SALES + MARKETING

Prescriptions in Prime Time

Why the pharmaceutical industry is investing more in direct-to-consumer advertising

By Hensley Evans and Rachael Pius

Impact where it matters.

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In 2008, retired teacher Deborah Clark Dushane was spending her newfound free time playing golf and volunteering. Then blood tests for a minor foot surgery revealed that she had a chronic hepatitis C infection, and her relaxed mood was quickly replaced with anxiety about liver disease, cancer and eventual liver failure. She visited her physician and started a year-long course of Interferon, which, at the time, was the standard-of-care therapy for the disease. Unfortunately, the severe side effects—thinning hair, weight loss, nausea, vomiting, eczema and breathing problems—led her physician to halt all treatment.

Dushane learned of new medications for treating hepatitis C while watching TV. She ignored the commercials at first because they reminded her of the terrible experiences that she had on Interferon, but with repeat exposure to the ad messaging, she eventually decided to ask her physician about the newly released medications. The physician explained that these new therapies had higher cure rates with far fewer side effects, so he initiated a two-month course of a new medication. By the end of the treatment, Dushane was considered cured.

In March 2016, Dushane blogged about her experience on the medical news site STAT, and she ended her post stating: "I strongly believe that if I had not seen TV ads about chronic hepatitis C and new drugs to treat it, I wouldn't have done anything to protect myself against it. Those commercials raised my awareness of the disease and gave me the courage to try to beat it again."

Dushane's experience illustrates why many pharmaceutical brands are continuing to invest in direct-to-consumer advertising—especially TV—even as the U.S. healthcare landscape continues to evolve and as consumers' media consumption behaviors undergo significant changes. According to recent ZS research, we predict that DTC ad spending will continue to increase at a rate of about 10% year over year and we anticipate that by 2019, the pharmaceutical industry's total DTC investment will be around $8 billion.

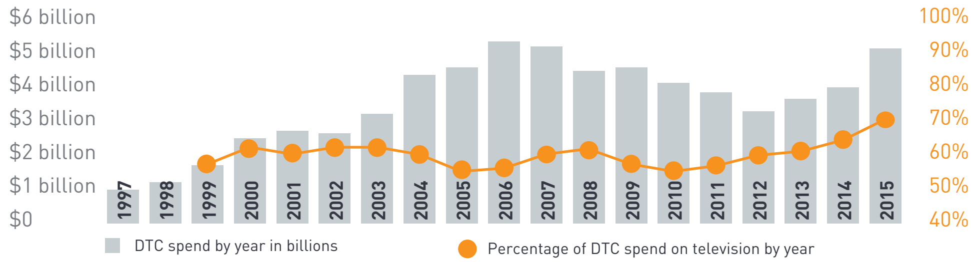
Historical Investment Patterns in DTC

In order to fully understand DTC, it's important to get a historical perspective for how overall investment has shifted with time. In 1997, the FDA released guidance allowing manufacturers to use a major statement (the spoken delivery of a drug's most important risk factors in a TV ad) to satisfy fair balance requirements in lieu of a brief summary. For the first 10 years after this guidance was released, DTC spending increased steadily, reaching almost $5.5 billion in 2006. In 2007, as many of the big, blockbuster primary care brands approached patent expiration—and as the economy started to contract—DTC spending began a steady decline. By 2012, DTC spending had contracted by more than 35%, according to our analysis of data from Nielsen, Kantar and IMS Health.

Looking at that same time period—1998 to 2012—TV, which has traditionally made up the largest portion of total DTC spending, averages 58% of the total DTC budget and only ranges a few percentage points above or below that average in most years (see figure 1).

Starting in 2013, though, we see a very interesting shift. Not only does DTC start to rapidly grow again, almost catching up to its historical high, but investment in TV starts to increase steadily, reaching unprecedented levels. Last year, 70% of DTC investment was in television, meaning that in 2015, DTC marketers spent more on TV than at any time in history. According to data from Kantar, for the first six months of 2016, we've seen that the growth and focus on TV has continued (see figure 1).

