2025 REPORT

Access, Affordability, and Outcomes

THE VALUE OF MANAGED CARE PHARMACY

AMCP

Optimizing medicine.
Improving lives.

ABOUT THE AUTHOR

Steve Kheloussi is the Principal Consultant with Kheloussi Consulting, LLC, an association management, managed care, and consulting firm.

The views and opinions expressed in this report are those of the authors and do not necessarily reflect the opinions, position, or policy of Kheloussi Consulting, LLC and AMCP. Certain data used in this report were supplied by Merative as part of one or more MarketScan Research Databases. Any analysis, interpretation, or conclusion based on these data is solely that of the authors and not Merative.

Steven Kheloussi
Kheloussi Consulting, LLC
skheloussi@amcp.org
570.617.9404

Kheloussi Consulting, LLC

TABLE OF CONTENTS

TABLE OF CONTENTS

LETTER FROM THE CEO

2025 has brought with it a vigorous conversation about a different set of priorities and strategies for addressing health policy. With that dynamic as the background in Washington and beyond, I firmly believe that AMCP sits as a crucial intersection within our larger discourse.

On the one hand, the role of professional associations has never been more important; a key responsibility is to create reliable, actionable resources for patients, health care providers, and policymakers. On the other, the practice of managed care pharmacy continues to add value to patients across America who are seeking affordable access to prescription medications and therapeutics. This combination of who we are as an organization and what our members do positions AMCP to have a real impact.

That's why I am pleased to share the 2025 edition of AMCP's annual Access, Affordability, & Outcomes report. This report offers valuable insights into some of the most pressing topics related to health care, including benefit design, specialty drugs, and medication adherence. These are not discussions limited to the halls of Congress or health plan offices; these are kitchen table issues for millions of Americans.

At AMCP, we're looking to develop a more comprehensive understanding of how benefit design influences patient health. Doing so helps policymakers and insurers continue to implement strategies that promote accessible and cost-effective care. That's why a new analysis in this report describing the relationship between patient adherence and health outcomes — analysis that builds on last year's AAO examining the connection of medication delivery strategies to adherence — is so essential. It's also why the report highlights emerging trends in pharmacy care such as the role of artificial intelligence and precision medicine.

We are proud to provide this trustworthy resource for health care decision-makers. The work to improve patient outcomes is never finished, but we believe this report is a key step in helping patients get the medicine they need at a cost they can afford.

Sincerely,

Susan Cantrell, MHL, RPh, CAE
Chief Executive Officer

ABOUT THE ACADEMY OF MANAGED CARE PHARMACY (AMCP)

AMCP is the professional association leading the way to help patients get the medications they need at a cost they can afford. AMCP's diverse membership of pharmacists, physicians, nurses, biopharmaceutical professionals, and other stakeholders leverage their specialized expertise in clinical evidence and economics to optimize medication benefit design and population health management and help patients access cost-effective and safe medications and other drug therapies. AMCP members improve the lives of nearly 300 million Americans served by private and public health plans, pharmacy benefit management firms, and emerging care models.

REPORT AUTHORS

PRINCIPAL AUTHOR

Steven Kheloussi, PharmD, MBA, FAMCP
Principal Consultant, Kheloussi Consulting, LLC

CONTRIBUTING AUTHORS:

Pamala A. Pawloski, PharmD, BCOP, FCCP
Principal Research Scientist, AMCP

Catherine M. Lockhart, PharmD, PhD
Chief Science Officer, AMCP
Executive Director, BBCIC

Aaron B. Mendelsohn, PhD, MPH
Research Consultant, BBCIC

Charron Long, PharmD

Shellie Keast, PharmD, PhD
Research Collaborator, BBCIC,

Trent Bishop, PharmD, MBA Candidate 2028
University of North Carolina Eshelman School of Pharmacy

Hannah Evanik, PharmD Candidate 2028
Temple University School of Pharmacy

Xintian Wu, PharmD Candidate 2026
University at Buffalo School of Pharmacy and Pharmaceutical Sciences

AMCP WORKGROUP:

Adam Colborn, JD
Associate Vice President, Congressional Affairs

Jillian Davis, PMP, CPhT
Senior Manager, Practice Strategy and Innovation

Dana McCormick, RPh, FAMCP
Director, Practice Strategy & Innovation

Tyler Thorne
Manager, Government Affairs

Mitzi Wasik, PharmD, MBA, BCPS, FAMCP
Senior Vice President, Practice Strategy & Innovation
AMCP Foundation Executive Director

ADDITIONAL ACKNOWLEDGEMENTS:

AMCP would like to extend a special thank you to Susanna Leaf and Heather Bates of the Berkeley Research Group for developing prior versions of the Access, Affordability, and Outcomes Report in 2023 and 2024.

I. Introduction and Goals of This Report

The health care sector touches the daily lives of millions of Americans. However, there is often confusion or a lack of understanding about why it operates the way it does. Managed care pharmacy — often working behind the scenes but having a profound impact on access to and affordability of prescription medications — is not immune to this challenge. To address this, the Academy of Managed Care Pharmacy (AMCP) publishes this annual report to raise awareness of the existence, prevalence, and importance of managed care pharmacy in the lives of millions of Americans.

If you're looking to better understand the fundamental concepts of managed care pharmacy, this report provides clarity. This report explores how professionals in this field work diligently to facilitate appropriate access to prescription treatments while remaining mindful of rising costs. It discusses key areas of focus such as:

- Pharmacy benefit design and implementation.
- Formulary and medication utilization management.
- Clinical programs.
- Quality and safety program management.
- Promoting affordability.

The report highlights the most widely used managed care pharmacy tools: utilization management (e.g., prior authorization, step therapy), drug utilization review (DUR), medication therapy management (MTM), and formulary design and management. Additions for the 2025 report include an overview of the United States drug reimbursement and distribution system; a detailed analysis of the impact of adherence on clinical and other outcomes; a summary of specialty medications and the state of biosimilars; and a new section highlighting recent trends within managed care.

This report goes beyond the basics, offering a deep dive into the patient-focused opportunities created by managed care pharmacy and the challenges faced. Throughout the following pages, you'll find extensive data-driven insights and studies that provide valuable details about this important field.

The result is a comprehensive resource about the value of managed care pharmacy. In a world with a pressing need for affordable access to vital prescription medications, millions of Americans are looking for balanced solutions. Managed care pharmacy plays a crucial role — and this report demonstrates how.

II. Overview of Managed Care and the Current State of Prescription Spending in the United States

What is Managed Care?

Broadly speaking, managed care is "a health care delivery system organized to manage cost, utilization, and quality."[1] Managed care is a structured approach to financing and delivering covered health care benefits designed to provide affordable access and cost-effectively improve the quality of care through the use of provider networks, prescription formularies, and other types of utilization management.[2] A managed care organization, or MCO, is a generic term applied to a managed care plan. By efficiently using limited resources, MCOs manage the cost and utilization of covered services and products to optimize patient care. Some of the largest MCOs in the United States include UnitedHealth Group, Elevance Health, Centene, and Humana.[3]

The roots of managed care can be traced back to two models of health care financing: prepaid medical groups and the early Blue Cross and Blue Shield plans.[4] The Western Clinic in Tacoma, Washington, founded in 1910, is often cited as the first "prepaid medical group," which offered its members a broad range of medical services through its own providers in exchange for a fixed monthly payment.[5] Later, in 1937, the Kaiser Construction Company began to finance medical care for its workers as it built an aqueduct in California.[6] This organization later evolved into the Kaiser Permanente Health Plan, one of the largest health insurance providers in the United States. The early Blue Cross and Blue Shield plans paid for services provided by contracted physicians and hospitals that serviced Blues patients and other, unaffiliated patients.[7]

Blue Cross plans paid for hospital services based on cost-based charge lists (the predecessor to today's hospital "chargemaster"), and Blue Shield plans paid for physician services based on payment rates for defined procedures (the predecessor to today's "usual and customary" pricing).[8]

Managed care has evolved significantly since the first "prepaid health plan" and now encompasses four primary plan types in the commercial and employer market: health maintenance organizations (HMOs), preferred provider organizations (PPOs), point of service (POS) organizations, and exclusive provider organizations (EPOs). Each plan is defined in **Table 1** below.

In addition, high-deductible health plans combined with savings options (HDHP/SO) provide traditional medical coverage through one of the primary plan types shown in **Table 1**, but institute a deductible of at least $1,650 for an individual or $3,300 for a family in 2025.[9] HDHPs may be paired with either a health savings account (HSA), which allows beneficiaries and employers to contribute on a pre-tax basis to a savings account that can be used for health care expenses; or a health reimbursement account (HRA, also referred to as a health reimbursement arrangement), which is an employer-funded, tax-advantaged arrangement that reimburses employees for covered health expenses.[10,11] Most health plans and employers offer PPO plans, followed by HDHPs with an HSA, with a smaller proportion of plan sponsors offering HMOs or HDHPs with an HRA.[12,13] EPOs and POS plans are the least common offerings.

Table 1. Managed Care Plans

TYPE	ACRONYM	DEFINITION
Health maintenance organizations	**HMOs**	Covers in-network providers only. May require the patient to choose a primary care provider (PCP) who is responsible for referrals to specialists. Generally, the least expensive option for patients but with the least degree of flexibility.[14]
Preferred provider organizations	**PPOs**	Covers in-network and out-of-network providers. In-network specialty providers normally do not require a referral. Patients going out of network will incur a higher cost.[15]
Point of service organizations	**POS**	POS organizations are a cross between HMOs and PPOs. They may still require a PCP, but patients can see out-of-network providers (at a higher cost) if they choose.[16]
Exclusive provider organizations	**EPOs**	EPOs "allow patients to choose their in-network providers without the need for establishing a PCP and receiving referrals. However, all out-of-network expenses are not covered."[17]
High-Deductible Health Plans with Savings Options	**HDHPs/SO**	HDHPs provide traditional medical coverage through one of the primary plan types listed above, but apply a minimum deductible as defined by the Internal Revenue Service. HDHPs offer lower premiums in exchange for these higher deductibles.[18]

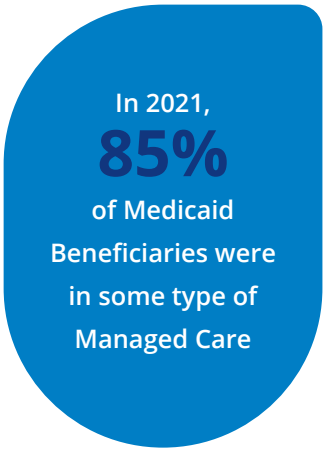
Managed care plans implement a variety of tools to ensure quality health care delivery at a more affordable cost. Some of the most common characteristics of managed care plans include the following:

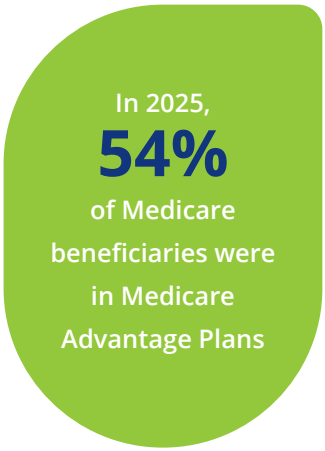
- The use of **limited provider networks**, meaning plans contract with various physicians, medical professionals, labs, facilities, and pharmacies that together create a "provider network."[19,20] Payment to these providers is negotiated by the plan and is typically less than their full charges.[21]
- **Prior authorization**, meaning the requirement that a provider request pre-approval by the health plan to obtain coverage of a certain procedure or prescription drug.[22,23]
- Financial incentives for patients to use **in-network providers**, meaning patients may have out-of-network coverage depending upon their plan type but will incur higher costs.[24]
- Use of **prescription drug tiers** on a formulary, meaning plans will typically place generic medications and preferred brand medications in the lowest tiers, which have the lowest patient cost-share.[25]

Not only are the vast majority of privately insured Americans enrolled in some form of managed care — it has also become the dominant form of Medicaid coverage and an increasingly prevalent option for Medicare beneficiaries.[26] By contrast, Medicaid and Medicare beneficiaries who are not enrolled in a managed care plan obtain their coverage directly from the state or federal government under a fee-for-service (FFS) program. Under the FFS model, providers bill the government for services rendered and are paid based on the state or the Centers for Medicare and Medicaid Services (CMS) fee schedule. Conversely, under Medicaid Managed Care or Medicare Advantage (Part C), private health plans engage in capitated models, meaning they are paid a set amount each month by the government for each covered member in exchange for providing health care benefits. As part of these arrangements, health plans take on some financial risk for the beneficiaries they cover on behalf of the state or federal government. The private plans, in turn, contract with a network of providers that are typically reimbursed at a rate negotiated with the plan.

Under Medicaid, one of the main forms of managed care delivery is through comprehensive risk-based managed care whereby states pay MCOs a flat, capitated rate per member per month in exchange for providing coverage to enrollees.[27] The plans are then financially "at risk" for those members' care. As of 2022, 85% of Medicaid beneficiaries are enrolled in some form of managed care, and 75% are enrolled in comprehensive managed care through MCOs.[28]

Under Medicare, beneficiaries may obtain inpatient and outpatient medical benefits through Medicare Advantage plans rather than through the traditional FFS program (i.e., Parts A and B). Medicare Advantage plans offered by private insurers also typically include Part D (prescription drug) benefits.[29] In 2025, 54% of Medicare beneficiaries were enrolled in Medicare Advantage plans, up from 45% in 2022.[30,31] Further, the Medicare Part D prescription drug benefit, broadly introduced in 2006, is offered only by private health plans as Medicare Advantage prescription drug plans (MA-PD plans) or as standalone prescription drug plans (PDPs).





What is Managed Care Pharmacy?

A critical component of health insurance coverage is the prescription drug benefit. In fact, as of 2023, the U.S. spent an average of approximately $1,340 per person on prescription medications.[32,33] Managed care plans have developed specific tools geared at maintaining appropriate access to prescription drugs while containing rising costs. This practice is referred to as "managed care pharmacy." AMCP defines managed care pharmacy as the application of "clinical and scientific evidence to support the appropriate use of medications to enhance patient and population health outcomes while optimizing use of limited health care resources."[34] Managed care pharmacy professionals work across the following five key areas to achieve this goal:[35]

1. Pharmacy Benefit Design and Implementation

- Ensuring access by defining where care is available.
- Determining which treatments are covered based on individual and population needs.

2. Formulary and Medication Utilization Management

- Identifying which medications to include on the formulary.
- Applying drug management strategies and tools.
- Tracking novel and investigational medications.

3. Clinical Program Development and Implementation

- Managing coordinated care programs.
- Conducting drug utilization reviews (DUR).
- Implementing initiatives to address health disparities.
- Completing medication therapy management (MTM).

4. Quality and Safety Program Management

- Assessing and reporting on quality measures.
- Reporting Medicare Advantage and Medicare Part D Star Rating measures.
- Managing drug shortage and safety programs.

5. Promotion of Affordability

- Reducing risk for individuals, employers, and other public payers by managing overall cost.
- Protecting against misuse, overuse, and fraud.
- Promoting value-based care.

This report examines the prevalence and impact of some of the most widely used managed care pharmacy tools: prior authorization, step therapy, DUR, MTM, and formulary design and management. A brief definition of each of these concepts is provided below with a more in-depth discussion included later in the report.

Prior Authorization

This is an administrative tool health plans or pharmacy benefit managers (PBMs) use that requires prescribers to receive pre-approval for certain drugs to qualify those drugs for coverage under the terms of the pharmacy benefit. Guidelines and administrative policies for prior authorization are developed by pharmacists and/or other qualified health professionals who are employed by or are under contract with a health plan or PBM.[36]

Step Therapy

Step therapy requires the use of at least one alternative ("preferred") drug prior to the approval of the requested therapy. A medication may be "preferred" based on its effectiveness, safety, and/or value compared with other available therapies. Step therapy requirements ensure that an established and cost-effective therapy is utilized prior to progressing to other therapies. If the desired therapeutic benefit is not achieved with the first-line, preferred drug, the prescriber may request use of a second-line medication.[37] Step therapy programs apply coverage rules at the point of service when a claim is adjudicated. If a claim is submitted for a second-line drug and the step therapy rule was not met, the claim is rejected, and a message is transmitted to the pharmacy indicating the patient should be treated with the first-line drug before coverage of the second-line drug can be authorized.[38]

Drug Utilization Review (DUR)

DUR is an authorized, structured, ongoing review of health care provider prescribing, pharmacist dispensing, and patient medication use. Reviews are completed by clinical pharmacists at the health plan or PBM. There are

three forms of DUR: prospective (before dispensing), concurrent (at the time of prescription dispensing), and retrospective (after the therapy is dispensed).[39] Though DUR is used across payer types, the focus of this report will be on the DUR in Medicaid, where it is statutorily required for FFS and Managed Medicaid.

