Direct-to-Consumer Advertising and its Effects on the Costs of Healthcare

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ABSTRACT

Direct-to-consumer advertising (DTCA) is a new advent to the field of healthcare. Television and print advertisement of prescription pharmaceuticals has been changing the way in which healthcare is administered, and with it, the costs of doing so. This research looks at physician perceptions regarding the effects DTCA has on the financial, patient-physician relationship, and public health costs. Results show that overall, physicians feel DTCA drives up healthcare costs, has more drawbacks than benefits, harms the patient physician relationship, and harms public health.

INTRODUCTION

Healthcare costs have been on a dramatic rise over the past several years. More specifically, the cost of prescription drugs has been climbing faster than all other health care expenditures, over 11 percent in 2005.[1, 2] By 2011, total prescription drug spending is set to reach $413.9 billion.[2]

One theory purported to explain this dramatic increase is the current surge in the use of direct-to-consumer advertising (DTCA) by pharmaceutical companies. DTCA of prescription drugs is defined as the presentation of messages regarding pharmaceuticals directly to the public.[3] It employs a 'pull' strategy to influence demand among the end users of prescription drugs: consumers.[4]

DTCA became an issue in August 1997 when the FDA relaxed restrictions, making it easier to broadcast.[4] The FDA reinterpreted the current regulations, stating that "adequate provision of required information can be met by including a voice-over summary of risks and related information while identifying sources for more complete information such as a toll-free number, Web site address, concurrent print advertisement or information about publicly accessible locations such as pharmacies, and a statement to consult the physician."[4] Prior, media advertisements required the full presentation of all risks, benefits, side effects, and ingredients of the drug, impossible in all but print.

This rule change lead to a rapid expansion in DTCA expenditures. In 1999, the year the official "Guidance on DTCA" was released with the new regulations, DTCA reached $1.9 billion.[4] Official 2004 statistics put DTCA spending at $3.45 billion.[3] 2005 estimates place it at $7 billion.[4]

The financial aspects of DTCA are not the only issues being debated on the topic. Many have serious health concerns regarding the advertisement of pharmaceuticals directly to consumers, who do not have medical training to diagnose the need for them. DTCA is seen as causing unnecessary prescriptions, of which can be not only expensive but also dangerous. This also bears discussion with regards to its effects on the patient-physician relationship. With opponents of DTCA alleging that more patients demand unnecessary prescriptions, the reactions of attending physicians must be taken into account. While held to the highest of moral and professional standards, physicians may still feel the impact from increased pressure by patients to give into the demands created by DTCA.

The interactions between patients affected by DTCA and their physicians are particularly important in understanding the scope and impact of DTCA. Overall physician opinion regarding DTCA is relatively mixed. In a survey of 500 physicians, 40 percent believed DTCA to have an overall positive effect, 32 percent an overall negative effect, and 28 percent to overall effect on their patients and practice.[5] More specifically, 62 percent of physicians cite that DTCA had caused tension between them and their patients and a full 25 percent reported it had caused patients to second-guess or question diagnoses.[5] Overall opinion on DTCA does not appear to see it as a problem in the abstract.

To look at the more specific effects of DTCA, a survey done by Harvard University/Massachusetts General Hospital and Harris Interactive sheds much light, in which 643 physicians were asked a multitude of questions regarding DTCA and the patient-physician relationship.[6] Of the respondents, 31 percent were in primary care, 37 percent were in medical specialties, and 31 percent were in surgical specialties.[6] Questions focused on several specific alleged benefits and concerns of DTCA as well asked a series of general questions.

When asked whether DTCA helps educate and inform patients about treatment options, the response was overwhelmingly positive, with 10.5 percent strongly agreeing and 63 percent somewhat agreeing.[6] The response was also decidedly positive when asked if they believed DTCA helps them have better discussions with patients: 9.3 percent strongly agreeing and 57.7 percent somewhat agreeing.[6] A split occurred when physicians were asked whether DTCA increases patients' compliance with doctor recommendations, tests, or prescriptions, with 41.6 percent somewhat agreeing and 43.8 percent somewhat disagreeing.[6] In general, physicians feel that DTCA is markedly positive in producing the positive effects its supporters contend.

When physicians were asked about the negative aspects of DTCA, the results were definitive. Questioned about whether DTCA encourages patients to seek unneeded treatment, 24.3 percent strongly agreed and 54.3 percent somewhat agreed.[6] When asked whether DTCA fails to provide information on risks and benefits in a balanced manner, the response was even more lopsided, with 37.1 percent strongly agreeing and 44.9 percent somewhat agreeing.[6] Finally, when asked whether DTCA makes patients less confident in physicians' judgment, the response, while not affirmative, is startling considering the question. While the majority of respondents disagreed, 4.3 strongly agreed and 27.7 percent somewhat agreed. Anything that makes even one patient less confident in physicians' judgment could be a danger to the medical profession. These results show that while DTCA appears to have many positive aspects, it also has many negative ones, including those that could have severe negative impacts on the health of patients.

More interesting is the results on why physicians accommodate patient requests for DTCA drugs. 46.1 percent of physicians stated that the requested drug was the most effective for the patient.[6] 48.4 percent of physicians stated that while equally effective, often cheaper drugs were available, they wanted to accommodate patients' requests.[6] This lends credibility to the argument that DTCA unnecessarily increases prescription drug costs. Finally, and most disturbingly, 5.5 percent of physicians stated that while other drugs or treatment options would be more effective, they gave into patients' demands and prescribed the requested drugs.[6] In those cases, DTCA compelled physicians to knowingly mistreat medical ailments, going against the physician's code of ethics and possibly endangering their patients' lives, adding credibility to the argument that it has a negative impact on public health.

This study also gauged overall physician opinion on DTCA with similar results. When asked for an overall assessment on the impact of DTCA, physicians replied overwhelmingly positive, seemingly contrary to some of their responses in previous questions. 22.6 percent replied that DTCA has a large positive on overall health and 53.8 percent responding somewhat positive.[6] Only 1.5 % replied in any manner toward the negative.[6] Even though physicians find shortcoming in DTCA, the vast majority find it to be an overall positive in medicine.

Looking at an experimental study conducted by the University of Mississippi School of Pharmacy, physicians were asked a series of questions regarding patient reactions to DTCA request denials based on set physician communication style, respondents' expectations of receiving a requested prescription, and perceived symptom severity.[7] The results suggest that the manner in which physicians communicate with individuals when denying requests for medications influence patient satisfaction, trust of the physician, and commitment to the physician.[7] When physicians used a partnership style, one in which they work with the patient to make decisions, as opposed to a paternalistic style, one in which physicians act alone due to their sole understanding of prescription drugs, patient satisfaction with their relationship with their physician is markedly higher. The partnership style is more often one that is facilitated by DTCA, giving patients more information to have a two-way conversation with their physicians. This information is important when discussing DTCA in the context of the patient-physician relationship as well as combating the negative effects of it while embracing its positive aspects.

DTCA cannot be fully understood unless a comparison is made between places where it is legal and where it is nonexistent. A study was done comparing two localities, Sacramento, CA, and Vancouver, British Columbia, places with and without legal DTCA, respectively. It surveyed 78 physicians and 1431 of their patients, asking questions regarding prescription requests and prescribing practices to determine whether DTCA has any significant effect.[8]

When patients were asked if they requested a drug from their physicians, both in general and specific to DTCA drugs, Sacramento respondents responded 15.8 percent and 7.2 percent, respectively.[8] When compared to Vancouver, 9 percent and 3.3 percent, respectively, trends are visible. Even though patients in the United States were 1.9 times more likely that their Canadian counterparts to request a prescription drug from their physicians, they were 2.2 times more likely to request a DTCA drug.[8] Furthermore, when patients were asked if they identified themselves as having a DTCA treatable condition, US patients were 3 times more likely than their Canadian counterparts (14.9 versus 4.9 percent) to do so.[8] US patients were also 1.6 times more likely to report using DTCA as an information source (17.9 percent versus 11.5 percent).[8] Clearly, DTCA has an impact on patient requests for prescription drugs, causing an increase in prescriptions, and ultimately, an increase in drug expenditures.

Looking at prescribing practices, similar conclusions are found. US patients are 2.4 times as likely than their Canadian counterparts to receive the requested DTCA drug (5.6 percent versus 2.4 percent).[8] This finding is further

corroborated by the likelihood of obtaining a prescription with and without drug requests. When looking at both localities together, when there is no drug request, DTCA or non-DTCA, the likelihood of receiving a prescription was equal: 26.2 percent.[8] However, when there is a drug request, DTCA or non-DTCA, patients' likelihood of receiving a prescription increases dramatically to 86.5 percent and 74.3 percent, respectively.[8] Clearly, if patients request a particular drug, they are much more likely to receive a prescription, directly attributing prescription drug expenditure increases to DTCA.

