

Pharmacy Benefit Managers As Bargaining Agents

By
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Abstract

The largest expansion of entitlement programs in the United States in decades – Medicare Part D --is set to commence on January 1st of 2006. On that day, retirees will be eligible for subsidized insurance covering outpatient drug prescriptions. The plan will be managed by private sector entities called pharmacy benefit managers (PBMs)

This paper attempts to reverse misconceptions about PBMs that can be traced to price theory. Proposed is an alternative view based on bargaining theory. There are several fundamental insights gained by looking at PBMs through bargaining theory. First, rebates are not received in consideration for “moving markets” but for refraining from discretionary switching of one brand prescription for another. Second, rebates are not linear price reductions designed to increase demand, but the fixed component of a two-part tariff designed to shift rent to the buy side in a bilateral oligopoly.

Finally, bargaining theory emphasizes that there are two sides to rebate deals. While the Federal government gets more from drug manufacturers, it also gives up more. Comparisons of the relative performance of the Federal government and the private sector should not be based on rebate rates alone, but on the overall performance as measured by drug spending.

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Introduction

The largest expansion of entitlement programs in the United States in decades – Medicare Part D --is set to commence on January 1st of 2006. On that day, retirees will be eligible for subsidized insurance covering outpatient drug prescriptions. No one has questioned the expected benefits of this program. Conscientious use of prescription drugs to treat chronic illnesses has been proven to be an effective deterrent to costly surgery and hospitalization. The questions about this new entitlement program has centered on estimated overall costs (an estimate of \$450B rapidly escalating to \$750B), member contribution (the so-called “donut hole”), and the decision to rely on private sector entities called pharmacy benefit managers (PBMs) to manage these costs.

Health care covered by insurance has to be managed because of the separation of treatment and purchasing decisions from payment decisions. PBMs have emerged in the last 15 years as specialists in managing the outpatient drug benefit portion of insurance plans. While there is substantial evidence that PBMs are effective in controlling drug costs, there are persistent concerns about “conflict of interest” and ability of PBMs to match the Federal government in negotiating rebates from brand name drug manufacturers (hereafter “Big Pharma”).

PBMs operate under a variety of corporate structures and scales. Today, the industry is dominated by three large independent PBMs {hereafter the “Big 3”) – Caremark Rx, Medco Health Solutions, and Express Scripts. Together they manage approximately 50% of all outpatient prescriptions covered by private or government health insurance plans.¹ The rest of the industry consists of independent PBMs that are captives of large drugstore chains such as Walgreen and CVS, captive PBMs of large insurance companies such as Aetna and CIGNA, and independents known as pharmacy benefit administrators (PBAs) that manage all aspects of Medicaid fee-for-service (FFS) plans except rebates.

PBMs use a variety of techniques to contain costs. These techniques are generally grouped into the following categories: (1) claims processing, (2) retail network management, (3) formulary and

rebate management, (4) mail order pharmacy, and (5) drug utilization review. PBMs role in claims processing, mail order, and drug utilization review has be described correctly as one of an efficiency-minded, allocation agent. The analysis of these techniques has been within the framework of traditional price theory. However, we will make the case in this paper that price theory has been applied incorrectly to analyze formulary and rebate management.

PBMs play a dual role in formulary and rebate management. The overriding goal of PBMs is to contain the growth of drug spending, as measured by health care plan per member per month costs (PMPM). The PBM allocation agent seeks to contain PMPM by steering members toward generic drugs. The PBM bargaining agent seeks to contain PMPM by negotiating rebates with Big Pharma. Unfortunately, both pundits and analysts have failed to distinguish the two roles. This leads to the misconception that rebates are a form of price discrimination with the largest rebates going to entities with the greatest price elasticity of demand. In the popular press, this misconception takes the form of statements that PBMs receive rebates in consideration for “moving markets”. Price theory also fails to pinpoint where PBMs receive the bulk of their rebates. This leads to unfair comparisons of PBM performance and unconditional statements about the superiority of government vis-à-vis the private sector in negotiating drug rebates.

