sup> (See fig. 1.) The ratio of total promotional spending to drug sales remained fairly

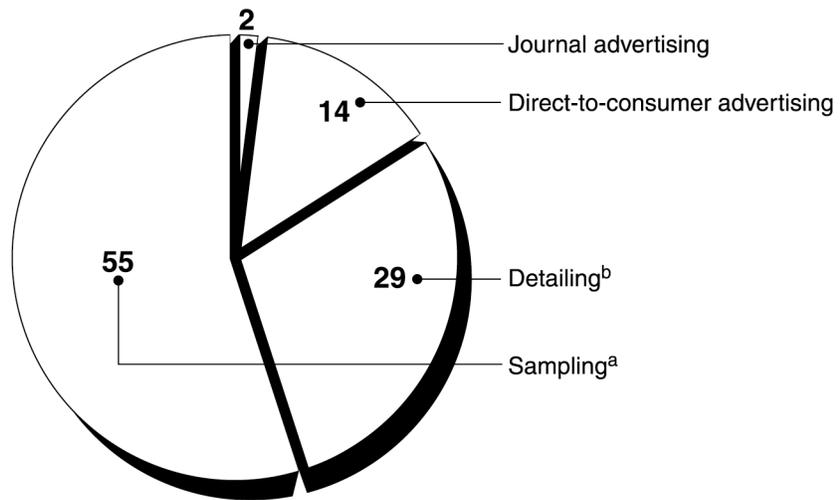
<sup>15</sup>Television broadcasts constitute the majority of nonprint DTC advertising spending.

<sup>16</sup>Kreling, Mott, Wiederholt, Lundy, and Levitt, *Prescription Drug Trends: A Chartbook Update*; IMS Health Integrated Promotional Services, "Total U.S. Promotional Spending by Type, 2001." These figures do not include educational meetings arranged by pharmaceutical companies for physicians, which are not generally considered to be promotional activities. Pharmaceutical companies spent about \$1.9 billion on educational meetings in 2000. (See NIHCM Foundation, *Prescription Drugs and Mass Media Advertising, 2000* (Washington, D.C.: NIHCM Foundation, 2001)).

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constant from 1997 to 2001. In 2001, promotional spending was equivalent to 12 percent of drug sales in the United States.

**Figure 1: Spending on Pharmaceutical Promotional Activities, 2001**



<sup>a</sup>The practice of providing samples during sales visits to office-based physicians.

<sup>b</sup>Sales activity of pharmaceutical sales representatives directed to office-based and hospital-based physicians.

Source: IMS Health, "Total U.S. Promotional Spending by Type, 2001."

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## DTC Advertising Appears to Increase Prescription Drug Spending and Utilization

Drugs that are promoted directly to consumers often are among the best-selling drugs, and sales for DTC-advertised drugs have increased faster than sales for drugs that are not heavily advertised to consumers. Most of the spending increase for heavily advertised drugs is the result of increased utilization, not price increases. DTC advertising is concentrated among a small number of drugs for chronic conditions and many of these same drugs are also promoted to physicians, both factors that may lead to increased sales. To date, the few studies that have examined the effects of DTC spending on prescription drug spending and utilization have found that DTC advertising increases both. In addition, there is clear evidence from consumer surveys that DTC advertising encourages consumers to request prescriptions for specific brand-name drugs from their physicians and that some physicians provide the requested prescription.

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## Many DTC-Advertised Drugs Are Best Sellers

Drugs with high DTC spending are among the best-selling drugs. For example, in 2000, 22 of the 50 drugs with the highest DTC spending were among the top 50 in sales.<sup>17</sup> Furthermore, sales of drugs with the highest DTC spending have risen more quickly than sales of other drugs. For example, NIHCM reported that expenditures for the 50 most heavily advertised drugs increased 32 percent between 1999 and 2000, while expenditures for all other drugs increased 14 percent. Most of this expenditure increase results from increased utilization (that is, an increase in prescriptions filled), not from price increases. Among the 50 most heavily advertised drugs, the number of prescriptions dispensed rose 25 percent between 1999 and 2000, compared to a 4 percent increase for other drugs. During the same period, prices increased 6 percent for the heavily advertised drugs, and 9 percent for other drugs.

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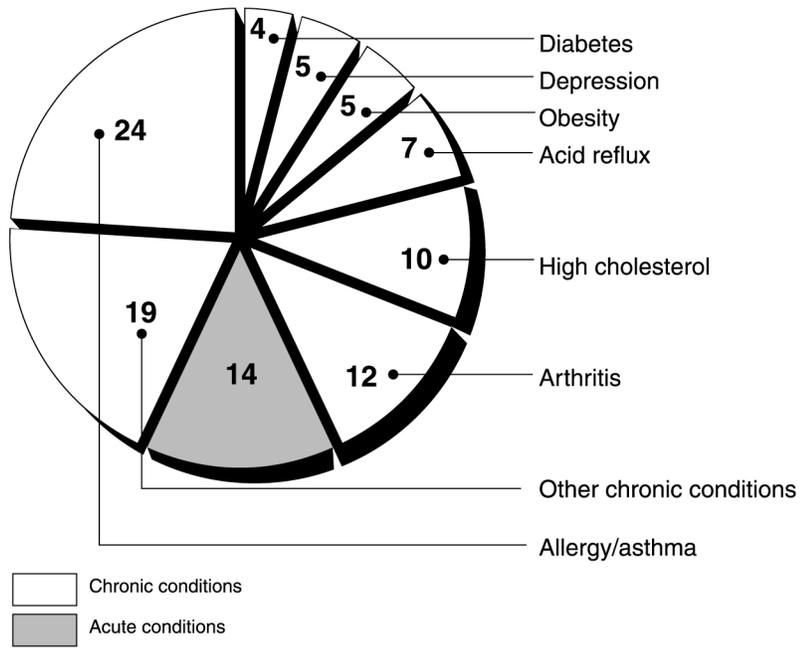
## DTC-Advertised Drugs Are for Chronic Conditions and Are Often Promoted to Physicians

