Covering the Care:

Pharmaceutical Utilization and Per-Member-Per-Month Costs

EXECUTIVE SUMMARY

This data brief presents a retrospective descriptive analysis of pharmaceutical utilization and its associated costs by utilizing available pharmacy claims data from three of New Hampshire's insurance payers: commercial, NH Medicaid, and NH Medicare. The brief identifies the top ten drug classes by number of prescriptions filled and their per-member-per-month costs. The analysis is based on the most recent calendar year of pharmacy claims data available (January – December 2022).[i]

This analysis reveals cost variability patterns across three of New Hampshire's insurance programs. Diabetic therapies (e.g., insulin and GLP-1 agonists) were widely used across all of the payers. They were also the most-costly drug class across all three payer types, with commercial and NH Medicare paying per member per month (PMPM) costs that were, on average, 26% higher than those of NH Medicaid (Commercial PMPM was 30.7% higher and NH Medicare PMPM was 20.8% higher).

Behavioral health drug classes were also prominent, ranking among the top ten drug classes by fill rate for all three payers. Antidepressants and anticonvulsants had some of the highest fill rates across all payers, but NH Medicare faced notably higher costs for antidepressant drugs, with PMPM costs 40% higher than commercial claims and 133% higher than NH Medicaid claims.

These findings highlight the substantial impact of drug costs on the three payer groups, underscores the cost variability across all three payer groups and its lack of consistent correlation with utilization.

TERMS AND NOTATIONS

Administrative pharmacy claims data were analyzed to determine utilization rates for each of the payer types (commercial, NH Medicaid, and NH Medicare). Utilization

DEFINITIONS[1]

Per Member Per Month (PMPM): Total amount paid for medical services, spread across all of the members, for the month. PMPM figures in this analysis are pre-rebate and/or discounts that may be subtracted out. Subsequently, the figures likely represent an amount that is more than what payers paid out once rebates and discounts were accounted for.

Fill Rate: Fill rate is the number of prescriptions filled for a given drug over a population. The equation for fill rate used in this analysis is number of fills/number of eligible members in the population *1000.

Diabetic therapy: Medications, such as insulin and GLP-1 receptor agonists, that help manage blood sugar levels for individuals with diabetes. Examples of medications in this drug class include, but are not limited to, Humalog, Mounjaro, and Trulicity.

Antihyperlipidemic Therapies: Medications that help reduce cholesterol and triglyceride levels to lower the risk of cardiovascular disease, such as statins. Medications in this drug class include, but are not limited to, Zocor, Pravigard, and Livalo.

Antihypertensive therapy agents: Medications that lower blood pressure by relaxing blood vessels, reducing heart rate, or removing excess fluid from the body. Examples of medications in this drug class include, but are not limited to, Clonidine, Hydralazine, and Ziac.

Antibacterial agents: Medications, such as antibiotics, that treat bacterial infections by killing bacteria or preventing their growth. Medications in this drug class include, but are not limited to, Neomycin, Doxycycline, and Penicillin.

[1]First Databank® Drug Database was used to identify Therapeutic Classes. Copyright 2024, First Databank, Inc.

was measured by determining the rate of insured members who had a prescription filled for each payer category (commercial, NH Medicaid, NH Medicare) in 2022.[ii]

For each of the top ten drug classes by utilization rate, the claims data were subsequently analyzed to estimate the cost of these drug classes. Pharmacy costs were measured using a per member per month (PMPM) cost metric, which reflects the total allowed amount for prescription medications, averaged across all the members of the respective payer category, for the month. This analysis included commercial enrollees from non-ERISA pharmacy plans in-situs ages 0-64, NH Medicaid managed care and fee-for-service enrollees ages 0-64 and NH Medicare Part D enrollees of all ages. All members were required to have at least one month of pharmacy eligibility in the analytic period to be included in the analysis.

