PBMs Explained: Self-Funded vs. Fully Insured Health Plans

By Adrien Laurent, CEO at IntuitionLabs • 11/6/2025 • 70 min read

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Executive Summary

The U.S. employer-sponsored health system is dominated by two financing models – **self-funded** plans (in which employers assume the financial risk for claims) and **fully insured** plans (in which employers purchase fixed-premium insurance policies from carriers) – and by **pharmacy benefit managers (PBMs)** who administer prescription drug benefits on behalf of virtually all health plans. In recent years a clear majority of covered workers are now in self-funded plans: in 2024, 63% of covered workers (including 79% of large-firm employees) were enrolled in self-funded plans ([1] www.kff.org). Fully insured coverage – still common among small employers – is subject to state insurance regulation (including mandated benefits, reserve requirements, and premium taxes), whereas self-funded plans (being ERISA plans) are largely exempt from state insurance laws ([2] www.kff.org). The shift toward self-funding reflects employers' desire for flexibility, data transparency, and potential cost savings, at the expense of assuming greater risk and variability in cash flow ([3] openloophealth.com) ([4] openloophealth.com).

PBMs **serve as intermediaries** in the prescription drug supply chain. As third-party administrators for insurers and self-funded employers, PBMs design formularies, negotiate prices and rebates with drug manufacturers, establish pharmacy networks (including "preferred" retail and mail-order pharmacies), manage claims processing, and apply utilization controls like prior authorization ([5] hmpi.org) ([6] jamanetwork.com). The largest PBMs (primarily CVS Caremark, Express Scripts, and OptumRx) collectively handle roughly 80% of U.S. retail prescription claims ([7] www.geneonline.com). Historically, PBMs have helped expand access to medications and drive generic utilization (over 90% of U.S. prescriptions are now filled with generics ([8] hmpi.org)), but they have also become controversial. PBM business models based on "spread pricing" and rebate retention create opaque pricing, leading to concerns that PBMs pocket large portions of manufacturer rebates and price spreads instead of passing them to plan sponsors ([9] hmpi.org) ([10] hmpi.org). Investigations have documented examples of "shadow pricing" (brand manufacturers raising list prices to increase PBM rebates) that may hurt patients on uninsured or high-deductible plans ([10] hmpi.org). Critics also point to market consolidation – in 2020 three vertically integrated insurer-PBMs controlled most of the market – and to conflicts of interest (for example, when PBMs own pharmacies or are owned by insurers) ([6] jamanetwork.com) ([11] hmpi.org).

This report provides a deep dive into these topics. We begin with the structure and regulation of self-funded and fully insured plans (including stop-loss insurance and level-funding for self-funded plans), supported by data on market share and cost trends. We then explain the role and functions of PBMs: how they negotiate drug prices, how they are paid (pass-through vs. spread-pricing models), and how they influence formulary design and utilization. We review empirical evidence and expert analyses of PBM impacts on drug spending, summarizing the range of views. Case studies illustrate real-world dynamics: for example, one large self-funded employer (Quest Diagnostics) reduced cost trends dramatically through plan redesign and health management ([12] pmc.ncbi.nlm.nih.gov), and the state of Maine's PBM rebate transparency law showed measurable changes in PBM revenue splits ([13] nashp.org). We also examine regulatory and legislative developments: dozens of state laws now target PBM practices ([14] nashp.org), and federal agencies (including an ongoing FTC probe) are scrutinizing PBM consolidation.

Finally, we explore implications for the future. As prescription drug costs continue to grow (with spending up over 10% in 2024 ([15] news.ashp.org)), pressure to reform PBM business practices is mounting. Potential changes – from stricter transparency requirements to alternative payment models – could reshape both employer-sponsored coverage and the drug benefits market. Throughout, we present data (e.g. KFF surveys, industry reports, market analyses) and multiple perspectives (enrollees, employers, insurers, regulators) to give a balanced, evidence-based view of PBMs and plan funding models, with extensive citations supporting every claim.

Introduction and Background

U.S. healthcare spending is vast and growing. In 2023, national health expenditures reached about **$4.9 trillion** – roughly 17.6% of GDP ([16] www.cms.gov) – and prescription drugs alone accounted for a large share (drug spending was $449.7 billion in 2023, up 11.4% from 2022 ([17] www.cms.gov)). In 2024, drug spending surged by **10.2%** to about $806 billion ([15] news.ashp.org), driven especially by new high-cost therapies (e.g. GLP-1 weight-loss drugs and specialty biologics). As a result, the annual cost pressures from drugs far outstrip general inflation and are a major focus for employers and policymakers. Because most Americans get insurance through employers (about 64% of nonelderly Americans ([18] pmc.ncbi.nlm.nih.gov)), **the way employers finance drug benefits** and **the role of pharmacy benefit managers (PBMs)** are central to understanding U.S. drug price trends.

Historically, employer-sponsored health coverage in the U.S. arose accidentally in the mid-20th century (from wage controls and tax incentives, see the historical context ([19] www.ncbi.nlm.nih.gov)) and later expanded through tax-deductible employer contributions and collective bargaining. By the 1970s, most large firms already offered group health insurance. The Employee Retirement Income Security Act (ERISA) of 1974 established a federal framework for self-funded employer plans, delegating state regulation to persons who acquire insurance (the so-called "deemer clause" means that a self-funded plan is not viewed as insurance for state purposes ([2] www.kff.org)). Thus today the regulatory treatment of a plan depends on how it is funded.

- A **fully insured plan** is one where the employer contracts with an insurance carrier (or multiple carriers) to cover employees. The carrier **sets a fixed premium** (often rated by factors like firm size, demographics, and claims history) and assumes the risk for claims. If actual claims exceed the premium, the insurer absorbs the loss; if claims are lower, the insurer keeps the surplus.Fully insured plans must comply with all state insurance laws (e.g. mandates for specific benefits, community rating rules, insurance premium taxes and reserve requirements) and are often easier to administer (the insurer handles claims and risk underwriting) ([20] openloophealth.com). For many small employers or firms with unpredictable costs, the guaranteed premiums and tried-and-true regulatory framework make fully insured coverage attractive.

- A **self-funded plan** (also called self-insured) is one where the employer itself pays for employees' healthcare claims from its own funds. The employer may hire a third-party administrator (TPA) or consultant to manage claims processing, networks, and compliance, but **the employer retains the actuarial risk**. Self-funded plans often purchase **stop-loss insurance** to cap extreme losses: above negotiated attachment points (per-claim or aggregate), the insurer covers claims. Because self-funded plans are technically ERISA "employee welfare benefit plans," they generally **evade state insurance mandates** ([2] www.kff.org). This gives employers full discretion to design benefits (select networks, cost-sharing tiers, covered benefits) and potentially save money by forgoing state-mandated coverage and profit loads. However, under a self-funded model the employer must budget for volatile claim experience, hold reserves for "incurred-but-not-reported" (IBNR) claims ([21] openloophealth.com), and comply with federal regulations (HIPAA, ACA reporting, COBRA continuation, etc.).

Over the past two decades, there has been a clear **shift toward self-funding**, especially among large employers. Employer surveys and industry reports document that the *majority* of employer-sponsored coverage is now self-funded. For example, the 2024 Kaiser Employer Health Benefits Survey found that **63% of covered workers** were in self-funded plans ([1] www.kff.org) (compared to 37% in fully insured plans), and larger firms are self-insured at even higher rates (79% of employees in large firms versus only 20% in small firms) ([1] www.kff.org). Similarly, industry analysis notes that by 2015 roughly 63% of employers offered at least a partially self-funded plan (up from 44% in 1999), and 94% of firms with ≥5,000 employees were self-insured ([22] www.fiercehealthcare.com). The market for stop-loss insurance has grown accordingly (a $26 billion market by 2021 ([23] news.ambest.com)), and insurers have adapted by offering Administrative Services Only (ASO) arrangements and products tailored to self-insured customers ([24] www.fiercehealthcare.com).

However, **many small employers remain fully insured**, both because of regulatory restrictions (e.g. ERISA generally does not allow firms under 50 to self-fund due to ACA portability rules) and because self-funding can be impractical without enough predictable risk pool. In 2024, only about one-fifth of workers in small firms were

in self-funded plans ([1] www.kff.org) (36% of small-firm covered workers were actually in *level-funded* plans – a hybrid with heavy stop-loss – and the rest in fully insured plans ([25] www.kff.org)). By contrast, nearly all very large employers self-insure ([22] www.fiercehealthcare.com). Overall, the transition to self-funding reflects employers seeking greater **predictability and control** of costs (they can tailor benefits and avoid carrier profit loads), but at the trade-off of **assuming volatility** and requiring robust risk management ([26] openloophealth.com) ([3] openloophealth.com).

In this context, almost all employers – whether self-funded or insured – enlist **Pharmacy Benefit Managers (PBMs)** to handle pharmacy benefits. PBMs emerged in the late 1960s/1970s as dedicated administrators for prescription drug coverage ([27] www.ncbi.nlm.nih.gov). Over time they have become the central intermediaries between insurance payors, drug manufacturers, pharmacies, and patients. In 2024, virtually every large employer or insurer's plan uses a PBM to negotiate drug prices, process pharmacy claims, and enforce formularies. PBMs have become critics' focal point on drug pricing, charged alternately with saving money through bargaining and accused of contributing to high prices through opaque practices ([28] hmpi.org) ([10] hmpi.org).

This report thoroughly explains these systems. We first detail **self-funded vs fully-insured plan designs** (including legal/regulatory treatment and financial dynamics), supported by data on enrollment and funding trends. We then delve into **PBM operations**: their five core functions (formulary design, utilization management, price negotiation, network contracting, mail-order services ([6] jamanetwork.com)), the common payment models (pass-through vs spread-pricing), and how PBMs influence market outcomes (e.g. generic utilization rates ([5] hmpi.org)). We analyze evidence from authoritative studies, government reports, and industry analysis on how PBMs affect drug costs and accessibility. Two tables summarize key comparisons — one contrasts self-funded vs fully insured plan attributes, and another contrasts PBM payment models (below).

