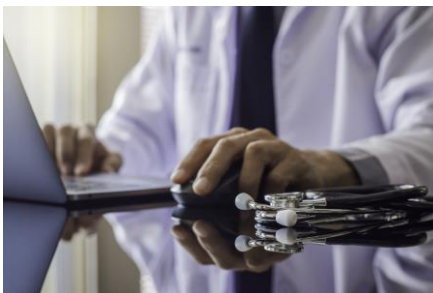


The 2023 Economic Report on U.S. Pharmacies and Pharmacy Benefit Managers

Adam J. Fein, Ph.D.
Drug Channels Institute

March 2023

Full report available at <https://drugch.nl/pharmacy>



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[Drug Channels Institute \(DCI\)](#) is a leading source of industry research about pharmaceutical economics and the drug distribution system.



DCI hosts live video webinars during which Dr. Fein discusses trends and policies that affect the pharmaceutical industry and its channels. [Click here to view our current and previous video webinars.](#)

DCI also combines Dr. Fein's expertise and cutting-edge analysis—such as this *2023 Economic Report on U.S. Pharmacies and Pharmacy Benefit Managers*—into interactive e-learning modules that offer your team a thorough grounding in crucial industry topics. [Click here to view a module list.](#) These online learning tools explain highly complex economic and business data and concepts so you can:

- Make better decisions to achieve your business goals
- Improve relationships with key accounts
- Understand your customers, channels, and the economics of the U.S. pharmaceutical industry

To learn more about how Drug Channels Institute can help your business, please contact:

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INTRODUCTION AND GUIDE TO THE 2023 REPORT

Since the previous edition of this report, the pharmaceutical channel has recovered from the unprecedented volatility triggered by the COVID-19 pandemic. Pharmacy and healthcare provider markets have now reached or exceeded pre-pandemic levels.

U.S. distribution and dispensing channels for prescription drugs, which remained highly resilient throughout the pandemic, have now begun their next stage of evolution. The 2023 edition of our *Economic Report on U.S. Pharmacies and Pharmacy Benefit Managers* delves into nearly all of the commercial, political, and legal forces driving change:

- In 2022, total prescription dispensing revenues of retail, mail, long-term care, and specialty pharmacies reached \$550 billion (excluding COVID-19 vaccines).
- Pharmacies and pharmacists remained key providers of COVID-19 vaccines. During 2022, retail pharmacies administered two-thirds of all COVID-19 vaccines.
- Specialty drugs remain the key driver of prescription revenues for the pharmacy and PBM industries. They accounted for nearly 40% of outpatient prescription revenues—and an even greater share of payers’ net prescription costs. Launches of specialty generic drugs and biosimilars have begun to moderate specialty growth trends. The 2023 launch of multiple Humira biosimilars represents a market-changing event for pharmacy benefit management and specialty pharmacy.
- The Inflation Reduction Act of 2022 (IRA), which was signed into law by President Joe Biden in August 2022, will change numerous aspects of prescription drug pricing in the Medicare program. Despite uncertainty about the law’s implementation, the IRA will trigger changes in drug pricing, pharmacy economics, and market access.
- The Big Three pharmacy benefit managers (PBMs) expanded their influence over the prescription market in 2022. Payers, regulators, and politicians continue to scrutinize PBMs’ profit models and incentives, which has triggered further evolution in the PBMs’ increasingly opaque profit models. Meanwhile, an emerging set of smaller PBMs are using novel pricing models to challenge the market dominance of the largest companies.
- Vertical integration among insurers, PBMs, specialty pharmacies, and providers has created large companies that are exerting greater control over patient access, sites of care, dispensing, and pricing. These organizations are evolving their strategies as they search for meaningful synergies. Some are unwinding their vertical strategies.
- Patients taking specialty drugs continue to face high out-of-pocket costs due to benefit design that favors deductibles and coinsurance spending. Commercial payers accelerated

their efforts to access the patient support funds that pharmaceutical manufacturers provide for these drugs. Copay accumulator and maximizer programs are now common elements of pharmacy benefit designs, while controversial alternative funding programs gain traction. However, manufacturers' tactics, patient advocacy, and multiple state laws are starting to reduce payers' ability to use these tools.

