IOWA | Insurance Division

GOVERNOR KIM REYNOLDS
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DOUG OMMEN, INSURANCE COMMISSIONER

December 31, 2025

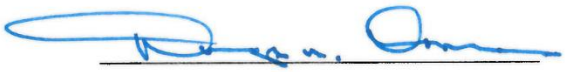
Governor Kim Reynolds
1007 East Grand Avenue
Des Moines, Iowa 50319

Governor Reynolds,

Enclosed please find the Iowa Insurance Division's Pharmacy Services Administrative Organization and Wholesale Distribution of Prescription Drugs Report required pursuant to SF 383.

This report provides information about the wholesale drug distribution supply chain, a description of the role of pharmacy services administrative organizations and the relationships between wholesalers, PSAOs and pharmacies. The report was prepared by Cameron Ellis, PhD, a Fellow in Finance at the University of Iowa, Tippie College of Business. The report was reviewed by my staff to ensure compliance with the requirements of SF 383.

Respectfully submitted,



Douglas M. Ommen
Iowa Insurance Commissioner

PSAOs and Prescription Drug Wholesale Distribution
Public Report to the Iowa Legislature

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December 6, 2025

Executive Summary

This report examines how prescription drugs flow from manufacturers to Iowa pharmacies and patients.

Key Findings

- **Three companies control drug distribution.** The Big Three wholesalers distribute more than 90% of prescription drugs. Iowa pharmacies have few alternatives when negotiating inventory prices (Healthcare Distribution Alliance, 2024; The Commonwealth Fund, 2021; Office of the Assistant Secretary for Planning and Evaluation (ASPE), 2025).

- **Pharmacies make money on generics, not brands.** The Big Three wholesalers offer discounts when pharmacies buy most of their generic drugs from one supplier. These generic purchasing agreements determine whether pharmacies can stay profitable (Office of the Assistant Secretary for Planning and Evaluation (ASPE), 2025; Big Three Wholesalers, 2025; Centers for Medicare & Medicaid Services, 2024).

- **Pharmacy services administrative organizations (PSAOs) help pharmacies join Pharmacy Benefit Managers (PBMs) networks, but wholesalers own most PSAOs.** Nearly 20,000 independent pharmacies use PSAOs to contract with PBMs that administer insurance benefits. The Big Three wholesalers own the major PSAOs (Pharmaceutical Care Management Association, 2024; Drug Channels Institute, 2023; Big Three Wholesalers, 2024).

- **Pharmacies learn their true payment months later.** PBMs pay pharmacies on behalf of insurers and employer plans when prescriptions are filled, then take money back months later through various fees and adjustments, some of which are called effective rate reconciliation or direct and indirect remuneration (DIR) fees. Theses types of adjustments and fees may result in some drugs being reimbursed below what the pharmacy paid (Iowa Insurance Division Bulletin 25-06, 2025; Centers for Medicare & Medicaid Services, 2024; Federal Trade Commission, 2024). In Iowa's commercial market, however, retroactive reductions of clean claims are prohibited (Iowa Code 510B.8C); DIR-type adjustments do not apply to commercial plans.

Implications for Iowa

- The Big Three wholesalers control pricing and terms for Iowa's independent pharmacies. Understanding how purchasing agreements affect drug prices requires examining actual pharmacy invoices (Healthcare Distribution Alliance, 2024; Office of the Assistant Secretary for Planning and Evaluation (ASPE), 2025).

- When the same companies control both drug supply and PBM contracting for insurance plans, problems in one area affect the other. Iowa pharmacies face barriers to switching to

different wholesalers or PSAOs (Pharmaceutical Care Management Association, 2024; Big Three Wholesalers, 2024).

What This Report Accomplishes

Examples of PSAO and PBM contracts have been reviewed, revealing fee structures, attorney-in-fact authority provisions, and post-adjudication adjustment mechanisms. Combined with national market data, this descriptive analysis documents:

- Market concentration and vertical integration patterns in drug distribution
- Standard contract terms governing pharmacy network participation and payment
- Payment timing and post-adjudication adjustment mechanisms (Generic Effective Rate (GER), Brand Effective Rate (BER), DIR)
- How Iowa's statutory protections operate outside contractual frameworks

Contents

1 How Prescription Drugs Get to Iowa Pharmacies

Three wholesale companies control how prescription drugs reach Iowa pharmacies. This section describes the "Big Three," explains how much they charge, and why pharmacies have few alternatives.

In this report, "payers" refers to health insurers and employer plan sponsors in the commercial market, while PBMs administer the pharmacy benefit and issue payments on their behalf.

1.1 Three Wholesale Companies Control the Market

The Big Three wholesalers distribute more than 90% of prescription drugs in America. These are full-line wholesalers—carrying a broad portfolio of brand, generic, and many specialty pharmaceuticals, enabling a pharmacy to source most products from a single primary vendor. The Department of Justice considers any market where three firms control this much to be highly concentrated (Healthcare Distribution Alliance, 2024; The Commonwealth Fund, 2021; U.S. Department of Justice and Federal Trade Commission, 2010).

For Iowa pharmacies, this concentration has two effects. First, drug delivery runs smoothly because the Big Three have national warehouses and systems. Second, pharmacies cannot shop around for better prices. Because the Big Three account for the overwhelming majority of retail distribution and independents are typically on single-primary-vendor arrangements, switching vendors is costly and rare. They must accept what the Big Three offer.

