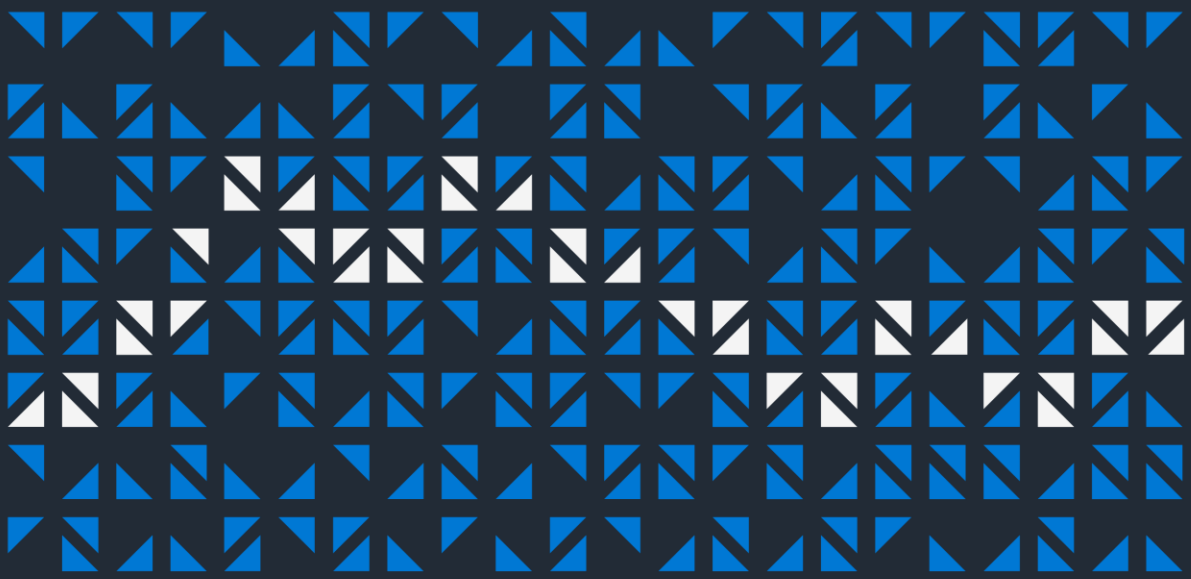
MILLIMAN WHITE PAPER

Commercial drug trends

2024 release

Brian Anderson, MBA
Rebekah Bayram, FSA, MAAA, FCA
Andy Dressler, ASA, MAAA
Marc Guieb, PharmD, RPh
Niharika Tarimela, MSIS
Jason Mui



Milliman

Table of Contents

Executive summary

Pharmacy benefits costs continue to rise year over year, driven by a variety of factors such as novel treatments, consumer demand, and federal legislation. The utilization of glucagon-like peptide-1 (GLP-1) drugs remains an ongoing financial issue for plan sponsors as manufacturers continue research and develop additional indications for these drugs beyond diabetes and weight loss. The drug development pipeline also continues to evolve and has recently produced exciting new treatment options for patients with Alzheimer's disease and nonalcoholic steatohepatitis (NASH).

Federal legislation has shaken up the traditional pharmacy pricing model itself. On January 1, 2024, a significant provision in the American Rescue Plan Act (ARP) of 2021 came into effect—the elimination of the cap on manufacturer rebate payments to state Medicaid programs, colloquially known as the Average Manufacturer Price cap (AMP Cap) removal.[1] While this provision directly applies only to Medicaid drug pricing, its downstream effects on commercial drug pricing are similarly significant and represent a paradigm-shifting event. Projections in the 2024 Commercial Drug Trends report reflect actual list price changes that took effect in 2023 and 2024 and the estimated impact to those drug classes.

Based on drug mix through 2023, we project an overall average wholesale price (AWP) increase between 13% and 17% annually among commercial plans from 2023 to 2025. In developing this projection, we considered historical claims data and factors that include but are not limited to anticipated patent losses, drug pipeline developments, and manufacturer price changes. The actual increase in AWP will be highly dependent on responses across the industry to weight-loss drug utilization, drug pricing decreases related to AMP Cap removal, and other significant market events.