Medication Therapy Management (MTM)

MTM is defined as a distinct service or group of services that optimize therapeutic outcomes for individual patients. MTM services are independent of, but can occur in conjunction with, the provision of a medication product.[40]
The core elements of MTM are:

- **Medication Therapy Review (MTR):** A systematic process of collecting patient-specific information, assessing medication therapies to identify medication-related problems, developing a prioritized list of medication-related problems, and creating a plan to resolve them. The MTR can be comprehensive or targeted.[41]

  As it relates to the Medicare Part D program, where MTM is a statutory requirement, the CMS defines comprehensive medication review (CMR) and targeted medication review (TMR) as follows:

  - CMR is a real-time, interactive, person-to-person, or telehealth review of a patient's medications (including prescriptions, over-the-counter medications, herbal medicines, and dietary supplements). It is performed by a pharmacist or other qualified provider and must be offered at least once a year.[42]

  - TMR is used for ongoing monitoring and may be performed to address a specific or potential medication-related problem. TMRs are performed quarterly "to assess medication use, to monitor whether any unresolved issues need attention, to determine if new drug therapy problems have arisen, or to assess if the beneficiary has experienced a transition in care."[43]

- **Personal Medication Record:** A comprehensive record of the patient's medications (prescription and nonprescription medications, herbal products, and other dietary supplements).[44]

- **Medication-Related Action Plan:** A patient-centric document containing a list of actions for the patient to use in tracking progress for self-management.[45]

- **Intervention and/or Referral:** Throughout an MTM session, the pharmacist may intervene to address problems with the patient's medication regimen, referring the patient to their primary care provider or other health care professional when appropriate.[46]

- **Documentation and Follow-up:** Proper documentation is a cornerstone of MTM services to ensure consistent follow-up with patients and providers. Additional MTM appointments are scheduled on an individualized, as-needed basis.[47]

The focus of this report will be on MTM in the Medicare Part D program, where it is statutorily required.

Formulary Design and Management

Formulary management is an integrated patient care process that enables physicians, pharmacists, and other health care professionals to work together to promote clinically sound, cost-effective care and positive therapeutic outcomes.[48] The formulary management process provides the managed health care system with the ability to objectively distinguish between superior and marginally effective drug products.

Many of the managed care pharmacy tools explained above are used by private health plans and in the government FFS program to promote cost-effective care. However, there are differences in how and to what extent these tools are used in the FFS program versus by MCOs.

Why is Managed Care Pharmacy So Important?

Prescription drug spending in the United States has risen drastically over the past few decades. According to data from the National Health Expenditure Accounts, prescription drug spending (net of rebates) increased from $40 billion in 1990 to nearly $450 billion in 2023, more than a tenfold increase.[49] The period from 1980 until the mid-2000s saw an increase in prescription drug spending per capita and as a share of total health expenditures.[50] This rise in spending was driven by the availability and utilization of new therapies as well as higher price tags on branded drugs.[51] Thanks to the increasing availability of lower cost generic drugs, that spending growth stabilized from the mid-2000s through 2018 except for 2013 to 2015 when there were sharp increases in spending driven by novel expensive hepatitis C therapies.[52]

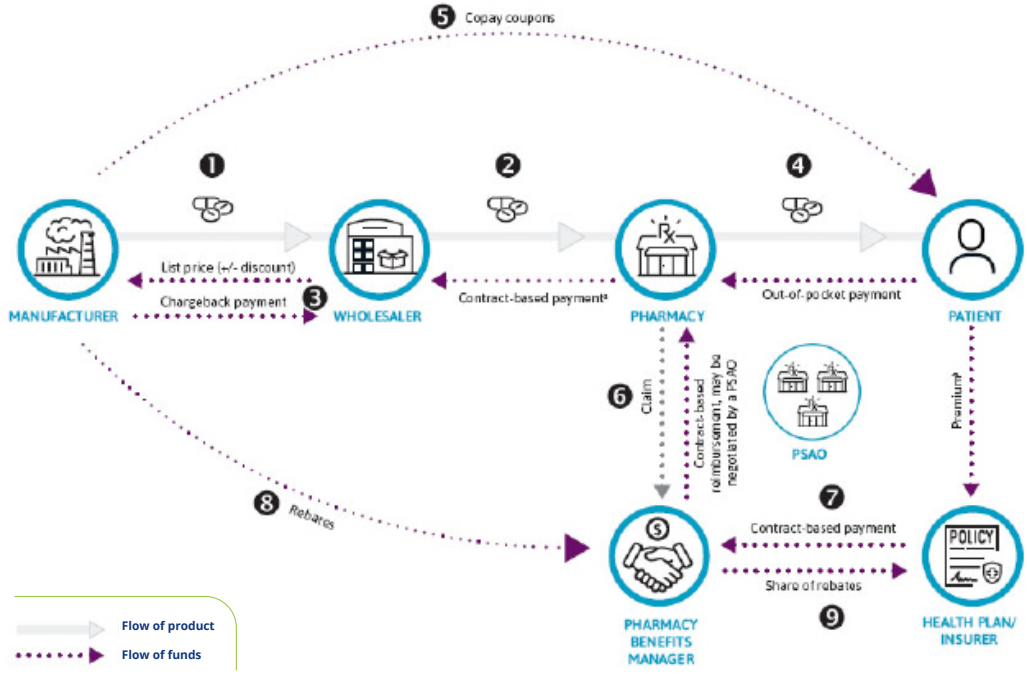
While spending on prescription drugs as a percentage of total health care expenditure has fallen slightly in recent years, it still accounted for 9.2% of total health care spending in 2023 (the highest percentage since 2016).[53] In recent years, expensive specialty drugs (see **Section IX. Specialty Drugs and Biosimilars**) have accounted for a higher share of net drug spending. Such drugs made up 54% of net spending in 2025 compared with 47% in 2019.[54]

Further, drug spending in the United States is expected to grow in the coming years. IQVIA forecasts growth of 3-6% (after discounts and rebates) from 2025 to 2029, driven by newly launched innovative products, including those in oncology and obesity, as well as next-generation biotherapeutics.[55] Though innovative therapies can deliver life-changing benefits to patients, they often come at a high price. For patients to have continued access to these critical but expensive therapies, MCOs must have tools in place to ensure appropriate prescription drug use.

III. The U.S. Outpatient Drug Distribution and Reimbursement System

While the flow of medications through the U.S. distribution system for outpatient, brand-name prescription drugs is relatively straightforward, reimbursement is incredibly complex, particularly when a third-party payer is involved. Numerous pricing benchmarks are used, and rebates are negotiated by various stakeholders throughout the system making it challenging to know the true cost of a medication. **Figure 1** below illustrates a simplified version of this system, specifically for medications covered under the pharmacy benefit.

Figure 1. Distribution and Reimbursement of Brand-Name Drugs Covered Through the Pharmacy Benefit of an Insurance Policy



The figure presents a simplifies overview of the distribution and reimbursement of brand-name drugs covered through the pharmacy benefit of an insurance policy. The figure is an illustration of the main parties involved and the main transactions among them. The figure is not comprehensive of all entities and transactions involved in the distribution and reimbursement system.
a.Group purchasing organizations may play a role in the negotiation of purchasing rates.
b.Employers and members pay premiums to insurers for coverage; public insurance programs (eg,Medicare) are partially or fully funded by tax dollars.
PSAO=Pharmacy Services Administrative Organization.

Using the numbers included in **Figure 1** as a guide, the following is a brief overview of each relationship within this system.

1. The first step in the distribution process involves the manufacturer of a brand-name medication selling product to the wholesaler. Wholesalers pay the list price of the medication, which is set by the manufacturer, with or without discounts included.[1] The largest wholesalers in the U.S. are Cardinal Health, Cencora, and McKesson, collectively making up 90% of the market.[2]

2. Wholesalers then distribute medications to pharmacies based on contracted rates that may include discounts (e.g., based on volume).[3,4] Group purchasing organizations (GPOs) may also be involved by aggregating the buying power of retail and specialty pharmacies, health systems, clinics, and PBMs to negotiate discounts for the GPO's member organizations.[5]

3. Chargeback payments are issued from the manufacturer to the wholesaler in situations in which the wholesaler sells the medication to the pharmacy for less than the amount the wholesaler originally negotiated with the manufacturer.[6]

4. Patients may receive medications from a variety of outpatient pharmacies (see **Section VIII. Overview of Pharmacy Types and Pharmacy Networks** for additional information). In the absence of insurance, patients pay the price set by the pharmacy for the medication. In the presence of insurance, patients pay copayments (also referred to as copays, which require the patient to pay a fixed dollar amount per prescription), coinsurances (a percentage of the cost of the medication), or deductibles at the point of sale.[7]

5. Manufacturers often provide copay assistance to patients with commercial insurance to lower the cost of their brand name prescriptions.[8] Copay offset programs are considered to bypass benefit design strategies implemented by health plans and PBMs.[9] In response, some payers have instituted copay accumulator programs [i.e. copay card funds are not applied to the patient's deductible or out-of-pocket (OOP) maximum] and copay maximizer programs (i.e., programs that enable insurance companies to "maximize" available manufacturer-supplied copay cards and minimize patient OOP costs).[10]

6. Plans and payers contract with PBMs to manage benefits and to adjudicate prescription claims. In exchange for network participation (see **Section VIII. Overview of Pharmacy Types and Pharmacy Networks**), pharmacies (or pharmacy services administrative organizations on behalf of a number of pharmacies) agree to contracted reimbursement terms, which often include the cost of the medication plus a dispensing fee.[11]

7. Health plans or other insurers may choose to manage their pharmacy benefits in-house or outsource nearly any aspect to a PBM. In return, the health plan/insurer will issue contract-based payments to the PBM, which may include claims processing fees and other charges based on the services that are managed by the PBM.[12]

8. One service often outsourced to PBMs is rebate negotiation with pharmaceutical manufacturers. In exchange for preferred formulary placement and other concessions (e.g., limitations on restrictions like prior authorization), PBMs will negotiate rebates with manufacturers on behalf of payers to lower the net cost of a medication.[13]

9. As part of the services agreements between the insurer and the PBM, the PBM will pass through some, all, or none of the negotiated rebates from manufacturers.[14] In 2025, 94% of payers reported receiving rebates on traditional (non-specialty) brand name medications, with 60% of those respondents receiving 100% of the negotiated rebates.[15]

What are Pharmacy Benefit Managers (PBMs)?

PBMs are third-party administrators that manage prescription drug benefits on behalf of insurers.[16] The three largest PBMs–Evernorth/Express Scripts, CVS

Caremark, and OptumRx–processed approximately 80% of prescription claims in 2024.[17] Importantly, PBMs are not payers and typically do not assume risk – in this way, they are not the insurer themselves, but rather an intermediary that serves key functions with the aims of managing drug costs, improving clinical outcomes, and ensuring medication access and safety. Core functions of PBMs include:[18]

- Claims processing, monitoring, and payment
- Formulary design and implementation
- Pharmacy network management
- Manufacturer rebate negotiation

Not all PBMs offer all of these services, nor do all PBM clients (e.g., health plans, employers, organizations) utilize all of the services offered by their contacted PBMs.

Who are payers?

Payers, also referred to as insurers or plan sponsors, may include MCOs, the government, employers, and other insurance providers (e.g., unions, other groups). Employers and other insurance providers, particularly smaller groups, may utilize health plans to assume financial risk for their employees'/members' claims in exchange for premiums. These are referred to as fully insured plans.[19] Alternatively, larger employers or groups may choose to self-insure, in which the employer/group bears the financial risk for any expenses incurred.[20] See **Section IV. Key Statistics on Health Insurance and Prescription Drug Coverage in the United States** for details regarding enrollment percentages by payer type.

Employers or other insurance providers who choose to self-insure typically lack the clinical and technical expertise to effectively institute well-designed benefits for their beneficiaries. In these cases, the insurer will contract with a third-party administrator (e.g., a health plan or PBM) to handle administrative functions and assist with benefit design strategies to ensure appropriate utilization and control costs.[21] Still, employers note that the top sources of influence on their benefit design strategies are brokers/consultants and their human resources (HR)/benefits departments, followed by their PBM and non-HR executive leadership.[22]

IV. Key Statistics on Health Insurance and Prescription Drug Coverage in the United States

In 2023, roughly 92% of the U.S. population was covered by some type of health insurance, whether public or private. See **Table 2** below for a breakdown of the population by type of coverage. See **Appendices I and II** for state level details.

Table 2. Medical and Prescription Drug Coverage in the United States, 2023

Nearly all insured Americans have prescription drug coverage. Of all the insurance types, Medicare has the lowest rate of prescription drug coverage, at 89%.

	MEDICAL COVERAGE		PHARMACY DRUG COVERAGE
	NUMBER (IN THOUSANDS)	% OF TOTAL	% OF CATEGORY
Total[1]	331,700		
Uninsured[1]	26,440	8.0%	0%
Any Plan[1]	305,200	92.0%	
Any Public[1]	120,400	36.3%	
Medicare[1]	62,550	18.9%	89%[5]
Medicare FFS[2]	32,322	9.7%	
Medicare Advantage (Part C)[2]	30,228	9.1%	
Medicaid[1]	62,700	18.9%	100%[6]
Traditional FFS[3]	46,952	14.2%	
MCO[3]	15,748	4.7%	
CHIP[4]	8,804	2.7%	100%[7]
CHAMPVA and VA[1]*	3,171	1.0%	100%[8]
Any Private[1]	216,800	65.4%	
Employer[1]	178,200	53.7%	99%[9]
Direct Purchase/Marketplace coverage[1]	33,850	10.2%	100%[10]
Tricare[1]	8,721	2.6%	100%[11]

*Includes Civilian Health and Medical Program of the Department of Veterans Affairs (CHAMPVA), as well as care provided by the Department of Veterans

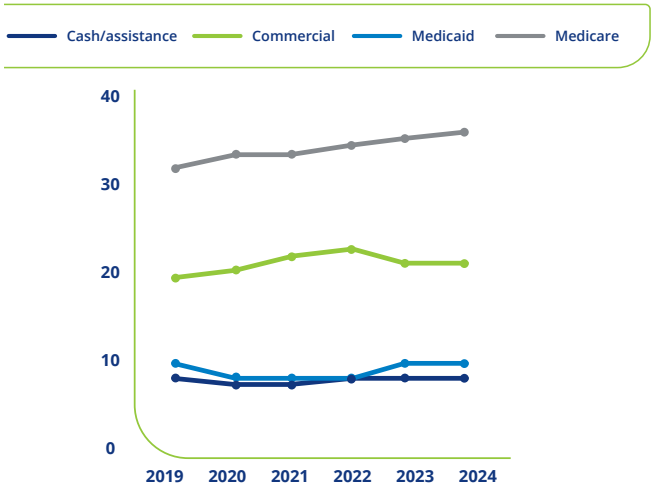
V. Comparison of Prescription Utilization and Average Out-of-Pocket (OOP) Spending on Prescription Drugs by the Insured Versus Uninsured/ Cash-Paying Populations

Though the focus of this report is on the tools utilized by managed care pharmacy professionals for patients with health insurance, health insurance plays a critical role more generally in terms of access to prescription drugs. Those with health insurance typically have a higher utilization of prescription drugs and lower OOP spending than those who lack coverage.

