

CENTER FOR HEALTH INFORMATION AND ANALYSIS

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# PRESCRIPTION DRUG USE & SPENDING

AUGUST 2018



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# Prescription Drug Use & Spending: Introduction and Overview

In the 2017 *Annual Report on the Performance of the Massachusetts Health Care System*, the Center for Health Information and Analysis (CHIA) identified pharmacy spending as a major component of total health care expenditures in Massachusetts, representing over 18% of commercial spending in 2015 and 2016.<sup>1</sup> To further understand this important sector of the health care system, this report looks at drivers of pharmacy spending and presents information on high volume and high cost drugs, as well as the associated illnesses they are used to treat.

This initial report on prescription drug use and spending concentrates on the top 10 therapeutic classes<sup>2</sup> of drugs, as ranked by total expenditures<sup>3</sup> incurred during state fiscal year (SFY) 2015.<sup>4</sup> These therapeutic classes accounted for 71.3%

of pharmacy expenditures during that time period. In addition to presenting average costs by therapeutic class, this report contains detailed pages for each of these 10 therapeutic classes, showing average costs for the top five most frequently prescribed drugs within each class. The report concludes with listings of the top drugs ranked by number of prescriptions, total expenditures, and expenditures per prescription.

CHIA's future reporting on pharmacy spending by therapeutic class will also incorporate analyses of changes over time to help identify shifting patterns of prescription drug utilization and costs.

This report utilized a subset of pharmacy claims data sourced from CHIA's All Payer Claims Database (APCD). This data subset provides useful insight into spending at the individual drug and

<sup>1</sup> See Total Medical Expenses (TME) Databook for CHIA's 2017 Annual Report - TME by Service Category (commercial payers).

<sup>2</sup> CHIA utilized First Databank's generic therapeutic classification, which groups drugs into 45 different categories based on their pharmacological, chemical, and/or therapeutic characteristics.

<sup>3</sup> Expenditures represent the total allowed amount for a health insurance claim, which is a payer's contracted maximum amount that it will allow to be paid for a claim. See the [glossary](#) for more information.

<sup>4</sup> SFY 2015 is July 1, 2014 through June 30, 2015.

therapeutic class levels, but it does not represent aggregate statewide pharmacy spending and should not be used for such analysis. The analysis in this report uses the “allowed amount,” which includes the amount paid by a health plan to pharmacies plus patient out-of-pocket costs like copay, deductibles, or coinsurance. This report does not reflect the impact of prescription drug rebates for prescription drugs, which may have a significant impact on health plan spending.

The data included pharmacy claims for Massachusetts residents from fully-insured commercial lines of business for the following eight payers: Blue Cross Blue Shield of Massachusetts, Boston

Medical Center HealthNet Plan, CeltiCare Health, Fallon Health, Harvard Pilgrim Health Care, Neighborhood Health Plan, Tufts Health Plan, and Tufts Health Public Plans (formerly Network Health). This report does not include self-insured plan data, Medicaid, or Medicare data.

For additional information on the methods and data sources used in this report, see the accompanying [technical appendix](#) and [databook](#).

For questions on this report, contact Lauren Almquist, Manager of Analytics, at [lauren.almquist@state.ma.us](mailto:lauren.almquist@state.ma.us). ■

## THERAPEUTIC CLASSES OVERVIEW

During SFY 2015, the total allowed amount per member per month (PMPM) for all 45 therapeutic classes was \$82.12. Expenditures for the top 10 therapeutic classes accounted for 71.3% of total pharmacy expenditures.

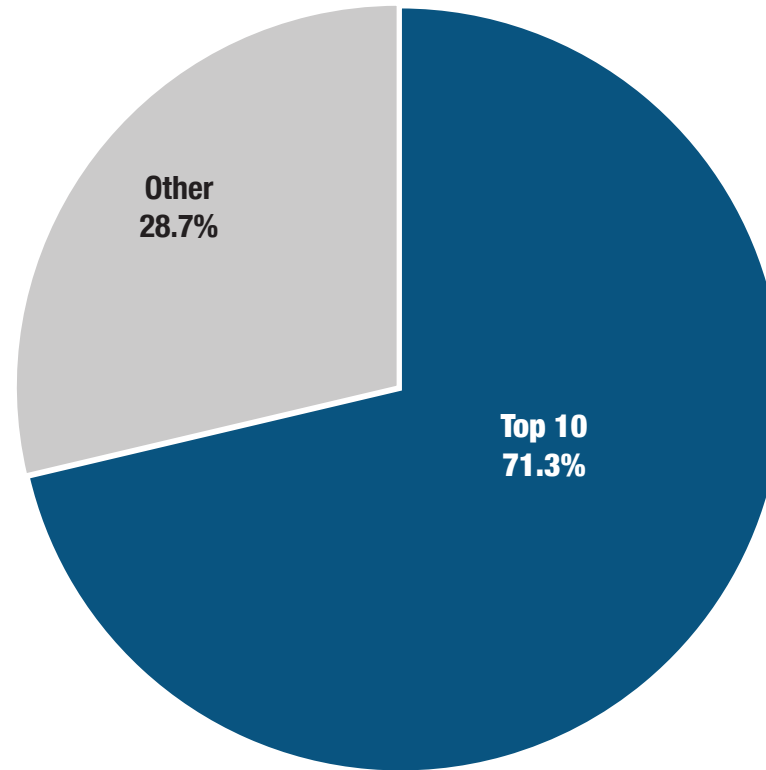
These top 10 therapeutic classes include drugs used in the treatment of a wide range of diseases, including HIV, hepatitis C, arthritis, multiple sclerosis, epilepsy, behavioral health disorders, diabetes, asthma/COPD, hypertension, and gastroesophageal reflux.