Discussion Notes: The number of scripts filled does not necessarily reflect the volume of medication dispensed, as it does not reflect day supply (eg, some medications such as CNS stimulants are classified as controlled substances and can only be dispensed in 30-day increments). Thus, it is important to note that rates highlighted in this analysis represent filled prescriptions. It is also critical to note that a drug fill on a pharmacy claim does not indicate medication adherence.

ANALYSIS BY PAYER TYPE

COMMERCIAL

In the commercial claims data available, drugs commonly used to treat depression and other mental health disorders **(antidepressants) had the highest rate of fills**, with 1,534.3 fills per 1,000 members in 2022. Drugs used to treat high blood pressure (antihypertensive therapy agents) and high cholesterol (antihyperlipidemic therapies) followed with fills rates of 731.7 and 677.5 per 1,000, respectively (**Figure 1**).

Diabetic therapy (e.g., insulin and GLP-1 agonists) **was the costliest drug class** among the top ten drug classes as determined by total number of fills. This class had an average PMPM of $319 and a fill rate of 595.4 per 1,000 members. The second and third most expensive drug classes were therapies for attention deficit-hyperactive disorder (ADHD), with a PMPM cost of $62 and fill rate of 567.9 per 1,000, and asthma/COPD therapy agents, with a cost of $58 PMPM and a fill rate of 544.4 (**Figure 2**).

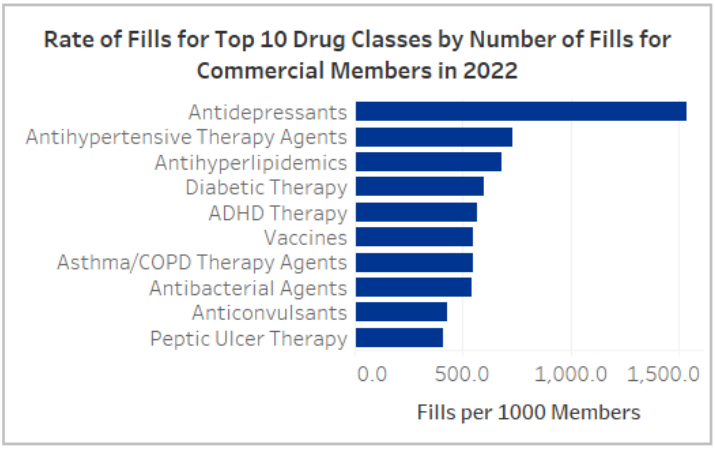

Figure 1: Rate per 1,000 Members for Top 10 Drug Classes for Commercial Members in 2022

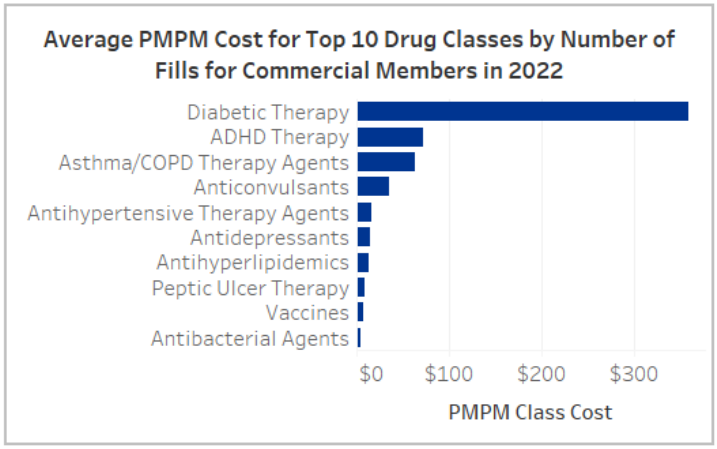

Figure 2: Average PMPM Cost for Top 10 Drug Classes for Commercial Members in 2022

NH MEDICAID

Antidepressants had the highest fill rate in NH Medicaid insured in 2022, with a rate of 1,457.7 fills per 1,000 members. The drug classes with the next highest fill rates were ADHD therapy drugs and anticonvulsants with fill rates of 803.6 and 784.1 per 1,000, respectively (**Figure 3**).