According to IQVIA, patients paying cash for their prescriptions were dispensed an average of just under 10 prescriptions per year in 2024, the fewest of any patient group. By contrast, the average enrollee with third-party insurance was dispensed 22 prescriptions, Medicare Part D beneficiaries were dispensed 36 prescriptions, and those with Medicaid were dispensed 10 prescriptions, as shown in **Figure 2**.[1]

Figure 2: Adjusted Dispensed Prescriptions per Enrollee by Method of Payment, IQVIA

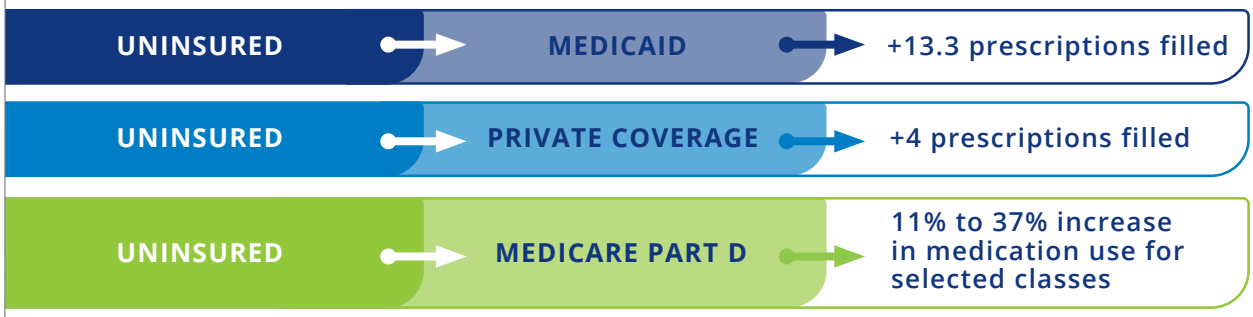
Medicare and commercial (third-party) insured members access higher numbers of prescriptions than Medicaid or cash.



Source: IQVIA Institute, "The Use of Medicines in the U.S. 2025," Exhibit 6, p. 11.

Figure 3: Impact of Gaining Insurance Coverage on Prescription Utilization

Uninsured patients who gained insurance coverage filled a greater number of prescriptions after coverage began.



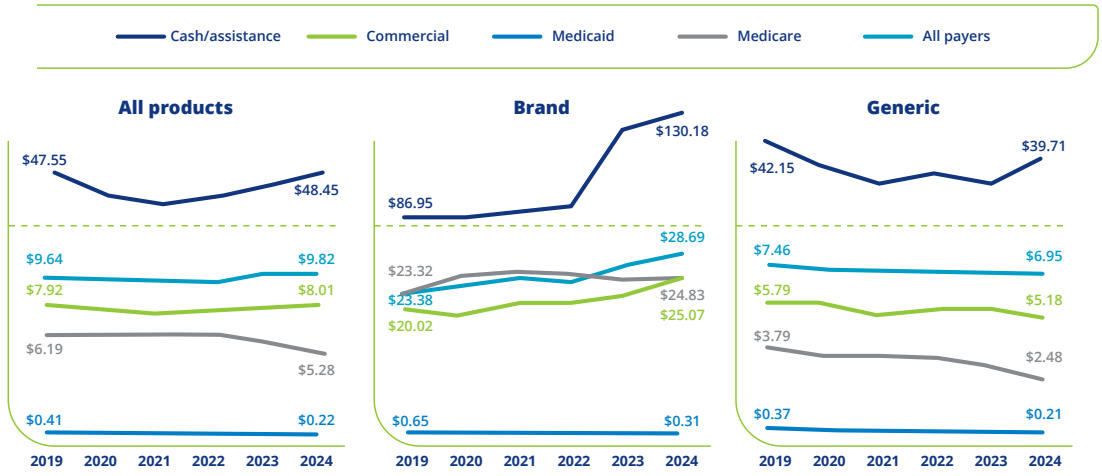
Note: Figure 3 is compiled from various sources as referenced in the text below.

Further, numerous studies have examined the impact of gaining insurance coverage on prescription utilization and findings consistently suggest that patients with insurance are dispensed more prescriptions than those without insurance. For example, researchers found increases in prescription drug use for those who gained private or Medicaid coverage through the Affordable Care Act (ACA). From 2013 to 2014, individuals who went from uninsured to Medicaid had an average of 13.3 more prescriptions filled and those going from uninsured to private had an average of four more prescriptions filled.[2] Another study found that Medicaid expansion through the ACA led to a 19% increase in Medicaid prescriptions or roughly nine additional prescriptions annually per newly eligible beneficiary.[3] Importantly, the largest increase in prescriptions were for those drugs treating chronic disease, such as diabetes and heart disease.[4] Lastly, researchers examined the change in prescription utilization for selected medication classes among seniors without prior drug benefits following their enrollment in Medicare Part D. The authors found that Medicare Part D coverage was associated with increases in utilization of 22% for statins, 11% for clopidogrel, and 37% for proton pump inhibitors.[5]

The uninsured also pay more out of pocket for their prescriptions, as demonstrated in **Figure 4**. According to IQVIA, cash-paying patients paid an average of $48.45 per

Figure 4: Average Final OOP Cost per Retail Prescription by Product Type and Method of Payment

Cash-paying patients had higher out-of-pocket costs for retail prescriptions across product types than insured patients.



Source: IQVIA Institute, "Understanding the Use of Medicines in the U.S. 2025," Exhibit 25, p. 31.

prescription in 2024, over six times more than any other patient group. The commercial, Medicare, and Medicaid averages paid per prescription were $8.01, $5.28, and $0.22, respectively.[6] This higher average OOP spending by the cash-paying/uninsured population also resulted in their disproportionate contribution to overall OOP spending. In 2024, patients paying cash accounted for 17% of total OOP drug spending despite contributing just 3% to prescription volume.[7] In another study, researchers found that gaining Medicaid coverage led to $205 less in annual OOP spending in 2014, and gaining private coverage led to an $85 reduction in OOP spending compared with the prior year.[8] The same study that examined the impact of gaining Medicare Part D coverage on utilization also found a decrease of over 50% in patient OOP spending for the classes examined.[9]

Higher OOP spending by the uninsured can lead to a lack of medication adherence. In fact, the Centers for Disease Control and Prevention (CDC) — through the National Health Interview Survey in 2017 — found that 33.6% of uninsured individuals did not take their medication as prescribed to reduce their prescription drug costs. This is compared to 8.4% with private health insurance and 12.5% of those with Medicaid.[10] IQVIA Institute notes that cash-paying patients "have significantly higher costs for brand prescriptions with 12% having OOP costs greater than $125," which likely contributes to "higher abandonment of brands among these patients."[11]

Lower adherence due to higher OOP costs also has important implications on health outcomes (see **Section VI. The Impact of Adherence on Patient Outcomes** for more information). The uninsured population's disproportionate contribution to OOP spending on vital prescription medications and their lower utilization of prescription medications underscores the important role of health insurance in managing prescription drug affordability and patient access.

VI. The Impact of Adherence on Patient Outcomes

Medication adherence plays a critical role in achieving optimal health outcomes. To assess the impact of medication adherence in the real-world setting, we conducted a scoping literature review of peer-reviewed publications across disease states. Of 596 studies reviewed, 101 analyzed medication adherence across 30 disease states. We selected six disease states for a comprehensive analysis based on disease prevalence and volume of studies: osteoporosis and bone fractures, type 2 diabetes mellitus (T2DM), cardiovascular disease (CVD), multiple sclerosis (MS), asthma, and breast cancer. This review highlights the importance of promoting consistent medication use to improve clinical outcomes and reduce the economic burden of disease. The findings are summarized below.

Osteoporosis

Osteoporosis affects millions of older adults, increases fracture risk, and is associated with low treatment adherence. Across 15 studies, a positive association between medication adherence and persistence and fracture risk was shown, despite differences in adherence measures, study size and ethnicity of the populations, and types of fractures evaluated.[1-15] High adherence (proportion of days covered, PDC ≥ 80%) was associated with a 33% reduction in any fractures (36% reduction in vertebral fractures and 48% reduction in hip fractures), and non-adherence (PDC < 80%) was associated with a 20% higher risk of any fracture. High adherence (PDC ≥ 80%) was also associated with lower rates of hospitalization and lower total costs.

Type 2 Diabetes Mellitus

According to the CDC in 2024, more than 38 million Americans had diabetes, of which 90% to 95% have T2DM.[16] Numerous studies demonstrated that high adherence (PDC ≥ 80%) and persistence (at least one administrative claim for antidiabetic agents quarterly for four consecutive quarters) is associated with beneficial effects for outcomes in patients with T2DM, including decreased mortality, heart attack, stroke, kidney failure, diabetic retinopathy (damage to the retina secondary to diabetes), hospitalizations, length of hospital stays, cost of care, and improved weight loss and hemoglobin A1c measures.[17-22] Specifically, a 10% reduction in mortality and a 7% reduction in hospitalizations was observed among patients with PDC ≥ 80%. Further, adherence maintained with PDC ≥ 80% over a 1-year period was associated with reduced health care resource utilization, including risk of hospitalizations (22.7% vs. 17.7%), emergency department (ED) visits (45.6% vs 38.5%), and shorter length of hospitalization (1.3 days vs. 2.2 days).

Cardiovascular Disease

In the eight studies evaluated, our review found improvements to outcomes for patients who remained adherent to cardiovascular medications, such as statins and P2Y12 antiplatelet therapy (e.g., clopidogrel).[23-30] High adherence (PDC ≥ 80%) reduced the risk for major adverse cardiovascular events (MACE) by 49%. All-cause mortality risk was similar among patients who had low adherence (PDC < 20%) and improved to either moderate (PDC 40%-79.9%) adherence or high (PDC ≥ 80%) adherence compared with those who had been adherent pre- and post-MI. Patients who were non-adherent (PDC < 80%) to P2Y12 inhibitors had higher odds of ED visits, transfusions, and hospitalizations.

Multiple Sclerosis

Multiple Sclerosis (MS) is a chronic, immune-mediated neurological disorder requiring continuous use of disease-modifying therapies to reduce relapse rates, slow progression of disability, and minimize health care resource utilization. Studies show that higher adherence (medication possession ratio, MPR ≥ 80%) is associated with a 29% lower risk of relapse, lower resource utilization, including 20% fewer outpatient and ambulatory care visits, up to 50% fewer hospitalizations, and fewer days of work loss, lower health care costs, and reduced economic burden.[31-38] These results have been consistent across a variety of therapeutic agents, health care systems, and adherence definitions.

Asthma

Asthma is the most common chronic condition among children enrolled in Medicaid. Studies have shown better medication adherence contributes to improved outcomes in asthma.[39-42] An MPR > 50% for inhaled corticosteroids was associated with a 44% decrease in the odds of an ED visit, and children with the highest adherence rates for leukotriene inhibitors had a 32% decrease in the odds of an ED visit. Among children receiving long-term control medications such as long-acting beta-agonists, those who were persistent (no gaps in therapy ≥ 30 days) with combination therapy had a 50% reduction in the odds of an asthma exacerbation. Further, adherent and persistent patients had a reduced risk of oral corticosteroid use (54% and 64% reduction, respectively).

Breast Cancer

Data shows the importance of medication adherence also extends into the oncology space.[43-45] Among patients with breast cancer, key barriers to adherence include age, drug side effects, co-treatment regimens, and financial burden. One study found 31% of patients were nonadherent to therapy (MPR < 80%) and 30% were nonpersistent (treatment gap > 60 days), which was associated with a 10% increased risk of all-cause mortality. Nonadherence (MPR < 80%) was significantly associated with greater outpatient health care utilization. Prior adjuvant chemotherapy and early follow-up with a medical oncologist were associated with higher adherence.

VII. Examination of the Prevalence of Managed Care Pharmacy Tools and Their Impact on Health Care Costs and Patient Outcomes

Managed care organizations and PBMs commonly employ a variety of utilization management tools to ensure appropriate use of cost-effective medications. Each is discussed in additional detail below.

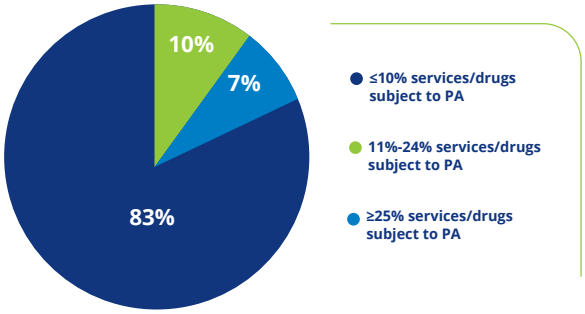
Prior Authorization

Prior authorization for prescription drugs is a widely used tool in commercial insurance, Medicare, and Medicaid. A study by Avalere in 2020 found that the prevalence of prior authorization for single-source brand drugs in the commercial market was above 40% for five therapeutic areas examined: multiple sclerosis (51%), chronic myeloid leukemia (52.0%), multiple myeloma (49.7%), psoriasis (44.6%), and rheumatoid arthritis (42.9%).[1] A large proportion of the medications used for these conditions are expensive specialty drugs, which likely explains the high prevalence of prior authorization for these conditions (see **Section IX. Specialty Drugs and Biosimilars** for more information on specialty medications). Other therapeutic areas evaluated [depression, sodium-glucose cotransporter-2 (SGLT-2) inhibitors for diabetes, glucagon-like peptide-1 (GLP-1) agonists for diabetes, cardiovascular, atypical antipsychotics, asthma/allergy corticosteroids, and human immunodeficiency virus (HIV)] had a prevalence of 11% or less.[2] Owing to frequent off-label use for weight loss, it is anticipated that GLP-1 agonists for diabetes are more impacted by prior authorization than in the past.

Though certain therapeutic areas are commonly subject to prior authorization, most enrollees are in plans where a limited number of drugs are subject to prior authorization. While 96% of health plans and employers report using prior authorization,[3] America's Health Insurance Plans (AHIP) found that 83% of commercial enrollees are in plans where fewer than 10% of drugs are subject to prior authorization as shown in **Figure 5**.[4]

Figure 5: Portion of Commercial Enrollees by Percentage of Drugs Subject to Prior Authorization

More than 8 in 10 commercial enrollees had 10 percent or less of their covered drugs subject to prior authorization.



Source: AHIP, "Key Results of Industry Survey on Prior Authorization," p. 10.

Among Medicare PDPs and MA-PD plans, 32% and 28% of drugs, respectively, were subject to prior authorization in 2024.[5] Evidence shows that prior authorization requirements have increased in Medicare Part D, from 8% in 2007 to 24% of covered drugs in 2019.[6] Further,

certain drug classes and more expensive medications are more likely to face prior authorization requirements. For example, in 2021, researchers found that 90.1% to 100% of Part D plans required prior authorization for covered psoriasis and psoriatic arthritis specialty medications.[7] Those same researchers note that the median point-of-sale price for these drugs before rebates/discounts ranged from $3,620 to $23,493 for each fill.[8]

According to the Kaiser Family Foundation (KFF), as of 2018, every state uses prior authorization in its Medicaid FFS drug programs, and at least 24 states apply the same medical necessity criteria to FFS and managed care for at least one drug.[9,10] No findings on the proportion of drugs subject to prior authorization by Medicaid FFS or Medicaid Managed Care plans were identified as of the writing of this report. However, according to the KFF, though states may require prior authorization for any drug covered by Medicaid, they normally require it for expensive specialty drugs or for drugs not on the Preferred Drug List (PDL).[11]

Prior authorization criteria commonly included in coverage policies can be grouped into five broad categories. These include:[12]

- **Prescriber specialization:** The prescription must be written by or in consultation with a specialist (e.g., an oncologist may be required to prescribe an oncology medication).
- **Appropriate use:** Documentation to show that the patient is an appropriate candidate for the medication according to FDA-labeling and/or clinical evidence (e.g., patient age, diagnosis, laboratory or genetic testing, other tests or symptoms to assess disease severity).
- **Safety considerations:** Documentation to confirm certain safety concerns are not present (e.g., the requested drug is not being used in combination with another medication known to interact).
- **Prerequisite drugs (step therapy):** See below for further discussion on Step Therapy.
- **Duration of Authorization and Response to Therapy:** Documentation to ensure the patient is receiving appropriate follow-up and is benefitting from the medication before approving ongoing therapy.