Concentration of DTC spending on a small number of drugs for chronic conditions that are likely to have high sales and the promotion of these same drugs to physicians may also contribute to increased utilization. Almost all spending on DTC advertising is concentrated among a small number of drugs that treat chronic conditions and therefore must be taken repeatedly. (See fig. 2.) These drugs are relatively new and are still under patent protection. According to NIHCM, the 50 drugs with the highest DTC advertising spending in 2000 accounted for 95 percent of all DTC advertising spending that year, and the top 15 DTC-advertised drugs accounted for 54 percent of all DTC advertising spending. All of the top 15 DTC-advertised drugs were for chronic conditions: 6 for allergy or asthma, 3 for high cholesterol, 2 for arthritis, and 1 each for acid reflux, depression, obesity, and impotence. (See table 3.) Only one of the 50 most heavily advertised drugs was an antibiotic, a drug class that is used episodically. In some drug categories, a small number of pharmaceuticals that are heavily advertised account for the vast majority of sales. For example, in 2000 three oral antihistamines, Claritin, Allegra, and Zyrtec, accounted for 86 percent of all oral antihistamine sales, and all three of them were among the 15 most heavily advertised drugs.

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<sup>17</sup>NIHCM Foundation, *Prescription Drugs and Mass Media Advertising, 2000*.

**Figure 2: Percentage of Sales for Chronic and Acute Conditions Treated by the 50 Drugs with the Highest Spending on DTC Advertising, 2000**



Source: GAO analysis of data from NIHCM Foundation, *Prescription Drugs and Mass Media Advertising, 2000*.

**Table 3: The 15 Drugs with the Highest DTC Spending, 2000**

| <b>Drug</b>  | <b>Condition</b> | <b>Percentage of DTC spending for all drugs<sup>a</sup></b> | <b>Percentage of sales for all drugs<sup>b</sup></b> |
|--------------|------------------|---|--|
| Vioxx        | Arthritis        | 7.1   | 1.2  |
| Prilosec     | Acid reflux      | 4.8   | 3.1  |
| Claritin     | Allergy          | 4.4   | 1.5  |
| Paxil        | Depression       | 4.1   | 1.4  |
| Zocor        | High cholesterol | 4.0   | 1.7  |
| Viagra       | Impotence        | 4.0   | 0.6  |
| Celebrex     | Arthritis        | 3.5   | 1.5  |
| Flonase      | Allergy          | 3.3   | 0.5  |
| Allegra      | Allergy          | 3.0   | 0.8  |
| Meridia      | Obesity          | 2.9   | 0.1  |
| Flovent      | Asthma           | 2.8   | 0.5  |
| Pravachol    | High cholesterol | 2.7   | 0.9  |
| Zyrtec       | Allergy          | 2.7   | 0.6  |
| Singulair    | Asthma           | 2.6   | 0.5  |
| Lipitor      | High cholesterol | 2.6   | 2.8  |
| <b>Total</b> |                  | <b>54.5</b>   | <b>17.7</b>  |

<sup>a</sup>Total DTC spending for all drugs was \$2.5 billion.

<sup>b</sup>Sales for all drugs totaled \$132 billion.

Source: Kreling, Mott, Wiederholt, Lundy, and Levitt, *Prescription Drug Trends: A Chartbook Update*, 32; NIHCM Foundation, *Prescription Drugs and Mass Media Advertising, 2000*, 9.

Many of the same drugs that are promoted through DTC advertising are also promoted to physicians, meaning that any sales increases may be due in part to that promotion. For example, according to industry analysts, half of the 10 drugs with the highest DTC spending were also among the 10 drugs with the greatest volume of samples distributed to physicians in 2000.<sup>18</sup> Over 70 percent of physicians surveyed in one study said that they are more likely to prescribe the brand-name medication requested by the patient if they have a free sample available.<sup>19</sup> In addition, there is a growing trend to announce through DTC venues such as television, newspaper

<sup>18</sup>IMS Health Inc., “Product Sampling Continues to Spike in US” (Fairfield, Ct.: IMS Health, 2002), <http://www.imshealth.com/public/structure/discontent> (downloaded May 16, 2002).

<sup>19</sup>Barbara Henderson, “IMS Study: U.S. Physicians Responsive to Patient Requests for Brand Name Drugs” (Fairfield, Ct.: IMS Health, 2002), <http://www.imshealth.com/public/structure/discontent> (downloaded May 16, 2002).

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advertisements, and the Internet that free samples are available from physicians. Thus pharmaceutical companies are making consumers aware of these products and providing samples to physicians so that samples are available when consumers request them.

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### Research Studies Suggest That DTC Advertising Has Increased Utilization and Sales of Advertised Drugs

Researchers have only recently begun to examine the effects of DTC advertising on drug utilization and sales. The few studies we identified have conflicting findings but, on the whole, suggest that DTC advertising may increase drug utilization and sales. One study looked at the utilization of an injectable migraine headache treatment in cities in which a DTC advertising campaign was conducted and cities with no advertising. During the first year the drug was marketed, February 1993 to February 1994, the drug was dispensed nearly 10 percent more in cities in which DTC advertisements were disseminated.<sup>20</sup> Additionally, three recent studies that examined the joint effects of DTC advertising and promotion to physicians all found that DTC advertising significantly increased drug sales.<sup>21</sup> Each of the studies found that DTC advertising increased sales within the advertised drug's class (implying, for example, that advertising for one antihistamine increased sales for other antihistamines as well).<sup>22</sup> Two of the studies estimated that each 10 percent increase in DTC spending within a drug class increased sales in that class by 1 percent.<sup>23</sup>

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<sup>20</sup>Lisa R. Basara, "The Impact of a Direct-to-Consumer Prescription Medication Advertising Campaign on New Prescription Volume," *Drug Information Journal*, vol. 30 (1996), 715-29.