- The U.S. economy's overall inflation rate reached levels not seen for more than 40 years. However, list prices for brand-name drugs—which directly impact the revenues and profits of pharmacies and PBMs—continue to grow at mid-single-digit rates. Some manufacturers have begun to reduce list prices for highly-rebated brand-name products.
- Brand-name drugs' net prices (after rebates and discounts) declined for the fifth year, due to manufacturers' mandatory and voluntary rebates and discounts. The gross-to-net bubble, which measures total rebates and discounts paid by manufacturers, reached \$223 billion for patent-protected brand-name drugs in 2022. Consequently, growth in the number of people being treated and the number of prescriptions being dispensed remains the key driver of drug spending growth.
- Generic market pricing returned to a deflationary cycle during 2021 and 2022, after the COVID-19 pandemic added inflation pressures during 2020. Low generic prices continue to limit pharmacies' revenues and gross profits from these prescriptions.
- The complex pricing systems described in this report have led to relatively inexpensive generic drugs being sold at widely varying prices through the drug channel. In response, patient-paid prescriptions that bypass insurance at cash-pay pharmacies and via discount cards are booming. Plan sponsors have started to incorporate these new prescription pricing models within pharmacy benefits.
- The 340B Drug Pricing Program continues to expand at double-digit rates, even as public scrutiny of the program's operations generates new controversies. By the end of 2022, 19 manufacturers had altered their policies regarding 340B discounts available at contract pharmacies. These actions have reduced profits for pharmacies and PBMs, and triggered extensive litigation.
- CVS, Walgreens, and Walmart increased their investments in healthcare services and physician enablement. Following VillageMD's acquisition of Summit Health-CityMD, Walgreens has emerged as one of the largest non-hospital employers of U.S. physicians. CVS Health announced the acquisition of Signify Health and Oak Street Health.
- Retail pharmacy mergers and acquisitions slowed during 2022, due partly to the significant revenues and gross profits that pharmacies earned from the administration of COVID-19 vaccines. The largest chains have begun reducing their store count to reflect changes in the pharmacy market.

- The three largest retail pharmacy chains—CVS, Walgreens, and Walmart—announced national settlements of their financial and other opioid obligations with states and local governments. If finalized, these agreements would remove considerable uncertainty about the companies’ future liabilities.

Understanding an Evolving Marketplace

The 2023 Economic Report on U.S. Pharmacies and Pharmacy Benefit Managers—our 14th edition—remains the most comprehensive, fact-based tool for understanding the entire U.S. drug pricing, reimbursement, and dispensing system. This unique, encyclopedic resource is your ultimate guide to the complex web of interactions within U.S. prescription drug channels.

This definitive, nonpartisan report includes the most current information about pharmacy dispensing channels, third-party payers, PBMs, patients’ financial contributions, government regulations, and more. The report synthesizes a wealth of statistical data, research studies, financial information, and my own extensive business consulting experience. It will aid pharmaceutical manufacturers, wholesalers, pharmacists, pharmacy owners, hospital executives, pharmacy buyers, benefit managers, managed care executives, policy analysts, investors, consultants, and many others.

Thousands of companies operate within the U.S. system, enabling the 6.4 billion equivalent prescriptions to be dispensed and paid. The table below highlights the largest public companies that operate in the drug channel, along with their various channel roles. Many of these firms are among the largest businesses on the *Fortune 500* list.

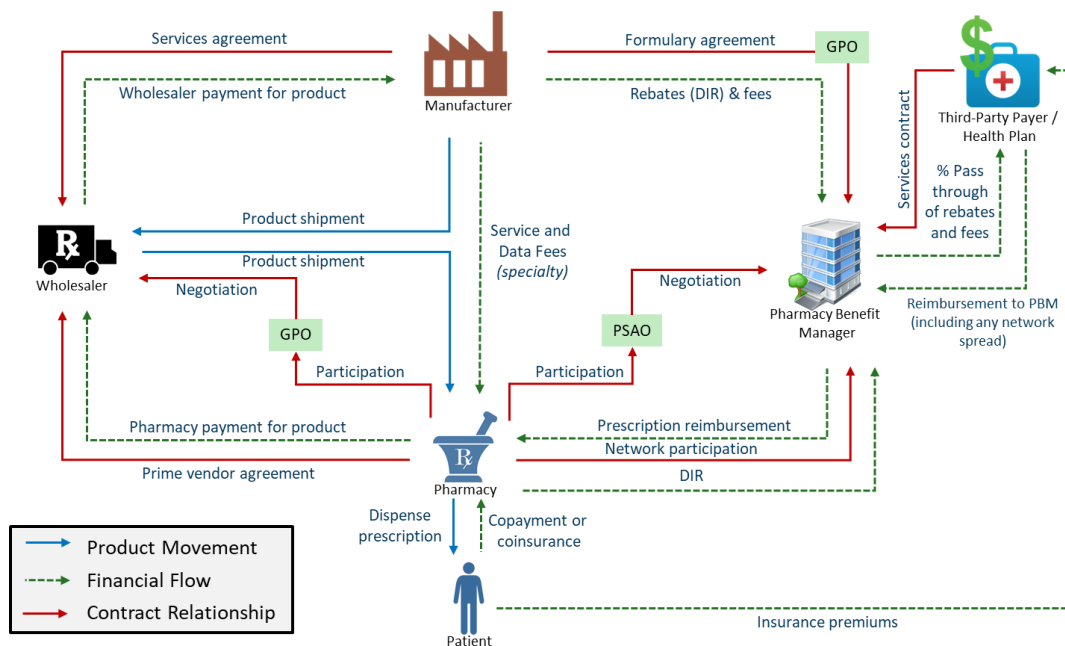
Major Public Companies Operating in U.S. Drug Channels and Primary Roles