Finally, this study looked at the appropriateness of prescriptions, comparing situations with and without a drug request by the patient. Physicians were asked if they judged the prescription given to a patient to only be a "possible" or even an "unlikely" choice for similar patients.[8] In cases without drug requests, 12.4 percent of prescriptions fit that description.[8] In cases with drug requests, 50 percent of prescriptions fit that description.[8] Again, it is clear that patients' requests have a significant impact on the likelihood of not only obtaining a prescription but the likelihood of obtaining an inappropriate prescription, adding to the argument that DTCA leads to a decline in public health.

A lot of discussion has been lent to whether DTCA increases the costs of prescription drugs. However, to do this more fully, it is necessary to look directly at what composes the cost of prescription drugs. Every single year, corporate executives cite DTCA as the most significant cost drive of prescription drugs.[9] However, it is unclear what is meant by this statement or what basis they have to make this assertion.

When looking at what composes price inflation of prescription drugs, three causes are to blame. 24 percent of price inflation is due to traditional inflation.[10] 28 percent is attributed to consumers switching to new, more expensive drugs, ones that are often the most advertised.[10] The remaining 48 percent is due to increased utilization, which as explored earlier, can significantly be attributed to DTCA.[10]

Looking at the components of pharmaceutical companies' costs, the most disturbing statistic of all the studies becomes apparent. The plurality of cost to the manufacturers of prescription drugs is not manufacturing costs (24.9 percent), research and development (13.7 percent), or even profit (23.6 percent), but rather, sales and advertising (34.4 percent).[10] Taken in combination with the statistic that 74 percent of the retail price of prescription drugs is manufacturers' costs, 25.5 percent of the retail cost of prescription drugs is attributed directly to sales and DTCA.[10]

Since current analysis belies the sudden dramatic rise in prescription drug expenditures to DTCA, a discussion of ways to combat this increase is warranted. One common way suggested to decrease prescription drug costs is the consistent prescribing of generics at every opportunity. Generic drugs have exactly the same active ingredients and effects as brand-name drugs, but cost 30 to 80 percent less.[11] In fact, generic drugs make up 56 percent of all prescriptions that were filled in 2005, but only 13 percent of total prescription drug spending.[12] Of the 11,167 FDA-approved drugs on the market, 8,400 have generic counterparts.[11] This would provide physicians sufficient power to reduce prescription drug costs, an issue that should be analyzed and addressed in the age of DTCA.

METHOD

My research is intended to take a comprehensive look at DTCA, touching on all of the major points discussed above. I hypothesize that DTCA has a profound effect on the costs of healthcare. More specifically, I believe that DTCA increases healthcare expenditures, is a danger to public health, and denigrates the patient-physician relationship. Moreover, I hypothesize that the broad based prescription of generic drugs would significantly help stop the rapidly increasing costs of medication.

In order to test these hypotheses, I sent out an e-mail survey to physicians and medical professionals in Wisconsin, Minnesota, Iowa, and Michigan. In total, 1814 survey requests were sent out. I received 342 usable responses for an overall response rate of 18.9%.

The questions asked aimed to address physician opinions touching on all of the research questions I am trying to address. A significant portion of my research focuses on the alleged benefits and concerns with DTCA, asking opinions on how strongly they agree or disagree with the assertions. The next section of questions dealt with broad questions such as how often they have DTCA encounters with patients, reasons for prescribing and not prescribing DTCA drugs, reactions from patients based on their prescription decisions, and physicians' perceptions of the overall effects of DTCA on their patients and their practices. The last portion of questions dealt with how often physicians employ various methods of prescription drug cost reductions such as the use of generics and tablet splitting, as well as reasons for why they do not.

For analysis, I looked primarily at the frequency of each response to check if the overall answer is skewed towards one direction. Also, I did cross tabulation with respects to the questions regarding the likelihood of prescribing generics over name-brand drugs as a means to reduce prescription drug expenditures between DTCA and non-DTCA drug encounters to analyze whether physicians are more or less likely to do so when DTCA is involved.

RESULTS, ANALYSIS, AND DISCUSSION

To start at the beginning, I asked physicians if they "ever had a patient ask for information about a prescription drug s/he has seen on TV." Of the 329 who responded, 299, or 91%, said they had while only 30, or 9%, said they had not. More specifically, I asked whether they "ever had a patient ask them to prescribe a drug s/he has seen on TV." Of the 328 who responded, 258, or 79%, said they had while 70, or 21%, said they had not. This distinction is important because there is a difference between simply inquiring about a drug and forthright asking a physician to prescribe the drug. Even though there was a 12% difference in response, it is clear by both that DTCA is doing its job as a vehicle for getting patients to inquire and many times ask for drugs based on television ads.

Next, I inquired into the prescribing practices of DTCA drugs. First, I asked if patients have asked them to prescribe DTCA drugs and they did prescribe said drugs, what reasons justified their decisions. Interestingly, out of 258 respondents, only 111, or 43%, replied that they prescribed the DTCA because "it was the most effective treatment." 158, or 61%, responded, "It was as effective as other treatment(s); wanted to accommodate request." This leads me to believe that other forms of treatment are available besides the DTCA drug in a majority of cases.

Disturbingly, 16 of the 258 respondents replied, "It was not as effective as other treatment(s); wanted to accommodate request." Also, 7 responded, "It was an ineffective, yet unharmful treatment; wanted to accommodate request." While only representing 6% and 3%, respectively, any response that a physician has prescribed a drug that is less effective or altogether ineffective to a patient simply to accommodate the patient's wishes that s/he receive the DTCA drug says volumes about the impact DTCA can potentially have on public health.

With respects to situations in which physicians refuse to prescribe a DTCA upon request, the same question was asked: What reasons justified these decisions? As expected, the four most popular responses, out of 284, were: "different drug was more appropriate" with 187 (66%), "less costly, equally effective drug was available" with 193 (68%), "another course of treatment was more appropriate" with 185 (65%), and "no treatment was necessary" with 153 (54%). Also, while not a majority, 110, or 39%, responded that it was "patient choice, after discussion." Results like this show that physicians in a majority of circumstances are handling inappropriate DTCA drug requests in a manner that is in the best interests of their patients.

Analysis then moves to what kinds of reactions have physicians observed from their patients when they deny them a DTCA drug request. Not surprisingly, out of 278 responses, 138 (50%) selected "question you as to why you refuse to prescribe the drug," 87 (31%) cite "disappointment," and most commonly, 169 (61%) observed "no adverse reaction." It would be common and expected for these kinds of reactions to occur and pose no threat to the patient-physician relationship. However, two other responses, while not from a large portion of physicians, are alarming. 32 respondents, or 12%, have had instances where patients "insist that s/he prescribe the drug." Even worse, 17, or 6%, note patients have become "angry" or "have threatened" physicians over the matter. While not a majority by any means, DTCA is clearly causing some patients to cross the line, causing a clear denigration of the patient-physician relationship in some instances.

Looking further at the patient-physician relationship, physicians were asked whether "DTCA ever caused tension between them and their patients." While only 103 of 311 respondents said yes (33%), this figure is significant because ideally, if physicians are practicing to the best of their abilities, this number should be zero. Furthermore, when asked if they thought "DTCA has ever caused their patients to second-guess their diagnoses," 125 of 307, or 41%, responded in the affirmative. Like the previous question, ideally, we want to see this number at zero. Clearly, DTCA is having a significant negative impact on the patient-physician relationship.

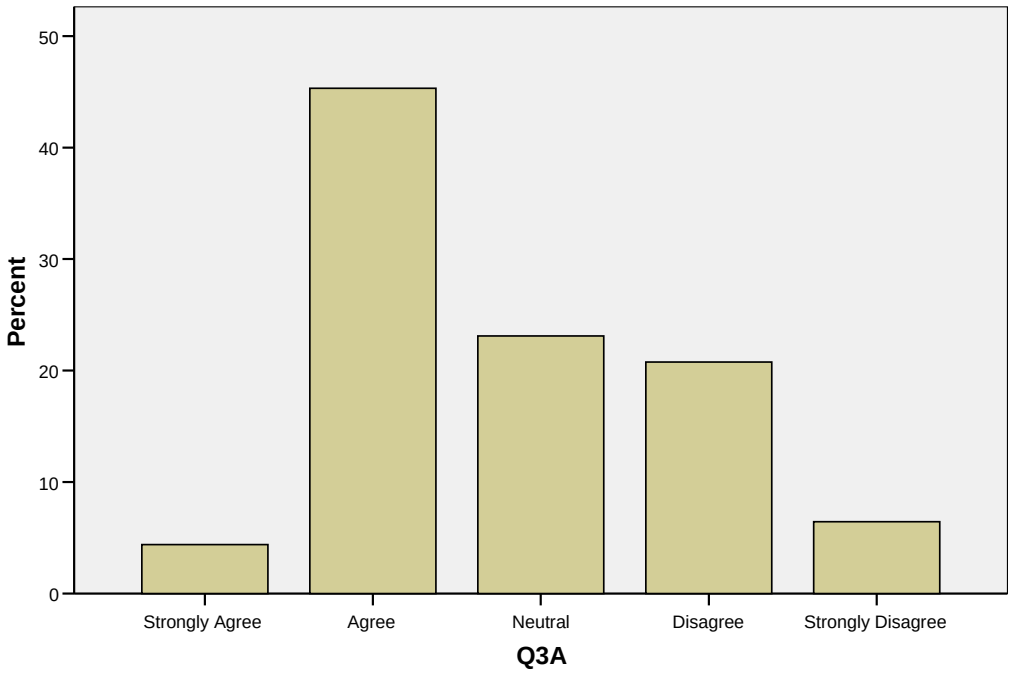
Transitioning to the alleged benefits of DTCA, I asked a series of "yes/no" and "agree-disagree" questions to gauge physicians' opinions regarding the advertising itself. First, when asked if they "feel their patients understand the benefits of DTCA drugs based on the information provided in the ads," only 61 of 305 (20%) responded "yes" with 244 (80%) "no." When asked the same question regarding the risks and possible negative effects, the results were even more lopsided, 30 or 312 (10%) "yes" and 282 (90%) "no." Finally, when asked if they felt "that they must provide additional information about DTCA drugs beyond what patients retain from advertisements to allow for a proper understanding of the drugs, it was almost unanimous: 295 of 309 (95%) responded "yes" with only 14 (5%) responding "no." By these results, it is easy to conclude that DTCA is not an effective means to communicate information about prescription drugs, even less so for risks and possible negative effects. One would suspect this because like any other product, pharmaceutical companies do not want to advertise what is bad about their products.

