Running the Numbers

A Periodic Feature to Inform North Carolina Health Care Professionals About Current Topics in Health Statistics

Drug Expenditure Trends in North Carolina Medicaid

Rising drug prices have received a lot of attention in the past several years, but costs and trends within Medicaid programs vary from those in the commercially insured market. This article provides cost and trend information for the North Carolina Medicaid Outpatient Pharmacy Program over State fiscal years (SFYs) 2015-2016.

North Carolina Medicaid Outpatient Pharmacy Program

The North Carolina Medicaid Outpatient Pharmacy Program offers comprehensive drug coverage to ensure that low-income North Carolinians have medication access. Stakeholder collaboration, effective use of drug rebates, and careful selection of drugs from a Preferred Drug List (PDL) are just three ways the North Carolina Division of Medical Assistance provides access to medications at the most advantageous costs. The PDL, which was first implemented for North Carolina Medicaid in 2010, has allowed the state to achieve a higher percentage of savings for covered outpatient drugs through manufacturer rebates. The percentage of outpatient drug costs offset by manufacturer rebates has steadily increased over time [1, 2]. This has blunted the effect of rising drug costs to the state, leading to a situation where overall net drug costs have remained relatively constant over the most recent fiscal years. In total, post-rebate prescription costs across the state in fiscal year 2016 accounted for about 7% of total Medicaid costs in North Carolina [3].

For almost 30 years, federal legislation has mandated that drug manufacturers sign a rebate agreement with the US Department of Health and Human Services, guaranteeing a minimum Medicaid rebate in exchange for drug coverage by state Medicaid programs [4]. As drugs become available on the market, these drug rebates become an important component of determining how drugs are classified on the PDL in North Carolina. By federal law, when new brand name medications enter the market, a minimum rebate of 23.1% of the average manufacturer price (AMP) is required [4]. A Consumer Price Index for All Urban Consumers penalty may occur on top of the required federal rebate for brand name medications. This penalty is used to protect states against drug price inflation if a manufacturer raises its price faster than the rate of inflation. In addition, states may receive supplemental rebates that average 3%-6% of a state's gross spending, depending on state practices, including clinical criteria for prior approvals, reimbursement algorithms, and the drug mix on their PDL. When generic formulations become available, they are generally priced at a small discount of the brand's gross cost, with a fixed federal rebate at 13% of AMP. While generic products can become cost effective alternatives over time, factors affecting the availability of new generic drugs can cause the net cost to remain relatively high for months to years after initial market entry [4].

Figure 1 outlines the impact of rebates on the total net drug spending by North Carolina Medicaid. Rebate reimbursements were received for 52% of the total drug costs in 2015 and 59% in 2016 [5, 6]. These rebates were comparable to that of the federal rebate average, which in 2015 was 54% [4].

It is important for state Medicaid programs to account for all of these factors that together contribute to the overall cost of a drug. While history may lead one to believe that generic medications

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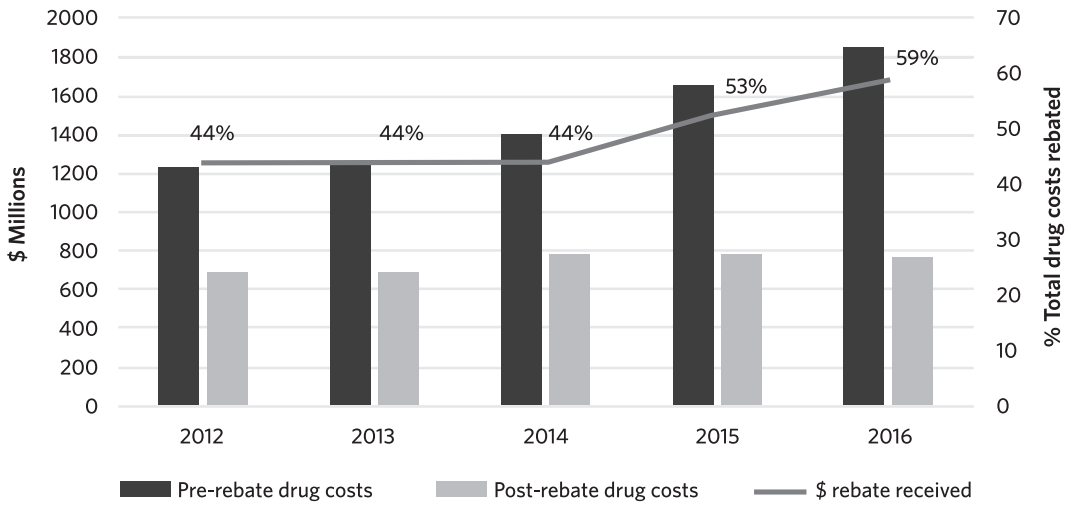
FIGURE 1.
NC Medicaid Pre- and Post-Rebate Drug Costs SFY 2012-SFY 2016