Company	Stock ticker	Insurer	Primary U.S. channel role(s)					
			Pharmacy benefit manager	Community pharmacy	Mail and/or specialty pharmacy	Healthcare provider	Discount card provider	Pharmaceutical wholesaler
Amazon	AMZN				✓		✓	
AmerisourceBergen	ABC							✓
Cardinal Health	CAH							✓
Centene	CNC	✓	✓		✓	✓		
Cigna	CI	✓	✓		✓	✓	✓	✓
CVS Health	CVS	✓	✓	✓	✓	✓	✓	
Elevance Health	ELV	✓	✓		✓	✓		
GoodRx	GDRX						✓	
Humana	HUM	✓	✓		✓	✓		
Kroger	KR		✓	✓	✓	✓	✓	
McKesson Corporation	MCK				✓		✓	✓
Rite Aid Corporation	RAD		✓	✓	✓		✓	
UnitedHealth Group	UNH	✓	✓	✓	✓	✓	✓	
Walgreens Boots Alliance	WBA			✓	✓	✓	✓	
Walmart	WMT			✓	✓	✓	✓	

Source: Drug Channels Institute research

These and other companies discussed in this report operate within a complex distribution, payment, and reimbursement system, illustrated on the next page.

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



GPO = group purchasing organization; PSAO = pharmacy services administrative organization; DIR = direct and indirect remuneration
 Source: Drug Channels Institute research. Chart illustrates flows for Patient-Administered, Outpatient Drugs. Please note that this chart is illustrative. It is not intended to be a complete representation of every type of product movement, financial flow, or contractual relationship in the marketplace.

The 2023 Economic Report on U.S. Pharmacies and Pharmacy Benefit Managers discusses and analyzes the key channel flows illustrated above:

- **Product movement**, which traces shipments from pharmaceutical manufacturers to the drug wholesalers that supply pharmacies. Retail, mail, long-term care, and specialty pharmacies mark the final step, in which a prescription is dispensed to a patient.
- **Financial flows**, which transfer money from third-party payers to PBMs, which in turn reimburse pharmacies. Funds flow to manufacturers via pharmacies, which purchase drugs from wholesalers. Funds flow from manufacturers to PBMs in the form of rebates and fees. The PBMs share most of these payments with plan sponsors, reducing plans' net prescription costs. Manufacturers' payments to PBMs and other third-party payers do not flow through wholesale or retail channels.
- **Contractual relationships**, which govern the relationships between: 1) payers and PBMs; 2) PBMs and pharmacies; 3) pharmacies and wholesalers; 4) wholesalers and manufacturers; and 5) manufacturers and PBMs.

In Sections II and III of the report, we revisit this chart to link each flow with the corresponding report chapters that explain and analyze it. This chart appears as [Exhibit 65](#) (page 112).

What's New in the 2023 Report

The 2023 Economic Report on U.S. Pharmacies and Pharmacy Benefit Managers retains the overall structure we employed in previous editions. As always, we have updated all market and industry data with the most current information available, including our annual analyses of the market positions of the largest pharmacies, specialty pharmacies, and PBMs. Throughout the report, we have added new industry data, deepened our coverage of many topics, and added more trending information. Material that addresses COVID-19 and its impact on the pharmacy and PBM industries has been integrated into our analyses throughout the report.