Table 1. Key Differences Between Self-Funded and Fully Insured Health Plans (U.S.)

Feature	Self-Funded Plan	Fully Insured Plan
Risk & Financing	Employer pays claims directly from its funds; assumes medical cost risk	Employer pays fixed premiums to insurer; insurer bears claims risk
Administrative Control	Employer/TPA controls plan design, networks, and data; unlimited flexibility ([3] openloophealth.com)	Insurer controls plan details; employer has limited design options ([29] openloophealth.com)
Costs/Premiums	Costs vary with claims experience (requires reserve funds); often lower *potentially* once claims vs premiums on average ([30] openloophealth.com)	Premiums fixed by insurer (based on community/regulatory rating); predictable budgeting ([26] openloophealth.com)
Unused Funds	Employer retains surplus if claims < budget (experience refund) ([30] openloophealth.com)	Insurer retains any surplus; employer gets no refund for low claims ([29] openloophealth.com)
Experience/Trend Data	Employer has full access to detailed claims data for cost-management ([31] openloophealth.com)	Insurer holds claims data; studies show employers in insured plans often lack granular transparency ([29] openloophealth.com)
Stop-Loss Insurance	Typically purchased to protect against catastrophic claims; design varies (specific/aggregate) ([2] www.kff.org)	Not applicable (insurer covers all risk)
Regulation/Taxation	Plan is governed by federal ERISA law (for private employers); exempt from most state insurance mandates, mandated benefits, premium taxes, and reserve requirements ([2] www.kff.org)	Subject to state insurance regulation: mandated benefits, community rating, premium taxes, paid claims reserves, etc. ([2] www.kff.org) ([29] openloophealth.com)

Feature	Self-Funded Plan	Fully Insured Plan
Typical Employers	Large firms (79% of employees in large firms self-fund in 2024 ([1] www.kff.org)); mid-sized firms (some); *also small firms via level-funding* ([25] www.kff.org)	Small to medium firms (only ~20% of small-firm employees self-fund ([1] www.kff.org)) and those preferring predictability; also popular in unionized/mandate-laden industries
Compliance/Liability	Employer is fiduciary; must comply with ERISA (COBRA, HIPAA, ACA reporting). State lawsuits may apply to TPA (see ERISA case law). Plan sponsor liable for unpaid claims and regulatory penalties.	Insurer handles compliance with insurance laws; employer's liability limited to premium payments. State guaranty funds may provide some protection for planholders.

Table 2. PBM Payment Models

Feature	Pass-Through PBM Model	Spread-Pricing PBM Model
Pricing to Plan	Plan is billed the exact cost of each dispensed drug (based on pharmacy's acquisition cost), plus an explicit administrative fee ([32] hmpi.org). There is no markup on drug cost.	Plan is billed a higher price per prescription than what PBM pays the pharmacy. The PBM keeps the "spread" (difference) between the two prices ([33] hmpi.org).
Rebate Retention	All rebates from drug manufacturers are passed through 100% to the plan or payer ([32] hmpi.org). PBM revenue comes only from service fees.	PBM may contractually retain a portion of manufacturer rebates (rebate retention), or use them to offset aggregated costs. Plans may receive only partial rebate credits.
Transparency	High transparency: sponsors see actual transaction prices, claim-level costs, and full rebate amounts.	Low transparency: sponsors often see only aggregate spending and rebated totals. The true price paid by PBM to pharmacy is concealed.
Cash Flow Impact	Predictable and aligned: plan pays pharmacies directly (or via PBM), and receives letters/credit from manufacturers.	Less predictable: PBM pockets spread and then remits net payment to pharmacy, so undisclosed margins exist.
Use Cases	Common in public programs (Medicaid, some self-funded employers) that require 100% rebate pass-through, and increasingly offered by *"transparent" PBMs* in private sector ([32] hmpi.org).	Traditional model in many state Medicaid contracts (until recently) and some older commercial PBM contracts; targeted now by reform initiatives to ban spread pricing.

These tables summarize the contractual and regulatory differences. Notably, self-funded employers **governed by ERISA** can tailor their plans freely (row "Regulation" above), whereas fully insured plans must accept state-mandated benefits. And for PBMs, the model chosen dramatically affects who captures pharmacy cost savings: under pass-through contracts the health plan keeps all manufacturer rebates, whereas under spread-pricing the PBM may retain a portion.

Because plan design and funding affect how pharmacy benefits are purchased, it is helpful to review the **enrollment statistics and trends** for self-funded vs fully insured coverage. The Kaiser Family Foundation (KFF) 2024 Employer Health Benefits Survey reports that **63% of covered workers** are in self-funded plans ([1] www.kff.org). This percentage has been stable for several years (it was 65% in 2023 ([34] www.kff.org) and about 61% a decade ago ([34] www.kff.org)). The table below summarizes coverage by employer size and plan type, based on KFF's latest data:

- **Large Employers (200+ employees):** 79% of covered workers are in self-funded plans ([1] www.kff.org) (only ~21% in fully insured plans). Very large firms (5000+ employees) are even more likely to self-fund (over 90% did so as of 2015 ([22] www.fiercehealthcare.com)).
- **Small Employers (3–199 employees):** Only 20% of covered workers are in *traditional* self-funded plans ([1] www.kff.org). However, many small-firm plans are "level-funded" – a hybrid with heavy stop-loss – which is formally a self-funded arrangement (36% of workers in small firms were in level-funded plans in 2024 ([25]

www.kff.org)). Counting level-funded plans, about 56% of small-employer covered workers were on some form of self-insurance. The remaining ~44% of small-firm workers were on fully insured plans.

These statistics illustrate that **large firms dominate the self-funded market**. A 2016 report noted that, by then, 63% of employers were offering at least a partially self-funded plan (up from 44% in 1999) ([22] www.fiercehealthcare.com). This trend has pressured insurers to adapt: traditional carriers now offer ASO products, private "exchanges," and stop-loss waivers to serve self-funded clients ([24] www.fiercehealthcare.com). Stop-loss insurance itself has grown – reaching about $26 billion in premiums by 2021 ([23] news.ambest.com) – as more mid-size employers buy down volatility.

At the same time, the total number of people covered by *any* health plan has continued to increase. Managed Healthcare Executive reported that fully insured coverage (through Blue Cross Blue Shield and others) covered about **186.5 million** people in 2024 ([35] www.managedhealthcareexecutive.com). This indicates that even as more employers self-fund, the overall population with employer-based or other coverage has grown, partly due to expansions in public and insurance exchange enrollment ([36] www.managedhealthcareexecutive.com). Nonetheless, it is clear that fully insured products, while still covering many individuals (especially in small-group, individual, and Medicaid markets), are gradually losing ground in large-group employer markets to self-funding.

With the **self-funding trend established**, we now turn to PBMs, which play a key role in both types of plans. In practice, a self-funded employer will typically contract directly with a PBM (or work through a TPA that does), while a fully insured employer may effectively use the PBM arranged by its carriers. (Notably, in the largest fully insured plans, the insurance company often owns or is partnered with the PBM – e.g. CVS-Aetna, Cigna-Express Scripts, United-Matic, etc. – so plan design and PBM strategy are integrated under one corporate umbrella.) Regardless, **PBMs administer prescription benefits for virtually all employer-sponsored plans** today. They serve as the link between *plan sponsors* (whether employers or insurers), *pharmacies*, *wholesalers*, and *drug manufacturers*. We next explain how PBMs operate, and how their practices affect both self-funded and fully insured plans.

Pharmacy Benefit Managers (PBMs): Roles, Practices, and Economics

Pharmacy Benefit Managers (PBMs) are third-party administrators of prescription drug programs. They were invented in the late 1960s to help insurers manage drug benefits ([37] www.ncbi.nlm.nih.gov) and proliferated in the 1980s and 1990s. By consolidating administration across many plans, PBMs created efficiencies: early PBMs like PCS (Pharmaceutical Card System, founded 1969 ([38] jamanetwork.com)) offered the first big networks of pharmacies and formularies to insurers. Over time, PBMs have vertically integrated and consolidated. Today the PBM market is highly concentrated: **the three largest PBMs (CVS Caremark, Express Scripts, and OptumRx)** collectively process the vast majority of pharmacy claims (one source estimates the top 3 handle about 80% of prescription volume ([7] www.geneonline.com)). CVS Caremark (CVS Health) and OptumRx (UnitedHealth Group) are owned by major insurers (Aetna and United, respectively), and Cigna Corporation acquired Express Scripts in 2018, reflecting how insurance and PBM functions have merged ([39] jamanetwork.com). (Another large payer, Humana, used to sell its standalone PBM but has shifted to an in-house model.) Smaller PBMs, mail-order aggregators, and start-ups also exist, but none has upended the oligopolistic structure.

Despite their opacity, PBMs perform **five key functions** essential to modern pharmacy benefits ([6] jamanetwork.com):

1. **Formulary Design:** PBMs develop tiered drug formularies that determine which drugs are covered and at what cost to patients. Most plans use a *closed or preferred formulary*, meaning that only listed drugs (and their generic equivalents) receive full coverage. The formulary is managed by a Pharmacy & Therapeutics committee, often composed of PBM-employed pharmacists or independent clinicians. Formulary placement provides PBMs with leverage to negotiate rebates: manufacturers offer large discounts or rebates to have their brand-name drugs placed on a preferred tier. PBMs thus influence drug utilization by steering patients toward generics or preferred brands through copayment differentials ([5] hmpi.org) ([40] hmpi.org). Indeed, PBM-run formularies are credited with dramatically increasing generic use (over 90% of scripts in 2022 were generics ([8] hmpi.org)), and with promoting cost-competitive brand drugs in categories with multiple options ([40] hmpi.org).

2. **Utilization Management:** PBMs implement controls such as prior authorizations, step-therapy, and quantity limits to promote appropriate use of high-cost drugs. For example, before covering certain specialty medications, a PBM might require documentation that the patient tried lower-cost therapies first. These tools further refine formulary compliance and help plans control waste, but they also add complexity to prescribing.

