The 2018 Economic Report on U.S. Pharmacies and Pharmacy Benefit Managers

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

February 2018

Full report available at http://drugch.nl/pharmacy
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INTRODUCTION AND GUIDE TO THIS REPORT

In 2017, U.S. drug channels continued to evolve rapidly. Many trends that we have identified in previous editions of this report accelerated. Notable developments include:

- Total prescription dispensing revenues of retail, mail, long-term care, and specialty pharmacies again exceeded $400 billion, though revenue growth was below 1%.

- Specialty drugs now account for more than one-third of the pharmacy industry’s revenues. Growth for these products was concentrated in central-fill mail pharmacies. Many of these pharmacies are owned by pharmacy benefit managers (PBMs) and health plans, which are now among the industry’s largest pharmacies.

- There was fresh controversy over and renewed scrutiny of the impact of manufacturers’ rebates in the U.S. drug channel. The Centers for Medicare & Medicaid Services (CMS) began evaluating the possibility of sharing rebates directly with patients.

- Retail pharmacies faced fresh pressures on pharmacy profits, caused by very low prescription growth, a plateau in the generic dispensing rate, the continued use of narrow networks, direct and indirect remuneration (DIR) fees, and intense competition.

- Mergers and acquisitions continued to reshape the industry. Walgreens Boots Alliance agreed to purchase nearly 2,000 Rite Aid stores, completed the formation of AllianceRx Walgreens Prime with Prime Therapeutics, and became a minority investor in the long-term care pharmacy PharMerica. Diplomat Pharmacy was the most active acquirer of specialty pharmacies. It also acquired two small PBMs. Meanwhile, CVS Health announced an unprecedented merger with the health insurer Aetna.

Understanding an Evolving Marketplace

The 2018 Economic Report on U.S. Pharmacies and Pharmacy Benefit Managers remains the most comprehensive, fact-based tool for understanding the industry’s evolution. This ninth edition integrates information about pharmacy dispensing channels, third-party payers, pharmacy benefit managers (PBMs), patients’ financial contributions, and drug wholesalers. It will aid pharmaceutical manufacturers, wholesalers, pharmacists, pharmacy owners, hospitals, buyers, benefit managers, managed care executives, policy analysts, investors, consultants—anyone who wants to understand and benefit from this ever-changing industry.

This definitive, nonpartisan resource synthesizes 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. It contains the most current financial and industry data along with information about the strategies and market positions of the largest companies.
Thousands of companies operate within the U.S. system, enabling more than 5.8 billion equivalent prescriptions to be dispensed and paid. The table below highlights the largest public companies that operate in the drug channel. Many of these firms are among the largest businesses on the Fortune 500 list.

### Major Public Companies Operating in Pharmacy Drug Channels

<table>
<thead>
<tr>
<th>Company</th>
<th>Stock Ticker</th>
<th>Primary U.S. Channel Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>CVS Health</td>
<td>CVS</td>
<td>Chain drugstore/Pharmacy benefit manager</td>
</tr>
<tr>
<td>Diplomat Pharmacy</td>
<td>DPLO</td>
<td>Specialty pharmacy</td>
</tr>
<tr>
<td>Kroger</td>
<td>KR</td>
<td>Supermarket with pharmacy</td>
</tr>
<tr>
<td>Rite Aid Corporation¹</td>
<td>RAD</td>
<td>Chain drugstore/Pharmacy benefit manager</td>
</tr>
<tr>
<td>PharMerica¹</td>
<td>PMC</td>
<td>Long-term care pharmacy</td>
</tr>
<tr>
<td>Walgreens Boots Alliance</td>
<td>WBA</td>
<td>Chain drugstore</td>
</tr>
<tr>
<td>Walmart Stores, Inc.</td>
<td>WMT</td>
<td>Mass merchant with pharmacy</td>
</tr>
<tr>
<td>AmerisourceBergen Corp.</td>
<td>ABC</td>
<td>Pharmaceutical wholesaler</td>
</tr>
<tr>
<td>Cardinal Health, Inc.</td>
<td>CAH</td>
<td>Pharmaceutical wholesaler</td>
</tr>
<tr>
<td>McKesson Corporation</td>
<td>MCK</td>
<td>Pharmaceutical wholesaler</td>
</tr>
<tr>
<td>Express Scripts, Inc.</td>
<td>ESRX</td>
<td>Pharmacy benefit manager/Mail &amp; specialty pharmacy</td>
</tr>
<tr>
<td>Humana Pharmacy Solutions</td>
<td>HUM</td>
<td>Pharmacy benefit manager/Mail &amp; specialty pharmacy</td>
</tr>
<tr>
<td>OptumRx (UnitedHealth Group)</td>
<td>UNH</td>
<td>Pharmacy benefit manager/Mail &amp; specialty pharmacy</td>
</tr>
</tbody>
</table>