1.2 Thin Profit Margins Drive Wholesaler Behavior

Wholesalers keep about 6 cents of every dollar spent on prescription drugs, roughly $23 billion in 2022. The largest wholesaler reports profit margins of just 1.22% (Office of the Assistant Secretary for Planning and Evaluation (ASPE), 2025; Big Three Wholesalers, 2025).

These thin margins mean wholesalers make money through volume and by pushing pharmacies to buy generics from them exclusively. Branded drugs rarely come with exclusive purchasing terms for wholesalers, so brand ordering is generally nonexclusive. Small changes in these purchasing agreements significantly affect whether Iowa pharmacies stay profitable. For high-cost specialty drugs, dispensing is commonly routed through specialty pharmacies—often owned or affiliated with wholesalers—which centralizes handling and limits independents' ability to capture that volume.

1.3 Products Flow One Way, Money Flows Several Ways

Drugs move simply: manufacturers ship to wholesalers, wholesalers deliver to pharmacies. But money follows a complex path. Payers fund PBMs, PBMs pay pharmacies (often through PSAOs), and pharmacies pay wholesalers. Figures 1 and 2 map these flows and ownership patterns.

The key problem: what pharmacies pay for drugs and what PBMs reimburse them on behalf of payers are calculated differently. Pharmacies buy based on their wholesaler contracts. PBM-administered payments use different formulas, often based on benchmarks like NADAC (National Average Drug Acquisition Cost)—CMS's national benchmark for retail pharmacy acquisition costs,

derived from surveys of invoice prices; for generics, CMS currently applies a three-month moving average to temper weekly volatility (Centers for Medicare & Medicaid Services, 2024). PBMs use other pricing sources including Medi-Span, Maximum Allowable Cost (MAC) lists published by CMS, or Predictive Acquisition Cost (PAC). This mismatch can leave pharmacies losing money on prescriptions.

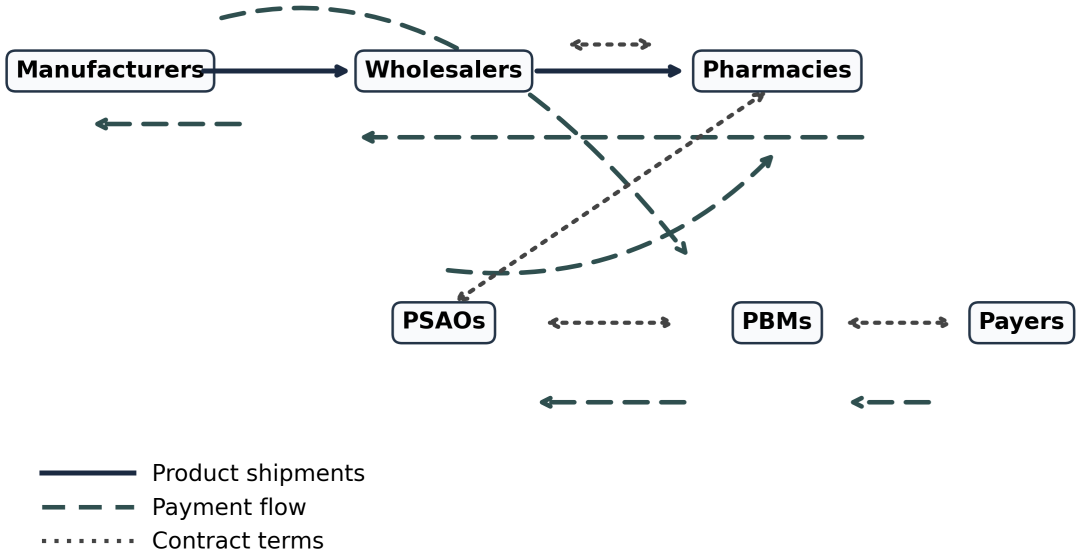
Understanding these flows requires recognizing that the same companies often control multiple points in the supply chain. Wholesalers own major PSAOs that contract on behalf of independent pharmacies, and they may also own retail and specialty pharmacy chains that compete with those independents. Nationally, most large PBMs are owned by or affiliated withhealth insurers, creating vertical integration across insurance and pharmacy benefit management. Iowa presents a different pattern: the state's dominant commercial insurer contracts with a separately-owned PBM rather than operating as an integrated entity.

Table 1: U.S. Wholesale Drug Distribution: Product Concentration and Payment/Margin Context (CY2022 product volume; CY2022 USD billions; FY2025 operating margin)

Indicator	**Estimate/Notes**
Top 3 wholesale companies' combined share (CY2022 product volume)	$>$ 90% of prescription distribution volume handled by the Big Three wholesalers (Healthcare Distribution Alliance, 2024; The Commonwealth Fund, 2021)
Wholesalers' share of net retail prescription spending (CY2022)	6.3% (USD $23.4 billion) (Office of the Assistant Secretary for Planning and Evaluation (ASPE), 2025)
Example segment margin (largest wholesaler, FY2025)	1.22% operating margin (U.S. Pharmaceutical segment) (Big Three Wholesalers, 2025)

