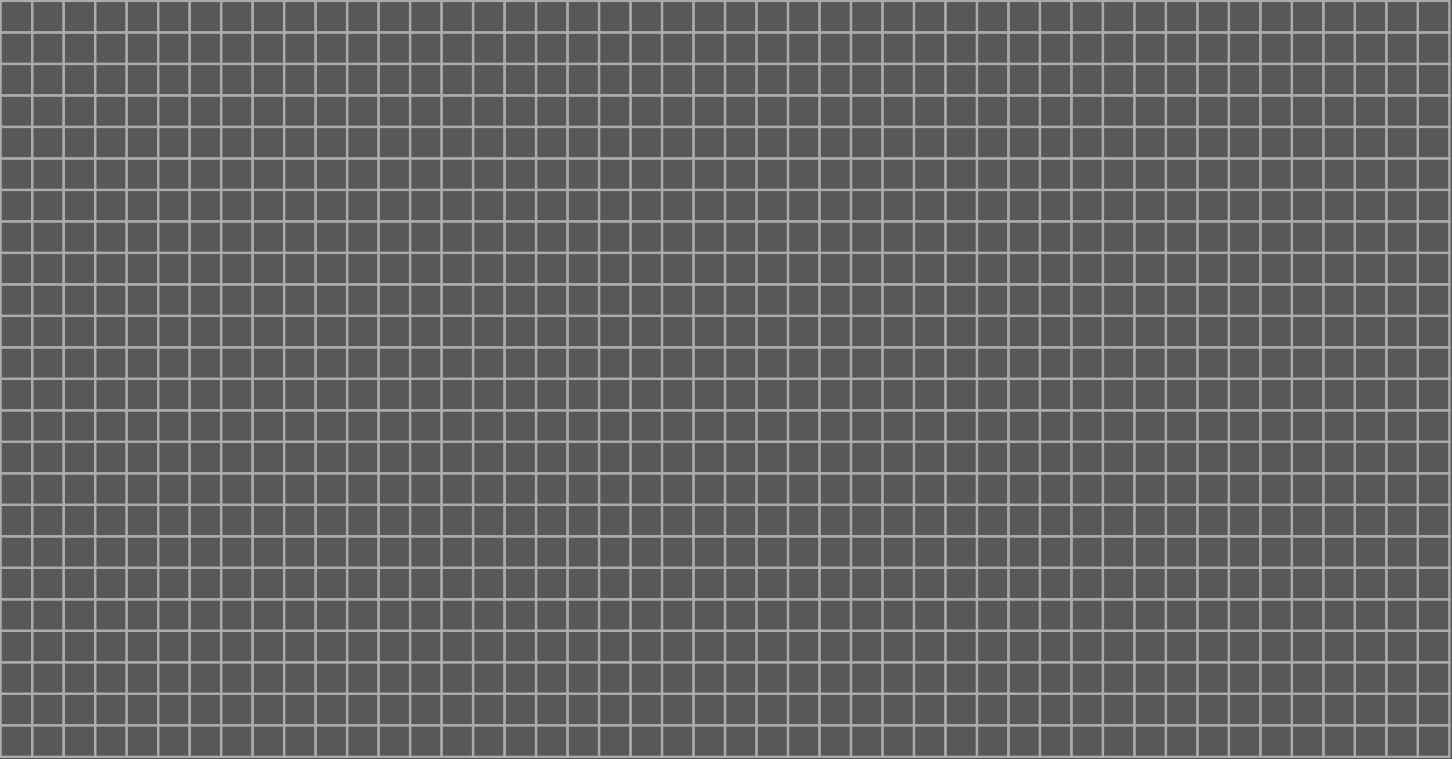




APRIL 2014

THE 2013 DRUG TREND REPORT

THE EXPRESS SCRIPTS LAB®



INTRODUCTION			
YEAR IN REVIEW	3		
THERAPY CLASS REVIEW			
TRADITIONAL MEDICATIONS	7		
TRADITIONAL SPEND RANK #1: DIABETES	9		
TRADITIONAL SPEND RANK #2: HIGH BLOOD CHOLESTEROL	10		
TRADITIONAL SPEND RANK #3: HIGH BLOOD PRESSURE / HEART DISEASE	12		
TRADITIONAL SPEND RANK #4: ULCER DISEASE	13		
TRADITIONAL SPEND RANK #5: ASTHMA	15		
TRADITIONAL SPEND RANK #6: ATTENTION DISORDERS	17		
TRADITIONAL SPEND RANK #7: DEPRESSION	18		
TRADITIONAL SPEND RANK #8: MENTAL / NEUROLOGICAL DISORDERS	19		
TRADITIONAL SPEND RANK #9: PAIN	20		
TRADITIONAL SPEND RANK #10: INFECTIONS	22		
COST AND UTILIZATION FOR THE TOP 10 TRADITIONAL THERAPY CLASSES	24		
TOP 10 TRADITIONAL THERAPY DRUGS	25		
SPECIALTY MEDICATIONS	26		
SPECIALTY SPEND RANK #1: INFLAMMATORY CONDITIONS	28		
SPECIALTY SPEND RANK #2: MULTIPLE SCLEROSIS	29		
SPECIALTY SPEND RANK #3: CANCER	30		
SPECIALTY SPEND RANK #4: HIV	31		
SPECIALTY SPEND RANK #5: GROWTH DEFICIENCY	32		
SPECIALTY SPEND RANK #6: MISCELLANEOUS CNS DISORDERS	33		
SPECIALTY SPEND RANK #7: RESPIRATORY CONDITIONS	34		
SPECIALTY SPEND RANK #8: ANTICOAGULANTS	35		
SPECIALTY SPEND RANK #9: TRANSPLANT	36		
SPECIALTY SPEND RANK #10: PULMONARY HYPERTENSION	37		
COST AND UTILIZATION FOR THE TOP 10 SPECIALTY THERAPY CLASSES	38		
TOP 10 SPECIALTY THERAPY DRUGS	39		
TREND FORECAST			
TRADITIONAL THERAPY CLASSES	40		
DIABETES AND HIGH BLOOD CHOLESTEROL	41		
HIGH BLOOD PRESSURE / HEART DISEASE AND ULCER DISEASE	42		
ASTHMA AND ATTENTION DISORDERS	43		
DEPRESSION AND MENTAL / NEUROLOGICAL DISORDERS	44		
PAIN AND INFECTIONS	45		
CONTRACEPTIVES AND SEIZURES	46		
SPECIALTY THERAPY CLASSES	47		
INFLAMMATORY CONDITIONS AND MULTIPLE SCLEROSIS	48		
CANCER AND HIV	49		
GROWTH DEFICIENCY AND MISCELLANEOUS CNS DISORDERS	50		
RESPIRATORY CONDITIONS AND TRANSPLANT	51		
PULMONARY HYPERTENSION AND HEPATITIS C	52		
TREND DRIVERS			
PHARMACY-RELATED WASTE	53		
THE EXPRESS SCRIPTS PRESCRIPTION PRICE INDEX	55		
BRAND-NAME DRUG PIPELINE AND APPROVALS	56		
RECENT AND UPCOMING DRUG PATENT EXPIRATIONS	60		
DRUG APPROVAL SPOTLIGHTS	63		
MEDICARE			
MEDICARE 2013 TREND OVERVIEW	65		
TOP 10 MEDICARE TRADITIONAL THERAPY CLASSES	68		
MEDICARE VS. COMMERCIAL TREND: TRADITIONAL	70		
COST AND UTILIZATION FOR THE TOP 10 MEDICARE TRADITIONAL THERAPY CLASSES	71		
TOP 10 MEDICARE TRADITIONAL THERAPY DRUGS	72		
TOP 10 MEDICARE SPECIALTY THERAPY CLASSES	74		
MEDICARE VS. COMMERCIAL TREND: SPECIALTY	76		
COST AND UTILIZATION FOR THE TOP 10 MEDICARE SPECIALTY THERAPY CLASSES	77		
TOP 10 MEDICARE SPECIALTY THERAPY DRUGS	78		
MEDICAID			
MEDICAID 2013 TREND OVERVIEW	79		
TOP 10 MEDICAID TRADITIONAL THERAPY CLASSES	81		
COST AND UTILIZATION FOR THE TOP 10 MEDICAID TRADITIONAL THERAPY CLASSES	83		
TOP 10 MEDICAID TRADITIONAL THERAPY DRUGS	84		
TOP 10 MEDICAID SPECIALTY THERAPY CLASSES	85		
COST AND UTILIZATION FOR THE TOP 10 MEDICAID SPECIALTY THERAPY CLASSES	87		
TOP 10 MEDICAID SPECIALTY THERAPY DRUGS	88		
APPENDIX			
ABOUT THE DRUG TREND REPORT	89		
THE DRUG TREND REPORT METHODOLOGY	90		

Year in Review

Welcome to the new home of the *Drug Trend Report*. This article provides key highlights and links to the main sections of the report.

During the long history of the *Drug Trend Report*, Express Scripts has combined prescription drug claims data with expert research and analysis in an effort to help payers and patients adjust to the changing landscape and maximize the pharmacy benefit. During the 1990s and early 2000s, when traditional drug spend was increasing 10% to 20% each year, formulary and utilization management techniques helped contain these costs. As long-term chronic conditions – such as heart disease and high blood pressure – became the leading trend drivers, we developed and implemented highly automated home delivery pharmacies to provide 90-day supplies of these medications in a way that was safer, more affordable and more convenient. When a critical mass of specialty medications came on the market and their costs started to increase dramatically, Express Scripts adjusted again to offer payers and patients solutions to effectively manage the distribution and utilization of these medications while also providing patients with clinical support and expertise to help them take their medications safely. On behalf of both payers and patients, we advocated for biosimilars to help make expensive specialty drugs affordable for more Americans.

Each of these steps was rooted in sound clinical evidence, rigorous research and unwavering alignment with the clients and patients we serve.

Adjusting to a Culture of Choice

In 2013, we witnessed the latest change in our industry’s landscape: the dawning of a new era of consumerism. The Patient Protection and Affordable Care Act (PPACA) – its provisions, implementation and promotion – created a national conversation about medical and pharmacy benefits that extended far beyond the needs of the uninsured. Consumers who have employer-sponsored insurance are increasingly exposed to information about public and private exchanges, including the concept of gold, silver and bronze plans, and are being asked to take more personal responsibility for understanding – and accepting – the financial tradeoffs involved in selecting health insurance coverage.

“Healthcare reform created a national conversation about medical and pharmacy benefits that extended far beyond the needs of the uninsured.”

This increased level of consumerism creates even greater opportunities to lower the country’s overall healthcare spending. Cost-saving solutions such as narrower provider networks and restricted formularies are more likely to be accepted by consumers who now have a better understanding of how these options keep costs in check. When patients can access the care they need when they need it, they are often willing to save money by excluding other options.

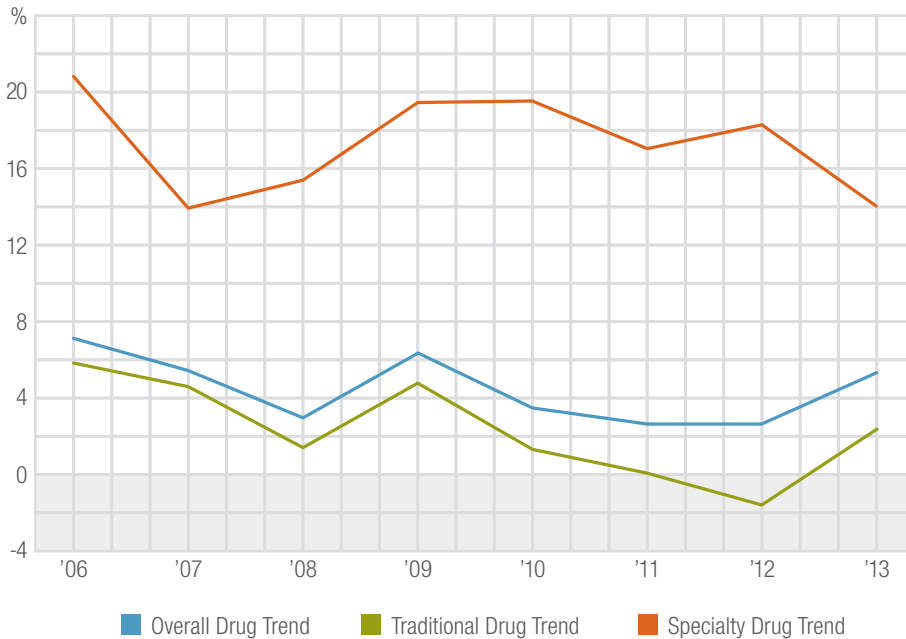
Express Scripts is embracing this new culture of choice, bringing to market new solutions that enable patients to make better decisions, contain costs and achieve healthier outcomes.

A Look at Overall Drug Trend for 2013

Overall drug spend increased 5.4% in 2013, following several years of declining rate increases.

COMPONENTS OF OVERALL DRUG TREND

EXPRESS SCRIPTS, 2006-2013



COMPONENTS OF TREND

2013

	PMPY SPEND	TREND		
		UTILIZATION	UNIT COST	TOTAL
Traditional	\$628.00	0.5%	1.9%	2.4%
Specialty	\$240.57	2.5%	11.6%	14.1%
TOTAL OVERALL	\$868.57	0.5%	4.9%	5.4%

January-December 2013 compared to same period in 2012.

Drug trend is composed of two main components: utilization and unit cost. Utilization of traditional prescription medications grew only slightly (0.5%) from 2012 to 2013, but the use of specialty medications increased 2.5%. Unit costs – the costs of the medications themselves – drove spending higher by 4.9%. Overall trend was driven by a 2.4% increase in spend for traditional (nonspecialty) medications and a 14.1% increase in spend for specialty medications, one of the lowest specialty drug trends ever recorded. However, specialty medications contributed an ever-increasing share (27.7%) of total spend that is expected to continue to grow. (Note: Roughly half of specialty medication drug costs are billed through the medical benefit and are therefore not included in our trend calculation.)

Both market forces and patient behavior impacted drug expenditures in 2013, but brand drug cost was one of the most important factors driving trend, especially for specialty medications. For this group of medications, both expensive new therapies and inflation for existing drugs drove an 11.6% increase in the unit cost. The utilization

of specialty medications increased 2.5%, fueled by both novel therapies and expanding indications for existing drugs. During 2013, however, fewer new medications were approved than in 2012, which partly explains the lower specialty trend.

Trend Drivers and Forecast

- The **price gap** between brand prices and generic drug prices, as depicted by our Prescription Price Index, continues to fluctuate as prices for brand and generic drugs change.
- In the U.S., **pharmacy-related waste** adds up to almost \$428 billion – \$100 billion more than the amount the country spent for prescription drugs in 2012.
- The **trend forecast** for the top traditional therapy classes reveals a stable, 2.0% climb year-over-year for the next three years, whereas specialty medications are expected to climb more than 16% annually in 2014, 2015 and 2016.

Insights into Therapy Classes and Costs

The pattern of reduced per-member-per-year (PMPY) spend in several top traditional therapy classes that had been seen in 2012 continued. However, spend increased for medications to treat diabetes, the most expensive traditional therapy class when ranked by PMPY spend. Utilization across traditional therapy classes was relatively flat, with the largest increases seen in medications used to treat diabetes, attention disorders and depression. Unit cost increased modestly, but the 1.9% increase was still significant considering the substantial market share captured by the generic versions of some of the most popular brand drugs such as Lexapro® (escitalopram), Lipitor® (atorvastatin), Plavix® (clopidogrel) and Singulair® (montelukast), which lost patent protection in the past few years.

Spend for specialty therapy class medications continued to rise in 2013. The top three specialty therapy classes when ranked by PMPY – inflammatory conditions, multiple sclerosis and cancer – accounted for more than 60% of the total spend for all specialty medications billed through the pharmacy benefit. New to the top 10 most expensive therapy classes is a group of drugs used to treat the symptoms of central nervous system (CNS) disorders. Decreased utilization of hepatitis C medications in 2013 dropped the therapy class from the top 10; however, PMPY spend for hepatitis C medications is forecast to rebound in 2014.

The member share of drug spend declined in 2013, as evidenced by the \$0.64 drop in the average copayment and the 1.4% drop in the member share of total cost. This decline occurred despite the \$1.27 increase in copayments for brand drugs. The key is that as patients shift from using brand medications to lower-cost generics, copayments decline, allowing patients to share in the savings that come with utilization of clinically sound, lower-cost generic alternatives.

MEMBER SHARE OF TOTAL COST

2012 TO 2013

	TRADITIONAL			SPECIALTY			TOTAL		
	2012	2013	CHANGE	2012	2013	CHANGE	2012	2013	CHANGE
ALL DRUGS									
Member Share of Total Cost	22.0%	20.7%	-1.3%	3.6%	3.4%	-0.2%	18.0%	16.6%	-1.4%
Average Member Copayment	\$12.26	\$11.58	-\$0.68	\$69.84	\$73.73	\$3.89	\$12.71	\$12.07	-\$0.64
GENERIC DRUGS									
Member Share of Total Cost	28.4%	28.1%	-0.3%	5.7%	5.7%	0.0%	27.6%	27.2%	-0.3%
Average Member Copayment	\$7.03	\$6.75	-\$0.28	\$25.03	\$24.23	-\$0.80	\$7.07	\$6.79	-\$0.28
BRAND DRUGS									
Member Share of Total Cost	18.7%	16.8%	-1.8%	3.4%	3.3%	-0.2%	14.3%	12.6%	-1.7%
Average Member Copayment	\$30.03	\$30.95	\$0.93	\$82.12	\$87.91	\$5.79	\$31.41	\$32.68	\$1.27

Medicare and Medicaid Overviews

The Express Scripts *Drug Trend Report* also includes sections dedicated to analyzing trend for the populations covered by Medicare plans (EGWP, MAPD and PDP) and by Medicaid plans. Each section looks at the components of trend for both traditional and specialty medications, the relationship between cost and utilization among the top 10 traditional and top 10 specialty therapy classes, and the top 10 drugs ranked by PMPY spend.

Workers' Compensation Drug Trend Report

The 2013 Express Scripts Workers' Compensation *Drug Trend Report* is also included. It provides an in-depth discussion of the pressing issues that workers' compensation payers face today, as well as empirical, data-based analysis and clinical insights to help manage drug trend.

Traditional Medications

Unit cost decreases offset utilization increases in five of the top 10 traditional therapy classes.

Components of Trend for the Top 10 Traditional Therapy Classes

RANKED BY 2013 PMPY SPEND

THERAPY CLASS	PMPY SPEND	TREND		
		UTILIZATION	UNIT COST	TOTAL
Diabetes	\$83.53	2.4%	11.6%	14.0%
High Blood Cholesterol	\$51.87	-2.1%	-12.3%	-14.4%
High Blood Pressure / Heart Disease	\$40.04	0.4%	-9.1%	-8.7%
Ulcer Disease	\$36.26	0.9%	-4.1%	-3.2%
Asthma	\$35.20	1.0%	-15.1%	-14.1%
Attention Disorders	\$32.83	5.3%	-1.3%	4.0%
Depression	\$31.58	1.5%	-10.5%	-9.1%
Mental / Neurological Disorders	\$23.41	-0.4%	-2.7%	-3.0%
Pain	\$22.77	-1.2%	2.8%	1.6%
Infections	\$18.97	-3.0%	9.2%	6.2%
Other	\$251.53	0.8%	10.4%	11.2%
TOTAL TRADITIONAL	\$628.00	0.5%	1.9%	2.4%

For the third year in a row, medications used to treat diabetes were the most expensive traditional therapy class when ranked by per-member-per-year (PMPY) spend. High blood cholesterol and high blood pressure medications rounded out the top three therapy classes. In general, unprecedented generic competition ushered in by the 2012 patent cliff – when billions of dollars worth of brand blockbuster medications lost patent protection – yielded lower drug costs in 2013 among many of the top 10 traditional therapy classes, including high blood cholesterol, asthma, depression and mental / neurological disorders. However, the increase in spend for diabetes medications, attention disorders treatments and anti-infective medications led to positive traditional trend.

The increase in spend for diabetes medications, attention disorders treatments and anti-infective medications led to positive traditional trend.

Highlights

Unit costs for diabetes medications drove total trend in the class. Insulin therapies such as Lantus® (insulin glargine), Humalog® (insulin lispro injection, USP [rDNA origin]) and Levemir® (insulin detemir) experienced some of the largest price increases. The captive audience and lack of biosimilar product availability are likely explanations for the continued price increases.

THErapy CLASS REVIEW – TRADITIONAL

Utilization for medications used to treat high blood cholesterol decreased 2.1% in 2013, a decline that is related to the aging of the population. As baby boomers age into Medicare Part D prescription drug coverage, the number of commercially insured users of high cholesterol medications has declined.

Asthma medications had the largest decline in unit cost, 15.1%, in 2013. In 2012, one of the most popular asthma treatments – Singulair® (montelukast), which had captured more than 30% of the market share in the class – lost patent protection. In 2013, the therapy class was still responding to the impact of the generic competition.

The largest increase in utilization was for medications used to treat attention disorders such as attention deficit hyperactivity disorder (ADHD). Utilization increased 5.3% in 2013, driven primarily by increased utilization among adults. There is a body of literature suggesting that adults are underdiagnosed,¹ which may be contributing to increased utilization, in addition to increased utilization by students for cognitive enhancement.²

PMPY spend for anti-infective medications increased 6.2% in 2013, driven primarily by an increase in unit cost. The largest price increases were seen for two commonly used medications in this therapy class, doxycycline and tetracycline, which experienced prolonged drug shortages in 2013. Shortages commonly result in increased drug prices.

Footnotes

1. Asherson P, Akehurst R, Kooij JJ, et al. Under diagnosis of adult ADHD: cultural influence and societal burden. *J Atten Disord.* 2012;16(5 Suppl):20S-38S.
2. Ragan CI, Bard I, Singh I. What should we do about student use of cognitive enhancers? An analysis of current evidence. *Neuropharmacology.* 2013;64:288-595.

Traditional Spend Rank #1: Diabetes

PMPY spend for diabetes medications was \$83.53 in 2013, 14.0% higher than in 2012.

Medications used to treat diabetes were the most expensive for the third year in a row. Per-member-per-year (PMPY) spend was \$83.53, 14.0% higher than in 2012. Brand innovation continues in this traditional therapy class. Two medications in a new class of glucose-lowering, weight-loss-promoting diabetes drugs known as sodium glucose cotransporter-2 (SGLT-2) inhibitors were approved in 2013.

37.9% of patients are nonadherent to medication therapy

Pharmacy-Related Waste

Changes in member pharmacy and drug choices for diabetes medications may result in a potential \$41.87 PMPY savings opportunity, which is 50.1% of PMPY spend for this therapy class.

2013 SAVINGS OPPORTUNITY	
PHARMACY CHOICES	\$22.13
DRUG CHOICES	\$19.74
TOTAL SAVINGS OPPORTUNITY (PMPY)	\$41.87
SAVINGS AS A PERCENTAGE OF PMPY SPEND	50.1%

Key Drug Information

Two of the most commonly used diabetes medications, glimepiride and glipizide, are generic drugs whose branded formulation patents expired about 10 years ago.

2013 TOP DRUGS BY MARKET SHARE	
metformin	29.1%
Lantus® (insulin glargine)	6.8%
glipizide	5.6%
OneTouch® Ultra Test Strips	5.3%
glimepiride	4.9%

By the Numbers

The prevalence of use of diabetes medications in 2013 was the second-lowest among the traditional therapy classes in the top 10.

2013 STATISTICS	
NUMBER OF PRESCRIPTIONS (PMPY)	0.890
PREVALENCE OF USE	5.3%
AVERAGE COST PER PRESCRIPTION	\$93.87
GENERIC FILL RATE (GFR)	47.4%

Traditional Spend Rank #2: High Blood Cholesterol

PMPY spend for high blood cholesterol medications was \$51.87 in 2013.

A 12.3% decline in unit cost and a 2.1% drop in utilization contributed to an overall 14.4% decrease in per-member-per-year (PMPY) spend for high blood cholesterol treatments in 2013. The continued market saturation of generic drugs fueled declines in drug prices. In addition, one of the last remaining brand statins, Crestor® (rosuvastatin), is set to lose patent protection in 2016. Although new guidelines recommending treatment of high blood cholesterol based on patient risk factors rather than on cholesterol levels are expected to increase the utilization of statins, the complicated formula for determining risk has many primary care physicians taking a wait-and-see approach before incorporating the recommendations into common prescribing practice.

28.3% of patients are nonadherent to medication therapy

Pharmacy-Related Waste

Changes in member pharmacy and drug choices for high blood cholesterol medications may result in a potential \$37.72 PMPY savings opportunity, which is 72.7% of PMPY spend for this therapy class.

2013 SAVINGS OPPORTUNITY	
PHARMACY CHOICES	\$14.61
DRUG CHOICES	\$23.11
TOTAL SAVINGS OPPORTUNITY (PMPY)	\$37.72
SAVINGS AS A PERCENTAGE OF PMPY SPEND	72.7%

Key Drug Information

Four of the top five high blood cholesterol treatments are statins.