1. In 2017, Rite Aid agreed to sell nearly 2,000 of its locations to Walgreens Boots Alliance. In February 2018, Albertsons announced a merger with Rite Aid.
2. In 2017, PharMerica was acquired by investment firm KKR and Walgreens Boots Alliance (WBA). Its common stock stopped trading in December 2017.

These and other companies discussed in this report operate within a complex distribution and reimbursement system, illustrated on the next page. We discuss three key channel flows in *The 2018 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.

We trace these flows in the chart on the next page. In Sections II and III, we revisit the chart below to associate each flow with the corresponding chapters that explain and analyze it. That supplemental version of the chart appears as *Exhibit 56* (page 90).
The U.S. Pharmacy Distribution and Reimbursement System for Patient-Administered, Outpatient Brand-Name Drugs

Structure of the 2018 Report

The 2018 Economic Report on U.S. Pharmacies and Pharmacy Benefit Managers retains the structure of last year’s edition, and the chapters correspond to those of previous editions. 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 and PBMs.

Many sections and chapters have been expanded or reorganized to better cover the latest industry developments. Significant updates in this 2018 edition include:

- The Industry Overview (Chapter 1) has been streamlined to provide a more straightforward introduction to the industry and its participants.

- Our analysis and data on specialty drugs and specialty pharmacies in Chapter 3 have been expanded to account for continued growth in this part of the market. Note that historical revenue data for specialty dispensing revenues are somewhat higher than the figures reported in previous editions of this report. We explain this issue in our updated analysis of the specialty pharmacy industry market size.

GPO = Group Purchasing Organization; PSAO = Pharmacy Services Administrative Organization

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.
Chapter 5 now includes additional information and data concerning manufacturer rebates to various third-party payers. We have also added new material on the Medicaid Drug Rebate Program and on direct and indirect remuneration (DIR) in Medicare Part D.

In Chapter 6, the data on patient out-of-pocket expenses have been expanded and reorganized. We now include additional data on cost sharing for different payer types, new information on average out-of-pocket spending, and a new discussion of point-of-sale (POS) rebates.

Chapter 10 includes additional data on how pharmacies participate in the 340B Drug Pricing Program. This chapter also adds an expanded discussion of how DIR fees affect pharmacy profits.

Additional historical trending information has been added throughout the report.

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

SECTION I: THE U.S. PHARMACY INDUSTRY

Chapter 1: Industry Overview (page 8) 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 includes our updated analysis of retail clinics and pharmacist-provided clinical services, including medication therapy management services.

Chapter 2: Pharmacy Industry Market Structure (page 34) 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 53) 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 91) 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 2022.

- **Chapter 5: Pharmacy Benefit Management** (page 106) has been expanded and reorganized for the 2018 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 administrative 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 139) 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 manufacturers’ copay offset programs and present new data on patient out-of-pocket expenses.

- **Chapter 7: Narrow Pharmacy Networks** (page 163) 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 the use of 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.

SECTION III: DRUG CHANNEL ECONOMICS

- **Chapter 8: Prescription Reimbursement by Third-Party Payers** (page 184) 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 typical traditional and specialty prescription.
• **Chapter 9: Relationships With Pharmaceutical Wholesalers** (page 200) 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 215) 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 the per-prescription DIR fee payments that pharmacies make to PBMs and health plans. Finally, we consider pharmacies’ role and profits in the 340B Drug Pricing Program.

**How to Use the 2018 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. After clicking a link, use the following shortcuts to return to your previous location in the document:

- Windows: **ALT+Left Arrow**
- Mac: **Command+Left Arrow**

There are nearly 500 endnotes, most of which have hyperlinks to original source materials. The report also includes a list of the Acknowledgments and Abbreviations used within it. To search the entire PDF document for every occurrence of a word or phrase, use the following keyboard shortcuts:

- Windows: **Shift+CTRL+F**
- Mac: **Shift+Command+F**

As always, I welcome your feedback. Please contact me if you have any questions or comments about *The 2018 Economic Report on U.S. Pharmacies and Pharmacy Benefit Managers*.

Adam J. Fein
February 2018

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