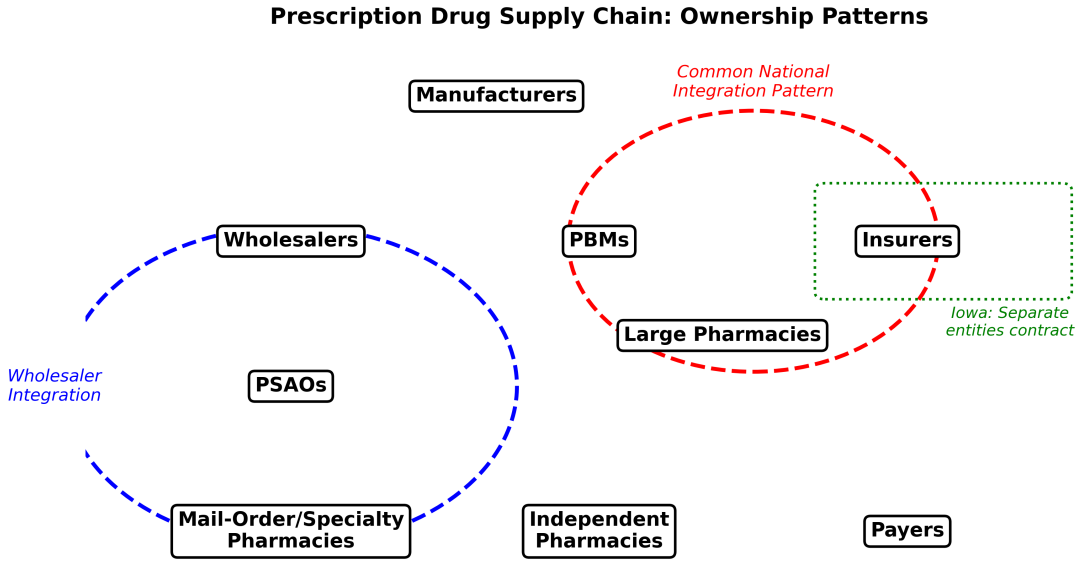
Notes: Full-line wholesaler: a wholesaler carrying a broad portfolio of brand, generic, and many specialty pharmaceuticals, enabling a pharmacy to source most products from a single primary vendor. The Big Three wholesalers control the overwhelming majority of U.S. prescription drug distribution. Net retail prescription spending represents total retail pharmacy spending net of manufacturer rebates and discounts. Sources: HDA Factbook 2023-2024; Commonwealth Fund wholesaler structure analysis; ASPE intermediary margins report (2025); Big Three wholesaler 10-K filing FY2025.

Figure 1: Supply chain structure: product and payment flows



Notes: Maps transactional flows: solid arrows indicate direction of movement. Payment flow arrows highlight claims, fees, and invoice payments; contract lines denote governing agreements (Primary Vendor Agreements (PVAs), provider manuals). Sources: Healthcare Distribution Alliance (2024); Pharmaceutical Care Management Association (2024); Drug Channels Institute (2023).

Figure 2: Ownership and integration patterns in the supply chain



Notes: Illustrates ownership and integration: dashed circles show entities under common ownership. Wholesaler integration (blue) encompasses PSAOs and retail/specialty pharmacy chains. National PBM-insurer integration (red) represents the typical pattern where health insurers own (or are affiliated with) PBMs. Iowa's pattern (green box) differs: the dominant commercial insurer contracts with a separately-owned PBM. Independent pharmacies rely on PSAOs for network access but remain outside vertical integration structures. Sources: Healthcare Distribution Alliance (2024); Pharmaceutical Care Management Association (2024); Drug Channels Institute (2023).

1.4 Why New Competitors Cannot Enter

New wholesalers face impossible economics. They would need to build warehouses nationwide, create delivery systems, and operate on margins below 2% while competing against the Big Three that already control 90% of the market (Healthcare Distribution Alliance, 2024; Office of the Assistant Secretary for Planning and Evaluation (ASPE), 2025).

This means Iowa pharmacies have no realistic alternatives if the Big Three raise prices or reduce service.

2 What PSAOs Do for Pharmacies

PSAOs help independent pharmacies participate in PBM networks that serve insurance plans. Without PSAOs, small pharmacies would need to negotiate separately with every PBM or insurer. This section explains what PSAOs do, who owns them, and why that ownership matters.

2.1 PSAOs Are the Middlemen Between Pharmacies and PBMs

PSAOs negotiate on behalf of multiple independent pharmacies and contract with PBMs for network access, credentialing, and payment reconciliation; they are not typically party to insurer contracts. PSAOs handle the paperwork and negotiations that let independent pharmacies accept insurance. They:

- Sign network participation and reimbursement contracts with PBMs, who administer plan benefits on behalf of health insurers and employer plans
- Handle credentialing and compliance requirements
- Process payment reconciliations and audit responses
- Distribute updates about insurance plan changes

Nearly 20,000 independent pharmacies nationwide use PSAOs (Healthcare Distribution Alliance, 2024). Without them, each independent Iowa pharmacy would need staff to negotiate with every PBM or insurance sponsor separately, an impossible task for small businesses.

2.2 The Big Three Wholesalers Also Own PSAOs

The Big Three wholesalers own the largest PSAOs; each wholesaler operates one or more PSAO brands that contract on behalf of independent pharmacies.

This means the company selling drugs to a pharmacy also controls its PBM contracts for insurance plans (Big Three Wholesalers, 2025, 2024). Iowa pharmacies often cannot choose one without the other.

