Prescription Drug Costs: The Role of the Pharmacy Benefit Manager

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The Cost of Prescription Drugs

The cost of prescription drugs has received increasing public scrutiny in the last several years as bipartisan members of Congress and the President have sought to alleviate constituent concerns that now have 1 in 4 Americans claiming difficulty affording their prescription drugs (Hirschler). Even when they can afford it, US patients pay more than any other developed country for health services in terms of both per-person spending and as a percentage of GDP (Sawyer). 10% of this spending comes from prescription drug costs (United States, CMS) which are also the highest in the high-income world (Langreth). Adding to these high prices is the fact that, on average, drug costs are increasing across all drug categories, from generics to specialty drugs (Hernandez et al.); according to the Kaiser Family Foundation, prescription drug costs as a whole have increased in price as much as ten times the rate of inflation (Schondelmeyer).

Congress and the Trump Administration have taken aim at these high growth rates in the cost of medications through proposed rules that would regulate the pharmaceutical supply chain. Understanding these rules requires correctly identifying the problem. For example, while drugs are increasing across all categories, the price of specialty drugs, a class of drugs that are high-cost, high-complexity, and high touch (“Specialty Pharmacy”), have increased due primarily to new drugs being brought to market with patent exclusivity. Examples of these specialty drugs treat HIV, arthritis, and psoriasis, among many other unique diseases (“CVS Specialty”). Some of these breakthrough treatments are highly expensive to make and manufacturers are granted a limited government monopoly to recuperate the costs of the research required to develop these drugs before generic versions are allowed to come to market. Generic medicines, another class of drugs, have also increased in price, mostly due to the introduction of new generic versions of extremely highly-priced name brand drugs, which skewed the average cost upwards from 2008-
2016 (Inmaculada). Most relevant to Congress and to the purpose of this research is the overall increase in brand-name drug prices, which appears to have been brought on by high price inflation of existing drug prices by drug companies (Inmaculada). For example, insulin, founded in 1921, tripled in price from 2002-2013 (Hua). The average cost of insulin again almost doubled between 2012 and 2016, with type 1 diabetics now paying nearly $6000 per year for insulin (Biniek), despite being on the market for over 100 years and experiencing relatively small levels of inflation before that period.

**Who’s to Blame?**

Members of Congress have highlighted the experiences of their constituents who are reportedly rationing their insulin as a result of their inability to afford its price tag, which has devastating consequences (Herkert). Much public anger and Congressional scrutiny is directed at the manufacturers of drug companies for drug pricing, since they do, of course, set the prices of their drugs. In 2016, Congress held hearings with testimony from the CEO of Mylan, one of the world’s largest drug manufacturers, over the increases in the cost of their EpiPens, which have increased 600% in the last decade (Kiersz). Mylan’s testimony made clear in their assertion that all players in the supply chain take responsibility for the increasing prices, insisting that the skyrocketing prices are not reflective of what their actual profit is. According to Mylan, they receive $274 for a $608 EpiPen two pack. Additionally, while the retail price of an EpiPen has increased over 600% since 2008, Mylan reports that their profits have been more modest: the amount Mylan receives has increased by only 300%. In other words, according to Congressional testimony, the overall increase in the rate of the cost of an EpiPen has been faster than Mylan’s profits from each EpiPen (United States. Cong. House. Committee on Oversight and Government Reform). They insist that an increasing share of the cost of their drugs is being lost.
to middlemen in the supply chain. This marks an important distinction that highlights the difference between the list price and the net price. The list price, which is the price that has increased drastically across several drug categories over the last several decades, is what the drug manufacturer lists as the cost of a medication; it is often not what consumers or insurers pay. This is different from the net price, which is what the drug company actually receives after the complex drug supply chain has been resolved.

Why do drug manufacturers have a list price if the list price is not what is actually paid by payers? This year, Congress held hearings with representatives from various industry stakeholders to find out. In testimony, drug companies acknowledged that their list price increases have been unprecedented, though they justify them by assuring members of Congress that they are creating their own programs to remove cost barriers from their medication for people who need additional financial assistance while investing in improving current medications and developing new ones (House Committee on Energy and Commerce). They also
insist that, while their list prices are going up, their net prices are going down. For example, Sanofi, one of the largest insulin manufacturers in the world, makes Lantus, an insulin that has increased in list price 16% each year from 2012-2016 (“Lantus”). A representative from Sanofi testified in Congress in May that despite rising list prices, “the average aggregate net price of our products, including our insulin products, has declined over the last several years” (Kathleen Tregoning). Sanofi and companies like Mylan cite the middlemen in the complex drug pricing system that create external pressure to create higher list prices; specifically, the Pharmacy Benefit Managers (PBMs). PBMs are one aspect of this supply chain that has come under scrutiny from Congress and the Trump Administration. Understanding their role in drug pricing is important to understanding the rising cost of prescription drugs.

