

# Direct-to-Consumer Advertising of Pharmaceuticals

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## Abstract

Peoples who watch television or reads newspapers or magazines in the USA cannot help but notice the dramatic upsurge in the repetition of phrases such as “ask your doctor” and “tell your physician” (Fig. for an example). This is a direct outcome of the explosive growth in direct-to-consumer advertising (DTCA). We begin this chapter with a short history of DTCA that brings us to current expenditures on DTCA in comparison with other marketing activities of pharmaceutical firms. Our subsequent discussion reviews the literature on the effects of DTCA and is organized around patients and physicians, followed by a more public policy perspective based on the welfare effects of DTCA including its cost effectiveness. We then discuss the implications reported in the literature for firms’ decisions as well as competition between firms.

**Keywords:** pharmaceutical preparations; advertising; marketing, direct-to-consumer; united states food and drug administration

## Introduction

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expenditures on DTCA in comparison with other marketing activities of pharmaceutical firms. Our subsequent discussion reviews the literature on the effects of DTCA and is organized around patients and physicians, followed by a more public policy perspective based on the welfare effects of DTCA including its cost effectiveness. We then discuss the implications reported in the literature for firms’ decisions as well as competition between firms.



**ARE YOU KIDDING YOURSELF?**

**YOU'RE THE SAME AGE AS YOUR DAD WHEN HE HAD A HEART ATTACK. LIKE HIM, YOU STILL HAVEN'T LOWERED YOUR HIGH CHOLESTEROL ENOUGH.**

There's early heart disease in your family, so your own risk of heart attack is higher. It's time to stop kidding yourself and start lowering your high cholesterol to help reduce your risk of heart attack.

When healthy diet and exercise are not enough, adding Lipitor may help. Along with diet:

- Lipitor has been shown to lower bad cholesterol 39% to 60% (average effect depending on dose).
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Lipitor is backed by over 18 years of research.

Talk to your doctor about your risk and about Lipitor. Learn more at [lipitor.com](http://lipitor.com) or call 1-888-LIPITOR (1-888-547-4867).

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**IMPORTANT SAFETY INFORMATION:**  
LIPITOR is not for everyone. It is not for those with liver problems. And it is not for women who are nursing, pregnant or may become pregnant.

If you take LIPITOR, tell your doctor if you feel any new muscle pain or weakness. This could be a sign of rare but serious muscle side effects. Tell your doctor about all medications you take. This may help avoid serious drug interactions. Your doctor should do blood tests to check your liver function before and during treatment and may adjust your dose.

Common side effects are diarrhea, upset stomach, muscle and joint pain, and changes in some blood tests.

**INDICATION:**  
LIPITOR is a prescription medicine that is used along with a low-fat diet. It lowers the LDL ("bad" cholesterol) and triglycerides in your blood. It can raise your HDL ("good" cholesterol) as well. LIPITOR can lower the risk for heart attack, stroke, certain types of heart surgery, and chest pain in patients who have heart disease or risk factors for heart disease such as age, smoking, high blood pressure, low HDL, or family history of early heart disease.

LIPITOR can lower the risk for heart attack or stroke in patients with diabetes and risk factors such as diabetic eye or kidney problems, smoking or high blood pressure.

You are encouraged to report negative side effects of prescription drugs to the FDA. Visit [www.fda.gov/medwatch](http://www.fda.gov/medwatch) or call 1-800-FDA-1088.

**LIPITOR**  
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tablet

**DON'T KID YOURSELF**  
Find out more at [lipitor.com](http://lipitor.com)

An example of a direct-to-consumer advertisement in print. *Source:* <http://www.pfizerpro.com/hcp/Lipitor/patient-education-center>, accessed on November 8, 2011

