

# The 2017 Economic Report on U.S. Pharmacies and Pharmacy Benefit Managers

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Pembroke Consulting, Inc., and  
Drug Channels Institute

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Full report available for download at

[http://drugchannelsinstitute.com/products/industry\\_report/pharmacy/](http://drugchannelsinstitute.com/products/industry_report/pharmacy/)



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Adam J. Fein, Ph.D., is the president of Pembroke Consulting, Inc., a management advisory and business research firm based in Philadelphia. He also is the CEO of Pembroke's Drug Channels Institute, a leading management educator for and about the pharmaceutical industry.



Dr. Fein is one of the country's foremost experts on pharmaceutical economics and the drug distribution system. Top manufacturers call on Dr. Fein's insights and judgment to create successful commercial strategies and make better strategic decisions in our evolving healthcare environment.

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[Drug Channels Institute \(DCI\)](#), a division of Pembroke Consulting, Inc., is a leading provider of specialized management education for and about the pharmaceutical industry.



Drug Channels Institute combines Dr. Fein’s expertise and cutting-edge analysis—such as this *2017 Economic Report on U.S. Pharmacies and Pharmacy Benefit Managers*—into comprehensive, interactive e-learning modules that offer your team a thorough grounding in crucial industry topics. These online learning tools explain highly complex economic and business data and concepts so that you can:

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- Improve relationships with key accounts
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## INTRODUCTION AND GUIDE TO THIS REPORT

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*The 2017 Economic Report on U.S. Pharmacies and Pharmacy Benefit Managers* (known in our previous editions as *The Economic Report on Retail, Mail, and Specialty Pharmacies*) remains the most comprehensive, fact-based analysis of the evolving drug channels within the U.S. healthcare system.

The new title for this eighth edition reflects the report's increasingly broad scope. It now integrates information about pharmacy dispensing channels, third-party payers, pharmacy benefit managers (PBMs), patients' financial contributions, and drug wholesalers. The revised title also acknowledges that many of the largest U.S. pharmacies are owned and operated by PBMs and health plans.

In this definitive, nonpartisan resource, I have synthesized a wealth of statistical data, research studies, financial information, and my own unique business consulting experience. It's the ultimate guide to the complex web of interactions within the U.S. prescription distribution and reimbursement system. The report will benefit pharmaceutical manufacturers, wholesalers, pharmacists, pharmacy owners, hospital executives, buyers, benefit managers, managed care executives, policy analysts, investors, consultants—anyone who wants to understand and benefit from this ever-changing industry.

### Understanding an Evolving Marketplace

Thousands of companies operate within the U.S. pharmacy distribution and reimbursement system, enabling more than 5 billion equivalent prescriptions to be dispensed and paid. Some of the crucial forces reshaping the industry in 2016 include:

- Total prescription dispensing revenues of retail, mail, long-term care, and specialty pharmacies reached \$412 billion.
- The pharmacy industry has entered a new period of hypercompetition, driven partly by a plateau in the generic dispensing rate. As the market matures, the pressures on pharmacy profits from generic drugs are intensifying. The consolidation of pharmacy and payer markets shows no sign of slowing.
- Specialty drugs now account for almost one-third of the pharmacy industry's revenues. Manufacturers and payers, however, are limiting the specialty pharmacies eligible to dispense these expensive medications. These network strategies are shifting specialty dispensing revenues and profits into the largest PBM-owned specialty pharmacies and allowing mail pharmacies to capture more of the industry's prescription revenues.
- Twenty million people have gained health insurance during the past few years. However, the political outlook for healthcare reform is highly uncertain.

Our table below highlights the primary public companies that operate in the pharmacy distribution and reimbursement system. The 2017 edition of this report contains the latest financial and industry data about the strategies and market positions of the largest public companies: CVS Health, Express Scripts, Rite Aid, Walgreens Boots Alliance, OptumRx, Walmart, and others. Many of these firms are among the largest businesses on the *Fortune* 500 list.

### Major Public Companies Operating in Pharmacy Drug Channels

| Company                      | Stock Ticker | Primary U.S. Channel Role                          |
|------------------------------|--------------|--|
| CVS Health                   | CVS          | Chain drugstore/Pharmacy benefit manager           |
| Diplomat Pharmacy            | DPLO         | Specialty pharmacy                                 |
| Kroger                       | KR           | Supermarket with pharmacy                          |
| Rite Aid Corporation*        | RAD          | Chain drugstore/Pharmacy benefit manager           |
| PharMerica                   | PMC          | Long-term care pharmacy                            |
| Walgreens Boots Alliance     | WBA          | Chain drugstore                                    |
| Walmart Stores, Inc.         | WMT          | Mass merchant with pharmacy                        |
| AmerisourceBergen Corp.      | ABC          | Pharmaceutical wholesaler                          |
| Cardinal Health, Inc.        | CAH          | Pharmaceutical wholesaler                          |
| McKesson Corporation         | MCK          | Pharmaceutical wholesaler                          |
| Express Scripts, Inc.        | ESRX         | Pharmacy benefit manager/Mail & specialty pharmacy |
| Humana Pharmacy Solutions    | HUM          | Pharmacy benefit manager/Mail & specialty pharmacy |
| OptumRx (UnitedHealth Group) | UNH          | Pharmacy benefit manager/Mail & specialty pharmacy |