1 Schock, B., Larsen, Z. & Prather, J. (November 2023). Average Manufacturer Price cap removal: Implications for state Medicaid programs. Milliman white paper. Retrieved from https://www.milliman.com/-/media/milliman/pdfs/2023-articles/11-22-23_amp-cap-medicaid.ashx

Methodology and concepts

This report provides insights into pharmacy cost and utilization trends based on our analysis of Milliman's proprietary Milliman Consolidated Health Cost Guidelines™ Sources Database (CHSD). This multiyear, multiple-line-of-business, longitudinal claims database includes claims information from several national and regional health plans and represents over 80 million lives. We analyzed commercial pharmacy claims information from claims filled between the years 2019 and 2023 to project AWP trend into 2025. We also report on various metrics in the Supplemental Information section. Note that information provided in this report may differ from other Milliman reports, like the Health Trend Guidelines (HTGs), based on differences in data sources and date ranges of analyzed claims.

In addition to providing historical cost and utilization trends, this report also discusses factors that may have influenced these trends and their potential future implications. These elements can be used to project future pharmacy costs either at an aggregate level or at more granular drug class levels. Projections can then be used for budgeting purposes or as part of an RFP or market check exercise. Note that the information and exhibits provided in this report are intended to help increase the understanding of the pharmacy benefits space and to serve as a starting point for further investigation. Information derived from this large dataset represents a general baseline for future research; however, it must be considered within the context of varying plan designs and membership. The appropriateness of applying this research to a plan's projections may vary.

TERMINOLOGY

TERM	DESCRIPTION
Total drug cost (gross cost)	Represents the cost of the drug to the plan and the member as reported in CHSD claims data. It reflects discounts off AWP, dispensing fees, and taxes but not rebates and administrative fees.
Wholesale acquisition cost (WAC)	The price wholesalers pay to manufacturers for drugs, not including discounts or rebates. Pharmaceutical manufacturers often set rebates as a percent of WAC.
Average wholesale price (AWP)	The average price retail pharmacies pay to wholesalers for drugs. Published AWP list prices are typically WAC plus 20%. PBM pricing guarantees are often set based on a discount off AWP.
PMPM	This acronym represents the term "per member per month."
Claims	Unless otherwise stated, claims are counted as equivalent 30-day claims. For example, a 90-day claim counts as three claims.
Drug type	Brand and generic definitions have been set using indicators and logic based on Medi-Span.
Specialty	The definition of specialty drug has been set using pre-defined CHSD logic developed by clinicians at Milliman.

Emerging trends

1. AMP CAP

Starting at the end of 2023, several manufacturers made significant list price reductions for their insulin products, likely to accommodate the financial impacts of AMP Cap removal for drugs with high rebates and list prices. This pattern has continued into 2024 and extended into the asthma-treatment space, with 40% to 60% list price reductions for drugs such as Advair Diskus, Asmanex HFA, and Symbicort. Additionally, GlaxoSmithKline discontinued Flovent entirely but will continue to sell its authorized generic, fluticasone propionate.

2. WEIGHT-LOSS DRUGS – GLP-1 AGONISTS

Weight-loss drugs continue to shape commercial drug trends, as manufacturers continue to push innovation within the space. Improvements on existing products are currently in clinical development. In addition, to further increase marketability, GLP-1 manufacturers have been exploring indication expansions such as the possible treatment of excessive alcohol use and sleep apnea.

In Q4 2023, Eli Lilly launched Zepbound, an in-class competitor to Wegovy. It is unclear which of the two options has greater weight-loss efficacy; however, there are reasons to believe that Zepbound may be the more effective drug. Zepbound is thought to have multiple mechanisms of action and is considered a dual GIP/GLP-1 agonist, in contrast to Wegovy. In addition to this, the phase 3 trials supporting the approval of both drugs reported roughly a 15% decrease in baseline body weight for those taking Wegovy, compared to 20% for those with Zepbound over a similar treatment period. Eli Lilly's drug is poised to match, or possibly even exceed, Wegovy's historic popularity.