<sup>21</sup>Meredith B. Rosenthal, Julie M. Donohue, Arnold M. Epstein, and Richard G. Frank, *Demand Effects of Recent Changes in Prescription Drug Promotion*, June 22, 2002 (forthcoming, available on the Web as of Oct. 21, 2002, at <http://www.nber.org/books/garber6/index.html>); Scott Neslin, "ROI Analysis of Pharmaceutical Promotion (RAPP): An Independent Study" (unpublished presentation, Hanover, N.H.: Dartmouth College, Amos Tuck School of Business, May 2001); Marta E. Wosinska, "The Economics of Prescription Drug Advertising" (Ph.D. diss., University of California, Berkeley, 2002).

<sup>22</sup>Each of the studies also found that promotion to physicians was more cost effective than DTC advertising.

<sup>23</sup>This estimate implies that DTC advertising can substantially boost sales for high-volume drugs because sales figures are often much larger than advertising expenditures. For example, in 2000 the top-selling drug, Prilosec, had sales of \$4.1 billion and DTC advertising expenditures of \$108 million. If this estimate applied to individual prescription drugs, each increase in DTC spending of \$1 million would have increased sales of Prilosec by \$4 million.

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An exception to this pattern of findings is a study on the effects of fluctuations in the intensity of DTC advertising on sales of cholesterol-lowering drugs from 1995 to 2000. While sales of cholesterol-lowering drugs increased substantially over that period, this study found that variations in the amount of DTC advertising were not statistically related to either sales of particular brand-name drugs or sales of cholesterol-lowering drugs as a class.<sup>24</sup> Unlike the studies described above, this research did not consider the effects of promotion to physicians.

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### Consumer Surveys Have Found That DTC Advertisements Influence Consumers to Ask Physicians for Brand-name Drugs

Surveys conducted by FDA and private organizations consistently show that DTC advertisements have an impact on whether consumers request and receive a specific brand-name prescription from their physician. (See app. II for a list of consumer surveys.) In several of these surveys, consumers were asked whether they had seen an advertisement for a prescription drug and whether seeing the advertisement resulted in discussing the medication with their doctor and receiving the prescription. Most consumers (65 to 85 percent) remembered seeing a DTC advertisement. A subset of consumers who saw an advertisement discussed the medication with their doctor. The percentage of patients asking their physicians about a prescription for a specific drug was consistent across studies, about 30 to 35 percent of those who remembered seeing a DTC advertisement. One study estimated that the 32 percent of consumers in a 2001 survey who had discussed a DTC advertisement with their doctor translated into approximately 61.1 million consumers asking about specific medications. In the consumer surveys we examined, the percentage of consumers who, in response to a DTC advertisement, requested and received a prescription from their physician for a drug they were not currently taking was generally about 5 percent (ranging from 2 percent to 10 percent). By our estimate, this means that about 8.5 million consumers received a prescription after viewing a DTC advertisement and asking their physician for the drug in 2000.<sup>25</sup>

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<sup>24</sup>John E. Calfee, Clifford Winston, and Randolph Stempfski, *Direct-to-Consumer Advertising and the Demand for Cholesterol-reducing Drugs* (Washington, D.C.: American Enterprise Institute, 2001).

<sup>25</sup>Based on figures in the 2001 *Statistical Abstract of the United States*, we estimate that about 170 million adults visited a physician in 2000; 8.5 million is 5 percent of 170 million.

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## FDA's Oversight of DTC Advertising Has Limitations

FDA's oversight of DTC advertising is focused on advertisements that have the greatest exposure or the greatest potential to be misleading. Pharmaceutical companies comply with FDA's requests to cease dissemination of misleading DTC advertisements. However, some pharmaceutical companies have repeatedly disseminated misleading advertisements for the same drug, and pharmaceutical companies have failed to submit, or to submit in a timely manner, all newly disseminated advertisements to FDA for review. A recent change in the procedures for reviewing draft regulatory letters has adversely affected FDA's ability to issue regulatory letters in a timely manner.

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## DDMAC Targets Reviews

As of June 2002, five DDMAC staff were dedicated to reviewing DTC advertisements, and two DTC review slots were vacant.<sup>26</sup> DDMAC's reviewers focus on advertisements that will receive the greatest exposure or have the most potential to impart misleading impressions of a drug to consumers. These include broadcast advertisements, print advertisements appearing in high-circulation periodicals, initial advertising campaigns for newly marketed drugs, and new advertisements from pharmaceutical companies that have previously been cited for disseminating misleading advertisements. DDMAC officials told us that 248 broadcast advertisements and an unknown number of DTC print advertisements were submitted to it at the time of their dissemination in 2001. DDMAC staff reviewed all the broadcast advertisements it received in 2001. DDMAC does not keep track of the number of print advertisements it reviewed.<sup>27</sup> DDMAC also received and reviewed 230 complaints about allegedly misleading advertisements (for both consumer-directed and health professional-directed materials) in 2001, the majority of which were submitted by competing pharmaceutical companies. DDMAC investigates all tips concerning potentially misleading advertisements. Although FDA generally does not have the authority to preapprove advertisements before they are disseminated, companies may voluntarily submit their materials to FDA for advisory comments before launching an advertisement. DDMAC gave advisory comments on 128 broadcast advertisements in

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<sup>26</sup>In total, DDMAC had 39 full-time-equivalent positions in fiscal year 2002, most of which were dedicated to the oversight of promotional communications directed to physicians.

<sup>27</sup>DDMAC tabulates all of the pieces of promotional material submitted to it, but, with the exception of broadcast advertisements, it does not categorize the types of submissions it receives. DDMAC officials told us that it received approximately 34,000 pieces of promotional material, including consumer advertisements and promotions to physicians, in 2001, but that they do not know how many DTC print advertisements were submitted.

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2001. In addition to monitoring and review activities, DDMAC conducts research to better understand consumer and physician behavior related to DTC advertising.