3. **Price Negotiation:** PBMs negotiate discounts and rebate contracts with pharmaceutical manufacturers. Under a PBM contract, manufacturers make confidential rebate payments to the PBM based on volume (or placement on the formulary) ([5] hmpi.org) ([41] hmpi.org). PBMs bundle dozens of health plans together to gain negotiating power, promising broader access in return for higher rebates. The net price of a drug (the price after rebates) can be much lower than the list price. Friends of generic utilization, PBMs often exclude high-price brand drugs that are not accompanied by large rebates ([40] hmpi.org). However, critics point out that this rebate system can create distortions: for example, drugs that offer huge rebates may be favored even if clinically less valuable, and list prices may be inflated by manufacturers knowing PBMs will drive patients to those rebated drugs (a phenomenon documented as “shadow pricing” by the House Oversight Committee ([10] hmpi.org)).

4. **Pharmacy Network Management:** PBMs build networks of participating pharmacies (retail and mail-order). They negotiate reimbursement rates (dispensing fees) with pharmacies in exchange for including them in the network. Plans then reimburse pharmacies at these negotiated rates when patients fill prescriptions. PBMs often designate “preferred pharmacies” (e.g. mail-order or large chains) where copayments or coinsurance are lower, steering volume to the pharmacies that negotiate the best fees. For example, studies have found that Medicare Part D plans with “preferred” networks (often controlled by PBMs) yield lower patient out-of-pocket costs at retail pharmacies ([42] hmpi.org). Some PBMs also operate their own mail-order or specialty pharmacies (CVS Caremark and OptumRx have brand-name mail-order arms), further integrating the dispensing side.

5. **Claims Processing and Data Services:** PBMs handle the adjudication of pharmacy claims (checking eligibility, applying copays, and submitting payment to pharmacies). They also collect detailed claims and utilization data on behalf of the health plan sponsor. This data is critical for plan design and cost-containment initiatives (chronic disease management, high-cost patient identification, etc.). Self-insured employers, in particular, use PBM data to identify spending trends – and KFF finds that self-insured sponsors generally have far more granular claims information than fully insured employers do ([31] openloophealth.com).

In return for these services, PBMs are **paid in a variety of ways**. Traditionally, PBMs earned revenue through spread-pricing, rebate retention, and transaction fees. A self-funded plan or insurer contracting with a PBM typically agrees to one of two broad payment models:

- **Pass-Through (Transparent) Model:** The PBM charges the plan sponsor the exact amount it pays pharmacies for each script, and *passes through 100% of drug manufacturer rebates and discounts* to the sponsor ([32] hmpi.org). The PBM then earns **only an explicit administrative fee** (per script or per member). This model maximizes pricing transparency: the plan sees the pharmacy’s cost and the full rebate sequence. Under legislation and contracts that mandate rebate pass-through (e.g. certain Medicaid MCOs, some commercial “transparent PBM” offerings), PBMs operate under this model.

- **Spread-Pricing Model:** The PBM bills the plan a higher price per prescription than what it reimburses the pharmacy, effectively **keeping the difference (the "spread") as profit** ([33] hmpi.org). In this model, the PBM may also **retain a portion of manufacturer rebates** instead of forwarding them entirely to the plan. Because the PBM can unilaterally dictate the plan's reimbursement rate and keep part of the rebate, this model is highly opaque. Until recent reforms, it was widely used in some Medicaid and commercial PBM contracts. For example, the PBM might purchase a drug from a pharmacy for $90 and bill the health plan $100, pocketing $10. Under this arrangement, the PBM's revenue comes from both the pharmacy "spread" and any withheld rebates, plus often a smaller service fee.

Table 2 above contrasts these two models. In practice, plans now have more choice; many self-insured employers are specifying pass-through PBM contracts to ensure transparency ([32] hmpi.org). The PBM industry itself has several business segments (traditional PBMs vs "PBSM" startup models), but the essential functions remain formulation, negotiation, and administration.

The effects of PBMs on drug spending are complex and have been studied extensively. There is evidence on both sides:

- **Potential Cost-Containment:** Proponents argue that PBMs leverage large patient populations to **lower net drug costs**. For example, formulary steering tends to direct patients to low-cost generics (generics share >90% of scripts ([8] hmpi.org)), which saves money. Research shows that when PBMs drive preferred use of certain brand drugs through higher rebates, it can reduce the *net* prices that plans pay ([40] hmpi.org) ([43] hmpi.org). Indeed, one study cited by PBM advocates (Kakani et al. 2020) suggests that PBM formulary exclusions and rebates have been associated with lower overall drug prices and spending ([43] hmpi.org). The Congressional Budget Office has similarly found that negotiated rebates lower Medicare Part D spending on some drugs (though those rebates primarily go to the government) ([6] jamanetwork.com). Mail-order dispensing (often overseen by PBMs) can further cut costs on chronic medications by offering 90-day supplies at discount. In value-based terms, PBMs also offer data analytics and patient management programs (diabetes care, adherence programs, etc.) which can improve outcomes for members while trimming unnecessary utilization.

- **Concerns and Market Distortions:** Critics contend that PBMs sometimes **increase rather than decrease costs** due to misaligned incentives. A key issue is *rebates*: PBMs typically earn a percentage of the rebates they negotiate, so they may favor drugs with higher list prices and bigger rebates over cheaper alternatives. This can lead to **"rebate-driven price inflation."** For instance, the House Oversight Committee reported that many biotech drugs raised their list prices substantially once they had PBM-extracted rebates, meaning that patients paying coinsurance or deductibles (which are based on list prices) ended up with higher out-of-pocket costs ([10] hmpi.org). Anecdotally, competitive biologics such as insulin have exhibited this behavior (price hikes despite competition), suggesting a "race to the top" in list pricing. Importantly, uninsured patients and those with high deductibles actually *do* pay those inflated list prices in full ([10] hmpi.org), so the burden is shifted onto the vulnerable.

Another concern is **lack of transparency**. Because PBMs keep much of the financial flow secret (the contracts, spreads, and rebate splits), plan sponsors often have difficulty verifying what they truly saved. For example, the JAMA review points out that plan sponsors and pharmacies frequently have no visibility into how PBMs set drug prices or how much money PBMs pocket ([44] jamanetwork.com). This has led to numerous audits and lawsuits by state governments, pharmacy associations, and employers seeking to uncover hidden revenues. The highly concentrated structure of the market (three firms dominate) raises antitrust worries. Critics also highlight **conflicts of interest**: when PBMs own pharmacies, questions arise whether they steer business to their own outlets (or impose unfavorable terms on independent pharmacies). Legally, the Supreme Court's 2020 decision in *Rutledge v. PCMA* gave states more leeway to regulate PBMs ([45] jamanetwork.com), and since then many states have done so via licensing, pricing rules, or prohibiting spread pricing.

In sum, PBMs have become "enigmati [c] intermediaries" ([28] hmpi.org). They undeniably manage one of the largest and most complex markets – U.S. retail pharmaceuticals – and there is evidence they harness scale to promote generics and negotiate discounts. However, the degree to which those savings are shared with payers and patients is debated. Empirical research is ongoing, but existing studies (and congressional investigations) repeatedly note problems with opaque contracts, retroactive clawbacks on pharmacies, and rebate-split secrets ([44] jamanetwork.com) ([10] hmpi.org). As legislative interest grows, policymakers are proposing reforms such as

requiring rebate pass-through, banning spread pricing for all plans, and enforcing detailed reporting ([39] jamanetwork.com) ([11] hmpi.org). These measures aim to realign PBM incentives with plan sponsors and end-consumers.

The remainder of this report will analyze these issues in depth: we will examine how self-funded vs fully insured plan status interacts with PBM contracts and costs; review data on spending and savings; and present case studies from employers and states. Our goal is to give a thorough, evidence-based account of how pharmacy benefits are financed and managed in the U.S. today, backed by authoritative sources at every step.

Plan Funding Models: Self-Funded vs Fully Insured

Definitions and Mechanics

Fully Insured Plans: Under a fully insured arrangement, an employer pays a premium to an insurance carrier (often quoted as "per employee per month" rates) and receives coverage against employee healthcare claims. Premiums are generally fixed for a policy year, based on underwriting factors (number of lives, age mix, geographic region, industry risk, etc.) and negotiated with or set by state insurance regulators. The key feature is **risk transfer**: the insurer guarantees to handle all covered claims, subject to policy terms, in exchange for the premium. If actual claims exceed the premium pool, the insurer suffers; if claims are lower, the insurer profits (minus costs). Premiums typically rise annually if the community claims experience worsens. For large self-insured employers who offer a fully insured plan, the policy may be termed a "level fund" or "qualifying non-ERISA" plan, but under ACA rules such plans are still treated as insured for regulatory purposes.

Advantages of full insurance include *predictability* and offloaded risk. Employers know their max financial exposure (the fixed premium) and do not need to reserve capital for claims. The administrative burden is lower: the insurer (or its PBM/TPA) manages claims, networks, and compliance. In mergers or acquisitions, fully insured plans can be simpler to transfer, since the receiving company just takes on the policy. But disadvantages include lack of refunds for low claims (premiums are not adjusted retrospectively if claims underperform), less control over plan design, and potential state taxes. Notably, fully insured plans must meet all applicable state benefit mandates, network adequacy rules, and premium taxes ([29] openloophealth.com). For example, an employer with a small insured plan must cover state-mandated mental health parity or contraceptive benefits regardless of cost. These compliance costs are baked into premiums. Additionally, under ACA community-rating rules, small-group fully insured premiums cannot vary by industry; this can make premiums high for low-risk businesses.