2013 TOP DRUGS BY MARKET SHARE	
atorvastatin	27.4%
simvastatin	26.5%
Crestor® (rosuvastatin)	11.0%
pravastatin	10.2%
Zetia® (ezetimibe)	3.4%

By the Numbers

The prevalence of use of high blood cholesterol medications was surpassed only by medications indicated to treat high blood pressure, pain and infections.

2013 STATISTICS	
NUMBER OF PRESCRIPTIONS (PMPY)	1.201
PREVALENCE OF USE	1.4%
AVERAGE COST PER PRESCRIPTION	\$43.18
GENERIC FILL RATE (GFR)	76.4%

Traditional Spend Rank #3: High Blood Pressure / Heart Disease

PMPY spend for high blood pressure / heart disease medications was \$40.04 in 2013.

Per-member-per-year (PMPY) spend for medications used to treat high blood pressure / heart disease decreased 8.7%, to \$40.04, driven by a 9.1% decrease in unit cost. Generic medications made up 90% of total market share in the class in 2013, partly as a result of the continuing wave of patent expirations for angiotensin II receptor blockers.

28.6% of patients are nonadherent to medication therapy

Pharmacy-Related Waste

Changes in member pharmacy and drug choices for high blood pressure / heart disease medications may result in a potential \$22.25 PMPY savings opportunity, which is 55.6% of PMPY spend for this therapy class.

2013 SAVINGS OPPORTUNITY	
PHARMACY CHOICES	\$9.73
DRUG CHOICES	\$12.52
TOTAL SAVINGS OPPORTUNITY (PMPY)	\$22.25
SAVINGS AS A PERCENTAGE OF PMPY SPEND	55.6%

Key Drug Information

The extended-release version of metoprolol – metoprolol succinate – gained market share whereas the immediate-release version – metoprolol tartrate – dropped off the list of top five drugs by market share.

2013 TOP DRUGS BY MARKET SHARE	
lisinopril	16.6%
amlodipine	11.3%
metoprolol succinate	8.8%
losartan	6.2%
atenolol	5.6%

By the Numbers

The number of PMPY prescriptions for high blood pressure / heart disease medications was the highest among the traditional therapy classes in the top 10.

2013 STATISTICS	
NUMBER OF PRESCRIPTIONS (PMPY)	2.143
PREVALENCE OF USE	15.8%
AVERAGE COST PER PRESCRIPTION	\$18.68
GENERIC FILL RATE (GFR)	89.9%

Traditional Spend Rank #4: Ulcer Disease

PMPY spend for ulcer disease medications was \$36.26 in 2013.

Total trend for ulcer disease medications was negative in 2013, driven primarily by a 4.1% decrease in unit cost. In 1997 when Express Scripts released the first *Drug Trend Report*, ulcer disease medications were first on the top 10 list when ranked by per-member-per-year (PMPY) spend. Although this therapy class still ranks in the top 10 today, market saturation of generic drugs and declines in utilization because of over-the-counter formulations are likely to change the landscape significantly in the next few years.

Research suggests that veterans diagnosed with gastroesophageal reflux disease are highly adherent to their medications during the first two years of therapy.¹

Pharmacy-Related Waste

Changes in member pharmacy and drug choices for ulcer disease medications may result in a potential \$27.21 PMPY savings opportunity, which is 75.0% of PMPY spend for this therapy class.

2013 SAVINGS OPPORTUNITY	
PHARMACY CHOICES	\$11.10
DRUG CHOICES	\$16.11
TOTAL SAVINGS OPPORTUNITY (PMPY)	\$27.21
SAVINGS AS A PERCENTAGE OF PMPY SPEND	75.0%

Key Drug Information

The patent for the only brand proton pump inhibitor (PPI) in the top five drugs by market share – Nexium® (esomeprazole magnesium), which commands more than one-fifth of the market share of prescription medications to treat ulcer disease – will expire in 2014.

2013 TOP DRUGS BY MARKET SHARE	
omeprazole	41.5%
Nexium® (esomeprazole magnesium)	20.5%
pantoprazole	16.0%
ranitidine	6.1%
lansoprazole	5.3%

By the Numbers

Ulcer disease medications had the fifth-highest average cost per prescription and the sixth-highest generic fill rate among the top 10 traditional therapy classes.

2013 STATISTICS	
NUMBER OF PRESCRIPTIONS (PMPY)	0.607
PREVALENCE OF USE	8.5%
AVERAGE COSTPER PRESCRIPTION	\$59.71
GENERIC FILL RATE (GFR)	73.9%

Footnote

1. Gawron AJ, Pandolfino JE, Miskevics S, LaVela SL. Proton pump inhibitor prescriptions and subsequent use in US veterans diagnosed with gastroesophageal reflux disease. J Gen Intern Med. 2013;28(7):930-937.

Traditional Spend Rank #5: Asthma

PMPY spend for asthma medications was \$35.20 in 2013.

Although the generic fill rate for asthma medications was the lowest of any top-10 traditional therapy class, per-member-per-year (PMPY) spend for asthma medications dropped 14.1% in 2013, to \$35.20, driven primarily by a decrease in unit cost. Asthma also dropped in rank from the fourth to the fifth most expensive therapy class from 2012 to 2013.

78.4% of pediatric patients and 53.9% of adult patients are nonadherent to medication therapy

Pharmacy-Related Waste

Changes in member pharmacy and drug choices for asthma medications may result in a potential \$4.69 PMPY savings opportunity, which is 13.3% of PMPY spend for this therapy class.

2013 SAVINGS OPPORTUNITY	
PHARMACY CHOICES	\$3.35
DRUG CHOICES	\$1.34
TOTAL SAVINGS OPPORTUNITY (PMPY)	\$4.69
SAVINGS AS A PERCENTAGE OF PMPY SPEND	13.3%

Key Drug Information

Montelukast, the generic formulation of Singulair®, captured more market share in 2013 than brand Singulair and generic montelukast together captured in 2012.

2013 TOP DRUGS BY MARKET SHARE	
montelukast	30.1%
ProAir® HFA (albuterol)	16.8%
Advair Diskus® (fluticasone propionate / salmeterol)	12.0%
Ventolin® HFA (albuterol)	8.8%
albuterol	5.3%

By the Numbers

Asthma medications had a relatively high average cost per prescription in 2013 in view of the fact that two of the five most commonly used drugs in the class were generics.

2013 STATISTICS	
NUMBER OF PRESCRIPTIONS (PMPY)	0.445
PREVALENCE OF USE	8.8%
AVERAGE COST PER PRESCRIPTION	\$79.09
GENERIC FILL RATE (GFR)	39.9%

Traditional Spend Rank #6: Attention Disorders

PMPY spend for attention disorders medications was \$32.83 in 2013.

Per-member-per-year (PMPY) spend for medications used to treat attention disorders increased 4.0% in 2013. Although unit cost trend was negative, the class experienced a 5.3% increase in utilization, driven primarily by an increase in utilization among adults.

In a study of children using stimulant therapy to treat ADHD, parental awareness of the psychosocial benefits of the medications were an important predictor of a child’s adherence to therapy.¹

Pharmacy-Related Waste

2013 SAVINGS OPPORTUNITY	
PHARMACY CHOICES	-\$17.54
DRUG CHOICES	-\$0.44
TOTAL SAVINGS OPPORTUNITY (PMPY)	-\$17.97
SAVINGS AS A PERCENTAGE OF PMPY SPEND	0.0%

Key Drug Information

The five most commonly used drugs used for treating attention disorders in 2012 retained their rankings in 2013.

2013 TOP DRUGS BY MARKET SHARE	
amphetamine / dextroamphetamine	38.1%
methylphenidate	23.4%
Vyvanse® (lisdexamfetamine)	16.1%
Focalin XR® (dexmethylphenidate)	4.4%
Strattera® (atomoxetine)	4.0%

By the Numbers

The \$144.06 average cost per prescription for attention disorders medications was the second highest among the traditional therapy classes in the top 10.

2013 STATISTICS	
NUMBER OF PRESCRIPTIONS (PMPY)	0.228
PREVALENCE OF USE	2.7%
AVERAGE COST PER PRESCRIPTION	\$144.06
GENERIC FILL RATE (GFR)	67.2%

Footnote

1. Hebert J, Polotskaia A, Joobar R, Grizenko N. Adherence to psychostimulant medication in children with attention-deficit / hyperactivity disorder: the role of attitudes. *J Can Acad Child Adolesc Psychiatry.* 2013;22(4):317-323.

Traditional Spend Rank #7: Depression

PMPY spend for depression medications was \$31.58 in 2013.

Medications used to treat depression had one of the lowest average costs per prescription and among the highest generic fill rates, which together contributed to a 9.1% decrease in per-member-per-year (PMPY) spend, to \$31.58. The best-selling serotonin norepinephrine reuptake inhibitor (SNRI), Cymbalta® (duloxetine), lost patent protection in December 2013, which is expected to impact spend even further in 2014.

40.0% of patients are nonadherent to medication therapy

Pharmacy-Related Waste

Changes in member pharmacy and drug choices for antidepressants may result in a potential \$17.06 PMPY savings opportunity, which is 54.0% of PMPY spend for this therapy class.

2013 SAVINGS OPPORTUNITY	
PHARMACY CHOICES	\$9.50
DRUG CHOICES	\$7.56
TOTAL SAVINGS OPPORTUNITY (PMPY)	\$17.06
SAVINGS AS A PERCENTAGE OF PMPY SPEND	54.0%

Key Drug Information

The five most commonly used medications indicated to treat depression, all of which were generics, together contributed more than two-thirds of total market share for the class.

2013 TOP DRUGS BY MARKET SHARE	
sertraline	17.8%
citalopram	15.0%
bupropion	14.2%
escitalopram	12.1%
fluoxetine	11.4%

By the Numbers

The prevalence of use of medications for the treatment of depression was higher than that of medications used to treat diabetes, the most expensive therapy class when ranked by PMPY spend.

2013 STATISTICS	
NUMBER OF PRESCRIPTIONS (PMPY)	0.900
PREVALENCE OF USE	10.0%
AVERAGE COST PER PRESCRIPTION	\$35.09
GENERIC FILL RATE (GFR)	88.4%

Traditional Spend Rank #8: Mental / Neurological Disorders

PMPY spend for mental / neurological medications was \$23.41 in 2013.

Per-member-per-year (PMPY) spend for mental / neurological disorders treatments declined 3.0%, to \$23.41, in 2013, driven by a 2.7% decrease in unit cost in the class. This decrease was related to the increased availability of generic drugs – including quetiapine, the active ingredient in the brand blockbuster Seroquel®, which lost patent protection in 2012. Moreover, brand Abilify® (aripiprazole), which captured almost 15% of market share in 2013, faces the impending loss of patent protection in 2015, as well.

41.9% of patients are nonadherent to medication therapy

Pharmacy-Related Waste

Changes in member pharmacy and drug choices for mental / neurological disorders medications may result in a potential \$12.54 PMPY savings opportunity, which is 34.5% of PMPY spend for this therapy class.

2013 SAVINGS OPPORTUNITY	
PHARMACY CHOICES	\$8.07
DRUG CHOICES	\$4.48
TOTAL SAVINGS OPPORTUNITY (PMPY)	\$12.54
SAVINGS AS A PERCENTAGE OF PMPY SPEND	34.5%

Key Drug Information

The four most commonly used generic medications for the treatment of mental / neurological disorders contributed almost half of total market share for the class.

2013 TOP DRUGS BY MARKET SHARE	
quetiapine	17.3%
Abilify® (aripiprazole)	14.6%
risperidone	11.9%
donepezil	10.6%
lithium	7.9%

By the Numbers

Medications used to treat mental / neurological disorders had the highest average cost per prescription in 2013, driven by the costs for brand drugs such as Abilify.

2013 STATISTICS	
NUMBER OF PRESCRIPTIONS (PMPY)	0.131
PREVALENCE OF USE	1.6%
AVERAGE COST PER PRESCRIPTION	\$178.02
GENERIC FILL RATE (GFR)	67.9%

Traditional Spend Rank #9: Pain

PMPY spend for pain medications was \$22.77 in 2013.

A decrease in utilization combined with a modest increase in unit cost contributed to a 1.6% increase in per-member-per-year (PMPY) spend for pain medications in 2013. Although generic medications continue to dominate the class, PMPY spend has not declined in accordance because some manufacturers of branded, tamper-resistant formulations have been successful in blocking generics to older, regular-release formulations with claims of superior safety for newer versions.

Adherence monitoring in patients using opioids to treat chronic pain is important for establishing treatment bias, ensuring sound pain management, and avoiding potential misuse and abuse.¹

Pharmacy-Related Waste

Changes in member pharmacy and drug choices for pain may result in a potential \$16.38 PMPY savings opportunity, which is 72.0% of PMPY spend for this therapy class.

2013 SAVINGS OPPORTUNITY	
PHARMACY CHOICES	\$3.65
DRUG CHOICES	\$12.73
TOTAL SAVINGS OPPORTUNITY (PMPY)	\$16.38
SAVINGS AS A PERCENTAGE OF PMPY SPEND	72.0%

Key Drug Information

The combination of hydrocodone and acetaminophen has been the most commonly used pain medication for at least five years.

2013 TOP DRUGS BY MARKET SHARE	
hydrocodone / acetaminophen	40.4%
tramadol	13.0%
oxycodone / acetaminophen	12.3%
amitriptyline	6.1%
oxycodone	4.7%

By the Numbers

Pain medications had the third-lowest average cost per prescription among the top 10 traditional therapy classes in 2013.

2013 STATISTICS	
NUMBER OF PRESCRIPTIONS (PMPY)	0.683
PREVALENCE OF USE	17.2%
AVERAGE COST PER PRESCRIPTION	\$33.31
GENERIC FILL RATE (GFR)	95.0%

Footnote

1. Manchikanti L, Atluri S, Trescot AM, Giordano J. Monitoring opioid adherence in chronic pain patients: tools, techniques and utility. *Pain Physician*. 2008;11 (2 Suppl):S155-S180.

Traditional Spend Rank #10: Infections

PMPY spend for anti-infective medications was \$18.97 in 2013.

Per-member-per-year (PMPY) spend for medications in the anti-infectives therapy class, which include oral antibiotics, increased 6.2%, to \$18.97, in 2013. The primary trend driver in this class was an increase in unit cost that was in part the result of drug shortages for commonly used therapies including doxycycline and tetracycline. Drug shortages often lead to increased drug prices.

Recent research suggests that nearly half of all patients prescribed oral antibiotics after emergency department discharge are not adherent to therapy.¹

Pharmacy-Related Waste

Changes in member pharmacy and drug choices for anti-infectives may result in a potential \$7.30 PMPY savings opportunity, which is 38.5% of PMPY spend for this therapy class.

2013 SAVINGS OPPORTUNITY	
PHARMACY CHOICES	\$0.88
DRUG CHOICES	\$6.42
TOTAL SAVINGS OPPORTUNITY (PMPY)	\$7.30
SAVINGS AS A PERCENTAGE OF PMPY SPEND	38.5%

Key Drug Information

The five most commonly used drugs in this therapy class, which contains hundreds of different formulations, contributed almost 60% of total market share for the class.

2013 TOP DRUGS BY MARKET SHARE	
azithromycin	19.0%
amoxicillin	17.2%
amoxicillin / potassium clavulanate	9.8%
sulfamethoxazole / trimethoprim	6.7%
ciprofloxacin	6.6%

By the Numbers

All but 2% of prescriptions filled for anti-infective medications in 2013 were for generic medications, despite the shortages of commonly used generic drugs.

2013 STATISTICS	
NUMBER OF PRESCRIPTIONS (PMPY)	0.850
PREVALENCE OF USE	36.4%
AVERAGE COST PER PRESCRIPTION	\$22.33
GENERIC FILL RATE (GFR)	98.0%

Footnote

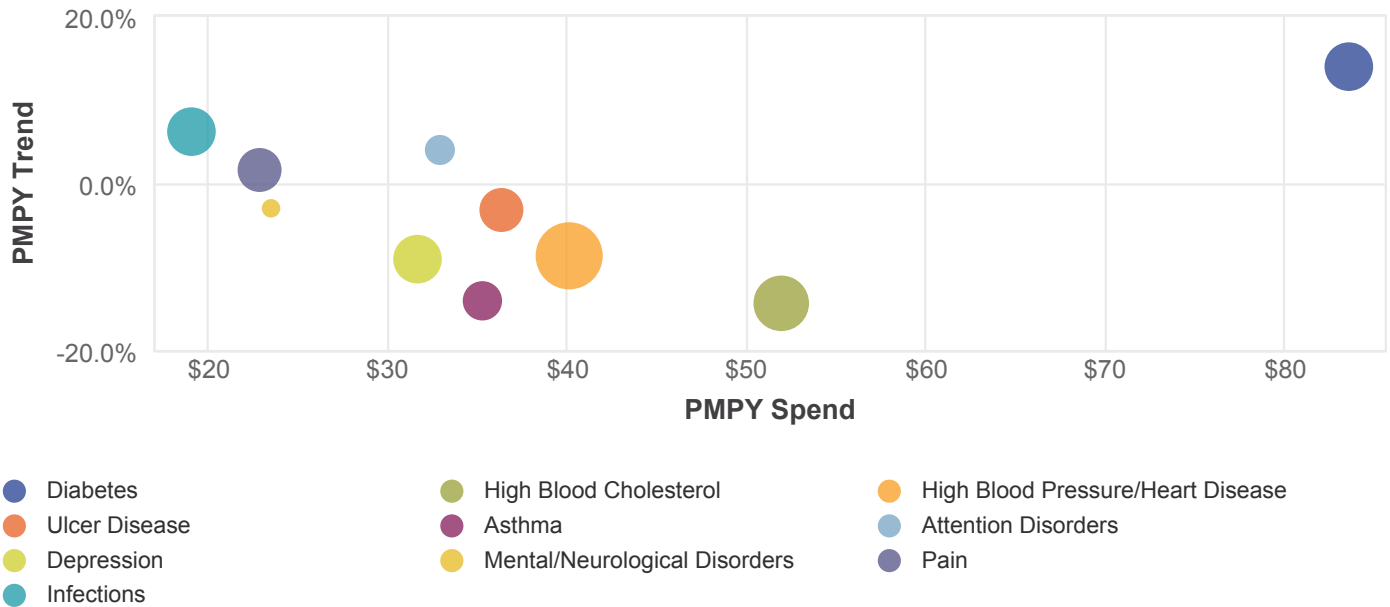
1. Suffoletto B, Calabria J, Ross A, Callaway C, Yealy DM. A mobile phone text message program to measure oral antibiotic use and provide feedback on adherence to patients discharged from the emergency department. *Acad Emerg Med.* 2012;19(8):949-958.

Cost and Utilization for the Top 10 Traditional Therapy Classes

PMPY spend was the least for anti-infective medications, but the lowest PMPY trend was seen for high blood cholesterol medications.

COST AND UTILIZATION FOR THE TOP 10 TRADITIONAL THERAPY CLASSES

SPEND AND UTILIZATION IN 2013 AND TREND FROM 2012 – 2013



[View the interactive version of this chart online](#)

This chart shows the relationship between cost and utilization for medications in the top 10 traditional therapy classes.

How to read this chart: Each bubble plots the 2013 per-member-per-year (PMPY) spend for one therapy class against the PMPY trend, which is the change in spend for that class from 2012 to 2013. The size of the bubble depicts the number of PMPY prescriptions filled in that therapy class.

Spend for diabetes medications far outpaced that of the next highest therapy class, high blood cholesterol. PMPY trend was also the greatest for diabetes medications. PMPY spend was the least for anti-infective medications, but the lowest PMPY trend was seen for high blood cholesterol medications. The most intensely used medications were those for the treatment of high blood pressure / heart disease, whereas the least intensely used therapy class contained medications for the treatment of mental / neurological disorders.

As the chart shows, although PMPY spend for diabetes medications was the highest, these weren't the most intensely used medications. In addition, PMPY trend was the lowest for high blood cholesterol medications, but they weren't the least expensive medications when ranked by PMPY spend.

Top 10 Traditional Therapy Drugs

Brand drugs dominated the list of top 10 traditional therapy drugs.

TOP 10 TRADITIONAL THERAPY DRUGS

RANKED BY 2013 PMPY SPEND

RANK	DRUG NAME	THERAPY CLASS	PMPY SPEND	% OF TOTAL TRADITIONAL SPEND	UTILIZATION TREND	UNIT COST TREND	TOTAL TREND
1	Nexium® (esomeprazole magnesium)	Ulcer Disease	\$23.76	3.8%	-9.7%	13.4%	3.8%
2	Crestor® (rosuvastatin)	High Blood Pressure / Heart Disease	\$16.81	2.7%	-7.4%	13.8%	6.4%
3	Cymbalta® (duloxetine)	Depression	\$14.50	2.3%	-4.9%	19.1%	14.1%
4	Lantus® (insulin glargine)	Diabetes	\$13.54	2.2%	3.3%	23.4%	26.7%
5	Abilify® (aripiprazole)	Mental / Neurological Disorders	\$12.39	2.0%	-0.4%	17.7%	17.3%
6	Advair Diskus® (fluticasone propionate / salmeterol)	Asthma	\$11.58	1.8%	-10.8%	11.0%	0.2%
7	amphetamine / dextroamphetamine	Attention Disorders	\$8.36	1.3%	12.2%	-8.2%	4.0%
8	Humalog® (insulin lispro injection, USP [rDNA origin])	Diabetes	\$7.55	1.2%	4.2%	17.7%	21.9%
9	Januvia® (sitagliptin)	Diabetes	\$7.23	1.2%	-8.1%	14.0%	6.0%
10	AndroGel® (testosterone gel)	Hormonal Supplementation	\$6.85	1.1%	9.7%	14.6%	24.3%

Nexium was the most expensive traditional therapy drug, with a per-member-per-year (PMPY) spend of \$23.76 in 2013. Its total trend was 3.8%, despite a significant drop in utilization. Nexium will lose patent protection later in 2014. Lantus, an insulin used to treat diabetes, was the medication with the highest total trend (26.7%), driven by a double-digit increase in unit cost. The largest increase in utilization was seen for dextroamphetamine / amphetamine, a generic combination product used to treat attention disorders.

Nine of the top 10 traditional therapy drugs had double-digit unit cost trend, and all 10 had positive total trend.

Brand drugs dominated the top 10 drugs, with the nine of them alone contributing 18.2% of total PMPY spend for all traditional therapy drugs. Along with Nexium, several of these brand drugs, including Crestor, are subject to upcoming patent expirations, which may be driving some of the cost increases. With the exception of the generic amphetamine / dextroamphetamine combination therapy, all medications in the top 10 had double-digit unit cost trend. All of the medications in the top 10 drugs had positive total trend.

Specialty Medications

The top three specialty therapy classes contributed 60.6% of total specialty spend.

COMPONENTS OF TREND FOR THE TOP 10 SPECIALTY THERAPY CLASSES

RANKED BY 2013 PMPY SPEND

RANK	THERAPY CLASS	PMPY SPEND	TREND		
			UTILIZATION	UNIT COST	TOTAL
1	Inflammatory Conditions	\$63.31	6.8%	15.0%	21.8%
2	Multiple Sclerosis	\$46.03	1.0%	14.7%	15.7%
3	Cancer	\$36.34	10.5%	13.6%	24.1%
4	HIV	\$26.54	2.3%	10.9%	13.2%
5	Growth Deficiency	\$8.87	-1.2%	9.9%	8.7%
6	Miscellaneous CNS Disorders	\$6.87	14.1%	25.1%	39.2%
7	Respiratory Conditions	\$6.79	4.0%	12.5%	16.5%
8	Anticoagulants	\$5.73	-2.8%	-7.3%	-10.1%
9	Transplant	\$5.07	2.0%	-0.2%	1.8%
10	Pulmonary Hypertension	\$4.96	1.8%	-1.2%	0.6%
	Other	\$30.08	-7.1%	4.0%	-3.1%
TOTAL SPECIALTY		\$240.57	2.5%	11.6%	14.1%

Together, spend for the top three specialty therapy classes when ranked by per-member-per-year (PMPY) spend – inflammatory conditions (such as rheumatoid arthritis and psoriasis), multiple sclerosis and cancer – contributed 60.6% of the spend for all specialty medications billed through the pharmacy benefit in 2013.

For the first time, the miscellaneous central nervous system (CNS) disorders therapy class entered the top 10.

Also in 2013, for the first time, the miscellaneous central nervous system (CNS) disorders therapy class entered the top 10 – a distinct group of drugs used to treat the symptoms of central nervous system (CNS) disorders such as Huntington’s disease, narcolepsy and Parkinson’s disease. Although their ranking is driven in part by the decreased spend for hepatitis C medications in 2013 (which dropped hepatitis C from its ranking as one of the top 10 most expensive specialty therapy classes), the CNS disorders drugs have themselves experienced significant growth in both cost and utilization.