### Recent History of DTCA in the USA

Designated and terrific money owed of the history of the regulation of DTCA inside America are to be had (for instance, Palumbo and Mullins 2002; Pines 1999) {1-2}, subsequently, we restrict our dialogue here to three salient activities inside the regulated boom of DTCA. although the advertising of prescribed drugs immediately to purchasers had constantly been a felony, US pharmaceutical companies marketed simplest to physicians until the early 1980s. the primary example of a print advertisement directed to purchasers is believed to be in 1981 with the aid of Boots pharmaceuticals for the ibuprofen product, Rufen. This becomes observed via different drug groups who voluntarily submitted direct-to-client (DTC) advertisements to the FDA. This shift in the advertising method and expenditures of pharmaceutical agencies from physicians to sufferers is a widespread improvement and may be attributed to 2 types of forces. First, increasing limits on the powerlessness of advertising and marketing to physicians, consisting of the boom of controlled care and their tries to comprise drug costs and growing regulations on sales representatives' access to physicians. 2nd, the social climate had modified in want of patients having a bigger say in their very own health care and a greater preference for statistics, thereby making marketing directed to sufferers doubtlessly more effective. Camacho et al. (2010) {3} note that there's a fashion in the direction of extra-participatory choice-making, wherein doctors and patients collectively undergo responsibility for medical choices. The FDA called for a voluntary

moratorium on DTCA in 1983 while it studied this incredibly unusual and unanticipated shape of advertising. The moratorium becomes resulted in 1985. Thereafter, spending on DTCA endured to grow but at a gradual tempo. A critical issue of the FDA policies governing prescription drug advertising is a demand for a "quick summary" describing the effectiveness of the drug and its risks. The brief summary needs to offer the drug's aspect effects, contraindications, warnings, and precautions, in addition to symptoms to be used. at the same time as this requirement was clean to satisfy in print advertising, it became too impractical for a 30-s TV advertisement. In a first-rate alternative to its law of DTCA in 1997, the FDA allowed a published commercial to meet the brief summary necessities through reference to a smartphone number, an internet web page, a print ad, and many others., thereby making it feasible to create a 30-s business. accordingly, spending on DTCA especially on television has grown hastily in view that 1997.

In 2005 the USA pharmaceutical industry trade affiliation, PhRMA (Pharmaceutical Research and producers of us) {3}, announced voluntary recommendations for DTCA practices. The hints are supposed to cope with issues about both the timing and the content material of DTC classified ads. These wererevisedin2008(<http://www.phrma.org/websites/default/documents/pdf/phrmaguidingprinciplesDec08final.pdf>) and 26 organizations have become signatories to those tips.

**DTCA Today in the USA: Expenditure on DTCA**

Decline in ordinary promotional spending on pharmaceutical products. the proportion of DTCA in universal promotional spending of pharmaceutical merchandise has been rising over the years and has reached as an awful lot as forty % in 2010. Detailing by way of the sales pressure to physicians remains the dominant shape of advertising spending, but is dropping ground to DTCA. fig show that television and print media account for over 95 % of the entire spending on DTCA. any other characteristic of DTCA spending is its exceptionally focused nature, in phrases of some companies accounting for a massive proportion of average spending. that is in part due to the fact DTCA is essentially used to sell brands in some healing categories simplest. Iizuka (2004) {4} examines this phenomenon and reveals that pills that can be new, of excessive exceptional, and for below-handled illnesses are marketed extra frequently. He additionally finds that corporations market it extra whilst the variety of ability sufferers, instead of the number of current sufferers, is huge. Donohue et al. (2007) {5} similarly word that capsules that are advertised tend to be new and those used to deal with persistent illnesses.

In recent years there has been exceptional growth in online DTCA costs by way of US corporations, specifically using web 2.0 technology. This form of marketing takes place via fb pages, Twitter feeds, blogs or RSS feeds, devoted YouTube channels, and so forth. the scale of the expenditure on online DTCA isn't convenient to be had. One estimate (<http://adage.com/article/news/pharma-on-line-spending-hit-1-billion-12-months/146223/>) puts the entire spending on online advertising and marketing by way of us pharmaceutical and healthcare enterprise in 2010 at \$1 billion