Early clinical trial results[2] hint at the possibility of even more potent Wegovy competitors in the future. In March 2024, Novo Nordisk announced results from a phase 1 trial investigating amycretin, an orally-dosed co-agonist of GLP-1 and amylin receptors, demonstrating 13% weight loss after only 12 weeks of treatment. In comparison, Wegovy demonstrated 6% weight loss over this same time period.[3] Between these results and the many other investigational drugs in the drug pipeline, it is possible that the market still hasn't peaked within the weight-loss space.

Across our clients, we have seen plans more than double their utilization of weight-loss GLP-1 drugs between 2022 and 2023. This increase in utilization has been the primary driver of spend in this space. Product pricing has, in comparison, not increased significantly since the first GLP-1 weight loss drugs were launched. We have observed that, at the drug level, per-claim AWP increases have remained in line with increases across the entire segment of non-specialty brand drugs.

3. ANTIDIABETICS

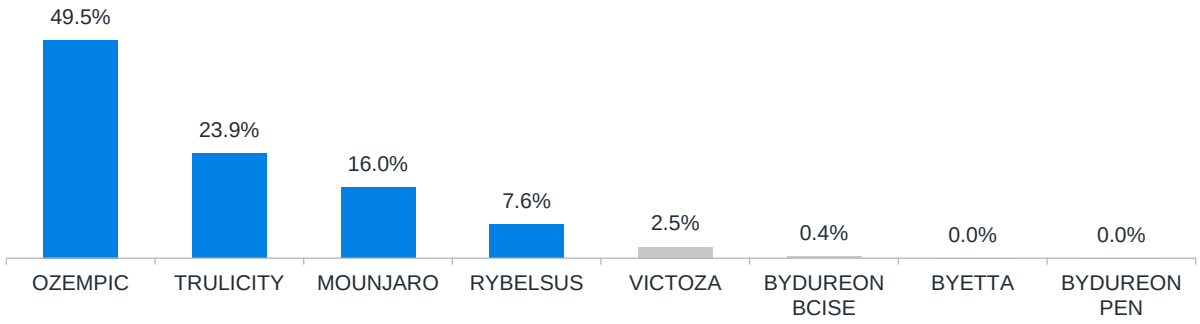
In 2023, Sanofi, Eli Lilly, and Novo Nordisk announced large reductions in AWP for several insulin products within their portfolios. Reflecting this, from 2023 to 2024, we have observed per-claim AWP reductions of roughly 45% among insulin products.

Antidiabetic GLP-1 drugs also continue to experience high utilization trends, albeit much lower than their weight-loss GLP-1 counterparts. The launch of Mounjaro in May 2022 has shaken up market share within this space, with the drug immediately gaining favorable formulary positions for many plans throughout the country. The drug has skyrocketed from representing 1.9% of total diabetic GLP-1 utilization in 2022 to 16.0% of utilization 2023 and continues to trend upward.

2 Schindler, M. (March 2024). Research and early development. Capital Markets Day 24 presentation. Retrieved from https://cdn.evenzu.io/event/hxr1zomb2k05vitfdy6lsua3j7c8pe9n/file/evev269_d1709793399.pdf

3 Ghusun, W., De la Rosa, A. & Sacoto, D. (September 2022). Weight Loss Outcomes Associated With Semaglutide Treatment for Patients With Overweight or Obesity. JAMA Network Open. Retrieved from https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2796491

FIGURE 1: GLP-1 RECEPTOR AGONISTS – DIABETES UTILIZATION BY PRODUCT IN 2023 (PERCENT OF DAYS SUPPLY)



4. BIOSIMILARS

The market share of Humira compared to its biosimilars is currently in a tenuous position, as manufacturers fiercely compete for preferred formulary positioning with pharmacy benefit managers (PBMs). Some plans and PBMs have made strides toward adopting a biosimilar-only strategy, such as the PBM Navitus[4], which announced that it will be removing Humira from its formularies effective June 1, 2024. This type of strategy is becoming more popular as interchangeable high-dose concentration options, which represent the majority of the market and weren't available in 2023, become available in 2024. CVS has also touted significant increases in biosimilar utilization after removing AbbVie's reference product from its formulary too. Other PBMs and plans have been less willing to risk the reduction of AbbVie rebates, which cover drugs like Skyrizi and Rinvoq, and continue to cover both Humira and its biosimilars at parity. These varying strategies can have significant impacts on a plan's financials and cash flow, with plans pursuing net costs either driven by high rebate payments over time or low ingredient costs that can approach nearly 90% off of Humira's list price. It is unclear which of these strategies the market will ultimately prefer. It also possible that the market will not converge on a single strategy anytime in the near future.