The remainder of this report focuses primarily on costs for drugs within the top 10 therapeutic classes. Additional data is available in the accompanying [databook](#).

Future versions of this report will analyze trends in pharmacy costs both within and across therapeutic classes.

## Pharmacy Expenditures by Therapeutic Class, SFY 2015

Based on Total Allowed Amount PMPM



Therapeutic Class	Allowed Amount PMPM	%
Antivirals	\$9.03	11.0%
Antiarthritics	\$7.84	9.5%
CNS Drugs	\$7.70	9.4%
Psychotherapeutic Drugs	\$7.40	9.0%
Antihyperglycemics	\$5.48	6.7%
Hormones	\$4.69	5.7%
Unclassified Drug Products	\$4.36	5.3%
Antiasthmatics	\$4.31	5.2%
Cardiovascular	\$4.15	5.0%
Gastrointestinal	\$3.61	4.4%
All Other Classes Combined	\$23.56	28.7%
<b>TOTAL</b>	<b>\$82.12</b>	<b>100.0%</b>
<b>Top 10 Therapeutic Classes</b>	<b>\$58.56</b>	<b>71.3%</b>

**TOTAL ALLOWED AMOUNT PMPM: \$82.12**

Source: MA APCD

Notes: CNS Drugs are Central Nervous System agents such as sedatives and stimulants. Antihyperglycemics include drugs to treat diabetes. Unclassified Drug Products include some non-drug products and drugs not otherwise categorized into the Therapeutic Classes as defined by First Databank; this class includes a wide variety of drugs; among the most common are Viagra, Cialis, and Suboxone.

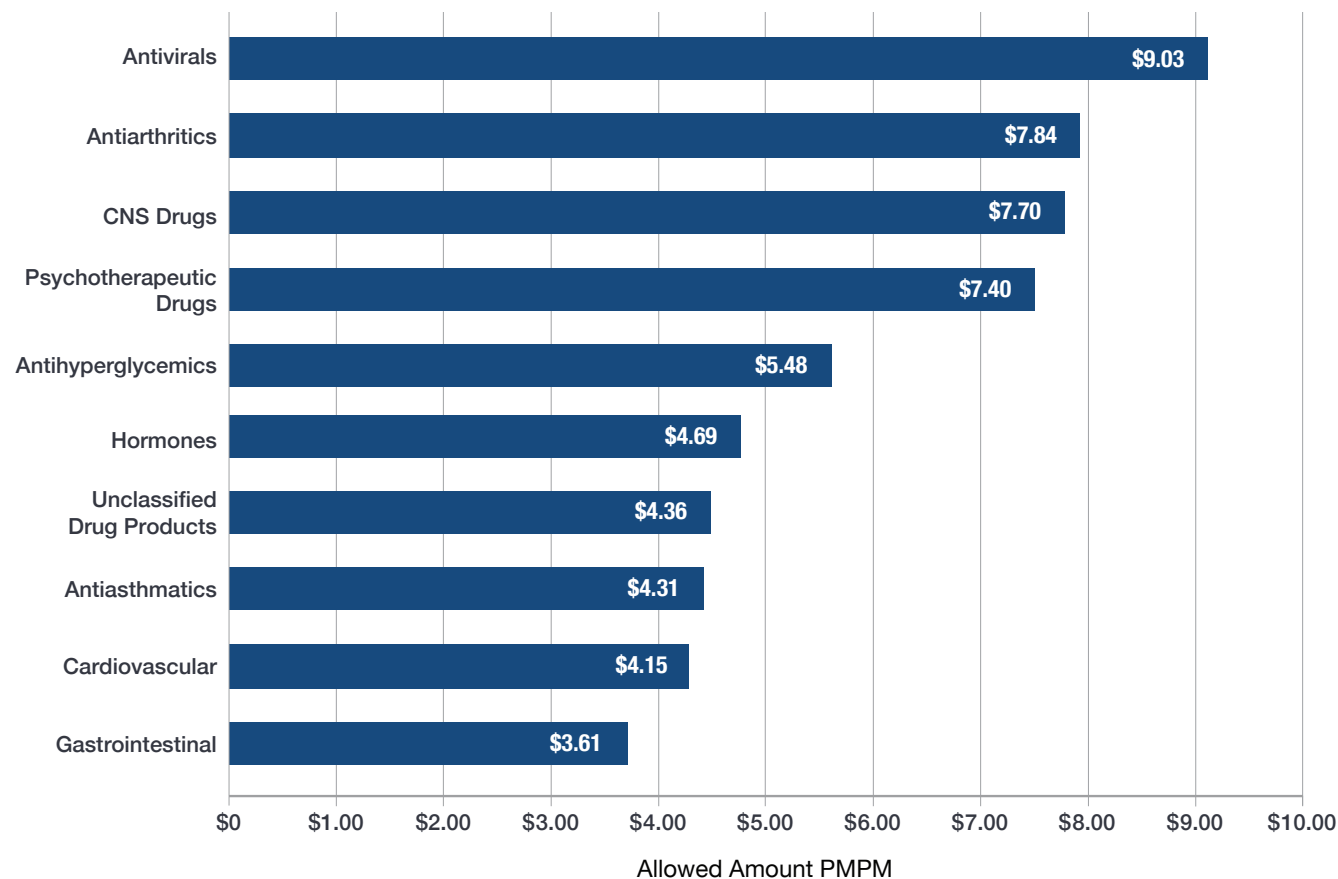
This report does not reflect the impact of prescription drug rebates.