One of the main critiques of the prior authorization process is the time and effort required of providers and their staff to obtain authorizations. However, as noted above, only a subset of drugs is subject to prior authorization. In fact, in June of 2019, AMCP conducted a multistakeholder forum regarding step therapy and prior authorization. Participants of the forum aligned on the following characteristics of medications that warrant the use of these utilization management tools:[13]

- Specific safety concerns, including certain drug interactions.
- Availability of more affordable alternatives.
- Potential for off-label use.
- Potential for misuse or abuse.
- Limited distribution or special handling requirements.
- Multiple indications across benefits (e.g., medical and cosmetic).

Further, there is a significant opportunity to reduce the administrative strain of the prior authorization process by moving more prior authorization requests to electronic form.

Step Therapy

Like prior authorization, step therapy is another common form of utilization management. Its goal is to identify the most appropriate nexus of affordability, efficacy, and safety as the first line of medication therapy before moving to less cost-effective or higher cost treatments. If there is a reason a patient should not use the lowest tier of treatment, exception processes are in place to ensure the patient receives the appropriate care.

According to the Pharmaceutical Strategies Group 2025 Trends in Drug Benefit Design Report, 87% of health plans and employers report using step therapy.[14] The same Avalere study cited previously that examined prior authorization in the commercial market also evaluated the prevalence of step therapy. Step therapy prevalence exceeded 50% for only one therapeutic area (rheumatoid arthritis at 53.5%) but was near or above 20% for six others: psoriasis (48.7%), depression (35.5%), SGLT2 inhibitors for diabetes (33.3%), multiple sclerosis (24.6%), GLP-1 agonists for diabetes (22.8%), and chronic myeloid leukemia (19.2%).[15]

Separately, researchers examined the use of step therapy for high-cost, specialty medications by 17 of the largest commercial health plans in the United States and found that 38.9% of drug coverage policies applied step therapy.[16] The proportion of each plan's coverage policies that included step therapy, however, varied by plan, ranging from 20.6% to 57.5%.[17] The average number of steps was 1.5, with 66.6% of policies requiring a single step, 22.7% requiring two steps, 7.6% requiring three steps, and 3.1% requiring four or more steps.[18] The same study also evaluated whether the step therapy protocols applied by plans were consistent with treatment guidelines (such as those issued by national clinical organizations). Protocols were consistent with clinical guidelines 34% of the time, more stringent 55.6% of the time, and less stringent 6.1% of the time.[19]

Other research, however, suggests that step therapy protocols are consistent with fair access criteria. The Institute for Clinical and Economic Review (ICER) assessed step therapy protocols for 10 drugs across 11 formularies, including 10 of the largest payers and the formulary of the Veterans Health Administration (VHA) to determine concordance with ICER's fair access criteria. Concordance was found to be 100%, meaning no policy required more than three steps for coverage and all steps were deemed to be clinically appropriate.[20]

The Institute for Clinical and Economic Review found that step therapy protocols were concordant with fair access criteria

100%

of the time

The prevalence of step therapy in Medicare Part D is substantially lower than in the commercial market. According to the Medicare Payment Advisory Commission (MedPAC), in 2024, the most recent time this data was reported, just 1% of drugs in MA-PD plans and less than 1% of PDP plans were subject to step therapy.[21]

In 2019, 45 out of 50 states reported using step therapy in their Medicaid programs.[22] No data quantifying the percentage of drugs or protocols subject to step therapy, however, were identified for Medicaid as of the time of writing of this report.

Medication Therapy Management

Pursuant to 42 CFR § 423.153(d), all Part D plan sponsors (whether standalone PDP or MA-PD) must establish MTM programs that meet certain minimum standards, which are offered on an "opt-out" basis to beneficiaries meeting specific criteria. Plan sponsors set the minimum thresholds for enrollment based on CMS minimum requirements. For 2026, these criteria include:

- The presence of multiple chronic "core" conditions, which plan sponsors can set at 2 or 3;[23]
- The use of multiple Part D-covered drugs, which plan sponsors can set between 2 and 8;[24] and
- Are likely to incur annual costs for covered Part D drugs of $1,276 or more.[25] This threshold has been reduced from the 2025 threshold of $1,623.[26]

TMRs are to be performed quarterly and CMRs annually.[27] No similar requirement exists for Medicaid[a] or the commercial market and, therefore, this report will focus on MTM in Medicare Part D. However, evidence exists of the clinical and financial benefits of MTM for commercial and Medicaid patients as well.[b]

According to an analysis conducted by Berkeley Research Group (BRG), approximately four million beneficiaries

a In fact, as of 2019, only nine of 49 responding states reported paying pharmacists to provide MTM services in the FFS Medicaid program. See Kathleen Gifford, Anne Winter, Linda Wiant, Rachel Dolan, Marina Tian, Rachel Garfield, "How State Medicaid Programs are Managing Prescription Drug Costs," Kaiser Family Foundation, April 2020, p. 23 (https://files.kff.org/attachment/How-State-Medicaid-Programs-are-Managing-Prescription-Drug-Costs.pdf, accessed July 20, 2025).

b See, for example, "Pharmacist-Provided Medication Therapy Management in Medicaid," CDC, May 2021, p. 2 (https://www.cdc.gov/cardiovascular-resources/media/MTM_in_Medicaid-508.pdf, accessed July 20, 2025).

were enrolled in MTM programs as of 2019 or 8% of total Part D enrollees that year.[c] Not everyone enrolled, however, receives MTM services. CMS indicates that the average Star rating for the MTM Program CMR Completion Rate measure was 3.7 Stars for MA-PDs and 3 Stars for standalone PDPs.[28] Cross referencing these results with the 2025 CMS Star Rating Technical Notes suggests a completion percentage of approximately 85% for MA-PD plans and between 55% and 68% for standalone PDPs.[29]

Various studies support the benefits of MTM services, which can include reductions in cost of care and hospital utilization, a decrease in adverse drug events and an improvement in medication adherence. For example, a 2010 retrospective analysis of standalone PDP and MA-PD plan beneficiaries participating in MTM programs found meaningfully higher medication adherence rates for beneficiaries with congestive heart failure (11-40% higher), chronic obstructive pulmonary disease (11-26% higher), and diabetes (15-35% higher) as compared to non-participating beneficiaries.[30]

In an MTM intervention that targeted Part D beneficiaries with diabetes or coronary artery disease who were not taking statins but could benefit from doing so, participants had roughly 65% greater uptake of statins compared with the control group. The study's authors estimated this increased uptake could result in avoidance of one major cardiovascular event and $12,323 in event-associated costs for every 220 beneficiaries.[31]

Further, researchers at Humana found that receipt of MTM services targeted at resolution of medication-related problems through TMR or through a combination of TMR and CMR were associated with reductions in overall health care utilization (i.e., inpatient admissions and/or ED visits) and increases in medication adherence. In 2014 and 2015, there were 55.2 and 30.8 fewer inpatient admissions per 1,000 individuals, respectively, for patients receiving TMR interventions. In 2015, there were significant reductions in ED visits for participants receiving TMR-only interventions (26.1 fewer ED visits per 1,000 individuals) or TMR/CMR interventions (12.0 fewer ED visits per 1,000 individuals). In both years, researchers found that a larger percentage of MTM participants (0.4% for oral diabetes medications; 7.7% for antihypertensives; 3.0% for statins) had greater improvements in medication adherence.[32]

Finally, a systematic review and meta-analysis from 2023 identified improved clinical outcomes with MTM services, including reduced readmission rates, ED visits, adverse drug events, drug-related problems, length of hospital stays, and medication costs. The review did not find any consistent improvements in humanistic outcomes, including quality of life, or other economic outcomes, including total costs and hospitalization costs.[33]

From 2017 to 2021, CMS ran an "enhanced" Part D MTM pilot program, which included increased flexibility and payment incentives for participating PDP sponsors. The enhanced program did not result in total medical expenditure cost savings or improvements in medication use for enrolled participants.[34] The pilot was not offered to MA-PD plan sponsors. However, the result suggests there is still room to improve the design and delivery of MTM services in the Part D program to achieve even greater patient impact.

Drug Utilization Review

Since 1993, section 1927(g) of the Social Security Act has required each state to develop a Medicaid DUR program. DUR is not statutorily required in the Medicare or commercial markets, so this report focuses on DUR in Medicaid where it is defined as a "structured, ongoing review of health care provider prescribing, pharmacist dispensing, and patient use of medication. DUR involves a comprehensive review of patients' prescription and medication data and dispensing to help ensure appropriate medication decision-making and positive patient outcomes. Potentially inappropriate prescriptions, unexpected and potentially troublesome patterns, data outliers, and other issues can be identified when reviewing prescriptions through prospective DUR or retrospective DUR activities."[35] Prospective DUR involves review before

c Reflects the count of beneficiaries in the 2019 "Part D Medication Therapy Management Data File" (~4M). Total beneficiaries reflects the number of beneficiaries with more than zero months of Part D coverage, based on the 2019 "Master Beneficiary Summary File Base".

the prescription is dispensed, while retrospective DUR occurs after dispensing.[36]

According to CMS, state FFS programs saved an average of $57 million in 2017 through prospective DUR, and $1.46 million through retrospective review[37] although there is no uniform standard for how states measure this savings.[d] The same data are not available for Managed Medicaid programs.

As of the time of writing of this report, no data have been identified for Medicaid that measure the impact of DUR on patient outcomes.

Formulary Design and Management

A formulary is a list of drugs covered by a particular prescription drug benefit plan. The formulary development process is complex and evidence-based and involves input from three key groups.[38] The first is the internal clinical review team, which comprises physicians, pharmacists, and other health care professionals employed by the health plan. The clinical review team collects and synthesizes information about the products under review and shares that information with the second group, the Pharmacy and Therapeutics (P&T) committee. The P&T committee — also comprising physicians, pharmacists, and other health care professionals — assesses the information provided by the clinical review team and votes to approve or deny recommendations for inclusion or exclusion of a product from the plan's formulary. The final group is the value committee, tasked with evaluating the cost-effectiveness of a therapy and with negotiating its cost. The value committee is an internal team of health care professionals, data analysts, and other stakeholders whose role is to ensure a balance between medication access and cost. Health plans will routinely implement a firewall between these three teams to limit business influences on clinical decision-making.[39]

There are two types of formularies: open and closed. In an open formulary, nearly all legally prescribed drugs are covered, though some drug classes or categories may still be excluded by plan design (e.g., weight loss medications).[40] In exchange for greater product choice, payers and patients may face higher costs, particularly for non-formulary medications.[41] In a closed formulary, a more finite list of medications is covered (e.g., some medications within a particular class of drugs will be covered, while others will not), typically in exchange for price concessions.[42,43] No coverage is provided for non-formulary drugs unless the physician requests an exception.[44]

A formulary is typically organized by therapeutic class, and drugs within the same therapeutic class are placed on tiers, with the lowest tier having the lowest patient cost-share (usually low-cost, high-value generics) and the highest tier having the highest patient cost-share (usually high-cost specialty brand drugs).[45] The number of tiers will vary by plan. According to Kaiser's Employer Health Benefits Survey, 89% of covered workers were in a plan with tiered cost sharing for prescription drugs, and 86% were in a plan with three or more formulary tiers in 2024.[46] Most of those in a plan with three or more tiers are responsible for copays instead of coinsurances. In 2024, the average copay for drugs in tier 1 was $12, for tier 2 was $36, for tier 3 was $65, and for tier 4 was $128.[47]

In the Part D program, nearly all enrollees are in plans that use five tiers: preferred generics, other generics, preferred brands, non-preferred brands, and a specialty tier.[48] In 2025, for both MA-PDs and PDPs the median tier 1 and tier 2 copays were $0 for preferred generics and $5 for other generics, respectively.[49] For drugs on tier 3, patients enrolled in MA-PDs were subject to a median $47 copay as opposed to a median 21% coinsurance for PDPs.[50] Median coinsurances of 41% and 40% were applied to tier 4 medications for MA-PD plans and PDPs, respectively.[51] The median cost-sharing responsibility was also higher for specialty tier medications on MA-PD plans (30%) compared with PDPs (25%).[52] In 2022, the CMS began allowing plan sponsors to use two specialty tiers (a

d CMS continues to report DUR savings by state in its "Drug Utilization Review Annual Reports." However, the most recent data (from 2023) are no longer summarized in the national report and are only available in each state's individual report. See "Drug Utilization Review Annual Report," Medicaid.gov, May 29, 2025 (https://www.medicaid.gov/medicaid/prescription-drugs/drug-utilization-review/drug-utilization-review-annual-report/index.html, accessed July 20, 2025).

preferred and non-preferred tier) with higher cost-sharing on the non-preferred specialty tier.[53]

Formularies do not apply in the traditional sense to Medicaid. Because of the structure of the Medicaid Drug Rebate Program (MDRP), Medicaid operates on an essentially open formulary, meaning nearly all FDA-approved drugs of manufacturers participating in the MDRP are covered by Medicaid.[54] Further, because cost sharing for Medicaid beneficiaries with income at or below 150% of the federal poverty level is nominal,[55] Medicaid's ability to use copays to steer patients to the most cost-effective therapies is more limited as compared to commercial and Medicare plans.

Instead, states use a PDL, which is a list of outpatient prescription drugs states encourage providers to prescribe over other available alternatives. Though a PDL is not a closed formulary, states use incentives to encourage prescribing from the PDL, such as requiring prior authorization or higher copays for drugs not on the PDL.[56] In 2024, a survey was administered to all 50 states and the District of Columbia (D.C.) to understand how states administer the Medicaid pharmacy benefit, to which 46 states and D.C. responded. The results showed that as of July 2023, 44 states used a PDL in their FFS programs, and 19 states (out of 30 states who responded and who do not carve out the pharmacy benefit) reported requiring Managed Medicaid plans to use the FFS PDL (i.e., they utilize a "uniform" PDL).[57]

Increasing generic utilization is one of the most effective tools for reducing drug costs, and formulary design is key to achieving high generic utilization. The Association for Accessible Medicines (AAM) estimates that generic and biosimilar drugs generated $445 billion in savings in 2021 across the commercial, Medicare Part D, Medicaid, and cash payer classes (see **Section IX. Specialty Drugs and Biosimilars** for more information on biosimilars).[58] Generic and biosimilar prescriptions account for an estimated 90% of prescriptions filled but only 13.1% of prescription drug spending.[59] Plans encourage patients to fill generic by assigning these drugs the lowest cost-share on their formularies. Plans, typically through a PBM, also encourage pharmacies to fill generic whenever possible using maximum allowable cost (MAC) lists. A MAC list specifies reimbursement limits for multiple source drug products.[60] PBMs use MAC lists to ensure all drugs of the same product form and strength (i.e., interchangeable products) are reimbursed at the same rate regardless of the manufacturer's list price, thus encouraging pharmacies to purchase the lowest-cost generic available to them and to dispense generic whenever possible. This, in turn, ensures consumers and health plans do not overpay for generic drugs or for brand drugs with a generic available.

