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Michael Friedman James Gould

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# Consumer attitudes and behaviors associated with direct-to-consumer prescription drug marketing

*Michael Friedman*

Purdue Pharma LP, Stamford, Connecticut, USA, and

*James Gould*

Pace University, White Plains, New York, USA

## Abstract

**Purpose** – This article seeks to examine attitudes about direct-to-consumer advertising (DTCA) of prescription drugs to final users (referred to as consumers in this paper).

**Design/methodology/approach** – A national telephone survey was carried out of 300 consumers that had seen a doctor in the last six months.

**Findings** – Consumer awareness of DTCA continues at a very high level (96 percent) among the adult consumer population. However, the majority of consumers (53 percent) disagreed somewhat or strongly with the statement “I like seeing advertisements directed to consumers for prescription drugs.” The majority of consumers (69 percent) agree strongly or somewhat that DTCA does not provide adequate information on the risks and benefits of advertised products. It appears that the use of DTCA by pharmaceutical companies is not stimulating nearly the information-gathering response reported in past studies.

**Research limitations/implications** – Small sample size makes this survey exploratory.

**Practical implications** – This negativism may impair the usefulness of this type of advertising in the future. As television, magazine, radio, and other traditional media become less important, the internet may become an important channel for the growth of DTCA. Given the growing negativism of consumers, it is clear that significant changes in DTCA practices are necessary. Without significant changes, DTCA may become impractical or even prohibited.

**Originality/value** – The article adds to longitudinal data on consumer attitudes towards DTCA. It is hoped that this study will suggest areas for subsequent research and will elaborate on the practical consequences of DTCA and its implications for public health and welfare.

**Keywords** Consumer behaviour, Medical prescriptions, Direct marketing, Advertising, Pharmaceutical products, Marketing strategy

**Paper type** Research paper

**An executive summary for managers and executive readers can be found at the end of this article.**

This is a study of consumer attitudes toward direct-to-consumer advertising (DTCA) and its influence on patients' desire to obtain prescriptions from their doctors for advertised products. The study is deemed directional since its objective is to ascertain consumers' current state of knowledge and attitudes toward DTCA of prescription medicines and to identify issues warranting further quantitative exploration[1].

Branded, patented products are marketed to physicians, pharmacists, and patients. Patented products are marketed on the basis of features, benefits, and costs for patient or payers, with emphasis on product information and proper use. This informational content is almost entirely absent from promotion of generic products.

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Domestic sales of the US pharmaceutical industry were \$242 billion for the four quarters ending Q1 2005 (Long, 2005, p. 14). Physician prescribing of approximately 3.5 billion prescriptions drives this market (Long, 2005, p. 31). The prescription drug market grew at double-digit rates from 1996 through 2003, then at 8.3 percent during 2004 and at a 7.1 percent annual rate in the first quarter of 2005 (Long, 2005, p. 31).

## Historical perspective on DTCA

In 1708 the first advertisement for a patent medicine appeared in a Boston newspaper ... By the early 1800s the press and drug industry had developed a strong symbiotic relationship (Wilkes *et al.*, 2000).

The first modern-day direct-to-consumer advertisement for a prescription drug appeared in *Readers Digest* in 1981.

The US Food and Drug Administration (FDA), concerned that the public health consequences of DTCA were unknown, initiated a voluntary moratorium on such advertising in 1983 (Woloshin *et al.*, 2001). The agency lifted the moratorium on such advertising in 1985, indicating that existing regulations were sufficient to protect consumers. The first print

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This paper reflects findings from this study and not necessarily the opinions of Purdue Pharma.

advertisements for drugs that treated more serious conditions such as epilepsy and migraine appeared in the 1990s (Auton, 2004) and were required to “present a fair balance of benefit and risk information” and contain a “brief summary” of comprehensive risk information (Hunt, 1998).

Total DTCA spending grew rapidly, from \$791 million in 1996 to \$3.2 billion in 2003 (from 1.2 percent to 2.2 percent of sales) and to \$4.5 billion in 2004 (*DTC Perspective*, 2005)[2]. The amount of DTCA used varies considerably among and within classes of drugs (Rosenthal *et al.*, 2002). From 1997 to 2001, US drug expenditures increased from \$79 billion to \$155 billion as a result of price increases (37 percent), growth in the number of prescriptions (39 percent), and shifts to higher-cost drugs (24 percent). The absolute number of prescriptions written has grown in a linear fashion, from 1.9 billion in 1992 to 3.1 billion in 2001 and to 3.4 billion in 2004 (Auton, 2004).