Diabetic therapy was the most-costly drug class among NH Medicaid claims for the top ten drug classes as determined by total fills with an average PMPM cost of $263 and a fill rate of 437.4 per 1,000 members. Agents for opioid withdrawal (e.g., methadone, buprenorphine) followed closely with an average cost of $173 PMPM. ADHD therapy had the third highest PMPM at $56 per member per month. These two drug classes had respective fill rates of 463.5 and 803.6 per 1,000 (**Figure 4**).

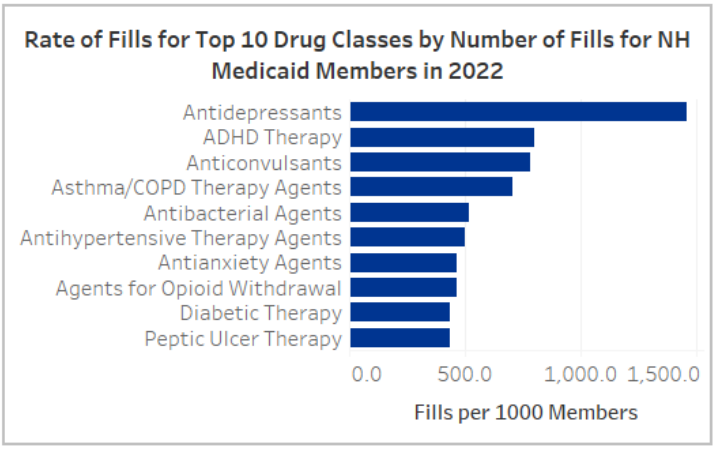

Figure 3: Rate per 1,000 Members for Top 10 Drug Classes for NH Medicaid Members in 2022

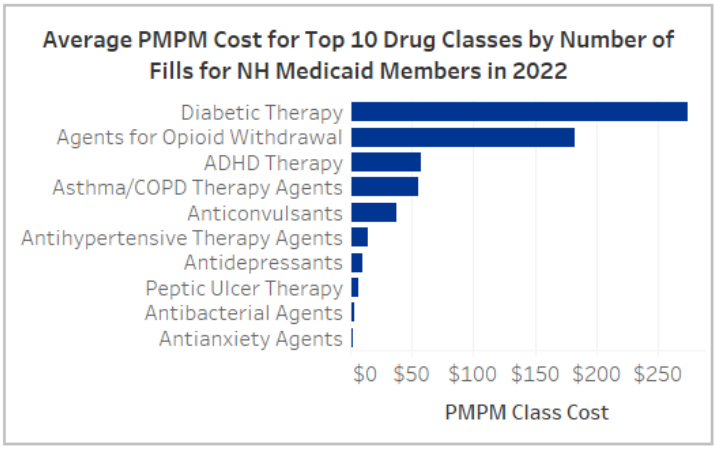

Figure 4: Average PMPM Cost for Top 10 Drug Classes for NH Medicaid Members in 2022

NH MEDICARE

Among NH Medicare enrollees, **antihyperlipidemic (high cholesterol) therapies had the highest rate of fills,** with 2,295.8 fills per 1,000 members in 2022. Antidepressants and antihypertensive (high blood pressure) therapy agents followed with fill rates of 2,246.3 and 1,933.3 per 1,000, respectively (**Figure 5**).

Diabetic therapy was the costliest drug class within the top ten drug classes by total number of fills, with an average PMPM cost of $318 and a fill rate of 1,384.5 per 1,000 members. The next most expensive drug classes were asthma/COPD therapy agents with an average PMPM cost of $153 and fill rate of 1,008.6 per 1,000, and anticonvulsants with a $36 PMPM cost and fill rate of 1,379.0 per 1,000 (**Figure 6**).