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## FDA Sends Regulatory Letters When It Identifies a Violation

When FDA identifies a violative DTC advertisement, it sends a regulatory letter to the company responsible for the advertisement asking that the company cease disseminating the advertisement. FDA issues regulatory letters for only a small percentage of the advertisements it reviews. For example, FDA has issued letters for about 5 percent of the broadcast advertisements it reviewed between 1999 and 2001. In total, FDA issued 88 regulatory letters for DTC advertisements between August 1997 and August 2002—44 for broadcast advertisements, 35 for print advertisements, and 9 for both broadcast and print advertisements.<sup>28</sup> Almost all of the regulatory letters were untitled letters, which are for less serious violations of FFDCA; for more serious violations, FDA issued three warning letters for broadcast advertisements and one for a print advertisement.

FDA's warning letters often cite multiple, serious offenses or violations that raise public health issues. For example, FDA's January 21, 1999, warning letter to Novartis Pharmaceuticals Corporation about the marketing of Lescol, a cholesterol-lowering drug, described four violations: (1) Novartis did not submit the broadcast advertisement to FDA when it was disseminated, as required by the regulations, resulting in "violative messages being disseminated to a far larger consumer audience than might have otherwise occurred"; (2) the advertisement falsely stated that treatment with Lescol was as effective as treatment with other cholesterol-lowering agents named in the advertisement; (3) the advertisement falsely stated that treatment with Lescol was less expensive than treatment with other named cholesterol-lowering agents; and (4) the advertisement minimized the risk of potentially serious side effects, including liver function abnormalities and muscle pain or weakness.

Table 4 lists the 14 DTC regulatory letters issued by FDA in 2001 and describes the violations cited in each. One-half of the letters cited advertisements that made misleading claims about a drug's efficacy. For

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<sup>28</sup>FDA's DTC regulatory letters are posted on the Web at <http://www.fda.gov/cder/warn/>. FDA sometimes sends a single letter for violative DTC advertisements that appear in both broadcast and print mediums.

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example, FDA's August 2001 letter concerning Luxiq, a cream for the treatment of psoriasis and eczema, noted that the advertisement claimed "highly effective relief in three out of four patients," even though the clinical trial described on the product labeling found that Luxiq's success at improving various symptoms ranged from 41 percent to 67 percent. The Luxiq advertisement also claimed that it reduced symptoms "within days," even though the clinical trial results were for patients who used it for 4 weeks. Similarly, in November 2001, FDA cited an advertisement for Protopic Ointment, a treatment for allergic dermatitis, which included models with completely smooth skin. FDA concluded that this implied that patients would experience 100 percent improvement of their symptoms with the ointment, even though the product labeling noted that only one-tenth of the patients taking the drug showed complete improvement. Regulatory letters have also cited advertisements for minimizing risk information. For example, FDA's October 2001 letter about an advertisement for Differin Gel, an acne medication, claimed that risk information was inadequately presented because, "During the audio presentation of the major risk information, there are numerous visual distractions that interfere with the viewer's ability to listen to ... the information ... [including] numerous scene changes and quick camera movements." Still other advertisements have been cited because FDA identified them as being a different type of advertisement than apparently intended by the pharmaceutical firm. FDA's January 2001 letter concerning an advertisement for the acid reflux medication Prilosec, for instance, noted that the advertisement did not mention the drug by name and did not include information about the drug's approved indication and usage. The manufacturer apparently intended it to be a help-seeking advertisement that did not require such information. However, FDA found that, in essence, the advertisement was a product claim advertisement because it discussed acid reflux in conjunction with "the purple pill," and at the time Prilosec was the only purple pill that treated acid reflux.

**Table 4: DTC Regulatory Letters Sent by FDA in 2001**

| <b>Drug</b> | <b>Condition</b>     | <b>Company</b>        | <b>Date</b> | <b>Type of letter</b> | <b>Violation</b>  |
|-------------|----------------------|-----------------------|-------------|-----------------------|---|
| Prilosec    | Acid reflux          | AstraZeneca           | 1/3/01      | Untitled              | Provides inadequate information on approved product indication and use, lacks fair balance  |
| Protopic    | Eczema               | Fujisawa Healthcare   | 2/16/01     | Untitled              | Fails to provide necessary information for making product claims  |
| Xenical     | Obesity              | Hoffmann-La Roche     | 3/30/01     | Untitled              | Provides inadequate information on full indication, fails to fulfill "adequate provision" <sup>a</sup> requirements, lacks fair balance |
| Plavix      | Heart disease        | Sanofi-Synthelabo     | 6/8/01      | Untitled              | Minimizes role of physician, fails to fulfill "adequate provision" requirements   |
| Avandia     | Diabetes             | GlaxoSmithKline       | 6/28/01     | Untitled              | Minimizes risks   |
| Ditropan XL | Overactive bladder   | Alza                  | 7/12/01     | Untitled              | Overstates efficacy, minimizes risks, fails to convey indications   |
| Cerezyme    | Gaucher disease      | Genzyme               | 7/13/01     | Untitled              | Minimizes risks, fails to fulfill "adequate provision" requirements, fails to disclose prescription drug status                         |
| Niaspan     | High cholesterol     | Kos Pharmaceuticals   | 7/13/01     | Warning               | Fails to present significant risks; makes misleading efficacy claims; implied use is inconsistent with product labeling                 |
| Luxiq       | Psoriasis and eczema | Connetics             | 8/13/01     | Untitled              | Overstates efficacy, misleading preference, compliance, and superiority claims  |
| Differin    | Acne                 | Galderma Laboratories | 10/1/01     | Untitled              | Provides inadequate risk information in relation to effectiveness information   |
| Actonel     | Osteoporosis         | Proctor & Gamble      | 10/9/01     | Untitled              | Minimizes role of health care provider, fails to fulfill "adequate provision" requirements, provides inadequate risk information        |
| Protopic    | Eczema               | Fujisawa Healthcare   | 11/14/01    | Untitled              | Overstates efficacy, broadens approved product indication, minimizes risk   |
| Nolvadex    | Breast cancer        | AstraZeneca           | 12/14/01    | Untitled              | Makes misleading efficacy claims, minimizes risks, fails to comply with postmarketing reporting requirements                            |

<sup>a</sup>Unless broadcast advertisements provide a brief summary of all risks, they must make "adequate provision" for the dissemination of the approved product labeling.