### Synopsis of prior patient-focused research on DTCA

Consumer-focused research can be summarized into four general categories: attention and awareness, knowledge and comprehension, attitudes, and consumer behavior. Highlights of various studies follow:

#### 1 Attention and awareness:

- Studies completed to date consistently point out that virtually all consumers are aware of DTCA of prescription drugs. The FDA reported exposure of 72 percent in 1999 and 81 percent in 2002 (Aikin *et al.*, 2004). The US National Consumers League survey found that 72 percent had seen or heard DTCA (Golodner, 2003). A 2004 Harris Interactive Poll found that 85 percent of adults in the USA have seen DTCA in the past 12 months (Axelrod and Moore, 2004).
- The form of such advertising that reaches the most consumers is television, followed by print and then the internet. The FDA reported that 97 percent of consumers exposed to DTCA saw television advertisements and 75 percent saw magazine advertisements in 2002.

#### 2 Knowledge and comprehension:

- A majority of patients feel that DTCA gives them enough information to decide whether to discuss a drug with their doctor (the 2002 FDA survey reported 86 percent).
- Foley and Gross (2000) found that 49 percent of adults who saw DTCA felt that it provided enough information to let them know what the drug was for, and 50 percent felt there was enough information on risks and side effects.
- Wilkes *et al.* (2000, p. 112) found that half of the patients surveyed believed incorrectly that DTCA required government approval before advertisements could be used and that only completely safe drugs could be advertised.

#### 3 Attitudes:

- DTCA does not generally seem to cause patients to expect their doctors to prescribe a drug (the 2002 FDA survey reported that only 6 percent had such an expectation).

- Consumer attitudes toward DTCA have been shifting. The 1999 FDA survey reported that 52 percent of patients like seeing DTCA advertisements, and this dropped to 32 percent in 2002.
- Many patients agree that DTCA helps them make better decisions about their health.
- The *Prevention* and FDA surveys indicate that patients do not generally think DTCA adversely affects their relationships with their doctors. White found that doctors are still the primary source of information for patients and that DTCA has not supplanted the doctor's role (Slaughter, 2003).

#### 4 Consumer behavior:

- Consumers act on DTCA. The 2002 FDA survey reported that 43 percent of the people who saw advertisements searched for more information. The *Prevention* survey reported that during each of six years studied, roughly one-third of patients talked to their doctors as a result of DTCA. The US National Consumers League study reported that 50 percent of people who saw or heard DTCA wanted to learn more about the medicine advertised. The USNCL study indicated that 31 percent wanted to talk to a doctor at their next appointment. Allison-Otley (2003) found that 23 percent had questions for their doctors.
- Contrary to the assertion of some critics, DTCA does not drive a large fraction of the population to make appointments with their doctors. Only 5 percent were reported to do so in the FDA survey of 2002. Allison-Otley (2003) found that 6 percent of a Hispanic/Latino/Mexican sample made appointments after seeing DTCA. While these fractions are small, they represent a meaningful number of people. In addition, people visit or talk with their doctors for other reasons than to obtain medication, and DTCA influences those interactions.
- DTCA does cause some patients to ask about a specific brand when they are with their doctor. The 2002 FDA survey reported that 29-30 percent of patients discussed an advertised brand with their doctors. The *Prevention* survey reported that 26-30 percent of those who spoke with a doctor about a brand asked the doctor to prescribe it. Allison-Otley reported that 11 percent of patients surveyed planned to ask for a prescription.
- DTCA does cause a number of patients to seek out their doctors to discuss a condition that they had not previously discussed. The FDA 2002 survey reported 27 percent, the *Prevention* survey 13-15 percent, and the Weissman *et al.* (2003) survey 25 percent. In addition, DTCA gives patients more confidence when talking to their doctor about their concerns (Axelrod and Moore, 2004, p. 29).

### Role of the US FDA

The FDA has had the authority to evaluate drug labeling for false and misleading advertising since 1938. In 1962, Congress gave the FDA specific authority to regulate prescription drug labeling and advertising, including DTCA. The FDA and Federal Trade Commission (FTC)

have generally been in favor of continuing DTCA, albeit with substantial regulations (*Medical Marketing & Media*, 2002).

During 2003, the FDA received approximately 161 broadcast and 221 print direct-to-consumer advertisements from drug advertisers. In 2004, the agency sent 23 letters, of which 12 were “warning” letters. As of June 2005, the FDA had issued 14 letters for the year to date, six of them warning letters (*FDA News*, 2005). In May 2005, an FDA official commented about the agency’s “overall concern about the quality of DTC decreasing” (Edwards, 2005).