Looking more specifically at the purported benefits of DTCA, physicians were asked to rate their level of agreement, from "Strongly Agree" to "Strongly Disagree." Five alleged benefits were analyzed, with results below:

"Helps educate and inform your patients about treatments available to them"

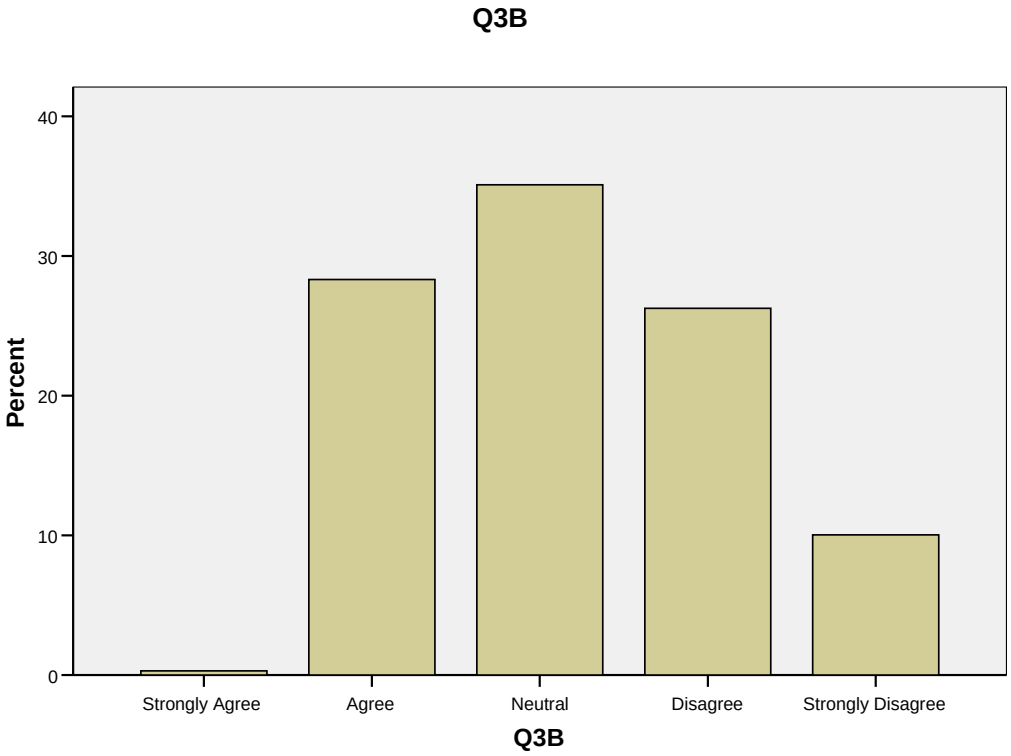
Table 1 (Q3A)		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	15	4.4	4.4	4.4
	Agree	155	45.3	45.3	49.7
	Neutral	79	23.1	23.1	72.8
	Disagree	71	20.8	20.8	93.6
	Strongly Disagree	22	6.4	6.4	100.0
	Total	342	100.0	100.0	

Q3A



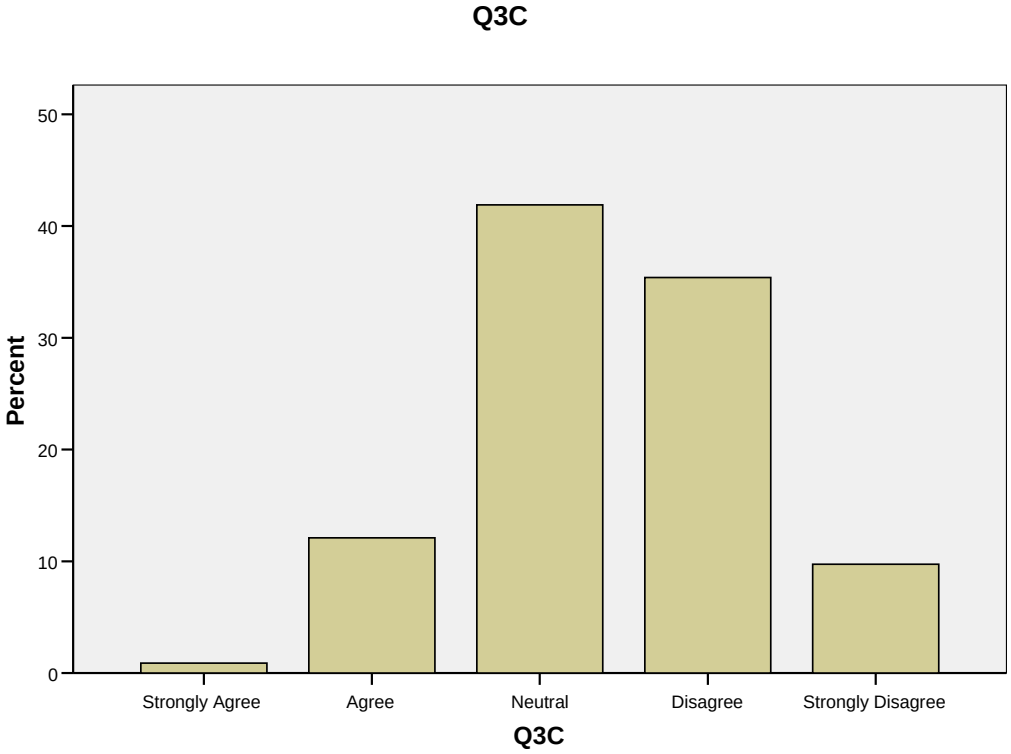
"Helps you to have better discussions with your patients about prescription drugs"

Table 2 (Q3B)		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	1	.3	.3	.3
	Agree	96	28.1	28.3	28.6
	Neutral	119	34.8	35.1	63.7
	Disagree	89	26.0	26.3	90.0
	Strongly Disagree	34	9.9	10.0	100.0
	Total	339	99.1	100.0	
Missing	System	3	.9		
Total		342	100.0		



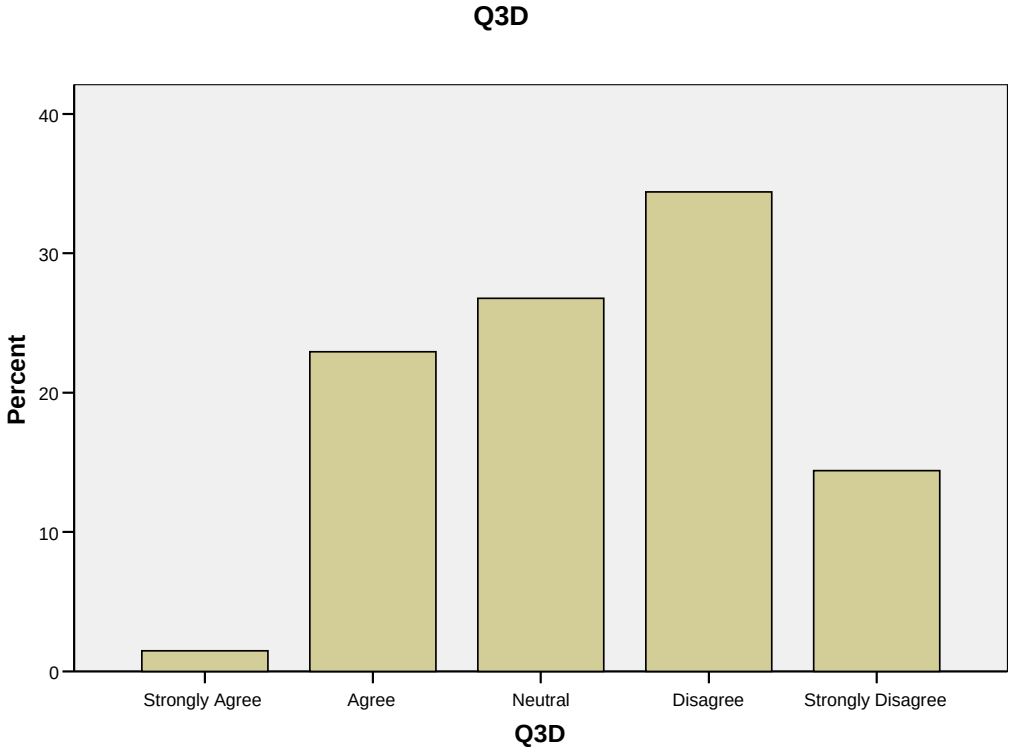
"Increases patients' compliance with your recommendations, tests, or prescriptions"