The notable new material in this 2023 edition includes the following:

- [Section 3.4.1.](#) contains new, exclusive quantitative analyses of the pharmacy networks for specialty drugs that have a manufacturer-defined limited or exclusive specialty pharmacy network. We also identify the pharmacies participating in these networks.
- [Section 3.3.5.](#), which examines hospitals' role in the specialty pharmacy market, has been reorganized and expanded to reflect the rapid expansion of this segment.
- [Section 4.3.](#) has been further enhanced to better cover new developments in patient-paid prescriptions—cash-pay prescriptions and discount cards. A new [Section 12.4.3.](#) reviews how and why plan sponsors are incorporating these models within pharmacy benefits.
- [Section 12.1.3.](#) projects the future payer mix for outpatient prescription drugs.
- A new [Section 12.5.](#) addresses the Inflation Reduction Act of 2022. In [Subsection 12.5.1.](#), we summarize the key provisions of the law that relate to the topics in this report. In [Subsection 12.5.2.](#), we highlight potential implications of the IRA for the drug channel.
- We also update the following sections that were introduced in the 2022 edition of this report:
 - [Section 1.4.4.](#), which includes data about pharmacies' administration of—and profits from—COVID-19 vaccines
 - [Section 5.2.3.](#), which reviews smaller PBMs
 - [Section 5.2.4.](#), which reviews the PBM purchasing groups and GPOs
 - [Section 11.5.4.](#), which addresses split-billing software vendors in the 340B Drug Pricing Program
 - [Section 12.3.6.](#), which examines shakeout and consolidation within retail pharmacy
- There are 241 exhibits in the 2023 edition, compared with 216 in the 2022 edition. What's more, 35 of these exhibits in the 2023 edition include new data sources that have not been used in previous editions.

Structure of the 2023 Report

This report analyzes the industry in three major sections, comprising 12 total chapters:

SECTION I: THE U.S. PHARMACY INDUSTRY

- [Chapter 1: Industry Overview](#) (page 12) defines the industry and its regulatory framework, describes the different products and prescriptions that a pharmacy dispenses, provides data on traditional and specialty prescription costs, delineates different pharmacy industry participants, and quantifies differences among dispensing formats. This chapter includes our analysis of pharmacist-provided clinical services (including medication therapy management services), retail healthcare services, and COVID-19 vaccine administration.
- [Chapter 2: Pharmacy Industry Market Structure](#) (page 48) analyzes the industry's prescription and revenue growth trends. It identifies the largest pharmacies based on prescription revenues. It then analyzes recent market share trends for each dispensing format and for the major national companies.
- [Chapter 3: Specialty Drugs and Specialty Pharmacies](#) (page 70) provides a comprehensive overview of the pharmacies dispensing specialty medications. It includes our exclusive analyses of national market share for pharmacy-dispensed specialty drugs and accreditation trends among pharmacies. It also provides a competitive analysis of the various organizations that compete to dispense specialty medications. The chapter reviews the channel strategies that pharmaceutical manufacturers use for specialty drugs, provides our exclusive analyses of limited and exclusive specialty dispensing networks, explains the role of service fees, and profiles the specialty hub services market.

SECTION II: THIRD-PARTY PAYMENT AND PHARMACY BENEFITS

- [Chapter 4: Payment and Spending for Prescription Drugs](#) (page 113) examines the primary payers for prescription drugs at retail, mail, long-term care, and specialty pharmacies. It analyzes recent changes in the payer mix and spending on traditional vs. specialty drugs. Chapter 4 also reviews patient-paid prescriptions using cash-pay pharmacies and discount card programs.
- [Chapter 5: Pharmacy Benefit Management](#) (page 139) identifies the services and roles of PBMs, analyzes the structure of the PBM industry, reviews the business strategies of the largest PBMs, profiles many smaller PBMs, and discusses PBM-owned purchasing organizations. It describes the relationship between PBMs and the pharmacies that participate in a PBM's network, explains the largest pharmacy services administrative organizations (PSAOs) and identifies the largest players, and details how plan sponsors compensate PBMs for benefit management services. Chapter 5 also reviews the primary sources of PBM compensation by plan sponsors.