The FDA has taken some actions to control the use of DTCA. For example, in 2005 it approved Symlin, a new diabetes medication, with the condition that its manufacturer/ marketer could not advertise the product directly to consumers or in medical journals for one year (*Advertising Age*, 2005).

## US Congressional activity

Members of Congress have been critical of DTCA. In July 2001, the Senate Subcommittee on Consumer Affairs, Foreign Commerce, and Tourism held a hearing on the subject. No legislative action was taken as a result of that hearing.

Some members of Congress have claimed that DTCA increased drug costs for consumers and certain federal programs such as Medicaid. They requested a report from the US General Accounting Office (GAO). Among its findings were the following:

Pharmaceutical companies spend more on research and development than on all drug promotional activities, including DTC advertising ... Pharmaceutical companies spent \$30.3 billion on research and development, and \$19.1 on all promotional activities, which includes \$2.7 million on DTC advertising, in 2001.

DTC appears to increase prescription drug spending and utilization.

Most of the spending increase for heavily advertised drugs is the result of increased utilization, not price increases.

In addition, consumer surveys have consistently found that about 5% of consumers (or by our estimate 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 there have been legislative proposals to ban or restrict DTCA, these have not succeeded. For example, on June 26, 2003, the US Senate voted down two proposed amendments that would have placed restrictions on the content of DTCA by manufacturers (*Medical Marketing & Media*, 2003).

Among the legislative proposals that have been floated but not enacted are elimination of tax deductions to advertisers for the costs of DTCA, mandating comparative research on the effectiveness and safety of drugs, legislative change to allow the FDA to require review and approval of DTCA prior to use, banning of DTCA, establishing limits on timing and placement of ads, expanding FDA enforcement activity, and cutting the level of Medicare reimbursement given to marketers for more heavily advertised drugs (Vogt, 2005, p. 30; Goetzl and Teinowitz, 2002, p. 59).

In the 2004 Presidential race, DTCA became a campaign issue when candidate Howard Dean called for a ban on DTCA of prescription drugs and a cut in the level of Medicare reimbursement given to marketers for more heavily advertised drugs (Teinowitz, 2003, p. 8).

## Current study

### Methodology

A random sample of 6,000 households in the continental USA was selected to develop a list of consumers for this study. The sample was reflective of the population distribution in the four US census regions (Northeast, Central/Midwest, South, and West). Software was then used to eliminate disconnected and non-working telephone numbers, resulting in 4,574 usable records (394 numbers were business or government, and 1,032 were non-working numbers). A total of 139 numbers were eliminated because they fell in the area affected by Hurricane Katrina. Consumers/patients were screened to ensure they were adults and had seen a physician within the last six months prior to telephone administration of the survey. This was done to ensure that they had recollection of a visit to physician.

A questionnaire was developed and tested in a pilot study. A number of the questions paralleled questions asked by the FDA Division of Drug Marketing and Advertising (DDMAC) in surveys conducted in 1999 and 2002. This survey will add to longitudinal data on evolving attitudes and behaviors in the field. The questionnaire was completed for a total of 300 adult consumers/patients who reported that they had visited a physician in the past six months. Telephone enumerators were hired to administer the survey.

### The sample

A total of 321 questionnaires were completed; 21 respondents (4 percent) had not seen a direct-to-consumer advertisement and 300 (96 percent) had seen advertisements for prescription drugs on television.

### Demographic profile of sample

Tables I-IV compare the demographic, education, income, and age of the 300 respondents who had seen DTCA on television with estimates in the 2004 US census.

### Principal findings

*DTCA is pervasive, and general awareness of DTCA continues at a very high level among the adult population (over the age of 18)* Of the respondents 96 percent who saw physicians during the last six months had seen DTCA on television or in magazines, consistent with the results of the FDA surveys of 1999 and 2002.