Highlights

Inflammatory conditions continue to rank as the most expensive specialty therapy class, driven by increases in both utilization and the unit cost. The utilization increase is attributed to an expansion in approved indications as well as potential off-label use, which has been deemed clinically appropriate and supported by recent research. Another reason for the increase in utilization may be that specialty disease-modifying anti-rheumatic drugs, including Humira® (adalimumab) and Enbrel® (etanercept), are being prescribed earlier in the course of treatment as prescribers become more comfortable with the medications.

Increases in the utilization and the unit cost of cancer medications contributed equally to a 24.1% increase in PMPY spend in this therapy class. With new, highly targeted therapies being developed all the time, cancer drugs continue to rank among the most expensive therapies. The utilization increase is related to the increase in cancer survivorship – patients are living longer with some types of cancer, and the disease is now often treated like a chronic illness. As a result, patients are taking these medications for longer durations, and many are “stacking” therapies on top of each other.

The 39.2% increase in total spend for medications used to treat miscellaneous CNS conditions is attributable primarily to increases in the cost of individual drugs. Drug costs continue to rise as manufacturers provide products to captive audiences with few other options. In addition, costs for some of the medications may be related to the anticipated expansion of approved indications.

Utilization and the unit cost for anticoagulants declined 2.8% and 7.3%, respectively, in 2013, leading to the lowest total trend of any specialty therapy class in the top 10 (-10.1%). The decline in costs is likely related to market saturation by generic formulations of Arixtra® (fondaparinux) and Lovenox® (enoxaparin), which together captured more than 90% of the market share for injectable anticoagulants. New, oral anticoagulants classified as traditional therapies, which have more convenient administration requirements, have contributed to the decline in utilization.

Specialty Spend Rank #1: Inflammatory Conditions

PMPY spend for anti-inflammatory medications was \$63.31 in 2013.

Inflammatory conditions was the most expensive specialty therapy class for the fifth year in a row. Per-member-per-year (PMPY) spend was \$63.31 in 2013, up 21.8% from 2012. Trend in this class continues to be driven by increased utilization as indications expand and by brand inflation for already-expensive drugs.

41.3% of patients are nonadherent to medication therapy

Key Drug Information

Humira® (adalimumab) and Enbrel® (etanercept) continued to account for more than 80% of the market share in this class. Market share for Stelara® (ustekinumab) increased, overtaking Cimzia® (certolizumab) and Simponi® (golimumab).

2013 TOP DRUGS BY MARKET SHARE	
Humira® (adalimumab)	44.8%
Enbrel® (etanercept)	38.2%
Stelara® (ustekinumab)	3.9%
Cimzia® (certolizumab)	3.4%
Simponi® (golimumab)	3.1%

By the Numbers

The average cost per prescription for this class was \$2,551.10, the fourth-lowest average prescription cost of any of the top 10 specialty therapy classes in 2013.

2013 STATISTICS	
NUMBER OF PRESCRIPTIONS (PMPY)	0.025
PREVALENCE OF USE	0.27%
AVERAGE COST PER PRESCRIPTION	\$2,551.10

Specialty Spend Rank #2: Multiple Sclerosis

PMPY spend for multiple sclerosis medications was \$46.03 in 2013.

An increase in unit cost was the primary driver of the 15.7% increase in per-member-per-year (PMPY) spend for multiple sclerosis (MS) medications. New oral medications continue to change the treatment landscape in this therapy class. One of these, Tecfidera® (dimethyl fumarate), captured 8.2% of annual market share after its approval in March 2013.

26.8% of patients are nonadherent to medication therapy

Key Drug Information

For the third year in a row, Copaxone® (glatiramer) again captured more market share than any other MS treatment. Tecfidera replaced Betaseron® (interferon beta-1b) as one of the five most commonly used therapies.

2013 TOP DRUGS BY MARKET SHARE	
Copaxone® (glatiramer)	30.6%
Avonex® (interferon beta-1a)	19.7%
Rebif® (interferon beta-1a)	12.9%
Gilenya® (fingolimod)	9.3%
Tecfidera® (dimethyl fumarate)	8.2%

By the Numbers

The average cost per prescription in this class increased to \$4,137.23 in 2013, driven by brand inflation.

2013 STATISTICS	
NUMBER OF PRESCRIPTIONS (PMPY)	0.011
PREVALENCE OF USE	0.10%
AVERAGE COST PER PRESCRIPTION	\$4,137.23

Specialty Spend Rank #3: Cancer

PMPY spend for cancer medications was \$36.34 in 2013.

The U.S. Food and Drug Administration (FDA) approved several new cancer therapies in 2013, contributing to continued increases in both cost and utilization. Per-member-per-year (PMPY) spend for cancer medications increased 24.1%, to \$36.34 in 2013.

40.4% of patients are nonadherent to medication therapy (oral oncology agents only)

Key Drug Information

The top five drugs remained unchanged from 2012. The most commonly used cancer treatment, methotrexate, is a generic medication that has been on the market for decades.

2013 TOP DRUGS BY MARKET SHARE	
methotrexate	18.1%
Gleevec® (imatinib)	10.0%
Xeloda® (capecitabine)	9.2%
Revlimid® (lenalidomide)	8.4%
Lupron Depot® (leuprolide)	7.7%

By the Numbers

In 1997, when Express Scripts first reported the average cost per prescription for cancer medications, the average cost was \$180.67. The average prescription cost in 2013 was more than 22 times higher.

2013 STATISTICS	
NUMBER OF PRESCRIPTIONS (PMPY)	0.009
PREVALENCE OF USE	0.16%
AVERAGE COST PER PRESCRIPTION	\$4,023.18

Specialty Spend Rank #4: HIV

PMPY spend for HIV medications was \$26.54 in 2013.

Per-member-per-year (PMPY) spend for HIV medications increased 13.2% from 2012 to 2013, driven primarily by an increase in unit cost. More than half of the prescriptions filled in 2013 had an average cost greater than \$1,000.

22.1% of patients are nonadherent to medication therapy

Key Drug Information

The two most commonly used HIV medications in 2013 – Atripla® (efavirenz / emtricitabine / tenofovir) and Truvada® (emtricitabine / tenofovir) – were combination therapies, each containing more than one active ingredient in a single pill.

2013 TOP DRUGS BY MARKET SHARE	
Atripla® (efavirenz / emtricitabine / tenofovir)	18.0%
Truvada® (emtricitabine / tenofovir)	15.1%
Norvir® (ritonavir)	11.6%
Isentress® (raltegravir)	7.5%
Viread® (tenofovir)	6.3%

By the Numbers

The two most commonly used generic prescriptions for HIV represented 7.2% of all prescriptions for HIV that were filled in 2013.

2013 STATISTICS	
NUMBER OF PRESCRIPTIONS (PMPY)	0.026
PREVALENCE OF USE	0.14%
AVERAGE COST PER PRESCRIPTION	\$1,029.45

Specialty Spend Rank #5: Growth Deficiency

PMPY spend for growth deficiency medications was \$8.87 in 2013.

Utilization of medications indicated to treat growth deficiencies decreased 1.2% in 2013, but a 9.9% increase in unit cost drove an 8.7% increase in per-member-per-year (PMPY) spend. The growth deficiency class ranked the fifth most expensive specialty therapy class.

37.9% of patients are nonadherent to medication therapy

Key Drug Information

Norditropin® FlexPro® (somatropin) was the most commonly used medication among those indicated to treat growth deficiencies, and its market share continues to grow year-over-year.

2013 TOP DRUGS BY MARKET SHARE	
Norditropin® FlexPro® (somatropin)	35.5%
Genotropin® (somatropin)	20.6%
Humatrope® (somatropin)	16.4%
Nutropin AQ® NuSpin™ (somatropin)	9.3%
Omnitrope® (somatropin)	6.6%

By the Numbers

The prevalence of use of human growth hormones remained extremely low. Less than 1% of commercially insured beneficiaries filled a prescription for one of these medications in 2013.

2013 STATISTICS	
NUMBER OF PRESCRIPTIONS (PMPY)	0.003
PREVALENCE OF USE	0.03%
AVERAGE COST PER PRESCRIPTION	\$3,540.27

Specialty Spend Rank #6: Miscellaneous CNS Disorders

PMPY spend for miscellaneous CNS disorders medications was \$6.87 in 2013.

For the first time, a group of medications used to treat miscellaneous central nervous system (CNS) disorders is ranked in the top 10 most expensive specialty therapy classes. These medications treat symptoms for a variety of conditions that affect the CNS, including chorea associated with Huntington’s disease, cataplexy and excessive daytime sleepiness associated with narcolepsy and infantile spasms. Several medications in this therapy class had substantial average costs per prescription, but a double-digit increase in utilization also contributed to the 39.2% total trend, the highest of any specialty therapy class in the top 10.

Despite its motor benefits in Parkinson’s disease patients, the long-term effectiveness of Apokyn® (apomorphine injection) may be limited by noncompliance, which is potentially related to injection-site reactions.¹

Key Drug Information

Xyrem® (sodium oxybate) and Vivitrol® (naltrexone for extended release injectable suspension) accounted for more than two-thirds of the market share in this therapy class.

2013 TOP DRUGS BY MARKET SHARE	
Xyrem® (sodium oxybate)	55.2%
Vivitrol® (naltrexone for extended release injectable suspension)	16.3%
Xenazine® (tetraabenazine)	9.4%
Sabril® (vigabatrin)	8.5%
H.P. Acthar® (repository corticotropin injection)	7.1%

By the Numbers

The high average cost per prescription in 2013 – \$8,278.92 – was the primary driver of total per-member-per-year (PMPY) spend in this class.

2013 STATISTICS	
NUMBER OF PRESCRIPTIONS (PMPY)	0.001
PREVALENCE OF USE	0.01%
AVERAGE COST PER PRESCRIPTION	\$8,278.92

Footnote

1. Antonini A, Tolosa E. Apomorphine and levodopa infusion therapies for advanced Parkinson's disease: selection criteria and patient management. *Expert Rev Neurother.* 2009;9(6):859-867.

Specialty Spend Rank #7: Respiratory Conditions

PMPY spend for respiratory conditions medications was \$6.79 in 2013.

Per-member-per-year (PMPY) spend for specialty medications indicated to treat respiratory conditions such as cystic fibrosis increased 16.5%, to \$6.79 in 2013. Trend in this class continues to be driven primarily by brand inflation, and one of the most expensive specialty drugs on the market, Kalydeco® (ivacaftor), is in this class. In 2013, the impact of the patent expiration for TOBI® (tobramycin inhalation solution), one of the trend drivers in this class, was mitigated by the launch of a new formulation of the same drug, TOBI™ Podhaler™ (tobramycin for inhalation powder).

Some evidence suggests that treatment nonadherence among adolescents with cystic fibrosis is most often related to forgetfulness and busyness.¹

Key Drug Information

TOBI Podhaler, launched in March 2013, replaced Prolastin®-C (alpha 1-proteinase inhibitor) as one of the most commonly used medications in this therapy class. Market share for TOBI, the original formulation whose patent expired in 2013, declined at the same time.

2013 TOP DRUGS BY MARKET SHARE	
Xolair® (omalizumab)	46.5%
Pulmozyme® (dornase alfa)	29.7%
TOBI® (tobramycin inhalation solution)	9.5%
Cayston® (aztreonam lysinate for inhalation)	4.5%
TOBI™ Podhaler™ (tobramycin inhalation powder)	3.4%

By the Numbers

The average cost per prescription for medications indicated to treat respiratory conditions ranked close to the middle of the top 10 specialty therapy classes, whereas PMPY utilization ranked towards the bottom.

2013 STATISTICS	
NUMBER OF PRESCRIPTIONS (PMPY)	0.002
PREVALENCE OF USE	0.02%
AVERAGE COST PER PRESCRIPTION	\$3,759.59

Footnote

1. Dziuban EJ, Abaseed LS, Chaudhry SR, Streetman DS, Nasr SZ. Identifying barriers to treatment adherence and related attitudinal patterns in adolescents with cystic fibrosis. *Pediatr Pulmonol.* 2010;45(5):450-458.

Specialty Spend Rank #8: Anticoagulants

PMPY spend for anticoagulants medications was \$5.73 in 2013.

Anticoagulant therapies were the only specialty therapy class in the top 10 that experienced a negative total trend in 2013. Per-member-per-year (PMPY) spend declined 10.1% from 2012 to 2013, to \$5.73. A decrease in utilization in favor of oral anticoagulants classified as traditional medications along with a drop in unit cost related to market saturation of generic drugs drove the overall decline.

Nonadherence to low-molecular-weight heparins or fondaparinux post-major orthopedic surgery has been reported to range between 13% and 37%.¹

Key Drug Information

The market share of enoxaparin, the most commonly used drug in this class, continued the steady increase that began in 2010 when the branded version, Lovenox[®], lost patent protection.

2013 TOP DRUGS BY MARKET SHARE	
enoxaparin	90.1%
fondaparinux	6.3%
Fragmin [®] (dalteparin)	1.9%
Lovenox [®] (enoxaparin)	1.3%
Arixtra [®] (fondaparinux)	0.3%

By the Numbers

The prevalence of use of specialty anticoagulants, 0.28%, was higher than that of any other specialty therapy class in the top 10.

2013 STATISTICS	
NUMBER OF PRESCRIPTIONS (PMPY)	0.006
PREVALENCE OF USE	0.28%
AVERAGE COST PER PRESCRIPTION	\$957.79

Footnote

1. Wilke T, Muller S. Nonadherence in outpatient thromboprophylaxis after major orthopedic surgery: a systematic review. *Expert Rev Pharmacoecon Outcomes Res.* 2011;10(6):691-700.

Specialty Spend Rank #9: Transplant

PMPY spend for transplant medications was \$5.07 in 2013.

Per-member-per-year (PMPY) spend for medications used to prevent organ transplant rejection increased 1.8% from 2012 to 2013. However, unit cost trend was negative, driven by market saturation of generic drugs in the class. A new extended-release formulation of tacrolimus, Astagraf XL® (tacrolimus extended release), was approved in July 2013 for use in kidney transplant patients, but it has had little impact on overall trend in the class.

33.2% of patients are nonadherent to medication therapy

Key Drug Information

Three generic medications, mycophenolate, tacrolimus and cyclosporine, captured almost two-thirds of total market share for this therapy class in 2013.

2013 TOP DRUGS BY MARKET SHARE	
mycophenolate	33.5%
tacrolimus	30.7%
cyclosporine	8.5%
Myfortic® (mycophenolic acid)	7.4%
Prograf® (tacrolimus)	7.2%

By the Numbers

The average cost per prescription for transplant medications was lower than that for any other top 10 specialty therapy class.

2013 STATISTICS	
NUMBER OF PRESCRIPTIONS (PMPY)	0.017
PREVALENCE OF USE	0.12%
AVERAGE COST PER PRESCRIPTION	\$292.64

Specialty Spend Rank #10: Pulmonary Hypertension

PMPY spend for pulmonary hypertension medications was \$4.96 in 2013.

Ranked by per-member-per-year (PMPY) spend, pulmonary hypertension was the 10th most expensive specialty therapy class in 2013, and total trend for this class was modest at only 0.6%. Despite a small increase in utilization, unit cost in the class declined, primarily driven by the continuing impact of the November 2012 patent expiration for brand Revatio® (sildenafil). Two new medications, Adempas® (riociguat) and Opsumit® (macitentan), were approved in 2013 but had little impact on overall trend in the class.

24.8% of patients are nonadherent to medication therapy

Key Drug Information

The market share for brand Revatio® (sildenafil) fell to 6.1% (from 37.9%) in 2013. Conversely, market share for generic sildenafil, launched in November 2012, rose to 32.7% (from 3.2%) in 2013.

2013 TOP DRUGS BY MARKET SHARE	
sildenafil	32.7%
Adcirca® (tadalafil)	23.4%
Tracleer® (bosentan)	18.6%
Letairis® (ambrisentan)	14.0%
Revatio® (sildenafil)	6.1%

By the Numbers

The prevalence of use of pulmonary hypertension medications remained extremely low in 2013.

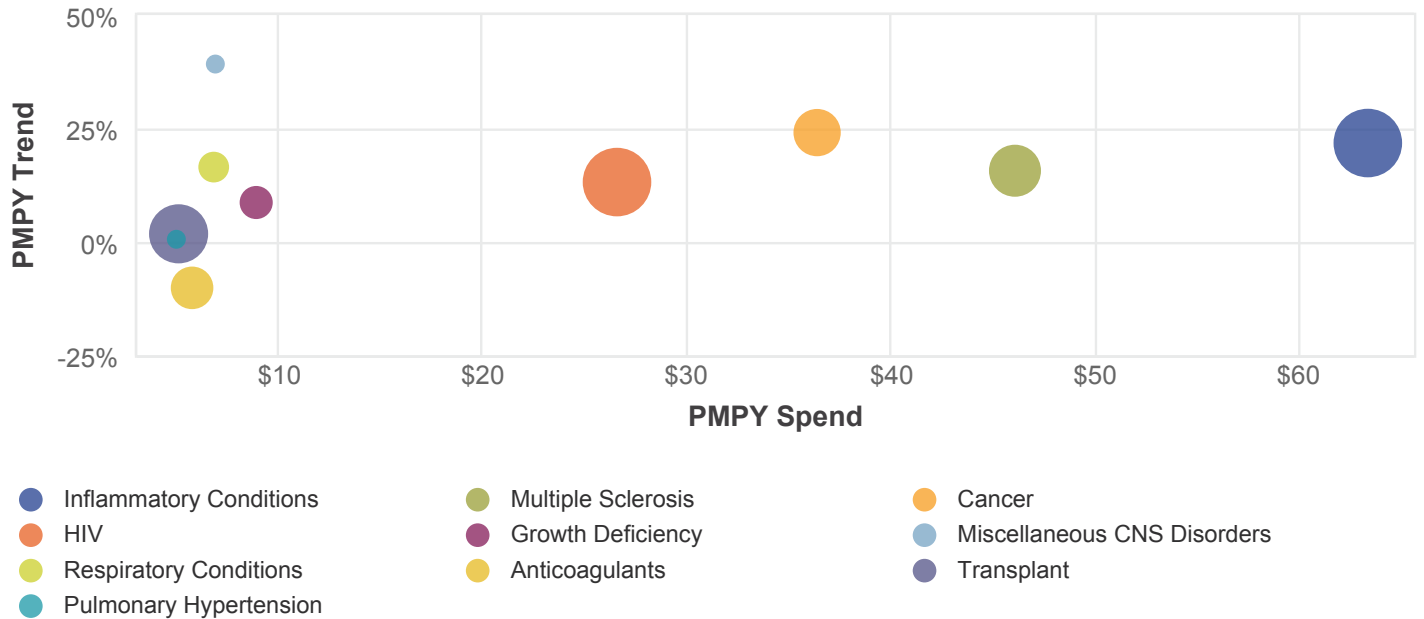
2013 STATISTICS	
NUMBER OF PRESCRIPTIONS (PMPY)	0.001
PREVALENCE OF USE	0.01%
AVERAGE COST PER PRESCRIPTION	\$3,759.14

Cost and Utilization for the Top 10 Specialty Therapy Classes

The specialty medications with the greatest intensity of use, and even those with the highest PMPY spend, did not experience the highest trend.

COST AND UTILIZATION FOR THE TOP 10 SPECIALTY THERAPY CLASSES

SPEND AND UTILIZATION IN 2013 AND TREND FROM 2012 – 2013



[View the interactive version of this chart online](#)

This chart shows the relationship between cost and utilization for medications in the top 10 specialty therapy classes.

How to read this chart: Each bubble plots the 2013 per-member-per-year (PMPY) spend for one therapy class against the PMPY trend, which is the change in spend for that class from 2012 to 2013. The size of the bubble depicts the number of PMPY prescriptions filled in that therapy class.

As the chart shows, the specialty medications with the greatest intensity of use, and even those with the highest PMPY spend, did not experience the highest trend. The highest PMPY spend was for medications used to treat inflammatory conditions, followed by medications used to treat multiple sclerosis and agents used to treat cancer. PMPY spend was the lowest for pulmonary hypertension therapies.

The biggest change in PMPY spend was seen for medications used to treat miscellaneous central nervous system (CNS) disorders; however, these medications were at the same time one of the two therapy classes with the lowest intensity of use. PMPY spend for anticoagulant medications decreased from 2012 to 2013; however, the intensity of use of these medications in 2013 was in the middle in relation to the other specialty therapy classes.

Top 10 Specialty Therapy Drugs

The top 10 specialty drugs by per-member-per-year (PMPY) drug spend accounted for 46.6% of total specialty spend.

TOP 10 SPECIALTY THERAPY DRUGS

RANKED BY 2013 PMPY SPEND

RANK	DRUG NAME	THERAPY CLASS	PMPY SPEND	% OF TOTAL SPECIALTY SPEND	UTILIZATION TREND	UNIT COST TREND	TOTAL TREND
1	Humira® (adalimumab)	Inflammatory Conditions	\$28.33	11.8%	8.8%	15.2%	24.1%
2	Enbrel® (etanercept)	Inflammatory Conditions	\$22.57	9.4%	-1.9%	13.7%	11.8%
3	Copaxone® (glatiramer)	Multiple Sclerosis	\$15.57	6.5%	-11.3%	11.9%	0.6%
4	Avonex® (interferon beta-1a)	Multiple Sclerosis	\$8.89	3.7%	-10.2%	12.8%	2.6%
5	Atripla® (efavirenz / emtricitabine / tenofovir)	HIV	\$8.08	3.4%	-0.6%	7.5%	6.8%
6	Revlimid® (lenalidomide)	Cancer	\$6.73	2.8%	6.3%	7.0%	13.4%
7	Gleevec® (imatinib)	Cancer	\$6.17	2.6%	-4.4%	10.8%	6.4%
8	Rebif® (interferon beta-1a)	Multiple Sclerosis	\$6.12	2.5%	-14.6%	19.1%	4.5%
9	Gilenya® (fingolimod)	Multiple Sclerosis	\$4.82	2.0%	19.3%	10.5%	29.8%
10	enoxaparin	Anticoagulants	\$4.63	1.9%	2.2%	-8.6%	-6.3%

The top 10 specialty drugs, ranked by per-member-per-year (PMPY) drug spend, accounted for 46.6% of total specialty spend. PMPY spend varied from \$4.63 for enoxaparin to \$28.33 for Humira, the top-ranked drug in the list. The top two drugs, Enbrel and Humira, which are used to manage inflammatory conditions, accounted for more than 21% of specialty spend. Four multiple sclerosis drugs featured in the top 10, the most for any specialty therapy class. These included Copaxone and Avonex, which appear third and fourth, respectively, on the list, as well as Rebif and Gilenya, appearing eighth and ninth, respectively. Two oral oncology drugs, Revlimid and Gleevec, ranked sixth and seventh, respectively, on the top 10 list. Finally, rounding off the list are Atripla, the three-drug combination HIV pill (fifth), and generic enoxaparin (10th), in the anticoagulant therapy class.

The top 10 specialty drugs by PMPY drug spend accounted for 46.6% of total specialty spend.

With the exception of enoxaparin, all medications in the top 10 had both a positive total trend and a positive unit cost trend. Enoxaparin had a negative total trend as well as a negative unit cost trend. Gilenya had the highest total trend at 29.8%, followed by Humira at 24.1% and Revlimid at 13.4%. Rebif had the highest unit cost trend at 19.1%. Six of the top 10 drugs – Enbrel, Copaxone, Avonex, Atripla, Gleevec and Rebif – had a negative utilization trend, ranging from a low of -14.6% for Rebif to -0.6% for Atripla. The total trend for each of these six drugs, however, was positive inasmuch as their unit cost trend exceeded their negative utilization trend.

Traditional Therapy Classes

Traditional trend is expected to remain relatively stable for the next few years.

2014 TO 2016 TREND FORECAST FOR KEY TRADITIONAL THERAPY CLASSES

THERAPY CLASS	TREND FORECAST		
	2014	2015	2016
Diabetes	11.2%	12.2%	10.5%
High Blood Cholesterol	-12.4%	-11.7%	-14.2%
High Blood Pressure / Heart Disease	-12.0%	-11.0%	-10.8%
Ulcer Disease	-14.9%	-7.4%	-5.8%
Asthma	-4.6%	-0.2%	0.8%
Attention Disorders	7.2%	5.2%	5.0%
Depression	-14.8%	-12.2%	-12.1%
Mental / Neurological Disorders	-9.6%	-21.9%	-16.9%
Pain	0.7%	1.6%	1.4%
Infections	-0.1%	-1.7%	-1.0%
Contraceptives	7.1%	7.8%	9.6%
Seizures	4.4%	4.8%	6.3%
TOTAL TRADITIONAL	2.0%	1.9%	1.9%

**Overall traditional trend is forecast to be
2.0% in 2014, 1.9% in 2015 and 1.9% in 2016.**

In 2013, the trend for traditional drugs was 2.4%, with per-member-per-year (PMPY) spend at \$628.00. We anticipate that traditional trend will remain relatively stable for the next few years, as PMPY spend is expected to increase only slightly year over year. Moreover, utilization is likely to remain relatively steady, and generic competition among medications in the most commonly used therapy classes – such as high blood cholesterol, ulcer disease and infections – will keep drug costs from increasing substantially. In fact, trend for six of the top therapy classes – high blood cholesterol, high blood pressure / heart disease, ulcer disease, depression, mental / neurological disorders and infections – is expected to be negative in 2014, 2015 and 2016. The largest increases are expected for diabetes medications, which continue to see brand drug innovation, and attention disorders, whose utilization is expected to continue increasing.