Source: FDA, Center for Drug Evaluation and Research, "Warning Letters and Notice of Violation Letters to Pharmaceutical Companies" (Rockville, MD.: U.S. Food and Drug Administration), <http://www.fda.gov/cder/warn/> (downloaded Sept. 9, 2002).

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## FDA's Regulatory Letters Are Effective in Halting Dissemination of Misleading Advertisements

FDA officials told us that pharmaceutical companies have complied with FDA's requests to cease dissemination of misleading DTC drug advertisements in every case to date. For that reason, and because FDA does not want to remove a beneficial drug from the market, FDA has yet to employ any of the harsher remedies available to it. FDA, through the Department of Justice, can initiate court action to seize drugs for which advertisements are false or misleading. FDA may also ask a court to stop the advertisement and request the company to run a corrective campaign. FFDCA provides for criminal penalties for violative prescription drug advertising.

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## Some Pharmaceutical Companies Have Been Cited for Repeatedly Disseminating Different Misleading Advertisements

FDA's regulatory letters do not completely deter pharmaceutical companies from making misleading claims in subsequent advertisements. Since 1997, FDA has issued repeated regulatory letters to several pharmaceutical companies, including 14 to GlaxoSmithKline, 6 to Schering Corporation, and 5 to Merck & Co.<sup>29</sup> Some companies have received multiple regulatory letters over time for new advertisements promoting the same drug. For example, FDA issued four separate regulatory letters, one of which was a warning letter, to stop misleading advertisements for the allergy drug Flonase marketed by Glaxo Wellcome in 1999 and 2000. The untitled letters were for unsubstantiated efficacy claims and for lack of fair balance. The warning letter was for failure to provide any risk information on the major side effects and contraindications of the drug, failure to make adequate provision for disseminating the product labeling, and failure to submit the advertisement to FDA. In the past 4 years, FDA has issued four regulatory letters to Pfizer regarding broadcast and print advertisements for its cholesterol-lowering drug, Lipitor. Among other infractions, FDA noted that the advertisements gave the false impression that Lipitor can reduce heart disease and falsely claimed that Lipitor is safer than competing products.

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## Effectiveness of FDA's Oversight of DTC Advertising Is Limited in Two Ways

While FDA's enforcement actions have succeeded in removing from dissemination misleading DTC advertisements, the effectiveness of its oversight is limited in two respects. First, FDA's ability to assess the compliance of pharmaceutical companies with its DTC advertising regulations is compromised because FDA cannot verify that it receives all

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<sup>29</sup>Company names listed here are based on the names as of the date of the last regulatory letter that they received.

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newly disseminated advertisements from pharmaceutical companies. FDA has issued six regulatory letters for misleading advertisements since 1997 that cited pharmaceutical companies for failing to submit their advertisements to the agency when they were first disseminated.

FDA officials told us that the agency contracts with a commercial service that monitors television advertising placement to find advertisements that pharmaceutical companies have failed to submit to the agency. The service monitors six cable television networks and the New York City affiliates of the four major networks and PBS.<sup>30</sup> This service does not identify all advertisements that are broadcast on smaller networks, such as some cable television stations, or in some local markets. Indeed, in one case a misleading advertisement was broadcast in 2 calendar years in Puerto Rico before FDA became aware of it.

Second, a recent change in the Department of Health and Human Services policy for reviewing regulatory letters has sharply reduced FDA's effectiveness in issuing untitled and warning letters in a timely manner. The ability to issue regulatory letters quickly after an advertising violation is identified is a key component of FDA's oversight of DTC advertising. Any inaccurate impressions of a drug that are caused by a misleading advertisement are minimized if the advertisement is quickly removed from dissemination. Prior to the policy change, FDA officials told us that regulatory letters were issued directly by DDMAC within several days of its receipt of an advertisement that it identified as misleading. On November 29, 2001, HHS instructed FDA that no untitled or warning letters could be issued until FDA's Office of the Chief Counsel (OCC) reviewed them. HHS implemented this new policy to ensure that all draft warning and untitled letters from FDA were reviewed for "legal sufficiency and consistency with agency policy." FDA officials told us that OCC implemented this policy for regulatory letters on January 31, 2002, and that OCC set the goal of reviewing all draft regulatory letters from DDMAC within 45 working days.<sup>31</sup>

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<sup>30</sup>The cable networks monitored are CNBC, CNN, CSPAN, CSPAN2, MSNBC, and CNNFN. The network affiliates monitored are WNBC, WABC, WCBS, WNET, and WNYW.

<sup>31</sup>The 45-working-day goal is only for OCC's own work on a draft letter. Thus OCC's clock stops when it returns a draft letter to DDMAC for clarification or further research, and it resumes when DDMAC resubmits the draft letter.

Since the policy change, OCC's reviews of draft regulatory letters from FDA have taken so long that misleading advertisements may have completed their broadcast life cycle before FDA issued the letters. FDA provided us with information indicating that DDMAC submitted five draft DTC regulatory letters between January 31, 2002, and September 5, 2002. All of the letters have been issued. The letters were issued from 13 to 78 calendar days after they were first submitted to OCC by DDMAC (see table 5). As table 6 shows, many television DTC advertisements are on the air for only a short time—about one-fifth of them for 1 month, and about one-third for 2 months or less. Although we do not know the broadcast status of the advertisements targeted by DDMAC's draft regulatory letters, there is a possibility that misleading advertisements could remain on the air after they are identified by DDMAC if FDA maintains its current review policies.

**Table 5: Calendar Days between DDMAC's Draft Regulatory Letter Submission to OCC and Issuance Date, since January 31, 2002**

| Date submitted to OCC by DDMAC | Date issued | Calendar days between submission by DDMAC and issuance |
|--------------------------------|-------------|--|
| 3/22/02                        | 5/16/02     | 55   |
| 4/4/02                         | 5/13/02     | 39   |
| 4/8/02                         | 4/30/02     | 22   |
| 5/16/02                        | 8/2/02      | 78   |
| 7/30/02                        | 8/12/02     | 13   |

Source: GAO analysis of data provided by FDA.