Table 3 (Q3C)		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	3	.9	.9	.9
	Agree	41	12.0	12.1	13.0
	Neutral	142	41.5	41.9	54.9
	Disagree	120	35.1	35.4	90.3
	Strongly Disagree	33	9.6	9.7	100.0
	Total	339	99.1	100.0	
Missing	System	3	.9		
Total		342	100.0		



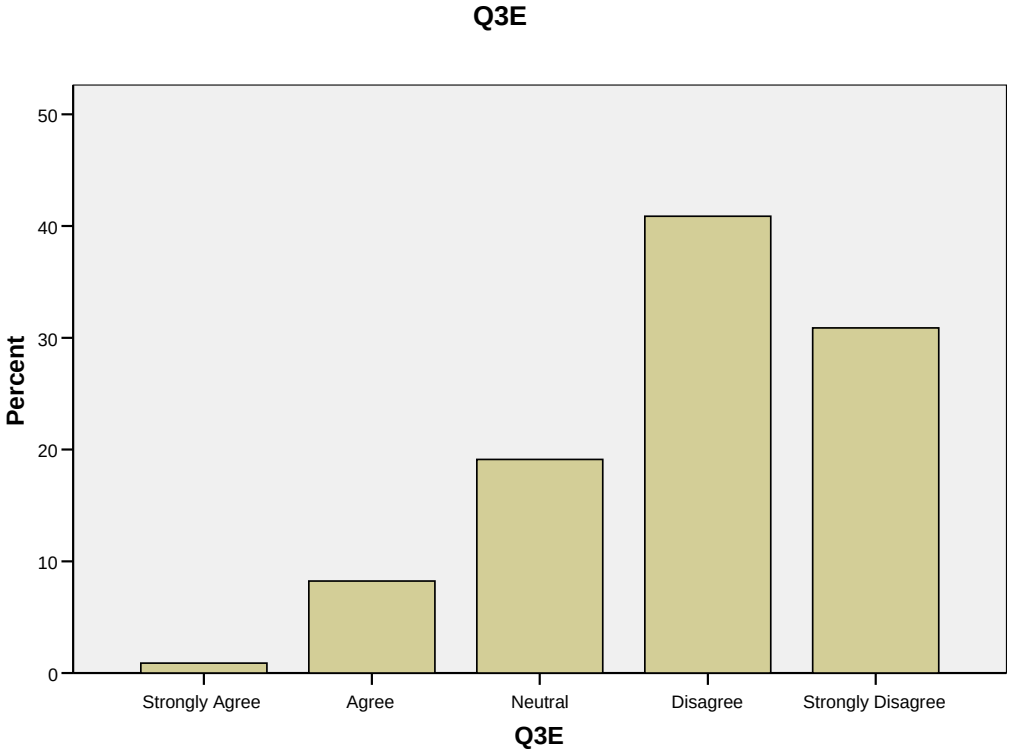
"Helps address the public health problem of underdiagnosis and undertreatment"

Table 4 (Q3D)		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	5	1.5	1.5	1.5
	Agree	78	22.8	22.9	24.4
	Neutral	91	26.6	26.8	51.2
	Disagree	117	34.2	34.4	85.6
	Strongly Disagree	49	14.3	14.4	100.0
	Total	340	99.4	100.0	
Missing	System	2	.6		
Total		342	100.0		



"Is a procompetitive force in terms of improved consumer information and provides downstreaming effects such as lower prices, improved choices, and improved products"

Table 5 (Q3E)		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	3	.9	.9	.9
	Agree	28	8.2	8.2	9.1
	Neutral	65	19.0	19.1	28.2
	Disagree	139	40.6	40.9	69.1
	Strongly Disagree	105	30.7	30.9	100.0
	Total	340	99.4	100.0	
Missing	System	2	.6		
	Total	342	100.0		



Looking at these results, several solid conclusions can be drawn. Half of physicians (50%) feel that DTCA does help educate and inform their patients about possible treatment options (see Table 1). However, it is unclear as to whether this translates into patients having better discussions about those treatments with their physicians (see Table 2). No conclusion can be drawn from this question. Looking as to whether DTCA helps increase patients' compliance, it is clear that physicians disagree with this statement, with 45% disagreeing at least somewhat and only 13% agreeing (see Table 3).

Interestingly, physicians also do not believe DTCA helps address the public health problem of underdiagnosis and undertreatment. Only 24% believe this to be true while twice as many (48%) disagree to some degree (see Table 4). This is curious in light of certain classes of drugs being developed in recent years such as Viagra and Cialis for erectile dysfunction (ED). Prior to DTCA for these drugs, virtually no men were diagnosed with ED. Because of these ads, over 12 million have been diagnosed. This seemingly peculiar result may be a reflection that this phenomenon has occurred only in certain fields of practice.

Most strongly, physicians clearly disagree that DTCA is a procompetitive force that drives down prescription drug costs. Only 9% agree with that statement with 41% disagreeing and a full 31% strongly disagreeing (see Table 5). It is pretty clear that physicians not see DTCA as helping curb healthcare expenditures.

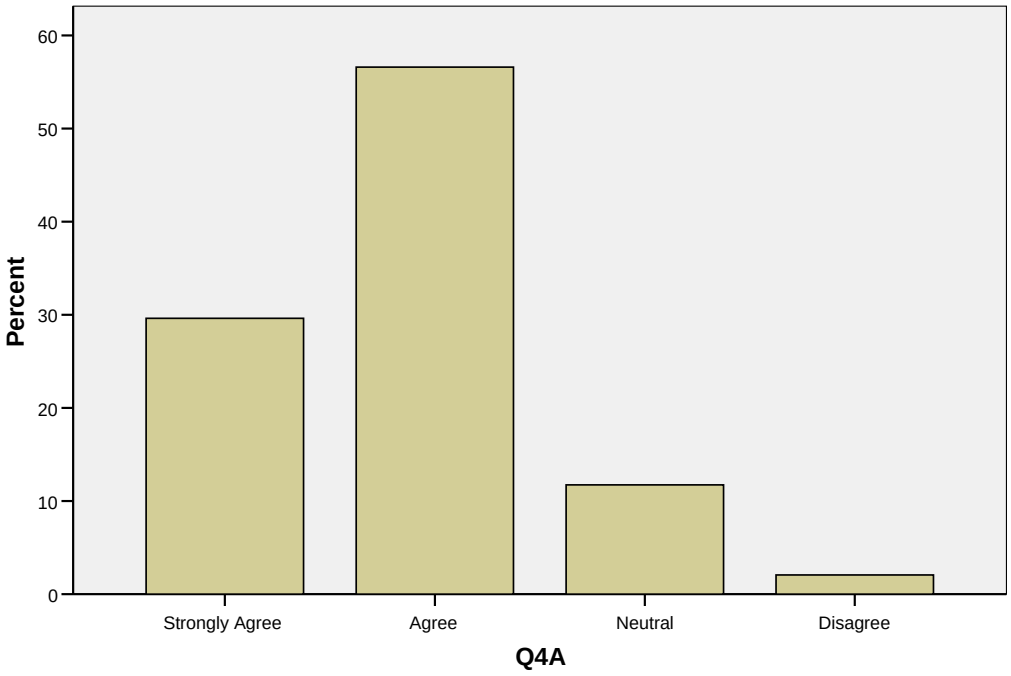
After looking at the alleged benefits of DTCA, I looked at eight alleged concerns for comparison, with the results below:

"Causes physicians to spend time correcting misconceptions gleaned in DTCA"

Table 6 (Q4A)		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	101	29.5	29.6	29.6
	Agree	193	56.4	56.6	86.2
	Neutral	40	11.7	11.7	97.9
	Disagree	7	2.0	2.1	100.0