## TOP 10 THERAPEUTIC CLASSES OVERVIEW

Spending for the top 10 therapeutic classes totaled \$58.56 PMPM in SFY 2015. Some therapeutic classes, such as Antivirals, represented a relatively low percentage of total prescriptions but had a high average cost per prescription. Spending on Antivirals was driven by high cost drugs like Harvoni and Sovaldi, while Psychotherapeutic and Cardiovascular drug spending was due to higher prescription volume but lower average costs per prescription.

## Allowed Amount PMPM, SFY 2015

Top 10 Therapeutic Classes Ranked by Total Allowed Amount PMPM



### TOP 10 CLASSES PMPM: \$58.56

Source: MA APCD

Notes: CNS Drugs are Central Nervous System agents such as sedatives and stimulants. Antihyperglycemics include drugs to treat diabetes. Unclassified Drug Products include some non-drug products and drugs not otherwise categorized into the Therapeutic Classes as defined by First Databank; this class includes a wide variety of drugs; among the most common are Viagra, Cialis, and Suboxone.

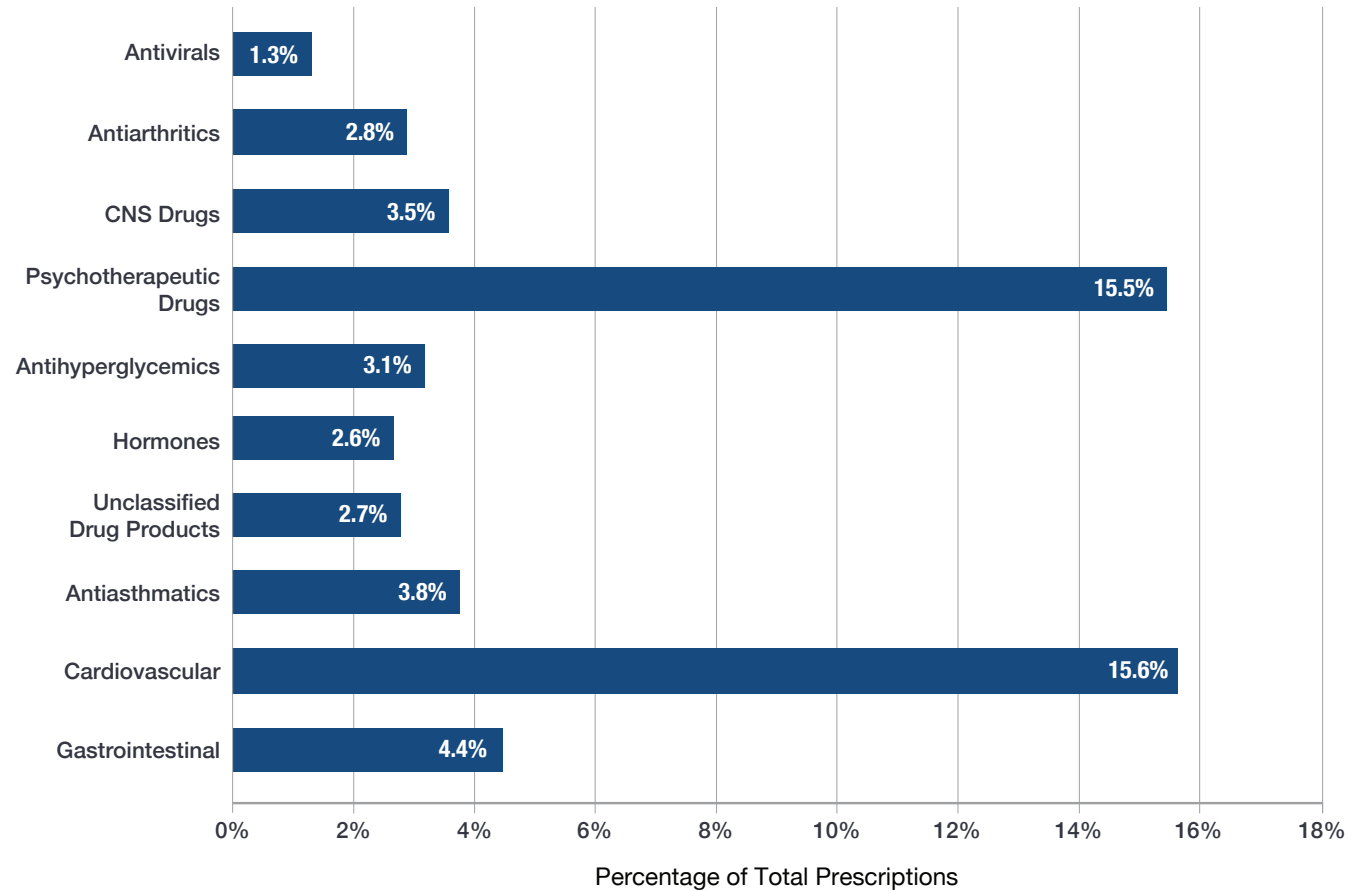
This report does not reflect the impact of prescription drug rebates.