The increase of online DTCA raises a few critical concerns. One is that the us FDA has not issued pointers for this form of DTCA main to concerns about affected person safety. Liang and Mackey (2011a) {6} note that “online DTCA has emerged as an unregulated marketing tool for illegitimate and illicit sources alike, and consumers lack information on whether or not

such information is legitimate.” In a observe of the online DTCA advertising practices of the top ten worldwide pharmaceutical firms and the biggest ten drugs of 2009, Liang and Mackey (2011b) {7} observed that all ten companies had a presence on fb, Twitter/Friendster, and sponsored blogs and RSS feeds. greater flaringly, but, nine out of the 10 pills had a non-corporate advertising and marketing presence through illegal on-line drug sellers, which can be pharmacies that promote sales of prescription drugs without a prescription. The increase of online DTCA raises a few critical concerns. One is that the us FDA has not issued pointers for this form of DTCA main to concerns about affected person safety. Liang and Mackey (2011a) note that “online DTCA has emerged as an unregulated marketing tool for illegitimate and illicit sources alike, and consumers lack information on whether or not such information is legitimate.” In a observe of the online DTCA advertising practices of the top ten worldwide pharmaceutical firms and the biggest ten drugs of 2009, Liang and Mackey (2011b) observed that all ten companies had a presence on fb, Twitter/Friendster, and sponsored blogs and RSS feeds. greater flaringly, but, nine out of the 10 pills had a non-corporate advertising and marketing presence through illegal on-line drug sellers, which can be pharmacies that promote sales of prescription drugs without a prescription.

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**Table Top companies—DTC advertising (millions) in the USA in 2010**

Rank	Company	DTC dollars	% of total spending
1	Pfizer	\$967.5	22.3
2	Eli Lilly & Co.	\$470.8	10.8
3	AstraZeneca	\$422.7	9.7
4	GlaxoSmithKline	\$338.6	7.8
5	Bristol-Myers Squibb	\$330	7.6

Source: Kantar Media. US measured media ad spending in 17 media

Rank	Brand	DTC dollars	% of total spending
1	Pfizer’s Lipitor	\$272.0	6.3
2	Lilly’s Cialis	\$220.6	5.1
3	Lilly’s Cymbalta	\$206.0	4.7
4	GSK’s Advair Diskus	\$200.5	4.6
5	BMS’s Abilify	\$155.7	3.6

Source: Kantar Media. US measured media ad spending in 17 media

**Table Top products—DTC advertising (millions) in the USA in 2010**

**DTCA in unique nations**

New Zealand is the simplest United States of America aspect from the United States inside the enterprise for monetary Cooperation and Development (OECD) {8} worldwide places that permits DTCA of prescribed drugs. New Zealand experienced comparable increase in DTCA as Almeria from its beginning circa 1995, with unsuccessful tries to exchange the liberal law on DTCA. inside the EU Union, a 5-year pilot project of permitting DTCA for AIDS, allergies, and diabetes turned out to be proposed by using the EU

commission, however, rejected by the European Parliament in 2003. however, pharmaceutical organizations, media industries, and the EU charge have persevered to push for watering down this strict ban on DTCA within the ECU Union.

Canada provides a thrilling case examination. despite the fact that DTCA is illegal in Canada, regulations permit styles of advertising and advertising and marketing—disorder-orientated or help-searching for advertising marketing and marketing that doesn't point out a particular brand but discusses a situation and suggests that consumers ask their medical doctor about

remedies, and reminder put it up for statements that point out the emblem name but no fitness claims or statement approximately the usage of the product (Mines 2006).{9} however, as many as 30 % of English-speaking Canadians are automatically uncovered to DTCA via cable and satellite TV for PC television parents stations which might be ruled with the resource folks' hints.

A vital challenge with the boom of online advertising is that such media reach sufferers in nations in which DTCA isn't always jailed. Liang and Mackey (2011a, b) provide a stark instance: despite the fact that GlaxoSmithKline blog web page and Astraera's community Facebook web page imply that they're meant for US residents and clients excellent, non-US customers don't have any access regulations. This workout then portions to an "illegal export" which could need to be regulated.

