Value of direct-to-consumer drug advertising oversold, study finds

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Direct-to-consumer advertising may not be giving big pharma such a big bang for their buck after all. Despite the billions spent on bringing drug marketing campaigns straight into patients' living rooms, such strategies have a modest effect at best—and in some cases, no effect at all.

"People tend to think that if direct-to-consumer advertising wasn't effective, pharma wouldn't be doing it," says Harvard Medical School professor Stephen Soumerai, principal investigator on the study. "But as it turns out, decisions to market directly to consumers is based on scant data."

This study was based at the Department of Ambulatory Care and Prevention of Harvard Medical School and Harvard Pilgrim Health Care and appears September 2 online in the British Medical Journal. It is the first-ever controlled study of direct-to-consumer advertising (DTCA) of pharmaceuticals.

Currently, the United States and New Zealand are the only countries that allow drug companies to advertise directly to patients. When the U.S. Food and Drug Administration eased advertising restrictions on the pharmaceutical industry in 1997, consumer advertising jumped 330 percent over the next 10 years. As of 2005, pharma was spending about $5 billion annually on such campaigns. Some data implied that such ads increased prescriptions, but these studies simply correlated ads with sales, begging the question, are drugs that sell more simply advertised more?

But examining the effects of advertising on sales via a controlled study is problematic. Given the overwhelming amount of advertising in the U.S., how do you find two groups that are very similar, yet one is exposed to pharmaceutical advertising and the other isn't?

The answer: Canada.

DTCA is illegal in Canada. Not surprisingly, however, national borders are leaky and American media—television and magazines and radio, replete with pharma ads—regularly crosses into Canada. As a result, Canadians, like Americans, are swamped with these ads, with one key exception.

All American advertisements are in English. Yet Canada has a significant French-speaking population. In the Canadian province of Quebec, approximately 80 percent of its 7.5 million population speak French as their first language, and tend to get most of their news from French-language media. As a result, residents of Quebec, on the whole, are far less exposed to DTCA than other Canadians.

Quebec, then, functioned as a control group for the study. The researchers compared prescription rates for advertised drugs in English-speaking Canadian provinces with rates in Quebec, where residents were purportedly less exposed to those same ads.

"It's not an absolutely perfect control group," says Michael Law, first author on the paper. "There's obviously a small percentage of Quebec residents who are exposed to English language media. But as control groups go for this sort of observational study, it's about as good as you get."

Law and Soumerai chose to look at three specific drugs: Enbrel (rheumatoid arthritis), Nasonex (nasal allergies), and Zelnorm (irritable

bowel sydrome). All three drugs were on the market for at least one year before the DTCA campaign began, and none were advertised in Canada through "softer" consumer ads, that is, ads that may mention the drug by name without identifying the relevant conditions.

The basic question was simple: did use of these drugs increase faster in English-speaking regions after American DTCA campaigns began?

Using information from IMS Health Canada, a health information company that receives data from a panel of about 2,700 Canadian pharmacies, the researchers analyzed prescription statistics for each of these three drugs for a five-year period.

They found that for two of the drugs, Enbrel and Nasonex, DTCA had no effect whatsoever. Prescription patterns in English-speaking Canada and in Quebec remained identical both before and after DTCA campaigns began.

Sales for Zelnorm, however, did spike noticeably in English-speaking Canada as soon as the ad campaign began. While prescriptions for this drug increased by over 40 percent, this jump was relatively short-lived, and after a few years, prescription rates in both groups resumed identical patterns. A similar analysis of U.S. Medicaid prescriptions found a slightly higher, but similarly brief, jump in sales.

The researchers hypothesize that DTCA may not be as effective as other types of consumer advertising due to the unique complexity of the marketing/sales trajectory.

With a typical consumer product, an individual sees an ad and then can choose to simply go out and buy the item. "But pharmaceuticals aren't typical consumer products," says Soumerai. "A person needs to see an ad, get motivated by that ad, contact their doctor for an appointment,

show up at the appointment, communicate both the condition and the drug to the doctor, convince the doctor that this drug is preferable to other alternatives, then actually go out and fill the prescription. This is a chain of events that can break at any point."

This hypothesis may in fact explain the disparate effects of DTCA on these three drugs. For Enbrel and Nasonex, there are a number of over-the-counter and prescription alternatives that doctors would likely recommend as first-line treatments.

Zelnorm, however, was the only drug on the market in both the United States and Canada for constipation-predominant irritable bowel syndrome. The researchers suggest that Zelnorm would have sold very well without the consumer advertising.

In March of 2007, Zelnorm was pulled from the market due to FDA concerns that it may increase risk for heart attack and stroke.

One hundred years of marketing experience and recent studies indicate that face-to-face promotion of drugs to doctors by pharmaceutical representatives is far more effective than DTCA.

Source: Harvard Medical School