*The internet is growing as a medium for DTCA and as a source of information for consumers*

A trend toward more respondents seeing DTCA on the internet is continuing, with 9 percent having seen or heard

Table I Replies by region

Region	Population	
	Study (%)	Census <sup>a</sup> (%)
Northeast	24	19
Midwest	31	22
South	36	36
West	9	23
Total	100	100

Note: <sup>a</sup> www.census.gov, Census by Region Population Estimates



Table II Replies by educational level

Educational level	Study data		US 2000 Census <sup>a</sup>
	Frequency	(%)	(%)
Less than high school graduate	25	8	20
Completed high school	100	33	29
Some college	73	24	23
Completed college	78	26	20
Graduate school	21	7	8
Don't know/refused to say	3	1	
Total	300	100	100

Note: <sup>a</sup> www.census.gov, Educational level of population 18 years and older

Table III Replies by age

	Study data		US 2002 Census
	Frequency	(%)	(%)
18-24	10	3	12
25-34	27	9	22
35-44	41	14	21
45-54	43	14	17
55-64	70	23	11
Over 65	107	36	16
Don't know/refused to say	2	1	
Total	300	100	100

Table IV Replies by household income level

	Study data		US 2000 Census <sup>a</sup>
	Frequency	(%)	(%)
Under 15,000	36	12	17
15,001-45,000	92	31	41
45,001-70,000	58	19	17
70,001-100,000	35	12	11
100,001-200,000	18	6	11
Over 200,000	4	1	3
Don't know/refused to say	57	19	0
Total	300	100	100

Note: <sup>a</sup> Categories for census data did not precisely overlap, and the closest categories for available data were used in this table. Categories shown are for present survey data

advertisements on the internet in 1999, 16 percent in 2002, and 25 percent in 2005 (Tables V and VI).

Younger respondents were more likely to have seen DTCA on the internet than older respondents. This is to be expected, since younger respondents are likely to be more familiar with the internet and therefore to have more exposure to that medium (Table VI).

*DTCA is not stimulating the amount of information gathering among respondents that has been reported in past studies – absent other changes in the productivity of DTCA, this trend would reduce its return on investment*

DTCA caused 50 of the respondents (17 percent) to seek more information[3], a marked reduction from the responses

reported by the FDA of 53 percent in 1999 and 43 percent in 2002 (Table VII). This may be due to differences in sample size, the order of questions, and wording of the questions asked in the different surveys[4]. However, it may also indicate a change in the attention and action garnered by DTCA owing to the longer consumer experience and possible fatigue on the issues or subjects raised.

A total of 54 of the 300 people surveyed (18 percent) responded that the ads had caused them to seek information from their doctor, compared with 83 percent in 1999 and 89 percent in 2002 in the FDA surveys. This may be the result of differences in sample size, question wording, and/or question position[5]. It may also be explained by a change in the attention and action garnered by DTCA as a result of the longer consumer experience and possible fatigue on the issues or subjects raised.

*DTCA continues to stimulate some doctor office visits and prescribing that would not take place otherwise*

A total of 31 respondents (10 percent) visited a doctor because they saw or heard an ad for a prescription drug (Table VIII). This compares with 5 percent in the 2002 FDA survey. Consistent with the FDA surveys, 15 respondents (5 percent) saw a physician because they wanted a prescription drug they saw advertised.

Of the respondents, 16 (5 percent) asked for a specific prescription drug they saw advertised, and 50 percent of those patients reported that they received the requested medicine.

*DTCA is a source of information used by consumers in their interactions with doctors, even if it was not the stimulus for that interaction, however, patients are critical of the content and risk information contained in DTCA*

Only 50 respondents (17 percent) reported that DTCA had caused them to seek information from their physicians. However, 32 percent reported that they had spoken with their physicians about a prescription drug in the last three months. DTCA may not be causing all interactions with physicians about prescription drugs, but it is providing information and stimulating discussion during office visits caused by other factors (Table IX).

While a majority of respondents (52 percent) agreed strongly or somewhat that DTCA gives them enough information to decide whether to discuss the drug with the doctor, 44 percent disagreed strongly or somewhat (Table X).

One issue that has been of concern and the target of critics is whether DTCA provides enough information about the possible risks and negative effects of using a drug. A total of 69 percent of respondents agreed somewhat or strongly that DTCA does not give enough such information (Table XI).

*Consumers are generally becoming more negative about DTCA, even though they welcome the empowerment of the information it provides*

Attitudes regarding DTCA appear to be moving in a direction that indicates that such ads have less impact and may be perceived more negatively than in the past (Table XII).

Of the respondents, 68 percent indicated that if they saw an advertisement for a drug that treats a condition that was bothering them, they would be very or somewhat likely to discuss that condition with their doctor. This compares to the FDA survey findings of 80 percent in 1999 and 73 percent in 2002.