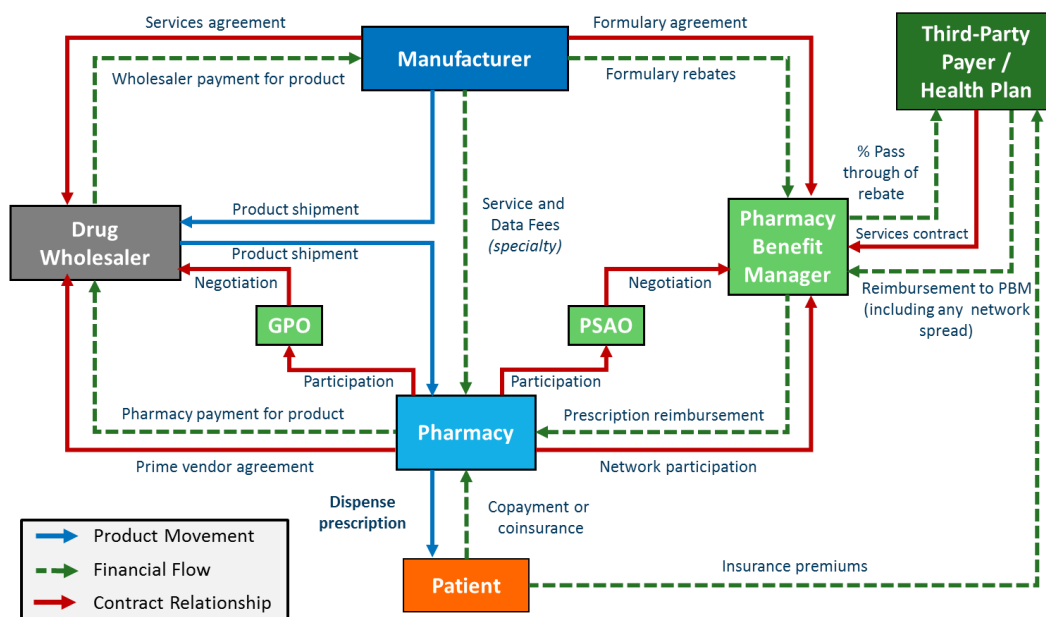
\* In October 2015, Walgreens Boots Alliance announced its merger with Rite Aid.  
Source: Pembroke Consulting research

The companies discussed in this report operate within a complex distribution and reimbursement system, illustrated on the next page. This system contains three key channel flows that we discuss in *The 2017 Economic Report on U.S. Pharmacies and Pharmacy Benefit Managers*:

- **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 Pharmacy Benefit Managers (PBMs), which in turn reimburse pharmacies. Funds flow to manufacturers via pharmacies, which purchase drugs from wholesalers. Funds flow from manufacturers in the form of rebates to PBMs. The PBMs share a portion of these payments with plan sponsors, reducing net prescription costs. Manufacturers' rebates 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.

Later in the report, we revisit the chart below to associate each flow with the corresponding chapters in Section II and Section III that explain and analyze it. That supplemental version of the chart appears as [Exhibit 53](#) (page 79).

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



PSAO = Pharmacy Services Administration Organization; GPO = Group Purchasing Organization  
 Source: Pembroke Consulting 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 financial, product flow, or contractual relationship in the marketplace.

## Structure of the 2017 Report

The 2017 Economic Report on U.S. Pharmacies and Pharmacy Benefit Managers analyzes the industry in three major sections, comprising ten total chapters. This year's report retains the structure that we introduced with last year's edition, so the chapters correspond to those of previous editions. However, many sections have been expanded or reorganized to better cover the latest industry developments. Here are some of the significant updates in the 2017 report:

- A [new Preface section](#) provides an integrated overview of the principal themes that recur throughout our analysis. Each theme includes links to relevant chapters and sections within the entire report.
- The data now include long-term care pharmacies. Consequently, market-size figures and growth rates are not comparable with previous figures. We have restated the historical data to reflect this broader market definition. (As always, the current year's report also incorporates any data restatements made by various reporting organizations.)
- Our analysis and data on specialty drugs and specialty pharmacies have been expanded to account for continued growth in this market segment.
- The PBM industry material now examines the strategies and position of the largest companies.