**Table 6: Duration of DTC Television Advertisements**

| Months on the air | Percentage |
|-------------------|------------|
| 1                 | 22         |
| 2                 | 10         |
| 3-6               | 30         |
| 7-12              | 29         |
| 13-28             | 9          |

Source: Analysis by Pfizer, Inc., of data from Nielsen Monitor Plus for 303 unique television advertisements for prescription drugs that aired between 1997 and mid-2001.

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## Conclusions

DTC advertising prompts millions of consumers to ask their doctors for prescriptions for specific brand-name drugs. As a result, it is important that FDA act effectively to minimize the public's exposure to misleading DTC advertisements. We found that FDA's oversight is generally effective at halting the dissemination of advertisements it reviews and identifies as misleading. The recent change directed by HHS in FDA's procedures for reviewing draft regulatory letters has adversely affected FDA's ability to enforce compliance with its regulations. Without more timely action, DTC advertisements that DDMAC has identified as misleading can remain on the air too long.

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## Recommendation for Executive Action

To ensure that FDA's enforcement actions are timely, we recommend that HHS reduce the amount of time for internal review of draft regulatory letters.

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## Agency Comments and Our Evaluation

HHS reviewed a draft of this report and provided comments, which are included as appendix III. HHS generally agreed with our description of FDA's oversight of DTC advertising. HHS explained that the intent of its policy change requiring FDA's OCC to review all draft regulatory letters is to ensure that the letters are based on a solid legal foundation and promote voluntary compliance. Although we did not conduct a legal analysis of the letters that FDA issued either before or after the policy change, we found that FDA's regulatory letters issued before this policy took effect already were successful at halting the dissemination of misleading DTC advertisements. HHS agreed with us that it is important to issue DTC advertising enforcement letters quickly and therefore has established a goal of issuing the letters within 15 working days of review at OCC. HHS also provided technical comments, which we incorporated as appropriate.

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As agreed with your offices, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days from its date. We will then send copies to the Secretary of Health and Human Services, the Commissioner of FDA, and appropriate congressional committees. We will also make copies available to others on request. In addition, the report will be available at no charge on GAO's Web site at <http://www.gao.gov>.

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If you or your staffs have any questions, please contact me at (202) 512-7119 or Martin T. Gahart at (202) 512-3596. Key contributors to this assignment were Louise Duhamel, Anne Dievler, and Roseanne Price.

A handwritten signature in black ink that reads "Janet Heinrich". The signature is written in a cursive, flowing style.

Janet Heinrich  
Director, Health Care—Public Health Issues

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# Appendix I: Scope and Methodology

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This study concerns FDA’s oversight of DTC advertising of prescription drugs, which takes place within DDMAC, a division of CDER. We therefore did not examine FDA’s oversight of advertising in other areas, such as biological products, and we did not look at advertising issues concerning nonprescription medicines or dietary supplements.

To assess the trends in spending on DTC advertising, overall promotion, and research and development, we reviewed recent reports from the Kaiser Family Foundation, the Pharmaceutical Research and Manufacturers of America (PhRMA), NIHCM, IMS Health, and others. We did not independently verify the data reported by PhRMA and IMS Health. However, these data sources are consistently cited across studies because drug companies report their spending directly to these agencies, and they represent the best available information. The scope of our analysis focused on trends since 1997 because 1997 was when FDA issued its draft guidance changing the requirements for broadcast advertisements.

To analyze the impact of DTC advertising on drug spending and utilization—as measured by prescriptions dispensed—we reviewed studies on pharmaceutical sales and examined surveys of consumer responses to DTC advertising. For sales information, we primarily relied on data from IMS Health and looked at sales of the most heavily advertised drugs. To understand consumer responses to DTC advertising, we relied on surveys conducted by FDA, Prevention Magazine, Kaiser Family Foundation, National Consumers League, AARP, and other researchers. Some of these groups have repeated their surveys over time. For example, FDA conducted consumer surveys in 1999 and 2002. Prevention Magazine, and its parent company, Rodale, Inc., have conducted ongoing research on consumer reaction to DTC advertising since 1997 with technical assistance from other groups. Its 1997 survey was conducted with the American Pharmaceutical Association; its 1998, 1999, and 2000 surveys were conducted with technical assistance from FDA; and its most recent 2001 survey was conducted with FDA and Princeton Survey Research Associates. FDA’s and Prevention Magazine’s surveys have been conducted with nationally representative samples of adults. We also reviewed the literature for published and unpublished articles and reports on the effects of DTC advertising and other factors on prescription drug spending and utilization. The studies with the strongest methodologies were three unpublished studies, one of which is in press; the second is a recent Ph.D. dissertation; and the third was conducted by a university researcher and was presented to pharmaceutical industry representatives in May 2001. All of these unpublished studies used data from IMS Health

and other firms that collect information about the pharmaceutical industry.

To assess FDA's effectiveness in regulating DTC advertisements, we reviewed federal regulations and documents and interviewed officials from several offices within FDA, including CDER, DDMAC, and OCC. We analyzed regulatory letters issued by FDA between August 1997 and August 2002. To avoid double counting, we separated the regulatory letters into three categories: letters for broadcast violations, letters for print violations, and overlapping letters that address both broadcast and print violations. We did not review the content of advertisements, nor make an independent assessment of whether advertisements complied with the FDA regulations and guidance.

Finally, we interviewed and consulted with pharmaceutical industry representatives from Pfizer, Inc., PhRMA, and other key stakeholders, including the American Medical Association, Public Citizen, the National Advertising Review Council, the Freedom to Advertise Coalition, and RxHealth Value. RxHealth Value is a national coalition of consumer, provider, business, and employer groups; labor unions; insurers and health plans; pharmacy benefits management organizations; and academic researchers.

We conducted our work from February 2002 through September 2002 in accordance with generally accepted government auditing standards.