## TOP 10 THERAPEUTIC CLASSES OVERVIEW

The top 10 therapeutic classes accounted for 55.5% of total prescriptions in SFY 2015. Together, Psychotherapeutic (15.5%) and Cardiovascular (15.6%) drugs accounted for 31.1% of total prescriptions.

## Percentage of Total Prescriptions, SFY 2015

Top 10 Therapeutic Classes Ranked by Total Allowed Amount PMPM



Source: MA APCD

Notes: CNS Drugs are Central Nervous System agents such as sedatives and stimulants. Antihyperglycemics include drugs to treat diabetes. Unclassified Drug Products include some non-drug products and drugs not otherwise categorized into the Therapeutic Classes as defined by First Databank; this class includes a wide variety of drugs; among the most common are Viagra, Cialis, and Suboxone.

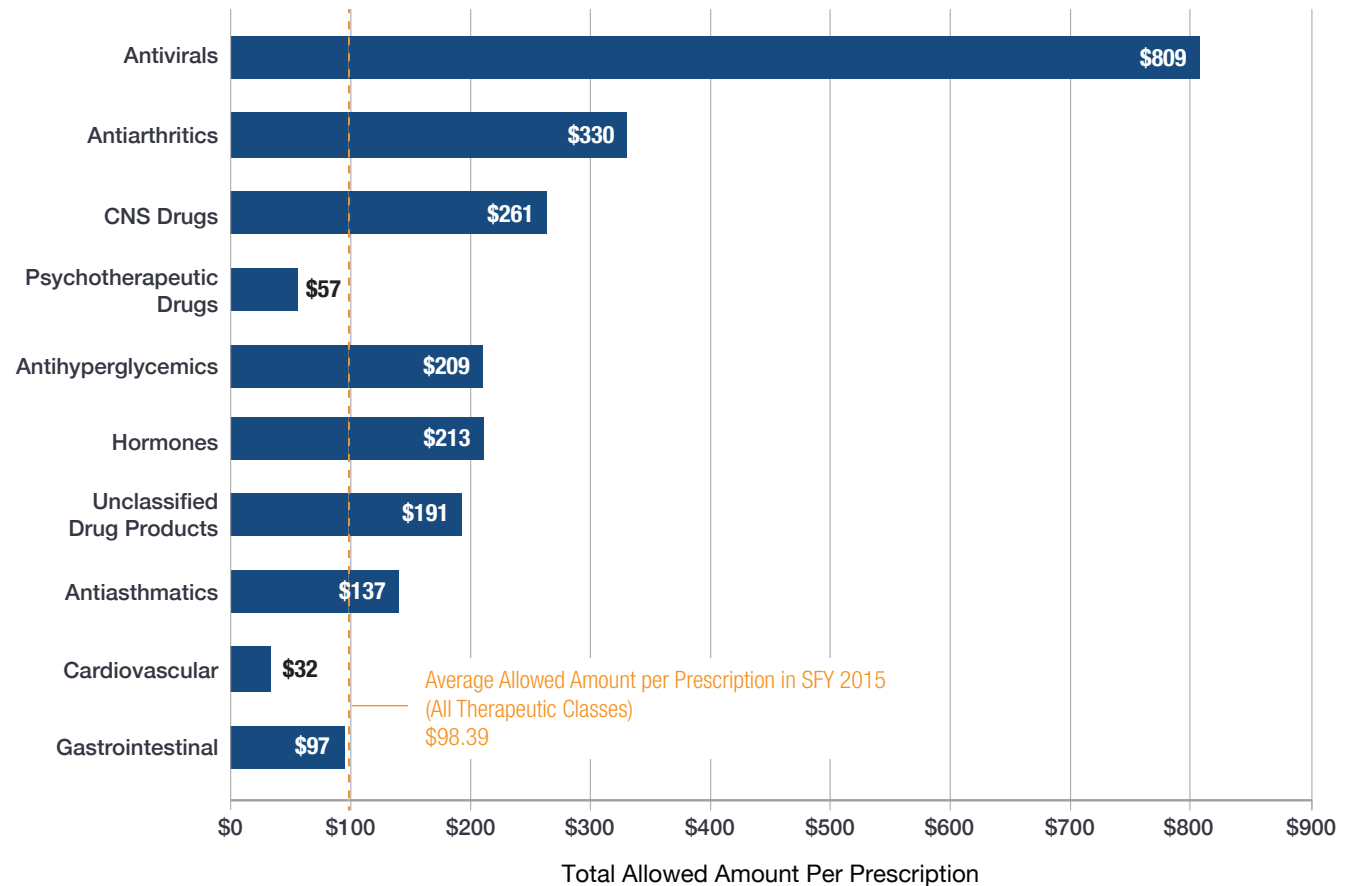
This report does not reflect the impact of prescription drug rebates.