Diabetes

Spend for diabetes medication is expected to increase at an annual rate of 10% to 13% in 2014, 2015 and 2016.

**Diabetes medication trend is forecast to be
11.2% in 2014, 12.2% in 2015 and 10.5% in 2016.**

The forecasted year-over-year growth for diabetes drugs is based on several factors, including the expectation of increased utilization of branded drugs due to their improved safety and benefit profiles, an increase in costs associated with continued brand innovation in the class and the progression from monotherapy to combination therapy

Although there are several generic oral diabetes drugs on the market, newer drugs with novel mechanisms of action have proved to be both safer and more tolerable. For example, Januvia® (sitagliptin), a popular dipeptidyl peptidase-4 (DPP-4) inhibitor that increases insulin production and does not cause hypoglycemia, will not lose its original patent protection until 2017. Invokana® (canagliflozin) and Farxiga™ (dapagliflozin) – the first drugs in a new class of medications, sodium-glucose cotransporter-2 (SGLT-2) inhibitors – were approved in 2013 and early 2014, respectively. Because these glucose-eliminating medications are also associated with weight loss, they are expected to capture significant market share. Finally, physicians are still expected to add insulin therapy to oral drug regimens for patients with type-2 diabetes who do not improve on oral therapy alone.

High Blood Cholesterol

High blood cholesterol medication spend is expected to decline 12.4% in 2014, another 11.7% in 2015 and an additional 14.2% in 2016.

**High blood cholesterol medication trend is forecast to be
-12.4% in 2014, -11.7% in 2015 and -14.2% in 2016.**

The per-member-per-year (PMPY) spend for medications used to treat high blood cholesterol is forecast to decline for the next several years as a result of decreases in both drug costs and utilization. The continued standard of therapy is based on the use of statin medications, many of which are now available as generics, including atorvastatin, the generic of Lipitor®. The expiration of the patent for Crestor® (rosuvastatin) in mid-2016 is expected to lead to an additional decrease in spend. The utilization of high cholesterol medications among the commercially insured population has been trending down over the past few years as well, which may be related to the aging of the population into Medicare eligibility. New guidelines for primary and secondary prevention of atherosclerotic cardiovascular disease and events, published jointly by the American College of Cardiology and the American Heart Association, call for treatment based on risk factors rather than to achieve specific cholesterol level goals. The new guidelines may eventually increase utilization, but a change in prescribing patterns is expected to occur more gradually over the next 10 years rather than in the next few.

High Blood Pressure / Heart Disease

High blood pressure / heart disease medication spend is expected to decline 12.0% in 2014, another 11.0% in 2015 and an additional 10.8% in 2016.

Trend for high blood pressure / heart disease medication is forecast to be -12.0% in 2014, -11.0% in 2015 and -10.8% in 2016.

The forecasted decline in per-member-per-year (PMPY) spend for medications used to treat high blood pressure is expected as a result of relatively flat utilization and the switch to less expensive generic drugs. Although the recent changes in evidence-based guidelines for the management of high blood pressure in adults set forth by the Eighth Joint National Committee are expected to decrease the percentage of individuals over age 60 who are treated for hypertension, the guideline changes will have a greater impact on the Medicare-eligible population. Generic versions of one of the last remaining blockbuster angiotensin II receptor blocker medications, Diovan® (valsartan), are expected in 2014. There is little innovation in the pipeline that will compete with the efficacy and safety of an already large selection of medications in the class.

Ulcer Disease

Spend for ulcer disease medications is expected to decrease 14.9% in 2014, with smaller decreases forecast in 2015 and in 2016.

Ulcer disease medication trend is forecast to be -14.9% in 2014, -7.4% in 2015 and -5.8% in 2016.

The year-over-year negative trend forecast for medications used to treat ulcer disease is primarily driven by the availability of generic and over-the-counter (OTC) versions of the most commonly used medications in this class. The expectation of a significant decrease in PMPY spend from 2013 to 2014 for medications used to treat ulcer disease is based primarily on the generic launch of the blockbuster drug Nexium® (esomeprazole magnesium) and an over-the-counter (OTC) version of Nexium, both of which will occur in 2014. The availability of the generic version of Nexium, the most popular drug in the class, will very likely have a major effect on plan costs for this class. Generics to AcipHex® (rabeprazole) became available in November 2013, providing another lower-cost therapeutic option for treating acid-related stomach disorders. The remaining brands in this category, such as Dexilant® (dexlansoprazole) and AcipHex® Sprinkles™ (rabeprazole), are expected to have difficulty in competing with the many popular generic options.

Asthma

Asthma medication spend is expected to decrease in both 2014 and 2015 before increasing slightly in 2016.

**Asthma medication trend is forecast to be
-4.6% in 2014, -0.2% in 2015 and 0.8% in 2016.**

The per-member-per-year (PMPY) trend for asthma medications is expected to flatten out after the significant negative impact of the 2012 patent expiration for Singulair® (montelukast) abates after 2014. After trend in this class adjusts to the availability of generics to Singulair, brand inflation among inhalers and increased diagnosis and subsequent initiation of treatment for asthma and chronic obstructive pulmonary disease (COPD) will result in an increase in PMPY spend. The removal of the remaining chlorofluorocarbon (CFC)-containing products from the market – in compliance with the U.S. Food and Drug Administration (FDA) prohibition on the manufacture or sale of CFC-based propellant inhalers after December 31, 2013 – is expected to have minimal impact on trend inasmuch as the major shift occurred in December 2008 when CFC-based albuterol products were removed from the market. As new products for treating both asthma and COPD are introduced, direct-to-consumer advertising will increase awareness and treatment of these conditions.

Attention Disorders

Attention disorders medication spend is expected to increase modestly in 2014 as well as in both 2015 and 2016.

**Attention disorders medication trend is forecast to be
7.2% in 2014, 5.2% in 2015 and 5.0% in 2016.**

The per-member-per-year (PMPY) trend forecast for medications used to treat attention disorders is based on the expectation of increased utilization by adults seeking improved ability to focus and concentrate at school or at work, in addition to children and adolescents continuing therapy. Because this class consists mainly of controlled substances, the Drug Enforcement Agency (DEA) regulates the supply of the chemical ingredients for most of the drugs. The substantial supply shortage in 2011 and 2012, which was related to an underestimation of clinical need by DEA, is not anticipated to recur in the coming years, which will help to control PMPY spend. In addition, an increasing proportion of drugs in this therapy class are available in generic formulations, which is expected to minimize cost increases. However, many of the convenient, once-daily formulations remain under patent protection.

Depression

Depression medication spend is expected to decrease by more than 10% each year for the next several years.

**Depression medication trend is forecast to be
-14.8% in 2014, -12.2% in 2015 and -12.1% in 2016.**

Per-member-per-year (PMPY) spend for medications used to treat depression is expected to decrease for the next several years, driven primarily by a decrease in drug costs as the availability of generic medications in the class expands. At the end of 2013, the brand serotonin-norepinephrine reuptake inhibitor with the greatest market share in the class, Cymbalta® (duloxetine), lost patent protection, and the introduction of generic competition for this drug is expected to contribute significantly to a double-digit decline in spend in 2014. Although some new brand drugs are in the development pipeline, once available they will have to compete with the effective, less-expensive generically available alternatives, including the more recent generics to Lexapro® (escitalopram) and Cymbalta.

Mental / Neurological Disorders

Mental / neurological disorders medication spend is expected to decrease dramatically in both 2015 and 2016.

**Trend for medications used to treat mental / neurological disorders is
forecast to be -9.6% in 2014, -21.9% in 2015 and -16.9% in 2016.**

The forecast for medications used to treat mental / neurological disorders is based on the anticipated generic competition to the blockbuster atypical antipsychotic, Abilify® (aripiprazole), and the Alzheimer's disease medication, Namenda® (memantine). Both of these medications will lose patent protection in 2015. But the impact of generic formulations of Namenda may be tempered; the manufacturer is discontinuing production of Namenda tablets, and will likely provide other incentives for patients to use Namenda XR® (memantine extended release), aimed at extending the profits of the brand franchise in advance of generic competition. Still, other generic medications, such as quetiapine and olanzapine, have captured significant market share in the class in recent years, and they will contribute to negative trend. Utilization is expected to remain relatively flat over the next three years, and there is little in the development pipeline to suggest innovation or introduction of new brands.

Pain

Pain medication spend is expected to remain relatively stable in 2014 before increasing modestly in both 2015 and 2016.

**Pain medication trend is forecast to be
0.7% in 2014, 1.6% in 2015 and 1.4% in 2016.**

For medications used to treat pain, per-member-per-year (PMPY) spend is forecast to increase only moderately in the next several years. Utilization has shown a pattern of steady decline over the past three years, which may be related to media attention about the dangers of addiction to prescription narcotics. Continued declining utilization is being attenuated by the influx of some new medications in addition to the prevention of generic competition by manufacturers that are creating branded tamper-resistant formulations of older opioid medications such as OxyContin® (oxycodone). Additional tamper-resistant opioids, also in development, are expected to reach the market over the next few years. These medications include Targiniq™ ER (oxycodone / naloxone, controlled release) and Remoxy® (oxycodone). Once available, these products will compete with several generically available options.

Infections

Spend for anti-infectives is expected to remain relatively stable in 2014 before declining modestly in both 2015 and 2016.

**Trend for anti-infectives is forecast to be
-0.1% in 2014, -1.7% in 2015 and -1.0% in 2016.**

The forecast trend for anti-infective medications is based on the expectation of typical cold and flu seasons, adequate supplies of the more commonly used medications in the class and the continued utilization of generic alternatives. Utilization is expected to remain relatively flat. In 2013, shortages of doxycycline and tetracycline contributed to increased drug costs, but the shortages have eased somewhat, which is expected to lower drug costs. In addition, broad use of newer therapies is increasingly discouraged – these drugs are being reserved for resistant infections – and many of these therapies are used only in hospital settings.

Contraceptives

Spend for contraceptives is expected to increase year over year in 2014, 2015 and 2016.

**Contraceptives trend is forecast to be
7.1% in 2014, 7.8% in 2015 and 9.6% in 2016.**

The year-over-year trend forecast for contraceptives is based primarily on the provision in the Patient Protection and Affordable Care Act mandating that patients be provided some forms of contraception at no cost to them. This provision is driving a slight increase in utilization and a significant cost-share shifting to payers. The many generic options available in the class will keep drug costs from rising significantly; however, the financial incentives to use contraception without incurring costs, combined with the continuing insecurity about employment and the economy, are expected to drive increased utilization for the next several years. Plan sponsors will continue to pay the increased costs.

Seizures

Spend for seizure medications is expected to increase moderately year over year in 2014, 2015 and 2016.

**Seizure medication trend is forecast to be
4.4% in 2014, 4.8% in 2015 and 6.3% in 2016.**

Per-member-per-year (PMPY) spend for anti-seizure medications is expected to grow moderately in the next few years. The rise will be driven primarily by an increase in utilization, as the drug mix for this therapy class consists of a combination of brand and generic medications. Patent expirations have had a significant impact in this class over the past five years, resulting in the availability of many effective, commonly used generic medications. However, because these drugs treat complex neurological conditions, there are some claims that the difference in bioavailability between brands and generics is sufficient to warrant dispense-as-written prescribing instructions; so brand utilization is expected to continue. Additional utilization is expected because many of these drugs are prescribed for off-label use, and some are used as adjunct therapies in combination with other medications to control seizures.

Specialty Therapy Classes

Specialty spend is expected to grow at a double-digit annual pace in 2014, 2015 and 2016.

2014 TO 2016 TREND FORECAST FOR KEY SPECIALTY THERAPY CLASSES

THERAPY CLASS	TREND FORECAST*		
	2014	2015	2016
Inflammatory Conditions	22.5%	21.5%	21.2%
Multiple Sclerosis	12.5%	11.7%	11.7%
Cancer	24.4%	24.7%	23.9%
HIV	13.3%	15.9%	13.1%
Growth Deficiency	9.7%	8.5%	10.0%
Miscellaneous CNS Disorders	45.9%	43.5%	42.8%
Respiratory Conditions	12.5%	131.6%	103.6%
Transplant	-2.6%	-3.6%	-3.4%
Pulmonary Hypertension	3.1%	2.2%	-1.2%
Hepatitis C	102.0%	208.8%	205.0%
TOTAL SPECIALTY	16.8%	18.0%	18.2%

*Trend is forecast only for specialty medications billed through the pharmacy benefit.

**Overall specialty trend is forecast to be
16.8% in 2014, 18.0% in 2015 and 18.2% in 2016.**

In 2013, the trend for specialty drugs billed through the pharmacy benefit was 14.1%, with per-member-per-year (PMPY) spend at \$240.57. We anticipate that specialty trend will increase slightly in 2014 to 16.8%, after which it will rise even higher, closer to 20% by 2016. Utilization is likely to increase as indications expand and specialty therapies are prescribed more often. However, PMPY spend for specialty medications is likely to be driven primarily by the continued development of expensive, highly targeted therapies and by brand inflation.

Inflammatory Conditions

Spend for inflammatory conditions medications is expected to increase more than 20% annually in 2014, 2015 and 2016.

Trend for inflammatory conditions medications is forecast to be 22.5% in 2014, 21.5% in 2015 and 21.2% in 2016

The per-member-per-year (PMPY) trend forecast for medications used to treat inflammatory conditions is based on the expectation of typical increases in utilization and treatment costs. The class will continue to be dominated by expensive branded, biologic medications, and utilization will increase due to new and expanded indications plus increasing numbers of patients newly diagnosed with rheumatoid arthritis, psoriasis and similar conditions. There has been a general increase in the prevalence of some of the autoimmune conditions that these biologic medications are indicated to treat; however, there is no general agreement on an explanation for this phenomenon. The medications in this class will retain patent protection for the foreseeable future, as no biosimilars are expected to reach the U.S. market in the near future. Further, new oral and injectable drugs in the development pipeline may contribute to even higher spend in the future.

Multiple Sclerosis

Spend for multiple sclerosis medications is expected to increase about 12% annually in 2014, 2015 and 2016.

Trend for multiple sclerosis medications is forecast to be 12.5% in 2014, 11.7% in 2015 and 11.7% in 2016.

Brand inflation and the patent expiration for Copaxone® (glatiramer) in 2014 are the biggest drivers of the per-member-per-year (PMPY) trend forecast for medications used to treat multiple sclerosis (MS). A relatively new oral medication, Tecfidera® (dimethyl fumarate), continues to capture market share from older, injectable medications, and high inflation rates in this class are expected to contribute to the rising costs of treating MS in the next few years. However, generic formulations of Copaxone, currently the most commonly used MS treatment, are expected in May 2014 and will likely mitigate the increasing spend in the class.

Cancer

Spend for cancer medications is expected to increase about 24% annually in 2014, 2015 and 2016.

**Cancer medication trend is forecast to be
24.4% in 2014, 24.7% in 2015 and 23.9% in 2016.**

The year-over-year trend forecast for cancer medications is based on continued brand inflation, brand-drug innovation and increasing utilization. Cancer is increasingly treated as a chronic condition, and several therapies are available to patients for sequential or combination treatment – leading to increased utilization. In addition, newer, often more expensive oral cancer medications are continuing to capture market share. Although highly anticipated infused immunotherapies to treat certain kinds of cancer by triggering a patient's own immune system to attack the cancer, are expected to reach the market in late 2014 or early 2015, these drugs will have little impact on pharmacy trend because they will be billed primarily through the medical benefit. However, a promising new breast cancer drug that is likely to achieve blockbuster status, palbociclib, may soon be approved as a first-line treatment of hormone-sensitive (ER+ / HER2-) breast cancer.

HIV

Spend for HIV medications is expected to increase at a double-digit annual pace in 2014, 2015 and 2016.

**HIV medication trend is forecast to be
13.3% in 2014, 15.9% in 2015 and 13.1% in 2016.**

The year-over-year trend forecast for medications used to treat HIV is based on a steady rate of utilization growth and brand inflation among already expensive brand drugs. The greatest market share in this class is for newer, branded, combination medications that minimize pill burden and help to increase adherence. Limited utilization of generic medications in this class is expected because several of these drugs can be poorly tolerated and are associated with a greater pill burden. Brand innovation is expected as well. Because HIV can mutate in the body, continued innovation is important for both patients and manufacturers, and is profitable for manufacturers. In addition, the utilization of HIV medications is expected to grow through increased screening and diagnosis.

Growth Deficiency

Spend for growth deficiency medications is expected to increase moderately in each of the next few years.

Growth deficiency medication trend is forecast to be 9.7% in 2014, 8.5% in 2015 and 10.0% in 2016.

Per-member-per-year (PMPY) spend for growth hormones is expected to increase in the next few years, driven primarily by brand inflation. Utilization is expected to remain relatively steady, although utilization management programs are contributing to decreases in off-label use. In addition to price increases for existing medications in this class, some brand innovation is occurring. Macimorelin, an oral ghrelin agonist that is expected to be approved in November 2014, will likely contribute to the increase in PMPY spend in this class.

Miscellaneous CNS Disorders

Spend for miscellaneous CNS disorders medications is expected to grow more than 40% annually in 2014, 2015 and 2016.

Trend for miscellaneous central nervous system (CNS) disorders treatments is forecast to be 45.9% in 2014, 43.5% in 2015 and 42.8% in 2016.

The year-over-year trend forecast for medications used to manage miscellaneous CNS disorders is expected to increase significantly in the next few years, driven primarily by brand inflation. The medications in this class – which include Xyrem® (sodium oxybate), indicated to treat cataplexy and excessive daytime sleepiness in narcolepsy, and Xenazine® (tetrabenazine), indicated to treat the involuntary movements known as chorea in patients with Huntington's disease – have little if any competition for market share in view of their captive audiences.

Respiratory Conditions

Spend for specialty medications used to treat respiratory conditions is expected to increase moderately in 2014 before experiencing triple digit growth in both 2015 and 2016.

**Respiratory conditions trend is forecast to be
12.5% in 2014, 131.6% in 2015 and 103.6% in 2016.**

A doubling of utilization in addition to the expected introduction of game-changing brand drugs to treat cystic fibrosis (CF) and idiopathic pulmonary fibrosis (IPF) are driving the trend forecast for medications used to treat respiratory conditions. A generic version of TOBI® (tobramycin inhalation solution) was introduced to the market in October 2013, which will contribute to a slower rate of growth in spend in 2014. However, a new formulation of ivacaftor, the active ingredient in Kalydeco®, combined with lumacaftor is expected to be launched in 2015. This new medication – which will require ongoing maintenance therapy for life – will treat the underlying disease in about half of all CF patients. Pirfenidone, an oral drug indicated to treat IPF, may also be launched in 2015. Inasmuch as there currently are no drugs approved to treat IPF, PMPY spend will increase significantly if pirfenidone reaches the market as expected.

Transplant

Spend for transplant medications is expected to decline between 2.6% and 3.6% annually in 2014, 2015 and 2016.

**Transplant medication trend is forecast to be
-2.6% in 2014, -3.6% in 2015 and -3.4% in 2016.**

Per-member-per-year (PMPY) spend for medications used to prevent organ transplant rejection is expected to decline in the next few years based on a market with increasing generic availability and minimal growth in utilization. Despite the recent approval of Astagraf XL® (tacrolimus extended release), many of the most commonly used medications indicated to prevent organ transplant rejection are generic medications. Rapamune® (sirolimus) 0.5mg tablets, one of the remaining branded immunosuppressant medications, became available as a generic in January 2014. Further, no brand innovation is expected in the next three years.

Pulmonary Hypertension

Spend for pulmonary hypertension medications is expected to increase slightly in both 2014 and 2015 before declining even more modestly in 2016.

Pulmonary hypertension medications trend is forecast to be 3.1% in 2014, 2.2% in 2015 and -1.2% in 2016.

Despite an increase in per-member-per-year spend from 2013 to 2014, trend for medications used to treat pulmonary hypertension is expected to slow again in 2015, primarily because of the market saturation of generic sildenafil. In addition, utilization is expected to remain low. Three drugs, Adempas® (riociguat), Opsumit® (macitentan) and Orenitram™ (treprostinil), that were approved in the third quarter of 2013 will continue to capture market share in 2014. However, the impact on overall trend is expected to be minimal because market share will likely just shift between currently available options. Generic formulations of Tracleer® (bosentan) are expected to become available in late 2015, which will further decrease PMPY spend in 2016.

Hepatitis C

Spend for hepatitis C medications is expected to increase more than 100% in 2014 and at least 200% in both 2015 and 2016.

Trend for medications used to treat hepatitis C is forecast to be 102.0% in 2014, 208.8% in 2015 and 205.0% in 2016.

Decreasing utilization of hepatitis C medications in 2013 led to a significant decrease in spend, which dropped the medications out of the top 10 specialty therapy classes when ranked by per-member-per-year (PMPY) spend. However, substantial increases in utilization and brand inflation in the next few years are expected to contribute to triple-digit PMPY trend. Utilization decreases were in response to the warehousing of currently untreated hepatitis C patients in anticipation of the launch of new, oral regimens that either reduce the length of treatment with pegylated interferon and ribavirin or even entirely eliminate the need for pegylated interferon.

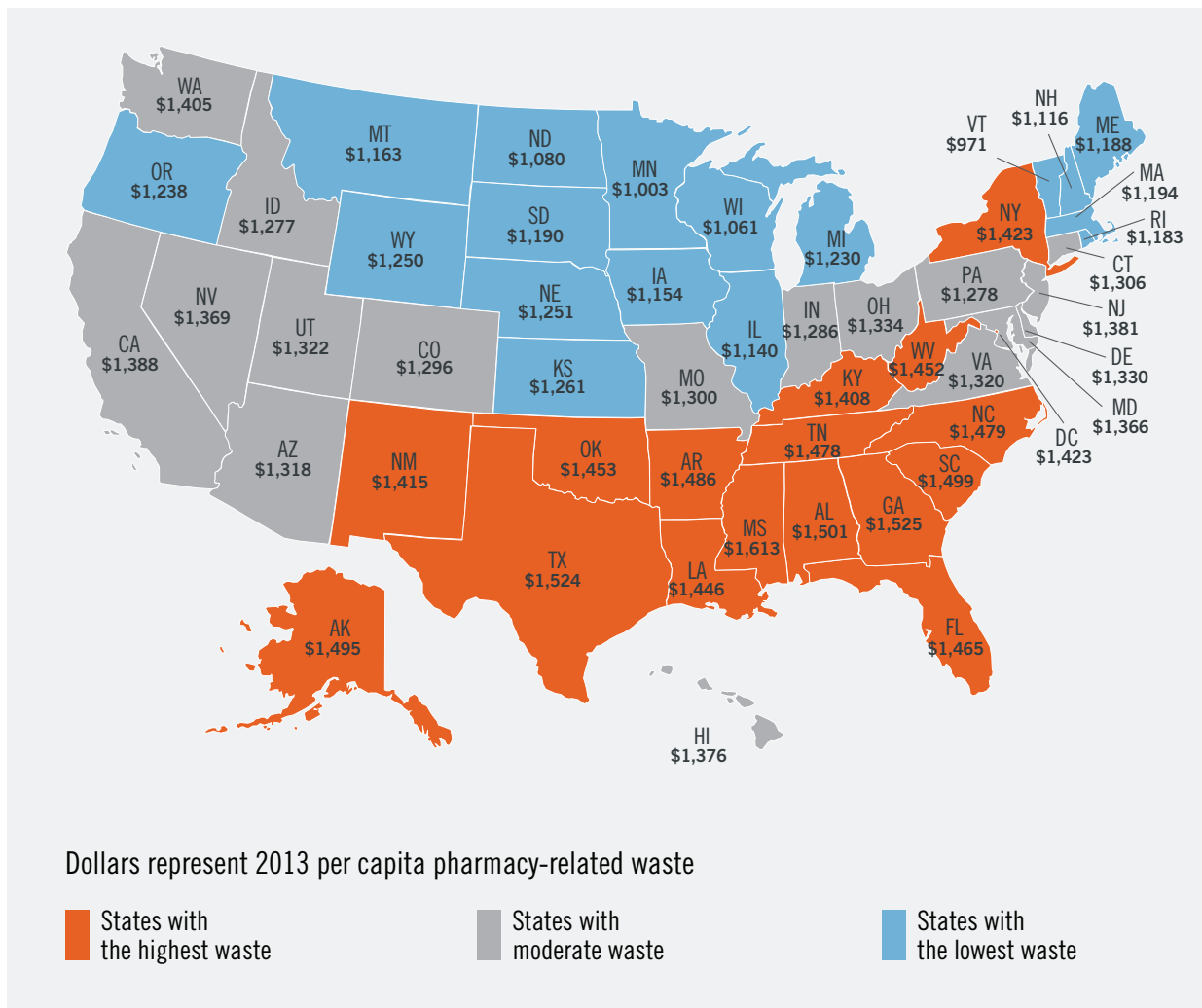
PMPY spend is expected to rebound in 2014 as a result of the late-2013 launch of two new medications, Olysio™ (simeprevir) and Solvaldi™ (sofosbuvir). Both drugs have been shown to increase sustained viral response rates and reduce the overall length of therapy. The cost of treatment using these add-on drugs is expected to range from \$80,000 to \$100,000 per course of therapy, not including the costs of pegylated interferon / ribavirin combinations. The development pipeline also includes all-oral regimens for genotype 1 patients (by far the most common genotype in the U.S.), which are expected to be launched at the end of 2014. These oral regimens carry the promise of easier dosing, shorter lengths of therapy, increased tolerability and improved efficacy.