A total of 53 percent of the respondents indicated that they disagreed somewhat or strongly that they “liked seeing

**Table V** Responses on awareness of DTCA, comparing current study to FDA studies

Question asked	1999 FDA (%)	2002 FDA (%)	Current study <i>n</i> = 321 (%)
Have you seen or heard advertisements for prescription drugs on television?	94	97	96
Have you seen or heard advertisements for prescription drugs in magazines?	66	75	78
Have you seen or heard advertisements for prescription drugs on the internet?	9	16	25

**Table VI** Age versus response to question about whether respondents have seen or heard any advertisements for prescription drugs on the internet in the last three months

Q26. Age		Q3. Have you seen or heard any advertisements for prescription drugs on the internet in the last three months?		Total
		Yes	No	
18-34	Count	16	21	37
	Expected count	9.3	27.7	37.0
	% within Q26. Age	43.2	56.8	100.0
35-54	Count	33	51	177
	Expected count	21.1	62.9	177.0
	% within Q26. Age	39.3	60.7	100.0
55 and older	Count	26	151	298
	Expected count	44.5	132.5	298.0
	% within Q26. Age	25.5	74.8	100
Total	Count	75	223	298
	Expected count	75.0	22.30	298.0
	% within Q26. Age	25.5	74.8	100

Notes: Chi-square value = 25.627; *df* = 2 is significant at *p* = 0.001

**Table VII** Information seeking behavior resulting from seeing DTCA

Question asked	1999 FDA (%)	2002 FDA (%)	Current study <i>n</i> = 300 (%)
Did one of these advertisements cause you to seek additional information?	53	43	17
Did one of these advertisements cause you to seek additional information on the internet?	18	38	5
Did one of these advertisements cause you to seek additional information from your doctor?	83	89	18

**Table VIII** Reasons consumers reported for seeing a doctor, comparing current study to FDA studies

Did you see a doctor for any of the following reasons? (Multiple responses permitted)	1999 FDA (%)	2002 FDA (%)	Current study <i>n</i> = 300 (%)
Previous condition	NA	63	43
Checkup	53	59	64
Not feeling well	42	51	25
You needed to get a prescription refilled	27	32	43
You saw or heard an advertisement for a prescription drug	NA	5	10
You wanted a prescription drug you saw advertised	NA	4	5

advertisements for prescription drugs.” This compares to 43 percent in the FDA survey in 2002 and 27 percent in 1999 (Table XIII).

Consistent with the trends observed above, Table XIV shows that a growing percent of respondents did not feel that DTCA helped them make better decisions about their health. Fifty-four percent of the respondents to the current study

disagreed somewhat or strongly that DTCA helped them make better decisions about their health, compared to the FDA study findings of 47 percent in 2002 and 36 percent in 1999.

Notwithstanding the above findings and trends, 59 percent of respondents agreed that “overall, direct-to-consumer advertising is a good thing.”

**Table IX** Responses on what prompted consumer respondents to ask a question of their physicians, comparing current study to FDA studies

Question asked	1999 FDA (%)	2002 FDA (%)	Current study <i>n</i> = 300 (%)
<i>Did you talk to your doctor about a question you had about a prescription drug in the last three months?</i>	67	63	32
<i>What did you read, hear or see that made you think about that question?</i>			<i>n</i> = 95
An advertisement on television or radio	28	33	34
An advertisement in a magazine	26	19	14
A news or educational program on television or radio, or mention in a talk show	23	22	15
Something a friend or relative said	28	36	23
Something you read on the internet	10	14	5
Article in a magazine or newspaper	32	14	23

**Table X** Response to question about whether advertisements for prescription drugs give enough information for respondents to decide whether they should discuss the drug with their doctor

	1999 FDA (%)	2002 FDA (%)	Current study <i>n</i> = 300 (%)
Agree strongly	26	14	24
Agree somewhat	36	29	28
Neither	15	17	4
Disagree somewhat	13	16	16
Disagree strongly	10	23	28

**Table XI** Response to question about whether advertisements for prescription drugs do not give enough information about the possible risks and negative effects of using the drug

	1999 FDA (%)	2002 FDA (%)	Current study <i>n</i> = 300 (%)
Agree strongly	32	32	46
Agree somewhat	29	28	23
Neither	9	9	6
Disagree somewhat	21	21	11
Disagree strongly	10	11	14

**Table XII** Response to question about how likely respondents would you be to talk to their doctor about a drug if they saw an advertisement for a drug that treated a condition that was bothering them

