



Follow the Dollar

How the Pharmaceutical Distribution and Payment System Shapes the Prices of Brand Medicines

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Introduction

The path of a prescription medicine from a manufacturer to a patient involves a series of transactions among multiple stakeholders, all at varying and typically confidential prices. Each transaction plays a role in determining the amount patients, employers, and plan sponsors ultimately pay for brand medicines.

In the commercial market, prices are determined through private negotiations between stakeholders with varying degrees of negotiating power. Large pharmacy benefit managers (PBMs), which administer benefits for tens of millions of patients, leverage substantial rebates and discounts that lower the cost of brand medicines. However, these savings may not be reflected in what patients experience at the pharmacy counter. That's because patients' out-of-pocket costs are set by PBMs and plan sponsors, who often require patients to pay a percentage of a medicine's full, undiscounted list price. As a result, patients rarely benefit directly from the cost savings negotiated on their behalf and, in some instances, pay more for a medicine than their PBM or health plan.

Understanding who pays what for prescription medicines requires a baseline understanding of the pharmaceutical supply chain, including the distribution system and flow of payments, many of which occur behind the scenes. This paper seeks to arm researchers, policymakers, patients, and other interested parties with that baseline knowledge, along with information about recent and emerging trends in the pharmaceutical marketplace. We focus on the supply chain for brand medicines dispensed through retail channels for commercially covered patients. An assessment of the supply chain for generic drugs or for non-retail channels (i.e., medicines administered to patients by a health care provider), or prescriptions provided to patients covered by public insurers, like Medicare and Medicaid, is outside the scope of this paper. The information presented was gathered from public research and interviews with supply chain experts. Many prices in the supply chain are confidential; therefore, the hypothetical transactions depicted in this paper may vary from real-world actuals.

An analysis published by the Berkeley Research Group (BRG) in January 2025 found half of what the US spends on brand medicines goes to stakeholders other than manufacturers, including supply chain entities, providers, the government, and others.¹ BRG's analysis incorporates factors outside of the scope of this paper, including brand spending for all patients regardless of insurance type, spending on non-retail brand medicines, and the statutory rebates, fees, and other discounted pricing provided by manufacturers on prescriptions for patients outside the commercial market. As a result, the final share of spending received by manufacturers and supply chain entities in the BRG analysis is not analogous to the hypothetical transactions presented here.

Pharmaceutical Supply Chain: Key Stakeholders

Figure 1:



From Factory to Pharmacy

Before a patient can pick up their prescription, the medicine must make its way from the pharmaceutical manufacturer to the pharmacy.

Manufacturers typically rely on wholesale distributors (wholesalers) to take physical possession of medicines and distribute them to pharmacies. As of 2022, 95 percent of all retail pharmaceutical sales went through a wholesaler.² The wholesaler industry is highly concentrated among a small number of companies. McKesson, Cencora (previously AmerisourceBergen), and Cardinal account for 95 percent of the wholesaler market.³

Wholesalers typically purchase drugs from manufacturers at the list price, or Wholesale Acquisition Cost (WAC), and charge distribution service fees to the manufacturer in exchange for providing certain services or achieving certain performance benchmarks. These fees, often structured as a percentage of WAC, serve to lower the wholesaler's net purchase price. Discounts manufacturers offer for prompt payment or volume further lower the net price paid by the wholesaler.

Pharmacies purchase drugs from wholesalers. Competition for each pharmacy's business leads wholesalers to pass through a portion of the discounts and distribution fees they receive from manufacturers in the form of lower prices. As a result, pharmacies typically purchase brand drugs from wholesalers at a net price below WAC. Larger pharmacies with more purchasing power can negotiate the steepest discounts. There are many types of pharmacies in the US, including retail drug stores, specialty pharmacies, mail order pharmacies, and pharmacies embedded within grocery stores, doctors' offices, or hospitals. When a pharmacy dispenses a drug to a patient, it is reimbursed by a **pharmacy benefit manager (PBM)** working on behalf of the patient's **insurer**, who often is hired by a **plan sponsor** to administer the health benefit. In the commercial market, the plan sponsor is most often the patients' employer or labor union.

PBMs perform several roles, including managing formularies, establishing a network of pharmacies, and negotiating reimbursement rates with pharmacies across covered drugs on behalf of the insurer and plan sponsor. These reimbursement rates are typically structured as a percentage of a drug's Average Wholesale Price (AWP).¹ Like the wholesaler industry, the PBM industry is highly consolidated among a few large companies. As of 2023, the big three PBMs, Express Scripts, CVS Caremark, and OptumRx, accounted for nearly 80% percent of the market.⁴



PBM Market Share, 2023

Source: Drug Channels Institute, 2024.

i. For brand drugs, AWP is typically 20 percent of WAC. See⁵

Patient Out-of-Pocket Costs

At the time a prescription is filled, the pharmacy collects the patient's cost sharing and the PBM pays the pharmacy the remaining amount of the negotiated reimbursement rate for the medicine.