are lower cost than their brand equivalents, an effective combination of federal and supplemental rebates offered through manufacturers can drive the net cost to the state lower for brand name products than the generic, allowing the brand name product to achieve preferred status on the PDL. In addition, the rising costs of generics over the last several years is a factor contributing to more brand name products becoming preferred agents on the PDL. Many factors influence the pricing of generic medications, and marketplace competition among generic manufacturers is a primary driver. A recent survey of multiple stakeholders in the drug supply chain indicated that rising generic drug prices are primarily due to manufacturer consolidation and raw material shortages [7, 8].

North Carolina Medicaid Drug Spending Costs

The North Carolina Medicaid population is broken down into various eligibility categories that contribute differently to overall drug spending. Table 1 outlines the total drug costs by program eligibility for Medicaid in SFY 2016. Children collectively make up over 50% of the total Medicaid population; however, children account for only about one-third of total drug costs [3, 9]. Looking more closely, children covered by the North Carolina

TABLE 1.
Total Drug Cost by Program Eligibility Category SFY 2016

Program eligibility category	Number enrolled	Percent of Medicaid beneficiaries	Total cost of all Medicaid claims (in millions)	Total pre-rebate cost of drug claims (percent of all Medicaid costs)	Percent of pre-rebate total drug costs
Children[a]	1,120,010	58%	$2,936	$570,079,475 (19%)	31%
Aged, Blind, and Disabled	414,251	21%	$6,721	$977,428,529 (15%)	52%
Other adult[b]	297,271	15%	$1,217	$303,292,872 (25%)	16%
Medicare qualified beneficiaries	75,889	4%	$9	$61,546 (0.7%)	0.01%
Pregnant women	17,437	1%	$155	$11,965,328 (8%)	1%
Foreign nationals	12,873	1%	$83	$379,944 (0.5%)	<0.01%
Other claims dollars	-----	-----	$60	$743 (<0.01%)	<0.01%
Total	**1,937,731**	**100%**	**$11,182**	**$1,863,208,437 (17%)**	**100%**

[a]Children include MCHIP, Health Choice, and "other" children.
[b]"Other" adult includes family planning beneficiaries and breast and cervical cancer patients.

Health Choice program, which provides coverage for beneficiaries who are children of families whose income is too high to qualify for traditional Medicaid but too low to afford private insurance, accounts for less than 5% of total Medicaid drug costs, yet comprises approximately one-third of total health care costs for Health Choice beneficiaries [3, 9].

On the other hand, while aged/blind/disabled beneficiaries make up only one-fifth of the total Medicaid population, about half of the total drug costs are from those beneficiaries, totaling just over $975 million in 2016 [3, 9].

Other Medicaid populations, including pregnant women, dually-eligible Medicare beneficiaries, refugees and foreign nationals, and other adult populations, such as family planning, together make up the remaining drug spending costs. These groups combined total about 17% of the total Medicaid drug costs in North Carolina [9].