## TOP 10 THERAPEUTIC CLASSES OVERVIEW

The overall average cost per prescription was \$98.39 in SFY 2015. The Cardiovascular and Psychotherapeutic therapeutic classes had the two lowest average costs per prescription (under \$60). The average cost per prescription for Antivirals was \$809, more than eight times the overall average.

## Allowed Amount Per Prescription, SFY 2015

Top 10 Therapeutic Classes Ranked by Total Allowed Amount PMPM



Source: MA APCD

Notes: CNS Drugs are Central Nervous System agents such as sedatives and stimulants. Antihyperglycemics include drugs to treat diabetes. Unclassified Drug Products include some non-drug products and drugs not otherwise categorized into the Therapeutic Classes as defined by First Databank; this class includes a wide variety of drugs; among the most common are Viagra, Cialis, and Suboxone.

This report does not reflect the impact of prescription drug rebates.



## TOP 10 THERAPEUTIC CLASSES OVERVIEW

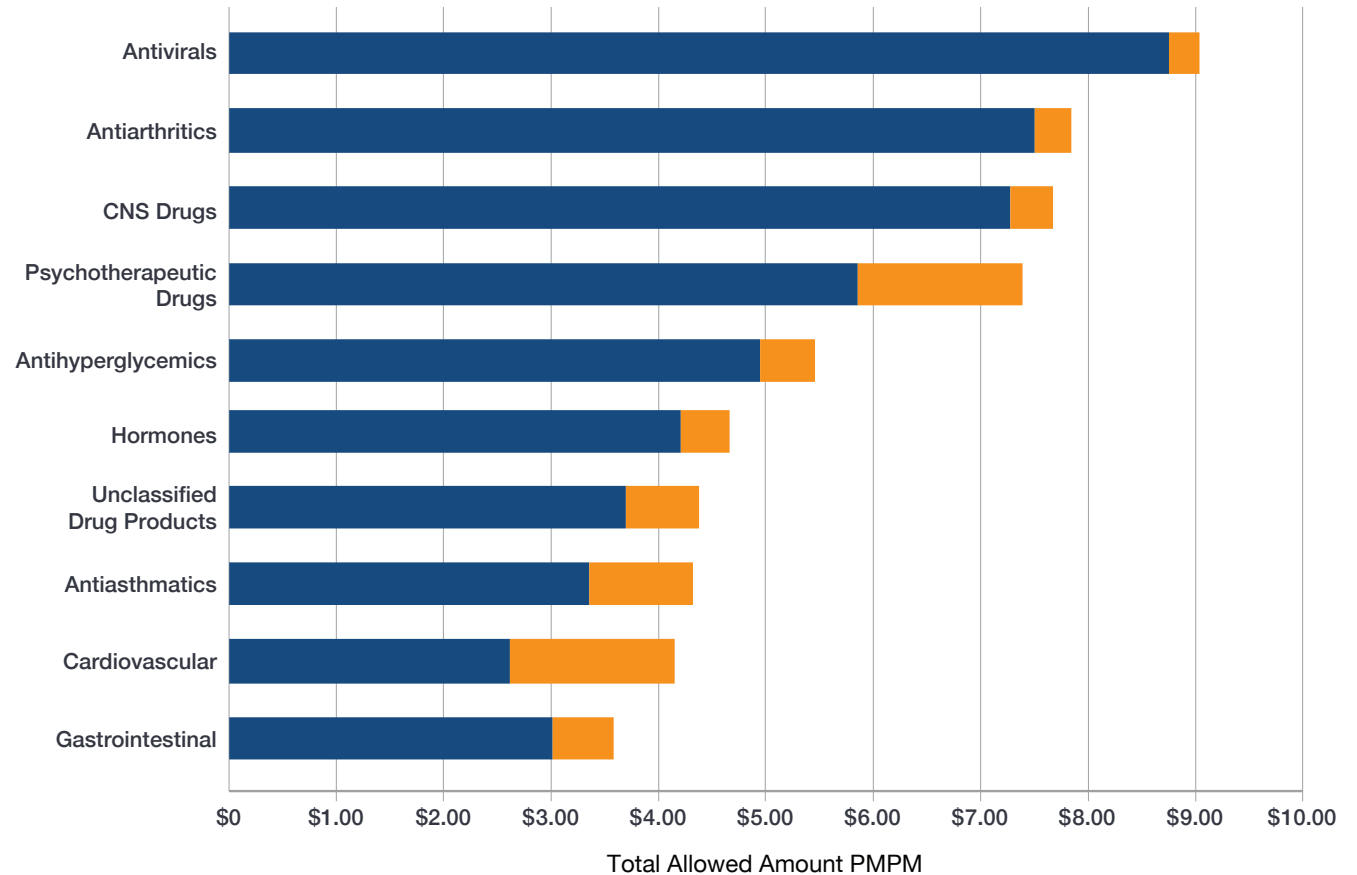
The allowed amount includes the amount paid by a health plan plus patient out-of-pocket costs like copays, deductibles, or coinsurance.