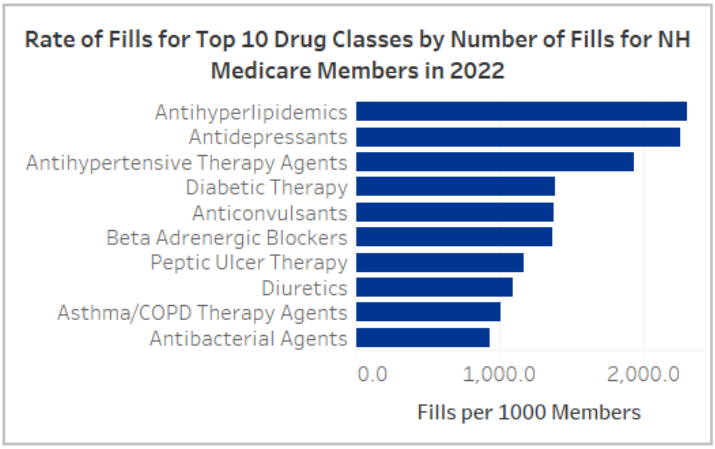

Figure 5: Rate per 1,000 Members for Top 10 Drug Classes for NH Medicare Members in 2022

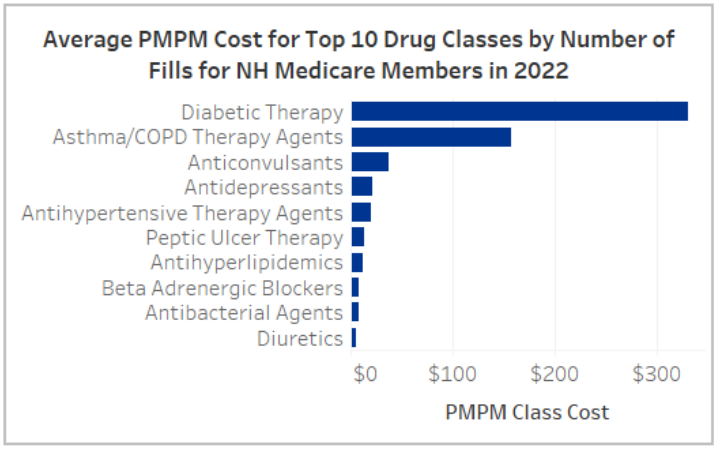

Figure 6: Average PMPM Cost for Top 10 Drug Classes for NH Medicare Members in 2022

FINDINGS AND DISCUSSION

According to this analysis, diabetic therapy (e.g., insulin and GLP-1 agonists) was the most-costly drug class across all three payers, ranging from $263 to $319 per member per month (PMPM). Antidepressants had the highest rate of fills per 1,000 members for commercial and NH Medicaid members, while antihyperlipidemic (high cholesterol) therapies had the highest fill rate for NH Medicare members. Furthermore, antidepressants, antihypertensive (high blood pressure) therapy, diabetic therapy, asthma/COPD therapy, antibacterial agents (e.g., antibiotics), anticonvulsants, and peptic ulcer therapy were also among the drug classes with the highest fill rates across all three payers.

DIABETIC THERAPY

As discussed above, diabetic therapies emerged as a significant cost among all three payer groups, ranking as the most expensive drug class in terms of PMPM cost. The fill rates for diabetic therapies varied widely: 1,384.5 per 1,000 members for NH Medicare, 595.4 per 1,000 for commercial, and 437.4 per 1,000 for NH Medicaid. Additionally, the PMPM costs were also higher for commercial ($358) and NH Medicare ($331) compared to NH Medicaid ($274). These findings highlight a significant variability in utilization of diabetic therapies among the NH Medicare population relative to commercial and NH Medicaid, while the PMPM cost for these therapies remained highest among the commercial insurance claims, with a PMPM 8% higher than the NH Medicare PMPM and 24% higher than the NH Medicaid PMPM for diabetic therapies.