	1999 FDA (%)	2002 FDA (%)	Current study <i>n</i> = 300 (%)
Very likely	54	41	33
Somewhat likely	26	32	35
Neither likely nor unlikely	2	2	3
Somewhat unlikely	5	8	8
Very unlikely	11	16	19
Don't know or refused	1	1	1

## Conclusions

DTCA continues to be pervasive, and general awareness of DTCA continues at a very high level among the adult consumer population (over the age of 18). The internet is

**Table XIII** Response to question about whether respondents like seeing advertisements for prescription drugs

	1999 FDA (%)	2002 FDA (%)	Current study <i>n</i> = 300 (%)
Agree strongly	21	13	13
Agree somewhat	31	19	24
Neither	20	25	9
Disagree somewhat	11	17	20
Disagree strongly	16	26	33

**Table XIV** Response to question about whether advertisements for prescription drugs help respondents make better decisions about their health

	1999 FDA (%)	2002 FDA (%)	Current study <i>n</i> = 300 (%)
Agree strongly	18	11	17
Agree Somewhat	29	21	24
Neither	16	21	5
Disagree somewhat	15	18	20
Disagree strongly	21	29	34

growing in importance as a medium for DTCA and as a source of information for consumers.

However, study findings indicate that consumers are becoming more negative about DTCA (Tables VII and XIII). The majority of patients disagree somewhat or strongly with the statement: "I like seeing advertisements for prescription drugs." This negativism may impair the utility of such advertising in the future. It may also stimulate political attacks that could result in the imposition of restrictions that would reduce the utility of DTCA as a commercial or even public policy instrument.

The negative view held by many consumers is possibly a result of the manner in which DTCA is currently practiced, and certain actions may be able to change the situation. For example, new industry guidelines ask marketers to delay using DTCA until an adequate amount of time has been spent educating healthcare professionals about a new medicine. In addition, marketers have been criticized for not adequately addressing disease awareness and for focusing their advertisements on promoting their brands.

In addition, the majority of patients do not believe that DTCA provides adequate information on the risks and benefits of advertised products. Marketers could study ways of improving the manner in which this information is presented, implementing changes to ensure better comprehension and retention. Such changes would have to be developed in collaboration with the FDA.

While these findings may lead to the conclusion that DTCA raises drug costs, especially if people are prescribed drugs they do not need, it is unclear whether on the whole DTCA contributes to increased healthcare costs. A study of all the information necessary to make such a determination is outside the scope of this research. This study does not include data for offsetting savings to the healthcare system or other benefits that arise from circumstances in which, for example:

- a consumer became aware of a medical problem and sought early treatment as a result of viewing DTCA;
- a consumer was given a more appropriate, modern medicine as a result of viewing DTCA and asking a doctor;
- early use of medicine resulted in avoidance of costs for more expensive therapy; and
- use of medicine enabled a consumer to resume work and other activities earlier than might otherwise have been the case.

Study findings show that consumer attitudes toward DTCA are more negative than those reported in previous surveys. Despite these findings and trends, the majority of consumers/patient respondents believed that “overall, direct-to-consumer advertising is a good thing.” This may indicate that they see the positive potential of DTCA despite the limitations and deficiencies they perceive in current DTCA practices. The reasons for this negativism need to be better understood. A majority of respondents disagreed somewhat or strongly with the statement: “DTCA helps them make better decisions about their health,” and with the observation that adequate information was given about risk and negative effects. Without confirmation that patients, physicians, pharmacists, and payers believe that DTCA contributes to public health, it is unlikely that this form of advertising will be allowed to continue. Members of Congress are questioning the value of DTCA and, without meaningful change, they or the FDA may take action to stop or severely curtail it. Recent self-imposed industry guidelines may be the beginning of such positive change.

As television, magazine, radio, and other traditional media become less important, the internet may become an increasingly important channel for the growth of DTCA and to address the challenges facing it. This research indicates that the internet is a growing source of prescription drug information for consumers. Firms seeking to communicate to consumers should examine the growing importance of the internet and its utility as a tool for communicating detailed information that meets consumers’ needs at all levels of education, as well as FDA requirements for communication of risks and benefits in fair balance.

It may be that the internet will provide a vehicle for improving the risk/benefit ratio of DTCA. The reasons for this are as follows:

- the interactive nature of the internet enables marketers to design audience-specific information and makes it

possible for different audiences to quickly move to relevant information;

- the internet is a growing source of information for consumers; and
- the functionality of the internet enables perceptual and learning processes that are not available in current television and magazine formats.