Self-Funded Plans: An employer may choose to self-fund instead of buying insurance. In this model, the employer (or related trust or consortium) pays claims as they occur. The employer often works through a Third-Party Administrator (TPA) to process claims and handle networks, but the true *contractual party* is the employer. The employer thus retains any surpluses (if claims are low) or suffers any deficits (if claims are high). In practice, actuaries set a budgeted contribution level, and claims run-rate is charged against it. At year-end (or quarterly), the plan may reconcile difference between contributions and actual claims. Because risk is retained, many employers buy **stop-loss insurance**. Stop-loss comes in two typical forms: *specific* stop-loss (covering any individual claim above a specified threshold, say $100,000) and *aggregate* stop-loss (covering total claims above a threshold, e.g. 125% of expected liability). Stop-loss premiums add cost, but they cap unpredictable catastrophes. A variant called **level-funding** (common for smaller groups) packages a self-funded plan with extremely high stop-loss protections to guarantee a fixed monthly cost to the employer, combining some advantages of insured and self-funded ([25] www.kff.org).

The fundamental appeal of self-funding is **cost savings and flexibility**. Without an insurer's risk load, premium taxes, and state mandates, total expected costs can be lower. Also, employers gain full access to claims data, enabling intensive cost-management (custom disease management programs, narrow networks, etc. ([31] openloophealth.com)). If managed effectively, self-funding can outperform fully insured in years with moderate claims. However, the employer has **significant financial risk**. Unexpected claim spikes can cause cash-flow problems; the employer must set aside reserves (including provisions for claims happened but not yet reported ([21] openloophealth.com)). Smaller employers, or those with uneven demographics, may find this variability unacceptable. Thus, historically self-funding has been most feasible for firms with large numbers of employees, whose law of large numbers makes claims more predictable (and indeed 94% of very large firms self-fund ([22] www.fiercehealthcare.com)).

Enrollment and Market Share

Extensive surveys confirm the prominence of self-funding. According to KFF's 2024 **Employer Health Benefits Survey**, 63% of employees in employer-sponsored health plans were in self-funded plans ([1] www.kff.org). This figure is nearly identical to the 65% reported in 2023 ([34] www.kff.org), indicating stability in the trend. By contrast, 37% of covered workers remain in fully insured plans (including level-funded plans, see below). The breakdown by firm size is dramatic: only 20% of employees in small firms (under 200 workers) were in self-funded plans, whereas **79% of covered workers in large firms (200+ employees) were self-funded** ([1] www.kff.org). Over the past decade, the share of large firms self-funding has hovered around 80%, while fully insured coverage is increasingly relegated to smaller employers and specialty segments (like certain small-group or individual policies).

Figure 10.1 and 10.2 of the KFF report illustrate these trends (excerpted below). Notably, even as self-funding has plateaued recently, the overall number of people covered by employer plans has grown, reflecting higher employment and parallel expansion of fully insured markets (individual and Medicaid). Indeed, a recent industry analysis found that Blue Cross Blue Shield insurers covered about **186.5 million people in fully insured plans** in 2024 ([35] www.managedhealthcareexecutive.com), an increase of 12.3 million from 2020. This suggests that while a larger proportion of *employees* are on self-funded plans, the raw count of fully insured enrollees remains high (driven by population growth and take-up in smaller segments).

In summary, **self-funding dominates the large-group market** and continues to grow, while fully insured plans still serve many covered individuals in small-group, individual, and public employer markets. Employer motivations (and obstacles) for choosing each type are well-documented:

- *Pros of Fully Insured:* Predictable fixed premiums ([26] openloophealth.com); minimal risk to employer; low administrative burden (insurer handles claims and reserves) ([46] openloophealth.com); state guaranty fund may protect beneficiaries if an insurer fails. In a volatile claims year, the employer does not pay more than the agreed premium.
- *Cons of Fully Insured:* Less control over benefit design; premiums may include charges for state mandates and profit; no rebate or surplus sharing if claims are low ([29] openloophealth.com); subject to rating cycles (premiums can jump based on collective risk pool, even if a particular employer's experience was good). Employers may also resent taxes and fees on premiums (state premium taxes, ACA fee, health insurer fee, etc.). Finally, cost trends in fully insured markets often exceed those seen by large self-funded plans because small-group pools naturally have poorer risk profiles.
- *Pros of Self-Funded:* Employers set plan terms (cover only what they choose), which can save on unneeded benefits. Employers *own* any surplus when claims are lower than expected ([30] openloophealth.com). Access to data allows targeted wellness or disease management programs ([31] openloophealth.com). Funded by internal reserves or trusts, many employers find their *total cost of care* more manageable, as administrative costs are often lower than fully-insured premiums (no profit margin, no state premium tax) ([3] openloophealth.com). In change events (like workforce changes), self-funded plans may allow more agile adjustments.

- *Cons of Self-Funded:* Employer assumes all risk ([4] openloophealth.com). A bad claims year can erase any savings from previous years, and spikes (e.g. an unusually high-cost cancer case) must be absorbed unless covered by stop-loss. Cash flow can be **variable**, requiring the employer to pay claims in real time. Administrative tasks (selecting TPAs, managing stop-loss, financial reporting) are greater ([21] openloophealth.com). Some employees may worry about continuity of coverage if an employer struggles with self-funding. Also, while ERISA exempts self-funded groups from state benefit mandates ([2] www.kff.org), this can be a disadvantage if an employer wants broad coverage – they must voluntarily include benefits (like childhood or maternity coverage) that a small-group insurer might otherwise be required to provide by law.

The 2024 KFF survey emphasizes one more hybrid approach: **level-funded plans**, which package self-insurance with heavy stop-loss to offer predictable monthly payments. About 36% of covered workers at small firms (3–199 employees) were in level-funded plans in 2024 ([25] www.kff.org). These arrangements are still technically self-funded (and ERISA plans) but are sold like simple insurance products with "all in" prices. Level funding has become popular as a way for SIC-sized groups to dip toes into self-funding without extreme risk. In effect, it blurs the line between fully insured and self, offering the flexibility of the latter with the budget certainty of the former.

In conclusion, the landscape of employer health coverage in the U.S. is evolving but remains dichotomized by funding method. Any comprehensive analysis of drug benefit costs must account for these funding differences, since they affect tax/treatment of costs and the degree of regulatory oversight. The next sections will assume this context: whether a plan is insured or self-insured primarily changes *who* pays and who regulates, but in both cases PBMs will be managing the pharmacy component.

Cost Trends and Data

How do self-funded and fully insured plans compare on cost trends and distribution? Data from industry sources suggest that self-funded plans often see **slightly lower cost growth rates** over time, though the difference is not usually huge. For example, a 2019 case study of a large self-funded employer (Quest Diagnostics) found that its average annual trend dropped from +5.7% to –1.0% over a multi-year period after targeted interventions ([47] pmc.ncbi.nlm.nih.gov). More broadly, AM Best reported (as of 2023) that shifts toward self-funding have been motivated by cost and flexibility concerns. However, exact average premium trends are hard to isolate, because fully insured premiums must also cover state mandates and insurer loss, whereas self-funded contributions reflect actual claims net of rebates. The Kaiser survey provides national averages (family premiums) but notes little difference: for 2024, average family premium was 26% of wages in fully insured plans vs 24% for self-funded ([48] www.kff.org), a difference driven largely by the absence of certain state fees on self-funded plans ([2] www.kff.org). Over five years, family premium growth (24%) was similar to medical inflation (~24%), regardless of funding ([48] www.kff.org).

Breaking down spending, PBM-relevant trends stand out. Even though prescription drugs are a relatively small fraction of total national health spending (about 9% of NHE in 2023 ([17] www.cms.gov)), their **unit costs are rising rapidly**. The ASHP report noted that spending on retail prescription drugs jumped 10.2% in 2024 ([15] news.ashp.org), mainly due to few high-priced classes. Specialty drugs (for cancer, autoimmune, etc.) now account for over half of U.S. drug spending, and new gene and biologic therapies threaten to push spending higher ([49] hmpi.org) ([50] hmpi.org). This means employers (self or insured) face steep inflation in their pharmacy budgets. At the same time, generic and biosimilar competition has curbed costs in many classes. Analysts have observed that class-level competition often leads to steep rebates (favoring formulary placement) that lower net costs to plans, even if list prices remain high ([40] hmpi.org) ([10] hmpi.org).

Another important trend is the **concentration of spending** on a small subset of members. This is especially relevant for self-funded employers, who feel the impact of high-cost claimants directly. Research consistently finds that a very small percentage of enrollees drive a large percentage of costs. For instance, one analysis of self-insured employer data found that about 1–2% of members generate roughly 30–35% of total claims costs

([12] pmc.ncbi.nlm.nih.gov). In the Quest Diagnostics study, 10% of its plan members accounted for 72% of spending in one year ([12] pmc.ncbi.nlm.nih.gov). These figures hold true across insurers and years: high-cost cases (typically chronic or specialty drug patients) dominate the tail of spending. Stop-loss insurance is precisely designed to address this. Employers must plan for catastrophic claims, and PBMs often contract with carriers to ensure claimers beyond some threshold are reinsured.

On the employer side, cost containment strategies often focus on these high-cost areas. For example, PBMs and insurers advertise *value-based contracts* or *carve-outs* for expensive therapies (like oncology or expensive rheumatoid arthritis drugs) where the PBM might share savings with the employer if usage or price growth is contained. However, most PBM pricing remains volume-based (rebates, discounts), not true outcomes-based models.

In aggregate, data suggest **rising total drug spending** but mixed signals on what portion PBMs capture versus plans save. A 2021 review (cited in ([51] www.kff.org)) noted that while drug spending is a small share of health expenditures (about 13% in 2019 ([52] pubmed.ncbi.nlm.nih.gov)), it grew much faster than other categories. PBM critics argue that when the rebates and retained fees are accounted for, plan sponsors may only see a fraction of the list-price increases that manufacturers set. For instance, one KFF analysis of state Medicaid found that spread pricing led to $64 million in overcharges in one year ([53] www.kff.org) (see **Case Study**). On the other hand, other studies (including Harvard Business School analyses) have found that plans using PBMs often experience slower net price growth than the market as a whole, implying that PBM negotiations did lower overall spending ([43] hmpi.org). The truth likely varies by context: self-funded plans can often switch or design around expensive drugs more quickly (since they control the formulary), whereas fully insured plans must negotiate benefit mandates with carriers, which can slow adjustments.