# Appendix II: Surveys of Consumers' Behavior after Seeing or Hearing Direct-to-Consumer (DTC) Advertisements

| Survey                                  | Sample  | Survey date | Aware of advertisement, percentage | Talked with physician, percentage <sup>a</sup> | Specific prescription requested, percentage <sup>b</sup> | Prescription received, percentage of those who made a specific request | Prescription received, percentage of total sample <sup>c</sup> |
|---|---|-------------|------------------------------------|--|--|--|--|
| FDA <sup>d</sup>                        | N=943, national random sample of consumers who had visited a doctor in the last 3 months                    | 2002        | 81                                 | 23   | 7  | 69   | 5  |
| FDA <sup>e</sup>                        | N=1,081, national random sample, 960 of whom had visited a doctor in the last 3 months                      | 1999        | 72                                 | 32   | 13   | 50   | 2  |
| <i>Prevention Magazine</i> <sup>f</sup> | N=1,601 national random sample, age 18 or older, oversampled 1,000 males                                    | 2001        | 85                                 | 32   | 29   | 77   | 7  |
| <i>Prevention Magazine</i> <sup>g</sup> | N=1,222 national random sample, age 18 or older   | 2000        | 80                                 | 32   | 26   | 71   | 5  |
| <i>Prevention Magazine</i> <sup>h</sup> | N=1,200 national random sample, age 18 or older   | 1999        | 81                                 | 31   | 28   | 84   | 7  |
| <i>Prevention Magazine</i> <sup>i</sup> | N=1,200 national random sample, age 18 or older   | 1998        | 70                                 | 33   | 28   | 80   | 6  |
| <i>Prevention Magazine</i> <sup>j</sup> | N=1,202 national random sample, age 18 or older   | 1997        | 63                                 | 31   | 29   | 73   | 4  |
| Weissman et al. <sup>k</sup>            | N=3,000 national random sample, adults  | 2001- 2002  | 86                                 | 35   | 27   | 21   | 5  |
| Kaiser Family Foundation <sup>l</sup>   | N=2,511 national random sample, 872 DTC advertisement viewers compared to 639 DTC advertisement non-viewers | 2001        | N/A <sup>m</sup>                   | 30   | N/A  | 44   | 6  |
| National Consumers League <sup>n</sup>  | N=1,013 national random sample, age 18 or older   | 1998        | 80                                 | 44   | N/A  | 22   | 5  |
| AARP <sup>o</sup>                       | N=1,310 national, oversampled 50 or older (print only)  | 1998        | 65                                 | N/A  | N/A  | N/A  | N/A  |

**Appendix II: Surveys of Consumers' Behavior  
after Seeing or Hearing Direct-to-Consumer  
(DTC) Advertisements**

| Survey                      | Sample  | Survey date | Aware of advertisement, percentage         | Talked with physician percentage <sup>a</sup> | Specific prescription requested, percentage <sup>b</sup> | Prescription received, percentage of those who made a specific request | Prescription received, percentage of total sample <sup>c</sup> |
|-----------------------------|---|-------------|--|---|--|--|--|
| Bell et al. <sup>p</sup>    | N=329 random sample of Sacramento residents                   | 1998        | 3.7 of 10 drug advertisements <sup>q</sup> | 35  | 19   | N/A  | N/A  |
| Mintzes et al. <sup>r</sup> | N=38 physician and 748 patients in Sacramento age 18 or older | 2001        | 72   | N/A   | 7  | 78   | 6  |

<sup>a</sup>In the FDA surveys consumers were asked, "Did you ask whether there might be a prescription drug to treat your condition?" This question was not asked of consumers who thought that their doctor would keep them on their current drug in FDA's 1999 survey. The Prevention Magazine surveys asked "Did you speak with your doctor about an advertised prescription medicine?" The percentage reported is based on consumers who had seen an advertised prescription medication and subsequently spoke with their doctor about it.

<sup>b</sup>In the 1999 FDA survey, this question was not asked of consumers who thought that their doctor would keep them on their current drug. In the Prevention Magazine Surveys, this question was asked only of consumers who spoke with their doctors about an advertised medicine.

<sup>c</sup>Percentages are calculated by dividing the number of consumers who received the prescription requested by the total sample. For FDA's 1999 survey, this information was provided to us because the information was unavailable in its on-line survey.

<sup>d</sup>Kathryn J. Aikin, *Direct-to-Consumer Advertising of Prescription Drugs: Preliminary Patient Survey Results* (Rockville, Md.: FDA, Division of Drug Marketing, Advertising and Communications, April 2002).

<sup>e</sup>FDA, Office of Medical Policy, Division of Drug Marketing, Advertising and Communications, "Attitudes and Behaviors Associated with Direct-to-Consumer (DTC) Promotion of Prescription Drugs: Main Survey Results" (Rockville, Md.: FDA, Division of Drug Marketing, Advertising and Communications, 1999), <http://www.fda.gov/cder/ddmac/dtcindex.htm> (downloaded March 11, 2002).

<sup>f</sup>Ed Slaughter, *5th Annual Survey: Consumer Reaction to DTC Advertising of Prescription Medicines, 2001-2002* (Emmaus, Pa.: Rodale, Inc., 2002). Technical assistance in developing the survey was provided by FDA and Princeton Survey Research Associates.

<sup>g</sup>Ed Slaughter and Martha Schumacher, *Prevention's International Survey on Wellness and Consumer Reaction to DTC Advertising of Rx Drugs, 2000-2001* (Emmaus, Pa.: Rodale, Inc., 2001). Technical assistance in developing the survey was provided by FDA.

<sup>h</sup>Prevention Magazine, *Year Two: A National Survey of Consumer Reactions to Direct-to-Consumer Advertising, 1999* (Emmaus, Pa.: Rodale, Inc., 1999). Technical assistance in developing the survey was provided by FDA.

<sup>i</sup>Prevention Magazine, *National Survey of Consumer Reactions to Direct-to-Consumer Advertising, 1998* (Emmaus, Pa.: Rodale Press, 1998). Technical assistance in developing the survey was provided by FDA.