2.3 What PSAOs Can and Cannot Do

PSAOs sign the network contracts with PBMs (not insurers), handle credentialing and audit support, and route payments (often via central pay). But PBMs set the formularies, MAC lists, and performance programs that ultimately bound pharmacy reimbursement. PSAOs can negotiate, but they don't control those PBM benchmarks—hence they cannot guarantee higher reimbursement rates (Pharmaceutical Care Management Association, 2024; Drug Channels Institute, 2023).

2.3.1 PSAO Authority and Exclusivity Requirements

Contract documents reveal significant PSAO control over pharmacy business relationships. Key provisions include:

Attorney-in-fact authority: Pharmacies appoint the PSAO as attorney-in-fact with authority to execute Payor Agreements (PBM network contracts), enroll and disenroll from networks, and accept amendments on the pharmacy's behalf.

Exclusivity requirement: Pharmacies enrolling in central payment reconciliation and recovery services must make the PSAO their exclusive reconciliation and recovery service provider. They cannot use other PSAOs "for these purposes."

Amendment authority: The PSAO may amend or modify the agreement (including appendices and fees) at its discretion upon written notice. Changes are deemed accepted if the pharmacy does not dispute them within thirty (30) days.

Network termination timing: PBMs may terminate provider participation without cause at any time. Providers initiating without-cause termination must provide 150 days' prior written notice. The PSAO agreement requires 30 days' notice for termination by either party, plus payment of termination fees (see fee box below).

These provisions demonstrate that PSAOs exercise substantial control over pharmacy network participation and payment processing, while pharmacies face significant switching costs and notice requirements.

Table 2 shows what pharmacies get from PSAOs. All PSAOs provide similar services: insurance credentialing, contract support, audit help, and payment tracking (Pharmaceutical Care Management Association, 2024; Drug Channels Institute, 2023).

Table 2: PSAO Services: Wholesaler-Owned Compared with Independent PSAO

Service Category	Core Functions	Key Differences
Network Access & Credentialing	PBM enrollment and maintenance; CAQH credentialing updates; Network participation management	*Wholesaler-owned:* Automatic enrollment with drug purchasing agreements *Independent:* Separate enrollment, more PBM options
Contract Negotiation	PBM reimbursement terms; Performance metrics programs; Quality bonus opportunities	*Wholesaler-owned:* Standardized contracts across large networks *Independent:* More flexible terms for specialty or rural pharmacies
Administrative Support	Audit response assistance; Compliance documentation; Payment reconciliation tools	*Wholesaler-owned:* Bundled with purchasing fees *Independent:* Transparent per-claim pricing
Fee Structure	Monthly membership dues; Per-prescription charges; Administrative fees	*Wholesaler-owned:* Fees often bundled with drug purchasing agreements *Independent:* Separate, itemized fee schedules

Major Wholesaler-Owned PSAOs: The Big Three wholesalers own the largest PSAO networks. **Independent PSAOs:** Multiple independent PSAO networks exist serving various pharmacy segments. Sources: (Pharmaceutical Care Management Association, 2024; Drug Channels Institute, 2023; Big Three Wholesalers, 2025, 2024).

PSAO Fee Structure (from example PSAO-Pharmacy agreement)
Monthly service fees:

- **Core** (Contracting with Credentialing): $150/month
- **Premium** (Contracting, Credentialing, Central Pay Reconciliation): $275/month

Event-based fees:

- Termination: $395 (first 12 months), $195 (after first year)
- Expired credentialing penalty: $25 per week until credentials updated
- Custom reporting: $50 per hour
- Unposted check research: $25 per check
- Post-termination payment forwarding: $20 per returned payment

Note: The main economic pressure on independents is not PSAO fees but PBM-set benchmarks and adjustments that determine net reimbursement. Fee schedule from an example PSAO-Pharmacy agreement. An exhibit notes that discounts may apply, but the stated fees are $150/month for the Core tier and $275/month for the Premium tier before any discretionary discounts.

2.4 PSAOs and Iowa's Regulatory Framework

Bulletin 25-06 directs PBMs to use the Division's retail pharmacy list for NADAC payment to appropriate pharmacies and to streamline appeals (Iowa Insurance Division Bulletin 25-06, 2025). Review of PSAO-pharmacy contracts documents attorney-in-fact authority, exclusivity requirements, and fee structures that govern network participation.

3 How Wholesalers and PSAOs Work Together

Pharmacies sign two critical contracts: one with a wholesaler for drug supply (called a Prime Vendor Agreement) and one with a PSAO for PBM network access to insurance benefits. Since the Big Three wholesalers own the major PSAOs, these contracts are often bundled. This section explains how these agreements work and why they matter for pharmacy survival.

3.1 Prime Vendor Agreements: The Rules for Buying Drugs

A Prime Vendor Agreement (PVA) sets prices and terms when pharmacies buy from wholesalers.

