



Executive Summary

Plan year 2022 was the twentieth year of operation for the University of Michigan's self-managed, self-funded Prescription Drug Plan. The year saw unprecedented growth in plan spend and utilization, with \$220.5M in plan paid – an 18.8% increase over 2021.

Specialty drug utilization continues to drive the increase in pharmacy spend. Despite representing less than 2% of all claims, total cost for specialty drugs rose 18.8% on a per-member per month (PMPM) basis in 2022, representing 51.2% of total drug costs and 52.4% of total plan cost.

Traditional drug spend increased in 2022 at an alarming rate, fueled primarily by high-cost medications for the management of diabetes and obesity. Traditional drug products rose 17.7% on a total cost PMPM basis in 2022, representing 48.8% of total drug costs and 47.6% of total plan cost.

The treatment and prevention of COVID-19 also continued to have an impact on plan spend and utilization. The university spent \$2.4M on COVID-19 products in 2022 – \$1.7M on vaccine administrations, \$703k on over-the-counter (OTC) COVID-19 tests, and \$19.6k on nirmatrelvir/ritonavir (Paxlovid) dispensing fees.

Active management of the plan continued in 2022. The plan's clinical staff reviewed 28 newly approved drugs, 58 line extensions and 10 comprehensive drug classes. The clinical team also created or updated more than 250 prior authorization coverage policies and implemented several new clinical programs to help ensure appropriate medication utilization.

The university has remained committed to controlling rising drug costs with sound, evidence-based formulary design. Additional clinical programs, utilization management strategies, and comprehensive class reviews have allowed the plan to maintain minimal growth in overall pharmacy spend while providing high-value pharmacy services for our members. Going forward, the pharmacy benefit team will continue to leverage clinical expertise and innovative strategies to mitigate cost increases, improve member outcomes, and support university objectives.

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2022 Cost and Utilization Metrics

Key performance metrics based on an average of eligible members per month are reported in Tables 1. While the university saw a 1.3% increase in members in 2022 compared to the previous year, eligible membership has grown 2% on average during the previous five years.

Table 1: Cost and Utilization Metrics, 2022

	All Claims		Non-Specialty		Specialty	
	Cost and Utilization	Change from 2021	Cost and Utilization	Change from 2021	Cost and Utilization	Change from 2021
Claim Volume	1,168,926	9.7%	1,145,706	9.5%	23,220	11.8%
Utilizing Members	97,016	7.4%	96,889	7.4%	2,967	12.6%
Total Drug Cost	\$237,261,918	19.9%	\$118,555,008	22.0%	\$121,400,453	20.3%
Plan Cost	\$220,530,927	18.8%	\$105,034,175	22.9%	\$115,496,752	15.2%
Member Cost	\$14,320,867	16.6%	\$13,520,832	15.7%	\$800,034	36.3%
Percent Member Total Cost Share	6.1%	-0.1%	11.4%	-0.6%	0.7%	0.1%
Total Drug Cost PMPM*	\$165.46	17.1%	\$83.52	20.5%	\$85.53	18.8%
Plan Cost PMPM	\$155.37	17.2%	\$74.00	21.3%	\$81.37	13.7%
Member Cost PMPM	\$10.09	15.1%	\$9.53	14.2%	\$0.56	34.6%
Average Number of Claims Per Utilizing Member Per Year	12	2.2%	11.8	1.9%	7.8	-0.8%
Average Day Supply Per Claim	48.7	-2.6%	48.9	-2.6%	37.7	4.7%

*PMPM = per (eligible) member per month. Costs are reflective of point-of-sale claims and are not net of rebates, retiree drug subsidy (RDS), or other discounts.

Plan Operations and Administration

Plan year 2022 was the twentieth year of operation for the University of Michigan’s self-managed, self-funded Prescription Drug Plan. The plan’s pharmacy benefit manager (PBM), Magellan Rx, completed the second contract year of the initial three-year agreement. The plan’s PBM contract and exclusive mail order arrangement with Birdi were both extended to 2025.