A HISTORICAL LOOK AT DTC AND TV INVESTMENT



Sources: DTC spend: Nielsen, Kantar and IMS Health; TV spend: Market Measures Interactive, Datamonitor, The Routledge Handbook of Health Communication, Kantar, Ad Age, STAT News

Figure 1: DTC spend overall starts to rapidly grow again in 2013, almost catching up to its historical high. Interestingly, investment in TV starts to increase steadily, too.

Another recent trend to hit the pharmaceutical space—and impact DTC investment—is programmatic advertising, which leverages algorithms to allow marketers to buy ad space and target advertising in real time, in an attempt to serve up more relevant ads based on what specific individuals are watching, reading or listening to. This approach is driving more targeted and personalized messaging intended to reach a consumer at the right time and in the right frame of mind to absorb content. Let's say that two consumers are watching an NCAA basketball game online. One consumer might see an ad for *New York Times* subscriptions because she was reading a story on the paper's site prior to tuning into the game. Meanwhile, another consumer might see an ad for Match.com based on his search patterns for online dating. The ads are targeted based on knowing who we are and what we buy, rather than on the specific program that we're watching. In July 2016, eMarketer predicted that even though programmatic accounts for less than 1% of all TV ad spending today, it could be a multibillion-dollar industry in just 12 to 24 months.

This means that while you can reach very specific target audiences with digital and mobile media today, the majority of TV ads don't allow you to be that narrow in focus. Moreover, the programmatic spot lengths that are currently available for purchase often don't allow enough time for pharmaceutical advertisers to deliver the major statement. That begs the question: Why are pharmaceutical companies doubling down on traditional broadcast TV investment rather than following other industries' advertisers to programmatic opportunities online, or pushing for programmatic television spots?

Perhaps the substantial investment in traditional broadcast TV is a result of a lack of availability of more targeted programmatic inventory, or a sign that marketers have maxed out their smart investments in the other channels available to them. Or it might be that the pharmaceutical industry is just very deliberate. Conservative cookie policies, as well as restrictions on adjoining content, have slowed programmatic progress in the digital space, and there will likely be similar restrictions for television. Furthermore, it takes a long time to get novel methodologies like programmatic television approved, and marketers want to make sure that the incremental investment in time and resources will actually pay off prior to investing.

Here are three other key drivers that help explain the heavy investment in TV and the acceleration of DTC growth overall:

1. **Consistent growth in media consumption:** According to eMarketer, the average American spends 11 to 12 hours per day consuming media, five of which are on the internet. While many consumers are streaming content on their mobile devices and tablets, the four-year trend lines indicate that streaming content doesn't actually have a negative impact on traditional TV-watching habits (see figure 2). In addition, this increase in content streaming is primarily driven by the millennial generation, not baby boomers. Since many medications are targeted toward aging populations, it isn't surprising that investment in traditional TV advertising continues to grow. Additionally, while there may be a limited amount of money that can be smartly invested in search, mobile and social, broadcast television presents marketers with an opportunity to continue to grow their brands. Media consumption, as a whole, is on the rise, but it's clear that TV advertising investment isn't going away.