Pharmacy-Related Waste

Poor pharmacy-related decisions (drug, pharmacy and health decisions) waste billions of dollars each year.

PHARMACY-RELATED WASTE ACROSS AMERICA

STATE-BY-STATE LOOK AT PER CAPITA PHARMACY-RELATED WASTE



Our Legacy of Measuring Pharmacy-Related Waste

For more than 25 years, Express Scripts has worked to eliminate waste in the pharmacy benefit. Suboptimal pharmacy-related behavior by U.S. consumers wasted almost \$428 billion in 2013 – \$100 billion more than the total amount the country spent on prescription drugs during the previous year. Considered by region, the South was the most wasteful. The three states with the highest waste (more than \$1,500 per person) in 2013 were Mississippi, Georgia and Texas. Vermont and Minnesota – for the second year in a row – had the lowest amount of waste per person, but it still added up to about \$1,000 per person in costs that provided no additional health benefits.

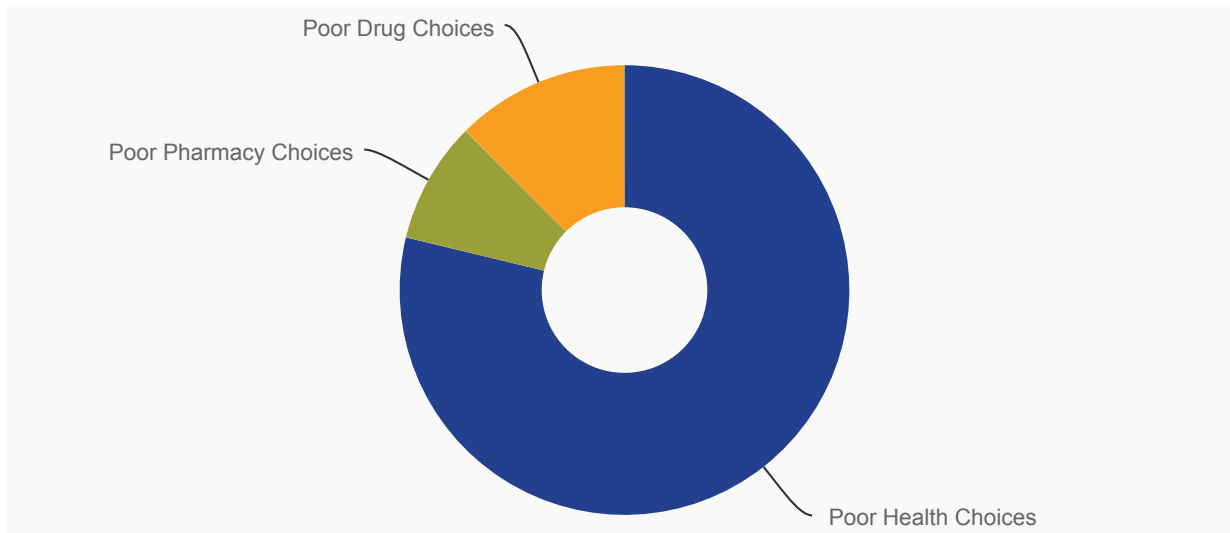
\$427.9B Pharmacy-Related Waste in 2013

TREND DRIVERS

Behavioral changes in the form of better drug choices, better pharmacy choices and better health choices are needed to achieve healthier outcomes and save billions of dollars for patients, employers and the government.

PHARMACY-RELATED WASTE, 2013

IN BILLIONS



[View the interactive version of this chart online](#) 

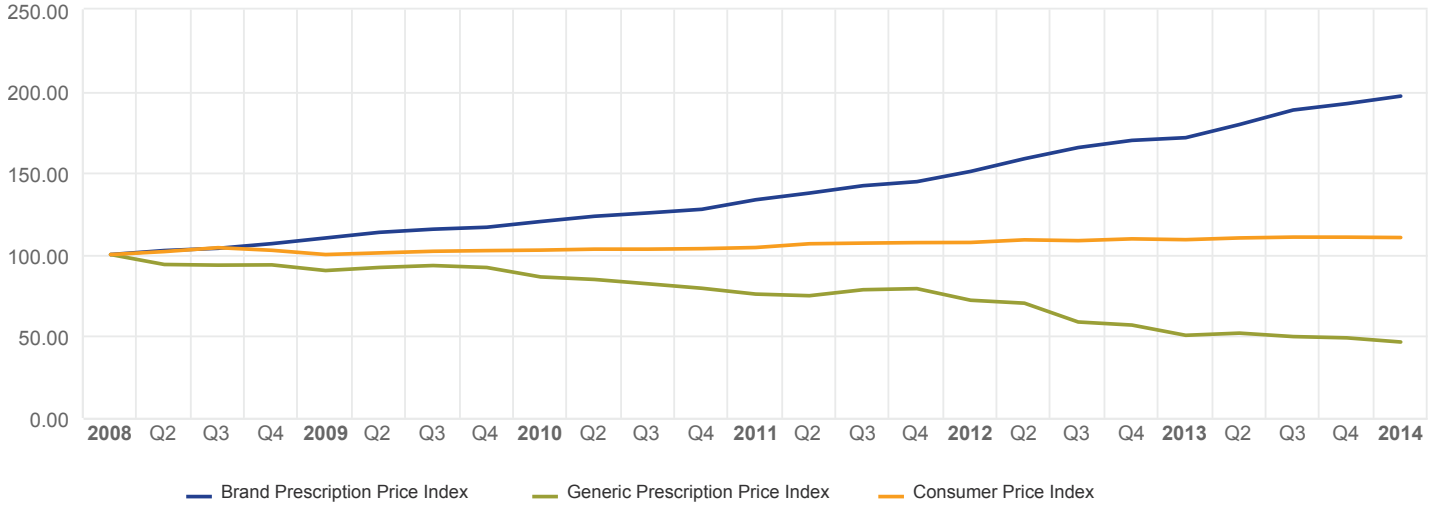
- **Waste Due to Poor Drug Choices:**
\$53.4 billion was spent unnecessarily on higher-priced medications when more affordable, clinically equivalent alternatives were available.
- **Waste Due to Poor Pharmacy Choices:**
\$37.4 billion could have been saved if patients had used the most cost-effective and clinically appropriate pharmacies, including narrower networks of retail pharmacies, home delivery and specialty pharmacies like Accredo.
- **Waste Due to Poor Health Choices:**
\$337.1 billion was spent on avoidable medical and pharmacy expenses as a result of patients' nonadherence to medication treatments.

Smarter Solutions for Reducing Waste

Poor pharmacy-related decisions waste billions of dollars each year. To more effectively address the need for better decisions and healthier outcomes, Express Scripts is applying decision science to healthcare. Health Decision ScienceSM, our proprietary platform of discovery and innovation, brings together our complementary capabilities to enable patients to make better drug choices, better pharmacy choices and better health choices.

The Express Scripts Prescription Price Index

Prices for brand drugs grew but those for generic drugs dropped in 2013 compared to 2012.



[View the interactive version of this chart online](#) 

Compared to generic drug prices and brand prices in December 2012, in December 2013 generic drug prices were 15.9% lower, whereas brand prices were 13.9% higher.

The magnitude of change in generic drug prices has decreased over time in comparison to the dramatic deflation seen in 2012 as a result of the patent cliff, when billions of dollars’ worth of brand blockbuster medications lost patent protection and paved the way for unprecedented generic competition. In addition, the gap between brand inflation and generic deflation has narrowed, dropping from 44.4 percentage points in December 2012 to 29.8 percentage points in December 2013.

The Prescription Price Index shows that since 2008, the price of brand drugs has almost doubled, but the price of generic drugs has been cut roughly in half.

From the base price of \$100.00 set in January 2008, in December 2013 prices for the most commonly used generic medications decreased to \$46.44 (in 2008 dollars) and prices for the most commonly used brand medications increased to \$197.00 (in 2008 dollars).

Brand-Name Drug Pipeline and Approvals

When brand-name medications are approved by the FDA, approval dates, key insights and other details are showcased.

BRAND APPROVALS

APPROVAL OR ACTION DATE	BRAND NAME (GENERIC NAME)	PRIMARY INDICATION
First Half of 2014*	Grastek® (timothy grass pollen allergen extract)	Allergic Rhinitis
Apr. 2014*	Arzerra® (ofatumumab)	Chronic Lymphocytic Leukemia
Apr. 2014*	Ruconest® (conestat alfa)	Hereditary Angioedema
Apr. 2014*	Syncria® (albiglutide)	Diabetes
Apr. 2014	Oralair® (pollen allergen extract)	Allergic Rhinitis
Mar. 2014	Alprolix™ (factor IX Fc fusion protein)	Hemophilia B
Mar. 2014	Otezla® (apremilast)	Psoriatic Arthritis
Mar. 2014	Impavido® (miltefosine)	Leishmaniasis
Mar. 2014	Hemangeol™ (propranolol)	Infantile Hemangioma
Mar. 2014*	Eloctate™ (Factor VIII Fc)	Hemophilia A
Mar. 2014	Xartemis™ XR (oxycodone / acetaminophen extended release)	Acute or Severe Pain
Mar. 2014	Qudexy™ XR (topiramate extended release)	Seizures
Mar. 2014	Aveed™ (testosterone undecanoate)	Hypogonadism
Mar. 2014*	Ragwitek™ (short ragweed pollen allergen extract)	Allergic Rhinitis
Feb. 2014*	CompleoTRT™ (testosterone)	Hypogonadism
Feb. 2014*	Octaplex® (prothrombin complex concentrate [human])	Reversal of Anticoagulation
Feb. 2014	Tivorbex™ (indomethacin)	Pain
Feb. 2014*	Humalog® U-200 (insulin lispro)	Diabetes
Feb. 2014	Myalept™ (metreleptin)	Lipodystrophy
Feb. 2014	Northera™ (droxidopa)	Neurogenic Orthostatic Hypotension
Feb. 2014	Misodel™ (misoprostol)	Cervical Ripening
Feb. 2014	Vimizim™ (elosulfase alfa)	Morquio A Syndrome
Jan. 2014	Hetlioz™ (tasimelteon)	Non-24 Sleep Disorder
Jan. 2014	Copaxone® 40mg (glatiramer)	Multiple Sclerosis
Jan. 2014	Pennsaid® 2% (diclofenac sodium)	Pain
Jan. 2014	Farxiga™ (dapagliflozin)	Diabetes
Dec. 2013	Tretten® (catridecacog)	Congenital Factor XIII A-Subunit Deficiency
Dec. 2013	Orenitram™ (treprostinil)	Pulmonary Hypertension
Dec. 2013	Anoro™ Ellipta™ (umeclidinium / vilanterol)	Chronic Obstructive Pulmonary Disease

continued

TREND DRIVERS

continued

Dec. 2013	Sovaldi™ (sofosbuvir)	Hepatitis C
Nov. 2013	Velphoro® (sucroferric oxyhydroxide)	Hyperphosphatemia
Nov. 2013	Noxafil® (posaconazole)	Fungal Infections
Nov. 2013	Varithena™ (polidocanol injectable foam)	Varicose Veins
Nov. 2013	Olysio™ (simeprevir)	Hepatitis C
Nov. 2013	Luzu® Cream (luliconazole)	Skin Conditions
Nov. 2013	Imbruvica™ (ibrutinib)	Mantle Cell Lymphoma
Nov. 2013	Aptiom® (eslicarbazepine)	Seizures
Nov. 2013	Gazyva™ (obinutuzumab)	Chronic Lymphocytic Leukemia
Oct. 2013	Zohydro™ ER (hydrocodone extended release)	Severe Pain
Oct. 2013	Aquoral® (oxidized glycerol triester)	Dry Mouth
Oct. 2013	Opsumit® (macitentan)	Pulmonary Hypertension
Oct. 2013	Zorvolex™ (diclofenac)	Mild to Moderate Pain
Oct. 2013	Actemra® (tocilizumab)	Rheumatoid Arthritis / Juvenile Idiopathic Arthritis
Oct. 2013	Novoeight® (turoctocog alfa)	Hemophilia A
Oct. 2013	Otrexup™ (methotrexate)	Rheumatoid Arthritis / Polyarticular Juvenile Idiopathic Arthritis / Psoriasis
Oct. 2013	Adempas® (riociguat)	Pulmonary Hypertension
Oct. 2013	Duavee® (conjugated estrogens / bazedoxifene)	Vasomotor Symptoms of Menopause / Postmenopausal Osteoporosis Prevention
Sep. 2013	Brintellix® (vortioxetine)	Major Depressive Disorder
Aug. 2013	Mirvaso® (brimonidine)	Rosacea
Aug. 2013	Valchlor™ (mechlorethamine)	Cutaneous Lymphoma
Aug. 2013	Trokendi XR™ (topiramate extended release)	Seizures
Aug. 2013	Epaned™ (enalapril)	High Blood Pressure
Aug. 2013	Tivicay® (dolutegravir)	HIV
Jul. 2013	Fetzima™ (levomilnacipran)	Major Depressive Disorder
Jul. 2013	Injectafer® (ferric carboxymaltose)	Anemia
Jul. 2013	Lo Minastrin™ Fe (norethindrone acetate / ethinyl estradiol / ferrous fumarate)	Oral Contraception
Jul. 2013	Astagraf XL™ (tacrolimus extended release)	Kidney Transplant Rejection
Jul. 2013	Simponi® Aria™ (golimumab)	Rheumatoid Arthritis
Jul. 2013	Gilotrif™ (afatinib)	Non-Small Cell Lung Cancer
Jul. 2013	Khedeza™ (desvenlafaxine extended release)	Major Depressive Disorder
Jul. 2013	Zubsolv® (buprenorphine / naloxone)	Opioid Dependence
Jun. 2013	Brisdelle™ (paroxetine mesylate)	Symptoms of Menopause
Jun. 2013	Naftin® Gel 2% (naftifine)	Athlete's Foot
Jun. 2013	Rixubis (coagulation factor IX [recombinant])	Hemophilia B
May 2013	Bloxiverz™ (neostigmine)	Counteraction of Neuromuscular Blockers

continued

TREND DRIVERS

continued

May 2013	Mekinist™ (trametinib)	Advanced Melanoma
May 2013	Tafinlar® (dabrafenib)	Advanced Melanoma
May 2013	Xofigo® (radium Ra 223 dichloride)	Metastatic Prostate Cancer
May 2013	Nymalize® (nimodipine)	Subarachnoid Hemorrhage
May 2013	Breo™ Ellipta™ (fluticasone furoate / vilanterol inhalation powder)	Chronic Obstructive Pulmonary Disease
May 2013	Liptruzet™ (ezetimibe / atorvastatin)	High Blood Cholesterol
Apr. 2013	Procysbi® (cysteamine)	Nephropathic Cystinosis
Apr. 2013	Kcentra® (prothrombin complex concentrate [human])	Acute Warfarin-Induced Bleeding Reversal
Apr. 2013	Minastrin® 24 FE (norethindrone acetate / ethinyl estradiol / ferrous fumarate)	Oral Contraception
Apr. 2013	Simbrinza™ (brinzolamide / brimonidine tartrate)	Glaucoma / Ocular Hypertension
Apr. 2013	Sitavig® (acyclovir)	Cold Sores
Apr. 2013	Topicort® (desoximetasone)	Psoriasis
Apr. 2013	Diclegis® (doxylamine succinate / pyridoxine hydrochloride)	Pregnancy-Induced Vomiting
Apr. 2013	Prolensa™ (bromfenac)	Cataracts
Apr. 2013	Karbinal™ ER (carbinoxamine maleate)	Allergic Rhinitis
*FDA Action Date		

Highlights

In June 2013, the U.S. Food and Drug Administration (FDA) approved Rixubis (coagulation factor IX [recombinant]). It is the first product to be indicated both to control acute bleeding and to prevent bleeding episodes in patients with hemophilia B, which affects about 3,300 patients in the United States; 80% of hemophilia patients have hemophilia A.¹ Rixubis will compete with BeneFix® (coagulation factor IX [recombinant]), which is approved for the control, but not the prevention, of bleeding for patients with hemophilia B.

The FDA also approved a new antidepressant, Brintellix® (vortioxetine), at the end of September. Brintellix affects serotonin in ways similar to popular selective serotonin reuptake inhibitors (SSRIs), such as Prozac® (fluoxetine), and serotonin–norepinephrine reuptake inhibitors (SNRIs), such as Effexor® (venlafaxine). However, Brintellix has three advantages that make it a potential blockbuster drug: its additional serotonin-boosting ability increases its antidepressant effects; its use is not associated with some of the common negative side effects associated with similar medications; and, unlike other antidepressants, Brintellix can be discontinued without a taper-down period.

In December, Gilead received FDA approval for Sovaldi™ (sofosbuvir), a once-daily oral treatment for infection with chronic hepatitis C virus (HCV) in patients with genotypes 1, 2, 3 and 4 HCV. In clinical studies, Sovaldi was highly effective both for patients who previously had been treated for HCV and for those who were new to treatment. In contrast to current treatments that last up to 48 weeks, most regimens with Sovaldi are used for 12 weeks (for genotypes 1, 2 or 4) or 24 weeks (genotype 3). Additional all-oral treatments for HCV are in development, with approvals anticipated in late 2014 or early 2015. With a wholesale cost of \$1,000 per tablet and a potential patient population of 3.2 million Americans with chronic HCV 2, 2014 sales for Sovaldi easily could top a billion dollars.²

After priority review, the FDA approved Hetlioz™ (tasimelteon) capsules on January 31, 2014. The recommended dose is one 20mg capsule before bedtime. Although pricing is not available, its annual cost is estimated at \$60,000.

TREND DRIVERS

Hetlioz, which will be available through a limited network of specialty pharmacies, is the first treatment for non-24-hour sleep-wake disorder (non-24). A chronic circadian rhythm disorder, non-24 keeps patients from aligning their body clocks with the 24-hour day-night cycle. Most totally blind patients (about 80,000 in the U.S.) have non-24, which disrupts sleep and causes stress that often results in social and occupational problems. Hetlioz is a melatonin receptor agonist that helps to regulate circadian rhythms.

Footnotes

1. U.S. Department of Health and Human Services. What is hemophilia? National Heart, Lung and Blood Institute website. <https://www.nhlbi.nih.gov/health/health-topics/topics/hemophilia/>. July 31, 2013. Accessed February 19, 2014.
2. Centers for Disease Control and Prevention. Hepatitis C FAQs for Health Professionals. <http://www.cdc.gov/hepatitis/hcv/hcvfaq.htm>. Page last updated: May 28, 2013. Accessed January 6, 2014.

Recent and Upcoming Drug Patent Expirations

When patents expire for brand-name prescription drugs, pharmaceutical manufacturers can produce and sell generic equivalents.

PATENT EXPIRATIONS

PATENT EXPIRATION DATE	BRAND NAME (GENERIC NAME)	PRIMARY INDICATION	ESTIMATED ANNUAL SALES (MILLIONS)
In 2014*	Lovaza® (omega-3 acid ethyl esters)	High Blood Cholesterol	\$1,066
In 2014*	Diovan® (valsartan)	High Blood Pressure	\$2,170
In 2014*	Exforge® / Exforge HCTC® (amlodipine / valsartan) and (amlodipine / valsartan / hydrochlorothiazide)	High Blood Pressure	\$540
Dec. 2014*	Intuniv® (guanfacine)	Attention Deficit Hyperactivity Disorder	\$578
Sep. 2014*	Atralin® (tretinoin)	Acne / Sun Damage	\$51
Sep. 2014*	Protopic® (tacrolimus)	Eczema	\$120
Jul. 2014*	Vaniqa® (eflornithine)	Reduction of Unwanted Facial Hair	\$14
Jun. 2014*	Actonel® (risedronate)	Osteoporosis	\$327
Jun. 2014*	Naprelan® (naproxen sodium)	Mild to Moderate Pain	\$58
Jun. 2014*	Tazorac® (tazarotene gel)	Acne	\$36
May 2014*	Ertaczo® (sertaconazole)	Athlete's Foot	\$11
May 2014*	Nexium® (esomeprazole magnesium)	Ulcer Disease	\$6,136
May 2014*	Copaxone® (glatiramer)	Multiple Sclerosis	\$3,697
Apr. 2014*	Lotemax® (loteprednol ophthalmic suspension)	Ocular Inflammation	\$175
Apr. 2014*	Lunesta® (eszopiclone)	Sleep Disorders	\$852
Apr. 2014*	Flector® (diclofenac epolamine patch)	Mild to Moderate Pain	\$153
Apr. 2014*	Viracept® (nelfinavir)	HIV / AIDS	\$40
Mar. 2014*	Busulfex® (busulfan)	Leukemia	\$78
Mar. 2014	Renagel® / Renvela® (sevelamer)	Chronic Kidney Disease	\$1,093
Mar. 2014	Avelox® (moxifloxacin)	Infections	\$192
Mar. 2014	Evista® (raloxifene)	Osteoporosis / Breast Cancer	\$824
Feb. 2014	Mycobutin® (rifabutin)	Infections	\$19
Feb. 2014	Boniva® Injection (ibandronate)	Osteoporosis	\$82
Feb. 2014	Hectorol® (doxercalciferol injection)	Hyperparathyroidism	\$49
Jan. 2014	Bromday® (bromfenac)	Cataracts	\$117
Jan. 2014	Vanos® (fluocinonide cream) 0.1%	Skin Conditions	\$107
Jan. 2014	Rapamune® 0.5mg (sirolimus)	Transplant Rejection Prevention	\$12
Jan. 2014	Myfortic® (mycophenolic acid)	Transplant Rejection Prevention	\$307
Jan. 2014	Twynsta® (telmisartan / amlodipine)	High Blood Pressure	\$7

continued

TREND DRIVERS

continued

Jan. 2014	Micardis® (telmisartan)	High Blood Pressure	\$274
Jan. 2014	Epivir® (lamivudine)	HIV / AIDS	\$22
Dec. 2013	Cymbalta® (duloxetine)	Depression	\$5,000
Dec. 2013	Trizivir® (abacavir / lamivudine / zidovudine)	HIV / AIDS	\$112
Nov. 2013	Focalin XR® (dexamethylphenidate extended release)	Attention Deficit Hyperactivity Disorder	\$683
Nov. 2013	AcipHex® (rabeprazole)	Gastroesophageal Reflux Disease	\$900
Oct. 2013	Detrol® LA (tolterodine extended release)	Overactive Bladder	\$700
Oct. 2013	Solaraze® (diclofenac gel) 3%	Actinic Keratoses	\$78
Oct. 2013	TOBI® (tobramycin inhalation solution)	Lung Infections Associated with Cystic Fibrosis	\$350
Oct. 2013	Kapvay® (clonidine extended release)	Attention Deficit Hyperactivity Disorder	\$72
Oct. 2013	Zymaxid® (gatifloxacin ophthalmic solution)	Bacterial Conjunctivitis	\$62
Sep. 2013	Vfend® (voriconazole)	Systemic Fungal Infections	\$17
Sep. 2013	Zemplar® (paricalcitol)	Hyperparathyroidism	\$112
Sep. 2013	Locoid Lipocream® (hydrocortisone butyrate)	Skin Conditions	\$34
Sep. 2013	Ovcon® 35 (norethindrone / ethinyl estradiol)	Oral Contraception	\$22
Sep. 2013	Nitrolingual® (nitroglycerin lingual spray)	Angina	\$65
Sep. 2013	Niaspan® (niacin extended release)	High Blood Cholesterol	\$1,100
Sep. 2013	Lidoderm® (lidocaine patch) 5%	Post-Herpetic Neuralgia	\$1,200
Sep. 2013	Xeloda® (capecitabine)	Metastatic Breast Cancer / Colorectal Cancer	\$706
Sep. 2013	Prevpac® (lansoprazole delayed-release / amoxicillin / clarithromycin)	Ulcer Disease	\$90
Aug. 2013	Vidaza® (azacitidine)	Myelodysplastic Syndrome	\$379
Aug. 2013	Campral® (acamprosate)	Alcohol Dependence	\$21
Aug. 2013	Temodar® (temozolomide)	Glioblastoma Multiforme / Anaplastic Astrocytoma	\$423
Aug. 2013	Ranexa® (ranolazine extended release)	Angina	\$443
Jul. 2013	Stalevo® (carbidopa / levodopa / entacapone)	Parkinson's Disease	\$139
Jul. 2013	Glumetza® (metformin extended release)	Diabetes	\$144
Jul. 2013	Aricept® (donepezil tablet) 23mg	Alzheimer's Disease	\$93
Jul. 2013	Lamictal® ODT™ (lamotrigine orally disintegrating tablets)	Seizures	\$51
Jul. 2013	Trilipix® (fenofibric acid delayed release) 45mg and 135mg	High Blood Cholesterol	\$554
Jul. 2013	Dacogen® (decitabine)	Myelodysplastic Syndrome	\$260
Jul. 2013	Prandin® (repaglinide)	Diabetes	\$200
Jul. 2013	ProCentra® (dextroamphetamine) oral solution	Attention Deficit Hyperactivity Disorder	\$10
Jul. 2013	Metrogel® (metronidazole) Gel 1%	Rosacea	\$110
Jun. 2013	Rilutek® (riluzole)	Amyotrophic Lateral Sclerosis	\$64

continued

TREND DRIVERS

continued

May 2013	Zomig® / Zomig-ZMT® (zolmitriptan) and (zolmitriptan orally disintegrating tablets)	Migraine Headaches	\$196
May 2013	Atacand® (candesartan)	High Blood Pressure	\$120
Apr. 2013	Zovirax® Ointment (acyclovir)	H. Simplex Virus	\$230
*Scheduled Patent Expiration Date			

Highlights

Immediately after the patent for Cymbalta® (duloxetine) expired in mid-December 2013, six companies introduced generics to the top-selling antidepressant. Duloxetine – a selective serotonin and norepinephrine reuptake inhibitor (SSRI) – also is approved for treating depression and generalized anxiety disorder (GAD), along with diabetic neuropathy, fibromyalgia and some other types of chronic pain.