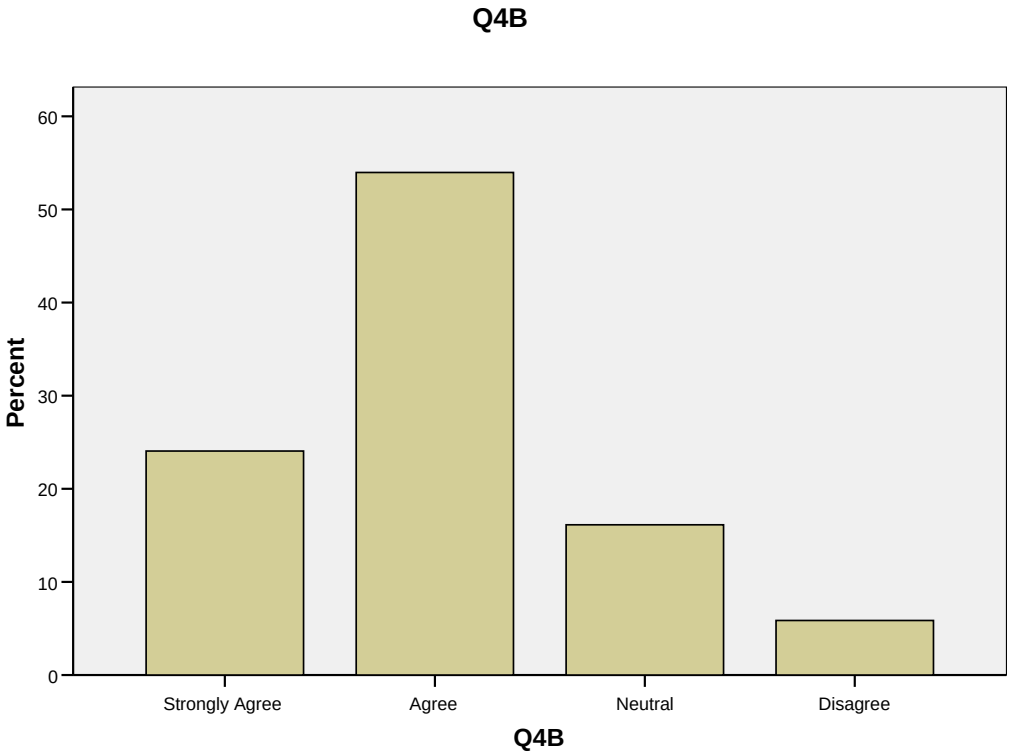
	Total	341	99.7	100.0	
Missing	System	1	.3		
Total		342	100.0		

Q4A



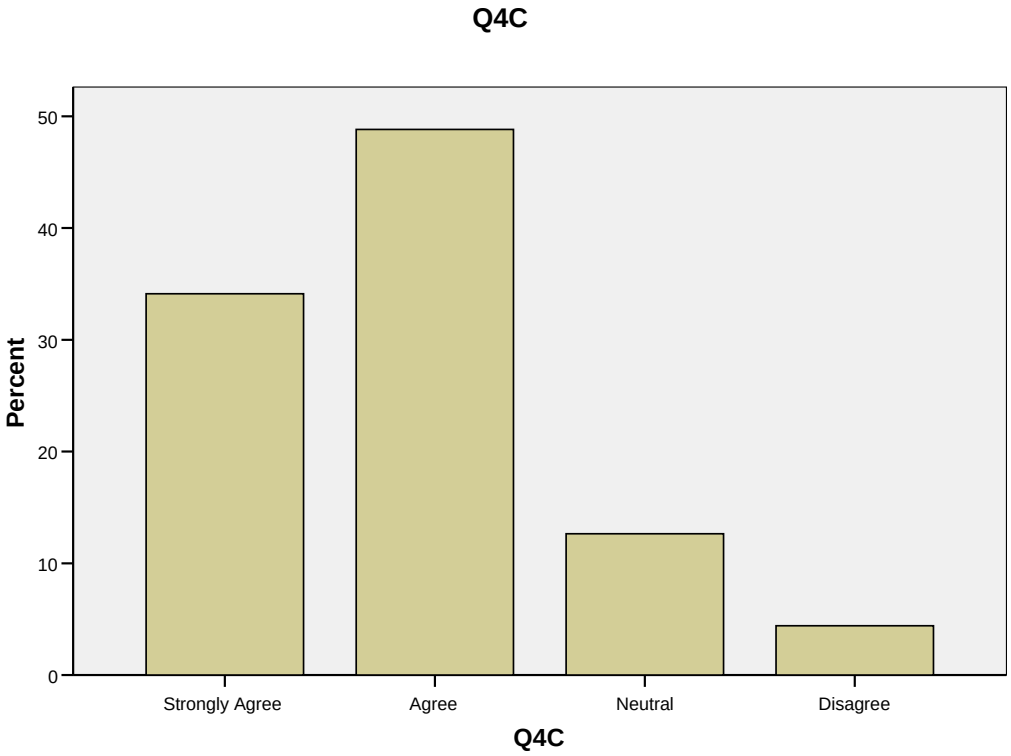
"Does not provide information on risks and benefits in a balanced manner"

Table 7 (Q4B)		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	82	24.0	24.0	24.0
	Agree	184	53.8	54.0	78.0
	Neutral	55	16.1	16.1	94.1
	Disagree	20	5.8	5.9	100.0
	Total	341	99.7	100.0	
Missing	System	1	.3		
Total		342	100.0		



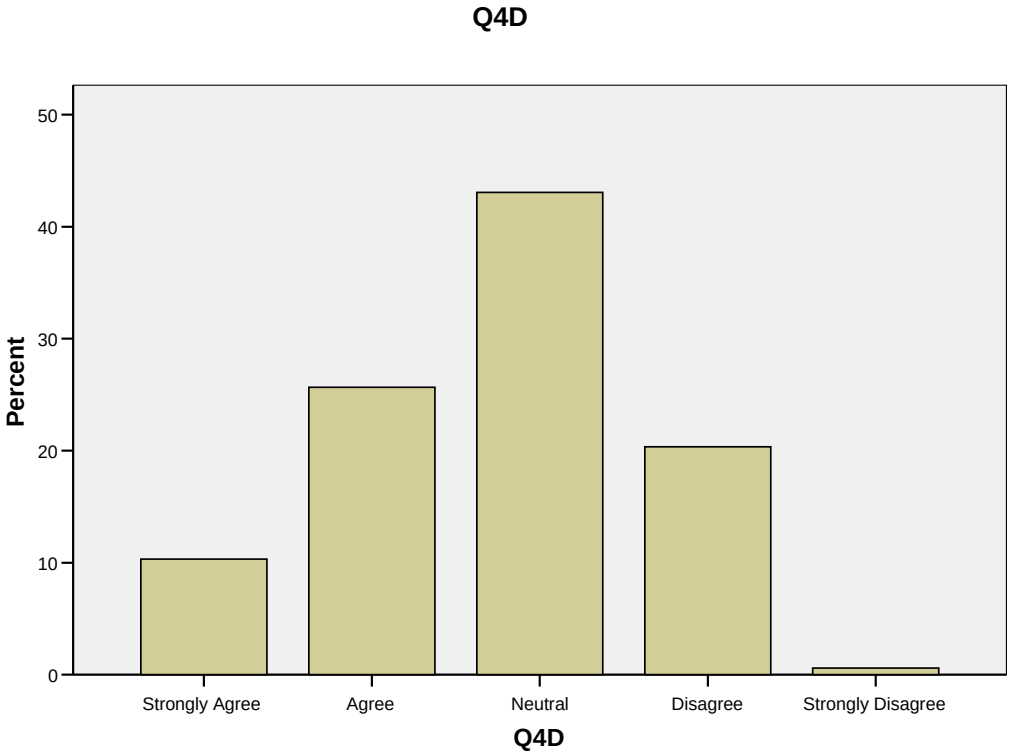
"Encourages patients to seek treatments they do not need"

Table 8 (Q4C)		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	116	33.9	34.1	34.1
	Agree	166	48.5	48.8	82.9
	Neutral	43	12.6	12.6	95.6
	Disagree	15	4.4	4.4	100.0
	Total	340	99.4	100.0	
Missing	System	2	.6		
Total		342	100.0		