BEHAVIORAL HEALTH DRUG CLASSES

One of the most striking findings in the data is the prominence of behavioral health drug classes, which rank among the top ten drug classes by total fills among all three payer groups. Behavioral health drug classes account for five of the top ten drug classes for NH Medicaid, three for commercial members, and two for NH Medicare.

Notably, antidepressants and anticonvulsants in particular were among the drug classes with the highest fill rates across all three payer groups. The fill rate for antidepressants was highest in the NH Medicare population at 2,246.3 per 1,000 members, compared to 1,534.3 for commercial and 1,457.7 for NH Medicaid members. The PMPM cost of antidepressants was $21 for NH Medicare, representing a PMPM 29% higher than the PMPM cost for antidepressants for commercial and 58% higher than the PMPM cost for antidepressants for NH Medicaid. Anticonvulsants also had higher utilization among NH Medicare members, with a fill rate of 1,379 per 1,000 members compared to 429.5 for commercial and 784.1 for NH Medicaid, though the PMPM costs for anticonvulsants were consistent across all three payer groups at $35 to $37.

ADHD therapies also had high fill rates, ranking second for commercial (567.9 per 1,000) and third for NH Medicaid (803.6 per 1,000). The PMPM costs of ADHD therapies varied by 20% between commercial ($72 PMPM) and NH Medicaid ($58 PMPM). It should be noted that this analysis does not account for possible prescribing adjustments (i.e., discontinuation of one drug to initiate another in the same or a similar class) for behavioral health conditions. Clinical effectiveness and side effects of medications that treat behavioral health conditions may vary from person to person and condition to condition . Thus, a person seeking medication-based treatment for a behavioral health condition may be prescribed more than one drug in a year, leading to higher costs per member per month.

Antianxiety agents and opioid withdrawal therapies were among the top ten drug classes by fill rate only for NH Medicaid members, with fill rates of 466.2 and 463.5 per 1,000 members, respectively. While antianxiety agents had a relatively low PMPM cost of $2, opioid withdrawal therapies ranked as the second most expensive drug class for NH Medicaid after diabetic therapies, with a PMPM cost of $182.

ASTHMA/COPD THERAPY AGENTS

Asthma and COPD therapy agents had high utilization rates across all three payer groups, with fill rates of 1,008.6 per 1,000 for NH Medicare, 704.5 per 1,000 for NH Medicaid, and 544.4 per 1,000 for commercial members. Despite the high fill rates across the three payers, the PMPM costs varied greatly. The NH Medicare population had the highest PMPM cost at $158, more than double the PMPM cost in commercial claims ($64) and nearly three times that of the PMPM cost in NH Medicaid claims ($55). These findings indicate that while asthma and COPD therapies are widely used across payers, the PMPM cost is significantly higher for NH Medicare.

ANTIHYPERLIPIDEMIC THERAPIES

Antihyperlipidemic (high cholesterol) therapies were notably absent from the top ten drug classes by fill rate for NH Medicaid. However, there were high fill rates for both NH Medicare (2,295.8 per 1,000 members) and commercial (677.5 per 1,000) for this drug class. Despite these differences in utilization, the PMPM cost for antihyperlipidemic (high cholesterol) therapies was consistent at $13 for both commercial and NH Medicare members.

POLICY IMPLICATIONS AND CONCLUSION

The dominance of anti-depressants and diabetic therapies in the top ten drug classes for both rates of fills and per-member-per-month costs was generally consistent among all three payers in New Hampshire. However, the particular PMPM costs for the same drug classes can vary significantly - demonstrating differences of as much as 250% in the PMPM cost. Moreover, the variability in PMPM cost among the three payers has no obvious or consistent correlation to the measure for utilization (frequency of fills) or lack thereof. Additional examination of pharmaceutical claims costs among the three payers and what mechanisms each payer may use to control those costs is warranted.