3.1.1 How Purchasing Differs by Drug Type

The purchasing process and wholesaler leverage vary dramatically across three drug categories:

Generic drugs (competitive purchasing):

- **Multiple sources:** Many generic manufacturers compete for the same drug (defined by the molecule)

- **Wholesaler negotiation power:** The Big Three negotiate volume discounts and rebates from generic manufacturers, which they can choose to pass through (or not) to pharmacies
- **Pharmacy compliance requirements:** Volume tiers (80-95% of generic purchases must come from one wholesaler) determine pharmacy access to discounts
- **Result:** Wholesalers use generic discounts and rebates to lock pharmacies into exclusive purchasing relationships

Brand-name drugs (standardized pricing):

- **Single-source:** Only one manufacturer (patent holder) supplies the drug
- **Limited wholesaler leverage:** Manufacturers set wholesale acquisition cost (WAC, or list price); wholesalers earn only small margins (2-3% for prompt payment and distribution fees)
- **Pharmacy pricing:** Pharmacies pay approximately WAC regardless of volume—little room for negotiation
- **Result:** Wholesaler lock-in is weaker for brands because pricing is standardized. Pharmacies gain little by switching wholesalers for brand purchases.

Specialty drugs (controlled distribution):

- **Limited distribution networks:** Manufacturers often restrict distribution to specific wholesalers or specialty pharmacies to ensure proper handling, patient support, and risk management (e.g., oncology drugs, biologics)
- **Exclusive arrangements:** Some high-cost specialty drugs flow through only one wholesaler or directly from manufacturer to specialty pharmacy
- **Pharmacy access:** Independent retail pharmacies typically cannot access specialty products through standard PVAs; these drugs are dispensed by vertically-integrated specialty pharmacies (often owned by PBMs or wholesalers)
- **Result:** Specialty drug purchasing is largely outside the PVA framework. This report focuses on retail-channel drugs (generics and brands) where PVAs govern terms.

Why this report focuses on generics. Wholesaler generic purchasing agreements include volume tiers, rebates, and prompt-pay discounts—so terms vary and materially affect a pharmacy's acquisition cost. Brand acquisition prices are generally tighter (little room for negotiated discounts at the pharmacy level), and specialty products flow via limited distribution channels outside standard PVAs. Generic purchasing compliance is where wholesalers exercise maximum leverage over independent pharmacies.

These contracts typically include:

- **Brand-name drugs:** Pharmacies pay approximately the WAC—the public list price set by manufacturers. Wholesalers themselves negotiate only small discounts from manufacturers (a few percentage points off WAC for prompt payment), and pass brand drugs to pharmacies at approximately their own acquisition cost (Garthwaite and Starc, 2023). This differs sharply from PBM reimbursement, where plans pay based on formulas like "AWP minus X%".

- **Generic drugs:** Volume-based discounts and rebates tied to compliance targets. Pharmacies must purchase 80-95% of generics from their primary wholesaler to access the best pricing tiers. These discounts are meaningful—generics account for nearly all independent-pharmacy gross margin—but the exact terms vary by pharmacy volume and contract tier.

- **Prompt-pay discounts:** 2-3% discount for paying invoices within 10 days. Missing this deadline effectively raises acquisition costs.

- **Compliance penalties:** Buying generics from alternative sources (to capture lower spot prices) triggers penalties or loss of rebates across the entire contract.

3.2 Why Generics Matter So Much

Generic margins sustain pharmacy operations. U.S. retail pharmacies collectively generated $12.2 billion in gross margin (revenue minus drug acquisition cost) in 2022, nearly all from generic prescriptions. Brand prescriptions, by contrast, typically yield negative gross margins—pharmacies are reimbursed less than they pay wholesalers (Office of the Assistant Secretary for Planning and Evaluation (ASPE), 2025).

Critical distinction: Gross margin is not profit. After paying for labor, rent, utilities, insurance, and regulatory compliance, many independent pharmacies operate on thin or negative net margins even when generic gross margins are positive. The $12.2 billion figure is national aggregate data covering all U.S. retail pharmacies (chains and independents). Individual pharmacy profitability varies widely by payer mix, prescription volume, and overhead structure.

Why pharmacies lose money on brands. The problem is a mismatch between what pharmacies pay wholesalers and what PBMs reimburse:

1. **Pharmacy acquisition cost:** Pharmacies pay wholesalers approximately WAC (the manufacturer's list price). Wholesalers pass through brand drugs at near-cost because they earn only small discounts from manufacturers (2-3% for prompt payment) (Garthwaite and Starc, 2023).

2. **PBM reimbursement formula:** PBMs reimburse pharmacies using "AWP minus X%" formulas. AWP (Average Wholesale Price) is a legacy benchmark that typically equals WAC $\times$ 1.20. Common reimbursement rates are AWP minus 20-25%, so the pharmacy receives roughly 80% of AWP $\approx 0.80 \times 1.20 \times \text{WAC} = 0.96 \times \text{WAC}$ (Garthwaite and Starc, 2023).

3. **The loss:** If the pharmacy pays WAC but receives 0.96 × WAC (plus a $2 dispensing fee), it loses 4% of ingredient cost minus the $2 fee. For a $450 brand drug, that is an $18 loss plus the $2 fee = $16 loss before overhead. After accounting for labor, rent, and compliance costs, many brand fills are unprofitable.

4. **Rebates bypass pharmacies:** Manufacturers pay billions in rebates to PBMs and health plans to secure formulary placement, but these rebates do not flow to pharmacies. The pharmacy is reimbursed at a discount to its acquisition cost while the PBM and plan capture the manufacturer rebate (Garthwaite and Starc, 2023).