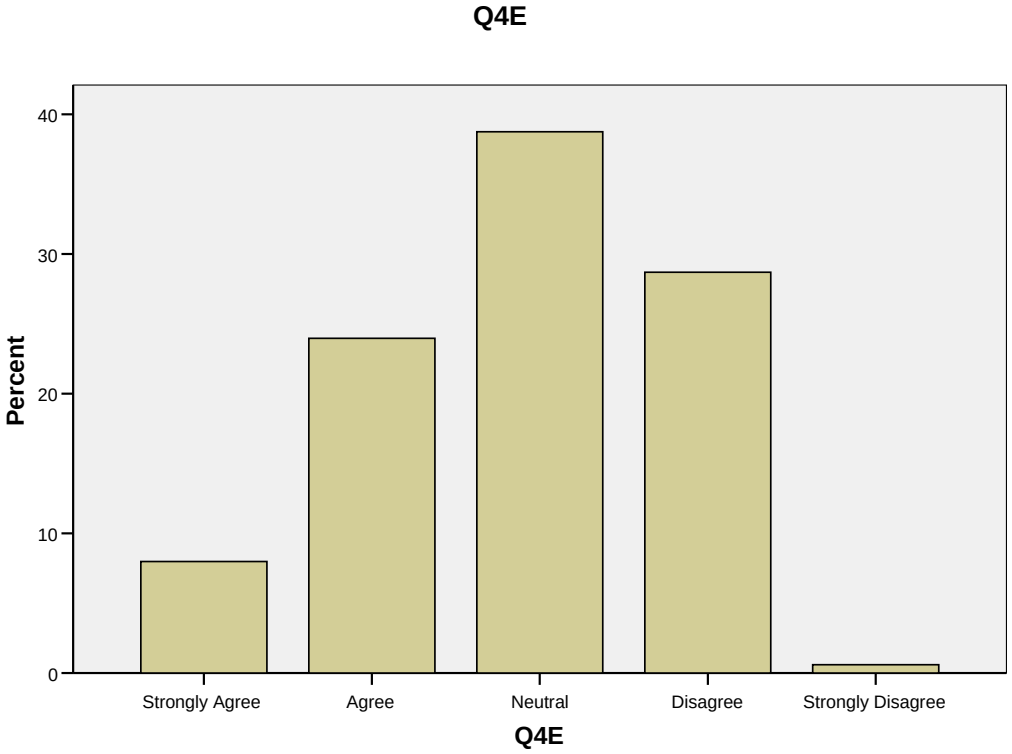
"Makes your patients less confident in your decisions"

Table 9 (Q4D)		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	35	10.2	10.3	10.3
	Agree	87	25.4	25.7	36.0
	Neutral	146	42.7	43.1	79.1
	Disagree	69	20.2	20.4	99.4
	Strongly Disagree	2	.6	.6	100.0
	Total	339	99.1	100.0	
Missing	System	3	.9		
Total		342	100.0		



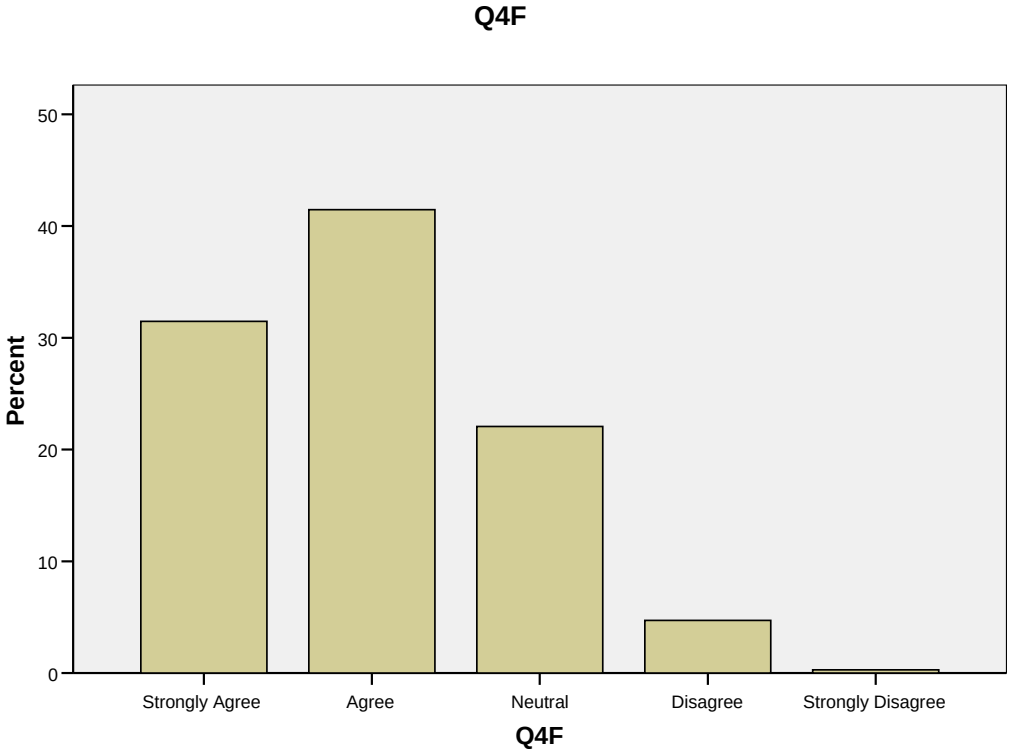
"There is little rationale for DTCA because most new drugs offer little if any therapeutic advantage over existing products"

Table 10 (Q4E)		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	27	7.9	8.0	8.0
	Agree	81	23.7	24.0	32.0
	Neutral	131	38.3	38.8	70.7
	Disagree	97	28.4	28.7	99.4
	Strongly Disagree	2	.6	.6	100.0
	Total	338	98.8	100.0	
Missing	System	4	1.2		
Total		342	100.0		



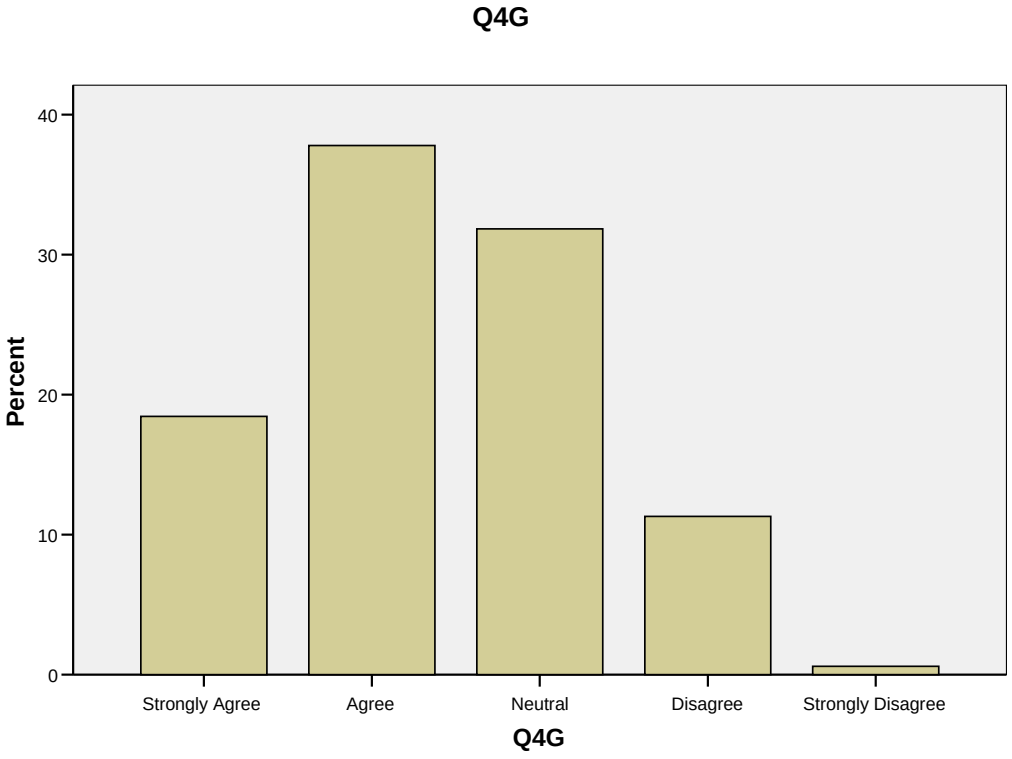
"Leads to increased prescribing and increased costs to the healthcare system"

Table 11 (Q4F)		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	107	31.3	31.5	31.5
	Agree	141	41.2	41.5	72.9
	Neutral	75	21.9	22.1	95.0
	Disagree	16	4.7	4.7	99.7
	Strongly Disagree	1	.3	.3	100.0
	Total	340	99.4	100.0	
Missing	System	2	.6		
	Total	342	100.0		



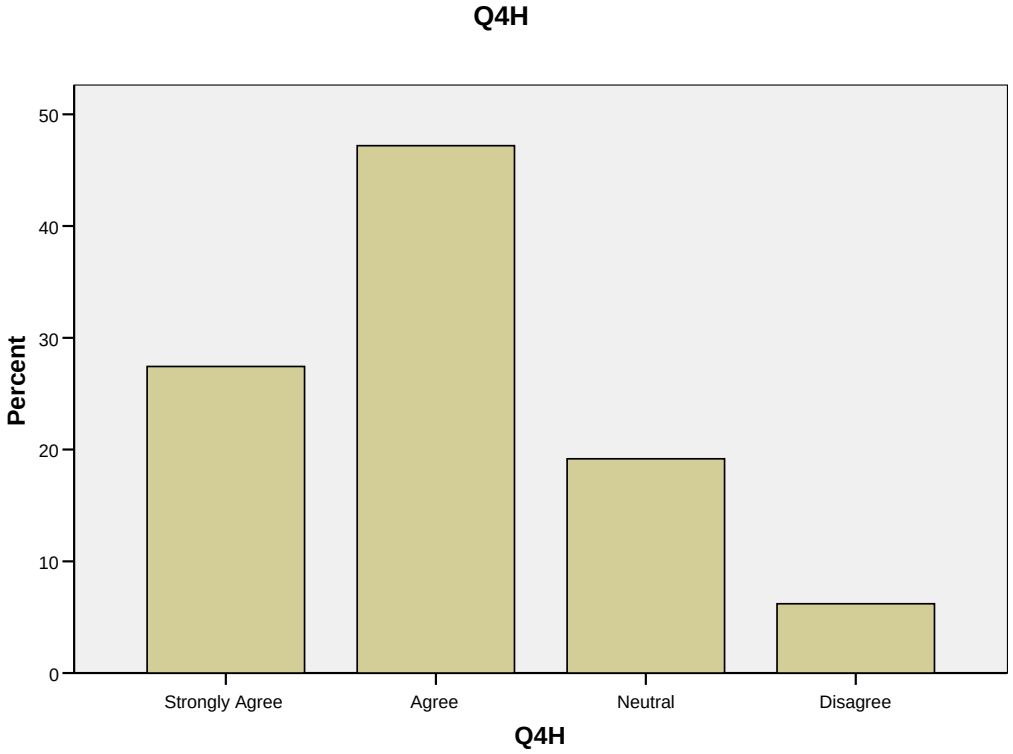
"Places an emphasis on cure and ignores prevention"