How PBMs See Themselves

There are several reasons why PBMs are so vague when describing their role in formulary and rebate management. PBMs feel a need to present themselves to investors as performers. But, admitting that they receive rebates for moving markets exposes them to anti-kickback laws that are prevalent in the health care field. If they said that they received rebates in exchange for passivity, they would scare off investors and expose themselves to antitrust laws. In fact, PBMs are reluctant to describe what they do to earn rebates in any terms. Occasionally, we get a glimpse of how they see themselves as in this interview with David Halbert, CEO of AdvancePCS (now merged with Caremark Rx):²

PBMs aren't shy about asking drug companies for deep discounts. "I ask for their best price and then say I want them to do better," say Halbert. With the prescriptions of 75 million lives on the line, Halbert can be a persuasive negotiator.

Secrecy of Rebate Data

Rebate formulas negotiated between Big Pharma and PBMs are closely guarded secrets protected by non-disclosure agreements. There is vague antidotal data on rebate rates and the distribution of the rates across drugs and therapeutic classes. But not even antidotal data can be found on the specific shape ("F-shaped" or "S-shaped") of market share rebate formulas. The "best price" Medicaid formula negotiated between Big Pharma and the Federal government is well known, and national averages are published every year. But, even the government is prohibited from disclosing details such as the distribution of rebate rates by therapeutic class.

The fact that pharmaceutical rebate formulas and data are such closely guarded secrets is suggestive of a market where players have pricing power and where secrecy is important to negotiating the best deal with the other side. It is in competitive markets of price-takers that full public disclosure of transactional prices has no effect on a player's deal-making ability. But, the level of secrecy surrounding pharmaceutical rebates exceeds that typically found in markets characterized by bilateral oligopoly. For these are transactions between health care providers and health care payers subject to explicit anti-kickback, antitrust, and fiduciary laws. Furthermore, data on the quantity side – e.g., discretionary switching of patient prescriptions – are closely guarded secrets that are protected by strict patient privacy laws.

Recent Medco Disclosures

Medco Health Solutions, the second largest independent PBM, has made some recent disclosures that provide unprecedented evidence of the importance of rebates to the gross profits of independent PBMs. On October 28, 2004, Medco Health Solutions, Inc. disclosed to the public for the first time its rebate retention rate. Chief Financial Officer, Jo Ann Reed, announced at an investor's conference that Medco's rebate retention rate was 40.5% of \$754 Million.³ One month after Medco first disclosed its rebate-retention rate, officers of the company presented graphs at

two separate investors conferences that revealed that it received two types of rebates -- “formulary” and “market share” – and that the distribution of receipts between the two was 54% and 46%, respectively.^{4 5} Based on that information, it is possible to derive an estimate of Medco’s rebate negotiating power. Medco is able to negotiate rebates averaging 10.7% of brand ingredient costs.⁶

Volume rebates are a fairly common occurrence in business. The use of market share rebates by manufacturers is fairly rare. The dual use of volume rebates and market share rebates is extremely rare in American business. Medco’s recent disclosures raise a number of questions about rebates. Is there some mutuality between formulary and market share rebates? Does the 10.7% average adequately reflect Medco’s negotiation power, given the fact that there is evidence that rebates vary considerably by therapeutic class? How does Medco’s performance compare with other rebate bargaining agents, including the Federal government?

The Formulary as a Set of Markets

PBMs began as insurance claims processing specialists. Their core competency in the 1980s was transactions cost economizing. Their expertise in computer networking enabled PBMs to port claims processing to the retail pharmacy point of sale. Until PBMs came along, insurance companies were reluctant to cover outpatient prescriptions because claims processing costs were such a disproportionate share of the claim itself. In addition, insurance companies knew that they could avoid reimbursing a significant portion of claims if members had to “shoe-box” receipts and file claims manually.

As managed care ascended in the 1990s, PBMs realized that a key technique for managing prescriptions in hospitals could be ported to the pharmacy point of sale. That technique is known as a formulary. Typically, the national formularies of large PBMs have 60 to 80 different therapeutic classes. A committee of experts group brand and generic drugs into sets that they deem therapeutically equivalent, hence substitutable. PBMs and clients further order therapeutic

classes by cost, including estimated rebates, and effectiveness. In order to provide comprehensive care, PBMs have to make sure that all non-formulary drugs have at least one formulary drug that is therapeutically equivalent.

A therapeutic class can be viewed as a market – a place where choices are made from a set of substitutable goods. A formulary is a group of separate markets. On the buy side are the Big 3 PBMs controlling around 50% of all outpatient prescriptions. Big Pharma is on the sell side facing three possible competitive environments: (1) competitive (at least two drugs have lost their patents and have generic equivalents) (2) monopolistic – a single patented drug with no current substitutes and little likelihood of future competition, and (3) oligopolistic -- a small number of patented drugs with a continual stream of new entrants to the therapeutic class.