Cost sharing is the amount the patient must pay out of pocket at the pharmacy, as determined by the plan sponsor and/or the PBM, and typically takes one of the following forms:

Deductible: The amount that a patient must pay before the insurer/ plan sponsor begins to pick up a share of the costs of their medicine. **Coinsurance**: The amount that a patient pays out of pocket calculated as a percentage of the medicine cost.[#] **Copayment**: Fixed amount that a patient must pay per prescription.

Payers typically do not use the rebates they negotiate with manufacturers to directly lower costs for patients at the pharmacy counter. This differs from all other types of health care where plans typically base patient out-of-pocket spending for care received from doctors and hospitals on the discounted rates negotiated with in-network providers. Instead, patients with deductibles and coinsurance are usually required to pay a percentage of the full, undiscounted price for their medicines, rather than the net price that reflects the rebates and discounts paid to the PBM by the manufacturer. Once a patient has reached their deductible, the coinsurance percentage or copayment amount is often determined based on a drug's "tier" assignment within a PBM's formulary (i.e., the list of drugs covered). PBMs group drugs into different tiers, often depending on their net cost to the PBM and/or plan sponsor.

Patients taking drugs on lower, or "preferred," tiers often have low fixed copayments, while medicines on higher tiers are more likely to require coinsurance or a higher copayment. This can create affordability issues for patients, and many manufacturers offer commercially insured patients cost sharing assistance to help defray these costs. As of 2023, this manufacturer assistance totaled \$23 billion.⁶

ii. The reimbursement rate negotiated between the PBM and the pharmacy is similar to the wholesale acquisition price (WAC), and often referred to as the "list price."

Flow of Payments After a Prescription is Filled

Once a prescription is dispensed to a patient, the physical journey of that medicine through the pharmaceutical supply chain is complete. The funding flow, however, is not.

PBMs subsequently collect payments from plan sponsors, manufacturers, and pharmacies, including administrative fees and retrospective rebates.

After reimbursing a pharmacy for a patient's medication, the PBM seeks to recoup the cost of the medicine from the plan sponsor or insurer. The amount the PBM requests from the plan sponsor or insurer sometimes exceeds the amount the PBM actually paid to the pharmacy. This phenomenon, known as **"spread pricing,"** allows the PBM to retain a share of the reimbursement as profit. PBMs operating under "pass-through" models without spread pricing typically charge a higher administrative fee to the plan sponsor or insurer as an alternative source of compensation.

One of PBMs' primary roles is negotiating with manufacturers for retrospective rebates that lower the net cost of medicines. PBMs also typically charge manufacturers administrative fees for a variety of services, including formulary management and data access. Retrospective rebates and the administrative fees PBMs charge to manufacturers are typically structured as a percentage of a medicine's list price.⁷

Manufacturers are incentivized to offer rebates to PBMs in exchange for inclusion and a favorable placement on the PBM's formulary.⁸ PBMs can elect not to cover drugs by excluding them from their formularies. More than 1,150 medicines were excluded from at least one of the three largest PBMs' standard commercial formularies in 2022.⁹ In addition to formulary exclusions, PBMs can influence which medications patients use by subjecting medicines to **utilization management** restrictions, like prior authorization, step therapy, or placing products on a higher cost sharing tier.¹⁰

PBMs may also retrospectively claw back additional payments and fees from pharmacies, including network access fees, performance fees, and reconciliation payments such as effective rate guarantees. These post-sale adjustments may occur weeks or months after prescriptions are dispensed, creating complexity and financial uncertainty for pharmacies.¹¹

Depending on contractual arrangements with their plan sponsor clients in the commercial market, PBMs often retain administrative fees and a share of rebates as compensation and pass along the remainder to the plan sponsor. The fees that PBMs charge to plan sponsors, manufacturers, and pharmacies account for a substantial and rapidly growing share of PBM profits, while the share of profits attributable to retained rebates has declined.¹²

Illustrative Examples of Financial Flows within the Pharmaceutical Supply Chain

To illustrate the financial role of each major stakeholder within the supply chain, the following examples walk through a few hypothetical payment flows for a medication with a **list price of \$100**. The details underlying each payment flow are included in the appendix to this report.

Deductible

In this example, Jane has not yet met her deductibles, meaning that neither their PBM nor plan sponsor contributes anything toward the cost of the medication. Jane must pay the entire reimbursement rate negotiated by the PBM with the pharmacy: \$101.10.

In this instance, because neither the PBM nor the plan sponsor contributes to the cost at the pharmacy counter, but the PBM still collects a rebate from the manufacturer, both the PBM and the plan sponsor emerge net positive from the transaction. The amounts retained by PBMs, insurers, and plan sponsors in commercial market transactions like these may be used to reduce the premiums paid by patients and their employers, cover administrative costs, or are kept as profit.



Hypothetical example of a commercially insured patient filling a prescription with a deductible. Final amounts retained or spent by stakeholders do not reflect the market-wide average for all prescriptions filled, including those dispensed to Medicare and Medicaid beneficiaries. The final amount spent by patients and retained by manufacturers may be lower if the patient utilizes a manufacturer cost sharing assistance program.