Table 12 (Q4G)		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	62	18.1	18.5	18.5
	Agree	127	37.1	37.8	56.3
	Neutral	107	31.3	31.8	88.1
	Disagree	38	11.1	11.3	99.4
	Strongly Disagree	2	.6	.6	100.0
	Total	336	98.2	100.0	
Missing	System	6	1.8		
Total		342	100.0		



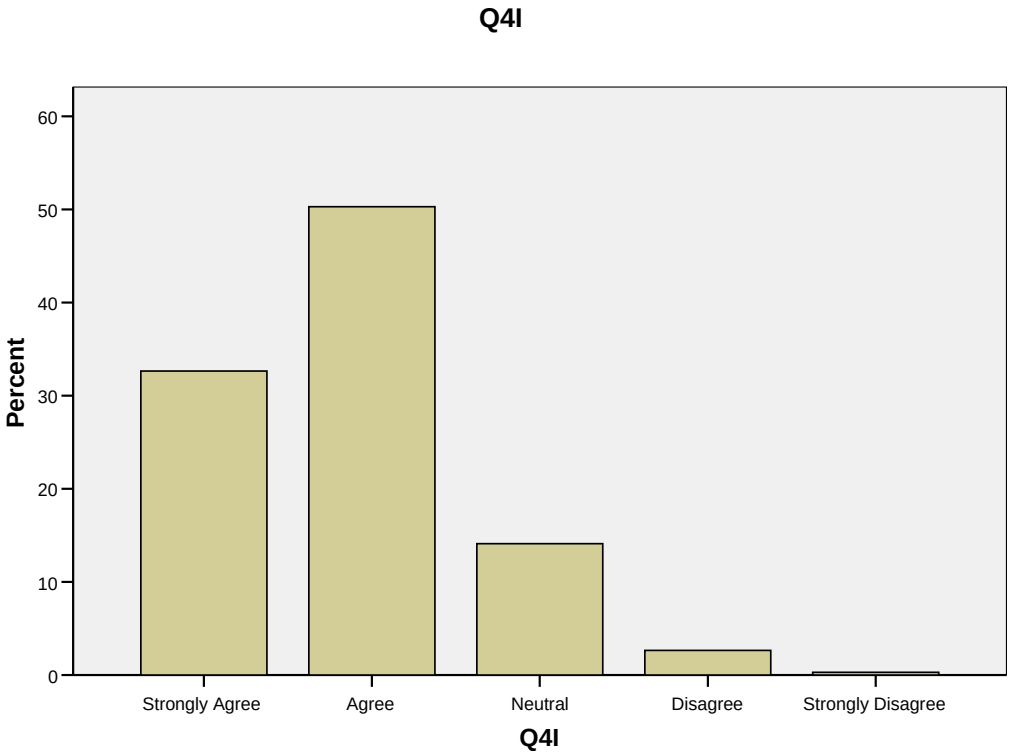
"Contributes to the medicalization of trivial ailments, leading to an even more overmedicalized society and cultivating the belief there is a 'pill for every ill'"

Table 13 (Q4H)		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	93	27.2	27.4	27.4
	Agree	160	46.8	47.2	74.6
	Neutral	65	19.0	19.2	93.8
	Disagree	21	6.1	6.2	100.0
	Total	339	99.1	100.0	
Missing	System	3	.9		
Total		342	100.0		



"There is a discord between profit-maximizing goals and consumer welfare, meaning there is a belief that pharmaceutical companies place profit ahead of public health"

Table 14 (Q4l)		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	111	32.5	32.6	32.6
	Agree	171	50.0	50.3	82.9
	Neutral	48	14.0	14.1	97.1
	Disagree	9	2.6	2.6	99.7
	Strongly Disagree	1	.3	.3	100.0
	Total	340	99.4	100.0	
Missing	System	2	.6		
Total		342	100.0		



Looking as these 8 sets of data, even stronger conclusions can be drawn. 87% of physicians believe DTCA causes them to spend time correction misconceptions patients glean from the advertising, with only 2% disagreeing (see Table 6). This can have a significant impact on the quality and monetary costs of healthcare. Physicians spend less time diagnosing and treating patients and may be unable to see as many patients in a day being as they must spend more time with each patient, on average. More research on this issue is needed to draw a firm conclusion on this assertion.

78%, compared with just 6% disagreeing, believe that DTCA is biased in its presentation, presenting benefits more than side effects (see Table 7). This can contribute to more time spent by physicians correcting misconceptions as discussed above or may impact public health because patients who are ill-informed may be taking drugs with side effects that could harm them without even knowing. Again, further research is needed to draw a firm conclusion.

83% of physicians believe DTCA encourages patients to seek out treatment they do not need, with only 4% disagreeing (see Table 8). There are two profound side effects of this occurring: increase monetary healthcare expenditures and a possible degradation of public health. As for whether physicians believe DTCA makes their patients less confident in their decisions, no conclusion can be drawn based on the data, however there is a slight leaning towards agreement with that statement (36% agreeing vs. 21% disagreeing)(see Table 9). A solid conclusion also cannot be drawn as to whether physicians believe there is little rationale for DTCA because most new drugs offer little if any therapeutic advantage over existing products with 32 % agreeing and 30% disagreeing (see Table 10).

As to whether DTCA drives up healthcare costs, it is pretty conclusive. 72% of physicians agree, including 31% strongly agreeing, with only 5% disagreeing (See Table 11). It is also fairly safe to conclude that DTCA causes patients to place an emphasis on cure and ignore prevention (56 % agreeing and only 12% disagreeing)(see Table 12) and that DTCA leads to the medicalization of trivial ailments—the so-called “pill for every ill”—with 74% in agreement and only 6% disagreeing (see Table 13). This can be corroborated with the overwhelmingly large amount of DTCA ads related to lifestyle. Depression, heartburn, and migraines to name few are conditions in which

DTCA is heavily used. Many of these conditions are a result of lifestyle choices and could be solved without a drug's use.

Finally, looking further at public health, a disturbing result is seen. Physicians overwhelmingly agree that pharmaceutical companies place profits ahead of public health, with 83% in agreement, 33% strongly agreeing, and only 3% disagreeing (see Table 14). This is an extreme cause for concern when addressing both the costs of prescription drugs and the safety of the public.

Since it seems based on these data that DTCA is driving up the monetary cost of healthcare, as I hypothesized, it was necessary for me to try to address what could be done about it. Three solutions have been touted regularly in current literature, them being generics, free samples, and tablet splitting."

When asked whether they gave out free samples of brand-name drugs to patients as a means to reduce prescription drug costs, out of 291 respondents, only 73, or 25%, said they do on a regular basis. 60, or 21%, said they did to test the drug's effectiveness on the patient before prescribing the drug. This is done to prevent patients from spending money on drugs that may not work. However, the majority states they rarely distribute samples (158, or 54%). After discussing the issue with a multitude of physicians, a couple reasons as to why this is the case kept appearing. Most commonly, the paperwork and regulations regarding samples was so burdensome that physicians didn't even want to deal with it. Many of their clinics had outright banned samples because of this. Also, but to a lesser extent, some physicians felt that giving out free samples only caused an increase in prescription drug costs because of both the costs of producing samples as well as the fact that if patients did end up using the drug, these brand-name drugs were often some of the most expensive treatments available.

Tablet splitting is also another avenue some physicians use to reduce prescription drug costs, but it does not come without its drawbacks. Tablet splitting reduces costs because buying higher-dosage pills is cheaper per milligram than low-dose pills. For example, hypothetically, a 20 mg pill of Drug X costs $1 while a 40 mg pill of Drug X costs $.75. If a patient buys the 40 mg pills and splits them into 20 mg doses, s/he saves $.25 for every two pills taken. While this may sound like a good idea, many do not recommend this because it is often very difficult to split pills into equal pieces, causing incorrect dosages. Furthermore, many pills are encapsulated or time release, and should never be split. This could lead to dangerous consequences depending on the drug being taken.