Formulary Compliance as a Bargaining Chip

When a prescription is ordered, a formulary embedded in point of sale software matches the prescription against the list of all drugs deemed therapeutically equivalent. PBMs subdivide each therapeutic class by preference based on the overall objective of containing a client's drug spending. Today, most formularies have three levels of preference, or tiers. The "tier 1" is reserved for low cost generic drugs. The "tier 2" is reserved for preferred, or formulary, brand drugs. The "tier 3" is reserved for non-preferred, or non-formulary drugs. Cost more than effectiveness distinguish the difference between generics in "tier 1" and brands in "tier 2". The difference between brands in "tier 2" and brands in "tier 3" tends to be effectiveness more than costs. Often member co-payments are correlated with tier preference. Co-payments have a significant effect on purchasing decisions, but because co-payments are a discretionary choice of the plan sponsors, and not PBMs, they are not relevant to rebate bargaining.

PBMs can exercise discretion in both formulary design and compliance. PBMs do not begin the formulary design process by presenting clients with a blank look-up table. They begin the process with their "owned" national formulary and assist clients in customizing the national

formulary based on proprietary financial modeling software. A test of the hypothesis that the design of the national formulary is consistent with a bargaining agent is presented in a later section.

We consider now discretion in formulary compliance and its dual use as an allocation and bargaining tool. Today's three tiered formularies are so "open" that PBMs have considerable discretion in initiating switches in prescriptions. There are three types of switches possible (1) a generic for its off-patent brand which is known as generic substitution (2) a generic for a brand which is known as generic-brand therapeutic interchange; and (3) a brand for another brand which is known as brand-brand therapeutic interchange. The need to deliver a competitive PMPM limits the scope of discretionary formulary compliance to switches that either reduce costs or clearly improve effectiveness, preferably both. State laws also place limits on switching. Usually, state laws permit pharmacists to switch a generic for its higher cost off-patent brand because they are near perfect substitutes. Switching between therapeutic equivalents -- generic for a brand or brand for brand usually requires prior approval of the prescribing physician.

The average nominal price of ingredients in a brand prescription is approximately \$65 while the average nominal price of ingredients in a generic prescription is \$16. This is a 4:1 ratio that cannot be overcome by rebates. PBMs know that giving up the right to generic-brand therapeutic interchange jeopardizes their ability to deliver a competitive PMPM to clients. On the other hand, brand-brand therapeutic interchange is essentially a substitution between two drugs that are close enough in nominal prices -- within 20% -- that switches, or lack thereof, can be offered in consideration for receiving rebates without jeopardizing PMPM objectives. Brand-brand therapeutic interchange is the only bargaining chip given up in exchange for rebates.

PBMs have been subject to numerous lawsuits essentially claiming the last statement is false. There are two types of "sins" that PBMs could commit in the area of discretionary formulary compliance: a "sin of commission" and a "sin of omission". PBMs have been accused of actively

switching high cost brands for lower cost generics. This is a “sin of commission” that dozens of state attorney generals and Federal prosecutors are investigating. If PBMs are guilty of anything, it is a “sin of omission” because this indiscretion is so hard to detect, but potentially just as lucrative as a “sin of commission”. It is possible that PBMs are accepting rebates for passively allowing on-patent brand prescriptions to be filled when there are lower cost generics that could be substituted. In sports terminology, PBMs are “playing not to lose, rather than playing to win.” The only deterrent to this passivity is competitive pressure from other PBMs touting their superior performance. Since the “conflict of interest” issue has come into prominence in 2003, we believe that “playing not to lose” is not an option for the Big 3.

Captive Mail Order Pharmacy As a Source of Bargaining Power

Both independent PBMs and captive PBMs within insurance companies find it economic to own their own mail order pharmacy operations. It is rare in the health care industry for payers to own providers. Mail order pharmacies facilitate discretionary therapeutic interchange more than retail pharmacies because of the time delay permissible between order placement and order delivery. The economic benefit of captive mail order operations transcends corporate structure. Because mail order facilitates discretionary formulary compliance, it enhances PBMs dual roles as an allocation agent and a bargaining agent. Mail order is prized for facilitating generic substitution and generic-brand therapeutic interchange. But, in the case of potential brand-brand switches, mail order also enhances PBMs ability to negotiate rebates in exchange for abstaining from brand-brand switches.