This is why independent pharmacies depend on generic margins. Generics allow negotiated discounts from wholesalers (through volume tiers and prompt-pay), and PBM reimbursement often exceeds acquisition cost—creating positive gross margins that must subsidize brand losses *and* cover all operating expenses.

The viability problem: Even pharmacies with strong generic dispensing rates face financial pressure when:

- PBM reimbursement benchmarks (MAC rates) fall below acquisition costs
- Retroactive fees and adjustments erode initial payments
- High brand penetration in their payer mix generates cumulative losses
- Cash-flow constraints force them to forgo prompt-pay discounts

The result: positive generic gross margins may be insufficient to offset brand losses plus overhead, particularly for rural independents with lower prescription volume and higher per-unit operating costs.

Wholesaler leverage over generic purchasing. Generic purchasing—not brand or specialty—is where wholesalers exercise maximum control. Wholesalers structure Prime Vendor Agreements around generic purchasing compliance precisely because industry data reveal generics generate nearly all pharmacy gross margin (Office of the Assistant Secretary for Planning and Evaluation (ASPE), 2025). The Big Three wholesalers collectively distribute over 90% of prescription drugs in the U.S. (Healthcare Distribution Alliance, 2024), giving them access to comprehensive transaction data showing:

- Pharmacy purchasing patterns by drug class (brand vs. generic)
- Reimbursement benchmarks from PBM contracts (through their PSAO subsidiaries)
- Which pharmacies generate positive margins and on which products

This information asymmetry allows wholesalers to design contracts that extract maximum value from pharmacies' most profitable segment. Generic compliance requirements (80-95% of generic volume from one wholesaler) lock pharmacies into exclusive purchasing relationships. If a pharmacy

attempts to source generics elsewhere—even at lower spot prices—the wholesaler can retaliate by raising prices on all remaining products or reducing volume-based rebates, effectively eliminating any savings.

Vertical integration reinforces this leverage: each of the Big Three wholesalers owns one or more PSAO brands (Big Three Wholesalers, 2025, 2024). These wholesaler-owned PSAOs control both drug supply *and* PBM network access, making it economically infeasible for pharmacies to switch wholesalers without losing their ability to serve insured patients.

3.3 The Fees Add Up

Pharmacies pay multiple fees to wholesalers and PSAOs. Based on representative contracts reviewed for this report, typical fees include:

- **Monthly PSAO membership fees:** \$150–\$275/month (\$1,800–\$3,300/year) depending on service tier.[1] Core tier (contracting and credentialing) costs \$150/month; Premium tier (adding central payment reconciliation) costs \$275/month. A pharmacy dispensing 15,000 prescriptions annually pays about \$0.22 per prescription in Premium-tier membership fees.

- **Per-prescription administrative charges:** PSAO contracts reviewed did not list explicit per-claim fees, but require pharmacies to reimburse the PSAO for all "Payor fees"—charges from PBM clearinghouses, electronic data interchange providers, and claims processing networks. These pass-through fees typically range \$0.05–\$0.15 per claim but are not disclosed in advance and vary by PBM.[2]

- **Penalties for missing generic compliance targets:** PVA contracts tie generic discounts and quarterly rebates to *aggregate* volume thresholds measured across *all* generic purchases. The target is a percentage (80-95%) of total generic dollars or units that must come from the primary wholesaler. This is not a per-drug requirement—the pharmacy's entire generic purchasing portfolio is evaluated. Falling below the aggregate threshold triggers retroactive removal of credits across all generics. For a pharmacy buying \$50,000 in generics monthly, losing a 2% rebate due to non-compliance costs \$1,000/month (\$12,000/year). Additionally, failure to maintain PSAO credentialing requirements triggers \$25/week penalties (\$1,300/year).

- **Lost prompt-pay discounts:** Missing the 7-10 day payment window forfeits 2-3% invoice discounts. For a pharmacy with \$100,000 monthly drug purchases, missing prompt-pay costs \$2,000–\$3,000/month (\$24,000–\$36,000/year). This is not a separate penalty—it is foregone savings—but the economic impact is identical.

- **Other PSAO fees:** Termination fees (\$195 if leaving after the first year), custom reporting

[1] From example PSAO-Pharmacy agreement.

[2] Iowa Code section 510B.7 prohibits a PBM from assessing fees on pharmacies.

($50/hour), unposted check research ($25 per check), and post-termination payment forwarding ($20 per returned payment).[3]

Table 3 summarizes these fee structures and their implications for Iowa pharmacies. Since the Big Three often provide both services, pharmacies cannot avoid fees by switching. They would lose both drug supply and PBM network access (Pharmaceutical Care Management Association, 2024; Drug Channels Institute, 2023).

[3]From example PSAO-Pharmacy agreement.