TV-WATCHING HABITS: TRADITIONAL VS. ONLINE

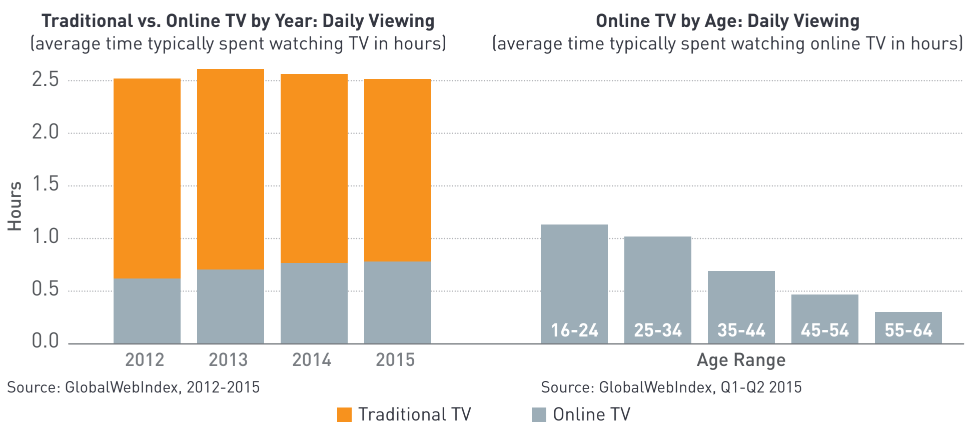


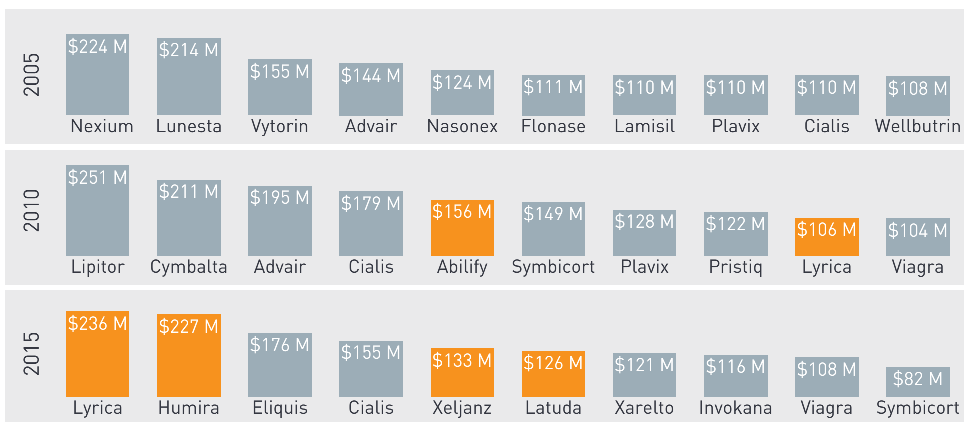
Figure 2: While many consumers today stream content from their mobile devices and tablets, research shows that streaming isn't adversely affecting TV-watching habits.

2. **The effect of today's competitive environment on DTC spending:** Another factor driving pharmaceutical companies' increased investment in DTC advertising is the increasingly competitive pharmaceutical environment. Essentially, as new entrants come to market, other pharmaceutical companies start investing more to connect with consumers. This is especially true for brands that have at least 20 to 30% of market share, since these brands tend to be more likely to invest in television in general. Consider, for example, competitive brands like Cialis versus Viagra, Lunesta versus Ambien and Enbrel versus Humira.

That said, we also see this effect in ultra-competitive categories like psoriasis and psoriatic arthritis. Here, each brand may have far less market share, but there are so many brands that companies are investing in DTC advertising almost as a matter of course. In these categories, the revenue per patient justifies a lot more spending on sales and marketing efforts than we would normally see for smaller-share brands. Moreover, the competitive intensity of the marketplace forces marketers to continue to invest heavily to match their competition's minimum bar. When other channels become saturated in terms of investment, increased investment in DTC television is one place that marketers turn to continue to grow market share.

3. **The rise of specialty pharmaceutical investment in DTC:** When we look at our DTC spending data from 2005 to 2015 at a granular level, we see the proportion of specialty therapies among the top DTC spenders increasing steadily over time (see figure 3). In fact, if you look at the top 10 DTC spenders, the mix over the past 15 years has shifted from being 100% primary care providers in 2005 to being 60% primary care providers and 40% specialty brands a decade later.

TOP 10 DTC INVESTORS BY YEAR



Specialty care brands

Sources: *New England Journal of Medicine*, "A Decade of Direct-to-Consumer Advertising of Prescription Drugs"; Nielsen

Figure 3: In roughly the past 10 years, specialty pharmaceutical brands have continued to increase investment in DTC advertising.