Pharmacy benefit administrators (PBAs) do not own their own mail operations. This fact supports the view of PBMs as bargaining agents. As we will explain in detail later, the government gave up considerable rights in the area of discretionary formulary compliance when they negotiated the Medicaid formula with Big Pharma in 1990. Because PBAs are not involved in Medicaid rebate negotiations and because the Medicaid deal with Big Pharma bans generic-brand therapeutic

interchange, PBAs place no special value on owning their own mail order operation either as a boost to bargaining or cost-containment.

Ownership of the Pharmacy Transaction as a Source of Bargaining Power

Another point that we wish to make is that PBMs success as both an allocation agent and a bargaining agent is enhanced immeasurably by the fact that it has to power to coerce, not just the power to suggest. PBMs are not typical purchasing agents whose preferences become suggestions to clients. PBMs legally own the pharmacy transaction and resell drugs to consumers whose payment is covered by insurance. Recently, several large human resources consulting companies have proposed to Fortune 500 clients the possibility of “carving out” rebate management from PBMs and forming a separate group. The group would feature 100% pass-through of rebates and only charge members administrative fees. Bargaining theory suggests that “carve out” groups like this are not likely to match PBMs performance because of the inability to carry out threats of brand-brand discretionary therapeutic interchange.

The Relevance of Bargaining Models

Marx and Shaffer (2004) have developed a sequential bargaining model to investigate how market share rebate agreements between existing sellers and buyers are used to extract surplus from new sell-side entrants.⁷ This model has particular relevance here. It can be viewed as a conceptualization of PBMs and market share rebates as a countervailing forces created by Big Pharma to meet the threat posed by newly patented drugs that are therapeutic equivalents to existing “blockbuster” drugs. PBMs serve as a countervailing force, but not in the direct way that John Kenneth Galbraith envisioned. They are a buy-side force used by first movers on the sell side to impede entry by subsequent movers on the sell side. The welfare effect may, or may not, be positive, depending on how one views the value of so-called “me-too” drugs.

The U.S. patent system only protects chemical innovation and not therapeutic innovation. True innovator drugs that become blockbusters attract competition. Some would argue that there is a

failure of our patent system to protect innovators from me-too drugs. Others would say that patents that are too broad and inhibit innovation more than encourage it. More often than not, chemical permutations of blockbuster drugs – called “enantiomers” – are more effective with fewer side effects. Broad patents would have stifled such innovations. One can view market share rebates as the market’s way of forcing “free riding” second movers to compensate first movers for “piggy-backing” on their substantial pharmaceutical R&D effort. PBMs role in this “rent-shifting” strategy by Big Pharma is critical. Market share rebates provide a basic barrier to entry that is uniform across the buy-side. Access rebates are paid to the largest PBMs as an extra measure of protection against a major breach. They aren’t paid to smaller entities where new entry would only constitute a minor leak.

Rebates as the Fixed Component of a Two-Part Tariff

Bargaining theory and price theory differ as to the expected functionality of rebate formulas. Basically, bargaining theory predicts that rebates would tend to be non-linear because they represent a lump-sum transfer of economic surplus. Furthermore, Big Pharma wishes to avoid a price war and lump sum payments signal that intention. Price theory would predict that rebates are linear functions of quantities demanded. Linear rebates serve as a signal that a seller is trying to increase demand at the expense of competitors. A test of these different expectations would be simple to conduct if rebate contracts were accessible. However, both the rebate contracts and those that negotiate them are locked up in a slew of non-disclosure clauses and agreements.

The language used to describe the two types of rebates is ambiguous about functionality. Formulary rebates are often described in terms of “access” or “cover charge” or “pay to play”. These metaphors alone are very suggestive of a two part tariff used in rent extraction, or in this case, rent-sharing. PBMs would never admit publicly that access rebates are a function of a firm’s size because this would trigger anti-kickback and antitrust inquiries. The language use to describe market share rebates clearly supports price theory’s expectations. But, we would argue

that intent depends on the specific shape of the formula. If the function were more “F-shaped” than “S-shaped”, then market share rebates would function more as a “stop” and a barrier to entry than an incentive to prefer one drug at the expense of another.

Are Rebates Designed to Move Markets?

The following statement was the source of our first effort at formalizing PBM behavior:⁸

The market-share rebate (MSR) is typically based on a sliding scale system according to the number of units of a particular medication that are dispensed, sold, or processed through the PBM as compared with its competitors in a class of medication.