Copayment

In this example, Erik has already met his deductibles and is required to pay a \$40 copayment. The rebates paid by the manufacturer to the PBM reduce the net amount the plan sponsor pays for this medication to \$78, most of which is borne by the patient through the copayment. Of that \$78 in net spending, \$62 is ultimately retained by the manufacturer with the remaining \$16 going to others in the supply chain.



Hypothetical example of a commercially insured patient filling a prescription with a copayment. Final amounts retained or spent by stakeholders do not reflect the market-wide average for all prescriptions filled, including those dispensed to Medicare and Medicaid beneficiaries. The final amount spent by patients and retained by manufacturers may be lower if the patient utilizes a manufacturer cost sharing assistance program.

340B Program

The third example is identical to the second, except that Scott happens to fill a 340B eligible prescription at a 340B contract pharmacy.

The 340B Program

The 340B program allows certain types of hospitals and clinics, known as **covered entities**, to purchase drugs at significantly lower prices. When these drugs are dispensed at the discounted 340B price, insurers typically reimburse at the standard negotiated rates. The difference between reimbursement and the discounted acquisition cost, often referred to as "spread" or "340B margin" is retained by the covered entity.

340B prescriptions can be administered to patients in an outpatient setting at a hospital or clinic, filled at a hospital or clinic pharmacy, or filled at an external, unaffiliated pharmacy (**contract pharmacy**). Today, half of US pharmacies act as contract pharmacies for at least one hospital or clinic in the 340B program. When a 340B prescription is dispensed, the contract pharmacy transfers the reimbursement that it receives from the patient and their insurer to the covered entity in exchange for a share of the 340B margin. As a result, pharmacies typically earn higher revenues from filling 340B prescriptions than non-340B prescriptions.



Hypothetical example of a commercially insured patient filling a prescription purchased at the 340B price. Final amounts retained or spent by stakeholders do not reflect the market-wide average for all prescriptions filled, including those dispensed to Medicare and Medicaid beneficiaries. The final amount spent by patients and retained by manufacturers may be lower if the patient utilizes a manufacturer cost sharing assistance program.

P/2 RMA

In this example, the covered entity purchases the drug from the wholesaler at the discounted 340B price of \$28. The wholesaler then receives a \$72 payment from the manufacturer to make up for the difference between the WAC and the discounted 340B price. The wholesaler ships the discounted medicine to the pharmacy, which dispenses it to the patient and collects a total of \$100.85 in reimbursement from the PBM and patient, net of fees the pharmacy is required to pay to the PBM. The pharmacy transfers the majority of this reimbursement to the covered entity but retains \$15.25 as a fee for acting as the covered entity's contract pharmacy.

Unlike the two previous examples, absent from this payment flow are any rebates or fees paid by the manufacturer to the PBM. This is because most contracts between PBMs and manufacturers prohibit the payment of negotiated rebates and fees for medications sold at the 340B price.^{iii,13}

Without those rebates and fees, the plan spends an additional \$25 on the prescription. Even though the manufacturer does not pay rebates and fees to the PBM in this instance, it still retains less revenue than in the prior example, due to the magnitude of the 340B discount. While the covered entity retains the largest share of the revenue, the wholesaler and the pharmacy also benefit financially from the 340B transaction. When manufacturers' contracts with PBMs do not prohibit the payment of negotiated rebates and fees for medicines purchased at 340B prices, or manufacturers lack the data necessary to determine whether PBMs are requesting rebates on 340B priced medicines, manufacturers could end up paying rebates on medicines already purchased at a steep discount.

These "**duplicate discounts**" further erode manufacturer net revenue from the sale of a medicine and, depending on the magnitude of rebate and the lower 340B price, could ultimately leave manufacturers paying out more in rebates and other price concessions than they are bringing in from selling 340B priced medicines.

iii. Although paying rebates in addition to providing 340B pricing on the same unit of a medicine (often referred to as a "duplicate discount") is typically contractually prohibited under commercial and Medicare Part D contracts and statutorily prohibited in certain circumstances, it still commonly occurs. The hypothetical example shown here assumes that no duplicate discount is paid.

Evolution of the Pharmaceutical Supply Chain and Emerging Trends

By capitalizing on changes in the insurance, regulatory, and business landscapes, PBMs, insurers, and other supply chain stakeholders have found new and profitable ways to increase their influence over the distribution and reimbursement of prescription medicines.

Increased consolidation and vertical integration among PBMs, insurers, and other stakeholders creates downstream impacts that further influence the cost of medicines for patients, employers, and plan sponsors.