Overall, health plans paid 86.1% of the total allowed amount for the drugs assessed in this report, while patients paid the remaining 13.9%.

Within the top 10 therapeutic classes, Cardiovascular drugs had the highest proportion of patient out-of-pocket PMPM costs, and Psychotherapeutic drugs had the highest actual PMPM out-of-pocket costs for patients. These therapeutic classes also had the lowest average costs per prescriptions of the 10 classes.

## Payer Paid and Patient Out-of-Pocket PMPMs, SFY 2015

Top 10 Therapeutic Classes Ranked by Allowed Amount PMPM



Overall, SFY 2015 **PLAN PAID PMPM: \$70.74** **PATIENT OUT-OF-POCKET PMPM: \$11.38**

Source: MA APCD

Notes: CNS Drugs are Central Nervous System agents such as sedatives and stimulants. Antihyperglycemics include drugs to treat diabetes. Unclassified Drug Products include some non-drug products and drugs not otherwise categorized into the Therapeutic Classes as defined by First Databank; this class includes a wide variety of drugs; among the most common are Viagra, Cialis, and Suboxone.

This report does not reflect the impact of prescription drug rebates.

# Details on Top 10 Therapeutic Classes

This section contains additional detail and cost data for the most prescribed drugs within each of the top 10 therapeutic classes for SFY 2015. Each page shows the following drug-level information within each class:

- The five most-prescribed drugs by proportion of the class's total number of prescriptions, allowed amount per prescription, and allowed amount per day's supply.
- The proportion of prescriptions that were generic or brand-name drugs within the class.

In addition, the following key data points are noted for each therapeutic class:

- Allowed amount PMPM
- Percentage of total prescriptions in this report's dataset
- Average cost (allowed amount) per prescription

Please see the [technical appendix](#) for more information on data fields and methodology.

Note that the percentage axes on the “Top Five Most-Prescribed Drugs by Percentage of Prescriptions” may be scaled differently depending on the percentage values for each class. ■

# THERAPEUTIC CLASS

## Antivirals

Antivirals are used to inhibit the production of viruses that cause certain diseases. Illnesses caused by viruses include influenza, hepatitis C, herpes, and HIV.

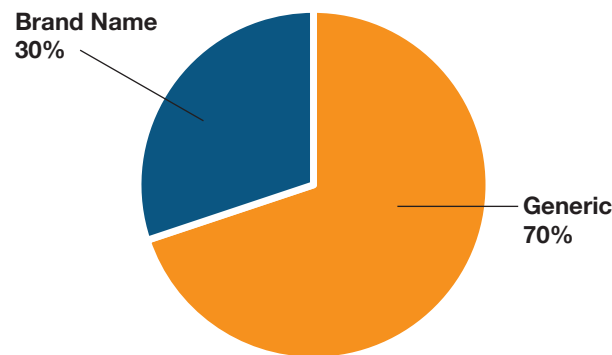
Within the top 10 therapeutic classes, Antivirals was the most expensive therapeutic class by average cost per prescription and it accounted for the highest share of expenditures of all classes (11.0% of total allowed amount). The most frequently prescribed drugs within this class (Valacyclovir and Acyclovir) accounted for over 64% of the class's prescriptions, but were relatively inexpensive. Valacyclovir and Acyclovir are used to treat herpes, shingles, and chicken pox.

The Antivirals class also includes the brand-name hepatitis C drugs Harvoni and Sovaldi, which cost \$31,024 and \$27,863 per prescription, respectively. Although these two drugs together made up only 1.3% of the total number of prescriptions for the class, they accounted for almost half of the total \$9.03 allowed amount PMPM.