The primary care blockbusters that historically dominated DTC spending have very different market circumstances than the specialty brands that are now joining them in the DTC arena. Some of the blockbusters that first started advertising on TV in the 1990s and early 2000s had target patient populations in the millions (or tens of millions), which would justify spending a significant amount on DTC advertising in broadcast channels in order to drive awareness and prompt consumers to talk to their doctors about the advertised drugs. For example, Lipitor entered the DTC television space in 1999. At that time, there were approximately 38 million adults in the U.S. with high cholesterol, according to the Center for Disease Control and Prevention and the U.S. Census. The first year, the company invested approximately $58 million in DTC advertising.[1] The average value per patient for Lipitor at the

1. Source: "The Effects of Direct-to-Consumer Advertising in the Prescription Drug Markets"

time was just more than $1,000,[2] and in 1999, there were 12 million total prescriptions.[3] This means that the company invested just under $5 in DTC per patient acquired. Lipitor's sales approached $3 billion, so it's DTC investment was about 2% of the total sales for the year.[4] Why would specialty therapies with only a few hundred thousand potential patients use the same approach?

Consider Opdivo, which treats patients with advanced non-small-cell lung cancer (NSCLC). While not all patients have been happy with the brand's DTC efforts, Opdivo invested $50 million in DTC advertising in 2015, according to Bloomberg. Opdivo's efforts, however, were aimed at a far smaller patient population: There are only 342,000 known cases of advanced NSCLC in the U.S.,[5] and Opdivo is currently indicated for only a subset of these patients. At a minimum of $150,000 per patient (the least amount paid, according to our analysis of data from *The Wall Street Journal*), the brand only needed 334 incremental prescriptions to break even with its DTC advertising investment.[6] In this case, we might need to update the old saying, "Half of my marketing spend is wasted; I just don't know which half," to something more like, "90% of my marketing spend is wasted, but the other 10% is so lucrative that I don't mind."

These cases bring to the surface just how deliberate and analytical pharmaceutical marketers are being as they decide whether or not to invest in television, especially since the stakes are much higher in the specialty care market.

Next Steps

So how should pharmaceutical marketers in today's competitive environment approach DTC budgeting decisions in order to maximize their chances of making smart investments? Here are three best practices to help set marketers up for success:

1. **Understand patient behavior.** Historically, companies have found it very easy to get at patients' rational and emotional drivers through traditional qualitative and quantitative market research techniques. Rational drivers include the trade-offs between the risks and benefits of initiating therapy, disease and treatment information, and financial needs and information about financial assistance. Emotional drivers encompass things like social support and connection with a patient's community, underlying expectations for treatment outcomes, feelings about the disease and treatment, and the emotional barriers to conversion or adherence.

   Luckily, recent advances in cognitive science can help us dig a little bit deeper. This field of study has demonstrated that the majority of our actions and decisions are driven by subconscious influences or triggers rather than rational ones. These subconscious drivers include specific, well-defined instinctual programs

2. Source: "Lipitor: At the Heart of Warner Lambert"
3. Source: "The Effects of Direct-to-Consumer Advertising in the Prescription Drug Markets"
4. Source: "An Annual Report From Pfizer"
5. Source: "Non-Small Cell Lung Cancer: Epidemiology, Risk Factors, Treatment, and Survivorship"
6. Sources: "FDA Approves Merck's Keytruda for Most Common Form of Lung Cancer".

that exert a large influence on our behavior. They may be triggered by conceptual frames, heuristics, or environmental, bodily or experiential cues, and they operate below the level of self-awareness and cannot be derived from direct-response research. These insights can apply directly to how we make DTC decisions.

One of the challenges about cognitive science research is that it's primarily observational rather than interrogatory, which creates some challenges in terms of both time and cost. We've had success leveraging digital technology to conduct "mobile ethnographies," where consumers capture photo, video, audio and text responses over a time period (anywhere from three days to weeks), and we've been amazed by the depth of information that we're able to collect through this channel.

2. **Do the math.** Qualitative patient insights are obviously critical, but it's important to marry them with quantitative data to help assess the size of specific DTC opportunities. There are a lot of data sources available to clients, and these sources can be integrated in various ways to generate insights and enhance decision-making. Figure 4 presents a framework that illustrates the various types of data that may be available. The left-hand column represents pharmaceutical-owned data and the right side represents data that is available for license or purchase. The top row is at the patient level and the bottom is aggregated or panel-based data. By using data from one or more of these quadrants, you can develop powerful predictive models that can help inform your decisions.