- [Chapter 6: Consumer Copayments and Coinsurance](#) (page 177) analyzes the benefit designs and plan structures that determine patients' out-of-pocket spending for the major third-party payers: employer-sponsored health plans, health insurance marketplace (HIM) plans, Medicare Part D, and Medicaid. We explore manufacturers' out-of-pocket payment support programs, explain the emergence and use of copay accumulators and maximizers, discuss alternative funding programs (sometimes known as specialty carve-out programs), and provide the latest data on patient out-of-pocket expenses. We also explore how benefit design affects patients' out-of-pocket costs.
- [Chapter 7: Narrow Pharmacy Networks](#) (page 218) analyzes the structure, utilization, and economics of narrow network models. We explain the use and economics of narrow networks for pharmacies in commercial health plans and Medicare Part D. We review mail and retail pharmacies as narrow network options for maintenance prescriptions. This chapter also evaluates the latest data on payer-defined networks for specialty drug dispensing in commercial health plans and for buy-and-bill channels.

SECTION III: DRUG CHANNEL ECONOMICS AND OUTLOOK

- [Chapter 8: Prescription Reimbursement by Third-Party Payers](#) (page 246) explains the formulas and methodologies for computing a pharmacy's revenue from brand-name, generic, and specialty prescriptions. It also delves into maximum allowable cost (MAC) prices as well as the regulations and laws related to MAC prices. This chapter compares traditional list price methods with the acquisition-cost reimbursement approaches—such as the use of the National Average Drug Acquisition Cost (NADAC)—now utilized in fee-for-service Medicaid programs. We also review the economics of mail vs. retail pharmacies for payers and consumers.
- [Chapter 9: Drug Pricing, Rebates, and Payer Costs](#) (page 262) explores rebates in commercial health plans, Medicare Part D, Medicaid, and the Department of Veterans Affairs. It explains how PBMs negotiate with manufacturers, analyzes trends in list and net drug prices, and describes the gross-to-net bubble phenomenon. The chapter explains how plan sponsors use rebates, the role of point-of-sale rebates, and controversies over rebates. The chapter concludes by illustrating how prescription reimbursement, formulary rebates, and consumer copayments affect a plan sponsor's net costs for traditional and specialty prescriptions.
- [Chapter 10: Relationships With Pharmaceutical Wholesalers](#) (page 301) explores pharmacies' interactions with their primary wholesale suppliers of drugs. It explains wholesalers' channel roles and services, identifies the largest wholesale suppliers, and analyzes how wholesalers affect pharmacies' acquisition costs for drugs. We present our latest data on pharmacy group purchasing organizations and the generic sourcing relationships between wholesalers and large pharmacies. This material is adapted from our [Economic Report on Pharmaceutical Wholesalers and Specialty Distributors](#).

- [Chapter 11: Pharmacy and Prescription Profitability](#) (page 313) unites the reimbursement and cost discussions from Chapter 8 and Chapter 10 by presenting the latest available data on pharmacy and prescription profitability. This chapter documents overall drugstore profitability, pharmacy margins for prescriptions from different dispensing formats, profit differences between brand and generic prescriptions, and the sources of PBMs' gross profits. Chapter 11 also includes material on the direct and indirect remuneration (DIR) fee payments that pharmacies make to PBMs and health plans. Finally, we consider pharmacies' role and profits in the 340B Drug Pricing Program.
- [Chapter 12: Outlook and Emerging Trends](#) (page 349) presents the outlook for the pharmacy industry's product mix and revenues in 2027. This chapter also considers the outlook for specialty drugs, including the growth in specialty generic drugs and pharmacy-dispensed biosimilars. We also discuss crucial emerging trends, including vertical integration, importation, state legislation, cell and gene therapies, controversy over the 340B program, and shakeout and consolidation in retail pharmacy. We also address such new entrants as Amazon and venture-backed digital pharmacies, as well as the growth of patient-paid prescriptions within pharmacy benefits. The final section reviews the Inflation Reduction Act of 2022 and its potential impact on the drug channel.

How to Use the 2023 Report

The chapters are self-contained and do not need to be read in order. We include extensive internal clickable hyperlinks to help you navigate the entire document and customize it to your specific needs. You can use keyboard shortcuts to return to your previous location in the document. We also encourage you to search the entire PDF document for every occurrence of a word or phrase. The shortcuts and search approach will vary based on your computer platform.

There are 966 [endnotes](#), most of which have hyperlinks to original source materials. The report also includes a list of the [Acronyms and Abbreviations](#) used within it.

As always, I welcome your feedback. Please contact me if you have any questions or comments about *The 2023 Economic Report on U.S. Pharmacies and Pharmacy Benefit Managers*.

Adam J. Fein
March 2023

P.S. [Click here for post-publication errata.](#)

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