### Top Five Most Prescribed Drugs, SFY 2015

Drug Name	Percentage of Total Prescriptions within Therapeutic Class	Allowed Amount per Prescription	Allowed Amount per Day's Supply
Valacyclovir	43%	\$ 29.43	\$ 1.59
Acyclovir	21%	\$ 42.40	\$ 1.99
Tamiflu	8%	\$ 124.58	\$ 22.43
Truvada	3%	\$ 1,655.22	\$ 40.71
Famciclovir	3%	\$ 51.46	\$ 3.41

### Percentage of Prescriptions Generic vs. Brand Name



**ALLOWED AMOUNT PMPM: \$9.03**  
**PERCENT OF TOTAL PRESCRIPTIONS: 1.3%**  
**AVERAGE COST PER PRESCRIPTION: \$809**

MA APCD

Notes: Most Prescribed Drugs refers to the highest number of prescriptions within therapeutic class. This report does not reflect the impact of prescription drug rebates.

# THERAPEUTIC CLASS

## Antiarthritics

Antiarthritic drugs treat conditions such as rheumatoid arthritis, osteoarthritis, and/or help block the inflammation and tissue damage of such conditions. Some commonly prescribed drugs in this category also treat gout, fevers, and mild and moderate pain caused by inflammation.

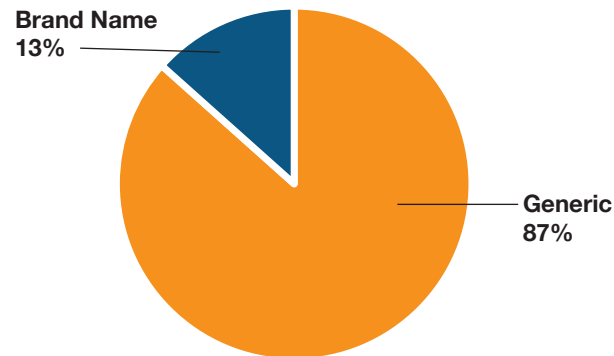
Four of the five most frequently prescribed Antiarthritic drugs, which accounted for 57.0% of the total prescriptions within the class, were nonsteroidal anti-inflammatories, or NSAIDs (Ibuprofen, Naproxen, Meloxicam, and Diclofenac Sodium).

Humira and Humira pens, with average costs of over \$3,500 per prescription, made up 50.1% of the total allowed amount in this therapeutic class but made up less than 5% of the total number of prescriptions for the class.

### Top Five Most Prescribed Drugs, SFY 2015

Drug Name	Percentage of Total Prescriptions within Therapeutic Class	Allowed Amount per Prescription	Allowed Amount per Day's Supply
Ibuprofen	35%	\$ 6.00	\$ 0.33
Allopurinol	14%	\$ 7.92	\$ 0.17
Naproxen	12%	\$ 5.90	\$ 0.23
Meloxicam	5%	\$ 6.48	\$ 0.19
Diclofenac Sodium	5%	\$ 17.53	\$ 0.58

### Percentage of Prescriptions Generic vs. Brand Name



**ALLOWED AMOUNT PMPM: \$7.84**  
**PERCENT OF TOTAL PRESCRIPTIONS: 2.8%**  
**AVERAGE COST PER PRESCRIPTION: \$330**

Source: MA APCD

Notes: Most Prescribed Drugs refers to the highest number of prescriptions within therapeutic class. This report does not reflect the impact of prescription drug rebates.

# THERAPEUTIC CLASS

## Central Nervous System (CNS) Drugs

CNS Drugs affect the central nervous system, which consists of nerves in the brain and spinal cord. CNS drugs include anesthetics, anticonvulsants, muscle relaxants, certain pain relievers, and sedatives. Illnesses treated by CNS drugs include multiple sclerosis (MS) and Parkinson's Disease.

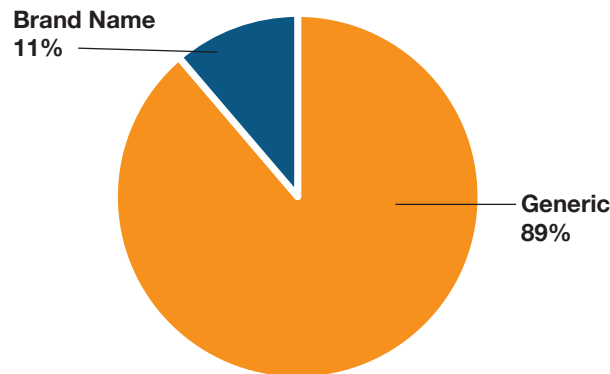
The five most frequently prescribed drugs within this class were relatively inexpensive and are primarily used to treat seizures.

Cost drivers in this category included drugs to treat MS, such as Copaxone (\$5,248 per prescription) and Tecfidera (\$5,260 per prescription). These two drugs accounted for 2.2% of prescriptions for this therapeutic class.

### Top Five Most Prescribed Drugs, SFY 2015

Drug Name	Percentage of Total Prescriptions within Therapeutic Class	Allowed Amount per Prescription	Allowed Amount per Day's Supply
Clonazepam	26%	\$ 4.36	\$ 0.15
Gabapentin	23%	\$ 19.11	\$ 0.56
Lamotrigine	16%	\$ 9.01	\$ 0.25
Topiramate	10%	\$ 14.51	\$ 0.41
Levetiracetam	4%	\$ 31.04	\$ 0.88

### Percentage of Prescriptions Generic vs. Brand Name



Source: MA APCD

Notes: Most Prescribed Drugs refers to the highest number of prescriptions within therapeutic class. This report does not reflect the impact of prescription drug rebates.