When asked about tablet splitting, 176 or 289 respondents, or a 61% majority, regularly recommend tablet splitting, even if prescription drug costs are not a big issue. 59 (20%) only do so when costs are a big issue for a patient. While this does help reduce costs, physicians must be careful what drugs this is done with in order to ensure that patients do not end up being treated incorrectly, or worse, hospitalized or deceased.

Finally, to conclude my research, I did cross tabulation of physicians' likelihood of prescribing generics as opposed to name-brand drugs, looking specifically at the differences when DTCA is involved. The results are shown below:

Table 15

Identical Generic Available		w/ DTCA Encounter				
		Strongly Agree	Agree	Neutral	Disagree	Total
No DTCA: Strongly Agree	Count	72	**35**	**15**	**5**	127
	% within No DTCA	56.7%	**27.6%**	**11.8%**	**3.9%**	100.0%
No DTCA: Agree	Count	5	81	**33**	**12**	131
	% within No DTCA	3.8%	61.8%	**25.2%**	**9.2%**	100.0%
No DTCA: Neutral	Count	0	2	23	**2**	27
	% within No DTCA	.0%	7.4%	85.2%	**7.4%**	100.0%
No DTCA: Disagree	Count	0	0	1	11	12
	% within No DTCA	.0%	.0%	8.3%	91.7%	100.0%
Total	Count	77	118	72	30	297
	% within No DTCA	25.9%	39.7%	24.2%	10.1%	100.0%

These responses indicate in situations where a physician is presented the opportunity to prescribe a drug in which there is an identical generic equivalent available, a fair number of them are less likely to do so when a patient outright asks their physician to prescribe a DTCA drug based on advertisement. Notice in Table 15 that responses that were equal for both with and without a DTCA encounter are underlined while responses where physicians were less likely to prescribe the generic equivalent when presented with a DTCA encounter are in bold. Ideally, the numbers in bold should be zero if physicians were doing their best to curb prescription drug expenditures, especially in light that the generic is in all ways identical to the name-brand drug.

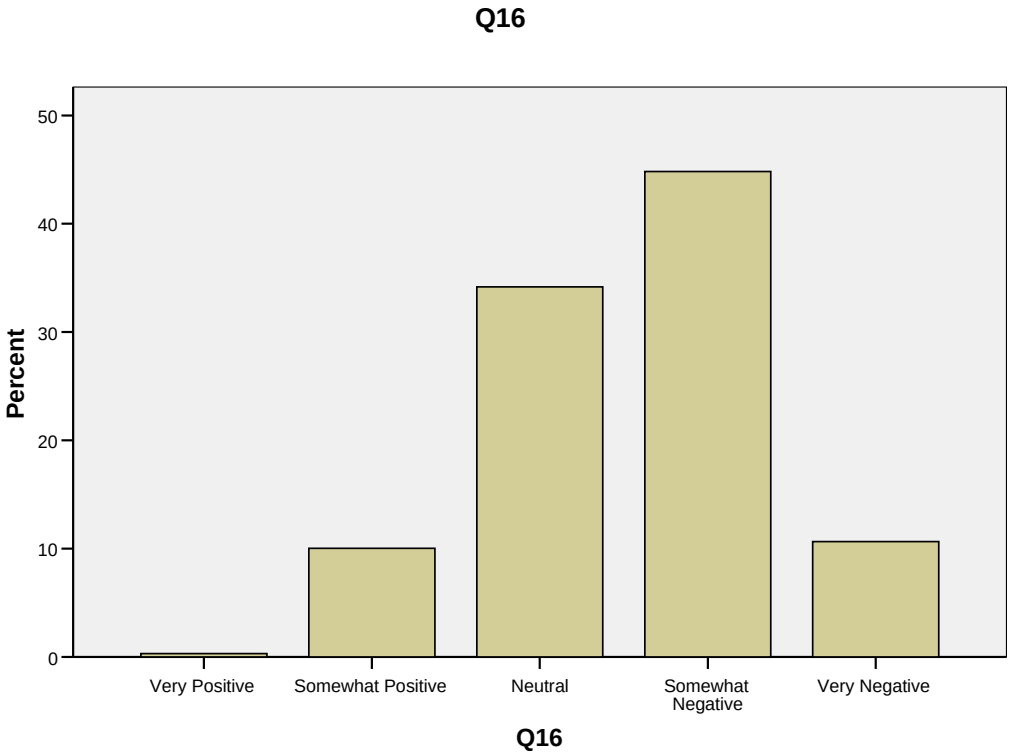
Comparison was also done for instances where there were generic drugs that were comparable were available. Comparable in this case means a drug that is close to the name-brand drug and treats the same symptoms and conditions, but the ingredients are different or are in different proportions. The results are shown below:

Table 16			w/ DTCA Encounter				
Comparable Generic Available			Strongly Agree	Agree	Neutral	Disagree	Total
No DTCA	Strongly Agree	Count	31	**13**	**6**	**2**	52
		% within No DTCA	59.6%	**25.0%**	**11.5%**	**3.8%**	100.0%
	Agree	Count	5	114	**36**	**12**	167
		% within No DTCA	3.0%	68.3%	**21.6%**	**7.2%**	100.0%
	Neutral	Count	0	8	43	**6**	57
		% within No DTCA	.0%	14.0%	75.4%	**10.5%**	100.0%
	Disagree	Count	0	0	3	17	20
		% within No DTCA	.0%	.0%	15.0%	85.0%	100.0%
	Total	Count	36	135	88	37	296
		% within No DTCA	12.2%	45.6%	29.7%	12.5%	100.0%

Again, the results of this question mirror those for identical generics. According to the results displayed in Table 16, physicians are less likely to prescribe a comparable generic drug as opposed to a name-brand drug when presented with a DTCA encounter.

Finally, and fittingly, the last question asked was, “What do you feel is DTCA’s overall effect on your patients and your practice?”:

Table 17 (Q16)		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Positive	1	.3	.3	.3
	Somewhat Positive	32	9.4	10.0	10.3
	Neutral	109	31.9	34.2	44.5
	Somewhat Negative	143	41.8	44.8	89.3
	Very Negative	34	9.9	10.7	100.0
	Total	319	93.3	100.0	
Missing	System	23	6.7		
Total		342	100.0		



Clearly, by those results, physicians feel that DTCA, overall, has a negative impact on both their patients and their practice, encompassing all that has been discussed: monetary costs, patient-physician relationship degradation, and public health. A majority, 56%, believes DTCA is a bad thing and would rather see it either limited or eliminated (see Table 17).

CONCLUSION, IMPLICATIONS, AND FUTURE RESEARCH

My research shows that DTCA does have an overall negative effect on the costs of healthcare. It is clear by the responses that DTCA is a major contributor to increased healthcare expenditures through unnecessary prescriptions and the unnecessary prescription of higher-priced DTCA drugs. It is also clear that physicians see DTCA negatively with regards to the patient-physician relationship. Physicians spend more time correcting mistakes patients learn from DTCA, more time arguing, more time discussing, and have less meaningful discussions with patients. Finally, it can reasonably be concluded that DTCA may to some degree hurt public health. While certainly not the majority of respondents, some physicians admit to prescribing unnecessary, ineffective, or otherwise inappropriate drugs solely because they feel compelled by DTCA to honor the wishes of their patients.

What can be done about this? There are many areas for debate on this issue. Some may say eliminating DTCA altogether like most of the rest of the world has, but what legal ramifications and litigation will ensue from pharmaceutical companies trying to protect their alleged right to free speech with DTCA? Could regulation be the answer? If so, by who, how strict, and at what cost? Or, should we be doing anything at all?

Those ideas are a matter for politicians to deal with. What physicians can and should do is realize the impacts that DTCA is having on their practice and fight to prevent it from doing so negatively. Clearly, DTCA impacts what drugs physicians prescribe with regards to name-brand vs. generic. Ideally, physicians should work to always prescribe generics without exception. Future research should look more closely at this issue, determine the reasons why physicians don't already do this, and provide guidance as to how it can become a reality. Further research should also look more closely at how physicians deal with DTCA drug requests in the office to determine what if any strategies are available for them to help lessen DTCA's effects on their patients. Further research, finally, should ask patients these same types of questions to determine how they perceive DTCA to be affecting them.

Doing so will help us understand how to confront the negative aspects of it and strengthen its positive ones. Only then can a comprehensive plan be developed to deal with DTCA on all fronts.

DTCA is a new phenomenon that hasn't even been around for a decade. However, when it arrived, its impact was immediate and profound. We must work towards remedying its drawbacks or we will face years of healthcare inflation, bad encounters with physicians, and a less healthy public.

LIMITATIONS

Being that I had limited time and resources, I was unable to select a completely random pool of respondents. I had to rely on only those physicians who replied from those facilities that allowed me to conduct my research. Furthermore, my research was limited to the Midwest, and in particular, Wisconsin, make generalizations of national trends more difficult.

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