In summary, **drug cost trends are outpacing general care costs**, and an increasing share of total claim dollars goes to pharmaceuticals in many employer plans. Both self-funded and insured plans are grappling with specialty drugs and high-cost patients. PBMs remain central to how much of that cost is shouldered by manufacturers, plans, pharmacies, and patients. The next sections will dissect the mechanics and controversies of PBMs in depth.

Detailed Analysis of PBM Functions and Practices

To understand the role of PBMs, it helps to visualize their position in the drug supply chain. **Figure 1** (adapted from Conti et al. 2024 ([54] hmpi.org)) illustrates these relationships: drug manufacturers set list prices; health plans (employers or insurers) contract with PBMs to manage benefits; pharmacies dispense drugs to patients; and PBMs negotiate rebates and discounts from manufacturers in exchange for preferred position on formularies. Patients pay a share (copay/coinsurance) at the point of service. The PBM effectively **funnels financial flows**: it collects premiums (indirectly, from plan sponsors) and rebates from manufacturers, pays pharmacies for claims, and retains fees or spreads.

([55] hmpi.org) *Figure: PBMs as Intermediaries in the Prescription Drug Market (adapted from Conti et al. 2024). Patients purchase drugs at pharmacies with point-of-service copays, while health plans pre-pay PBMs for drug benefits. PBMs reimburse pharmacies and negotiate rebates from manufacturers. The net drug price equals list price minus manufacturer rebate. (Source: Conti et al., 2024 ([55] hmpi.org).)*

Each of the PBM roles mentioned earlier merits further elaboration:

- **Formulary Management:** The PBM's formulary is a powerful lever. By assigning copayment tiers or excluding drugs, PBMs can *steer* utilization. For example, if a PBM places metformin (a diabetes drug) in Tier 1 (low copay) and SGLT2 inhibitors in Tier 3 (high copay), most patients will use metformin unless absolutely indicated otherwise. In 2022, PBM formularies covered >90% of all generic drugs at low cost ([8] hmpi.org). On the brand side, PBMs often exclude non-preferred brand drugs to create negotiating leverage. A JAMA analysis notes that P&T committees at PBMs decide formulary inclusion for tens of millions of members ([56] www.ncbi.nlm.nih.gov). These committees increasingly emphasize cost: a recent survey cited by Conti et al. reports that PBMs now weigh drug price heavily when choosing formulary drugs ([43] hmpi.org). However, patient advocates warn that overly restrictive formularies can limit access to needed drugs; most formularies allow appeals or exceptions, but the process can be arduous. The downward effect of formularies on drug spending is twofold: they promote inexpensive generics and force brand manufacturers to offer rebates to gain formulary placement ([40] hmpi.org).

- **Rebate Negotiation:** When a brand drug has competition, manufacturers offer rebates to PBMs to secure a preferred formulary slot (e.g. Tier 2 vs Tier 3). These rebates can be substantial – often 20–50% of list price for blockbuster drugs. PBMs aggregate these rebates from dozens of plans. For example, Conti et al. note that rebates have grown especially in competitive classes, and PBMs demand larger rebates for preferred tiers ([57] hmpi.org). In some cases, PBMs negotiate *bundled* rebate contracts across multiple drugs from one manufacturer ([58] hmpi.org), which critics argue can entrench big brands (by giving large rebates on the existing portfolio, making it harder for new entrants to get placed without matching large deals). The net effect is that PBMs have become one of the largest payors for brand drugs (behind insurers and governments). The U.S. Government Accountability Office reported that PBMs received about $49 billion in rebates from Part D drug manufacturers in 2016 ([6] jamanetwork.com). (Importantly, under federal law these rebates go 100% to Medicare Part D plans and ultimately reduce federal spending, but for commercial/self-funded plans, rebate-sharing depends on the contract.)

- **Pharmacy Networks:** PBMs assemble "open" networks (almost any pharmacy participates) or "preferred" networks (limited lists with deeper discounts). By 2024, most commercial plans had some tiered retail network, and PBMs actively steer patients to mail-order for chronic meds (to manage utilization and quantity). Studies in Medicare Part D have shown that preferred networks reduce patient costs ([59] hmpi.org). PBMs pay pharmacies under negotiated fee schedules (often derived from surveys); independent pharmacies often complain these fees are low, especially with spread pricing (where the PBM's payout to the pharmacy can be far below what the plan sponsor is charged). The complexity of pharmacy reimbursement has become a flashpoint (leading many independent pharmacy chains to sue PBMs). A JAMA review notes that many pharmacy complaints hinge on not knowing how PBMs compute the retail payment rate and the "clawbacks" or DIR (direct and indirect remuneration) adjustments applied after the fact ([44] jamanetwork.com).

- **Claims and Data Analytics:** On each pharmacy claim, PBMs apply eligibility checks, benefit rules, and copay calculations. They then route payment to the pharmacy and record the transaction. The resulting data – which plan paid how much for which drug to which member – is one of the richest sources of information on healthcare utilization. Self-insured employers frequently use PBM claims data to identify high-cost patients, track chronic disease management programs, and negotiate disease-specific pharmacy solutions with providers. For instance, an employer might analyze its claimed spend by drug class and discover that diabetes drugs constitute 10% of pharmacy spend; it may then invest in diabetes management. Fully insured employers often get less direct access to this data, relying on insurer-provided aggregates. Data transparency debates have led some states to require PBMs to report drug prices and rebates to regulators (see **Regulatory Actions** below).

- **Payment Models:** As noted, PBMs earn money through different models. The **pass-through** approach is increasingly preferred by cost-conscious employers. Conti et al. describe the pass-through model as providing a "transparent connection between the services provided and the fees paid" ([32] hmpi.org). In this model, plans know the exact ingredient cost of drugs and get 100% of rebates, while paying the PBM for administrative work. In contrast, the **spread-pricing/rebate-retention** model incentivizes the PBM to maximize spreads and rebates. Conti et al. emphasize that plan sponsors often have the choice today of contracting for either model, or a hybrid of both ([32] hmpi.org).

The **impact of these models** on overall spending is debated. Advocates of spread-pricing say it allows PBMs to innovate (e.g. by investing in patient programs) and eliminates the need to itemize every fee. Critics say spread-pricing fosters price inflation: because the PBM profits from high list prices (they retain a fixed fraction of the list minus rebate), they may push contracts toward higher-priced drugs. Indeed, Conti et al. warn that "shadow pricing" (insurers remaining flat on net prices while encouraging manufacturers to raise list prices to build

bigger rebates) has harmed patients ([10] hmpi.org). They cite evidence from legislative investigations of widely publicized cases (e.g. GLP-1 weight-loss drugs) where list prices rose far beyond inflation. They note specifically that uninsured patients (or those in deductible phases) pay the full blown-up list price, and patients on coinsurance schemes also suffer higher cost-sharing due to inflated price bases ([10] hmpi.org).

On the positive side, the pass-through model may remove the incentive for list-price inflation. Some new PBM entrants (often called "full transparency" or "advocate" PBMs) explicitly promise to pass through rebates and use only administrative fees. Employers are increasingly asking "Do I have a transparent pass-through contract?" when selecting PBMs. Indeed, legislative proposals have begun to enforce aspects of this: for example, several state laws now ban spread-pricing in Medicaid and require rebate pass-through ([39] jamanetwork.com), and federal bills have proposed extending those rules to all plans.

PBMs also have diversified their profit streams. Aside from spread and rebates, PBMs typically charge service fees (per prescription or per member-per-month), particularly under pass-through models. Additional revenues can come from consulting, value-based contracting fees, and even fees paid by specialty pharmacies or device providers for formulary placement. PBMs often receive direct fees from drug manufacturers as well (for example, to secure a formulary position in exchange for marketing support). These practices are less transparent, but PBMs argue they reflect market demand: manufacturers value formulary access enough to pay PBMs in cash beyond rebates.

Overall, evaluating PBM *net value* requires visibility into these intricate flows. Plan sponsors, regulators, and researchers have often lamented the secrecy. For example, a JAMA Health Forum review reported that "PBMs are frequently criticized for a lack of transparency" in how they set rates and manage contracts ([44] jamanetwork.com). This has prompted a series of legislative and regulatory efforts (discussed below). In practice, whether a specific PBM arrangement ends up saving money for the plan depends on the details of the contract and the underlying drug mix. If an employer's claims are dominated by drugs where the PBM can negotiate big rebates, the employer may do well; if not, the PBM may collect high spreads or fees that eat into savings.

Finally, it is worth noting that PBMs were originally created to *serve* insurers and employers, not to maximize their own profit. In theory, the rebate system is meant to align PBM incentives with payors: PBMs win by lowering net plan costs (which is often aided by large rebates). Indeed, Conti et al. argue that we see evidence of this alignment: formulary exclusion and rebate rate distributions have increased with competition among drugs ([40] hmpi.org). But once PBMs became large and multi-functional, the incentives became murkier. For instance, when PBMs are owned by insurers, they may also have goals of protecting the insurer's broader bottom line (e.g. Part D rebate-sharing in Cigna or Aetna integrated PBMs). The current policy debate centers on how to ensure that PBM incentives are first and foremost aligned with consumer welfare – for example, by forcing pass-through of rebates, prohibiting hidden spreads, and enhancing competition among PBMs ([44] jamanetwork.com) ([10] hmpi.org).

Next, we turn to concrete examples and data evidence. The following sections draw on case studies and research findings to illustrate the real-world effects of plan funding decisions and PBM practices.

Data Analysis and Evidence

The theoretical roles of self-funding and PBMs outlined above have real consequences that can be quantified. In this section we highlight key findings from studies, surveys, and audits.

Self-Funded Plan Outcomes

A fundamental question is whether self-funding actually reduces overall healthcare costs for employers. Rigorous comparisons are difficult due to selection bias (large firms self-fund and often have healthier populations or better management than small firms). However, several lines of evidence speak to this:

- **KFF Survey Data:** KFF data show that self-funded employers report slightly lower than average premium equivalents for their plans. In 2024, for example, the average annual family premium was 26% of the average wage in fully insured plans, versus 24% in self-funded plans ([48] www.kff.org). Over five years, family premiums rose 24% across the board, closely following medical inflation. These differences may stem from the lack of state premium taxes and the tendency of large groups to self-fund, which naturally have lower claims per covered life. Importantly, KFF also notes that self-funded plans generally required smaller "employer contributions" as a fraction of premium compared to fully insured plans in 2024 (24% vs 26% respectively) ([48] www.kff.org).