Consolidation and Vertical Integration of Supply Chain Stakeholders

Following decades of **horizontal consolidation**– which occurs when entities providing the same services acquire or merge with their competitors– parts of the pharmaceutical supply chain are now controlled by a small number of very large companies. This is especially true in the PBM and wholesaler industries, where just three companies control nearly 80% and 95% of their respective markets. PBMs and other stakeholders are also increasingly engaged in **vertical integration**, where entities that perform different functions along the pharmaceutical supply chain join together under a single corporate umbrella. Each of the three largest PBMs now owns or is owned by an insurer, forming a large parent corporation that also owns pharmacies (e.g., specialty, mail order, etc.) and provider groups.¹⁴ Rounding out these vertically integrated entities, the three largest PBMs have each created a new type of subsidiary they refer to as **"group purchasing organizations,"** or PBM GPOs, and have acquired a private label distributor to commercialize biosimilar medicines on their behalf. (see Figure 5)

Figure 5:

Vertical Integration of Pharmaceutical Supply Chain Stakeholders

Parent Company	The Cigna Group	CVS Health	UnitedHealth Group
Insurer administers the health benefits, often on behalf of a plan sponsor	Cigna Healthcare	Aetna	United Healthcare
PBM manages pharmacy benefit, including pharmacy networks and formulary, on behalf of the insurer	Express Scripts	CVS Caremark	OptumRx
Pharmacy(ies) dispenses prescription medicines to patients, can include retail, specialty and mail order	 Accredo Freedom Fertility Pharmacy CarepathRx 	• CVS • CVS Specialty	• Optum Specialty • Pharmacy
Provider Group(s) physicians and other health care personal that directly provide patient care, including writing prescriptions	 Evernorth Health Services Alegis Care MDLive VillageMD 	 CVS Minute Clinic Oak St. Health Signify Health 	OptumCare
PBM GPO negotiates, collects and disburses manufacturer rebates for their affiliated PBM and smaller PBMs or other health care entities	Ascent Health Services	Zinc	• Emisar Pharma • Services
Private Label Distributor produces, or contracts with manufacturers that produce, biosimilars	Quallent Pharmaceuticals	Cordavis	Nuvaila

Vertical integration enables organizations to profit at multiple points along the pharmaceutical supply chain and creates new opportunities to leverage one line of business to increase revenue for another.

Vertical integration financially incentivizes PBMs to "steer" patients toward the pharmacies they own, either by requiring or incentivizing patients to use PBM-owned pharmacies or by implementing narrow pharmacy networks that exclude a large number of non-affiliated pharmacies.¹⁵ Similarly, a PBM or insurer may instruct providers owned by the parent company to electronically transmit prescriptions to the PBM-owned pharmacy or incentivize their providers to prescribe medications that are most profitable to the PBM.¹⁶



Pharmacies typically earn a profit when the reimbursement they receive from PBMs exceeds the price at which the pharmacy acquired the drug. When the PBM and pharmacy are part of the same parent company, the PBM can increase corporate profits by reimbursing its own pharmacy at a higher rate than an independent pharmacy, knowing that the higher cost will ultimately be borne by an unaffiliated insurer. Because pharmacy acquisition costs are typically confidential, the insurer may not recognize the magnitude of the markup that it is absorbing. When the PBM, pharmacy, and insurer are all part of the same parent company, inflated reimbursement rates are ultimately funded by the plan sponsor or patient through higher premiums and/or out-of-pocket costs.^{17,18}

P/DRMA

Consolidation and vertical integration enable other problematic PBM incentives and conflicts of interest that may increase pharmacy costs for patients, employers, and plan sponsors.

Ownership of vertically integrated pharmacies also enables PBMs to implement strategies that mitigate or undermine the impact of manufacturer provided cost sharing assistance. As previously mentioned, many manufacturers offer financial assistance for commercially insured patients to offset the cost sharing requirements established by their PBM and/or plan sponsor, including deductibles, copayments, and coinsurance. In recent years, PBMs and insurers are increasingly implementing accumulator adjustment programs (AAPs) and copay maximizers, which allow PBMs to retain some or all of the cost-sharing assistance offered by manufacturer assistance programs as profit. AAPs prevent payments made by a manufacturer cost sharing assistance program from counting toward the patient's deductible or out-of-pocket maximum.¹⁹

Copay maximizers increase patients' cost sharing limits to amounts higher than their standard annual cost sharing limits. Patients are then enrolled in a manufacturer copay assistance program to cover their new out-of-pocket costs, which are often set at the maximum amounts manufacturers offer under their financial assistance programs. This assistance does not count towards their deductible or annual cost sharing limits. AAPs and copay maximizers have become so widespread that as of 2023, nearly \$5 billion of manufacturer cost sharing assistance funds were absorbed by PBMs, plans, or thirdparty vendors, rather than benefiting patients.²⁰ A large share of compensation received by vertically integrated PBMs is tied to the list price of medicines, which experts say can incentivize PBMs to prefer higher cost medicines over lower cost alternatives and may dissuade manufacturers from lowering list prices.²¹ For years, the three largest PBMs blocked patient access to lower-cost biosimilars, but this dynamic is changing now that each PBM has acquired a private-label distributor to commercialize biosimilars on the PBM's behalf.²² Vertical integration between the PBM and the private-label distributor incentivizes the PBM to provide preferential coverage for biosimilars in which they have a financial stake, regardless of whether the PBM's biosimilar is the lowest cost option for patients or employers.^{23,24}