TOBI® (tobramycin inhalation solution) lost patent protection in October 2013. This medication is used to treat the lung infections commonly experienced by patients with cystic fibrosis (CF). In March 2013, Novartis introduced a new formulation of the medication, the TOBI™ Podhaler™ (tobramycin for inhalation powder), a dry-powder inhaler. This formulation, which has patent protection through at least 2022, is quickly capturing market share.

Par Pharmaceuticals received approval from the U.S. Food and Drug Administration (FDA) for its generic to Kapvay® (clonidine extended release) in October 2013. Clonidine is an old drug, first approved in 1974 for treating high blood pressure. However, in September 2010, the FDA approved the expanded use of extended-release clonidine to treat attention deficit hyperactivity disorder (ADHD) for patients between the age of 6 and 17. Unlike most medications for ADHD, clonidine drug is not a stimulant.

In August 2013, the oral formulation of Temodar® (temozolomide) capsules lost patent protection. Used in conjunction with radiotherapy, temozolomide is one of the few drugs indicated for treating cancerous brain tumors.

Oral dosage forms of an anti-migraine “triptan,” Zomig® (zolmitriptan) and Zomig-ZMT® (zolmitriptan orally disintegrating tablets), went generic in May 2013, making it the fourth generic triptan available in the U.S. Among the four, the most commonly used medication is sumatriptan, the generic formulation of Imitrex®.

Although the patent for the angiotensin II receptor blocker (ARB), Atacand® (candesartan) expired in December 2012, the generic was not released until May 2013. Reasons for the delay were not announced.

Drug Approval Spotlights

Visit Lab.Express-Scripts.com to view the latest summary of recent key brand-name drugs approved by the FDA.

- **Oralair®**
Greer Laboratories announced that the U.S. Food and Drug Administration (FDA) approved Oralair® (mixed grass pollens allergens extract).
- **Alprolix™**
Biogen Idec received US Food and Drug Administration approval of Alprolix™ [Coagulation Factor IX (Recombinant), Fc Fusion Protein] for the control and prevention of bleeding episodes, preoperative management and routine prophylaxis in adults and children with hemophilia B.
- **Otezla®**
The U.S. Food and Drug Administration (FDA) approved Celgene's Otezla® (apremilast) to treat adults with active psoriatic arthritis.
- **Impavido®**
The U.S. Food and Drug Administration (FDA) approved Impavido® (miltefosine), an oral drug to treat the tropical parasitic disease leishmaniasis. Indicated for patients at least 12 years old, Impavido treats three major forms of leishmaniasis, which is transmitted through sandfly bites.
- **Aveed™**
The U.S. Food and Drug Administration (FDA) approved Endo Pharmaceuticals' Aveed™ (testosterone undecanoate, CIII), an injectable testosterone replacement therapy for men with low or absent testosterone levels.
- **Myalept™**
After a priority review, the U.S. Food and Drug Administration (FDA) approved the orphan drug Myalept™ (metreleptin for injection) as replacement therapy to treat the complications of leptin deficiency, in addition to diet, in patients with congenital or acquired generalized lipodystrophy. Myalept is administered once daily by subcutaneous injection.
- **Northera™**
The U.S. Food and Drug Administration (FDA) approved Chelsea Therapeutics' Northera™ (droxidopa) for the treatment of adults with symptomatic neurogenic orthostatic hypotension (NOH). Chelsea Therapeutics plans on launching Northera in the second half of 2014.
- **Vimizim™**
After priority review, the U.S. Food and Drug Administration (FDA) approved BioMarin's Vimizim™ (elosulfase alfa) for the treatment of mucopolysaccharidosis type IVA (Morquio A syndrome). An orphan condition affecting approximately 800 patients in the U.S., Morquio A syndrome is a lysosomal storage disorder caused by a deficiency in the enzyme N-acetylgalactosamine-6-sulfate sulfatase (GALNS). This progressive, debilitating condition causes severe musculoskeletal and respiratory dysfunction that leads to significant limitations in mobility, endurance and breathing.
- **Farxiga™**
The U.S. Food and Drug Administration (FDA) approved AstraZeneca and Bristol-Myers Squibb's Farxiga™ (dapagliflozin), a drug for use in combination with diet and exercise to improve glycemic control in adults with type 2 diabetes. Farxiga is the second approved product belonging to a class of drugs known as sodium-glucose co-transporter 2 (SGLT-2) inhibitors.

TREND DRIVERS

- **Sovaldi™**

Gilead received approval from the U.S. Food and Drug Administration (FDA) for Sovaldi™ (sofosbuvir) for the treatment of chronic hepatitis C infection as a component of a combination antiviral treatment regimen. Sovaldi in combination with ribavirin is the first all-oral (interferon-free) regimen to gain FDA approval.

- **Imbruvica™**

After priority review, Janssen Biotech and Pharmacyclics received approval from the U.S. Food and Drug Administration (FDA) for Imbruvica™ (ibrutinib) for the treatment of patients with mantle cell lymphoma (MCL) who have received at least one prior therapy.

Medicare 2013 Trend Overview

PMPY spend for Medicare plans rose 2.6% to \$2,541.75 from 2012 to 2013. Increased trend resulted from two primary factors pulling in opposite directions: PMPY utilization increased 3.7%; by contrast, unit cost decreased 1.1%.

COMPONENTS OF MEDICARE TREND, 2013

MEDICARE, OVERALL

	PMPY SPEND	TREND		
		UTILIZATION	UNIT COST	TOTAL
Traditional	\$2,045.07	3.7%	-3.7%	0.0%
Specialty	\$496.68	-0.6%	15.3%	14.7%
TOTAL OVERALL	\$2,541.75	3.7%	-1.1%	2.6%

January - December 2013 compared to same period in 2012

MEDICARE, PLAN TYPES

	PMPY SPEND	TREND		
		UTILIZATION	UNIT COST	TOTAL
EGWP				
Traditional	\$2,373.46	1.0%	2.2%	3.2%
Specialty	\$554.01	6.3%	13.9%	20.2%
TOTAL EGWP	\$2,927.47	1.0%	5.0%	6.0%
MAPD				
Traditional	\$1,645.04	3.1%	-2.6%	0.5%
Specialty	\$389.12	6.3%	12.3%	18.6%
TOTAL MAPD	\$2,034.16	3.1%	0.4%	3.5%
PDP				
Traditional	\$2,144.71	5.1%	-5.9%	-0.8%
Specialty	\$533.78	-3.9%	16.3%	12.4%
TOTAL PDP	\$2,678.49	5.1%	-3.5%	1.6%

January - December 2013 compared to same period in 2012

Medicare continues to be a rapidly expanding market. By 2035, 1 in 5 Americans will be over the age of 65.¹ These numbers place a substantial burden on the Medicare system, driving the Centers for Medicare & Medicaid Services (CMS) to continue the focus on both cost containment and quality performance. CMS continues to monitor access to care, cost and quality through an increase in the type and number of audits being performed.²

Aligned with the cost containment focus, in 2013 Medicare plans offered beneficiaries lower premiums and narrower pharmacy networks, and participated in tighter formulary management. At the same time, plans were operating in an increasingly competitive environment. The market continues to consolidate, with only the highest performing and most financially-successful plans surviving.

The Importance of Star Ratings

Quality performance, as measured by Star Ratings, is a key driver of consolidation trends due to the significant impact Stars have on plan sponsors' bottom line financials. This trend will only continue – starting with the 2015 Star Ratings, only the highest performing Medicare Advantage plans (4 stars to 5 stars) will receive quality bonus payments, and the rewards will come from a considerably smaller bonus pool. Looking ahead, the greatest challenge health plans will face in maintaining or improving Star Ratings is simply keeping up with how CMS measures a plan's performance. For the 2015 Star Ratings, CMS is not just adding measures; they are proposing a change in performance thresholds for existing measures and even retiring a measure,³ which means even a plan's strongest performance measures may need continual improvement.

All of this means plans are continuing to be laser focused on improving their Stars, particularly the triple-weighted clinical measures, many of which are focused on appropriate care for members with diabetes, high blood pressure, and high blood cholesterol, the top three traditional therapy classes when ranked by per-member-per-year (PMPY) spend in 2013. Plans are successfully transitioning members to appropriate therapy and increasing adherence in these important therapy classes.

“Plans are continuing to be laser focused on improving their Stars, particularly the triple-weighted clinical measures, many of which are focused on appropriate care for members with diabetes, high blood pressure, and high blood cholesterol.”

Trend in 2013

Medicare introduced other changes in 2013 that had a significant impact on PMPY spend and utilization. Most notably, benzodiazepines and barbiturates (for certain indications) became Part D eligible. Additionally, the latest proposed guidance by CMS suggests that changes to criteria that define “protected classes of drugs” (PCDs) could be made, which could drive down PMPY trend in certain therapy classes if those changes are made. PMPY spend for Medicare beneficiaries rose 2.6% to \$2,541.75 from 2012 to 2013. Increased trend resulted from two primary factors pulling in opposite directions: PMPY utilization increased 3.7%; by contrast, unit cost decreased 1.1%.

Despite overall rising costs for the federal Medicare program, traditional drug spend among Medicare plans remained unchanged between 2012 and 2013. Trend was 0.0%, reflecting a 3.7% increase in utilization and a decreased unit cost of 3.7%. Although specialty medications represent only a fraction of total Medicare drug spend, their contribution to trend continues to increase. Specialty drugs increased 14.7% in 2013, PMPY, compared to a 24.1% increase in 2012. In contrast to the traditional market, in which new, lower-cost generic entrants have slowed year-over-year growth in spend, the specialty market will see continued year-over-year growth in spend. Even though most states require generic alternatives to be substituted for brand products when appropriate, generics will not offer relief in the specialty market as they will in the traditional market as few generic alternatives for specialty medications are available.

Analysis by Medicare Plan Type

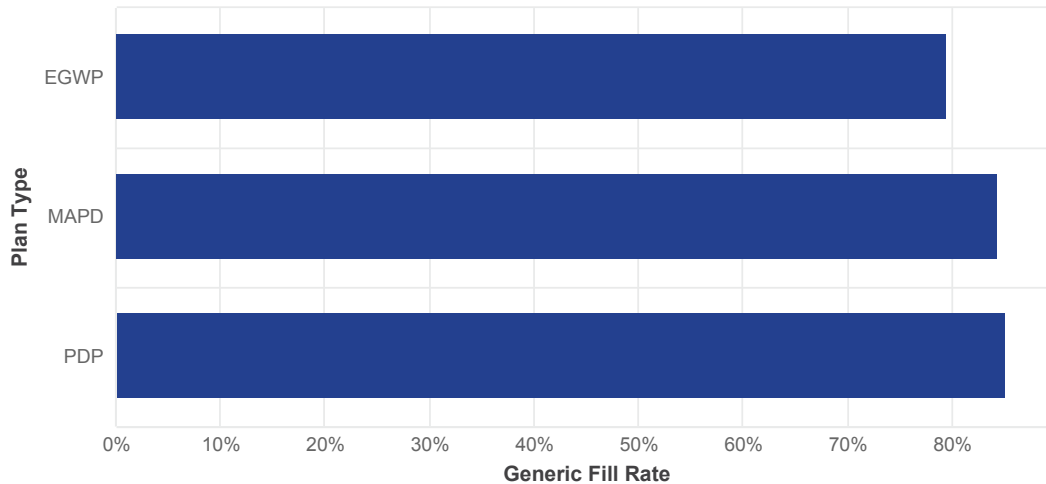
We further examined Medicare trend for 2013 by Medicare plan type: Employer Group Waiver Plans (EGWPs), Medicare Advantage Prescription Drug Plans (MAPDs) and standalone Prescription Drug Plans (PDPs). EGWPs, which comprise employers who continue to offer benefits to their retirees, tend to have broader formularies, lower copayments and fewer member restrictions. In 2013, EGWP plans had the highest PMPY spend (\$2,373.46) for traditional drugs, but they also had the lowest utilization increase – a 1.0% gain. Similar to traditional trend, EGWPs also had the highest PMPY cost for specialty drugs with a PMPY spend of \$554.01, a 20.2% increase from 2012. EGWPs had the lowest generic fill rate for traditional medications.

MEDICARE

Traditional trend for MAPDs was relatively flat (0.5%), with PMPY spend of \$1,645.04, stemming from a 2.6% decrease in unit cost which offset the 3.1% increase in utilization. The specialty PMPY spend for MAPDs in 2013 increased to \$389.12, an 18.6% increase from 2012.

Medicare traditional drug spend decreased 0.8% to \$2,144.71 for PDP plans, largely driven by a 5.9% decrease in unit cost. PDP plans had the lowest specialty spend increase (12.4%) compared to other types of Medicare plans. PDPs had a slightly higher generic fill rate than MAPD plans (85.1% vs. 84.5%).

2013 GENERIC FILL RATE BY MEDICARE PLAN SPONSOR TYPE



Footnotes

1. The New York Times. The aging of America. The New York Times website. http://www.nytimes.com/interactive/2011/02/04/business/aging-population.html?_r=1&. February 5, 2011. Accessed February 17, 2014.
2. "Medicare Program; Contract Year 2015 Policy and Technical Changes to the Medicare Advantage and the Medicare Prescription Drug Benefit Programs," 79 Federal Register 7 (10 January 2014), pp. 1918-2073.
3. Centers for Medicare & Medicaid Services. Request for comments regarding enhancements to the Part C and Part D Star Ratings. <http://www.cms.gov/Medicare/Prescription-Drug-Coverage/PrescriptionDrugCovContra/Downloads/CommentsforPartCandDStarRatings.pdf>. Nov. 30, 2012. Accessed February 22, 2014.

Top 10 Medicare Traditional Therapy Classes

Total trend in 2013 was 0.0%, the flat PMPY spend the result of an increase in utilization that was offset completely by a decrease in unit cost.

COMPONENTS OF TREND FOR THE TOP 10 MEDICARE TRADITIONAL THERAPY CLASSES

RANKED BY 2013 PMPY SPEND

RANK	THERAPY CLASS	PMPY SPEND	TREND		
			UTILIZATION	UNIT COST	TOTAL
1	Diabetes	\$270.62	4.2%	10.2%	14.5%
2	High Blood Cholesterol	\$198.48	4.4%	-9.2%	-4.8%
3	High Blood Pressure / Heart Disease	\$182.88	4.5%	-4.7%	-0.2%
4	Mental / Neurological Disorders	\$168.15	-9.2%	-10.5%	-19.7%
5	Asthma	\$125.30	-1.3%	-6.6%	-7.9%
6	Ulcer Disease	\$107.67	4.4%	-4.3%	0.1%
7	Pain	\$105.74	-2.3%	0.3%	-2.0%
8	Depression	\$85.12	2.9%	-0.3%	2.6%
9	Seizures	\$66.54	14.1%	-4.1%	9.9%
10	Urinary Disorders	\$65.97	5.2%	-0.4%	4.8%
	Other	\$668.60	4.0%	-1.0%	3.0%
	TOTAL TRADITIONAL	\$2,045.07	3.7%	-3.7%	0.0%

Together, spend for the top three Medicare traditional therapy classes when ranked by per-member-per-year (PMPY) spend – diabetes, high blood cholesterol and high blood pressure / heart disease – contributed 31.9% of total spend for all traditional medications used by Medicare beneficiaries in 2013. Total trend in 2013 was 0.0%, the flat PMPY spend the result of an increase in utilization that was offset completely by a decrease in unit cost. Total trend was negative in five of the top 10 traditional therapy classes, and the sharpest decline was seen for medications used to treat mental / neurological disorders.

Total trend was negative for five of the top 10 Medicare traditional therapy classes.

Highlights

Diabetes saw a higher PMPY spend than any other traditional therapy class among Medicare beneficiaries. Trend for diabetes medications was 14.5%, driven by an increase in utilization (4.2%) and an even greater increase in unit cost (10.2%). Highly utilized medications, including metformin and Januvia® (sitagliptin), along with many insulins, such as Lantus® (insulin glargine) and Humalog® (insulin lispro injection [rDNA origin]), are driving the increase, but some commonly used diabetes testing supplies also had unit cost increases.

Utilization and costs for medications used to treat mental / neurological disorders decreased 9.2% and 10.5%, respectively, resulting in the largest change (-19.7%) in PMPY spend among the top 10 traditional therapy classes. The most commonly used drugs in the class were made available as generics in 2012 and 2013 – including quetiapine, the active ingredient in Seroquel®; olanzapine, the active ingredient in Zyprexa®; and donepezil, the active ingredient in Aricept®. This therapy class also includes many antipsychotic medications that fall under what the Centers for Medicare & Medicaid Services (CMS) terms “protected classes of drugs” (PCDs). Until recently, CMS mandated that Medicare Part D sponsor formularies include all or substantially all drugs in these classes. However, the latest guidance from CMS has suggested changes to the criteria that define PCDs, which could further drive down the cost trend for medications to treat mental / neurological disorders.

In 2013, the trend for anti-seizure medications was 9.9%, driven primarily by a 14.1% increase in utilization. The 4.1% decrease in unit cost was due mainly to several patent expirations for drugs in this class that occurred starting in October 2012, including patents for brands Gabitril® (tiagabine) and Lamictal® ODT (lamotrigine orally disintegrating tablets). More than 90% of the market share in this class has been captured by generic drugs, which helped drive lower drug costs. At the same time, the increase in utilization is probably a result of the inclusion of benzodiazepines and barbiturates in Medicare Part D coverage effective January 1, 2013. Likely as a result of this change, clonazepam, a benzodiazepine that captured more than 15% of market share in the class, saw a dramatic increase in utilization of nearly 250%.

Medicare vs. Commercial Trend: Traditional

Overall, the trend for traditional therapy classes experienced by commercial clients (2.4%) was slightly positive, whereas the trend for Medicare clients was flat (0.0%).

MEDICARE TREND VERSUS COMMERCIAL TREND FOR THE TOP 10 MEDICARE TRADITIONAL THERAPY CLASSES

RANKED BY 2013 MEDICARE TREND

RANK	THERAPY CLASS	TREND		
		MEDICARE	COMMERCIAL	DIFFERENCE
1	Diabetes	14.5%	14.0%	0.5%
2	Seizures	9.9%	4.0%	5.9%
3	Urinary Disorders	4.8%	-1.6%	6.3%
4	Depression	2.6%	-9.1%	11.6%
5	Ulcer Disease	0.1%	-3.2%	3.3%
6	High Blood Pressure / Heart Disease	-0.2%	-8.7%	8.5%
7	Pain	-2.0%	1.6%	-3.6%
8	High Blood Cholesterol	-4.8%	-14.4%	9.6%
9	Asthma	-7.9%	-14.1%	6.2%
10	Mental / Neurological Disorders	-19.7%	-3.0%	-16.7%
TOTAL TRADITIONAL		0.0%	2.4%	-2.4%

Overall, the trend for traditional therapy classes experienced by commercial clients was slightly positive (2.4%), whereas the trend for Medicare clients was flat (0.0%). With the exception of medications used to treat urinary disorders, depression, ulcer disease and pain, the change in per-member-per-year (PMPY) spend for both Medicare and commercial clients moved in the same direction.

In some therapy classes, differences in patient age between Medicare and commercial clients led to different magnitudes of change in PMPY spend.

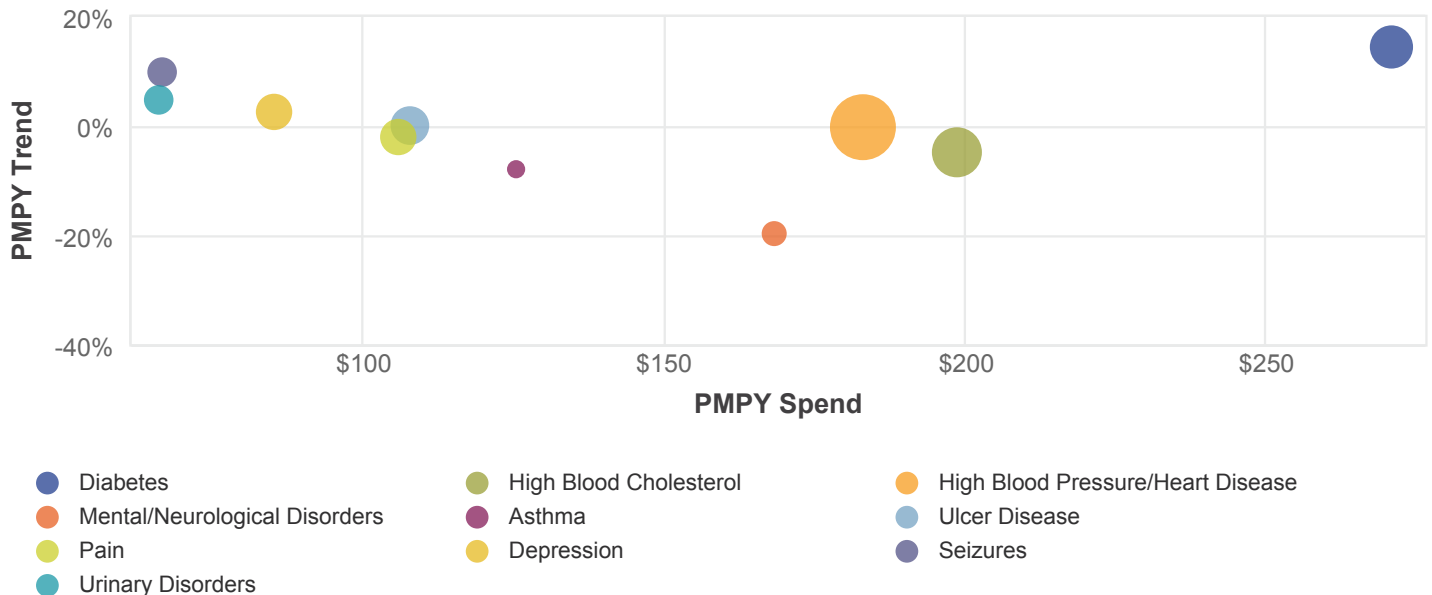
The biggest differences in trend for the two client groups were seen for mental / neurological disorders and depression. Generic formulations of drugs in several of the therapy classes, including asthma and mental / neurological disorders, contributed to the substantial decrease in Medicare trend. The magnitude of the trend for the mental / neurological disorders therapy class, which includes medications used to treat Alzheimer’s disease and dementia, was greater for Medicare clients than for commercial clients because some of the drugs are more highly utilized by older individuals. Conversely, the magnitude of the decline in spend for high blood cholesterol medications was less for Medicare clients than for commercial clients, but this was also because some of these medications are more highly utilized by older populations.

Cost and Utilization for the Top 10 Medicare Traditional Therapy Classes

The diabetes therapy class had the highest PMPY spend, at \$270.62, and the highest trend, at 14.5%.

COST AND UTILIZATION FOR THE TOP 10 MEDICARE TRADITIONAL THERAPY CLASSES

SPEND AND UTILIZATION IN 2013 AND TREND FROM 2012 TO 2013



[View the interactive version of this chart online](#)

This chart shows the relationship between costs and utilization for medications in the top 10 Medicare traditional therapy classes.

How to read this chart: Each bubble plots the 2013 per-member-per-year (PMPY) spend for one therapy class against the PMPY trend, which is the change in spend for that class from 2012 to 2013. The size of the bubble depicts the number of PMPY prescriptions filled in that therapy class.