A FRAMEWORK FOR DATA INTEGRATION

	PHARMACEUTICAL-OWNED DATA	LICENSED DATA
CONSUMER-LEVEL DATA	**Opted-In Patient Data** CRM Co-pay Patient support	**Anonymized Patient-Level Claims Data** Therapy Diagnosis **Appended Individual Data** Demographics Income credit variables
AGGREGATED DATA	**Brand/Company Media Purchasing** Impressions Media buys **Brand sales/prescription data**	**Syndicated Consumer Survey Data (Kantar and Experian)** Purchasing behaviors Hobbies Media consumption **Competitive Media Purchasing**

Figure 4: This framework shows various ways to integrate secondary data sources to generate new insights and enhance decision-making.

A well-known example is media mix modeling, where "owned" aggregated media data is used to model licensed claims data to understand the impact of various promotional channels on sales and prescriptions. Another example might be to match patient-level data from customer relationship management acquisition programs to anonymous patient-level data to develop propensity models, understanding which consumers are more likely to respond to which types of offers or content.

Even before launching into a new category, leveraging syndicated consumer data for patients in the therapeutic category can help enhance your understanding of patient attitudes, behaviors and media consumption patterns.

3. **Measure and optimize.** Our analysis of DTC trends points to the need for more integrated measurement approaches that go beyond operational metrics like reach and engagement to look at indicators of customer satisfaction and business impact. The end goal should be to integrate across multiple sources of information to understand how promotional initiatives are working (or why they aren't).

   There are four main factors that should be considered when developing analytics plans to effectively measure and optimize your strategy. First, how effective is the channel in reaching your target? Second, how does the content, channel and cadence of your messaging drive engagement among potential patients? Third, do your patients understand the key messages, and have a positive impression of your brand and programs? Are they able to successfully take the next step? Last but certainly not least, what's the business impact of these initiatives?

   The most effective measurement approaches are able to link up metrics across all four of these areas. This can be a challenge since the data often come from different sources, such as media agencies and other promotional partners, the web, CRM and call center engagement, American Time Use Surveys and consumer research. Nonetheless, if these key performance indicators are integrated proactively into the yearly planning cycle, then the brand has the opportunity to continuously measure and tailor its strategy based on results.

A Brave New World

Our analysis indicates that consistent growth in the amount of media consumed by the pharmaceutical industry's target demographic, as well as a limit to the DTC investment that truly makes sense for search, mobile and social channels, is driving an increase in the investment in traditional broadcast television. Furthermore, the competitive intensity of the marketplace forces pharmaceutical marketers to continue to invest heavily in order to match their competition's minimum bar. Finally, we see new investment from a class of specialty medications that hadn't historically considered DTC television.

These factors are prompting pharmaceutical marketers to think even more critically about their budgeting and investment decisions. Smart marketers are turning to a deeper analysis of the underlying drivers behind patient decisions and are leveraging the power of integrating qualitative and quantitative primary research with a variety of robust secondary data sources to make critical investment decisions. Finally, they're measuring their decisions and adjusting based on what they find. These steps are important ways to help grow a pharmaceutical brand's share of voice and reach—and, most importantly, to ensure that patients like Deborah Clark Dushane are empowered to initiate conversations with their doctors.