In 2024, 90% of adjusted prescription claims were processed for generic medications. Generic utilization, however, varies widely by medication class. Drug classes with the highest proportion of claims processed for generics include antiulcer agents, antibacterials, vitamins and minerals, prostate medications, allergy medications, corticosteroids, and antigout agents. For each of these classes, IQVIA Institute reports 100% of claims were processed for generics. Immunology (10% of claims), obesity (39%), and diabetes (52%) represent the medication classes with the least generic claims.[61]

Generic utilization also varies by payer type. Cash-paying patients had the highest share of generic utilization, at 97% in 2020,[62] likely reflecting the cost sensitivity of this population and the mix of drugs they can reasonably afford without insurance. In 2020, commercial plans experienced 90.5% generic utilization with Medicare Part D at 89.5%. In Medicaid, managed care plans achieved higher generic utilization than FFS plans (92.5% versus 89.5%).[63]

Generics are not the only component of a well-designed formulary. For drug classes with no generics available, plans may place drugs with the lowest net cost on a more preferred tier. The lowest net cost could be driven by a combination of lower list price and/or higher manufacturer rebates. In the commercial and Medicare Part D space, PBMs typically negotiate with drug manufacturers for rebates on behalf of their health plan clients. In exchange for offering more favorable rebates, a manufacturer's drug is typically placed on a more preferred tier with lower

patient cost-share, thus encouraging higher utilization of that drug over alternatives.[e] These negotiated and statutory rebates made up the majority of $356 billion in manufacturer gross-to-net price reductions in 2024.[64]

A well-designed formulary — one that encourages generic utilization and utilization of the most cost-effective brands where no generic is available — can achieve significant cost savings. A 2023 study reported on the outcomes of incorporating of a value-based formulary (VBF, one that promotes the use of high-value medications and dissuades the use of low-value drugs) for employers.[65] In a young (mean age 36 years) and healthy (66% had no comorbidities) population, instituting a VBF reduced the use of low-value medications and increased the use of high-value specialty drugs.[66] In the year after implementation, total health care costs had decreased by $13 per member per month (PMPM), which was driven by a $14 PMPM reduction in health plan costs and partially offset by a $1 PMPM increase in member OOP costs.[67] No differences were observed with regard to office visits, ED visits, days in the hospital, or total health care spending.[68]

In a separate study from 2021, researchers examined the cost savings achieved by two large, self-insured employers that modified their formularies to reduce wasteful prescription drug spending. Two hundred and ninety-three potentially wasteful drugs were identified, 95% of which (279) were excluded from the original formulary and replaced with less expensive alternatives and 5% of which (14) became subject to prior authorization or step therapy.[69] After these formulary changes were made, annual spending PMPM after rebates across all drugs on each employer's formulary decreased by 9% for one employer and 15% for the other.[70] The 279 drugs ultimately removed from formulary fell into three categories:

(1) 76 multisource drugs (i.e., the wasteful product is a brand with a generic available);
(2) 118 me-too products (i.e., the wasteful drug has minimal differences compared with a lower cost alternative but no major difference in clinical effectiveness); and
(3) 85 same-class drugs (i.e., the wasteful product has a lower cost alternative within the same therapeutic class).[71]

A 2018 report from the Department of Health and Human Services (HHS) examined dispensing of brand name drugs in Part D where generics were available. HHS found that more than 600 brand-name drugs were paid for by Part D plans in 2016 despite the availability of a generic. Had full substitution of multiple source brands (i.e., those with an available generic) occurred, HHS estimates that the Part D program would have saved $2.8 billion in 2016, although the analysis does not account for rebates.[72] HHS' findings suggest further opportunities to maximize generic utilization in Part D through more effective formulary design and incentive alignment.

e Medicaid rebates operate differently. The MDRP sets out a statutory formula for calculating brand and generic rebates through which Medicaid is ensured the lowest net price available. Further, 48 states and the District of Columbia participate in supplemental rebate agreements (SRAs) whereby they receive additional rebates from manufacturers over and above what is federally required. Statutory and supplemental rebates are paid on FFS and managed care utilization. See "Medicaid Pharmacy Supplemental Rebate Agreements (SRA)," Medicaid.gov, March 2025 (https://www.medicaid.gov/medicaid/prescription-drugs/downloads/sra-table.pdf, accessed July 20, 2025).

VIII. Overview of Pharmacy Types and Pharmacy Networks

Pharmacy Types

There are five main types of retail pharmacies in the United States:

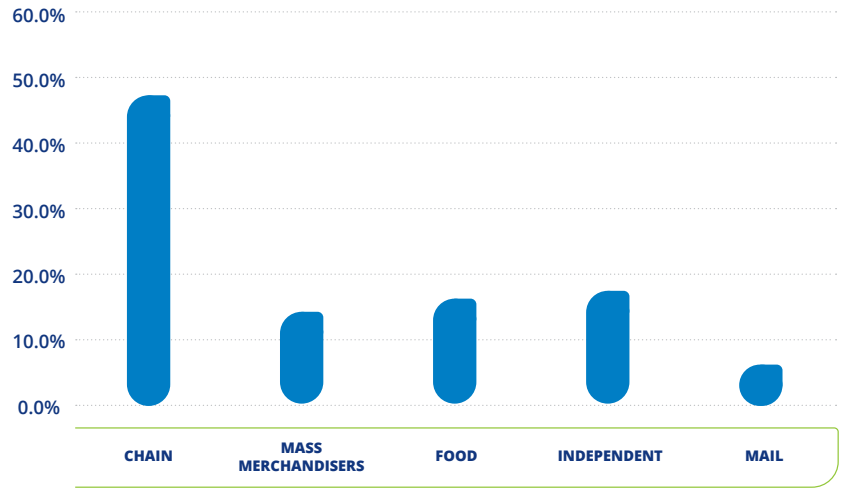
1. Chain pharmacies (e.g., Walgreens, CVS)
2. Mass merchandisers (e.g., Walmart)
3. Food stores (e.g., Kroger, Safeway)
4. Independent pharmacies
5. Mail order pharmacies

Specialty pharmacies are an additional category of retail pharmacy that provides additional services and expertise required to effectively dispense specialty medications and support the care of complex conditions. Specialty pharmacies are commonly owned by PBMs, retail pharmacy chains, health systems, or independent owners.[1]

As the majority of specialty pharmacies dispense medications through the mail, they are considered a part of the "mail order pharmacies" category. However, specialty medication dispensing may also occur through any of the other types of retail pharmacies or through a combination of channels. For example, some specialty pharmacies can have physical locations while others operate exclusively through mail order.

CVS Caremark notes that its specialty pharmacies can be mail order or brick-and-mortar: "[M]ail order pharmacies are used primarily for maintenance medications, while the specialty mail order pharmacies and retail specialty pharmacy stores are used for the delivery of advanced medications to individuals with chronic or genetic diseases and disorders."[2] Specialty pharmacies are accredited by one of two main institutions: URAC and the Accreditation Commission for Health Care (ACHC).[3]

Figure 6: Share of Prescription Volume by Pharmacy Type, 2023



Source: IQVIA Data Request

Note that while mail order pharmacies make up a relatively small portion of retail prescriptions dispensed, they contribute much more to spending due to specialty drug dispensing. A report by McKinsey found that mail order pharmacies made up 10% of prescriptions dispensed in 2021 but 37% of spending.[4] IQVIA's analysis highlights as of June 2022, claims for specialty medications accounted for 83.4% of all mail order pharmacy spending.[5]

Pharmacy Networks

Managed care plans, typically through their contracted PBM, contract with various pharmacies nationwide that together make up the plan's pharmacy network. When a plan member visits one of these in-network pharmacies to fill a prescription, their OOP cost-share is typically lower than it would be if the member filled the same prescription at an out-of-network pharmacy. A plan may not cover the drug at all if the pharmacy is not in-network. In creating a pharmacy network, the PBM seeks a mix of local community pharmacies (i.e., chain, independent, and food stores), specialty pharmacies, and mail order options. When a pharmacy agrees to be a part of a plan's network, it agrees to contracted reimbursement rates negotiated by the PBM.

In order for a pharmacy to participate in a PBM/plan's network, it must meet certain standards set by the PBM related to patient safety as well as requirements set by government agencies.[6] Pharmacies go through an initial credentialing process when they first join a network and renew their credentials typically every three years.[7]

One of the key roles of a PBM is to monitor patients' prescriptions for potential safety issues, including drug interactions. The PBM does this across all network pharmacies even if a patient fills prescriptions at multiple pharmacies.[8] Note that the PBM only has visibility to prescriptions that patients fill using health insurance.

Another key function of a PBM is to perform pharmacy compliance audits on behalf of their plan sponsor clients. These audits may be performed off-site or at the pharmacy, and they help to ensure that the pharmacy is in compliance with the terms of its network agreement. Pharmacy compliance audits may verify that patients received the correct medication and the appropriate dose by comparing the original prescription to the medication dispensed. They are also used to detect potential fraud, waste, and abuse, such as inconsistencies between the quantity of a drug billed to payers and the pharmacy's purchases of that drug from wholesalers. Pharmacy compliance audits thus play an important role in ensuring patient safety and discouraging fraud, waste, and abuse.

There are three main types of pharmacy networks:[9]

(1) Open

An open network design offers plan members access to a broad network of pharmacies. A plan member can go to virtually any pharmacy to fill their prescription and will have the same cost-share regardless of which pharmacy they select. Open network designs are increasingly rare in today's market, as plans seek to control increasing pharmaceutical spending. It is estimated that open networks are offered by approximately 9% of employers and health plans.[10]

(2) Preferred

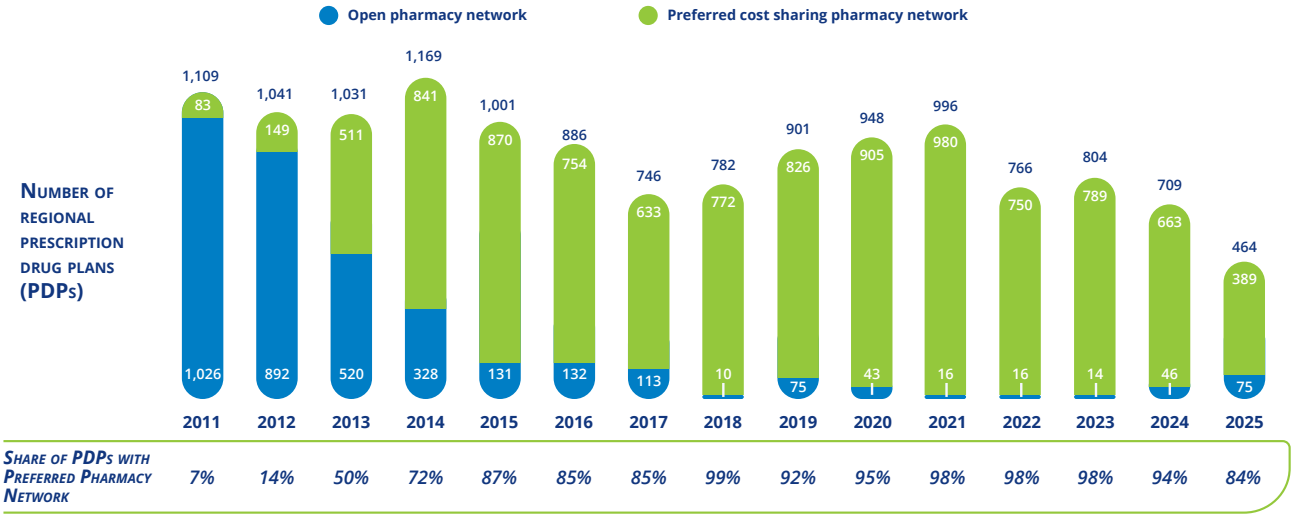
A preferred network design places certain pharmacies within the network on a preferred tier and others on a standard tier. Preferred pharmacies offer plans better prescription drug pricing in exchange for increased volume, which, in turn, allows plans to offer their members a lower cost-share when visiting a preferred pharmacy. Plan members can still go to a non-preferred pharmacy in the network but will face a higher cost-share.

In some cases, plans or their PBMs will enter into risk-sharing arrangements with preferred pharmacies that encourage increased generic utilization rates.[11] Such risk-sharing structures may also incentivize the pharmacy to engage in patient care management. In fact, preferred pharmacy networks may incorporate a pharmacist's patient care services into accountable care arrangements that may help produce better health outcomes at a lower cost.[12]

In the commercial market, 61% of health plans and employers utilize a preferred pharmacy network.[13] Within Medicare Part D, 84% of standalone PDPs had a preferred network in 2025 compared to approximately half of MA-PDs. Among standalone PDP plans, the use of preferred networks has grown significantly over time, as shown in **Figure 7**, but has dropped from 94% in 2024.[14]

Figure 7: Number of Medicare Part D Prescription Drug Plans with Preferred Pharmacy Networks, 2011 - 2025

Since 2011, the share of PDPs with open pharmacy networks has declined significantly in favor of preferred networks.



PDP Prescription Drug Plan

Sources: Drug Channels Institute analysis of Centers for Medicare & Medicaid Services data; Kaiser Family Foundation. Figures exclude: employer-sponsored plans; plans from U.S. territories and possessions; employer/union-only group plans; and Medicare Advantage plans.

Published on Drug Channels (www.DrugChannels.net) on November 13, 2024.

A limited network design, sometimes also referred to as a "narrow" network, is made up of select pharmacies that offer the plan deeper discounts. Members can visit any pharmacy in the limited network and will have the same cost-share. This network design includes fewer pharmacies than a preferred or open network. Approximately 47% of health plans and 23% of employers report using a limited network.[15]

PBMs work with their clients to provide a variety of network management options, taking into account such variables as membership size, geographic area, and financial and clinical goals.[16] When deciding on the type of network to offer to members, a plan must balance the cost savings that may be derived from the use of narrower networks with the need to provide members with robust, convenient access to pharmacies.

Cost Savings Achieved Through Carefully Designed Pharmacy Networks and Other Plan Design Strategies

Numerous studies support the cost savings derived from preferred and limited networks. In 2019, the PBM Navitus found that its plan sponsors saved an average of 3-5% on annual retail drug spend when they participated in its narrow network.[17] The PBM Elixir (now a part of MedImpact) found that one of its health plan clients saved 9.6% on drug spend when it switched from a broad to a narrow network.[18] A 2013 study by Milliman estimated that preferred pharmacy networks would reduce Medicare spending by $870 million in 2014.[19] In 2014, in response to CMS proposed rules that would have limited Part D plans' ability to construct preferred pharmacy networks, the Federal Trade Commission issued a letter to CMS stating, "Evidence suggests that prescription drug prices are likely to rise if Prescription Drug Plans ("PDPs") are less able to assemble selective pharmacy networks."[20]

Further, managed care plans seek to derive savings on prescription drugs through (1) use of mail order pharmacies and (2) use of 90-days' supply prescriptions (rather than 30-days' supply) filled at community pharmacies.

Nearly all (93%) of payers allow beneficiaries to fill their prescriptions with mail-order pharmacies.[21] A voluntary design is used more commonly by health plans (85%) compared with small employers (75%) and large employers (53%). Large employers are most likely to require use of mail order pharmacies — 25% have a mandatory mail order design for all medications and 22% for some medications. Health plans institute mandates less frequently — only 8% mandate mail order for all medications, and another 8% require mail order for some medications. [22]

An analysis was conducted for this report to determine cost savings for mail order for both commercial and Medicare plans for 15 of the most commonly dispensed brand and generic drugs (measured by days' supply). See **Supplementary Appendix C** for additional details on the methodology. Compared to retail pharmacy dispensing, average total savings for brand medications dispensed through mail order on the commercial benefit were 1% (with 14 out of 15 drugs exhibiting savings) and patient savings averaged 13% (with 13 out of 15 drugs exhibiting savings for the patient). For generic medications on the commercial benefit, total savings were 38% (with 13 out of 15 drugs exhibiting savings), and patient savings averaged 22% (with 14 out of 15 drugs exhibiting savings for the patient). For brand medications reimbursed by Medicare, average total savings at mail order were 2% and patient savings averaged 12% (with 14 out of 15 drugs exhibiting savings in both cases). An anomaly in the data precluded reporting on mail order savings for generic drugs reimbursed by Medicare. See **Figure 8** below.