It appears that some of the benefits envisioned in the early days of DTCA have been realized. Consumers have become more informed and empowered. They are seeing doctors for treatment as a result of DTCA, thus reducing the incidence of under-treatment. However, it remains unclear whether DTCA has improved the delivery of value in healthcare. More research needs to be done to quantify the benefits of DTCA, including whether it has improved drug treatment, compliance, and the physician/patient relationship.

The task of marketers and policy makers will be to refine DTCA to improve its effectiveness as a commercial and health policy tool. Given the image and past practices of the pharmaceutical industry, this is a formidable task. In light of this, the industry must consider whether this form of advertising is worth all of its attendant costs.

### Recommendation for future research

The risk/cost benefit ratio of DTCA needs to be better understood. DTCA does cause some consumers to visit doctors and may increase consumption of medicines. It is unclear whether these visits and this prescribing contribute to the general health and wellbeing of society or just cost money.

Some of the possible beneficial aspects of DTCA that require further study are:

- The degree to which DTCA informs patients and helps them make better decisions about their health.
- The benefit of the increased use of medications to avoid other, more costly treatments.
- The benefit of earlier intervention in some diseases where patients had visited their physicians as a result of DTCA.

The information-seeking behavior of consumers seems to be changing. This needs to be confirmed and, if confirmed, better understood. The differences in consumer information-seeking behavior reported in the present survey, and in the FDA surveys of 1999 and 2002, may indicate a change in the attention to, and action garnered by, DTCA resulting from increased consumer knowledge of the issues or subjects it raises. Consumers may also have become saturated, in which case DTCA will have to do more to get past their perceptual screens.

### Notes

- 1 “Consumers” is used in this article to include patients, physicians, pharmacists, managed care firms, other companies that pay for prescription products, and marketers of pharmaceuticals.
- 2 It is important to note that these syndicated data on advertising spend are subject to error. For example, McLinden *et al.* (2004) report that the published data on Kremers’ costs of their DTCA campaign for omeprazole were almost three times what they had actually spent.
- 3 On inspection, 14 respondents indicated that they did not seek information in response to question 4: “Did any one of these advertisements cause you to seek additional



information?” However, they responded “yes” to question 6: “Did any one of these advertisements cause you to seek additional information from your doctor?” In addition, they provided details in response to question 7. These 14 respondents have been included in the percentage shown for question 4, since their later responses indicated that they had sought additional information. It may be that question 6 refreshed their memory of a specific interaction.

- 4 The FDA survey question was the 15th question in a long survey and was worded as follows: “Thinking about all the ads you have seen in both print and on television, has an advertisement for a prescription drug ever caused you to look for more information, for example, about the drug or about your health.” In the current research, this question was asked fourth and worded as follows: “Did any one of these advertisements cause you to seek additional information?”
- 5 In the 2002 FDA patient survey, this was the 16th question and was worded as follows: “Did you look for further information [following which the questioner read a list at random, which included: ein a reference book, in a magazine, in a newspaper, on the internet, by talking to your doctor, by talking to your nurse, and others]?” In the current survey, the question was asked 6th as follows: “Did any one of these advertisements cause you to seek additional information from your doctor?”

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## About the authors

Michael Friedman joined Purdue in 1985 as Vice President and Assistant to the President and Chairman. Prior to that, he spent 12 years in Sales and Marketing at Hilti, Inc., where he held positions of increasing responsibility including Vice President of Marketing and Chief Operating Officer of Hilti's Pneumatic Fastening Systems Division. In 2003 he became President and Chief Executive Officer of Purdue Pharma. Michael Friedman is the corresponding author and can be contacted at: [michael.friedman@pharma.com](mailto:michael.friedman@pharma.com)

James Gould's interests include assessment of integrated media communications programs, interactive communications, consumer and trade promotions, and analysis of price behavior in stock, bond and commodity markets. He holds a MS, PhD from Cornell University and is associated with the Board of Directors, MarketFAX, Inc. and Westchester Cornell University Alumni Association.

## Executive summary and implications for managers and executive readers

*This summary has been provided to allow managers and executives a rapid appreciation of the content of the article. Those with a particular interest in the topic covered may then read the article in toto to take advantage of the more comprehensive description of the research undertaken and its results to get the full benefit of the material present.*

In this paper, Friedman and Gould examine attitudes towards direct to consumer advertising (DTCA) of prescription drugs to final users in the USA. The authors also attempt to discover the extent to which DTCA persuades patients to request prescriptions from their doctor for products they have seen advertised.