Table 3: Common Fee and Obligation Levers Within PSAO and Prime Vendor Agreements

Lever	Agreement Type	Implication for Iowa Pharmacies	Sources and Appendix Link
Generic compliance tiers	PVA	Tiered discounts and credits hinge on meeting aggregate generic share targets (80-95% of total generic purchases from primary wholesaler); falling short removes retrospective credits across all generics and raises acquisition cost.	Pharmaceutical Care Management Association (2024); Healthcare Distribution Alliance (2024)
Prime vendor exclusivity and minimum volume	PVA	Contracts designate a primary wholesaler and typically require purchasing the vast majority of generics through that channel, which interacts with Iowa's appeal standard tied to a pharmacy's majority wholesaler.	Pharmaceutical Care Management Association (2024); Iowa Insurance Division Bulletin 25-06 (2025)
Prompt-pay discount windows	PVA	Early payment by the pharmacy to the wholesaler (often within 7–15 days of invoice date) earns a 2-3% invoice discount; missing the window forfeits this discount.	Garthwaite and Starc (2023)
Membership dues and access fees	PSAO	Pharmacies pay bundled dues that commonly total $2,000–$3,000 annually (billed monthly by some PSAOs) to access contracting, dashboards, and support services.	Fein (2025)
Per-claim administrative and reconciliation fees	PSAO	PSAOs pass through claim-level charges for central pay, Generic Effective Rate (GER) and Brand Effective Rate (BER) tracking, audit support, and payer updates. These fees shape net reimbursement alongside PBM adjustments.	Pharmaceutical Care Management Association (2024); Drug Channels Institute (2023)
Credentialing and performance obligations	PSAO	Membership agreements authorize PSAOs to update credentials, push payer rule changes, and enforce performance reporting. Gaps can jeopardize network standing.	Pharmaceutical Care Management Association (2024); Drug Channels Institute (2023)

Notes: Table synthesizes commonly cited fee and obligation levers across wholesaler PVAs and PSAO membership contracts.

3.4 The Cash Flow Squeeze

Prompt-pay discounts create a timing problem. Pharmacies must pay wholesalers within 7-10 days to capture the 2-3% prompt-pay discount that is critical to achieving competitive acquisition costs. But PBMs delay reimbursement: commercial claims are paid in payment cycles spanning multiple weeks, and final net reimbursement (after GER/BER reconciliation) is settled quarterly

or annually—up to 12 months after the point of sale. Small pharmacies often lack the working capital to pay wholesalers promptly, forcing them to forgo the discount and effectively raising their acquisition costs by 2-3% on every invoice (Garthwaite and Starc, 2023).

3.5 SF 383 and Wholesaler Invoice Documentation

SF 383 establishes that when pharmacies demonstrate losses on prescriptions (through the appeals process), PBMs must adjust payments on behalf of insurers to cover acquisition costs. Wholesaler invoices may serve as the documentary basis for these appeals. This creates a direct link between PVA terms and PBM reimbursement disputes (Iowa Insurance Division Bulletin 25-06, 2025; Iowa General Assembly, 2025).

Review of PBM provider manuals confirms that MAC appeal procedures exist and allow pharmacies to submit acquisition cost documentation. However, measuring the frequency of below-cost reimbursement, quantifying appeal success rates, and assessing whether these mechanisms adequately protect Iowa pharmacies falls outside this descriptive review because it requires comprehensive pharmacy-level data and longitudinal contract records that were not available for analysis.

4 How PBMs Pay Pharmacies

This section explains the complex payment system PBMs use to reimburse pharmacies on behalf of insurers and employer plans. The key problem: pharmacies get paid one amount when filling prescriptions, but PBMs change that amount months later through various adjustments and fees.

4.1 Understanding the Payment Terms

Three acronyms control what pharmacies actually get paid:

MAC (Maximum Allowable Cost): The ceiling price PBMs will reimburse for generic drugs. Even if a drug costs more, the pharmacy only gets the MAC price. While MAC pricing formulas remain proprietary, providers can access current and upcoming MAC prices via PBM pharmacy portals' "MAC Price Look Up" features, with updates occurring at least weekly. This provides transparency on current prices while preserving formula confidentiality, including any 'discounts' that are applied to reduce the reimbursement to pharmacies.

GER/BER (Generic/Brand Effective Rates): Target rates PBMs guarantee to their plan clients on average. If PBMs pay pharmacies too much initially, they take money back later to hit these targets. Network addenda and acknowledgments specify target ranges:[4]

- Brand Effective Rate (BER): AWP minus 16.00% to 25.15% (varies by network)
- Generic Effective Rate (GER): AWP minus 77.00% to 90.60% (varies by network)

[4]Range values drawn from documents for reviewed PSAO contracts and network addenda.

- Average Dispensing Fees: $0.00 to $2.00 (varies by network; some networks do not pay the fee)

DIR (Direct and Indirect Remuneration): Fees and adjustments taken from pharmacy payments after the prescription is filled, sometimes months later. Specific post-adjudication settlement categories may include:

- Performance Network Rebates
- Performance Payments
- Network processing fees
- Network management fees
- Effective rate reconciliation
- Supplemental dispensing fee payments
- Other fees

While some PBMs implement these national contract terms, Iowa law explicitly prohibits this practice for commercial plans. Iowa Code 510B.8C prohibits "retroactive reductions of clean claims". When PBMs make these types of adjustments, the price shown filling a prescription is not what the pharmacy ultimately receives (Iowa Insurance Division Bulletin 25-06, 2025; Federal Trade Commission, 2024).

4.2 Market Power and Timing Problems

The Big Three PBMs administer the vast majority of prescriptions and exercise outsized influence over networks and pricing; the FTC's ongoing study documents affiliated-pharmacy advantages and significant specialty markups in the 2017-2022 period (Federal Trade Commission, 2024, 2025).