5. ATTENTION-DEFICIT/HYPERACTIVITY DISORDER (ADHD)

The launch of lisdexamfetamine, the generic version of Vyvanse, has not had as big of an impact on pricing as anticipated, due to manufacturing and supply issues[5] forcing prescribers to choose alternative options. As of Q1 2024, the market is split roughly in half between brand and generic claims for this drug. As manufacturers work to address these issues, we expect the generic's market share to steadily increase, albeit at a slower pace than is typically associated with non-specialty generic drug launches.

6. ALZHEIMER'S DISEASE

The incidence of Alzheimer's disease appears to be increasing, according to publicly-available epidemiology data.[6] In addition to this, the condition continues to be a popular R&D target despite the manufacturer discontinuation of the controversial drug Aduhelm in early 2024. Following up on the 2023 FDA approval of Leqembi*,* the market expects a new drug, donanemab, to be approved in 2024. Recently, the FDA has delayed its originally anticipated action date in Q1 2024 and requested that an advisory committee meet to review clinical trial data of a related phase 3 trial. Nevertheless, we anticipate this treatment space to see material growth in the next few years, and we accounted for this growth in our AWP trend projection.

4 Navitus Health Solutions (February 2024). Navitus to Remove Humira® from Formularies Effective June 1. Retrieved from https://blog.navitus.com/navitus-removes-humira-from-formularies

5 Chase, L. & van Meijgaard, J. (July 2024). Adderal Shortage and New Generics Lead to Changes in Types of ADHA Medications Used. GoodRxHealth. Retrieved from https://www.goodrx.com/healthcare-access/research/adderall-shortage-new-generics-lead-to-changes-in-types-of-adhd-medications-used

6 Blue Cross Blue Shield (February 2020). Early-Onset Dementia and Alzheimer's Rates Grow for Younger American Adults. Retrieved from https://www.bcbs.com/the-health-of-america/reports/early-onset-dementia-alzheimers-disease-affecting-younger-american-adults

Supplemental information

1. PHARMACY CONCEPTS

a. Rebates and AWP discounts

Manufacturer rebate payments and AWP discounts are key components to consider when determining the net cost of drugs. Rebate payments are made to PBMs, by manufacturers, in return for formulary coverage. AWP discounts are discounts off of manufacturer list prices from payments made to pharmacies. The true net cost of a product to a plan is the amount paid to the pharmacy minus the rebate payment.

Because manufacturer list prices are only one component of net cost, decreases in list prices don't always result in decreases in true net cost. Market-changing events such as patent losses and legislative pressures can lead to drug price decreases; however, those decreases can be offset by the lessening of rebates paid to plan sponsors and their PBMs. Based on our work in the pharmacy benefits space, we have observed the following:

1. Rebates for preferred brand drugs, often expressed as a percentage of WAC, can have extremely high variance.
2. Based on Milliman's MyRxConsultant Performance Benchmarking, the median AWP discount experience for brand drug claims filled at less than an 83-day supply at a retail pharmacy was approximately 18% in 2022. For generic drugs under the same conditions, the median AWP discount experience was 83%.
3. The Milliman Medical Index projects that, on average, rebates will be approximately 29% to 32% of total allowed drug costs in 2024.

Drugs with the same clinical effect may differ substantially by AWP list price as well as by the amount of rebates paid by the manufacturer. Below are hypothetical examples that illustrate potential offsetting effects on net prices.