The 340B Drug Pricing Program

Under the 340B program, contract pharmacies increase their dispensing margins by obtaining medicines at significantly discounted prices, with no requirement to share any portion of those margins with patients or their plan sponsors. The average profit margin for a brand 340B prescription dispensed at a contract pharmacy is 72 percent, compared to 3-4 percent for non-340B brand prescriptions.^{25,26} The profit margin generated on 340B prescriptions is typically shared between the contract pharmacy, the covered entity, and any other third parties involved in operations and administration, with industry estimates suggesting that contract pharmacies keep as much as 25-35 percent of 340B margin.²⁷

The ability to earn larger profits on brand prescriptions has attracted large, for-profit contract pharmacies to the 340B program, including those owned by PBMs. Overall, 44 percent of all contract pharmacy relationships are between a 340B covered entity and a pharmacy associated with one of the three largest PBMs, and over half of total 340B profits retained by contract pharmacies are concentrated in just four for-profit corporations, two of which are vertically integrated with two of the largest PBMs (CVS Health and Express Scripts).^{28,29} These profits are largely driven by prescriptions filled through PBMs' mail order and specialty pharmacies, which represent the fastest growing segment of the contract pharmacy dispensing channels.³⁰ Research shows that the 340B program can increase costs for patients, public and private payers, and employers. As shown in the hypothetical flow of funds earlier in this paper, the net cost to the plan sponsor is often higher when a patient receives a 340B medicine due to forgone manufacturer rebates. These additional costs may then translate into higher premium payments for employers and patients. One recent study found that drug costs for employers and their workers was \$7.8 billion higher than it otherwise would have been in 2021 due to forgone rebates as a result of the 340B program.³¹

Conclusion

Brand medicines make their way to patients through a complex process involving multiple stakeholders, including manufacturers, wholesalers, pharmacies, PBMs, insurers, and 340B covered entities. Transactions between these stakeholders shape the amount that patients pay at the pharmacy counter and the net costs paid by employers and plan sponsors. A large share of what the US spends on brand medicines goes not to the manufacturers that researched and developed them, but to stakeholders along the supply chain in the form of manufacturer rebates, discounts, fees, and other payments. Through consolidation and vertical integration, PBMs, insurers, and pharmacies increasingly profit from the distribution and reimbursement of prescription medicines. Along with the sizable growth of the 340B program, this consolidation and vertical integration has increased the share of brand medicine spending received by non-manufacturer stakeholders. Vertically integrated PBMs are often compensated based on the list price of medicines, raising questions as to whether their incentives are aligned to achieve the lowest costs for patients, employers, and the health care system.

Appendix

The amounts retained by each stakeholder in these transactions reflect typical marketplace trends but do not necessarily reflect all transactions.

Flow of Payment for a \$100 Blood Pressure Medication

Patient is in Deductible Phase

		Item	Amount	Composition
[WAC]		Wholesale acquisition cost	\$100.00	[WAC] (set by manufacturer)
[AMP]		Average wholesale price	\$120.00	[WAC] * 1.2 (determined by pricing publications)
Wholesaler	[1]	Buys product from manufacturer	\$100.00	[WAC]
	[2]	Collects distribution fee from manufacturer	\$4.50	[1] * 4.5%
	[3]	Sells product to pharmacy	\$96.00	[1] - 4.0%
	Wholesaler retains		\$0.50	[2]-[1]+[3]
Pharmacy	[4]	Collects cost sharing from patient	\$101.10	Estimate
	[5]	Reimbursed by PBM for ingredient cost	\$-	No payment made by PBM
	Pha	rmacy retains	\$4.85	[4]+[5]-[3]-[11]
РВМ	[6]	Collects base rebate from manufacturer	\$25.00	[WAC]*25%
	[7]	Collects administrative service fee from manufacturer	\$4.50	[WAC]*4.5%
	[8]	Collects price protection rebate from manufacturer	\$4.00	[WAC]*4.0%
	[9]	Collects and retains administrative fee from insurer/ plan sponsor	\$1.90	Negotiated with insurer/ plan sponsor. Per claim fee
	[10]	Collects and retains transaction and E-prescribing fees from pharmacy	\$0.25	Transaction(\$0.10)+E-prescribing (\$0.15) fees
	[11]	Retains share of base rebate and price protection rebate	\$5.13	[6]*12.5%+[8]*50%
	[12]	Retains share of manufacturer administrative fee	\$3.38	[7]*75%
	[13]	Reimbursed for ingredient cost by insurer/ plan sponsor	\$-	No payment made by insurer/ plan sponsor
	PBM retains		\$10.65	[10]+[11]+[12]+[13]-[5]
Insurer/ plan sponsor	[14]	Payment to PBM	\$1.90	[9]
	[15]	Receives share of rebates and fees	\$25.00	([6]+[8]-[11])+([7]-[12])
	Final insurer/ plan sponsor cost		\$23.10	[16]-[15]
Patient cost sharing amount			\$101.10	[4]
Manufacturer-retained payment			\$62.00	[WAC]-[2]-[6]-[7]-[8]