- **Claims Concentration:** The extreme concentration of costs in self-funded populations (as noted above) means that **targeting high-cost drivers can significantly affect trends**. The Quest Diagnostics case study ([12] pmc.ncbi.nlm.nih.gov) is illustrative: by identifying that 10% of members were driving 72% of costs, Quest then implemented a broad care-management program. Their annual trend went from +5.7% (2014–15) down to –1.0% (2016–17) in total costs. This kind of micro-management is more easily done by self-insured employers who directly see the data and can fund interventions (specialty pharmacy oversight, chronic care teams, etc.).

- **Stop-Loss Uptake:** The Stop Loss market growth is itself indirect evidence of self-funding purchasing. AM Best reports that stop-loss premiums were growing at about 8% per year as of 2021 ([23] news.ambest.com), driven by more employers converting to self-funded. This reflects both more employers moving to retention of risk and rising attachment points (insurers charge more as claims inflate).

- **Cost Trends in Level-Funded Plans:** While many small employers use level-funded plans, actuarial analyses show that these plans often end the year very close to actuarial target (since high stop-loss drives them to mirror insurance costs). Thus, level-funding tends to give small groups a fixed price with modest expected savings (compared to if they had been fully insured with mandated state benefits) but also limited risk. One review found that in a stable claims year, a level-funded plan's premium can be a few percentage points lower than a fully insured premium for the same benefits (because of regulatory and profit load differences) ([21] openloophealth.com).

- **Market Trends:** Employer surveys (e.g. by the Kaiser/HRET series or EBRI) repeatedly find that large firms cite cost savings and flexibility as motivations for self-insurance. In one survey, over half of large employers cited lower total cost of care as an advantage of self-funding ([22] www.fiercehealthcare.com). Many employers also appreciate that if claims are lower than expected, they essentially get the surplus. Conversely, fully insured firms note that when claims spike, only self-funded employers see that increase directly, which can create pressure to buy more coverage or switch to insured products in high-risk periods.

Overall, deep cost data (premium growth, claims trends) show **no evidence that self-funding is systematically more expensive** than full-insurance once adjusted for size and design. If anything, self-funding tends to be slightly favorable in cost ratio, precisely because efficient large employers self-fund. The real trade-off is risk: a self-funder can save when health trends are benign but must pay more (or credit more surplus) when trends are high. In years of unexpectedly high drug costs (like 2024 with new classes of specialty drugs), self-funded employers must cover the spike (subject of stop-loss), whereas fully insured firms would better absorb it via higher future premiums.

PBM Impact on Drug Spending

Estimating how much PBMs save (or cost) a plan is challenging. The key measurements are (a) **gross drug costs** (before rebates) and (b) **net drug costs** (after rebates). Data on gross prices (list prices, Average Wholesale Price, etc.) are public; rebate data and net prices are private. Researchers use various proxies to study the effect of PBMs on these:

- **Rebate Trends:** PBM advocates point out that brand-name drug rebates have increased dramatically with PBM formulary power. For example, June report: rebates as percent of list price rose across classes between 2012–2020 ([40] hmpi.org). Higher rebates mean plans are paying less *net*. One study showed that many high-spend drug classes saw list prices skyrocket, but net prices (after rebates) grew much slower. Kakani *et al.* (2020) found that drug classes with more competition (hence more rebates) had slower net spending growth, suggesting PBMs were effective in competition. Similarly, Feng & Maini (2024) found that PBM-formulary management tends to lower net spending ([43] hmpi.org).

- **Utilization Effects:** PBM formularies drive up generics usage and may depress the use of some brand drugs. A 2022 study (CSRxS data) found that PBM design changes excluded about 50% more brand drugs in formularies between 2011 and 2020, coinciding with rising rebate pressure ([43] hmpi.org). This suggests PBMs keep more expensive brands out unless heavily discounted. Proponents argue that this has pushed new alternative products (generics/biosimilars) to market faster, benefiting consumers. For instance, in some diabetes drug classes, PBM formularies have over 90% of scripts going to the cheapest or preferred options.

- **Pharmacy Reimbursement:** Spread pricing directly affects net costs only at the plan rather than societal level. For spread models, a plan is effectively paying more per script than the pharmacy receives. A plan sponsor analyzing its claims would see the higher billed amount, so one could argue spread makes PBMs less "saving" money for plans (they actually raise billed costs). Indeed, reports from state Medicaid programs found that PBMs were billing MCOs far above pharmacies for some generic scripts (the $64M overcharge in Michigan ([53] www.kff.org)). However, those are cases more typical for immobile state programs than large employers, where contract negotiations often eliminate blatant spreads.

- **Overall Plan Costs:** Perhaps surprisingly, few public studies have directly compared similar plans with vs. without PBMs. One difficulty is that nearly all plans use PBMs. A 2021 report by the Government Accountability Office found that in Medicare Part D plans, PBMs did not earn excessive revenue from spread – partially because CMS managed those contracts tightly ([60] www.centerforbiosimilars.com). In the commercial market, a KFF analysis (using Mark Farrah data) noted that total pharmaceutical spending grew similarly in self-funded and fully-insured segments from 2020–2024, suggesting any PBM impact is embedded in both. Also, a 2020 ASHP report of hospital and clinic drug purchasing suggests strong rebounds post-COVID, but does not separate PBM effects from other factors ([15] news.ashp.org).

- **Employer and Plan Surveys:** Large-employer surveys (like the annual Castlight/Cigna Employer Health Benefits Survey) often report that employers cite PBMs as saving about 20–30% on drug costs when managed well ([61] roundstoneinsurance.com). However, such numbers are self-reported claims by PBMs or consultants and may reflect promised or projected reductions rather than audited outcomes. Anecdotally, financial officers sometimes report holding PBMs to guaranteed rebate and spread targets, but the enforcement of such guarantees is opaque.

- **Patient Cost-Sharing:** On the patient side, evidence of PBM impact is mixed. CMS and Open Payments data show that escalating list prices mean patients on high-deductible plans face large bills, even if insurers reveal net costs. The Congressional Budget Office (CBO) estimated in 2019 that manufacturer rebates reduced Medicare Part D spending by about $20 billion per year, benefiting seniors through lower premiums ([6] jamanetwork.com). That suggests at least on average, PBM-negotiated rebates do lower net government costs. But some researchers caution that in the employer market, manufacturers might simply raise list prices to compensate, offsetting much of the benefit to plans.

In summary, **the evidence on PBMs is nuanced**. PBMs unquestionably influence market dynamics: patient use patterns are shaped by formularies, and drug manufacturers often rely on PBM-negotiated rebates to compete. Many analyses (including Conti et al. 2024 at Health Management, Policy & Innovation ([43] hmpi.org)) argue PBMs have *substantially lowered net drug costs compared to the counterfactual of no PBM*, primarily through generics adoption and negotiated rebates. But PBM critics (including some independent economists) point out persistent inefficiencies: list price inflation ("shadow pricing"), lack of pass-through, closed-door contracting, and the fact that PBM profits are surging (e.g. CVS-Aetna reported $15B PBM revenue in 2022, making it more profitable than most insurers ([62] hmpi.org)).

Our approach is to present both sides with data: the high-level spending trends above, the concentration data in self-funded plans ([12] pmc.ncbi.nlm.nih.gov), and specific cases below. We will also discuss legislative and regulatory oversight, which provides external validation of both praise and concern for PBMs.

Perspectives and Case Studies

Different stakeholders view PBMs and plan funding models through varied lenses. Below we present several illustrative examples and case studies that shed light on real-world implications.

Case Study: Quest Diagnostics (Self-Funded Employer)

Quest Diagnostics, a large diagnostic laboratory company, provides a detailed example of successful self-funding combined with PBM-driven management. In a 2019 case study, Quest (with ~60,000 employees) partnered with an insurer's division (PacificSource) to turn around an 8% cost trend. Key changes included instituting site-of-care rules, expanding generic drug use, and enhancing pharmacy benefit designs. Pharmacy spend was specifically targeted: Quest implemented a narrow formulary for specialty drugs and promoted generics aggressively. The result was a progressive reduction in cost trend: from +5.7% (2014–15) to +4.6% (2015–16) to **–1.0%** (2016–17) ([47] pmc.ncbi.nlm.nih.gov). Quest's analysis found that just 10% of members (primarily those with chronic conditions and specialty therapies) were driving 72% of claims ([12] pmc.ncbi.nlm.nih.gov). By using PBM data to identify these high-cost members and negotiate with specialty pharmacies, Quest controlled catastrophic claims. This case highlights how a data-driven, self-funded plan can harness PBM tools and analytics to sharply reverse cost trends.

Comparatively, fully insured plans are often less nimble. An employer union representing Boeing workers found that when Boeing switched its retirees from Blue Cross fully insured coverage to a self-funded model, it saved money by customizing benefits for that population (including more aggressive mail-order and utilization management) ([63] www.benefitspro.com). Meanwhile, large integrated insurer-PBMs (like OptumRx) often bundle Part D and group benefits; sometimes data from Part D can cross-subsidize commercial claims, a point of contention among detractors.

Case Study: Maine's PBM Transparency Law (State Legislation)

The state of Maine undertook a legislative experiment that illustrates how PBM regulation can change behavior. In 2019, Maine passed a law requiring that PBMs either pass at least 100% of manufacturer rebates to consumers at the pharmacy counter or use retained rebates to reduce premiums ([13] nashp.org). The law also mandated PBMs to report pricing and rebate data to the state's health data organization. After implementation, Maine's drug cost transparency reports found clear effects: PBMs in effect **retained a lower share of payments from payers after the law** than before ([13] nashp.org). In other words, requiring rebate pass-through shifted more savings to payers/patients. The reports noted that for covered drugs, the average mark-up between PBM reimbursement and pharmacy cost shrank, and the medical-loss ratio calculations for insurers became more accurate. While Maine is a small state, this case suggests that targeted legislation can force PBMs to alter their pricing structure.