- **Brand drug with a lowered AWP:**
  - A drug with a $1,000 AWP and 20% discount would have an ingredient cost paid to the PBM of $800. Assuming that the plan receives a $200 rebate on this drug, the net cost would be $600.
  - A 50% reduction in AWP plus the 20% discount would bring the ingredient cost paid to the PBM down to $400. Assuming that the percentage value of the rebate remains the same (20% of AWP), the value of the rebate would be $100, bringing the net cost to $300 and reflecting a 50% reduction in net cost.
- **Competitor products with different pricing structures:**
  - Drug A represents a drug with a $1,000 gross cost and a $300 rebate. Drug B represents a drug with a $600 gross cost and no rebate. The net cost of Drug B is $100 less than Drug A.
  - The current standard PBM pricing models may have economic incentives for the PBM to prefer Drug A instead of Drug B despite the lower net cost due to the contractual requirement to achieve minimum rebate guarantees. A PBM formulary may prefer Drug A over Drug B, despite Drug A being more expensive, if Drug A helps the PBM achieve its contractual minimum per-claim rebate guarantee promised to a plan.
- **Patent loss:**
  - The net cost of a competitor product can be either less or more than that of its reference product counterpart once rebates are considered. It is true that generics and biosimilars are often cheaper options, but this is not always the case, particularly prior to multiple manufacturers producing a competitive product.
  - Drug A represents a reference drug with a $1,000 gross cost and a $300 rebate. Drug B represents newly launched generic competitor with a $600 gross cost and no rebate. The manufacturers of Drug A could increase their rebate payment to some amount equal to or more than $400, incentivizing PBMs to prefer the reference drug over its generic competitor.

Note that other stakeholders within the distribution chain may react to the above changes in varying ways, further complicating drug pricing.

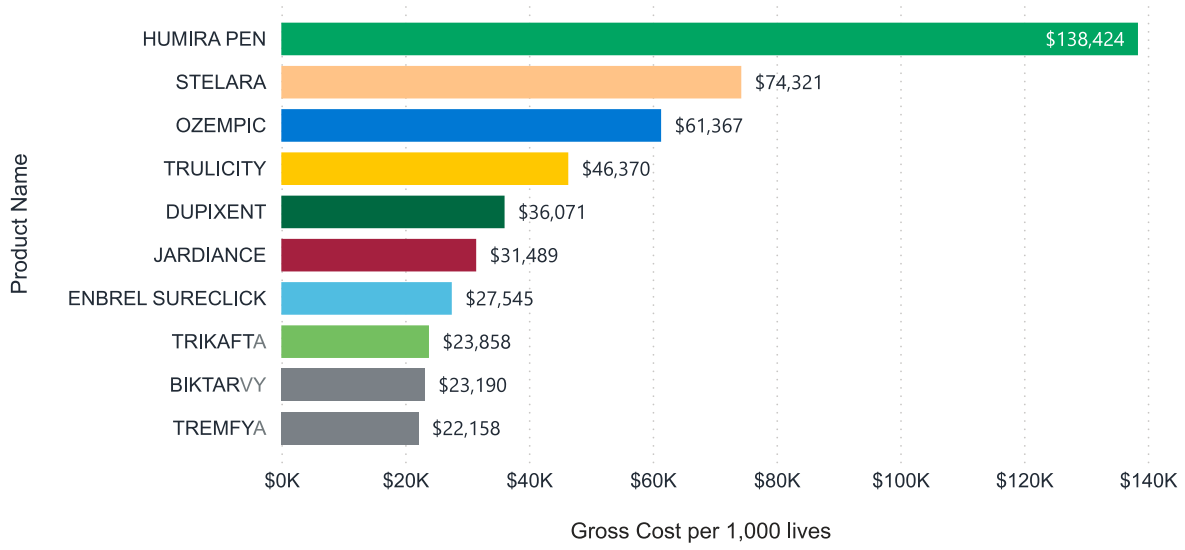
b. Generic dispensing rates (GDRs)

Because generic drugs tend to cost less for plans and members than brand drugs, the release of new generics causes brand utilizers to shift their utilization to generic alternatives over time. Utilization trends will differ by drug depending on the nature of the condition being treated. But for the drugs considered, including their newly released generic versions, we found that:

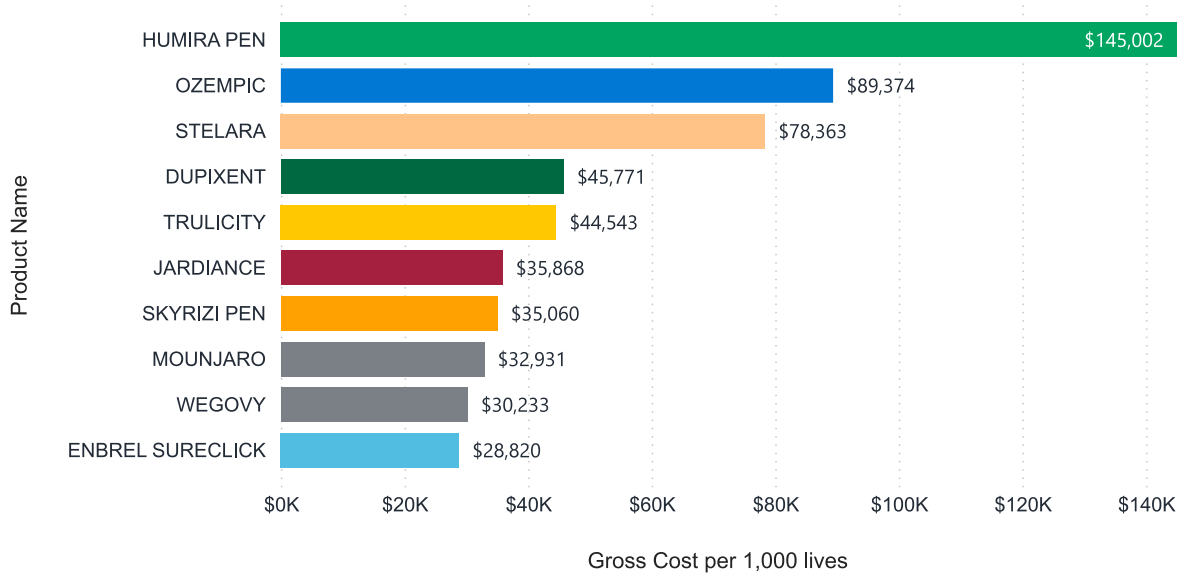
1. GDR increases significantly in the year following a generic launch before mostly levelling out. It is common for GDR to exceed 90% for drugs with generic options available.
2. Relative to utilization trends before the generic launch, utilization trends increased between 10% and 27% per year. For medical conditions that have utilization that is relatively inelastic to drug pricing, we would expect this increase to be on the lower end of the scale. But rationing and affordability may account for at least some increase even in those cases.
3. Relative to AWP trends before the generic launch, annual AWP per-claim trends decreased between 6% and 17% after generic launch. In addition to this list price decrease, AWP discounts increase as patients transition from the brand to the deeper discounted generic alternative.