Drugs that compete in a crowded marketplace typically choose the MSR when negotiating with PBMs. The goal is to provide incentives for the PBMs to place its drug in a favorable position on the formulary and to move as much of its drug as possible.²¹

A number of legal questions turn on whether PBMs behave as “service-providers” or “fiduciaries”.

⁹ ¹⁰ Fiduciaries exercise discretion in plan design with material consequences. Service providers merely assist plan sponsors with their decision-making. We conceptualized PBMs and market share rebates as Big Pharma’s solution to an uncoordinated “formulary game”.¹¹ PBMs brought discipline to the buy-side by starting the design process with a single preferred brand drug in each therapeutic class. Plan sponsors could customize what PBMs offered, but would be penalized for the “marginal consequences” of deviations from the national formulary. We summed up PBMs role in formulary design as follows: “Closed formularies do not move markets, closely aligned one do.”

We have used the fact that national formularies are a discretionary act of PBMs to test the hypothesis that PBMs have a conflicted business model that affects their performance.¹² The formulary data gathered in that study is also applicable to the hypothesis that PBMs design their national formularies to move markets. If this were the case, PBMs would be expected that place only a single brand drug in the “tier2” of a therapeutic class. The rest of the brands would be relegated to “tier 3”. To enforce this preference, PBMs might design rebate redistribution formulas that would penalize clients severely if they failed to mirror PBMs “owned” national formulary.

The Appendix presents data on “tier 2” preferences of the Big 3 PBMs in three selected therapeutic classes. For comparison purposes, we present the final formularies chosen by large insurance companies that contract with the Big 3. We also present the formularies of three large insurance companies – Aetna, Cigna, and Pacificare – that have chosen to keep PBM operations in-house. The three therapeutic classes chosen are among the top 10 best selling classes: (1) proton pump inhibitors used to treat chronic indigestion; (2) COX-2 inhibitors used to treat arthritic inflammation; and (3) 2nd generation antihistamines used to treat seasonal allergies. Brand drugs in all three classes face competition from brands that are therapeutic equivalents. In addition, all three classes face competition from an earlier generation of slightly less effective, off-patent drugs that are considerably cheaper.

The results indicate that PBMs place multiple brands in “tier 2” of their national formularies. However, there was a significant drop off in the number of “tier 2” brands in final plan formularies chosen by their clients. After customization, the results show that large insurance companies relying on PBMs have formularies no different than insurance companies with internal PBM operations. We believe that these results do not support the view that PBMs design formularies to move market share. An alternative view is that PBMs accept rebates for not picking favorites, but use the possibility of picking favorites as a bargaining chip. To be sure, the results indicate that PBMs are not totally accepting of all brands. By freezing out a single brand or two, PBMs provide some cushion for maintaining the status quo among the rest.

Who is The Best Bargaining Agent: PBMs Or The Feds?

The largest expansion of entitlement programs in the United States in decades – Medicare Part D --is set to commence on January 1st of 2006. On that day, retirees will be eligible for subsidized insurance covering outpatient drug prescriptions. The estimated benefits of the program have never been questioned. But, the reliance on private sector PBMs to manage the plan has been surrounded by controversy. There is concern that PBMs have a conflict of interest. There is also

concern that PBMs are a poor alternative to the Federal government when it comes to negotiating with Big Pharma.

The purpose of this section is to go beyond simple comparisons of rebate averages as measures of performance. We will argue that there are two problems with weighted averages. First, the distribution of rebates is bi-modal as predicted by bargaining theory. This means that both the Medicaid and the Medco statistic is a poor reflector of negotiating power in oligopolistic classes. What is needed is a disaggregation of rebate rates by broad classes. Second, bargaining theory emphasizes that there are two sides to rebate deals. While the Federal government gets more from Big Pharma, it also gives up more. Comparisons of the relative performance of the Federal government and PBMs should not be based on rebate rates alone, but the overall performance as measured by PMPM.