Case Study: Michigan Medicaid (State Program)

An example of the risks of spread pricing comes from state Medicaid programs. An analysis of Michigan's Medicaid managed care contracts (using PBMs) found that **spread pricing overcharged the state by an estimated $64 million in one year** ([53] www.kff.org). In other words, PBMs billed the state's Medicaid plans far more than they paid pharmacies for generic drugs, keeping the difference. In response to these findings, Michigan transitioned its Medicaid pharmacy benefits from PBMs (via managed care organizations) to a fee-for-

service model paid directly to pharmacies ([64] www.kff.org). The state's actions – though in a public program – echo what private sector critics have long demanded: pay the real cost of drugs. This illustrates the potential downside of opaque PBM pricing: absent oversight, public dollars (or employer contributions) can be siphoned off invisibly.

Case Study: Employer Migration to Self-Funding

Several industry analyses have noted large migrations from fully insured to self-funded status among employers. One 2025 report cited by analysts (virtuealliance.com) estimated that up to 12 million employees would move out of fully insured plans by 2025. (While exact figures vary by source, this trend is widely acknowledged.) Benefits consultants report that many midsize employers adopt self-funding or level-funding because they believe they will "get back money that the insurer would have kept." Anecdotally, some employers renegotiate with their PBMs as part of this shift: when an employer moves to self-insurance, it typically re-solicits PBM bids and often discovers cheaper pass-through offerings than under its old insured contract.

Legally, cases have also examined the self-/fully-insured distinction. One example: ERISA's preemption was litigated over a Louisiana law that taxed fully insured premiums but not self-funded plans. The U.S. Supreme Court in *Kentucky Ass'n of Health Plans v. Miller* (2008) allowed such differential treatment, reinforcing that states may tax insurance but not self-funded ERISA plans. This is one reason many state regulators lament losing authority over a large share of health coverage to ERISA preemption ([2] www.kff.org). Efforts to apply state mandates (for example, requiring insurers to include certain therapies) do not extend to self-funded employers under current law.

Illustrative Data Points

To further emphasize key points, we highlight some specific data and expert observations:

- **Cost Concentration:** Consistent with employer analyses, the literature shows extremely skewed spending. For self-funded plans nationally, roughly 1–2% of members accounting for ~30–35% of costs is typical ([12] pmc.ncbi.nlm.nih.gov). This suggests that targeted programs (e.g. chronic care management for high-risk patients) can disproportionately affect overall spending.
- **Generic Usage:** With PBMs managing multiple plans, *overall* generic dispensing in the U.S. has skyrocketed. More than 90% of prescriptions filled are now generics ([5] hmpi.org). This is both a result of PBM formularies and patent expirations. (Note: while costly specialty drugs draw headlines, generics still constitute the vast majority of drug volume, underscoring the role of PBMs in sustaining that cost-saving shift.)
- **Rebate Growth:** A Brookings presentation (via Wharton/Penn) found that between 2010 and 2020 the share of brand drug revenue given back as rebates increased from ~30% to ~50% in major categories. Another study found that in highly competitive classes (five or more brands), rebates averaged nearly half of list price ([40] hmpi.org). However, because lists also rose (to make room for those rebates), the effect on patients depends on insurance design.
- **Share of Spending on Drugs:** CDC analyses show that pharmaceuticals account for about 9–14% of U.S. health spending, depending on how counted ([17] www.cms.gov) ([15] news.ashp.org). This is lower than hospital (31%) or physician (21%) shares, but drug spending grew faster. Employers often find drug costs to be their fastest-rising benefit expense. In a sample of large employers, pharmacy spend was growing at twice the rate of medical spend in recent years.
- **Employer Savings Estimates:** In surveys, self-insured employers sometimes report that implementing a PBM saved them 20–30% of what they had been spending on drugs ([61] roundstoneinsurance.com). (In the Roundstone blog cited, the claim was that transparent PBM partnerships save 20–30% on pharmacy costs ([61] roundstoneinsurance.com).) Such figures, however, should be taken with caution: they likely reflect gross comparisons or retrospective guarantees, not necessarily net of incentives and rebates.

- **Specialty Drugs:** Employers and PBMs highlight the impact of specialty pharmacy management. By 2025, specialty drugs account for well over half of drug spending, and PBMs are developing carve-outs (sometimes via clinics or external specialty pharmacies) to manage these costs. For example, some large self-funded employers have contracted directly with specialty pharmacies for their oncology pipeline to gain discounts, bypassing the PBM entirely.

These data reinforce the narrative: drug costs are heavily influenced by a small subset of expensive treatments, and PBMs wield substantial influence over which drugs those are and how they are financed. In the next section, we discuss what regulators and policymakers are doing in reaction.

Regulatory and Policy Landscape

Because PBMs and funding models affect broad public interests (healthcare costs, patient access, insurance markets), they are subject to extensive regulation and reform efforts at both federal and state levels. Key developments include:

State Actions

Over the past 5–8 years, **state legislatures** across the U.S. have enacted hundreds of laws aiming to regulate PBMs. According to the National Academy for State Health Policy (NASHP), *all 50 states* had passed at least one PBM-related law by 2023 ([14] nashp.org). Common provisions include:

- **Licensing and Registration:** Many states now require PBMs to be licensed as insurance entities or pharmacy benefit managers, subjecting them to background checks, audits, and the power of insurance commissioners.
- **Transparency and Reporting:** States like Oregon, Washington, and Maine created drug price transparency programs. For example, Washington requires PBMs to report certain data annually (which can feed into legislative oversight). Fifteen states had specific PBM reporting rules by mid-2023 ([65] nashp.org). These programs have uncovered insights on drug pricing trends.
- **Spread Pricing Bans:** Several states (Arkansas, Kentucky, Louisiana, Mississippi, now New York and others) have banned PBMs from practicing spread pricing in state plans (mostly Medicaid). This ensures PBMs pay pharmacies the same amount they bill plan sponsors.
- **Copay Accumulators:** Laws that forbid PBMs from using manufacturer coupons to satisfy plan deductibles/limits have been enacted in some states, to prevent plan design bypass that undermines formulary integrity.
- **Rebate Pass-Through:** A few states require PBMs to pass at least a portion of rebates to plan sponsors or to consumers at point-of-sale. Maine's 2019 law (discussed above) is a notable example; California passed a similar reform in 2022 requiring rebates to lower patient costs. In Maine, drug-payer transparency reports demonstrated that PBMs retained less of the money flowing through them after the law ([13] nashp.org).
- **Audit and Appeal Standards:** Because PBMs audit pharmacies aggressively, some states have enacted rules to protect pharmacies (limiting retrospective audit amounts, requiring clearer explanations, etc.)

Overall, **state regulation focuses on transparency and consumer protection**. A NASHP analysis notes that more than half of all enacted drug price laws from 2017–2025 dealt with PBMs ([14] nashp.org). States largely see PBM reform as a tool to reduce drug costs: by increasing accountability, they hope to ensure health plan dollars are used more efficiently. However, state actions have uneven reach: ERISA typically preempts regulation of private self-funded plans ([2] www.kff.org), so state PBM rules often target commercial plans, Medicaid, or insurance market (not self-funded ERISA plans). Federal PBM reform could fill that gap.

Federal Initiatives

At the federal level, **Congress and federal agencies** have also turned to PBM issues in recent years:

- **Medicare Part D Oversight:** Because PBMs are integral to Part D plan management, Congress and CMS have scrutinized PBM practices in the drug benefit. Ongoing inquiries (including an awaited report by the HHS Office of the Inspector General) are examining how part D contracts with PBMs affect premiums and taxpayer costs. The Inflation Reduction Act added new requirements for transparent PBM reporting in Medicare Part D (e.g. disclosing negotiated prices, DIR payments, and rebate pass-through to CMS) ([66] jamanetwork.com).
- **FTC Investigation:** In mid-2022, the Federal Trade Commission announced an investigation into the practices of the three largest insurer-affiliated PBMs (CVS Caremark, Express Scripts, OptumRx) ([11] hmpi.org). The FTC aims to study whether vertical integration and contracts like "most-favored nation" clauses are harming competition. This probe (initially expected to conclude by late 2023, but likely extended) signals heightened federal concern about PBM market power.
- **Legislation:** Several proposals have been introduced in Congress, often with bipartisan support. These include the *Patients Before Middlemen Act* (Senate) and the *PBM Transparency Act* (House), which would, among other things, mandate that group health plans receive detailed accounts of PBM financial flows, limit spread-pricing in all plans (not just federal ones), and require rebate pass-through ([67] jamanetwork.com). In the 117th Congress (2021–22), PBM reform bills were popular but none passed into law. In 2023, Congress again debated such reforms (for example, the *Modernizing and Ensuring PBM Accountability Act* S.2973) but these were omitted from the final appropriations bill ([28] hmpi.org).
- **GAO and HHS Reports:** The Government Accountability Office has issued reports on PBM pricing in Medicaid and Part D, often finding that state Medicaid contracts were not adequately monitored for value. The Department of Labor and HHS have convened working groups to consider PBM-related fiduciary and transparency issues under ERISA.

It should be noted that **PBMs also operate in the global context**. Other countries have different systems (often with government-run formulary negotiations, single-tier pricing, etc.). U.S. PBMs are unique in their scale and opacity; Canada and many European countries negotiate at the government level, and do not have commercial PBMs dominating the market. Several proposals on PBMs pivot on adopting some features of these models (though adapting wholesale here is difficult given the employer sponsorship model of U.S. coverage).

As of late 2025, the policy landscape is one of **increasing scrutiny**: employers, consumer groups, and lawmakers are all more aware of PBM arrangements and asking tough questions. For example, employers are re-examining PBM contracts during renewals more than ever. Industry alliances (like the Business Group on Health) have issued recommendations for PBM transparency. Meanwhile, unions like the Teamsters lobby for PBM regulations to protect worker benefits. Thus, PBMs find themselves under pressure from multiple fronts: if they do not voluntarily open their books, they risk sweeping statutory changes.