Since 2015, Merative, formerly IBM Watson, has administered the Medicare Part D Retiree Drug Subsidy (RDS) for the drug plan. The Centers for Medicare and Medicaid Services (CMS) continues to pay this subsidy based on eligible claims. The plan received \$6.6 million from CMS in 2022. Other discounts received in 2022 include approximately \$27.5M in manufacturer rebates – a 19.4% increase from rebates received in 2021.

The plan continues to be compliant with all Affordable Care Act (ACA) requirements. The ACA requires coverage of preventive care medications at no out-of-pocket cost to patients, including contraception, smoking cessation products, breast cancer prevention, use of statins for primary prevention of cardiovascular disease, aspirin, folic acid, iron, and other supplements for high-risk patients.

Cost Management

Plan Cost

A total of 1,168,926 claims were dispensed at a plan cost of \$220.5M in 2022, an 17.2% increase PMPM from 2021 (Figure 1). Pharmacy costs contributed approximately 27.5% to the university’s spend on medical services. Plan size continues to grow annually, with 1.3% growth in membership in 2022 compared to 2021.

The average plan cost for a 30-day prescription increased 13.6%, from \$110 in 2021 to \$124 in 2022. The aggregate discount from Average Wholesale Price (AWP) for combined specialty, retail, and 90-day retail prescriptions was -55.4%.

The average cost per brand drug increased to \$996 per 30-day supply, an increase of 7.9% from 2021. This increase was largely driven by cost increases and drug mix. The total drug cost for branded products in 2022 exceeded \$198M, or 84.1% of all cost. The average cost per 30-day supply of a generic product increased to \$22 in 2022, up from \$20 in 2021.

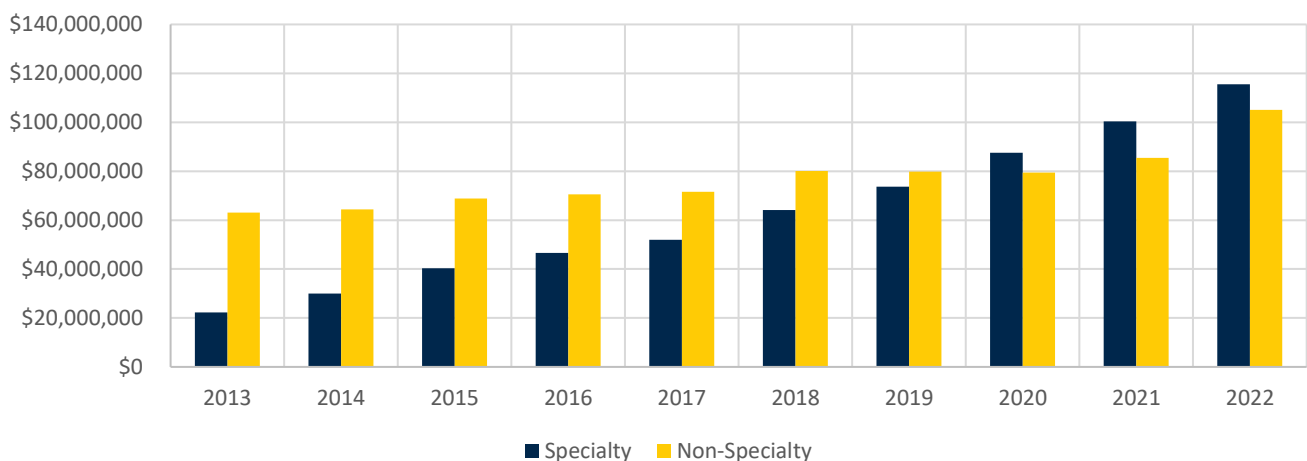


Figure 1: Plan Spend on Specialty and Traditional Prescription Drug Products, 2013 – 2022

Member Cost-Share and Utilization

Member Cost-Share

Due to a number of high-volume drugs facing generic competition, member cost-share has steadily declined since 2003, reversing course briefly in 2014 due to copay increases for generic and preferred brand tiers of drugs (Figure 2). Member cost-share decreased to 6.1% in 2022. On average, members paid \$12.25 per prescription (an increase of 6.3% compared to 2021). Drug plan members paid \$14.3M in total out-of-pocket cost, an increase of 16.6% compared to 2021. The university continues to provide value to our members with cost-share significantly lower than national values.