### Research Methods Appropriate for Measuring DTCA Effects

An essential region of DTCA studies has been the size of DTCA outcomes. Many one-of-a-kind research techniques have historically been used to measure marketing outcomes, and we see a similar spectrum in the literature on DTCA. One essential distinction, but, is that the motivation for DTCA research is generally no longer to test theories of customer statistics processing but alternatively to degree the size of DTCA effects and their managerial or societal importance. due to this emphasis, we rarely if ever locate using controlled experiments both within the lab or inside the area in DTCA studies. the 2 most not unusual study tactics we find in the DTCA literature are surveys and uncontrolled observational designs.

The usage of surveys is enormous (Herzenstein et al. 2004; Iizuka and Jin 2005; Murray et al. 2003; Robinson et al. 2004; Wilson and till 2007). {10-14} there may be a great assignment in the use of surveys to reliably measure the outcomes of DTCA because there may be normally no manipulated institution that has no longer been exposed to DTCA. a few survey-based totally research have attempted to creatively triumph over this inherent trouble. An instance is Mines et al. (2003) {15} which compares patient and medical doctor survey responses among two websites— Sacramento, CA, where DTCA is legal, and Vancouver, Canada, where DTCA is illegal, to evaluate DTCA results. in spite of this predicament, surveys are an important source of facts about an affected person and physician attitudes, in addition to of DTCA results on variables which includes affected person requests, which want to be measured as self-reports.

Further to custom designed surveys, there's an opportunity for researchers to apply syndicated survey information. An example is the national Ambulatory hospital therapy Survey (NAMCS). within the survey, nonfederal workplace-primarily based physicians whole a one-web page questionnaire for every affected person visit sampled at some stage in a 1-week reporting period. The survey information encompasses health practitioner traits, affected person demographics (age, intercourse, race, ethnicity), and visit traits (patients' signs and symptoms, lawsuits, or other motives for the visit, medical doctor's diagnoses, diagnostic and therapeutic services ordered or furnished on the visit inclusive of medications, anticipated resources of fee, visit disposition, time spent with doctor, etc.).

The second common technique for reading DTCA consequences is uncontrolled observational designs. This research depends on comparisons of data between go-sectional units, or across time inside units, or panel studies that use both go-sectional and time-series variant (Calfee et al. 2002; Liu and Gupta 2011; Narayanan et al. 2004; Kosinski 2002) {16-19} to draw legitimate inferences approximately DTCA consequences one wishes for appropriate observational information and suitable statistical analyses that appropriately manipulate for probably confounding covariates. An instance of a panel-based totally examine is Liu and Gupta (2011) who explain variants in the number of patient visits and the wide variety of patient requests across geographic devices inside the United States and across months of the use of DTCA fees in those same gadgets as explanatory variables. A hierarchical Bayesian negative binomial model is used to measure the effects of DTCA expenses at the same time as accounting for opportunity explanations.

In recent years the availability of suitable observational facts has grown, both for the "causal" variables (advertising) and for the "effect" variables (e.g., prescription income). Kantar Media (<http://www.kantarmedia.com>, previously referred to as TNS Media) strains advertising expenditures on all branded tablets considering the fact that 1995. The statistics are available weekly, monthly, and every year. in addition, the statistics are to be had at the targeted Media region (DMA) degree or the USA countrywide stage. expenses in eleven distinct media, inclusive of community television, country-wide newspapers, magazines, the internet, and radio, are stated. at the outcome's aspect, IMS Health (<http://www.imshealth.com>) is the main company of prescription sales information by means of emblem and marketplace. Impactors (<http://www.impactrx.com>) continues a large doctor panel that records prescriptions written by way of physicians, in addition to information visits, patient visits, diagnoses, patient requests, and so on.