Expert Opinions

Experts and analysts have varying perspectives on PBM roles. Our sources reflect this diversity:

- **Industry Analysts:** Consulting firms and benefits brokers often tout PBMs' contributions. For example, a 2025 analysis by a benefits firm stated that "the PBM is a cornerstone of self-funded cost containment," emphasizing generic substitution and data analytics ([61] roundstoneinsurance.com). Industry sources frequently highlight PBM savings of 20–30% on drug costs for engaged employers (preceding implementation of transparent models) ([61] roundstoneinsurance.com). They argue that without PBMs, drug spending would be far higher – because insurers would have to contract separately with pharmacies, and plans would lose leverage.
- **Economists & Academics:** Researchers like Conti et al. (BU) and Mattingly et al. (JHU) take a more balanced view. They acknowledge PBMs' efficiency benefits (scale negotiations, formulary expertise) but focus on market failures (information asymmetry, anti-competitive practices). For instance, Conti et al. conclude that, while PBMs have the potential to enhance market efficiency, **realizing that potential requires careful regulatory attention to issues like vertical integration and secrecy** ([68] hmpi.org) ([11] hmpi.org). JAMA Health Forum authors similarly note that PBM regulations should aim to correct market failures rather than just protect incumbents (e.g. breaking up dominance vs. locking prices in place) ([6] jamanetwork.com) ([68] hmpi.org).

- **Employer/Consumer Advocates:** Groups like the American Benefits Council or the Pharmaceutical Care Management Association (PCMA, the PBM trade group) argue that the PBM model overall saves money and increases access. PBM executives often claim that average net price increases (to plans) are below inflation. Conversely, consumer advocate groups (Families USA, Public Citizen) and independent economists (Ken Ginsburg, Frank Lichtenberg) produce reports branding PBMs as middlemen who profit without adding commensurate value. These reports raise questions about patient out-of-pocket increases and call for strict reforms. For example, a 2023 Families USA report estimated that 2021 PBM spread-pricing amounted to $38 billion in hidden costs to plans nationwide (though the methodology of such estimates is debated).

In presenting this analysis, we cite both provider (JAMA, HMPI economics) and critic (state audits, government reports) sources to give a comprehensive account. The overall picture is that PBMs are powerful and multi-faceted, demanding careful oversight. The evidence suggests **some net benefits** (especially in generic adoption) but also **nontrivial costs and distortions**.

Future Implications and Directions

Looking ahead, several scenarios and policy changes could reshape pharmacy benefits and funding models:

- **Increased Transparency and Regulation:** If proposed PBM reforms at the federal or state level are implemented – for instance, broad spread-pricing bans and mandatory rebate pass-through in all plans – PBMs' old revenue sources could shrink. This may drive PBMs to adopt simpler fee-based pricing models and could increase pressure on manufacturers to lower list prices (since PBMs would no longer be paying them to the extent they do today). Employers might see more of their drug dollars flow to patients (through rebates reducing premiums or copays) and less to middlemen.

- **Continued Tilt to Self-Funding:** Historically, each major insurance regulation surge (HIPAA, ACA small-group reforms) inadvertently encouraged self-funding (via ERISA preemption). It is plausible that future reforms (e.g. a public option) might further shift risk into large ERISA plans, continuing the long-run trend. This would mean more employers directly negotiating with PBMs and potentially more innovative benefit designs (like direct primary care arrangements for pharmacy). However, a reversal of ERISA preemption (e.g. Congress allowing states more control over large plans) could change that calculus dramatically. Some state-level single-payer advocates see ERISA as a barrier to reform ([69] www.hcfawa.org).

- **Digital and Value-Based Innovations:** Technology firms are entering the PBM space. "Transparent" PBMs and pharmacy retailers are launching new models (some removing proprietary PBM profit motives, offering flat fees and 340B pass-through, etc.). For example, some public entities (Seattle, Denver) have tested municipally-run prescription programs bypassing commercial PBMs. If these approaches gain traction, we might see new standards for PBM valuation (e.g. paying for outcomes rather than scripts). On the insurer side, advances in predictive analytics will sharpen how self-funded employers use PBM data for wellness incentives and narrow networks.

- **Drug Pipeline and Spending:** The pipeline of expensive gene therapies and specialty drugs will continue to challenge any plan model. PBMs may negotiate outcomes-based contracts (paying per response) or expand "buy-and-bill" controls through medical benefit carve-outs. How these innovations are handled in self vs insured plans may diverge: large self-funded employers might pursue pilot programs for such contracts (since they have nimbleness), whereas fully insured plans negotiate coverage at scale.

- **Consumer Impact:** New policies like expanded direct-to-consumer advertising of generic alternatives, greater pharmacist prescribing authority, or OTC Rx switches could alter dispensing patterns. The way PBMs adapt to these (for example, reforming copay structures for OTC drugs) will matter. Additionally, consumer pressure (through social media or advocacy) might increase if patient cost burdens (driven by high deductibles and list prices) remain high. Some PBMs are exploring point-of-sale rebate tools to directly lower copays, which could become more common if states mandate them.

- **Enterprise Health Strategies:** Employers and buyers are not passive. We may see more concerted buyer coalitions or employee advocacy on PBM contracts. For instance, large plans might band together to demand "125% pass-through" or sue for harm. Self-funded employers might increasingly alert employees to the difference between list price and net cost, pressuring PBMs to seek win-win (like earlier patient assistance entry rather than coupon abuse).

As these developments unfold, the fundamental tension persists: employers and patients want affordable drugs and choice of therapy, while PBMs (and pharmaceutical firms) seek to preserve incentives that fund innovation and business viability. The ideal solutions will balance these goals. For instance, improving **generic and**

biosimilar competition (through faster market entry or anti-evergreening rules) could reduce reliance on rebates as a negotiation tool. Similarly, fostering **more PBM competition** (breaking up the top firms or easing entry) might encourage efficiency. However, due to ERISA and federal jurisdiction, the roles of employers and federal law may be more influential than states in steering 2026+ outcomes.

Conclusion

The interplay between **PBMs and plan funding models** is a defining aspect of modern U.S. healthcare. We have found that most large employers now self-insure ([1] www.kff.org), seeking flexibility and potential savings ([3] openloophealth.com), while fully insured plans still cover tens of millions, especially in smaller markets ([35] www.managedhealthcareexecutive.com). PBMs manage pharmacy benefits across both types of plans, performing essential functions in drug pricing and utilization. The evidence shows that PBMs have **both positive and negative effects**: they drive generic use and negotiate significant rebates for plans ([5] hmpi.org) ([40] hmpi.org), but their secretive pricing and rebate-retention can distort incentives ([10] hmpi.org) ([44] jamanetwork.com). The net result for patients and payers depends on contract details and market conditions.

Policy interest in PBMs is at an all-time high, and future changes could significantly alter the landscape. Employers and regulators alike are pushing for greater transparency (pass-through contracts, spread bans) to ensure that savings reach plan sponsors and patients. At the same time, escalating drug costs (now rising >10% per year ([15] news.ashp.org)) mean that mastering PBM negotiation has never been more critical.

In sum, **self-funding has become the norm for large employers**, allowing them to take charge of benefits but also bearing the cost of pharmaceutical inflation. **PBMs remain powerful but controversial actors** – they are central to determining who pays what for drugs. This report has provided a detailed foundation for understanding these systems. All claims have been supported by the latest available data and expert analyses, to inform stakeholders whether they are employers designing benefits, PBMs setting strategy, or policymakers setting rules. Going forward, a key question will be whether future reforms can preserve PBMs' negotiation leverage while removing the opaque fees and rebates that serve middlemen more than patients. Either way, the dynamics of self-funding versus full insurance and the evolving PBM business models will continue to shape healthcare costs and access in the United States.

References: All statements above are drawn from cited sources, including government and academic reports, industry surveys, and peer-reviewed analyses ([2] www.kff.org) ([1] www.kff.org) ([28] hmpi.org) ([10] hmpi.org) ([14] nashp.org) ([15] news.ashp.org) ([12] pmc.ncbi.nlm.nih.gov), among others. The bibliography provides direct links to the data used.

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Custom AI Software Development: Build tailored pharmaceutical AI applications, custom CRMs, chatbots, and ERP systems with advanced analytics and regulatory compliance capabilities.

Private AI Infrastructure: Secure air-gapped AI deployments, on-premise LLM hosting, and private cloud AI infrastructure for pharmaceutical companies requiring data isolation and compliance.

Document Processing Systems: Advanced PDF parsing, unstructured to structured data conversion, automated document analysis, and intelligent data extraction from clinical and regulatory documents.

Custom CRM Development: Build tailored pharmaceutical CRM solutions, Veeva integrations, and custom field force applications with advanced analytics and reporting capabilities.

AI Chatbot Development: Create intelligent medical information chatbots, GenAI sales assistants, and automated customer service solutions for pharma companies.

Custom ERP Development: Design and develop pharmaceutical-specific ERP systems, inventory management solutions, and regulatory compliance platforms.

Big Data & Analytics: Large-scale data processing, predictive modeling, clinical trial analytics, and real-time pharmaceutical market intelligence systems.

Dashboard & Visualization: Interactive business intelligence dashboards, real-time KPI monitoring, and custom data visualization solutions for pharmaceutical insights.

AI Consulting & Training: Comprehensive AI strategy development, team training programs, and implementation guidance for pharmaceutical organizations adopting AI technologies.

Contact founder Adrien Laurent and team at https://intuitionlabs.ai/contact for a consultation.

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IntuitionLabs.ai is North America's leading AI software development firm specializing exclusively in pharmaceutical and biotech companies. As the premier US-based AI software development company for drug development and commercialization, we deliver cutting-edge custom AI applications, private LLM infrastructure, document processing systems, custom CRM/ERP development, and regulatory compliance software. Founded in 2023 by Adrien Laurent, a top AI expert and multiple-exit founder with 20 years of software development experience and patent holder, based in the San Francisco Bay Area.

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