Payers may also limit where beneficiaries can fill 90-day supplies of their medications. This can be used in addition to an existing pharmacy network to further consolidate prescription fills to pharmacies with favorable contract terms. In 2025, 37% of payers limited 90-day supplies to be filled at only one or two major pharmacy chains.[23] This strategy was used most commonly by large employers (53%) and less by smaller employers (30%) and health plans (27%).[24]

Regardless of the retail channel, increasing the amount of medication patients receive at each fill has the potential to reduce costs. An analysis was conducted for this report

Figure 8. Mail Order 90-Days' Supply Savings Relative to Community Pharmacy 90-Days' Supply

Source: 1) Proprietary BRG analysis of MarketScan commercial claims data. Merative MarketScan Research Databases, TM. All rights reserved. 2) Chronic Conditions Data Warehouse. Centers for Medicare & Medicaid Services.

to assess cost savings of 90-days' supply prescriptions at community pharmacies (see **Supplementary Appendix C** for additional details on the methodology). Compared to 30-day supplies, total savings from 90-days' supplies for brand medications reimbursed by commercial payers averaged 9% and patient savings averaged 32% (with 15 out of 15 drugs exhibiting both total savings and patient savings); for generic medications, average total savings were 18% and average patient savings were 23% (with 15 out of 15 drugs exhibiting savings in both cases). For Medicare, brand name savings for 90-days' supplies were 2% (with 15 out of 15 drugs exhibiting savings) and patient savings averaged 7% (with 12 out of 15 drugs exhibiting savings for the patient); for generic medications, average total savings were 19% and average patient savings were 30% (with 15 out of 15 drugs exhibiting savings in both instances). See **Figure 9**.

Additionally, numerous studies have shown improved medication adherence when patients receive their medications for chronic conditions, such as cholesterol or diabetes, in a 90-days' supply. For this report, an analysis was conducted to assess the impact of dispensing channel (community or mail) and increased days' supply (90-days' supplies or 30-days' supplies) on medication adherence, specifically for statin or statin combination prescriptions (see **Supplementary Appendix C** for additional details on the methodology). In this analysis, the mail order patient group had the highest therapy adherence, as measured by a PDC of 80% or more, followed by the community pharmacy 90-days' supply group, followed by the community pharmacy 30-days' supply group. See **Figure 10**. Managed care pharmacy strategies that emphasize 90-day prescriptions for maintenance therapies result in more patients reaching the generally accepted 80% threshold for adherence.

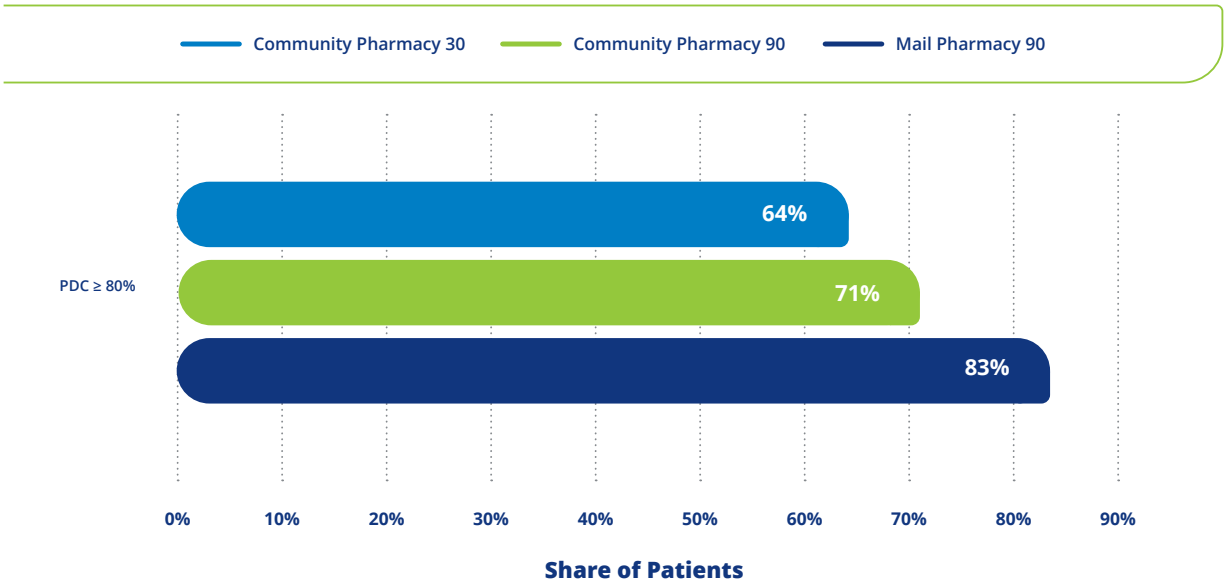
Appendix C

SCAN ME

Figure 9. Community Pharmacy 90-Days' Supply Savings Relative to 30-Days' Supply

Source: 1) Proprietary BRG analysis of MarketScan commercial claims data. Merative MarketScan Research Databases, TM. All rights reserved. 2) Chronic Conditions Data Warehouse. Centers for Medicare & Medicaid Services.

Figure 10: Comparison of Medication Adherence to Statin Therapies Amongst Community 30, Community 90, and Mail Patients



Source: Proprietary BRG analysis of MarketScan commercial claims data. Merative MarketScan Research Databases, TM. All rights reserved.

IX. Specialty Drugs and Biosimilars

The term "specialty" is commonly used to refer to medications that are dispensed through a specialty pharmacy. However, it may also refer to medications that are placed on the specialty tier of a health plan or PBM's pharmacy benefit formulary. This is an important distinction as not all medications dispensed from specialty pharmacies are covered on the specialty tier of a formulary (e.g., some may be placed on lower tiers, some formularies may not have specialty tiers). Similarly, not all medications on the specialty tier of a formulary are required by the health plan or PBM (e.g., through a limited network) or by the pharmaceutical manufacturer (e.g., through a limited distribution model) to be dispensed by a specialty pharmacy.

Specialty Drug Characteristics

There is no widely accepted definition of what would definitively categorize a medication as a specialty drug, though certain characteristics are commonly cited. These include medications that:[1]

- Are expensive;
- Are used for rare, complex, or chronic conditions;
- Require special storage, handling, and shipping;
- Require specialized administration by a clinician; and
- Are dispensed through a specialty pharmacy rather than a traditional retail pharmacy given the need for additional patient care requirements.

Just as the characteristics of specialty medications are not universal, there is no commonly accepted threshold of how expensive a medication must be in order to be considered a specialty drug. The most well-established cutoff is set by CMS for the Medicare Part D benefit. For 2026, any drug with a 30-day equivalent ingredient cost of over $950 may be added to the specialty tier of a Medicare formulary.[2] This threshold does not apply to other lines of business apart from Medicare.

Specialty medications contribute disproportionately to drug spending, as they are estimated to account for 54% of drug spending despite treating only about 3% of patients.[3,4] In 2022, plan spending per beneficiary per year on specialty medications was $38,000 on average, compared with $492 for non-specialty medications.[5]

Biosimilars

One additional common characteristic of specialty medications is that they may be large biologic molecules that come from living sources.[6] Unlike traditional small drug compounds, the complexity of the structure of these medications and the fact that they are derived from living organisms makes them impossible to replicate exactly.[7] Instead, manufacturers can develop biosimilars — products that are highly similar to the reference product (the original biologic) with no clinically meaningful differences in safety, purity, and potency.[8]

The first biosimilar was approved by the FDA in March 2015, and since that point, a total of 72 biosimilars have received FDA approval for 23 reference products.[9] **Figure 11** below highlights the number of approved biosimilars by year. As of July 1, 2025, 55 of these products have launched on the U.S. market.[10] An additional 118 biologic patents are anticipated to expire over the next decade, opening the door for significant biosimilar opportunity, though biosimilars are in development for only 10% of these products.[11]

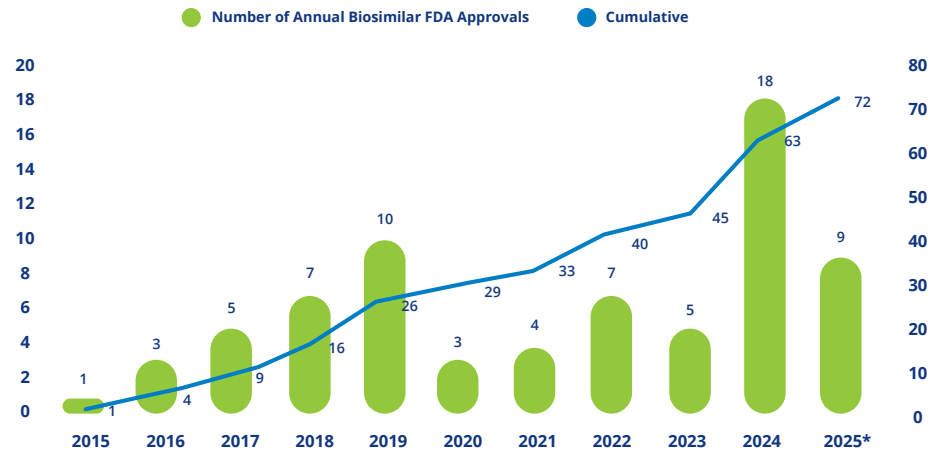
Uptake of biosimilars has historically been slower than anticipated due to a variety of barriers.[12] Overall, biosimilars have a 24% market share in the spaces in which they compete, though this varies significantly between medications (range 8% to 82%).[13] Some potential reasons for limited uptake include economic factors, like complex reimbursement considerations (e.g., plan sponsor preference for high-list-price, high-rebate products,[14] lack of rebates for biosimilars, PBM private label agreements)[15] and non-economic factors, including complicated naming conventions, provider knowledge gaps, and provider safety concerns.[16]

Finally, a lack of interchangeability and inconsistent state laws regarding substitution may play a role in slowing uptake as well. Unlike traditional generic medications that can be substituted without prescriber intervention, biosimilars are not automatically interchangeable upon FDA approval. To date, only one-third of the FDA-approved biosimilars have received interchangeability status.[17] Additionally, pharmacists may substitute interchangeable biosimilars for their reference products without the need to consult a prescriber, depending on state pharmacy laws.[18] Each state may differ in how it defines "interchangeable," which products may be considered for substitution (e.g., biosimilar substitution may only be permitted in some states if it results in a lower cost for the patient), and communication requirements for the prescriber and the patient.[19]

Despite these barriers, biosimilars have saved the health care system $36 billion through the end of 2023, one-third of which was realized that year.[20] With over $230 billion in new biosimilar market share set to become available in the next decade due to patent expirations on existing biologics, the future is promising for the biosimilar market.[21]

Figure 11: Biosimilar Approvals by Year

Biosimilar approvals have steadily increased since 2015, with 72 products approved for 23 reference biologics — though only 55 have launched as of mid-2025.



*Through July 15, 2025

Source: "Biosimilar Product Information," FDA, July 15, 2025 (https://www.fda.gov/drugs/biosimilars/biosimilar-product-information, accessed July 16, 2025).

X. Overview of the Medical vs. the Pharmacy Benefit

Explanation of Each Benefit

There are two main benefits that cover health care services – the medical benefit and the pharmacy benefit. Medical benefits cover numerous aspects of care, including physician office visits, hospital stays, laboratory testing, surgery, vaccines, and much more. Broadly speaking, pharmacy benefits cover prescription (and sometimes over-the-counter) medications and certain vaccines. Medications may also be covered under the medical benefit in certain circumstances, as discussed in further detail below.

Depending on a beneficiary's plan design, there may be a single deductible toward which both medical and pharmacy spending accrues, or the two benefits may have standalone deductibles that must be separately satisfied. There are also typically distinct member cost sharing arrangements under medical versus pharmacy benefits.

In many cases, a patient's medical benefit and pharmacy benefit are administered by entirely different companies. As additional consolidation occurs in the health care supply chain — particularly as large health plans become aligned with PBMs — the two benefits may be administered by increasingly integrated health care companies.

Prescription Drugs: Medical or Pharmacy Benefit?

While plan members may associate outpatient prescription drugs with the pharmacy benefit, many drugs are covered under a plan's medical benefit. Generally speaking, self-administered drugs (e.g., self-injectables and oral medications) are covered under the pharmacy benefit. Certain drugs — usually infusion therapies administered intravenously by a health care professional in a clinical setting — may be covered under a plan's medical benefit rather than its pharmacy benefit depending on the plan's design and the setting of administration.[1] In fact, some plans may cover the same drug under both the medical and pharmacy benefit.[2] Typically drugs covered under both benefits are expensive specialty medications (see **Section IX. Specialty Drugs and Biosimilars** for more information on specialty medications).

Drugs covered under the medical benefit are typically acquired by the provider and billed to the insurance company (so called "buy-and-bill") along with a separate bill to cover the administration of the drug.[3] Under the "buy-and-bill" structure, when a drug is administered in the hospital setting (as opposed to a physician-office), the markups charged to payers can be as high as 200 to 300% of the base price of the drug.[4] Researchers focused on cancer therapies in one study found that median price markups above hospital acquisition costs ranged from

118% to 634% depending on the therapy analyzed.[5]

Given that specialty therapies can cost hundreds of thousands of dollars per patient annually, such markups — particularly those in the hospital setting — contribute substantially to health care spending and put upward pressure on insurance premiums.[6] As a result, payers are increasingly looking for ways to control this trend. For example, while formularies have historically been less commonly used to manage the medical benefit, 72% of payers report utilizing a medical benefit formulary in 2024.[7] Another strategy involves shifting the reimbursement of specialty drugs, including provider-administered medications to the pharmacy benefit.[8]

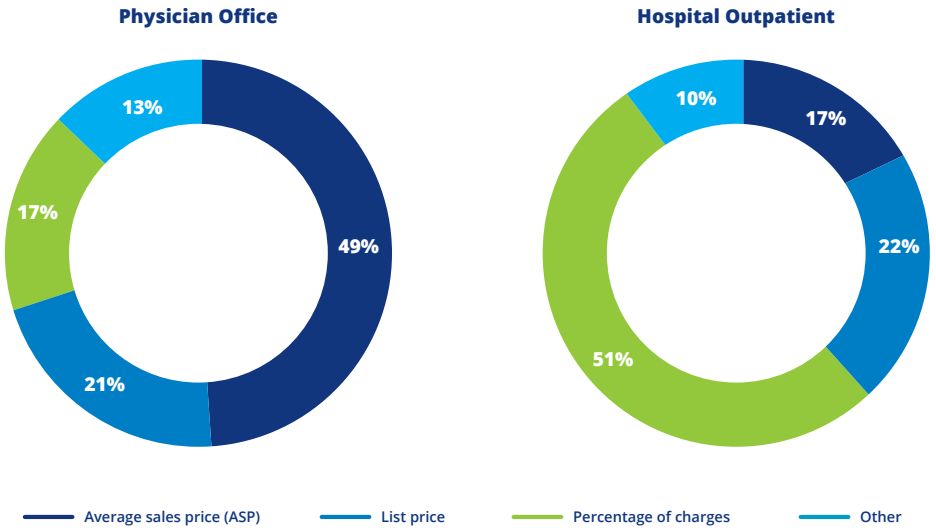
Drugs covered under the pharmacy benefit are typically dispensed to patients through a pharmacy. The pharmacy submits a claim to the patient's PBM for the drug cost plus a dispensing fee to cover the pharmacy's services. Reimbursement on the pharmacy benefit tends to be lower than that on the medical benefit. One analysis conducted by AHIP found that, on average, hospitals were reimbursed over twice as much for the same drugs as compared to specialty pharmacies, and that physician offices were reimbursed 23% more on average as compared to specialty pharmacies.[9]

The significant differences in cost for specialty drugs driven by site of care [specialty pharmacy versus physician office versus hospital outpatient department (HOPD)] can be attributed, at least in part, to the method of reimbursement utilized in each setting. In 2018, Drug Channels analyzed commercial reimbursement methods for provider-administered drugs by site of care (physician office and HOPD) and found that a much higher proportion of plans reimbursed HOPDs based on a percentage of charges.[10] See **Figure 12**. Since hospitals set their own charges and charges are often not tied to specific reference prices or acquisition costs, reimbursement set at a percentage of charges can create a significant markup.

As part of this report, BRG analyzed reimbursement for three physician-administered drugs including Prolia, Entyvio, and Ocrevus. See **Supplementary Appendix C**

Figure 12: Reimbursement Methods for Provider-Administered Drugs Paid Under the Commercial Medical Benefit, by Site of Care, 2017

Hospital outpatient departments (HOPD) are more likely to be reimbursed under a higher-cost "percentage of charges" arrangement than other sites of care.



Source: Drug Channels Institute analysis of EMD Serono Specialty Digest, 14th edition, 2018. Other reimbursement models include capitated payments and a combination of methods. List price includes reimbursement based on Average Wholesale Price (AWP) and Wholesale Acquisition Cost (WAC). Physician office figures show reimbursement method for oncologist offices.