2. TOP DRUGS BY COST

2022 - TOP DRUGS BY COST

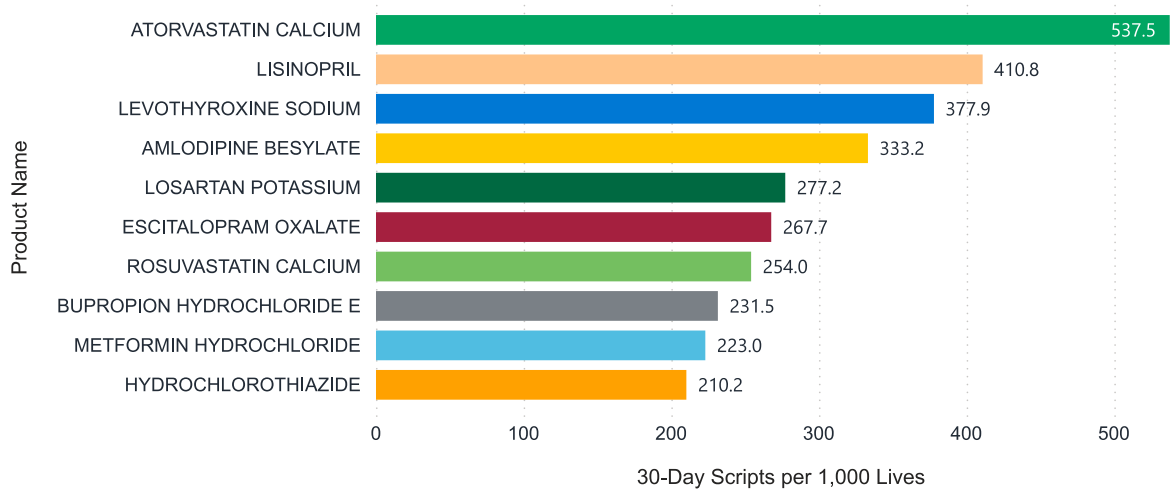


2023 - TOP DRUGS BY COST

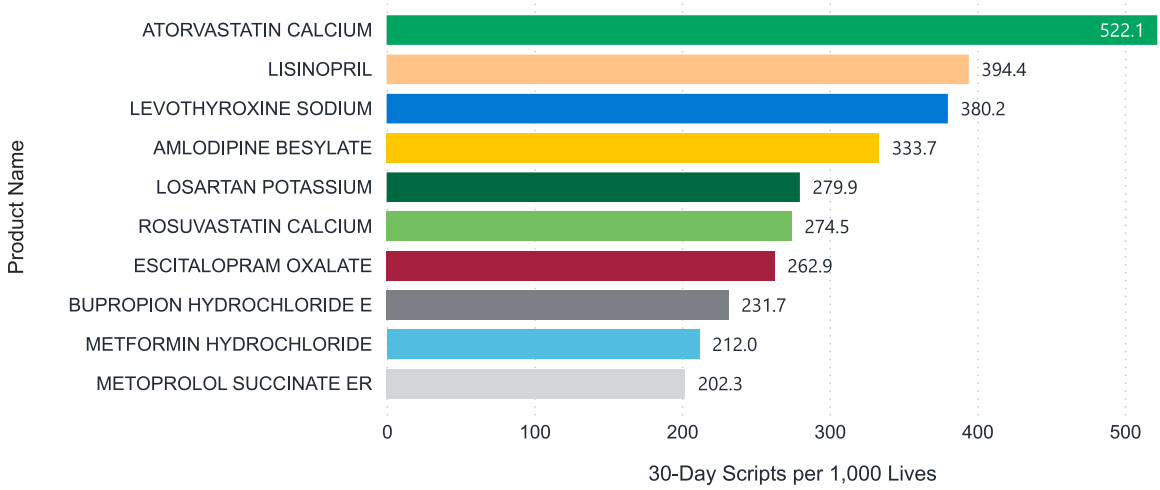


3. TOP DRUGS BY COUNT

2022 – TOP DRUGS 30 DAY SCRIPTS



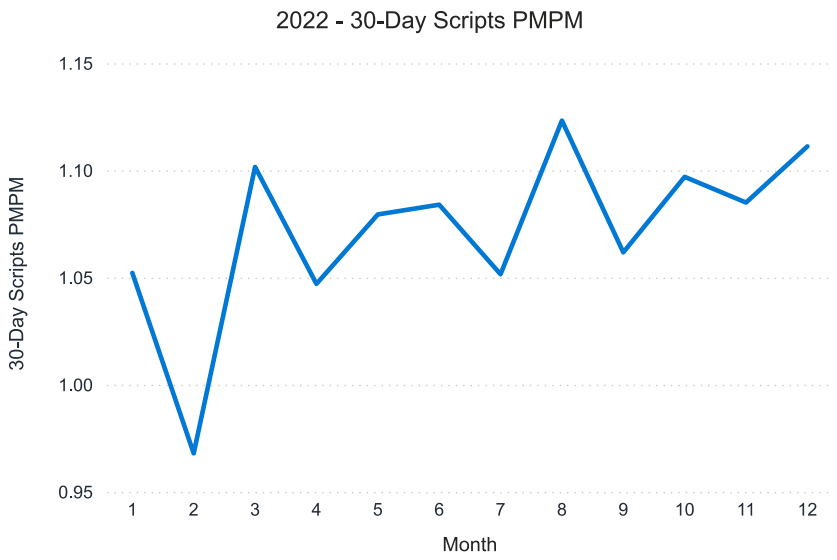
2023 – TOP DRUGS BY 30 DAY SCRIPTS



Note: Top Drugs by 30-day Scripts exhibits exclude vaccines.