A recent letter from the Congressional Budget Office (CBO) provides an unprecedented breakdown of the familiar 19% average rebate that the Medicaid program receives from Big Pharma.¹³ The Medicaid formula is as follows: in return for being eligible for reimbursement by Medicaid, a drug's manufacturer must rebate the government the greater of 15.1% of its average price (AMP) or the difference between the "best price" given to a private sector reseller and the 15.1% minimum. The CBO letter revealed that 36% of Medicaid drug spend received a "best price" rebate. A full 64% of Medicaid brand drug spend received the minimum. In addition, the CBO letter provided shocking evidence of the value of a little known clause in the Medicaid deal that gave the government inflation protection. The value of that clause amounted to an additional 11.7% across all drug spend in 2003. Table 1 presents a full disaggregation of the Medicaid average rebate rate of 19.6% (31.4% including the 11.7% inflation protection add-on). The key derivation is a 27.6% average rebate rate for "best price" drugs.

Table 1: Who is the Better Bargaining Agent: PBMs or The Feds?			
Medicaid Fee-For-Service		Oligopoly "Best Price" Therapeutic Classes	Other Therapeutic Classes
Rebate Rates Received.....		36% of Brand Spend	64% of Brand Spend
	Weighted Average	Rebate as % of AMP	Rebate as % of AMP
Basic Rebate Rate	19.6%	27.6%	15.1%
Inflation Protection	11.7%	11.7%	11.7%
Rate + Inflation Protection	31.4%	39.3%	26.8%
In Consideration for.....	Giving up discretionary brand-brand therapeutic interchange Giving up discretionary generic-brand therapeutic interchange		
Medicaid MCO (Medco as PBM)			
Rebate Rates Received.....		Oligopoly Therapeutic Classes	Other Therapeutic Classes
	Weighted Average	Rebate as % of Costs	Rebate as % of Costs
Basic Rebate Rate	10.7%	29.7%	0.0%
In Consideration for.....	Giving up discretionary brand-brand therapeutic interchange		
Sources: CBO Letter and Medco Investor Relations Presentations. Derived statistics are in bold face			

Based on the CBO data and expectations about the variability of rebate rates by therapeutic class, it is possible to disaggregate Medco's 10.7% average. The expectation is that the 64% of drug spend in classes where Medicaid received the 15.1% minimum are either classes characterized by competition or monopoly on the sell side. It is also expected that the 36% of drug spend in "best price" classes are characterized by oligopoly on the sell side. The distribution of rebate rates received by Medco likely matches the Medicaid pattern – low in competitive and monopoly classes and high in oligopolistic, "best price" classes. The key derivation is that Medco receives an average of 29.6% in oligopolistic classes, assuming that it actually receives nothing in competitive and monopoly classes. The Medco derivation of 29.6% is a near match with the Medicaid derivation of 27.6%. This is to be expected because a large PBM like Medco is likely to be a "best price" customer of Big Pharma. That, of course, assumes that Big Pharma considers

PBM rebate figures in reporting “best price” to Medicaid. However, a recent review of reporting procedures and guidance by the Office of Inspector General of the Department of Health and Human Services suggests a good deal of confusion over whether PBM rebates qualify as “best price” .¹⁴

Rebates are only one side of the bargain. The other side of the bargain must also be examined. We have presented the case earlier that PBMs give up discretionary brand-brand therapeutic interchange in exchange for rebates. Close examination of the law specifying what the government gave up in exchange for Medicaid rebates indicates that they gave up considerable rights to discretionary therapeutic interchange.¹⁵ When the Medicaid deal was struck in 1990, generic drugs were not the factor that they are today. In 1990, insulating one brand from being switched had little cost implications because the “other” was another brand of similar costs. Today, insulating one brand from being switched has potentially large cost implications because that “other” can be a low cost generic. Quite simply, the government did not have the foresight to consider the implications of what it was giving up when it signed the Medicaid drug deal with Big Pharma in 1990.

As generic drugs have risen to prominence in the marketplace, the government has forced Big Pharma to modify the deal. In 1993, generic substitution – a generic for its off-patent brand – was allowed. The original law gave states the right to impose “prior authorization” restrictions on formulary drugs. This has become a controversial, but highly lucrative, bargaining chip that states have given up in exchange for additional rebates.¹⁶ In sum, the Federal government gets more from Big Pharma than PBMs, but it has also given up more.

A recent study conducted by the Lewin Group correctly evaluates the performance of benefit managers on the basis of overall drug spend delivered, as measured by PMPM, and not narrowly on such statistics as rebate rates or utilization rates.¹⁷ The study compared overall PMPM of two sets of Medicaid plans. One set of plans – known as Medicaid fee-for-service (FFS) – are run by government agencies who adhere to Medicaid formulary guidelines limiting discretionary

therapeutic interchange. The other set of plans – known as Medicaid MCO – are privately managed and not eligible for Medicaid “best price” rebates. The managers of the drug portion of these plans—PBMs – negotiate rebates with Big Pharma in exchange for giving up some discretion, but fully retain the right to make generic-brand switches. PBMs get less from Big Pharma than government, but they have given up less.