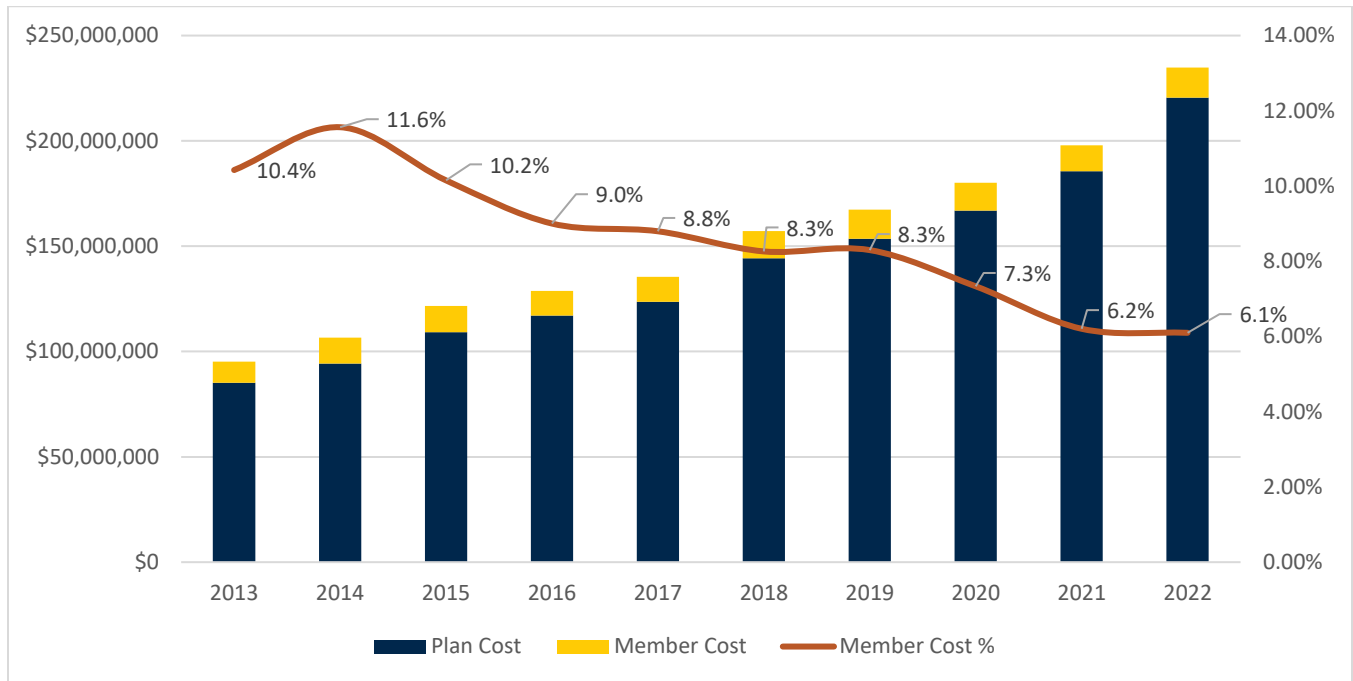


Figure 2: Member Cost-Share, 2013 – 2022

Table 2: Member Copays (30-Day Supply)

Drug Type	U-M Prescription Drug Plan	National Benchmark*
Generic	\$10	\$11
Preferred Brand	\$20	\$37
Non-Preferred Brand	\$45	\$67

*Source: 2022 KFF Employer Health Benefits Survey.

Currently, all union groups have our standard copayment structure, except for the Michigan Nurses' Association, which currently has lower copays than other plan members.