- New analysis examines factors affecting pharmacy profits. These include Direct and Indirect Remuneration (DIR) fees, drug price inflation, and changes in wholesalers' pricing strategies.
- We have streamlined and refocused the material on wholesalers so that it more directly addresses issues related to pharmacy economics. A broader and deeper analysis of the pharmaceutical wholesaling market is available in our companion [2016-17 Economic Report on Pharmaceutical Wholesalers and Specialty Distributors](#).

Here is a summary of the report's major sections and chapters:

### **SECTION I: THE U.S. PHARMACY INDUSTRY**

- **Chapter 1: Industry Overview** (page 7) has been significantly reorganized for the 2017 edition and provides a foundation for the entire report. It defines the industry and its regulatory framework, describes the different products and prescriptions that a pharmacy dispenses, delineates among different pharmacy industry participants, and quantifies differences among dispensing formats. This chapter now includes our updated analysis of retail clinics and pharmacist-provided clinical services, including medication therapy management services.
- **Chapter 2: Pharmacy Industry Market Structure** (page 32) 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 50) provides a comprehensive overview of the pharmacies dispensing specialty medications. It includes our exclusive analysis of national market share for pharmacy-dispensed specialty drugs. It also provides a competitive analysis of the various organizations that compete to dispense specialty medications. The chapter also reviews the channel strategies that pharmaceutical manufacturers use for specialty drugs and considers the outlook for pharmacy-dispensed biosimilars.

### **SECTION II: THIRD-PARTY PAYMENT AND PHARMACY BENEFITS**

- **Chapter 4: Payment and Spending for Prescription Drugs** (page 80) 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. It presents the outlook for net prescription drug spending, gross spending changes on traditional and specialty drugs, and the future payer mix. Chapter 4 also provides our updated projections for the pharmacy industry's product mix and revenues in 2021.

- [\*\*Chapter 5: Pharmacy Benefit Management\*\*](#) (page 95) has been expanded and reorganized for the 2017 edition. It identifies the services of pharmacy benefit managers (PBMs) and describes the structure of the PBM industry. The chapter explores rebate negotiations with manufacturers, explains trends in gross-to-net drug prices, and reveals the impact of rebates on third-party payers. Chapter 5 also describes the relationship between PBMs and the pharmacies that participate in a PBM's network, reviews how Pharmacy Services Administration Organizations (PSAOs) intermediate between retail pharmacies and PBMs, and explains how plan sponsors compensate PBMs for benefit management services.
- [\*\*Chapter 6: Consumer Copayments and Coinsurance\*\*](#) (page 120) 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 also explore the growth of plans with prescription deductibles and provide new data on manufacturers' copay offset programs for specialty drugs.
- [\*\*Chapter 7: Narrow Pharmacy Networks\*\*](#) (page 136), which was introduced in the 2016 edition, analyzes the structure, utilization, and economics of narrow network models. We explain the use and economics of narrow networks for retail pharmacies in commercial health plans and Medicare Part D. We review the use of mail and retail pharmacies as narrow network options for maintenance prescriptions. This chapter also evaluates payer-defined networks for specialty drug dispensing.

### **SECTION III: DRUG CHANNEL ECONOMICS**

- [\*\*Chapter 8: Prescription Reimbursement by Third-Party Payers\*\*](#) (page 151) explains the current formulas and methodologies for computing a pharmacy's revenue from brand-name, generic, and specialty prescriptions. This chapter compares traditional list price methods with acquisition-cost reimbursement approaches. We also review the economics of mail vs. retail pharmacies for payers and consumers. The chapter concludes by illustrating how prescription reimbursement, formulary rebates, and consumer copayments affect a plan sponsor's net costs for a prescription.
- [\*\*Chapter 9: Relationships With Pharmaceutical Wholesalers\*\*](#) (page 167) 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.
- [\*\*Chapter 10: Pharmacy and Prescription Profitability\*\*](#) (page 182) unites the reimbursement and cost discussion from Chapters 8 and 9 by presenting the latest 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 PBMs' per-prescription profits from network and mail pharmacies. Chapter 10 includes new material on per-prescription payments that pharmacies make to PBMs and health plans. These include DIR fees and other performance-related payments. Finally, we consider pharmacy profits in the 340B Drug Pricing Program.

## Using the 2017 Report

***The chapters are self-contained and do not need to be read in order.*** We include extensive internal references to help you navigate the entire document and customize it to your specific needs. There are more than 400 [endnotes](#), most of which have hyperlinks to original source materials. The report also includes a list of the [Acronyms and Abbreviations](#) used within it.

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As always, I welcome your feedback. Please contact me if you have any questions or comments about *The 2017 Economic Report on U.S. Pharmacies and Pharmacy Benefit Managers*.

Adam J. Fein  
February 2017

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

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