In North Carolina, the net costs from the total Medicaid population for prescription claims have consistently decreased over the last two SFYs. Table 2 provides a summary of these costs across that timeframe. While there was a slight increase in the total payment amount from SFY 2015 to SFY 2016, the decreasing trend in net spending is largely driven by the increase in total rebate receipts from 52% in SFY 2015 to 59% in SFY 2016 [5, 6].

Drug Costs by Class

In discussing Medicaid drug costs, it is important to note trends seen among medications prescribed across this population. Table 3 outlines 10 prescription medications that over the last fiscal year have consistently been within the top 10 medications by cost.

These medications are typically used to treat behavioral health conditions, ADHD, hepatitis C, diabetes, and asthma. The cost of the drug itself, or the number of claims associated with more commonly prescribed medications, such as albuterol, can drive these agents to consistently appear in this list.

Some of the high cost agents for North Carolina Medicaid, specifically behavioral health medications such as Abilify and specialty drugs including Harvoni and Viekira (both to treat hepatitis C), also appeared in the top 10 drugs contributing to an increase in the net cost nationally to Medicaid programs in 2015, showing that these medications, while not prescribed to a high number of individuals, can drive up drug spending costs [4]. This trend also aligns with other national Medicaid spending reports. Per the 2015 Drug Trend Report published by Express Scripts, medications used in HIV, hepatitis C, and inflammatory diseases were the top therapy classes that continue to drive Medicaid specialty drug spending, accounting for two-thirds of the total costs for specialty drugs; specialty medications as a whole accounted for over one-third (36.5%) of total Medicaid drug costs in 2015 [10].

Conclusion

Medications are a mainstay in the treatment of many chronic illnesses. While many are focused on the rising costs of medications, little focus is

TABLE 2.
Summary of Beneficiaries, Claims, and Costs SFY 2015-SFY 2016 [8, 9]

	Q3 2014	Q4 2014	Q1 2015	Q2 2015	Total SFY 2015
Unique beneficiaries	694,438	748,630	756,262	736,125	
Total Rx claims	3,967,621	4,166,895	4,143,628	4,151,047	**16,429,191**
Total pre-rebate costs	$392,126,878	$409,308,345	$425,387,741	$443,231,211	**$1,670,054,175**
Total rebate receipt (% of pre-rebate costs)	$202,087,219 (52%)	$205,747,681 (50%)	$205,326,038 (48%)	$261,667,756 (59%)	**$874,828,694 (52%)**
Post-rebate costs	$190,039,659	$203,560,644	$220,061,703	$181,563,455	**$795,225,481**
	Q3 2015	**Q4 2015**	**Q1 2016**	**Q2 2016**	**Total SFY 2016**
Unique beneficiaries	697,790	736,475	751,996	735,619	
Total Rx claims	4,009,480	4,177,863	4,228,083	4,174,033	**16,589,459**
Total pre-rebate costs	$444,626,222	$455,624,356	$468,059,405	$473,522,235	**$1,841,832,218**
Total rebate receipts (% of pre-rebate costs)	$236,744,045 (53%)	$260,491,875 (57%)	$288,104,095 (62%)	$303,363,106 (64%)	**$1,088,703,121 (59%)**
Post-rebate costs	$207,882,177	$195,132,481	$179,955,310	$170,159,129	**$753,129,097**

TABLE 3.
NC Medicaid Outpatient Pharmacy Program Top Ten Medication Expenditures by Cost (SFY 2016) [9]