Deconstructing the Role of the PBM in the Pharmaceutical Supply Chain

The U.S. Pharmacy Distribution and Reimbursement System for Patient-Administered, Outpatient Prescription Drugs

Chart illustrates flows for patient-administered, outpatient drugs. Please note that this chart is illustrative. It is not intended to be a complete representation of every type of financial, product flow, or contractual relationship in the marketplace. Source: Fein, Adam J., The 2016 Economic Report on Retail, Mail and Specialty Pharmacies, Drug Channels Institute, January 2016. (Available at http://drugchannelsinstitute.com/products/industry_report/pharmacy/)
Drugs do not go directly from the manufacturers to the pharmacists. When a drug manufacturer makes a medicine, they need to sell it to consumers, who pay for drugs through their insurance company and, often, copayments at the pharmacy counter. In order to convince an insurance company to cover a new medication, drug companies need to show that it provides value to patients by both treating a condition effectively and being affordable, or else an insurance company won’t pay for the drug. But insurance companies want patients to have access to lifesaving medications, so they need to negotiate aggressively to get lower drug prices. To do this, they contract a PBM—an outside company that is responsible for negotiating drug prices that the insurance company would be willing to pay the manufacturer for a medication. PBMs are hired to negotiate these lower prices from drug manufacturers, which usually take the form of rebates. Rebates are cash payments made by the drug manufacturer to the PBM in exchange for favorable coverage from the insurance company that hired the PBM. Better insurance coverage usually means lower copayments from patients at the pharmacy counter that incentivizes patients and doctors to prefer that drug.

Most PBMs serve this general function, but it is important to know that different PBMs offer different services, use different criteria to negotiate drug prices between insurers and manufacturers, and use different fee-based business models. For example, when some PBMs find a rate that is agreeable for an insurance company to pay a drug manufacturer, they then negotiate separate contracts with pharmacies. Many of their services have not always been offered, however, and their role has evolved over time—with government regulators not always keeping up (Garrett). PBMs began their role in the supply chain as prescription drug claim processors in the 1970s, and their current makeup and role, from negotiating drug discounts, managing utilization, and organizing insurance drug coverage (i.e., formulary placement) are evolved
phenomena (Garrett); specifically, formulary exclusion, which is the tool PBMs use to negotiate steeper rebates from drug manufacturers, was first used by CVS in 2011 (Thomas). It began an era in which access to insurance coverage is weaponized to pit drug companies against one another, forcing them to offer steeper discounts to continue to receive market share.

**Pharmacy Benefit Manager Revenue Streams and Incentives in the Supply Chain**

Overall, PBMs are estimated to have made 23 billion dollars in gross profit in 2017 and have an average net margin of 2.3% (“Spending on Prescription Drugs”, Sood). Though PBMs utilize varying business models, in general, they generate revenue from three places: a percentage of the rebate they are paid from the drug manufacturer for favorable insurance coverage; fees they are paid by the insurance companies to manage drug plans; and pharmacy spreads, which are essentially the difference between what the PBM pays the pharmacy for a patient’s drug and what the PBM is given by the insurance company for that drug. Different PBMs can utilize one or some combination of these streams (Sood, Fein), but this process is entirely opaque due to the privacy of the contracts between PBMs and insurance companies.

Rebates are a complex part of the drug pricing system that the Trump Administration proposed to illegalize this year due to what have been called “perverse incentives” by members of Congress and the Secretary of Health and Human Services, in which the PBM receives higher revenues from higher rebates, which incentivizes manufacturers to artificially raise drug prices. The rebates paid from a drug manufacturer to a PBM are usually passed on to health insurance companies, which are supposed to pass those savings to consumers in the form of lower premiums, deductibles, and copays; however, PBMs take an undisclosed percentage of the rebate as one form of their revenue streams. In Congressional testimony, Rep. Kuster (D-NH) asked PBMs questions about a report from CVS Caremark, a PBM, to interrogate exactly why and how
PBM revenue and income was tied to increased drug prices. She referenced a report outlining how they have experienced higher revenues due simply to “brand name drug price inflation” (“CVS Health”). Since PBMs negotiate which drugs receive favorable insurance coverage using rebates, and their profit is tied to the size of a drug’s rebate, critics argue that they are incentivized to give favorable coverage to more expensive drugs that give bigger rebates and, therefore, generate bigger profits for PBMs. Across multiple hearings, representatives of drug companies cited that there is pressure every year to offer bigger rebates to PBMs, and when asked why they just don’t lower their prices, drug companies state that they would lose their favorable access to insurance coverage, since PBMs consider the size of the rebate in the negotiation process. PBMs are unwilling to share what percentage of a rebate they keep and what percentage they pass on to health plans.