Member Utilization

In 2022, 82% of eligible members utilized their drug plan benefit, an increase of 4.6% compared to 2021. This increase can be attributed to a growing percentage of members utilizing medications and receiving one or more COVID-19 vaccine at a pharmacy location. The number of eligible members increased to 118,284, a 1.3% increase compared to the previous year. On average, an eligible member filled approximately 12 prescriptions per year, which has not changed significantly during the last 10 years. The average day supply per claim was 48.7, a decrease of 1.3 days per fill from 2021. When prescriptions are normalized to a 30-day supply, our overall utilization rate increased from 15.2 30-day prescriptions per member in 2021 to 16 30-day prescriptions in 2022.

An ongoing strategic goal for the plan is to increase the day supply percentage of maintenance drugs filled for 90-day supply fills (retail 90 and mail order) for better patient adherence and reduced cost. Studies have shown that 90-day supply claims are associated with better patient adherence, and the distribution channels of 90-day retail and mail order provide the best contracted rates. To improve our 90-day fill rate on maintenance drugs, we have engaged in strategic quarterly member lettering promotions. The percent of prescriptions filled for 90-day supplies in 2022, including vaccines, was 40.5% (Figure 3). Of all day-supply dispensed in 2022, excluding vaccines, 73.7% originated from retail 90 and mail order, 25% from retail 30 fills, and 1.3% from specialty fills.

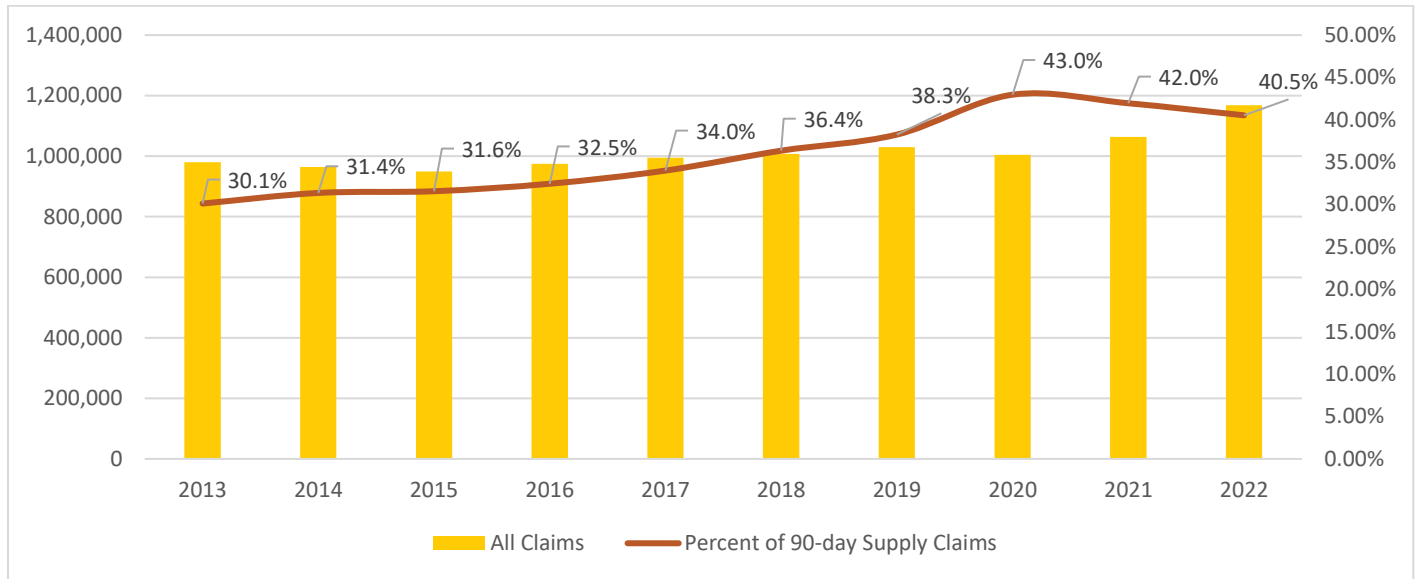


Figure 3: Percentage of 90-day supply claims filled at retail and mail order, 2013 – 2022

New Drug Impact

Of the 37 newly FDA-approved novel drug entities in 2022, 28 were approved for coverage under the pharmacy benefit. New branded products approved in 2022 contributed more than \$1M in plan spend (Table 3).