Drug name *(all strengths and formulations combined)*	Total cost and claims count (SFY 2016)									
	SFY 2016 Quarter 1		SFY 2016 Quarter 2		SFY 2016 Quarter 3		SFY 2016 Quarter 4		Total SFY 2016	
	Amount paid	Number of claims	Amount paid	Number of claims	Amount paid	Number of claims	Amount paid	Number of claims	Amount paid	Number of claims
Abilify	$28,013,598	25,790	$26,064,653	23,775	$26,344,100	24,049	$24,285,434	22,228	$104,707,785	95,842
Ritalin	$13,158,571	63,322	$13,942,112	66,667	$14,666,699	67,702	$13,403,776	61,342	$55,171,159	259,033
Vyvanse	$10,672,785	46,426	$11,431,276	48,841	$12,501,729	49,596	$11,414,789	44,839	$46,020,579	189,702
Harvoni	$11,756,887	398	$9,173,030	321	$7,669,679	267	$8,098,667	266	$36,698,263	1,252
Viekira	$11,898,809	435	$11,965,984	437	$6,978,311	259	$4,899,054	181	$35,742,158	1,312
Adderall	$9,051,467	55,166	$8,990,542	55,464	$9,121,439	56,640	$8,375,372	52,255	$35,538,821	219,525
Lantus	$8,703,927	21,079	$7,841,816	18,994	$7,990,989	19,350	$7,387,125	17,951	$31,923,856	77,374
Albuterol	$7,639,216	141,250	$7,641,800	158,738	$7,610,793	150,178	$6,640,070	125,619	$29,531,879	575,785
Novolog	$7,065,605	14,894	$6,612,350	13,640	$7,199,376	14,353	$6,810,354	13,481	$27,687,685	565,368
Latuda	$6,569,531	6,845	$6,382,717	6,627	$7,283,341	7,024	$6,868,944	6,585	$27,104,533	27,081

paid to the improvements in health care utilization and outcomes that can be achieved from effective medication use. Within the proportion of North Carolina Medicaid beneficiaries enrolled with Community Care of North Carolina, higher drug expenditures are associated with improved rates of medication adherence, and along with higher utilization of primary care visits, have been shown to decrease hospitalizations and improve the total cost of care [11]. At just 7% of the overall Medicaid budget, medications can be considered a good investment to improve the overall health of North Carolina Medicaid beneficiaries. NCM

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References

1. Preferred Drug List Review Panel. NC Division of Medical Assistance website. https://www2.ncdhhs.gov/DMA/pharmacy/pdl.htm. Accessed May 4, 2017.
2. North Carolina Division of Medical Assistance. Outpatient Pharmacy Services. North Carolina Department of Health and Human Services website. https://dma.ncdhhs.gov/providers/programs-services/Prescription-drugs/Outpatient-Pharmacy-Services. Updated February 2017. Accessed March 9, 2017.
3. Sutton T, Borchik R. Running the Numbers: An Overview of North Carolina Medicaid and Health Choice. N C Med J. 2017;78(1):58-62.
4. Magellan Rx Management. 2016 Medicaid Trend Report. https://www1.magellanrx.com/media/506517/medicaid_trendreport_2016_final.pdf. Accessed April 13, 2017.
5. Department of Medical Assistance (DMA). Presented at: North Carolina Drug Utilization Review Board Meeting; October 2015; Raleigh, NC.
6. Department of Medical Assistance (DMA). Presented at: The NC Medicaid DUR Board Meeting; October 27, 2016; Raleigh, NC.
7. Terry K. Some Generic Drugs See Huge Price Increases. Medscape Medical News. http://www.medscape.com/viewarticle/868812. Published September 15, 2016. Accessed March 10, 2017.
8. Elsevier Clinical Solutions. White Paper: The Impact of Rising Generic Drug Prices on the U.S. Drug Supply Chain. http://www.ncpa.co/pdf/elsevier_wp_genericdrug.pdf. Published 2015. Accessed March 12, 2017.
9. Stancil J. Drug Expenditures by Program Eligibility Category SFY2014 thru SFY2016 [Email]. Message to: Trista Pfeiffenberger. Sent February 14, 2017. Cited March 8, 2017.
10. The Express Scripts Lab. Express Scripts 2015 Drug Trend Report. Published March 2016. Accessed March 8, 2017.
11. Treo Solutions. Performance Analysis: Healthcare Utilization of CCNC-Enrolled Population 2007-2010. Community Care of North Carolina website. https://www.communitycarenc.org/media/related-downloads/treo-solutions-report-on-utilization.pdf. Published June 2012. Accessed March 10, 2017.