This is why, according to Mylan, Sanofi, and other large pharmaceutical companies, their list prices have continued to grow, even while their net profits per drug have gone down: since PBM profits are directly tied to how big their rebate is, they are incentivized to negotiate a bigger rebate, and PBMs are incentivized to give more favorable insurance coverage to drugs that offer those large rebates. While this is supposed to simply result in bigger rebates and more savings for patients, drug manufacturers are simultaneously incentivized to offer a higher list price and deliver a larger rebate, artificially raising their prices to deliver these higher rebates. According to their testimony before Congress, PBMs, plans, wholesalers, and distributors receive revenues that are typically calculated not at a fixed price, but as a percentage of the rebate of the drug; thus, generally, the larger the rebate a drug company offers a PBM, the more money they earn, and often, the more favorable are their terms of coverage by insurance.
Whatever money paid from the drug manufacturer to the PBM for insurance coverage is difficult to follow; while it is supposed to be passed from the PBM to the insurance company and then back to patients in the form of lower co-pays and lower deductibles, this is purposefully unverifiable: according to testimony from Express Scripts, one of the largest PBMs in the United States, PBMs are able to extract better discounts because of price discrimination. Since drug manufacturers don’t know what kinds of rebates other drug manufacturers are paying for formulary access, those paying steeper ones are not able to have as much leverage in a competitive negotiation about prices.

Because of this opaqueness, it is difficult to pinpoint exactly how much of the money in the drug supply chain is lost to PBMs. Differing analyses seek to determine and outline how much of a drug’s list price can be lost to middlemen in this supply chain, though it is disputed. According to an analysis from the Drug Channels Institute, of a drug listed for $300, 6% of the total list price can be lost to a PBM’s gross profit, which depends highly on what percent the PBM takes of the rebate from the drug manufacturer, what percent of reimbursement PBMs pass from the insurer to the pharmacy, and what their administrative fees are (Fein). At the same time, the PCMA—which represents PBMs—claims that they save consumers $60 billion per year on drug costs (“Our Industry”).

Pharmacy spreads serve as another revenue stream. In the pharmaceutical supply chain, payment for a drug can flow from the insurance company to the PBM and then to the pharmacy, based on two separate contracts negotiated by the PBM: one with the insurance company and another with the pharmacy. When the amount that a PBM pays to a pharmacy is less than what they received from an insurance company for a particular drug, the PBM can pocket the difference, which is known as a spread. Since these contracts may not be clear between
stakeholders, and pharmacists do not know what the insurance company pays the PBM versus what the PBM pays the pharmacist, this practice can go unnoticed (Kacik). PBM's say that this is not an abnormal practice, with some insurance companies favoring this method to a fixed administrative fee for services. A study from Bloomberg found billions of dollars of markups and inflated prices from this practice compared to a fixed fee-based model, amounting to 1.3 billion dollars of the 4.2 billion Medicaid insurers spent on the drug (Langreth). A Massachusetts commission convened to investigate this practice found that spread pricing accounted for 54% of all PBM compensation in 2016, and that moving to a transparent system could save $10 million per year (HPC DataPoints).

Another stream that has come under scrutiny and is illegal in several states is known as “clawbacks”. Patients go to a pharmacy and pay a copay for a drug their doctor prescribed. The PBM tells the pharmacy what this copay should be depending on the insurance plan the patient has (since the PBM negotiated these rates with the health plan and the pharmacy). When a PBM tells a pharmacy to collect a copay that is more than what the drug costs, they may keep the difference—the clawback. The three largest PBMs in the United States, together amounting to around 80% of the market share, say that they do not participate in this practice; others justify this practice by saying that they lose money on some drugs and gain money on others, but according to researchers at USC, as much as 25% of the time in the United States, insurance copays are higher than the cost of the drug (Van Nuys).

**Why List Prices Matter**

List prices are increasing, but if people don’t actually pay the list price, why does it matter if they are increasing? In 2018, about 40% of Americans had a high-deductible health plan, which means that they pay full-price for their health care until their insurance begins to
contribute to their costs. For Americans who have these plans, the price they pay for their drugs at the pharmacy counter is the list price, not the average net price or the price negotiated after rebates. This leaves many Americans actually having to pay the full list price until their insurance kicks in and vulnerable to the skyrocketing list prices. Additionally, as the role of the PBM has come under scrutiny, the profits of these middlemen have been called into question, particularly as drug manufacturers testify that their list prices have gone up while the amount they receive from each drug has gone down: it gives the impression that the incentives to give steep rebates have artificially pumped unnecessary costs of production into the drug pricing system. Further transparency is deeply necessary to understand and determine how exactly drug prices take into account the rebates offered by drug companies.

**Conclusion**

In beginning this research, I sought to better understand why and how PBMs act as intermediaries in the drug supply chain, and if they fulfill their promise of reduced pharmaceutical costs. Throughout my work, I was struck by how unclear the entire supply chain is. This lack of clarity prevents effective regulation and recommendations that can fully consider the potential consequences. I found that, while PBMs can perform important functions outside of negotiating drug prices, it is not clear that their role in extracting rebates is actually benefitting consumers and resulting in discounts that are not simply discounts off of an artificially inflated drug price; indeed, it appears that there are problematic incentives between the PBMs and the drug manufacturers. In addition to mandating more transparency, any new legislation should be aimed at protecting consumers from paying list prices, because as was referenced by several Members of Congress, the only people who don’t benefit from high list prices are patients.
References

Biniek, Jean Fuglesten, and William Johnson. Spending on Individuals with Type 1 Diabetes and the Role of Rapidly Increasing Insulin Prices. Health Care Cost Institute, 2019.