The diabetes therapy class had the highest PMPY spend, at \$270.62, and the highest trend, at 14.5%. High blood cholesterol medications had the second highest PMPY spend, at \$198.48, despite demonstrating negative PMPY trend (-4.8%). High blood pressure / heart disease medications had the third highest PMPY spend, at \$182.88, and the highest utilization. Mental / neurological disorder medications had the lowest trend, at -19.7%.

Urinary disorder medications and seizure medications had the lowest PMPY spend among the top 10 traditional therapy classes, at \$65.97 and \$66.54, respectively. Seizure medications also had the second highest PMPY trend, at 9.9%. The lowest utilization was seen for asthma medications, and PMPY trend for the therapy class was negative; however, PMPY spend for the drugs ranked near the middle of the list of top 10 most expensive traditional therapy classes.

Top 10 Medicare Traditional Therapy Drugs

Together, the nine brand drugs in the top 10 accounted for 21.1% of PMPY spend for all traditional therapy drugs.

TOP 10 MEDICARE TRADITIONAL THERAPY DRUGS

RANKED BY 2013 PMPY SPEND

RANK	DRUG NAME	THERAPY CLASS	PMPY SPEND	% OF TOTAL TRADITIONAL SPEND	UTILIZATION TREND	UNIT COST TREND	TOTAL TREND
1	Nexium® (esomeprazole magnesium)	Ulcer Disease	\$66.51	3.3%	-9.7%	11.6%	1.9%
2	Lantus® (insulin glargine)	Diabetes	\$60.62	3.0%	5.4%	21.1%	26.5%
3	Crestor® (rosuvastatin)	High Blood Cholesterol	\$59.24	2.9%	-3.7%	10.7%	7.0%
4	Advair Diskus® (fluticasone propionate / salmeterol)	Asthma	\$50.36	2.5%	-10.6%	9.3%	-1.3%
5	Spiriva® HandiHaler® (tiotropium)	COPD	\$44.06	2.2%	-5.2%	8.0%	2.9%
6	Abilify® (aripiprazole)	Mental / Neurological Disorders	\$42.51	2.1%	-15.5%	11.7%	-3.8%
7	Cymbalta® (duloxetine)	Depression	\$41.39	2.0%	1.6%	18.2%	19.7%
8	Namenda® (memantine)	Mental / Neurological Disorders	\$35.30	1.7%	-9.3%	12.6%	3.3%
9	Januvia® (sitagliptin)	Diabetes	\$32.24	1.6%	2.2%	14.0%	16.1%
10	atorvastatin	High Blood Cholesterol	\$27.89	1.4%	43.3%	-79.2%	-36.0%

Two diabetes treatments, Lantus and Januvia, ranked among the 10 most expensive traditional therapies for Medicare beneficiaries when ranked by per-member-per-year (PMPY) spend. Both medications had double-digit increases in PMPY spend, and together they captured 4.6% of PMPY spend for all traditional therapy drugs used by Medicare beneficiaries in 2013. Atorvastatin, the generic formulation of the branded blockbuster medication Lipitor®, was the only generic medication to rank in the top 10 Medicare traditional therapy drugs. Together, the nine brand drugs in the top 10 accounted for 21.1% of PMPY spend for all traditional therapy drugs.

Atorvastatin, the generic formulation of Lipitor®, was the only generic medication to rank in the top 10 Medicare traditional therapy drugs.

The most expensive single drug was Nexium, with a PMPY spend of \$66.51. In 2013, utilization of Nexium decreased 9.7%, and further decreases are expected once a generic version of esomeprazole magnesium and an over-the-counter formulation of the medication are approved in 2014. Utilization also declined for Crestor, a high blood cholesterol treatment; for Advair Diskus, an asthma and chronic obstructive pulmonary disease (COPD) inhaler; for Spiriva, a COPD treatment; for Abilify, used to treat conditions such as bipolar disorder and schizophrenia; and for Namenda, a treatment for dementia and Alzheimer's disease.

MEDICARE

Utilization decreases among branded medications may be related to recent patent expirations for other drugs in the same therapy classes. However, in the case of Namenda, the decline in utilization was related to shifting market share in favor of the new, extended release version of the drug, Namenda XR[®] (memantine), which was launched in June 2013. Although among the top 10 most expensive medications used by Medicare beneficiaries, Namenda did not appear in the rankings of the most expensive traditional therapy drugs used by the commercially insured population and by Medicaid beneficiaries because this medication is used to treat conditions that are more common among older individuals.

Top 10 Medicare Specialty Therapy Classes

Spend for specialty medications increased 14.7% in 2013, driven by a 15.3% increase in unit cost.

COMPONENTS OF TREND FOR THE TOP 10 MEDICARE SPECIALTY THERAPY CLASSES

RANKED BY 2013 PMPY SPEND

RANK	THERAPY CLASS	PMPY SPEND	TREND		
			UTILIZATION	UNIT COST	TOTAL
1	Cancer	\$152.68	17.3%	16.3%	33.6%
2	Multiple Sclerosis	\$85.18	5.7%	14.1%	19.8%
3	Inflammatory Conditions	\$62.28	0.1%	13.6%	13.7%
4	HIV	\$61.02	-11.3%	5.0%	-6.3%
5	Pulmonary Hypertension	\$26.72	11.3%	-3.4%	7.8%
6	Miscellaneous CNS Disorders	\$17.45	13.1%	39.9%	53.0%
7	Anticoagulants	\$16.84	-2.4%	-6.8%	-9.2%
8	Blood Cell Deficiency	\$12.45	-16.5%	11.6%	-4.9%
9	Immune Deficiency	\$12.40	23.2%	13.2%	36.3%
10	Osteoporosis	\$9.81	18.7%	-6.3%	12.4%
	Other	\$39.85	0.2%	-5.0%	-4.9%
	TOTAL SPECIALTY	\$496.68	-0.6%	15.3%	14.7%

Per-member-per-year (PMPY) spend for specialty medications for Medicare beneficiaries increased 14.7% in 2013, driven primarily by a 15.3% increase in unit cost. Ranked by PMPY spend, the top three therapy classes – cancer, multiple sclerosis and inflammatory conditions – together contributed 60.4% of total specialty PMPY spend. Each of these therapy classes had double-digit increases in unit cost in 2013, contributing to double-digit increases in PMPY spend in 2013. Therapies for blood cell deficiencies, immune deficiencies and osteoporosis – the eighth, ninth and 10th specialty classes, respectively, when ranked by PMPY spend – were unique to the top 10 list for Medicare beneficiaries when compared to the commercially insured or Medicaid populations, primarily because the medications are used to treat conditions that more commonly affect older populations.

Because some of the conditions being treated commonly affect older populations, several of the top 10 specialty therapy classes were unique for Medicare when compared to the commercially insured or Medicaid populations.

Highlights

The increase in PMPY spend for cancer treatments continues to top that of other specialty medications. In 2013, PMPY spend increased 33.6%. Trend was driven almost equally by a 16.3% increase in cost and a 17.3% increase in utilization. This utilization increase is likely the result of several factors, including the expansion of indications and an increase in the survival rates of patients living with cancer. In addition, several new oncology agents were launched in 2013, including Gazyva™ (obinutuzumab), Gilotrif® (afatinib), Imbruvica™ (ibrutinib), Kadcyla® (ado-

trastuzumab), Mekinist® (trametinib), Pomalyst® (pomalidomide), Stivarga® (regorafenib), Tafinlar® (dabrafenib), Valchlor™ (mechlorethamine) gel, Xgeva® (denosumab) and Xofigo® (radium Ra 223 dichloride). Moreover, a recent Centers for Medicare & Medicaid (CMS) proposal suggested that manufacturers are keeping the cost of certain “protected classes of drugs” (PCDs) high because of the coverage requirement, and that plan sponsors are limited in their ability to implement restrictions on patients who are currently using these medications.¹ Therefore, the status of cancer therapies as PCDs may also be contributing to high unit-cost trend for this class.

Total trend for multiple sclerosis medications was 19.8%, with the increase in PMPY spend continuing to be driven by an increase in drug costs. More than one in four multiple sclerosis patients are covered by Medicare,² and generic formulations of the standard disease-modifying medications have not yet been launched. In addition, two of the most expensive drugs in the class – Tecfidera® (dimethyl fumarate), released in April 2013, and Aubagio® (teriflunomide), released in September 2012 – are oral medications whose convenience of administration is appealing to many patients.

Utilization and costs for medications used to treat immune deficiencies increased 23.2% and 13.2% in 2013, respectively, resulting in the second-largest increase (36.3%) in total PMPY spend among the top 10 specialty classes. There is no generic availability among immune deficiency treatments, and just one drug, Gammagard Liquid (immune globulin infusion [human], 10%), captured more than 50% of the market share. This drug is indicated as a replacement therapy for primary humoral immunodeficiency and as a maintenance therapy to improve muscle strength and disability in adult patients with multifocal motor neuropathy (MMN). Most of these drugs are covered under Medicare Part B or Part D, depending on the diagnosis.

The unit cost for medications for the treatment of miscellaneous central nervous system (CNS) disorders increased 39.9% in 2013, contributing to a 53.0% increase in PMPY spend. This category includes drugs used to treat conditions such as Huntington’s chorea and symptoms such as cataplexy associated with narcolepsy. Unit-cost increases are being driven by brand inflation for medications used by a captive market where there is little competition within individual conditions.

Footnotes

1. “Medicare Program; Contract Year 2015 Policy and Technical Changes to the Medicare Advantage and the Medicare Prescription Drug Benefit Programs,” 79 Federal Register 7 (10 January 2014), pp. 1918-2073.
2. National Multiple Sclerosis Society. Insurance and Money Matters-Medicare. National Multiple Sclerosis Society website. <http://www.nationalmssociety.org/living-with-multiple-sclerosis/insurance-and-money-matters/medicare/index.aspx>. Accessed February 12, 2014.

Medicare vs. Commercial Trend: Specialty

In general, the trends for specialty therapy classes that were experienced by Medicare clients were consistent with those for commercial clients. The only exception was HIV medications, which had negative trend for Medicare clients and positive trend for the commercial book of business.

MEDICARE TREND VERSUS COMMERCIAL TREND FOR THE TOP 10 MEDICARE SPECIALTY THERAPY CLASSES

RANKED BY 2013 MEDICARE TREND

RANK	THERAPY CLASS	TREND		
		MEDICARE	COMMERCIAL	DIFFERENCE
1	Miscellaneous CNS Disorders	53.0%	39.2%	13.8%
2	Immune Deficiency	36.3%	27.3%	9.0%
3	Cancer	33.6%	24.1%	9.5%
4	Multiple Sclerosis	19.8%	15.7%	4.2%
5	Inflammatory Conditions	13.7%	21.8%	-8.1%
6	Osteoporosis	12.4%	3.6%	8.8%
7	Pulmonary Hypertension	7.8%	0.6%	7.2%
8	Blood Cell Deficiency	-4.9%	-8.2%	3.3%
9	HIV	-6.3%	13.2%	-19.5%
10	Anticoagulants	-9.2%	-10.1%	0.9%
	TOTAL SPECIALTY	14.7%	14.1%	0.6%

In general, the trends for specialty drugs that were experienced by Medicare clients were consistent with those for commercial clients. The only exception was HIV medications, which had negative trend for Medicare clients and positive trend for the commercial book of business.

With the exception of HIV medications, the direction of trend for specialty medication therapy classes was the same for Medicare and commercial clients.

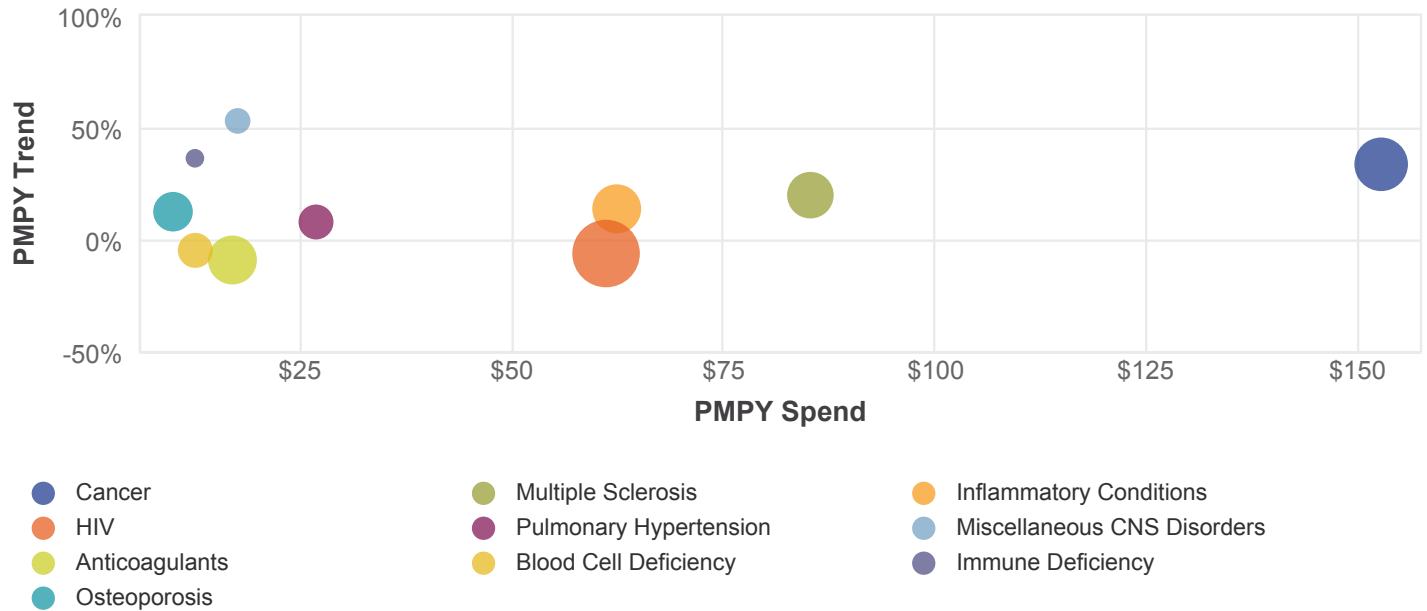
Both Medicare clients and commercial clients experienced double-digit trend for medications used to treat miscellaneous central nervous system (CNS) disorders, immune deficiency, cancer, multiple sclerosis (MS) and inflammatory conditions. For the miscellaneous CNS disorders, immune deficiency, cancer and MS therapy classes, the magnitude of trend was higher for Medicare, which may be related, in some cases, to higher prevalence of the conditions the medications treat in older populations. The negative trend for specialty anticoagulants was similar for both Medicare and commercial clients, but the decline in spend for blood cell deficiency treatments was more pronounced among commercial clients.

Cost and Utilization for the Top 10 Medicare Specialty Therapy Classes

The specialty therapy class with the highest trend, miscellaneous CNS disorders, had the second lowest utilization.

COST AND UTILIZATION FOR THE TOP 10 MEDICARE SPECIALTY THERAPY CLASSES

SPEND AND UTILIZATION IN 2013 AND TREND FROM 2012 TO 2013



[View the interactive version of this chart online](#)

This chart shows the relationship between costs and utilization for medications in the top 10 Medicare specialty therapy classes.

How to read this chart: Each bubble plots the 2013 per-member-per-year (PMPY) spend for one therapy class against the PMPY trend, which is the change in spend for that class from 2012 to 2013. The size of the bubble depicts the number of PMPY prescriptions filled in that therapy class.

Cancer medications had the highest PMPY spend, at \$152.68, and the third highest trend, at 33.6%, after immune deficiency treatments (36.3% trend) and medications used to treat symptoms of miscellaneous central nervous system (CNS) disorders such as Huntington’s chorea and narcolepsy (53.0%). However, miscellaneous CNS disorders treatments had the second lowest utilization, behind immune deficiency treatments.

Utilization for HIV medications was higher than that of any other specialty therapy class in the top 10, but total trend for HIV medications was negative. Only two other therapy classes in the top 10, anticoagulants and blood cell deficiency treatments, had negative trend.

Top 10 Medicare Specialty Therapy Drugs

The top 10 specialty drugs accounted for 44.4% of PMPY spend for all specialty drugs in 2013.

TOP 10 MEDICARE SPECIALTY THERAPY DRUGS

RANKED BY 2013 PMPY SPEND

RANK	DRUG NAME	THERAPY CLASS	PMPY SPEND	% OF TOTAL SPECIALTY SPEND	UTILIZATION TREND	UNIT COST TREND	TOTAL TREND
1	Revlimid® (lenalidomide)	Cancer	\$41.37	8.3%	10.1%	6.5%	16.6%
2	Copaxone® (glatiramer)	Multiple Sclerosis	\$36.15	7.3%	-0.7%	12.1%	11.4%
3	Enbrel® (etanercept)	Inflammatory Conditions	\$27.18	5.5%	-7.1%	12.6%	5.5%
4	Humira® (adalimumab)	Inflammatory Conditions	\$24.89	5.0%	3.1%	13.5%	16.6%
5	Gleevec® (imatinib)	Cancer	\$23.57	4.7%	0.1%	13.1%	13.2%
6	Avonex® (interferon beta-1a)	Multiple Sclerosis	\$16.81	3.4%	-1.0%	13.0%	12.0%
7	enoxaparin	Anticoagulants	\$13.77	2.8%	0.9%	-7.4%	-6.6%
8	Zytiga® (abiraterone)	Cancer	\$13.43	2.7%	61.7%	20.8%	82.4%
9	Tracleer® (bosentan)	Pulmonary Hypertension	\$12.77	2.6%	-4.2%	9.8%	5.6%
10	Tarceva® (erlotinib)	Cancer	\$10.77	2.2%	-2.8%	9.5%	6.7%

For Medicare plans, the top 10 specialty drugs accounted for almost half of the PMPY spend for all specialty drugs in 2013 (44.4%). Per-member-per-year (PMPY) spend ranged from \$41.37 for Revlimid, indicated to treat certain kinds of cancer, to \$10.77 for Tarceva, which is also indicated to treat some cancers. Two other oncology medications ranked in the top 10: Gleevec (the fifth most expensive specialty medication) and Zytiga (the eighth most expensive specialty medication). These four cancer medications alone accounted for 17.9% of total specialty spend.

Four of the top 10 specialty therapy drugs are indicated to treat cancer; together, these drugs accounted for 17.9% of total specialty spend.

The only drug in the top 10 with a negative total trend was enoxaparin, a specialty anticoagulant medication. Total PMPY spend for enoxaparin decreased 6.6% in 2013, driven primarily by the decline in unit cost for the drug, which is likely related to market saturation of generics and the resulting generic competition in the class. Zytiga had the largest increase in total PMPY spend (82.4%), driven by increased utilization. Zytiga received approval for an expanded indication in December 2012, which may have contributed to the increased utilization. Utilization of Tracleer, a medication indicated to treat pulmonary hypertension, decreased 4.2% in 2013; this decrease may be related to drug switching in the class after the 2012 patent expiration for Revatio® (sildenafil), a similar pulmonary hypertension treatment.

Medicaid 2013 Trend Overview

PMPY spend for Medicaid plans rose 3.0% in 2013, primarily due to a 2.6% increase in unit cost. Spend for traditional medications contributed over three-fourths of total PMPY spend in 2013, which helped to mitigate the impact of specialty drug spend.

COMPONENTS OF MEDICAID TREND, 2013

MEDICAID, OVERALL

	PMPY SPEND	TREND		
		UTILIZATION	UNIT COST	TOTAL
Traditional	\$506.68	0.3%	0.4%	0.7%
Specialty	\$145.54	4.3%	7.5%	11.7%
TOTAL OVERALL	\$652.22	0.4%	2.6%	3.0%

January - December 2013 compared to same period in 2012

MEDICAID, AGE GROUPS

	PMPY SPEND	TREND		
		UTILIZATION	UNIT COST	TOTAL
AGES 0 TO 19				
Traditional	\$210.79	1.5%	0.9%	2.4%
Specialty	\$41.82	8.5%	5.7%	14.2%
TOTAL AGES 0 TO 19	\$252.60	1.5%	2.7%	4.2%
AGES 20 TO 34				
Traditional	\$563.72	2.5%	1.4%	3.9%
Specialty	\$186.90	6.7%	8.7%	15.5%
TOTAL AGES 20 TO 34	\$750.62	2.5%	4.1%	6.6%
AGES 35 TO 64				
Traditional	\$1,398.93	0.9%	-0.5%	0.3%
Specialty	\$445.91	4.1%	7.4%	11.5%
TOTAL AGES 35 TO 64	\$1,844.85	0.9%	1.9%	2.8%
AGES 65+				
Traditional	\$494.34	0.2%	-3.0%	-2.8%
Specialty	\$81.89	6.5%	-3.1%	3.4%
TOTAL AGES 65+	\$576.23	0.2%	-2.2%	-2.0%

January - December 2013 compared to same period in 2012

As the economy improved slightly, the magnitude of increase in both enrollment and state spending on Medicaid slowed in 2013;¹ however, enrollment in managed care Medicaid programs (as opposed to fee-for-service programs) increased,² as states increasingly see managed care as a viable cost-control measure. Other initiatives aimed at increasing access to primary care for both current and future Medicaid enrollees were implemented in 2013 as well.³

In 2013, states also prepared for large increases in enrollment due to the Patient Protection and Affordable Care Act (PPACA).⁴ Even in states not expanding their Medicaid coverage per the requirements of the law, Medicaid enrollment is expected to grow as currently eligible, but not-yet enrolled individuals take advantage of the streamlined enrollment processes. This combination of factors will likely have a dramatic effect on prescription drug spend and trend in the future.

Even in states not expanding their Medicaid coverage per the requirements of the law, Medicaid enrollment is expected to grow.

Trend in 2013

In observing Medicaid drug cost and utilization patterns in the managed Medicaid book of business, per-member-per-year (PMPY) spend for Medicaid plans rose 3.0%, to \$652.22, in 2013, primarily due to a 2.6% increase in unit cost. Traditional drug spend increased only slightly. Total traditional trend was 0.7%, reflecting a 0.3% increase in utilization and a 0.4% increase in unit cost. Spend for traditional medications contributed over three-fourths of total PMPY spend in 2013, which helped to mitigate the impact of specialty drug spend. Specialty drug spend increased 11.7% in 2013, less than the 15.9% increase seen in 2012.

Analysis by Age Group

We further examined Medicaid trend for 2013 by beneficiary age. PMPY spend and trend varied across age groups. PMPY spend for beneficiaries aged 0 to 19, which comprise more than 50% of Medicaid enrollees, increased 4.2%. Beneficiaries age 35 to 64 had the highest PMPY spend in 2013, at \$1,844.85; the 2.8% increase for this age group was driven primarily by increases in unit cost and utilization for specialty medications. The highest PMPY trend was 6.6% among beneficiaries age 20 to 34, driven by increased utilization for both traditional and specialty medications along with a significant increase in unit cost for specialty medications. Despite a 6.5% increase in the utilization of specialty medications, the lowest PMPY trend was -2.0% among beneficiaries age 65 and older; this drop was driven by declines in unit cost for both traditional and specialty medications.

Footnotes

1. Smith VK, Gifford K, Ellis E, Rudowitz, R, Snyder L. Medicaid in a historic time of transformation: results from a 50-state Medicaid budget survey for state fiscal years 2013 and 2014. Health Management Associates and Kaiser Commission on Medicaid and the Uninsured of the Henry J. Kaiser Family Foundation. <http://kaiserfamilyfoundation.files.wordpress.com/2013/10/8498-medicaid-in-a-historic-time-of-transformation.pdf>. October 7, 2013. Accessed February 17, 2014.
2. The Henry J. Kaiser Family Foundation. Quick Take: Medicaid: 3 Key Issues to Watch in 2013. The Henry J. Kaiser Family Foundation website. <http://kff.org/health-reform/fact-sheet/quick-take-medicaid-3-key-issues-to-watch-in-2013/>. February 22, 2013. Accessed February 17, 2014.
3. Centers for Medicare & Medicaid Services. Affordable Care Act Becomes Law. Medicaid.gov website, <http://www.medicaid.gov/AffordableCareAct/Timeline/Timeline.html>, Accessed February 17, 2014.
4. Smith VK, Gifford K, Ellis E, Rudowitz, R, Snyder L. Medicaid in a historic time of transformation: results from a 50-state Medicaid budget survey for state fiscal years 2013 and 2014. Health Management Associates and Kaiser Commission on Medicaid and the Uninsured of the Henry J. Kaiser Family Foundation. <http://kaiserfamilyfoundation.files.wordpress.com/2013/10/8498-medicaid-in-a-historic-time-of-transformation.pdf>. October 7, 2013. Accessed February 17, 2014.

Top 10 Medicaid Traditional Therapy Classes

Per-member-per-year (PMPY) spend for traditional medications increased 0.7% from 2012 to 2013.