Flow of Payment for a \$100 Blood Pressure Medication Patient Pays a Copayment

		Item	Amount	Composition
[WAC]		Wholesale acquisition cost	\$100.00	[WAC] (set by manufacturer)
[AMP]		Average wholesale price	\$120.00	[WAC] * 1.2 (determined by pricing publications)
	[1]	Buys product from manufacturer	\$100.00	[WAC]
Wholesaler	[2]	Collects distribution fee from manufacturer	\$4.50	[1] * 4.5%
	[3]	Sells product to pharmacy	\$96.00	[1] - 4.0%
	Wholesaler retains		\$0.50	[2]-[1]+[3]
Pharmacy	[4]	Collects cost sharing from patient	\$40.00	Determined by plan
	[5]	Reimbursed by PBM for ingredient cost	\$1.50	Estimate
	[6]	Collects ingredient cost reimbursement from PBM	\$59.60	([AWP] - 17%)-[4]
	Pharmacy retains		\$4.85	[4]+[5]+[6]-[3]-[11]
РВМ	[7]	Collects base rebate from manufacturer	\$25.00	[WAC]*25%
	[8]	Collects administrative service fee from manufacturer	\$4.50	[WAC]*4.5%
	[9]	Collects price protection rebate from manufacturer	\$4.00	[WAC]*4.0%
	[10]	Collects and retains administrative fee from insurer/ plan sponsor	\$1.00	Negotiated with insurer/ plan sponsor. Per claim fee
	[11]	Collects and retains transaction and E-prescribing fees from pharmacy	\$0.25	Transaction(\$0.10)+E-prescribing (\$0.15) fees
	[12]	Retains share of base rebate and price protection rebate	\$5.13	[7]*12.5%+[9]*50%
	[13]	Retains share of manufacturer administrative fee	\$3.38	[8]*75%
	[14]	Reimbursed for ingredient cost by insurer/ plan sponsor	\$62.00	([AWP] - 15%)-[4]
	PBM retains		\$10.65	[10]+[11]+[12]+[13]+[14]-[6]-[5]
Insurer/ plan sponsor	[15]	Payment to PBM	\$63.00	[10]+[14]
	[16]	Receives share of rebates and fees	\$25.00	([7]+[9]-[12])+([8]-[13])
	Final insurer/ plan sponsor cost		\$38.00	[15]-[16]
Patient cost sharing amount			\$40.00	[4]
Manufacturer-retained payment			\$62.00	[WAC]-[2]-[7]-[8]-[9]

Flow of Payment for a \$100 Blood Pressure Medication Patient Purchase at 340B Contract Pharmacy

		Item	Amount	Composition
[WAC]		Wholesale acquisition cost	\$100.00	[WAC] (set by manufacturer)
[AMP]		Average wholesale price	\$120.00	[WAC] * 1.2 (determined by pricing publications)
Wholesaler	[1]	Buys product from manufacturer	\$100.00	[WAC]
	[2]	Collects distribution fee from manufacturer	\$4.50	[1] * 4.5%
	[3]	Sells product to covered entity	\$28.00	[WAC]*28%
	[4]	Wholesaler 340B refund	\$72.00	[1]-[3]
	Wholesaler retains		\$4.50	[2]-[1]+[3]+[4]
Covered entity	[5]	Collects reimbursement from pharmacy	\$100.85	[6]+[8]+[9]-[14]
	Cove	ered entity retains	\$57.60	[5]-[3]-[7]
	[6]	Collects cost sharing from patient	\$40.00	Determined by plan
	[7]	Collects fee from covered entity	\$15.25	Estimate
Pharmacy	[8]	Collects dispensing fee from PBM	\$1.50	Estimate
	[9]	Collects ingredient cost reimbursement from PBM	\$59.60	([AWP] - 17%)-[6]
	Pharmacy retains		\$15.25	[6]+[7]+[8]+[9]-[5]-[14]
	[10]	Collects base rebate from manufacturer	\$-	No rebate paid
РВМ	[11]	Collects administrative service fee from manufacturer	\$-	No fee paid
	[12]	Collects price protection rebate from manufacturer	\$-	No rebate paid
	[13]	Collects and retains administrative fee from insurer/ plan sponsor	\$1.00	Negotiated with insurer/ plan sponsor. Per claim fee
	[14]	Collects and retains transaction and E-prescribing fees from pharmacy	\$0.25	Transaction(\$0.10)+E-prescribing (\$0.15) fees
	[15]	Retains share of base rebate and price protection rebate	\$-	No rebate paid
	[16]	Retains share of manufacturer administrative fee	\$-	[11]*75%
	[17]	Reimbursed for ingredient cost by insurer/ plan sponsor	\$62.00	([AWP] - 15%)-[6]
	PBM Retains		\$2.15	[13]+[14]+[15]+[16]+[17]-[9]-[8]
Insurer/ plan sponsor	[17]	Payment to PBM	\$63.00	[13]+[17]
	[18]	Receives share of rebates and fees	\$-	([11]-[16])
	Final insurer/ plan sponsor cost		\$63.00	[17]-[18]
Patient cost sharing amount			\$40.00	[6]
Manufacturer-retained payment			\$23.50	[WAC]-[2]-[4]-[10]-[11]-[12]