<sup>j</sup>Prevention Magazine, *Navigating the Medication Marketplace: How Consumers Choose, 1997* (Emmaus, Pa.: Rodale Press and APhA, 1997). Technical assistance in developing the survey was provided by the American Pharmaceutical Association.

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**Appendix II: Surveys of Consumers' Behavior  
after Seeing or Hearing Direct-to-Consumer  
(DTC) Advertisements**

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<sup>k</sup>Joel S. Weissman, David Blumenthal, Alvin Silk, Kinga Zapert, Michael Newman, and Robert Leitman, "Consumer Reports on the Health Effects of Direct-to-Consumer Advertising (DTCA) of Prescription Drugs" (paper presented at the annual meeting of the Association for Health Services Research, Washington, D.C., June 2002).

<sup>l</sup>Henry J. Kaiser Family Foundation, *Understanding the Effects of Direct-to-Consumer Prescription Drug Advertising* (Menlo Park, Calif.: Henry J. Kaiser Family Foundation, 2001).

<sup>m</sup>N/A means that consumers were not asked this question.

<sup>n</sup>National Consumers League, "Health Care Information and the Consumer: A Public Opinion Survey" (Washington, D.C.: National Consumers League, 1998).

<sup>o</sup>Lisa Foley and David Gross, *Are Consumers Well Informed About Prescription Drugs? The Impact of Printed Direct-to-Consumer Advertising* (Washington, D.C.: AARP, 2000).

<sup>p</sup>Robert A. Bell, Richard L. Kravitz, and Michael S. Wilkes, "Direct-to-Consumer Prescription Drug Advertising and the Public," *Journal of General Internal Medicine*, vol. 14 (1999).

<sup>q</sup>Consumers were asked whether they had seen an advertisement for each of 10 drugs that were being advertised at the time of the survey. An Ad Awareness Index was created by summing for each respondent the number of drugs for which she or he reported having seen an advertisement. On average, consumers were aware of 3.7 of the 10 drugs.

<sup>r</sup>Barbara Mintzes, Morris Barer, Richard Kravitz, Arminee Kazanjian, Ken Bassett, Joel Lexchin, Bob Evans, Richard Pan, and Steve Marion, "Patient Requests for Prescriptions in Environments with and without Legal Direct-to-Consumer Advertising" (paper presented at the annual meeting of the Association for Health Services Research, Washington, D.C., June 2002).

# Appendix III: Comments from the Department of Health and Human Services



DEPARTMENT OF HEALTH & HUMAN SERVICES

Office of Inspector General

Washington, D.C. 20201

OCT 17 2002

Ms. Janet Heinrich  
Director, Health Care - Public Health Issues  
United States General  
Accounting Office  
Washington, D.C. 20548

Dear Ms. Heinrich:

Enclosed are the department's comments on your draft report entitled, "Prescription Drugs: FDA Oversight of Direct-to-Consumer Advertising Has Limitations." The comments represent the tentative position of the department and are subject to reevaluation when the final version of this report is received.

The department also provided several technical comments directly to your staff.

The department appreciates the opportunity to comment on this draft report before its publication.

Sincerely,

  
for Janet Pennington  
Inspector General

Enclosure

The Office of Inspector General (OIG) is transmitting the department's response to this draft report in our capacity as the department's designated focal point and coordinator for General Accounting Office reports. The OIG has not conducted an independent assessment of these comments and therefore expresses no opinion on them.

**Comments of the Department of Health and Human Services on the General Accounting Office's Draft Report, "Prescription Drugs: FDA Oversight of Direct-To-Consumer Advertising Has Limitations" (GAO-03-177)**

The Department of Health and Human Services (the department) appreciates the opportunity to review and comment on this draft report. While we take issue with some of the report's conclusions about the impacts of direct-to-consumer (DTC) advertising, the department generally agrees with the report's informative summary of issues with respect to the Food and Drug Administration's (FDA) oversight of DTC advertising. We are especially pleased with GAO's conclusion that FDA oversight is "...generally effective at halting the dissemination of advertisements it reviews and identifies as misleading."

**General Comments**

The report discusses the department's policy change requiring FDA's Office of the Chief Counsel (OCC) to review all draft warning and untitled letters. The purpose of the policy that OCC review all enforcement correspondence, including Division of Drug Marketing, Advertising, and Communications (DDMAC) letters, is to ensure that such letters rest on a solid legal foundation, are credible, and will promote compliance. Before this policy was instituted, there had been complaints that FDA would not follow up on many of its letters. Indeed, some FDA Centers sent several advertising/promotion enforcement letters to companies that had ignored FDA's first warning.

The policy's goal is for those who receive enforcement correspondence from the agency to understand that it has undergone legal review, and that the agency is prepared to back it up by going to court if necessary. Before this policy went into effect, certain letters were sent out without considering their legal sufficiency because it was believed the issue would never get to court. If this approach became apparent to the public, the credibility of the agency would suffer as companies test whether the agency truly intends to stand behind a particular letter.

The FDA cannot afford to be considered a paper tiger. When FDA takes a position, companies must believe that FDA can and will back it up by going to court if necessary. The FDA cannot sue the thousands of firms it regulates into compliance; it must take positions that promote voluntary compliance. Therefore a change was found to be necessary and desirable.

While this policy change has, as GAO indicated, increased the number of days between DDMAC's identification of a misleading advertisement and FDA's request to remove it from dissemination, the process is new and the agency anticipates that the number of days required for review of draft warning and untitled letters will decrease.

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**Appendix III: Comments from the Department  
of Health and Human Services**

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The OCC has concurred with pursuing all DTC regulatory letters submitted by DDMAC. The OCC review has strengthened the quality and legal sustainability of the letters making it much more likely that companies take them seriously and quickly react to problems identified in the letter. Nevertheless, the department recognizes that despite the important value added by OCC, we need to issue DTC enforcement correspondence more quickly. To that end, we have established a goal of issuing these letters within 15 working days of review at OCC.

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