Published on Drug Channels (**www.DrugChannels.net**) on August 8, 2018.

for additional details on the methodology of the analysis. Findings confirmed that HOPDs were reimbursed significantly more than pharmacies for the same medications, while physician offices received somewhat higher reimbursement for certain drugs. See **Figure 13**.

For all three drugs analyzed, significantly higher costs to plan sponsors were found in the HOPD setting relative to the pharmacy setting (72% higher for Ocrevus, 65% higher for Entyvio, and 69% higher for Prolia). The difference in cost to plan sponsors when these drugs were administered in an office setting was less pronounced and varied by drug. Ocrevus and Prolia were 12% and 2% more expensive in the physician office setting than the pharmacy setting, respectively, whereas Entyvio was slightly less expensive in the physician office setting (0.2% less compared with the pharmacy setting).

In response to such markups on provider-administered drugs — particularly in the HOPD setting — payers continue to direct specialty claims to the pharmacy benefit, resulting in 65% of specialty medications being paid for under the pharmacy benefit as of 2022.[11] As health plans continue to look to shift cost away from the "buy-and-bill" model due to significant cost savings, it is anticipated that this trend will likely continue.[12]

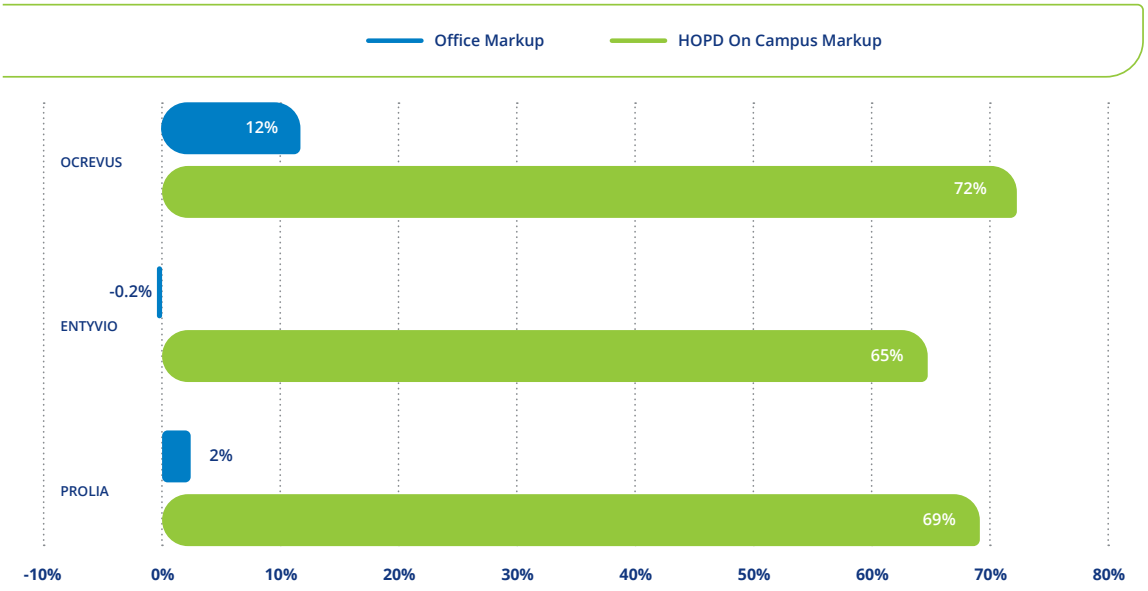
Payers have utilized two primary strategies in recent years to shift claims to the pharmacy benefit. These include "bagging" policies and "site of service" requirements.

Bagging Policies

There are various forms of bagging policies, including white bagging, brown bagging, and gold bagging (previously referred to as clear bagging). An explanation of each policy is described in **Figure 14**.

By sourcing the drug through a specialty pharmacy, "bagging" policies — particularly white and brown bagging — seek to capitalize on the negotiating leverage of PBMs and large specialty pharmacies, which can often obtain drugs at lower costs. Moving coverage of the drug to the pharmacy benefit also enables payers to implement traditional utilization management tools — such as tiered

Figure 13: Average Markup for Drugs Administered in HOPDs and Physician Offices Relative to Pharmacies: Commercial Lives, 2022



Source: Proprietary BRG analysis of MarketScan commercial claims data. Merative MarketScan Research Databases, TM. All rights reserved.

Figure 14. "Bagging" Policy Definitions.

POLICY	DESCRIPTION
White bagging	Drug is delivered to the provider by a specialty pharmacy.
Brown bagging	Drug is delivered to the patient by a specialty pharmacy; patient then transports the medication to the provider for administration.
Clear/gold bagging	Drug is sourced from the hospital's internal specialty pharmacy, which dispenses the drug and delivers it to the site of service. Clear bagging thus serves as a provider strategy to offer an alternative to white bagging and brown bagging, thereby retaining the revenue associated with specialty drug delivery.

Source: Caroline Pearson, Lindsey Schapiro, Steven Pearson, "White Bagging, Brown Bagging, and Site of Service Policies: Best Practices in Addressing Provider Markup in the Commercial Insurance Market," ICER, April 19th 2023, p. 11-12 (https://icer.org/wp-content/uploads/2023/04/ICER-White-Paper-_-White-Bagging-Brown-Bagging-and-Site-of-Service-Policies.pdf, accessed July 20, 2025); "White and Brown Bagging Emerging Practices, Emerging Regulation," The National Association of Boards of Pharmacy, April 2018 (https://nabp.pharmacy/wp-content/uploads/2018/04/White-Bagging-and-Brown-Bagging-Report-2018_Final-1.pdf, accessed July 20, 2025).

formularies, prior authorization, and step therapy — all of which are less common and more difficult to apply under the medical benefit.[13] Shifting utilization to the pharmacy benefit may also afford greater access to manufacturer rebates, which can further reduce drug costs.[14] In addition, white bagging encourages collaboration between MCOs and specialty pharmacies to promote integrated patient care.[15]

These policies have faced criticism by hospital groups and patients who claim that such policies hinder patient safety and create administrative burdens for providers. Critics of the policy cite shipping delays that may lead to treatment delays, potential drug waste, and the need for providers to accept delivery of and then properly store medications on a patient's behalf until treatment. For example, a study by Avalere specifically examined drug waste that can occur as a result of hospitals having to discard product in cases where a patient's treatment changes or there are dosing changes related to weight or treatment tolerance.[16] Avalere conducted a survey of non-hospital infusion providers ranging in size from smaller community practices to multi-site systems. Its survey respondents reported average waste associated with white bagging ranging from $35,000 to $652,000 per site per year, in what they describe as costs borne primarily by payers.[17]

While cost savings can be achieved by utilizing a specialty pharmacy for drug acquisition, it is still beneficial for PBMs and plans to monitor their bagging policies to ensure the needs of various stakeholders are met and to measure any unintended increases in costs. AMCP acknowledges these challenges, stating, "To fully capitalize on bagging procedures' advantages, a harmonious balance between their advantages and difficulties is required."[18]

The Indiana Department of Health, in a report on specialty drug management, offers certain best practice guidelines that plans and PBMs may consider as they implement their bagging policies.[19] These include:

- Plans can consider site-neutral reimbursement as an alternative to white/brown bagging.
- Plans should have a robust exception policy in place to allow patients to access medications through buy-and-bill when certain unforeseen circumstances arise, such as dose changes or weather-related emergencies.
- Plans should review the specialty drugs that are subject to bagging with their P&T Committees and obtain pharmacist input on the appropriateness of

bagging for their selected therapies.

- Plans should monitor the specialty pharmacies that deliver white- or brown-bagged drugs to ensure they are performing adequately. Plans may monitor member or provider complaints, turnaround times, and the number of expedited exceptions.
- Plans should provide frequent and thorough communication to patients about bagging policies.

Site of Service Policies

The second primary strategy payers have adopted involves requirements on the site of service where a patient receives their physician-administered medication. Such policies seek to transition patients from hospital outpatient settings toward lower-cost sites (e.g., provider's office, standalone infusion center, or at home).[20] Since markups for drugs processed under the medical benefit can vary significantly by site of service, these policies are intended to require patients to receive their drug administration in a setting with lower markups. For example, researchers examined 2019 claims data pertaining to numerous Blue Cross Blue Shield plans for 38 of the most commonly infused cancer drugs.[21] They found that the prices paid by Blue Cross Blue Shield plans when these drugs were administered in a hospital outpatient department setting were up to double (99%-104% higher) the cost of the same drugs administered in physicians' offices. The researchers concluded that had these plans excluded HOPDs from their networks and instead required patients to receive their infusion in a physician office, they would have saved $1.28 billion per year or 26% of what they actually paid.[22] **Figure 15** describes each site of service.

BRG's analysis of the cost of Prolia, Entyvio, and Ocrevus demonstrates why these site of service policies can help health plans save significantly on drug spend. The HOPD setting was 65% more expensive than the physician office setting for Prolia and Entyvio and 54% more expensive for Ocrevus.

In 2024, a site of care strategy was used by over one-third of payers, more commonly health plans (47%) than employers (32%). Of these payers, nearly half (47%) are considering expanding them and another quarter (24%) are unsure. Finally, 20% of payers who do not currently have a site of care strategy in place are considering

Figure 15. Site of Service Categories and Definitions

SITE OF SERVICE	DESCRIPTION
Physician office	An independent clinic that is owned by a physician, equipped with capability to provide routine diagnostic and therapeutic services including administering infusion-based drugs
Hospital-based outpatient department (HOPD)	An HOPD is owned by and usually attached to a hospital. Services such as imaging and laboratory tests are provided at HOPD
Infusion center	An infusion center is an outpatient clinic where infusion therapy is administered. The cost of infusion therapy to a payer is typically less at an infusion center compared to physician office or HOPD
Home infusion	When a clinician provides an infusion at the home of a patient

Source: Pearson Caroline Pearson, Lindsey Schapiro, Steven Pearson, "White Bagging, Brown Bagging, and Site of Service Policies: Best Practices in Addressing Provider Markup in the Commercial Insurance Market," ICER, April 19th 2023, p. 12 (https://icer.org/wp-content/uploads/2023/04/ICER-White-Paper-_-White-Bagging-Brown-Bagging-and-Site-of-Service-Policies.pdf, accessed July 20, 2025).

XI. Current Trends in Managed Care

Managed Care Pharmacy Workforce

Understanding the managed care pharmacy workforce is a priority for AMCP. As with other specialized fields, managed care is not well recognized in national datasets. For instance, the U.S. Bureau of Labor Statistics (BLS) Standard Occupational Classification Manual, which defines occupational classifications across industries, states that pharmacists "dispense drugs prescribed by physicians and other health practitioners and provide information to patients about medications and their use. May advise physicians and other health practitioners on the selection, dosage, interactions, and side effects of medications."[1] This narrow definition clearly does not effectively capture the variety of roles of managed care pharmacists, and the impact managed care pharmacists have on their patients.

Additionally, managed care has traditionally been underrepresented in workforce surveys. For example, the 2024 National Pharmacists Workforce Study (NPWS) received a total of 108 responses from managed care pharmacists, representing only 2.7% of the total respondents who were practicing as a pharmacist or in a health care setting.[2] For this reason, most managed care workforce data are reported in aggregate with other unrelated specialized fields.

To address this data gap, AMCP conducted a targeted survey on the managed care pharmacy workforce. We received 301 qualified responses, primarily from pharmacists working within health plans (43.3%), followed by PBMs (21.6%) and pharmaceutical manufacturers (14.3%). The survey focused on three key areas — role and organization descriptions, compensation, and workplace satisfaction and burnout.

Unlike other pharmacy workforce surveys that tend to be industry agnostic, questions specific to health plans/PBMs were included to better clarify the type of work pharmacists in these settings do. For example, we identified that the most common primary roles of health plan/PBM pharmacists are in the areas of "Clinical Programs & Services" (24.1% of respondents), followed by "Formulary/Drug Use Management" (19.0%) and "Account Management/Client Services/Sales." "Utilization Management/Prior Authorization" was the most common secondary function (56.4%).

Salary trends in the study were consistent with the findings from the 2024 NPWS. The largest proportion of respondents in our survey reported their salary range to be between $140,000 and $160,000. This matches the findings of the 2024 NPWS which found that managed care/PBM pharmacists reported an average salary of $156,381, higher than the average community pharmacist's salary of $134,950.[3]

Additionally, consistent with the findings of the 2024 NPWS, we identified high levels of professional fulfillment and low levels of work exhaustion and interpersonal disengagement within the managed care workforce. For example, more than half of respondents (53.6%) selected "Very True" or "Completely True" when provided the statement, "I feel happy at work." This compares to only 25.7% from the 2022 NPWS, in which the same question was asked.[4] This also aligns with the findings of the 2024 NPWS, in which 82.4% of managed care/PBM pharmacists reported being "somewhat" or "very satisfied" with their job compared with 70.8% of all licensed pharmacists.[5]

You can view the full report by visiting **amcp.org**.

Artificial Intelligence

Artificial intelligence (AI) is a dynamic and fast-progressing technology with the potential to support core functions in managed care pharmacy by boosting operational efficiency, streamlining clinical decision-making, and optimizing the use of limited health care resources. AI applications such as automated prior authorization, predictive modeling for medication adherence, and formulary decision support are being progressively evaluated for their ability to support improved access, increase affordability, and drive better outcomes. For example, PBMs and health plans are piloting AI tools to synthesize evidence and generate insights that support timelier, data-driven formulary updates.[6,7] In randomized clinical trials, AI-based tools improved medication adherence by 6.7% to 32.7% compared to any intervention controls and current practices, respectively.[8] As these capabilities develop, MCOs must remain mindful that AI systems are only as effective and equitable as the data they rely on and the assumptions they encode. An important consideration in the adoption of AI tools is to bring in staff early on and provide robust training to support change management.

As AI becomes increasingly embedded in a multitude of processes throughout managed care pharmacy, the importance of robust governance frameworks centered on transparency, privacy, bias mitigation, and regulatory compliance becomes more evident. The ability of AI to produce explainable, uniform, and clinically appropriate recommendations across diverse patient populations is key to preserving patient trust and ensuring quality outcomes. Stakeholders have emphasized the ethical imperative to monitor, evaluate, and regulate AI tools as part of a broader strategy to prevent inequities and ensure accountable, patient-centered care.[9,10] Decision-making processes and data integrity will require a human interface and review for the foreseeable future.