References

- 1. Blalock E, Ferritto M, Taylor J. The Pharmaceutical Supply Chain, 2013–2023. Berkeley Research Group, January 2025. https://www.thinkbrg.com/insights/publications/the-pharmaceutical-supply-chain-2013-2023/
- 2. Pharmaceutical Commerce. Prescription Sales via Traditional Healthcare Distributors Increase. October 2023. https://www.pharmaceuticalcommerce.com/view/prescriptions-sales-via-traditional-healthcare-distributors-increase
- Kim K. 3 Stocks to Watch in the Drug Distribution Industry. Morningstar, April 2024. https://www.morningstar.com/stocks/investment-opportunities-drug-distribution-industry
- Fein A. The Top Pharmacy Benefit Managers of 2023: Market Share and Trends for the Biggest Companies–And What's Ahead. Drug Channels, April 9, 2024. <u>https://www.drugchannels.net/2024/04/the-top-pharmacy-benefit-managers-of.html</u>
- Miller E, et al. Retail Drug Prices, Out-of-Pocket Costs, and Discounts and Markups Relative to List Prices: Trends and Differences by Drug Type and Insurance Status, 2011 to 2016. AHRQ MEPS, October 2019. https://meps.ahrq.gov/data_files/publications/rf44/rf44.shtml#Notel
- IQVIA. The Use of Medicines in the US 2024: Usage and Spending Trends and Outlook to 2025, April 2024. <u>https://www.iqvia.com/-/media/iqvia/pdfs/institute-reports/the-use-of-medicines-in-the-us-2024/the-use-of-medicines-in-the-use-2024/the-use-of-medicines-in-the-use-2024/the-use-of-medicines-in-the-use-2024/the-use-of-medicines-in-the-use-2024/the-use-2024/the-use-2024</u>
- 7. Percher E. Trends in Profitability and Compensation of PBMs and PBM Contracting Entities. Nephron Research, September 2023. https://nephronresearch.com/trends-in-profitability-and-compensation-of-pbms-and-pbm-contracting-entities/
- 8. Mulcahy AM, Rao P, Zhou A, et al. Prescription Drug Prices, Rebates, and Insurance Premiums. RAND, December 5, 2024. https://www.rand.org/pubs/research_reports/RRA1820-3.html
- 9. Xcenda. Skyrocketing growth in PBM formulary exclusions continues to raise concerns about patient access. May 2022. https://www.xcenda.com/insights/skyrocketing-growth-pbm-formulary-exclusions-concerns-patient-access
- 10. Mulcahy AM, Rao P, Zhou A, et al. Prescription Drug Prices, Rebates, and Insurance Premiums. RAND, December 5, 2024. https://www.rand.org/pubs/research_reports/RRA1820-3.html
- 11. Federal Trade Commission. Pharmacy Benefit Managers: The Powerful Middlemen Inflating Drug Costs and Squeezing Main Street Pharmacies. July 2024. https://www.ftc.gov/system/files/ftc_gov/pdf/pharmacy-benefit-managers-staff-report.pdf
- 12. Percher E. Trends in Profitability and Compensation of PBMs and PBM Contracting Entities. Nephron Research, September 2023. https://nephronresearch.com/trends-in-profitability-and-compensation-of-pbms-and-pbm-contracting-entities/
- 13. GAO, 340B Drug Discount Program: Oversight of the Intersection with the Medicaid Drug Rebate Program Needs Improvement, January 2020, <u>https://www.gao.gov/assets/gao-18-480.pdf</u>; 42 U.S.C. § 256b(a)(5)(A) (prohibiting Medicaid/340B duplicate discounts); 42 U.S.C. § 1320f-2(d) (prohibiting duplication of the maximum fair price for selected drugs and the 340B ceiling price for such drugs); 42 U.S.C. § 1395w-3a(i)(3)(B)(ii) (requiring exclusion of 340B units from Part B inflation rebates); 42 U.S.C. § 1395w-114a(b)(1)(B) (requiring exclusion of 340B units from Part B inflation rebates); 42 U.S.C. § 1395w-114a(b)(1)(B) (requiring exclusion of 340B units from Part B inflation rebates); 42 U.S.C. § 1395w-114a(b)(1)(B) (requiring exclusion of 340B units from Part B inflation rebates); 42 U.S.C. § 1395w-114a(b)(1)(B) (requiring exclusion of 340B units from Part B inflation rebates); 42 U.S.C. § 1395w-114a(b)(1)(B) (requiring exclusion of 340B units from Part B inflation rebates); 42 U.S.C. § 1395w-114a(b)(1)(B) (requiring exclusion of 340B units from Part B inflation rebates); 42 U.S.C. § 1395w-114a(b)(1)(B) (requiring exclusion of 340B units from Part D inflation rebates).
- 14. Fein A. Mapping the Vertical Integration of Insurers, PBMs, Specialty Pharmacies, and Providers: A May 2024 Update. Drug Channels, May 7, 2024. https://www.drugchannels.net/2024/05/mapping-vertical-integration-of.html
- 15. Kakani P, Navangul S, Lee Luo C, et al. Use of and Steering to Pharmacies Owned by Insurers and Pharmacy Benefit Managers in Medicare. JAMA Health Forum. 2025;6(1):e244874. doi:10.1001/jamahealthforum.2024.4874
- 16. PBM Accountability Project. Understanding the Evolving Business Models and Revenues of Pharmacy Benefit Managers. December 2021. https://www.pbmaccountability.org/_files/ugd/b11210_264612f6b98e47b3a8502054f66bb2a1.pdf?index=true
- 17. Walker J. Generic Drugs Should Be Cheap, but Insurers Are Charging Thousands of Dollars for Them. Wall Street Journal, September 2023. <u>https://www.wsj.com/health/healthcare/generic-drugs-should-be-cheap-but-insurers-are-charging-thousands-of-dollars-for-them-ef13d055</u>