COMPONENTS OF TREND FOR THE TOP 10 MEDICAID TRADITIONAL THERAPY CLASSES

RANKED BY 2013 PMPY SPEND

RANK	THERAPY CLASS	PMPY SPEND	TREND		
			UTILIZATION	UNIT COST	TOTAL
1	Diabetes	\$72.22	1.7%	11.5%	13.2%
2	Mental / Neurological Disorders	\$60.41	7.3%	-7.9%	-0.5%
3	Asthma	\$60.28	-3.5%	-8.4%	-11.9%
4	Attention Disorders	\$42.72	12.4%	0.9%	13.3%
5	Seizures	\$27.50	6.3%	0.7%	7.0%
6	Pain	\$26.19	-8.6%	0.4%	-8.2%
7	Infections	\$19.39	-6.0%	9.5%	3.5%
8	Depression	\$19.30	6.9%	-15.1%	-8.3%
9	Chemical Dependence	\$13.84	16.0%	-14.1%	1.9%
10	Ulcer Disease	\$11.58	2.8%	-10.5%	-7.7%
	Other	\$153.25	-0.6%	1.2%	0.6%
	TOTAL TRADITIONAL	\$506.68	0.3%	0.4%	0.7%

Per-member-per-year (PMPY) spend for traditional medications increased 0.7% from 2012 to 2013. Ranked by PMPY spend, the top 10 traditional therapy classes accounted for 69.8% of Medicaid spend for traditional medications. Medications used to treat diabetes were the most expensive traditional therapy class in 2013, taking the place of asthma medications, which were the third most expensive therapy class in 2013. Medications used to treat mental / neurological conditions were the second most expensive therapy class. Five of the top 10 Medicaid traditional therapy classes had negative total trend, driven primarily by a decrease in unit costs; the exception was pain medications, for which negative trend was driven by lower utilization.

Five of the top 10 Medicaid traditional therapy classes had negative total trend.

Highlights

Total trend for medications for attention disorders was 13.3%, driven primarily by a 12.4% increase in utilization. Not only are children with Medicaid benefit coverage 53% more likely to be diagnosed compared to those with private insurance,¹ the diagnosis of attention deficit hyperactivity disorder (ADHD) is also increasing among adults, which is likely contributing to increased utilization of these therapies among adults. The modest cost increase of 0.9% is likely related to increasing competition among generic formulations of the most commonly used ADHD drugs, such as methylphenidate.

MEDICAID

For asthma medications, the 8.4% decrease in unit cost and the drop in rank from the first to the third most expensive traditional therapy class are being driven by the continued market saturation of generic montelukast after the brand drug, Singulair®, lost patent protection in the second half of 2012. Competition among multiple pharmaceutical companies approved to manufacture the generic formulation put further pressure on pricing for the generic versions as well.

Although they continue to rank among the 10 most expensive traditional therapy classes for Medicaid, medications used to treat chemical dependence experienced a 14.1% decrease in unit cost. This drop was driven by the launch of Suboxone® (buprenorphine / naloxone) generics.

Footnote

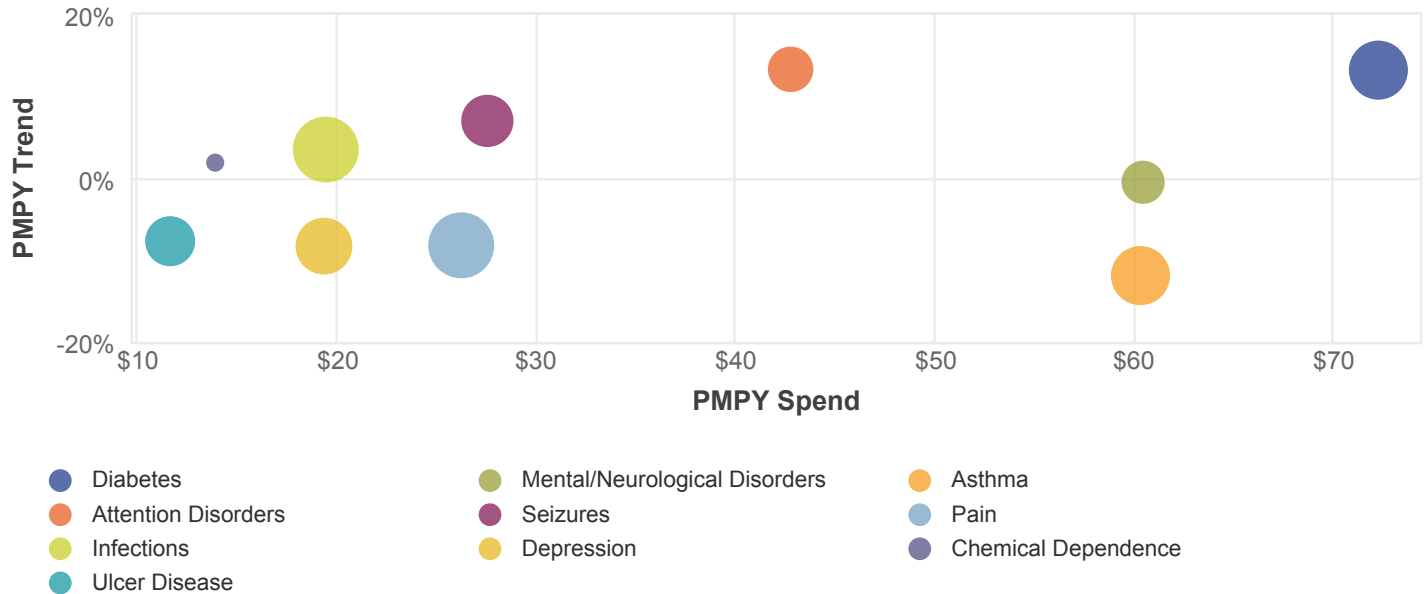
1. Visser SN, Danielson ML, Bitsko RH, et al. Trends in the parent-report of health care provider-diagnosed and medicated attention-deficit/hyperactivity disorder: United States, 2003-2011. *J Am Acad Child Adolesc Psychiatry*. 2014;53(1):34-46.

Cost and Utilization for the Top 10 Medicaid Traditional Therapy Classes

Diabetes medications had the highest PMPY spend and second highest trend.

COST AND UTILIZATION FOR THE TOP 10 MEDICAID TRADITIONAL THERAPY CLASSES

SPEND AND UTILIZATION IN 2013 AND TREND FROM 2012 TO 2013



[View the interactive version of this chart online](#)

This chart shows the relationship between cost and utilization for medications in the top 10 Medicaid traditional therapy classes.

How to read this chart: Each bubble plots the 2013 per-member-per-year (PMPY) spend for one therapy class against the PMPY trend, which is the change in spend for that class from 2012 to 2013. The size of the bubble depicts the number of PMPY prescriptions filled in that therapy class.

The diabetes therapy class had the highest PMPY spend, \$72.22, and the second highest trend, 13.2%, exceeded only narrowly by attention disorder medications, with a trend of 13.3%. Mental / neurological disorders medications at \$60.41 PMPY spend, and asthma medications at \$60.28 PMPY spend, had the second and third highest PMPY spend among traditional medications. The trend for both therapy classes was negative; however, the trend for asthma medications was the lowest among the top 10 traditional therapy classes.

The pain and infection therapy classes had the highest utilization. Chemical dependence medications had the lowest utilization, but ulcer disease medications had the lowest PMPY spend, at \$11.58.

Top 10 Medicaid Traditional Therapy Drugs

The eight brand drugs ranked in the top 10 Medicaid traditional therapy drugs contributed almost 20% of total traditional PMPY spend.

TOP 10 MEDICAID TRADITIONAL THERAPY DRUGS

RANKED BY 2013 PMPY SPEND

RANK	DRUG NAME	THERAPY CLASS	PMPY SPEND	% OF TOTAL TRADITIONAL SPEND	UTILIZATION TREND	UNIT COST TREND	TOTAL TREND
1	Abilify® (aripiprazole)	Mental / Neurological Disorders	\$29.38	5.8%	1.1%	14.9%	16.1%
2	Lantus® (insulin glargine)	Diabetes	\$17.45	3.4%	8.6%	21.6%	30.2%
3	methylphenidate	Attention Disorders	\$12.46	2.5%	59.3%	65.4%	124.7%
4	amphetamine / dextroamphetamine	Attention Disorders	\$12.26	2.4%	19.8%	-3.4%	16.5%
5	Suboxone® (buprenorphine / naloxone)	Chemical Dependence	\$11.52	2.3%	-5.6%	-5.3%	-10.9%
6	Advair Diskus® (fluticasone propionate / salmeterol)	Asthma	\$9.68	1.9%	-41.3%	6.4%	-34.9%
7	Humalog® (insulin lispro injection, USP [rDNA origin])	Diabetes	\$9.53	1.9%	27.9%	17.9%	45.7%
8	Cymbalta® (duloxetine)	Depression	\$8.32	1.6%	-8.4%	17.3%	8.9%
9	Spiriva® (tiotropium)	COPD	\$7.64	1.5%	3.2%	10.0%	13.2%
10	Ventolin® HFA (albuterol)	Asthma	\$7.48	1.5%	2.7%	9.3%	12.0%

Eight of the top 10 traditional therapy drugs used by Medicaid beneficiaries were brand drugs; they contributed almost 20% of per-member-per-year (PMPY) spend for all traditional therapy drugs. The only generic medications in the top 10, methylphenidate and an amphetamine / dextroamphetamine combination therapy, are used to treat attention disorders.

The Medicaid traditional therapy drug with the highest PMPY spend was Abilify.

The Medicaid traditional therapy drug with the highest PMPY spend was Abilify. PMPY spend increased 16.1% for Abilify, primarily driven by a double-digit increase in unit cost. The increase in unit cost may be occurring in anticipation of the loss of patent protection in 2015. The largest increase in PMPY spend, the 124.7% increase in spend for methylphenidate, was driven equally by increases in utilization and in unit cost. Advair Diskus had the greatest decrease in utilization (-41.3%), which may be related in part to competition from other long-acting bronchodilator / corticosteroid combination inhalers, including Symbicort® (budesonide / formoterol).

Top 10 Medicaid Specialty Therapy Classes

Spend for the top three specialty therapy classes represented 48.4% of total PMPY spend for specialty medications.

COMPONENTS OF TREND FOR THE TOP 10 MEDICAID SPECIALTY THERAPY CLASSES

RANKED BY 2013 PMPY SPEND

RANK	THERAPY CLASS	PMPY SPEND	TREND		
			UTILIZATION	UNIT COST	TOTAL
1	HIV	\$33.60	4.0%	11.1%	15.1%
2	Inflammatory Conditions	\$19.70	11.1%	16.5%	27.6%
3	Multiple Sclerosis	\$17.13	12.8%	14.5%	27.4%
4	Cancer	\$16.36	14.0%	4.6%	18.6%
5	Hepatitis C	\$10.47	-36.5%	0.3%	-36.2%
6	Growth Deficiency	\$7.04	-2.8%	-4.7%	-7.5%
7	Respiratory Conditions	\$6.48	19.1%	22.6%	41.8%
8	Anticoagulants	\$4.91	10.0%	-3.5%	6.4%
9	Pulmonary Hypertension	\$4.84	15.2%	5.3%	20.5%
10	Hemophilia	\$4.27	-2.3%	9.8%	7.5%
	Other	\$20.75	8.5%	12.2%	20.7%
	TOTAL SPECIALTY	\$145.54	4.3%	7.5%	11.7%

Spend for the top three specialty therapy classes when ranked by per-member-per-year (PMPY) spend for Medicaid – HIV, inflammatory conditions (such as rheumatoid arthritis) and multiple sclerosis – represented 48.4% of the spend for all specialty medications billed through the pharmacy benefit in 2013. Other than the hepatitis C and the growth deficiency therapy classes, all specialty therapy classes experienced a positive trend. Total specialty trend was 11.7%.

Other than the hepatitis C and the growth deficiency therapy classes, all Medicaid specialty therapy classes experienced a positive total trend.

Highlights

Total trend for HIV medications was 15.1%, driven primarily by an 11.1% increase in utilization. A new HIV medication, Tivicay® (dolutegravir), was approved in August; its market share is still low, but it is among the most expensive HIV medications. Although the wave of patent expirations in this class continues, generic availability may not reduce the cost of HIV therapy for some time. Many of the drugs being developed are single-pill therapies, and their ease of use will likely lead to better compliance. However, these drugs are, on average, much more expensive than the individual generic formulations of the same chemical ingredients.

The utilization trend for medications used to treat hepatitis C was -36.5%, the primary driver of the 36.2% decrease in PMPY spend for these medications in 2013. Although Medicaid patients are diagnosed with hepatitis C at a

MEDICAID

higher rate than either commercially insured patients or Medicare beneficiaries, a smaller percentage of Medicaid patients are actually treated compared to the commercially insured population, at least in some states. In addition, more contraindications to combination therapy with ribavirin and pegylated interferon were seen in Medicaid patients compared to their commercially insured counterparts.¹ These contraindications are likely contributing to high rates of patient warehousing in anticipation of the new, interferon-free therapies expected to hit the market in 2014.

Utilization of medications that treat respiratory conditions such as cystic fibrosis increased 19.1% in 2013, and drug costs increased 22.6%, resulting in a total trend of 41.8%, higher than that for any other specialty therapy class in the top 10. Utilization of Kalydeco® (ivacaftor), the most expensive drug in this therapy class, drove much of the trend inasmuch as it achieved market saturation two years after its launch.

Footnote

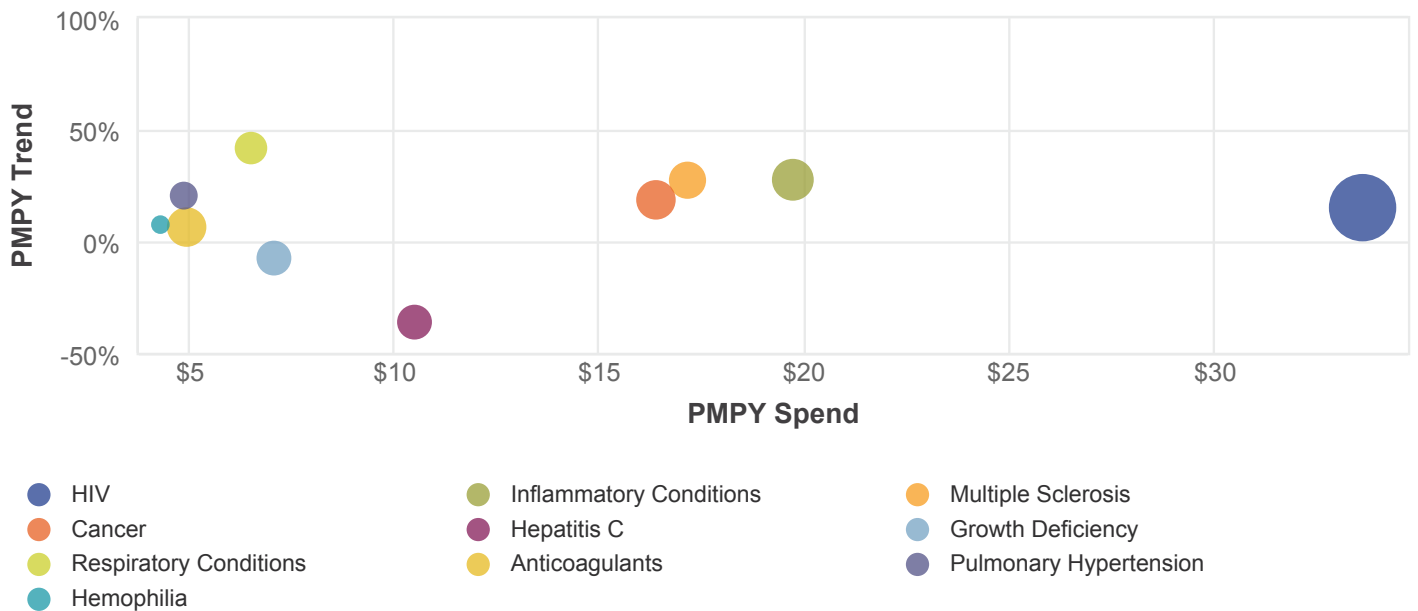
1. Griffith JM, Zachry WM, Lang K et al. Prevalence, treatment and comorbidities of hepatitis C infection (HCV) among patients with commercial and Medicaid insurance. Presented at: Digestive Disease Week; May 18-21, 2013; Orlando, FL.

Cost and Utilization for the Top 10 Medicaid Specialty Therapy Classes

The therapy class with the highest trend, respiratory conditions, did not have the highest utilization or the highest PMPY spend in 2013.

COST AND UTILIZATION FOR THE TOP 10 MEDICAID SPECIALTY THERAPY CLASSES

SPEND AND UTILIZATION IN 2013 AND TREND FROM 2012 TO 2013



[View the interactive version of this chart online](#)

This chart shows the relationship between cost and utilization for medications in the top 10 Medicaid specialty therapy classes.

How to read this chart: Each bubble plots the 2013 per-member-per-year (PMPY) spend for one therapy class against the PMPY trend, which is the change in spend for that class from 2012 to 2013. The size of the bubble depicts the number of PMPY prescriptions filled in that therapy class.

HIV medications had the highest PMPY spend (\$33.60) as well as the highest utilization among Medicaid beneficiaries, contributing to a PMPY trend of 15.1%. Medications used to manage inflammatory conditions were the second most expensive specialty therapy class when ranked by PMPY spend (\$19.70) and had the second highest PMPY trend (27.6%), behind medications used to treat respiratory conditions, which experienced a 41.8% increase in PMPY spend from 2012 to 2013. However, both PMPY spend and utilization for medications used to treat respiratory conditions were low by comparison.

Total trend for multiple sclerosis medications closely followed that of medications used to manage inflammatory conditions, but their utilization was slightly less. Only two of the top 10 therapy classes, growth deficiency and hepatitis C, had negative trend. The trend for hepatitis C medications was the lowest, at -36.2%, but these medications were neither the least expensive nor the least utilized therapy class.

Top 10 Medicaid Specialty Therapy Drugs

Nine of the top 10 specialty therapy drugs were brand medications, four of which are indicated to treat HIV.

TOP 10 MEDICAID SPECIALTY THERAPY DRUGS

RANKED BY 2013 PMPY SPEND

RANK	DRUG NAME	THERAPY CLASS	PMPY SPEND	% OF TOTAL SPECIALTY SPEND	UTILIZATION TREND	UNIT COST TREND	TOTAL TREND
1	Humira® (adalimumab)	Inflammatory Conditions	\$8.95	6.1%	14.5%	15.9%	30.4%
2	Atripla® (efavirenz / emtricitabine / tenofovir)	HIV	\$6.86	4.7%	4.4%	7.8%	12.2%
3	Truvada® (emtricitabine / tenofovir)	HIV	\$6.80	4.7%	2.5%	5.3%	7.7%
4	Enbrel® (etanercept)	Inflammatory Conditions	\$6.74	4.6%	3.7%	14.1%	17.8%
5	Copaxone® (glatiramer)	Multiple Sclerosis	\$5.63	3.9%	0.4%	13.3%	13.7%
6	Incivek® (telaprevir)	Hepatitis C	\$4.28	2.9%	-55.3%	6.4%	-48.9%
7	enoxaparin	Anticoagulants	\$4.25	2.9%	13.2%	-5.2%	8.0%
8	Viread® (tenofovir)	HIV	\$3.45	2.4%	-7.3%	7.2%	-0.1%
9	Advate® (antihemophilic factor [recombinant], plasma-albumin-free method)	Hemophilia	\$3.38	2.3%	88.0%	3.2%	91.2%
10	Reyataz® (atazanavir)	HIV	\$2.80	1.9%	-1.1%	10.2%	9.1%

The top 10 specialty drugs when ranked by per-member-per-year (PMPY) spend accounted for 36.5% of PMPY spend for all specialty therapy classes in 2013. PMPY spend varied from \$8.95 for Humira, indicated to treat inflammatory conditions such as rheumatoid arthritis, to \$2.80 for Reyataz, indicated to treat HIV. Two other HIV treatments, Atripla and Truvada, were the second and third most expensive specialty therapy drugs used by Medicaid beneficiaries. A fourth HIV medication, Viread, also was included in the top 10 list. Together, these four HIV medications accounted for 13.7% of PMPY spend for all specialty medications.

The four HIV medications in the top 10 accounted for 13.7% of PMPY spend for all Medicaid specialty medications.

With the exception of enoxaparin, the only generic drug to make the top 10 list, all medications in the top 10 had positive unit cost trend. Enoxaparin, an anticoagulant medication, was the seventh most expensive specialty medication used by Medicaid beneficiaries. The only drug in the top 10 with a negative total trend was Incivek, one of the newer protease inhibitors indicated to treat hepatitis C. Total PMPY spend for Incivek decreased 48.9% in 2013, driven primarily by a decline in utilization for the drug; the drop in utilization was likely due to anticipation of new, more effective and more tolerable drugs in the next few years, two of which launched in December 2013. Advate, a hemophilia treatment, had the highest total trend at 91.2%, driven by increased utilization.

About the Drug Trend Report

Published annually since 1997, the Express Scripts *Drug Trend Report* provides the most detailed analysis of prescription drug costs and utilization.

The Express Scripts *Drug Trend Report* features analysis of current prescription drug costs, utilization, trend and forecast data for commercial, specialty, Medicare and Medicaid populations, as well as workers' compensation. The report is developed and published by the Express Scripts Lab with contributions from researchers, clinicians and many others across the organization.

Express Scripts pioneered the understanding of consumer behavior relative to healthcare benefits to develop practical, well-accepted programs that drive out waste while preserving individual choice. We combine this with clinical specialization to ensure the best possible care for patients and leverage actionable data to provide you with insights in the dynamic arena of prescription drug costs and utilization.

The Drug Trend Report Methodology

Explanation of the methodology behind the 2013 Express Scripts *Drug Trend Report* analysis, trend and forecast data and other metrics.

Prescription drug use for members with drug coverage provided by Express Scripts plan sponsors was analyzed for the *Drug Trend Report*. The plan sponsors providing the pharmacy benefit paid at least some portion of the cost for the prescriptions dispensed to their members, providing what is known as a funded benefit. Plan sponsors were excluded if they were not Express Scripts clients in both time periods, if they had less than 12 months of claims data in either period, if they had retail-only benefits, if they had 100% or 0% copayment benefits, if they had eligibility shifts exceeding 20% for commercial plans (eligibility shifts exceeding 50% for Medicare and Medicaid plans), or if they were contractually prohibited from inclusion. Individual members might be covered, and thus included, for only a portion of the time periods of interest.

Both traditional and specialty drugs are included. Specialty medications include injectable and noninjectable drugs that are typically used to treat chronic, complex conditions and may have one or more of the following qualities: frequent dosing adjustments or intensive clinical monitoring; intensive patient training and compliance assistance; limited distribution; and specialized handling or administration. Nonprescription medications (with the exception of diabetic supplies billed under the pharmacy benefit) and prescriptions that were dispensed in hospitals, long-term care facilities and other institutional settings, or billed under the medical benefit are not included.

Trend and other measures are calculated separately for those members with commercial insurance coverage, for Medicaid recipients and for Medicare beneficiaries receiving prescription benefits through Employer Group Waiver Plans (EGWPs), managed Medicare Prescription Drug Plans (PDPs) or Medicare Advantage Prescription Drug Plans (MAPDs). Members used Express Scripts for retail and home delivery pharmacy services; they used Accredo, the Express Scripts specialty pharmacy, for specialty drug prescriptions.

Total trend measures the rate of change in plan costs, which include ingredient costs, taxes, dispensing fees and administrative fees. Rebates are not included as a component of cost. Total trend comprises utilization trend and unit cost trend. Utilization trend is defined as the rate of change in total days' supply of medication per member, across prescriptions. Unit cost trend is defined as the rate of change in costs due to inflation, discounts, drug mix and member cost share. Utilization and cost are determined on a per-member-per-year (PMPY) basis. Metrics are calculated by dividing totals by the total number of member-months, which is determined by adding the number of months of eligibility for all members in the sample.

Starting in 2012, all PMPY and trend metrics reported represent the combined Express Scripts book of business (Legacy Express Scripts plus Legacy Medco). PMPY values that have been previously reported for a specific time period may differ from those currently reported (for that same specific time period) because of changes in client inclusion / exclusion from year to year, underlying differences in utilization and drug costs between populations, or both.

The Express Scripts Prescription Price Index (PPI) measures inflation in prescription drug prices by monitoring changes in consumer prices for a fixed market basket of commonly used prescription drugs. Separate market baskets are defined for brand drugs and for generic drugs, and are based on the top 80% of utilized drugs.

Please Note: Although up to nine decimal places were allowed in making all calculations, in most cases the results were rounded down to one or two decimals for easier reading. Therefore, dollar and percentage calculations may be slightly off due to rounding.

All trademarks are the property of their respective owners.



Published annually since 1997, the *Express Scripts Drug Trend Report* provides the healthcare industry's most detailed analysis of prescription drug costs and utilization. The report is developed and published by the Express Scripts Lab with contributions from researchers, clinicians and many others across the organization.

Sign up to receive weekly insights and updates at Lab.Express-Scripts.com, follow @ExpressScripts on Twitter or contact your Express Scripts representative for more information.

[View the interactive version of this report online](#) 