Upon Further Examination

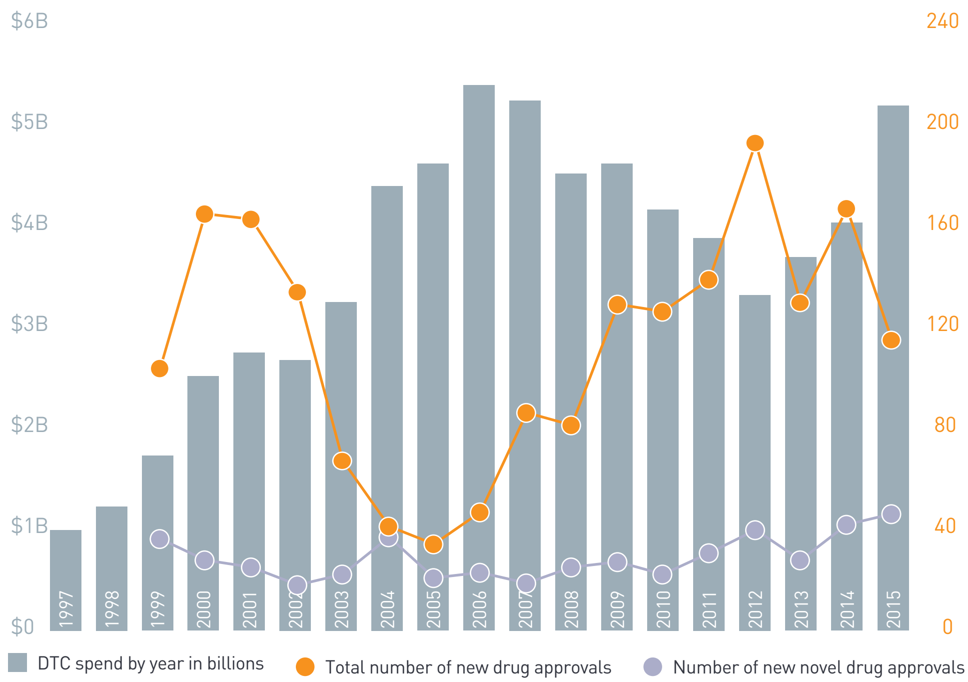
Ultimately, our research shows that the shifts in media consumption, competition in the industry and the rise of specialty pharmaceuticals are the three main drivers of the industry's continued investment in DTC advertising—and in TV advertising, in particular. While conducting our research, however, we uncovered a few additional influential factors around DTC investment in the pharmaceutical space. Here are two:

1. **Pharmaceutical regulations' impact on spending:** To the unaided eye, pharmaceutical companies appear to be investing much more in TV ads than other industries. Often, articles on DTC spending will depict a stacked line chart with pharmaceutical investment dwarfing investment from other industries. However, marketers must consider the additional time that it takes for these commercials to carry the major statement and abide by fair balance requirements. In other words, as many advertisers in other industries have cut back to 15-second spots, pharmaceutical advertisers need more air time. As a result, the overall cost per direct impression in DTC pharmaceutical advertising is much higher than what you might see in consumer packaged goods, for example. While this is definitely driving up cost-per-impression, the comparison is a bit like apples and oranges, especially when comparing pharmaceutical DTC spend to that of large consumer packaged goods brands.

2. **The number of new and novel product approvals:** We also looked at new drug launches and how changes in the types of drugs being brought to market might have an impact on investment. Scientific advances in drug discovery and development have helped to increase the number of promising pipeline molecules, and in 2012, the FDA signed legislation creating its breakthrough therapy designation for certain medications, which now benefit from expedited review once they're designated.

We've seen an increase in the number of new drug approvals after a significant lull between 2004 and 2006 (see figure 5), and the number of novel therapies has risen slightly since that time, as well, but the overall correlation between new or novel drug approvals and total DTC spending or DTC TV spending is very weak at best.

HISTORICAL DTC INVESTMENT AND DRUG OR NOVEL DRUG APPROVALS



Sources: FDA, Nielsen, Kantar, IMS Health

Figure 5: In previous years, investment in DTC doesn't fluctuate closely with the number of drug approvals or novel approvals each year.

About the Experts

Hensley Evans, a principal at ZS's New York office, leads the firm's patient marketing strategy practice. Hensley has developed and implemented strategic solutions that combine marketing efforts with consumer health support programs for pharmaceutical, biotech, over-the-counter and provider clients, and has driven health and wellness initiatives in the consumer goods industry.

Rachael Pius, a consultant at ZS's Philadelphia office, works to drive patient marketing strategy and execution for the firm. In her role, Rachael focuses on helping clients build strategic solutions in the patient support services space and develop capabilities aimed at improving patient health literacy and numeracy and peer-to-peer interaction.

About ZS

ZS is the world's largest firm focused exclusively on helping companies improve overall performance and grow revenue and market share, through end-to-end sales and marketing solutions—from customer insights and strategy to analytics, operations and technology. More than 4,500 ZS professionals in 22 offices worldwide draw on deep industry and domain expertise to deliver impact for clients across multiple industries. To learn more, visit www.zsassociates.com or follow us on Twitter and LinkedIn.

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