DATA SOURCES AND SOFTWARE

The analysis of the commercial population included enrollees who had commercial polices with a situs state of NH and used administrative pharmacy claims and enrollment data from the New Hampshire Comprehensive Healthcare Information System (NH CHIS)—New Hampshire's All-Payer Claims Database. This analysis was restricted to those with plans within the top non-ERISA commercial medical insurers (approximately 88% of the available data within NH CHIS).

Analysis of NH Medicaid enrollees used administrative pharmacy claims and enrollment data from NH Department and Health and Human Services' Enterprise Business Information (EBI) Data System. The data included claims from both managed care organizations (MCOs) and NH Medicaid fee-for-service.

Analysis of NH Medicare enrollees used administrative pharmacy claims and enrollment data from the Centers for Medicare and Medicaid Services (CMS). The analysis was restricted to enrollees with Medicare Part D.

The following software was used for this analysis: SAS 9.4 for data cleaning and aggregation, First Databank® Drug Database for identifying Therapeutic Classes and Tableau software for visualization.

ENDNOTES

[i] Available claims data reflects data from NH Medicaid excluding long-term care costs, Medicare in NH and commercial claims data excluding ERISA-governed self-funded plans.

[ii] This analysis does not conduct any methods to de-duplicate members across payers. For example, individuals who are Dual eligible for both Medicaid and Medicare are in both analyses for Medicaid and Medicare. This is due to data privacy rules.

[iii] Anticonvulsants are most commonly known for treating conditions symptomatic with seizures such as epilepsy. However, they are also prescribed for conditions such as bipolar disorder and migraines. Source: National Cancer Institute. Anticonvulsant [Internet]. Bethesda (MD): National Cancer Institute. Available from: https://www.cancer.gov/publications/dictionaries/cancer-terms/def/anticonvulsant

[iv] National Institute of Mental Health. Mental health medications [Internet]. Available from: https://www.nimh.nih.gov/health/topics/mental-health-medications

APPENDIX: DATA TABLES

TOP DRUG CLASSES

Data Source	Drug Class	Rate per 1,000 Members	Average Per Member Per Month Cost
Commercial	Antidepressants	1,543.3	$15
	Antihypertensive Therapy Agents	731.7	$16
	Antihyperlipidemics	677.5	$13
	Diabetic Therapy	595.4	$358
	ADHD Therapy	567.9	$72
	Vaccines	550.6	$8
	Asthma/COPD Therapy Agents	544.4	$64
	Antibacterial Agents	540.9	$4
	Anticonvulsants	429.5	$35
	Peptic Ulcer Therapy	411.5	$9
NH Medicaid	Antidepressants	1,457.7	$9
	ADHD Therapy	803.6	$58
	Anticonvulsants	784.1	$37
	Asthma/COPD Therapy Agents	704.5	$55
	Antibacterial Agents	520.5	$4
	Antihypertensive Therapy Agents	500.6	$15
	Antianxiety Agents	466.2	$2
	Agents for Opioid Withdrawal	463.5	$182
	Diabetic Therapy	437.4	$274
	Peptic Ulcer Therapy	437.1	$7
NH Medicare	Antihyperlipidemics	2,295.8	$13
	Antidepressants	2,246.3	$21
	Antihypertensive Therapy Agents	1,933.3	$20
	Diabetic Therapy	1,384.5	$331
	Anticonvulsants	1,379.0	$37
	Beta Adrenergic Blockers	1,362.1	$8
	Peptic Ulcer Therapy	1,169.5	$13
	Diuretics	1,089.3	$5
	Asthma/COPD Therapy Agents	1,008.6	$158
	Antibacterial Agents	930.6	$8

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The Institute for Health Policy and Practice (IHPP) is an applied research institute located within the College of Health and Human Services at the University of New Hampshire. IHPP conducts and disseminates high-quality, cutting-edge applied research and policy work that enables health system partners to implement evidence-based strategies to improve population health.