The timing creates cash flow problems:

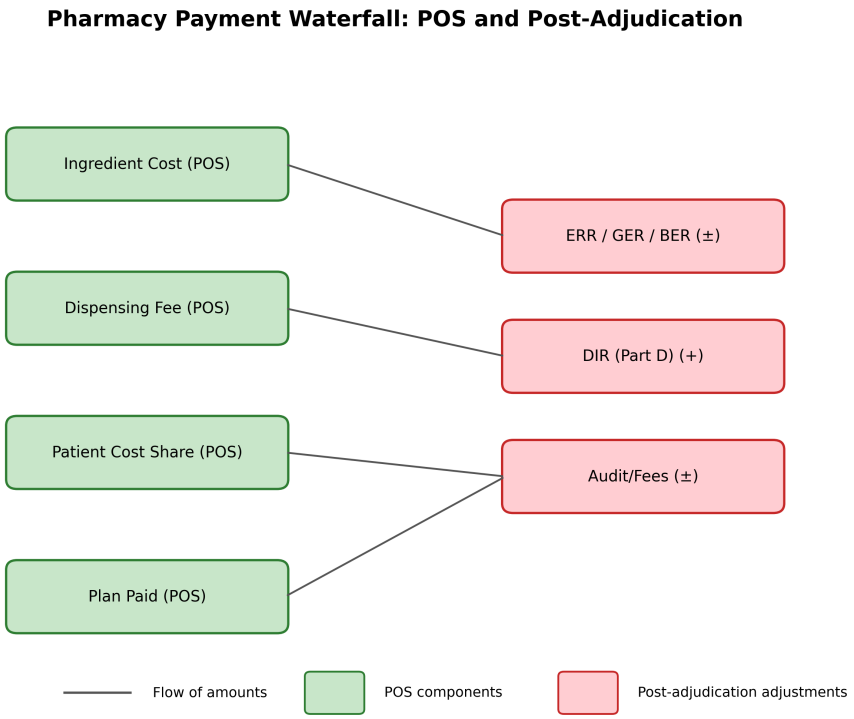
- Pharmacies buy drugs from wholesalers and dispense them today
- PBMs remit plan funds weeks later (14 days for Medicare clean claims; commercial timing not fixed in contracts)
- Adjustments reduce payments months after that via quarterly and annual reconciliation
- Pharmacies cannot predict their true margins

The reconciliation timeline:

Quarterly Reconciliation:

- Reports issued within 30 days after quarter end

Figure 3: Payment waterfall schematic separating point-of-sale (POS) components (ingredient cost, dispensing fee, patient cost share, plan paid) from post-adjudication adjustments (ERR/GER/BER and DIR; retroactive reductions are prohibited in Iowa).



- Payment due 30 days after report issuance
- Provider has 30 days to dispute formula calculations

Annual Reconciliation:

- Reports issued within 60 days after year-end
- Payment due 60 days after report date
- Provider has 30 days to dispute formula calculations

General Dispute Window: Providers typically have a 180-day window to dispute remittances and Performance Network Program fees. The FTC found that PBM-owned pharmacies get better rates than independents, particularly for specialty drugs (Federal Trade Commission, 2025).

4.3 Audit and Recoupment Provisions

Some PBM contracts specify detailed audit rights and recoupment mechanisms that can significantly impact pharmacy cash flow.

Audit recoupment methodology:

- If documentation is not provided during audits, 100% chargeback may apply
- When total chargebacks exceed $10,000, the PBM may charge an additional 20% operating cost/expense (where permitted by law)
- Providers have 30 days from the initial discrepancy report to submit documentation and appeal audit findings
- Overpayments may be recovered through recoupment, chargeback, offset, or withholding against amounts otherwise payable

These provisions create additional uncertainty for pharmacy cash flow, as audit findings and recoupments can occur long after prescriptions are dispensed.

5 Conclusion

5.1 What We Know

This report documents three critical problems in Iowa's prescription drug market:

First, **market concentration limits pharmacy options.** The Big Three wholesalers control drug distribution. The same companies own the major wholesaler-owned pharmacy services administrative organizations (PSAOs). Pharmacies cannot easily switch suppliers or negotiate better terms.

Second, **payment timing threatens pharmacy survival.** Pharmacies pay for drugs immediately but may wait weeks for PBM reimbursement funded by insurers and employer plans and may lose money. Small pharmacies cannot sustain these cash flow gaps.

Third, **opacity prevents effective oversight.** While providers can access current MAC prices via PBM portals, the underlying formulas remain proprietary. Importantly, Iowa's statutory protections—including the prohibition on retroactive reductions of clean claims—may not appear in PBM contracts themselves. These requirements operate as external legal obligations, with enforcement depending on Iowa Insurance Division regulatory oversight rather than contractual self-enforcement mechanisms.

Caveat: This report is descriptive; because transaction-level pharmacy financial data were unavailable, it does not quantify Iowa pharmacy margins.

5.2 Recommendations

There are no recommendations for additional or changed legislative language from the Iowa Insurance Division related to PSAOs and wholesalers based on this report at this time.

However, the ability to see the full picture scope of the prescription drug cycle that PSAOs, wholesalers, pharmacies, Iowans, Iowa businesses, insurers, and PBMs participate in is paramount to the ability of the Iowa Insurance Division to provide recommendations to the legislature in this area.

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