Precision Medicine

The goal of precision medicine is to ensure the right patient receives the right medication at the right dose and at the right time.[11] Unfortunately, however, research shows that many gaps remain, particularly in precision oncology. One study identified that only 35.6% of newly diagnosed patients with advanced non-small-cell lung cancer who are eligible for precision oncology treatment actually receive appropriate treatment.[12] Delays in receiving timely targeted therapies can have dire consequences for patients.[13]

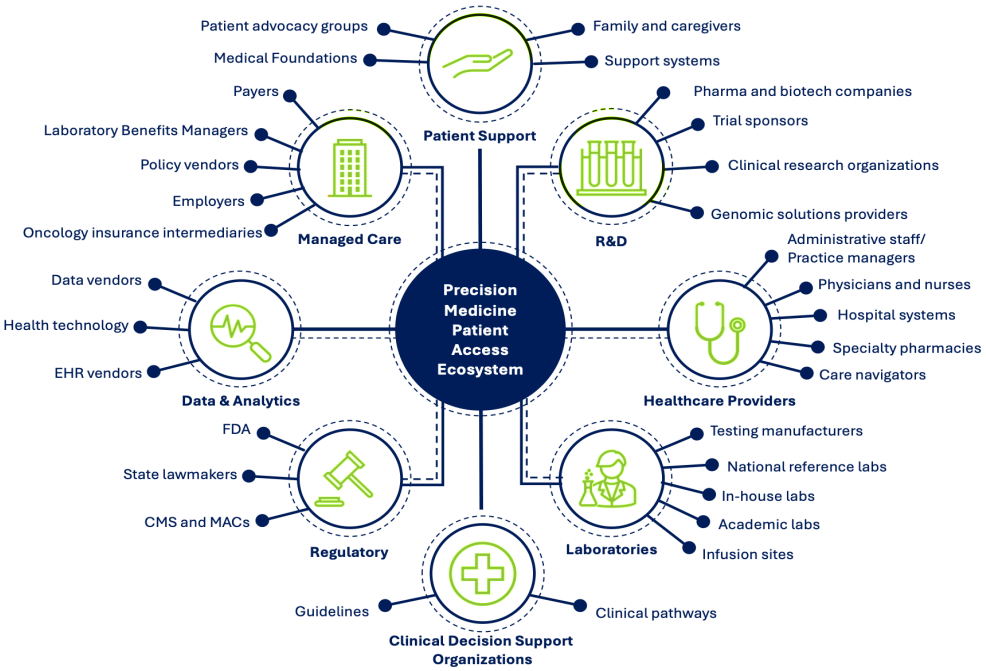
Over 60% of oncology approvals over the past five years were precision medicine therapies[14] and the precision medicine market is expected to reach nearly $470 billion by 2034.[15] Still, it remains under the radar. In the recent AMCP Foundation Trends Report, precision medicine received only approximately 3% of responses when payers were asked to select their top three issues that will affect their organizations within the next five years.[16]

To address this important, growing space, in June 2025, AMCP hosted a multi-stakeholder Partnership Forum that brought together experts from various fields, including patients, payers, PBMs, drug and biomarker test manufacturers, providers, pathologists, laboratory benefit managers, and leaders from advocacy organizations, coalitions, and professional associations. The forum highlighted the complexity of the precision medicine ecosystem (all the entities involved in ensuring that

patients receive appropriate and timely care, see **Figure 16**). Stakeholders shared insights on numerous topics, including the patient journey, aligning payer policy with clinical guidelines ("guideline concordance"), approaching a consensus definition of clinical utility, reflex ("pathologist-initiated") biomarker testing, and how systematic changes and cross-functional collaboration are needed to improve access and outcomes.[17]

For more information, visit **www.amcp.org/precision-medicine**.

Figure 16. The Precision Medicine Ecosystem



Source: Valuate Health Consultancy.

XII. Conclusion

Managed care pharmacy tools play an important role in improving clinical outcomes, ensuring the appropriate use of medications and containing rising costs. Through MTM and DUR, pharmacists can discover and help resolve medication-related issues or identify patients who would benefit from adding (or removing) certain medications from their drug regimens. Such interventions can help reduce adverse events or unnecessary hospitalizations, which are an undesired clinical outcome and a contributor to avoidable health care spending.

Prior authorization and step therapy programs seek to achieve evidence-based use of medications and to avoid unnecessarily costly medication when appropriate alternatives exist. Though opportunities exist to reduce the administrative burden of these protocols on clinical staff, these opportunities remain an important tool in containing rising drug spending. A well-designed formulary also plays a key role in providing patients with access to appropriate medications while encouraging utilization of cost-effective products. Likewise, development of pharmacy networks that balance access to conveniently located pharmacies while allowing health plans to reduce spending on prescription drugs is an important component of managed care pharmacy's strategies to contain rising drug spending. Lastly, use of white/brown bagging and site of service policies can significantly reduce plan spending on specialty medications.

Prescription drug spending in the United States is forecasted to grow in the coming years. This growth will be driven by the continued emergence of innovative, potentially life-changing therapies, but many of those will come with a high cost. Managed care pharmacy's role is to ensure those costs are reasonably contained while ensuring patients can access critical therapies. Managed care pharmacy tools play a key role in achieving the balance between access and cost.

Appendix A. Medical Health Insurance Coverage by State, 2023 (Numbers)

	PRIVATE		PUBLIC					
LOCATION	EMPLOYER [1]	NON-GROUP [1]	MEDICAID [1]	MEDICARE [1]	MILITARY [1]	UNINSURED [1]	TOTAL [1]	MARKETPLACE [2] (NUMBERS IN THOUSANDS)
	NUMBERS IN THOUSANDS							
United States	158,392	20,351	69,279	47,915	4,316	25,826	326,079	16,357
Alabama	2,291	306	1,023	805	103	417	4,945	258
Alaska	307	38	161	80	41	73	701	26
Arizona	3,379	383	1,483	1,193	101	714	7,253	235
Arkansas	1,261	170	751	475	44	273	2,974	100
California	17,932	2,510	10,360	4,591	311	2,435	38,138	1,739
Colorado	2,988	390	1,072	778	115	383	5,725	202
Connecticut	1,804	175	799	519	22	196	3,515	108
Delaware	480	42	217	187	8	68	1,003	35
District of Columbia	380	28	163	52	5	18	646	15
Florida	8,946	2,457	3,907	3,997	411	2,358	22,076	3,225
Georgia	5,084	785	2,017	1,379	236	1,220	10,720	879
Hawaii	683	65	287	232	61	38	1,366	22
Idaho	925	132	350	301	29	173	1,910	80
Illinois	6,610	617	2,394	1,805	75	753	12,253	343
Indiana	3,456	317	1,389	998	54	451	6,664	185
Iowa	1,641	152	636	497	24	157	3,106	83
Kansas	1,517	181	408	440	52	238	2,836	124
Kentucky	2,025	156	1,227	684	55	248	4,394	63
Louisiana	1,812	199	1,428	630	53	309	4,431	121
Maine	629	84	290	255	16	82	1,356	63
Maryland	3,241	340	1,137	819	96	381	6,015	182
Massachusetts	3,701	360	1,596	913	28	178	6,776	233
Michigan	4,892	481	2,352	1,612	51	433	9,822	322
Minnesota	3,170	287	1,027	868	38	225	5,615	118
Mississippi	1,211	185	665	424	52	296	2,834	183
Missouri	3,085	320	1,062	1,017	82	450	6,016	258
Montana	463	86	239	200	24	94	1,106	54
Nebraska	1,020	144	324	286	29	122	1,925	101
Nevada	1,467	174	648	465	51	335	3,140	96
New Hampshire	754	93	183	258	12	62	1,361	55
New Jersey	4,930	516	1,706	1,290	30	653	9,124	342
New Mexico	714	86	707	336	35	185	2,062	41
New York	8,945	1,042	5,478	2,594	68	921	19,048	214
North Carolina	4,874	754	2,002	1,637	251	965	10,483	801
North Dakota	429	57	95	113	20	31	745	34
Ohio	5,847	502	2,453	1,870	95	698	11,465	295
Oklahoma	1,694	214	890	597	78	445	3,918	203
Oregon	2,001	230	987	677	34	226	4,156	142

	PRIVATE		PUBLIC					
LOCATION	EMPLOYER [1]	NON-GROUP [1]	MEDICAID [1]	MEDICARE [1]	MILITARY [1]	UNINSURED [1]	TOTAL [1]	MARKETPLACE [2] (NUMBERS IN THOUSANDS)
	NUMBERS IN THOUSANDS							
Pennsylvania	6,296	661	2,684	2,129	80	678	12,528	372
Rhode Island	534	60	238	165	9	47	1,052	30
South Carolina	2,309	369	1,037	896	127	469	5,205	383
South Dakota	457	68	131	138	19	76	889	48
Tennessee	3,271	465	1,383	1,075	114	644	6,952	348
Texas	14,112	2,104	4,812	3,391	506	4,870	29,796	2,411
Utah	2,027	308	381	350	33	259	3,358	295
Vermont	304	37	141	118	3	21	623	26
Virginia	4,352	436	1,428	1,287	333	537	8,373	346
Washington	3,991	378	1,547	1,102	128	482	7,628	230
West Virginia	759	49	450	334	21	102	1,714	28
Wisconsin	3,121	312	1,053	959	47	283	5,776	221
Wyoming	272	44	83	101	9	59	568	39

Notes/Sources:

1 "Health Insurance Coverage of the Total Population," Kaiser Family Foundation (https://www.kff.org/other/state-indicator/total-population/?dataView=0&currentTimeframe=0&selectedDistributions=employer--non-group--medicaid--medicare--military--uninsured--total&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D, accessed July 19, 2025). Medicaid totals include those covered by Children's Health Insurance Plan (CHIP) and those who have both Medicaid and another type of coverage, such as dual eligibles who are also covered by Medicare. Medicare totals exclude dual eligibles. Non-group Medicare totals exclude dual eligibles. See source for additional definitions. Non-group totals include those covered by a policy purchased directly from an insurance company. For purposes of this table, this statement is interpreted to mean Marketplace enrollment is considered under Non-group totals.

2 "Marketplace Enrollment, 2014-2025," Kaiser Family Foundation (https://www.kff.org/affordable-care-act/state-indicator/marketplace-enrollment/?currentTimeframe=2&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D, accessed July 19, 2025). Marketplace totals are included in a separate column to signify that these values are not included in the "Total" column. As the Marketplace totals are collated from an alternative source from the total population table, discrepancies in values between the Marketplace and Non-Group totals occur in a few instances.

Appendix B. Percentage Enrollment in Each Medical Health Insurance Coverage Type by State, 2023

	PRIVATE		PUBLIC				
LOCATION	EMPLOYER [1]	NON-GROUP [1]	MEDICAID [1]	MEDICARE [1]	MILITARY [1]	UNINSURED [1]	TOTAL [1]
United States	48.6%	6.2%	21.2%	14.7%	1.3%	7.9%	326,079
Alabama	46.3%	6.2%	20.7%	16.3%	2.1%	8.4%	4,945
Alaska	43.8%	5.4%	23.0%	11.4%	5.8%	10.4%	701
Arizona	46.6%	5.3%	20.4%	16.4%	1.4%	9.8%	7,253
Arkansas	42.4%	5.7%	25.3%	16.0%	1.5%	9.2%	2,974
California	47.0%	6.6%	27.2%	12.0%	0.8%	6.4%	38,138
Colorado	52.2%	6.8%	18.7%	13.6%	2.0%	6.7%	5,725
Connecticut	51.3%	5.0%	22.7%	14.8%	0.6%	5.6%	3,515
Delaware	47.9%	4.2%	21.6%	18.6%	0.8%	6.8%	1,003
District of Columbia	58.8%	4.3%	25.2%	8.0%	0.8%	2.8%	646
Florida	40.5%	11.1%	17.7%	18.1%	1.9%	10.7%	22,076
Georgia	47.4%	7.3%	18.8%	12.9%	2.2%	11.4%	10,720
Hawaii	50.0%	4.8%	21.0%	17.0%	4.5%	2.8%	1,366
Idaho	48.4%	6.9%	18.3%	15.8%	1.5%	9.1%	1,910
Illinois	53.9%	5.0%	19.5%	14.7%	0.6%	6.1%	12,253
Indiana	51.9%	4.8%	20.8%	15.0%	0.8%	6.8%	6,664
Iowa	52.8%	4.9%	20.5%	16.0%	0.8%	5.1%	3,106
Kansas	53.5%	6.4%	14.4%	15.5%	1.8%	8.4%	2,836
Kentucky	46.1%	3.6%	27.9%	15.6%	1.3%	5.6%	4,394
Louisiana	40.9%	4.5%	32.2%	14.2%	1.2%	7.0%	4,431
Maine	46.4%	6.2%	21.4%	18.8%	1.2%	6.0%	1,356
Maryland	53.9%	5.7%	18.9%	13.6%	1.6%	6.3%	6,015
Massachusetts	54.6%	5.3%	23.6%	13.5%	0.4%	2.6%	6,776
Michigan	49.8%	4.9%	23.9%	16.4%	0.5%	4.4%	9,822
Minnesota	56.5%	5.1%	18.3%	15.5%	0.7%	4.0%	5,615
Mississippi	42.7%	6.5%	23.5%	15.0%	1.8%	10.4%	2,834
Missouri	51.3%	5.3%	17.7%	16.9%	1.4%	7.5%	6,016
Montana	41.9%	7.8%	21.6%	18.1%	2.2%	8.5%	1,106
Nebraska	53.0%	7.5%	16.8%	14.9%	1.5%	6.3%	1,925
Nevada	46.7%	5.5%	20.6%	14.8%	1.6%	10.7%	3,140
New Hampshire	55.4%	6.8%	13.4%	19.0%	0.9%	4.6%	1,361
New Jersey	54.0%	5.7%	18.7%	14.1%	0.3%	7.2%	9,124
New Mexico	34.6%	4.2%	34.3%	16.3%	1.7%	9.0%	2,062
New York	47.0%	5.5%	28.8%	13.6%	0.4%	4.8%	19,048
North Carolina	46.5%	7.2%	19.1%	15.6%	2.4%	9.2%	10,483
North Dakota	57.6%	7.7%	12.8%	15.2%	2.7%	4.2%	745
Ohio	51.0%	4.4%	21.4%	16.3%	0.8%	6.1%	11,465
Oklahoma	43.2%	5.5%	22.7%	15.2%	2.0%	11.4%	3,918
Oregon	48.1%	5.5%	23.7%	16.3%	0.8%	5.4%	4,156

	PRIVATE		PUBLIC				
LOCATION	EMPLOYER [1]	NON-GROUP [1]	MEDICAID [1]	MEDICARE [1]	MILITARY [1]	UNINSURED [1]	TOTAL [1]
Pennsylvania	50.3%	5.3%	21.4%	17.0%	0.6%	5.4%	12,528
Rhode Island	50.8%	5.7%	22.6%	15.7%	0.9%	4.5%	1,052
South Carolina	44.4%	7.1%	19.9%	17.2%	2.4%	9.0%	5,205
South Dakota	51.4%	7.6%	14.7%	15.5%	2.1%	8.5%	889
Tennessee	47.1%	6.7%	19.9%	15.5%	1.6%	9.3%	6,952
Texas	47.4%	7.1%	16.1%	11.4%	1.7%	16.3%	29,796
Utah	60.4%	9.2%	11.3%	10.4%	1.0%	7.7%	3,358
Vermont	48.8%	5.9%	22.6%	18.9%	0.5%	3.4%	623
Virginia	52.0%	5.2%	17.1%	15.4%	4.0%	6.4%	8,373
Washington	52.3%	5.0%	20.3%	14.4%	1.7%	6.3%	7,628
West Virginia	44.3%	2.9%	26.3%	19.5%	1.2%	6.0%	1,714
Wisconsin	54.0%	5.4%	18.2%	16.6%	0.8%	4.9%	5,776
Wyoming	47.9%	7.7%	14.6%	17.8%	1.6%	10.4%	568

Notes/Sources:

1 "Health Insurance Coverage of the Total Population," Kaiser Family Foundation (https://www.kff.org/other/state-indicator/total-population/?dataView=0&currentTimeframe=0&selectedDistributions=employer--non-group--medicaid--medicare--military--uninsured--total&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D, accessed July 19, 2025). Medicaid totals include those covered by Children's Health Insurance Plan (CHIP) and those who have both Medicaid and another type of coverage, such as dual eligibles who are also covered by Medicare. Medicare totals exclude dual eligibles. Non-group Medicare totals exclude dual eligibles. See source for additional definitions. Non-group totals include those covered by a policy purchased directly from an insurance company. For purposes of this table, this statement is interpreted to mean Marketplace enrollment is considered under Non-group totals. Percentages are calculated as a percentage of the Total enrollment for that row. Percentages may sum to less than or greater than 100% due to rounding.


AMCP
Optimizing medicine.
Improving lives.
AMCP Foundation
EBONY
LUCAS
COURTNEY
JUSTIN

AMCP's mission is to improve patient health by ensuring access to high-quality, cost-effective medications and other therapies.

Its diverse membership includes pharmacists, students, physicians, nurses, and industry experts charting the future of managed care.

> AMCP and members' advocacy work is crucial to shaping the future of managed care pharmacy. It's like playing the game versus being in the stands.
>
> **Billy West, MBP, PharmD,**
> Pharmaceutical Company
> AMCP Member since 2000

#AAOREPORT

IN PARTNERSHIP WITH

AMCP Research Institute

675 N Washington Street | Suite 220 | Alexandria, VA 22314
Tel 703.684.2600 | amcp.org

SCAN ME

amcp.org/aaoreport-2025