Table 3: New Branded, Non-Vaccine Products with Plan Utilization, 2022

Generic Name	Brand Name	Use	2022 Plan Paid
COVID-19 OTC Test	Various	Detection of COVID-19	\$703k
Vosoritide	Voxzogo	Dwarfism	\$158k
Tirzepatide	Mounjaro	Type 2 Diabetes	\$39k
Tralokinumab	Adbry	Atopic Dermatitis	\$27k
Pacritinib	Vonjo	Myelofibrosis	\$24k
Mavacamten	Camzyos	Hypertrophic Cardiomyopathy	\$22k
Olanzapine/Samidorpham	Lybalvi	Schizophrenia	\$17k
Ganaxolone	Ztalmy	CDKL5 Deficiency Disorder	\$15k
Daridorexant	Quviviq	Insomnia	\$8k

Traditional Pharmacy

Top Therapeutic Classes

The top five traditional therapeutic classes for cost during 2022 included drugs to treat diabetes (\$29.5M), anticoagulation (\$11M), asthma/COPD (\$9.5M), obesity (\$8.7M) and psychotherapeutic drugs (\$7.9M). The traditional class with the largest percentage increase in cost of note was anti-obesity drugs (129%). The majority of anti-obesity spend was on GLP-1s, liraglutide (Saxenda, \$3.4M) and semaglutide (Wegovy, \$5.1M). Despite national shortages due to manufacturer supply, plan spend on Wegovy increased 494% in 2022 compared to 2021.

The plan spend on diabetes drug treatments increased by approximately \$5.4M (22%) in 2022. Increasing utilization in the GLP-1 and SGLT2 classes continues to add to plan spend in this area (Figure 5). Spend on insulins has decreased in large part due to authorized generics in the class. Spend on insulin is expected to continue to decrease due to generic-first formulary strategy in 2023 and manufacturer-announced pricing cuts in 2024. Spend on DPP-4s has decreased due to decreasing utilization in the class in favor of other classes of medications (e.g., GLP-1s).