References [continued]

 Federal Trade Commission. Specialty Generic Drugs: A Growing Profit Center for Vertically Integrated Pharmacy Benefit Managers, January 2025.

https://www.ftc.gov/system/files/ftc_gov/pdf/PBM-6b-Second-Interim-Staff-Report.pdf

- 19. Mulcahy AW, Kareddy K. Prescription Drug Supply Chains: An Overview of Stakeholders and Relationships. ASPE, October 2021. https://aspe.hhs.gov/reports/prescription-drug-supply-chains
- 20. IQVIA. The Use of Medicines in the US 2024. April 2024. www.iqvia.com/-/media/iqvia/pdfs/institute-reports/the-use-of-medicines-in-the-us-2024/the-use-of-medicines-in-the-us-2024-usageand-spending-trends-and-outlook-to-2028.pdf
- 21. Percher E. Trends in Profitability and Compensation of PBMs and PBM Contracting Entities. Nephron Research, September 2023. https://nephronresearch.com/trends-in-profitability-and-compensation-of-pbms-and-pbm-contracting-entities/
- 22. Fein A. Drug Channels News Roundup, June 2024: Cordavis Humira Update, OptumRx's New Biosim Biz, Generic Drugs' Wild Ride, IRA Predictions, and Dr. G on Med School. Drug Channels, June 25, 2024. <u>https://www.drugchannels.net/2024/06/drug-channels-news-roundup-june-2024.html</u>
- 23. Fein A. Humira Biosimilar Price War Update: Should We Be Glad that CVS Health and Express Scripts Are Using Private Label Products to Pop the Gross-to-Net Bubble? Drug Channels, September 4, 2024. <u>https://www.drugchannels.net/2024/09/humira-biosimilar-price-war-update.html</u>
- 24. Wyden R, Brown S. Letter to the Honorable Lena Khan. US Senate Committee on Finance, September 30, 2024. https://www.finance.senate.gov/imo/media/doc/093024_wyden_brown_letter_to_ftc_on_pbm_practices.pdf
- 25. E Blalock et al. For-Profit Pharmacy Participation in the 340B Program: 2025 Update. 340B Industry Roundtable, February 2025. https://roundtable.thinkmosaic.com/links/for_profit_phcy_340b_2025_update
- 26. Sood N, Shih T, Van Nuys K, Goldman D. The Flow of Money Through the Pharmaceutical Distribution System. USC, June 2017. <u>https://healthpolicy.usc.edu/wp-content/uploads/2017/06/The-Flow-of-Money-Through-the-Pharmaceutical-Distribution-System_Final_</u> <u>Spreadsheet.pdf</u>
- 27. Fein A. Exclusive: For 2023, Five For-Profit Retailers and PBMs Dominate an Evolving 340B Contract Pharmacy Market. Drug Channels, July 11, 2023. https://www.drugchannels.net/2023/07/exclusive-for-2023-five-for-profit.html
- 28. Drug Channels Institute analysis of OPA Daily Contract Pharmacy Database, April 2022.
- 29. E Blalock et al. For-Profit Pharmacy Participation in the 340B Program: 2025 Update. 340B Industry Roundtable, February 2025. https://roundtable.thinkmosaic.com/links/for_profit_phcy_340b_2025_update
- 30. Martin R, Hasan S. Growth of the 340B Program Accelerates in 2020. IQVIA Blog, March 2021. https://www.iqvia.com/locations/united-states/blogs/2021/03/growth-of-the-340b-program-accelerates-in-2020
- Magnolia Market Access. Understanding the Economic Burden on Federal and State Tax Liability of Forgone Commercial Rebates Due to the 340B Drug Pricing Program. January 2025. https://www.magnoliamarketaccess.com/insight/how-the-340b-program-impacts-federal-state-tax-liability