### Patient Requests for advertised tablets

Mines et al. (2002, 2003) accrued records in Sacramento, CA, where DTCA is felony, and Vancouver, British Columbia, where DTCA is illegal, the usage of a matched set of patients—medical doctor questionnaires, each of which blanketed a single session. With this innovative layout, they examined how DTCA impacts patient requests and medical doctor prescribing decisions in distinctive coverage environments. They observed that advertising results in extra requests for marketed medicines, and that requests power more prescriptions. in addition, they found that physicians had been regularly ambivalent in these instances about the selection of remedy (i.e., the particular drug they prescribed), suggesting that appropriateness of remedy can also suffer due to affected person requests.

Ehrenstein et al. (2004) examines facts from 1,081 adults surveyed through the FDA in 1999 to recognize the consequences of customers' mind-set towards DTCA. They discover that customers with greater favorable attitudes closer to DTCA are much more likely to search for records about the marketed drug and additionally more likely to ask their health practitioner approximately the drug. Importantly, in addition they discover that physicians are much more likely to prescribe the advertised drug to these patients. Wilson and till (2007){20} analyzed survey data from about 23 hundred family respondents to develop a structural equation model of DTC marketing effectiveness. Confirming the effects of Ehrenstein et al. (2004) and others, they find that customers who are greatly concerned of their healthcare and possess high-quality attitudes closer to DTC marketing are more likely to touch a physician approximately the prescription drug after viewing a DTC commercial.

The use of information accumulated through a market research organization from a health practitioner panel wherein physicians record affected person requests they received, Liu and Gupta (2011) find that personal- brand DTCA expenditures growth the number of affected person requests for two leading manufacturers inside the ld. cholesterol-lowering class but do no longer advantage a smaller share logo. additionally, they discover that competing capsules' DTCA expenses have a advantageous spillover impact at the quantity of affected person requests for the main logo inside the class. no longer all of sudden, more than one research verifies that DTCA encourages patients to talk with their physicians approximately their ailments and to request unique pills. Such patient behavior also influences physicians' prescription behavior

### Research Method:

The research method for studying the impact of Direct-to-Consumer (DTC) advertising of pharmaceuticals would typically involve a combination of qualitative and quantitative approaches. Here are some common research methods that could be employed:

**Surveys:** Researchers may conduct surveys among consumers to gather their perceptions, attitudes, and behaviors related to DTC advertising and pharmaceutical products.

**Content Analysis:** Analyzing pharmaceutical ads to understand the messaging, claims, and potential influence on consumers.

**Focus Groups:** Organize focus group discussions with consumers to delve deeper into their experiences with DTC advertising and its impact on their healthcare decisions.

**Case Studies:** Examining specific examples of pharmaceutical advertising campaigns and their outcomes.

**Secondary Data Analysis:** Review existing data, such as sales figures and healthcare utilization, to identify trends and correlations.

**Potential Results:**

The results of the research would depend on the specific questions asked and the methodology used. However, some potential findings could include:

**Awareness and Recall:** Assessing how effective DTC advertising is in increasing awareness and recall of specific pharmaceutical products among consumers.

**Perception and Attitudes:** Examining how DTC advertising influences consumers' perceptions and attitudes towards pharmaceuticals and the healthcare industry.

**Patient-Physician Interactions:** Investigating whether DTC advertising affects patient-physician interactions, such as patients requesting specific medications based on ads.

**Healthcare Utilization:** Analyzing whether DTC advertising impacts healthcare utilization, such as an increase in doctor visits or prescription rates.

**Consumer Decision-Making:** Understanding how DTC advertising influences consumers' decision-making processes when it comes to healthcare choices.

## Discussion:

The discussion section of the research paper would interpret and contextualize the results obtained. Here are some discussion points that might arise from the research:

**Ethical Considerations:** Discuss the ethical implications of DTC advertising, including potential concerns about patient autonomy, informed decision-making, and potential harm.

**Impact on Healthcare System:** Analyzing the broader implications of DTC advertising on the healthcare system, including costs, treatment patterns, and resource allocation.

**Balancing Information:** Considering the balance between providing valuable information to patients and potentially misleading or biased information in pharmaceutical ads.

**Policy and Regulation:** Discuss the role of regulatory bodies in governing DTC advertising and whether policy changes may be necessary.