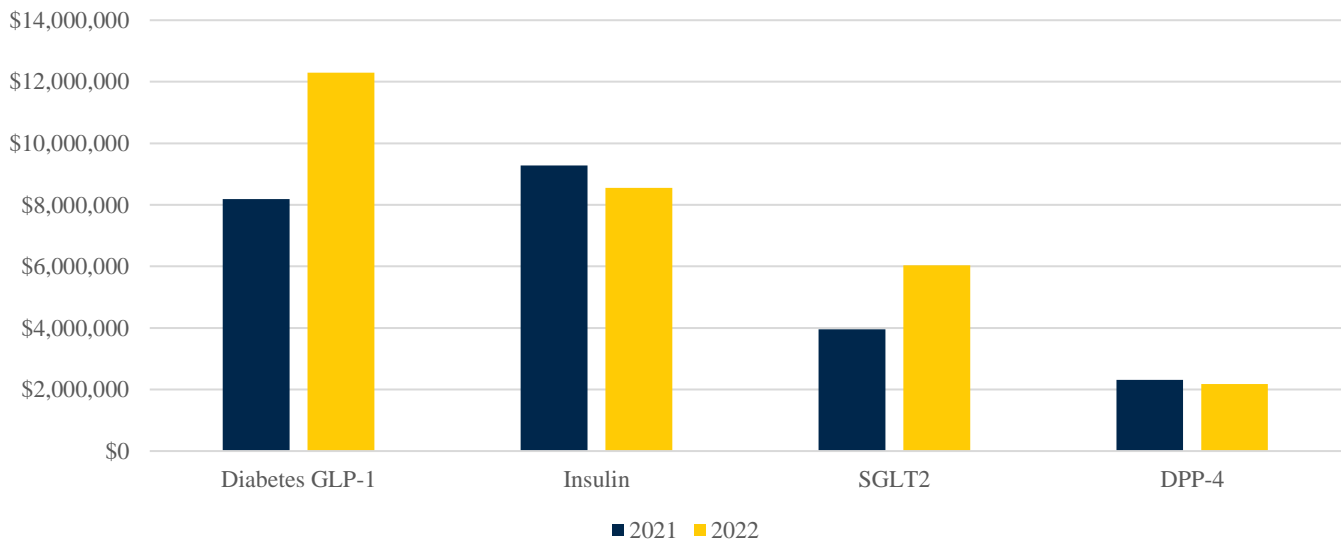


Figure 4: Plan Spend on Diabetic GLP-1, Insulin, SGLT2, and DPP-4 Products, 2021 – 2022

Plan costs for anticoagulants increased \$1.7M in 2022, or 19%. This increase is largely attributed to utilization of apixaban (Eliquis), which contributed nearly \$8M to plan spend in 2022. Plan spend for asthma/COPD products increased by around \$700k (8%), and for psychotherapeutic drugs, plan spend increased by around \$1.4M (21%).

Mail Order Pharmacy

Birdi completed its eleventh full year of service in 2022 and is the largest volume pharmacy for the plan. In 2022, 102,122 orders (8.7% of total) were dispensed via mail order with a total plan spend of \$16.7M. Percent of claims dispensed at mail order decreased 0.6% but increased by around \$1.6M in plan spend from 2021.

Members consistently rate Birdi as excellent. The average speed to answer a phone call was 22 seconds. The average turnaround time for a prescription filled at Birdi is less than one day, even when intervention is required. In many cases, members receive their refill the day after ordering their medication.

Specialty Pharmacy

Specialty medications are those that necessitate the high-touch, dedicated care of our Michigan Medicine Specialty Pharmacy partners. In many cases, new specialty products provide important therapeutic advances in rare and hard-to-treat clinical conditions. These products are typically expensive to compensate for the small populations they treat. Specialty medications are a significant driver of plan trend year over year. Until recently, specialty pharmacy had very few generics, and the category was dominated by high-cost, brand-only medications. The recent emergence of, and near-term pipeline for generics and lower-cost biosimilars provide a substantial opportunity for the university to control the rising costs in this area while still providing excellent patient access.

Since 2013, the Michigan Medicine Specialty Pharmacy has processed most specialty medications for members, with few exceptions for limited distribution drugs that are fillable only through manufacturer-designated pharmacies. The university partners with Michigan Medicine’s Specialty Pharmacy to provide high-touch, value-added services for members. These services include, but are not limited to personalized onboarding, financial assistance coordination, clinical pathways assessment and prescription verification, proactive refill outreach for adherence enhancement, and utilization of patient care monitoring platforms for clinical reassessment by highly trained pharmacist staff members. The Michigan Medicine Specialty Pharmacy has successfully maintained URAC accreditation since 2019, a reflection of its commitment to quality, operational, and clinical excellence.

Specialty drugs represented less than 2% of all claims in 2022 yet accounted for 51.2% of total drug cost. A total of 23,220 specialty drug claims were paid at a plan cost of \$115.5M, a 15.2% increase in cost compared to 2021. The average total cost of a specialty drug in 2022 was \$4,974 per claim, with an average day supply of 37.7 days. Four of the plan’s five top specialty therapeutic classes by spend (Table 4) have seen an increase in utilization since 2021. Notably, multiple sclerosis agents decreased in both utilization and plan spend year over year, largely due to 2020 generic entries continuing to take hold within the class, and the increasing popularity of bi-annually infused disease modifying agents. Conversely, larger-than-normal increases in spend and utilization were seen in the disease-modifying antirheumatic agents and the skin and mucous agents annually. These trends are being closely monitored and managed by the plan.