4. 2022 - SEASONALITY BY MONTH

Month	30-Day Scripts PMPM
January	1.05
February	0.97
March	1.10
April	1.05
May	1.08
June	1.08
July	1.05
August	1.12
September	1.06
October	1.10
November	1.09
December	1.11



Note: Seasonality will vary depending on plan design, days in the month, and weekend days in the month.

5. GEOGRAPHY

	2022		2023	
Region	**30-Day Scripts PMPM**	**Gross Cost per 30-Day Script**	**30-Day Scripts PMPM**	**Gross Cost per 30-Day Script**
West	0.90	$137.24	0.88	$143.18
Upper Midwest	1.05	$133.09	1.01	$148.33
Lower Midwest	1.06	$125.35	1.04	$142.45
Northeast	1.15	$141.47	1.12	$152.04
Southeast	1.14	$131.50	1.10	$140.98

Regions, based on the Department of Health and Human Services (HHS):

- Lower Midwest: Arkansas, Louisiana, New Mexico, Oklahoma, Texas
- Northeast: Connecticut; Delaware; Maine; Maryland; Massachusetts; New Hampshire; New Jersey; New York; Pennsylvania; Puerto Rico; Rhode Island; Vermont; Virgin Islands; Virginia; Washington, D.C.; West Virginia
- Southeast: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee
- Upper Midwest: Colorado, Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Montana, Nebraska, North Dakota, Ohio, South Dakota, Utah, Wisconsin, Wyoming
- West: Alaska, Arizona, California, Hawaii, Idaho, Nevada, Oregon, Washington

6. DEMOGRAPHICS

30-DAY SCRIPTS PMPM AND GROSS COST PER 30-DAY SCRIPT BY DEMOGRAPHIC

2022			
Demographic	**Percent of Lives**	**30-Day Scripts PMPM**	**Gross Cost per 30-Day Script**
Employees	51.1%	1.34	$130.57
Spouses	17.2%	1.62	$133.12
Children	31.7%	0.35	$159.98
2023			
Demographic	**Percent of Lives**	**30-Day Scripts PMPM**	**Gross Cost per 30-Day Script**
Employees	51.2%	1.30	$142.65
Spouses	17.1%	1.58	$147.15
Children	31.7%	0.33	$168.72

30-DAY SCRIPTS PMPM AND GROSS COST PER 30-DAY SCRIPT BY AGE BAND

2022			
Age Band	**Percent of Lives**	**30-Day Scripts PMPM**	**Gross Cost per 30-Day Script**
Under 25	33.9%	0.34	$156.39
25 - 39	23.3%	0.70	$158.29
40 - 64	40.0%	1.77	$127.46
65 and Over	2.7%	3.10	$114.29
2023			
Age Band	**Percent of Lives**	**30-Day Scripts PMPM**	**Gross Cost per 30-Day Script**
Under 25	34.0%	0.33	$165.32
25 - 39	23.4%	0.68	$172.15
40 - 64	39.8%	1.72	$140.20
65 and Over	2.8%	2.93	$123.33

Milliman

Milliman is among the world's largest providers of actuarial, risk management, and technology solutions. Our consulting and advanced analytics capabilities encompass healthcare, property & casualty insurance, life insurance and financial services, and employee benefits. Founded in 1947, Milliman is an independent firm with offices in major cities around the globe.

milliman.com

CONTACT

Brian Anderson
brian.anderson@milliman.com

Rebekah Bayram
rebekah.bayram@milliman.com

Andy Dressler
andy.dressler@milliman.com

Marc Guieb
marc.guieb@milliman.com

Niharika Tarimela
niharika.tarmela@milliman.com

Jason Mui
jason.mui@milliman.com