During modern times, the first DTC advert for a prescription medicine appeared in *Readers Digest* in 1981. Its rising popularity since has brought a phenomenal growth in DTCA spending. For instance, the \$791 million spent on DTCA in 1996 increased to \$3.2 billion in 2003 and \$4.5 billion a year later. The number of prescriptions handed out has also risen accordingly from 1.92 billion in 1992 to 3.1 billion in 2001 and 3.4 billion in 2004. Domestic sales in the US pharmaceutical industry were \$242 billion for the year ending March 2005.

### Some issues surrounding DTCA

Among other things, previous research has indicated:

- widespread consumer awareness of DTCA of prescription drugs;
- a majority of consumers believe that DTCA provides sufficient information to enable them to decide whether or not to visit their doctor;
- consumers access the advertisements mainly through television but also via print media and the internet;
- many patients believe that DTCA enables them to make more informed decisions about their health; and
- most patients do not believe that DTCA adversely affects their doctor-patient relationship.

These findings also revealed that DTCA does persuade some patients to ask about specific brands of drug and to discuss medical conditions with their doctor that they had previously not mentioned. However, only a small number of patients admitted to requesting drugs from their doctor after seeing an advertisement for them.

Previous surveys have also revealed changing consumer attitudes towards DTCA. For example, 52 percent of those questioned during a 1999 study carried out by the US Food and Drug Administration (FDA) said that they liked DTC advertisements. In a follow up study carried out by the same regulating agency in 2002, this figure had dropped to 32 percent.

The FDA has generally been in favor of DTCA continuing but has expressed its concerns about declining standards. Although the agency has proposed stricter controls on DTCA, various attempts at legislation have so far not succeeded. Congress has also been alarmed enough to initiate an investigation that revealed DTCA as a cause of increased drug spending and usage. Furthermore, the investigation concluded that most of this spending on highly advertised drugs is the result of greater usage rather than higher prices.

In the light of previous research, Friedman and Gould carried out a random sample taken from the four census regions in the USA. The aim was to target adult consumers who had visited their doctor within the last six months, and after various elimination processes 300 participants remained. The respondents then completed a questionnaire that contained a number of questions similar to those included in the 1999 and 2002 FDA surveys.

### Why attitudes towards DTCA are changing

The authors' survey reveals that DTCA:

- awareness remains at a very high level;
- is increasingly reaching consumers via the internet;
- continues to persuade certain patients to make visits to their doctor; and
- continues to stimulate discussion during surgery visits for other matters.

However, a growing number of consumers believe that DTCA:

- does not help them make better decisions about their health; and
- is not providing enough information on the potential risks or negative effects of taking the advertised drug.

Respondents also admitted that DTCA is not prompting the degree of information seeking revealed in earlier studies. The authors speculate that this could be due to sample size, the ordering and wording of questions or perhaps evidence of certain issues reaching their saturation point as far as consumers are concerned.

The survey has strongly indicated that consumers are growing more negative towards DTCA, even though 59 percent of respondents admitted that the practice is potentially a good thing because of the empowerment it offers them.

### DTCA in the future

Friedman and Gould believe that the negative perceptions may have implications for the future of DTCA and that

political intervention may result in the imposition of significant restrictions. They do, however, believe that the industry may be able to inspire more positive attitudes towards DTCA by taking measures that include:

- compliance with new industry guidelines that ask marketers to delay using DTCA for new products until healthcare professionals have been fully educated first;
- a greater focus on raising disease awareness instead of aggressively promoting brands; and
- developing more effective methods of providing information about risk so that consumer understanding will be enhanced.

Capitalizing on the opportunities offered by the internet is another suggestion put forward. The authors believe that the interactive nature of the medium will allow marketers to present valuable information in such a way that different audiences will be able to simultaneously access and understand it more easily than would be possible through print media or television.

Further research is needed to determine the extent that DTCA helps patients to seek treatment earlier, be prescribed appropriate drugs and make a quicker recovery than might otherwise have occurred. It is also unclear whether the early action often initiated by DTCA prevents the need for more expensive treatment later on.

DTCA is responsible for some patients visiting their doctor and may account for a percentage of the increased consumption of prescribed drugs. On the other hand, the practice may lead to valuable earlier intervention where certain illnesses are concerned. Additional investigation may therefore help clarify the respective costs and benefits of DTCA. The authors also speculate that the information seeking habits of consumers may be evolving and that DTCA may have to change if it is to get the desired messages through to them.

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