Table 4: Top Therapeutic Classes, Specialty Pharmacy Utilization and Spend, 2022

AHFS Category	Plan Spend		Claim Count		Top Three Drugs in 2022 by Plan Spend
	2022	Change from 2021	2022	Change from 2021	
Disease-modifying Antirheumatic Agents	\$37.3M	9.6%	6,515	+7.8%	adalimumab (Humira) – \$21M etanercept (Enbrel) – \$7M tofacitinib (Xeljanz IR/XR) – \$2M
Antineoplastic Agents	\$22.4M	12.7%	2,377	+13.3%	lenalidomide (Revlimid) – \$4.7M palbociclib (Ibrance) – \$2.4M ibrutinib (Imbruvica) – \$2.1M
Skin and Mucous Membrane Agents	\$22.2M	42.9%	1,927	+41.7%	ustekinumab (Stelara) – \$14.2M dupilumab (Dupixent) – \$3.7M guselkumab (Tremfya) – \$1.7M
Multiple Sclerosis	\$3.7M	-12.2%	1,383	-7%	glatiramer acetate (Copaxone) – \$0.8M teriflunomide (Aubagio) – \$0.7M fingolimod (Gilenya) – \$0.7M
Rare Disease	\$3.7M	90.5%	381	+17.8%	Tafamidis (Vyndamax) – \$1.9M Nitisinone (Orfadin) – \$0.6M Tafamadis Meglumine (Vyndaqel) – \$0.4M

Current and Future Specialty Strategies

Specialty pharmaceuticals continue to dominate the FDA approval landscape, with more than half of the 2022 FDA approvals meeting this designation. It is anticipated that specialty will continue to be an important driver of trend, and attention to management of this category has shaped future goals and initiatives for the university. The growth of specialty utilization continues to elicit creativity, collaboration, and innovation within the prescription drug plan and our partners. The university is dedicated to managing these costs while continuing to maintain our commitment to the provision of evidence-based access for our membership.

The plan evaluated the clinical and economic impact of several specialty classes throughout the year, including atopic dermatitis and oncology – two of the fastest growing spend areas in 2022. These reviews resulted in optimization of utilization management strategies for both classes, the outcomes of which will continue to be monitored. The plan's split fill waste mitigation program, which avoids more than \$50k in medication waste per year, was reviewed in 2022, resulting in the addition of several prospective high-risk drugs and the data-driven removal of lower-risk drugs; resulting in a net 41 drug products remaining eligible for the program. In July 2022, the plan, in partnership with our PBM, Magellan Rx, and Michigan Medicine Specialty Pharmacy, launched a copay maximizer program that saved the plan more than \$5M in just six months without impacting member access or out-of-pocket costs. This program is expected to continue to provide similar or greater value to our members in 2023.

The plan took steps in 2022 to prepare for an emerging biosimilar competition that is unfolding in the marketplace. In partnership with Michigan Medicine, the plan is poised to save nearly \$10M annually through active switch to recently approved adalimumab (Humira) biosimilars. The plan continues to proactively evaluate major opportunities in the biosimilar space that will unfold in coming years (e.g., ustekinumab in 2023-24). Additional plan priorities in the specialty space include continued exploration of opportunities in tier strategy, lowest net cost formulary decisioning, value- and outcomes-based agreements, medical drug/pharmacy parity, new start wastage mitigation, and reallocation of drug classes to Michigan Medicine pharmacies for higher quality, lower-cost care delivery.

Clinical Administration

Leveraging Expertise

The plan's clinical staff continues to leverage internal and external resources to provide sound, evidence-based recommendations for formulary additions and clinical management. These collaborations will gain importance as the number of specialty and orphan drugs comes to market at an increasingly rapid pace in the future.

Consulting with specialist physicians within the university helps establish rational guidelines for the use of medications that are consistent with practices used at Michigan Medicine. We have found that by consulting with experts, particularly those who may have participated in clinical studies on drugs or disease states, we have been able to make better-informed decisions. Plan pharmacists attend the monthly Pharmacy and Therapeutic (P&T) Committee meetings and the Cancer Pharmacy Committee at Michigan Medicine, in addition to collaborating with specialists.