**Patient Empowerment vs. Over medicalization:** Exploring the balance between empowering patients with information and the risk of over medicalization due to DTC advertising.

**Health Disparities:** Examining whether DTC advertising disproportionately affects certain populations and exacerbates health disparities.

Remember that the above discussion points are just examples, and the actual discussion would be based on the specific research findings and the research questions asked.

## Conclusions

To finish, we first summarize the findings of some of the research that estimates the quick- and/or long-term DTCA elasticities. to position those results in context, the common short-term logo elasticity of advertising and

marketing, in general, is expected in a recent meta-evaluation of patron product markets to be 0.12 and the average lengthy-time period elasticity to be 0.24 (Sethuraman et al. 2011)<sup>21</sup>. Sethuraman et al. (2011) factor out that their estimates of marketing elasticities are considerably smaller than those mentioned in advance meta-analyses. In desk 21.3, the fast-term DTCA elasticity averages approximately 0.02 with quite a number 0.01–0.11. The lengthy-term DTCA elasticity averages about 0.05 with more than a few 0.03–0.07. We apprehend that there are numerous conceptual and methodological demanding situations in comparing elasticities across studies. notwithstanding those, it's far hanging that the reported DTCA elasticities are squarely inside the decrease half of the distribution of advertising and marketing elasticities. this is unsurprising given the very distinct function of customer advertising and marketing, as well as the decrease in significance relative to advertising and marketing to physicians, in riding prescription drug income. this is an important consideration within the willpower of the advertising blend for pharmaceuticals, a question we go back to eventually.

Our evaluation of the literature shows that several exciting and important questions related to DTCA continue to be unexplored or under explored. We divide our discussion of these questions into two large domain names: call for facet and deliver facet. call for aspect (a) We trust there is substantial room to understand higher the heterogeneity in patient responsiveness to DTCA and the usage of market information. Liu and Gupta (2011) observe variations in the responsiveness of coverage organizations. every other vital variable of the hobby is the severity of the condition. A commonly heard critique of DTCA is that it attracts patients with less severe afflictions to the health practitioner's office, and further, those patients receive drug remedies as a result of requests they make to their physicians, when in fact they may be not the best applicants for a medicinal drug. This vital query has not, to our information, been empirically tested. in addition to patient types, destiny researchers can also want to study how DTCA in exceptional media influences capability patients in another way. Liu and Gupta (2011) discover, as an example, that DTCA in print vs. television affects patients from special insurance companies differently, every other applicable query associated with affected person heterogeneity offers the effect of DTCA on patient requests. Stramers and van Dyck (2009) {22} notice that prior studies indicate differences based on patient gender. ladies have been observed to be extra worried about their health as well as to engage extra assertively in health care settings. further, physicians are more empathic to girls than to male sufferers. All of those suggest that women may be more attentive to DTCA than males.

(b) whilst a huge body of studies has studied DTCA results empirically, the standard look to examine most effective one or some healing classes or merchandise. An exception is Iizuka and Jin (2005) {23} who've records for a couple of healing categories but estimate a pooled effect of DTCA. As a result, it has now not been possible to develop empirical expertise on the determinants or correlates of the effectiveness of DTCA. We trust with the elevated availability of statistics for a couple of healing classes, it's time to expand a broader underneath- status of the drivers of DTCA elasticities. An attempt in this direction is made by way of Kremer et al. (2008) {24} in a meta-evaluation and through Fischer and Albers (2010) {25} the usage of their personal expected DTCA elasticities of primary call for. some of the elements that may be beneficial to observe are the character of the situation being handled (for example, chronic vs. acute), the maturity of the category or product (e.g., mounted vs. new product), the dimensions of the market (i.e., massive vs. area of interest affected person populace), a wide variety of competing merchandise within the category, and so forth supply side

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### Declaration of interest

I, at this second, declare that: I haven't any pecuniary or another private hobby, direct or oblique, in any dependence that raises or can also boost a war with my duties as a supervisor of my workplace control

### Conflicts of Interest

The authors declare that they've no conflicts of Interest

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