The study found that Medicaid FFS plans received rebates averaging 15 percentage points higher than Medicaid MCO plans. However, the discretion allowed by PBMs who managed Medicaid MCO plans enabled them to deliver a 59% generic utilization rate --number of generic prescriptions divided by the sum of all prescriptions -- compared to a 50% rate of found in Medicaid FFS plans. Even more dramatic was difference in usage rates -- number of prescriptions per member per month. PBMs were able to deliver a usage rate that was 15 to 20 percentage points lower than Medicaid FFS plans. Overall, the PMPM of privately managed plans was 10 to 15 percentage points lower than government run plans despite lagging in rebates. The results of this study clearly demonstrate the weakness of concluding that government is the superior bargaining agent solely on the basis of rebates.

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Appendix : Formulary Tier 2 Preference in Selected Therapeutic Classes

	Proton Pump Inhibitors				COX-2 Inhibitors		2nd Generation Antihistamines	
	Aciphex	Prevacid	Protonix	Nexium	Celebrex	Bextra	Allegra	Clarinetx
Tier 2 KEY:								
X - Tier 2 Preferred / No Restrictions Preferred with following restrictions PA - Prior Authorization QL - Quantity Limits								
"Owned" Formularies of Independent PBMs								
4	Caremark Rx Primary/ Preferred Drug List (4/2005)	X		X		X		X
6	Medco Preferred Prescription Formulary (2005)		X	X	X	X	X	X
6	2005 Express Scripts National Preferred Formulary	X		X	X	X	X	X
Formularies of Insurance Co's with Indep PBMs								
0	Humana Rx3 Drug List 2005 (Caremark Rx)							
1	Coventry Non-Preferred Alternative List 2005 (CaremarkRx)		PA					
4	Oxford Health Plans PDL 2005 (Medco)	PA/QL	PA	PA				QL
3	UnitedHealth Group 2005 PDL - 3 Tier (Medco)	QL	QL	QL				
2	Mutual of Omaha 2005 Drug Formulary (Express Scripts)		X		PA			
Formularies of Insurance Companies with Captive PBMs								
2	Aetna 3 Tier Preferred Drug List (January 2005)	PA	PA					
2	Cigna 3 Tier Drug List (4-28-05)		PA	PA				
4	PacifiCare - Rx Solutions Formulary	PA/QL		PA/QL			PA	PA

Appendix 1: URLs of formularies used in this study:

Independent PBMs

Medco Health Solutions: (accessed 5-1-05)

http://www.medco.com/art/corporate/medco_formularies_2004.pdf

Express Scripts: (accessed 5-1-05)

<http://member.express-scripts.com/web/formulary/OpenFormulary.do?portal=member&formularyId=393>

Caremark Rx: (accessed 5-1-05)

http://www.caremark.com/portal/asset/Primary_Preferred_DL.pdf

Insurance companies contracting out to independent PBMs

Humana (Caremark): (accessed 5-1-05)

http://apps.humana.com/prescription_benefits_and_services/excreq.asp?processcode=1&srcsite=home

Coventry Health (Caremark): (accessed 5-1-05)

<http://www.chcga.com/content/items/9667/2005NonPreferredAlternatives.pdf>

Oxford Health (Medco): (accessed 5-1-05)

https://www.oxhp.com/secure/member/home/coverage/three_tier_formulary/drug_list05.html

United Healthcare (Medco): (accessed 5-1-05)

<http://www.provider.uhc.com/knighttridder/KnightRidder2005PDLClean.pdf>

Mutual of Omaha (Express Scripts): (accessed 5-1-05)

<http://www.mutualofomaha.com/acrodocs/mug6319.pdf>

Insurance companies with captive PBMs

Aetna Health: (accessed 5-1-05)

http://www.aetna.com/formulary/2005_3-tier_mbr_guide.pdf

CIGNA Healthcare: (accessed 5-1-05)

https://secure.cigna.com/health/form/drug_list.html

Pacificare (RxSolutions): (accessed 5-1-05)

<http://www.rxsolutions.com/clientformulary/formulary.asp?var=CA&ubfoid=CA>