Drug Reviews, Indications and Utilization

The plan's clinical pharmacists review newly approved drugs and other changes each week to identify drugs that will require review by the Pharmacy Benefit Advisory Committee (PBAC). Formulary recommendations and clinical guidelines are presented to PBAC during monthly meetings. In 2022, the drug plan reviewed 87 newly approved drugs and dosage forms for formulary consideration. The drug plan also conducts periodic reviews of various drug classes for the purpose of ensuring safe, appropriate, and cost-effective utilization. These reviews incorporate professional input from the plan's clinical staff, as well as subject matter experts from Michigan Medicine. In 2022, the plan developed and presented 10 drug class reviews to PBAC.

In addition to new drug reviews, the team monitors the market for new, approved indications and plan utilization to assess the appropriateness of use by plan members. In 2022, the clinical team created or updated more than 250 prior authorization coverage policies.

Drug Use Evaluation (DUE) Programs

Quarterly drug utilization evaluations (DUEs) are conducted to assure safe and effective utilization of prescription drugs by plan members. The goal of these DUE programs is to improve the quality of care and avoid potential complications of drug therapy. These programs look at past pharmacy claims to identify potential safety and utilization management issues. Physicians are notified via letter of any patients that have been identified using the pre-specified criteria.

In 2022, Magellan Rx conducted monthly lettering programs around migraine prophylaxis, statin therapy for members with diabetes or cardiovascular disease, asthma maintenance therapy, and concomitant opioids with benzodiazepines. In total, 3,281 letters were sent to 2,368 members. The plan continues to work with Magellan Rx on updating current programs and developing new initiatives.

Comprehensive Medication Reviews

For all members, Comprehensive Medication Reviews (CMR) are included as a covered service. This service involves a pharmacist reviewing a complete medication regimen with a member, with follow-up drug therapy recommendations to their providers. Successful CMR interventions typically result in better disease control, improved safety, and lower treatment costs. In 2022, the plan had 1,546 CMR reviews completed for our members.

Active Switch Programs

Since 2007, the plan has worked with Michigan Medicine and the university's Pharmacy Innovations and Partnerships (PIP) group to conduct provider and member intervention switch programs to move members from brand drugs to lower cost, therapeutically equivalent, in-class generics. Based on the success of these previous switch programs, the plan continues to engage with Michigan Medicine and PIP for ongoing active-switch programs as opportunities arise. Active-switch programs for DPP-4 products and osteoporosis products have remained active throughout 2022. Active-switch programs for biologics with biosimilars will be explored in 2023.

PGY-1 Managed Care Residency Program

In support of the University of Michigan's academic mission and key partnerships with the College of Pharmacy and Michigan Medicine, the Benefits Administration Office is in the seventh year of hosting an ASHP/AMCP-accredited Post-Graduate Year 1 (PGY1) Pharmacy Residency program. The residency program offers real-world learning in all aspects of pharmacy benefit management, including member support and communication, formulary management, and network and vendor management. This program underscores our commitment to education, training leaders and being a national leader in pharmacy benefits. All prior graduates of the program have successfully obtained roles within managed care or ambulatory care.

In addition to numerous contributions to the plan throughout the 2021-22 program year, Dr. Andrew Bjorlin successfully presented the results of his research project – “The clinical and economic impacts of a prophylactic calcitonin gene-related peptide inhibitor (CGRP) and abortive migraine medication monitoring program” – at the 2022 AMCP Annual Conference. After completion of the program, he obtained a position as a clinical account executive at Express Scripts. The plan's resident for the 2022-23 academic year, Dr. Olivia Ramirez, is currently researching the impact of glucagon-like peptide-1 receptor agonist on cost and health care resource utilization from an employer's perspective. Results of this project will be presented at both the AMCP Annual Conference and the Great Lakes Pharmacy Residency Conference in 2023.

2023 Priorities

Major initiatives targeted by the Prescription Drug Plan for 2023 include:

1. Controlling rising pharmacy costs while providing members with broad access to medications.
2. Exploring the potential implementation of an Employer Group Waiver Plan (EGWP) for Medicare-eligible members.
3. Managing drug spend with active formulary management, utilization controls, and improved network rates.
4. Renewing the collaborative agreement with Michigan Medicine for the plan's exclusive specialty pharmacy arrangement.

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