**ALLOWED AMOUNT PMPM: \$7.70**  
**PERCENT OF TOTAL PRESCRIPTIONS: 3.5%**  
**AVERAGE COST PER PRESCRIPTION: \$261**

# THERAPEUTIC CLASS

## Psychotherapeutic Drugs

Psychotherapeutic drugs are used to treat a wide range of conditions including depression, anxiety, and psychosis. Drugs included in this class also treat hyperactivity and attention deficit disorder.

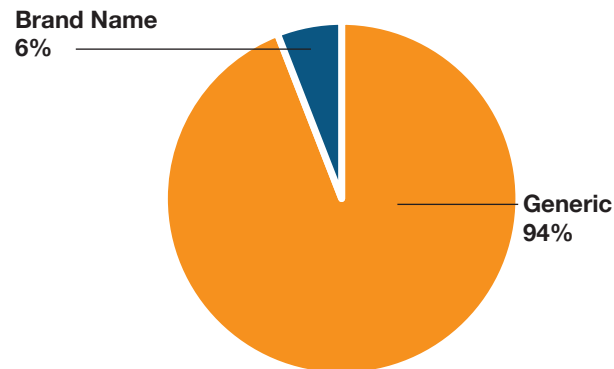
Psychotherapeutic drugs had the second lowest average cost per prescription (\$57) of the top 10 therapeutic classes. Three of the five most frequently prescribed drugs within this class (Citalopram, Sertraline, and Fluoxetine HCL) were selective serotonin reuptake inhibitors (SSRIs), which are primarily used to treat depression and accounted for over 30% of the total prescriptions in this class.

This class had the lowest proportion of brand name drugs (5.9%) of the top 10 classes. Abilify, a brand name drug with an average cost of \$970 per prescription, accounted for 19.6% of the total allowed amount for this class, but only 1.2% of the prescriptions.

### Top Five Most Prescribed Drugs, SFY 2015

Drug Name	Percentage of Total Prescriptions within Therapeutic Class	Allowed Amount per Prescription	Allowed Amount per Day's Supply
Citalopram HBR	11.1%	\$ 4.83	\$ 0.13
Sertraline HCL	10.7%	\$ 6.29	\$ 0.17
Lorazepam	9.5%	\$ 3.62	\$ 0.15
Fluoxetine HCL	8.7%	\$ 14.24	\$ 0.39
Bupropion XL	4.8%	\$ 30.86	\$ 0.84

### Percentage of Prescriptions Generic vs. Brand Name



**ALLOWED AMOUNT PMPM: \$7.40**  
**PERCENT OF TOTAL PRESCRIPTIONS: 15.5%**  
**AVERAGE COST PER PRESCRIPTION: \$57**

Source: MA APCD

Notes: Most Prescribed Drugs refers to the highest number of prescriptions within therapeutic class. This report does not reflect the impact of prescription drug rebates.

# THERAPEUTIC CLASS

## Antihyperglycemics

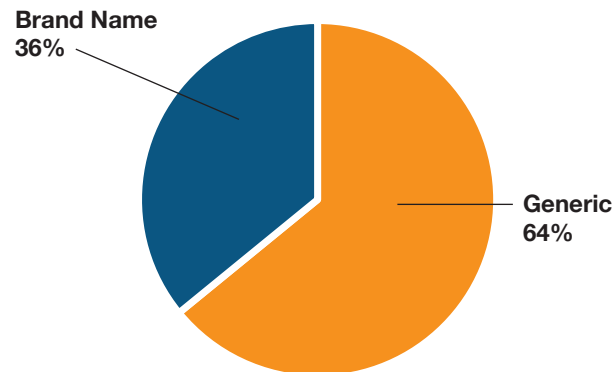
Antihyperglycemic drugs include insulin and other medicines to treat diabetes by counteracting high levels of glucose in the blood.

Metformin (HCL and HCL Extended Release) is a relatively low cost oral drug used to treat type 2 diabetes that accounted for over 44% of this class's prescriptions. Injectable drugs Lantus and Humalog, also in this class, were significantly more expensive but made up a smaller proportion of prescriptions.

### Top Five Most Prescribed Drugs, SFY 2015

Drug Name	Percentage of Total Prescriptions within Therapeutic Class	Allowed Amount per Prescription	Allowed Amount per Day's Supply
Metformin HCL	32%	\$ 7.05	\$ 0.16
Metformin HCL ER	12%	\$ 75.00	\$ 1.74
Lantus Solostar	7%	\$ 516.58	\$ 11.95
Humalog	5%	\$ 616.55	\$ 13.93
Lantus	5%	\$ 514.79	\$ 12.90

### Percentage of Prescriptions Generic vs. Brand Name



**ALLOWED AMOUNT PMPM: \$5.48**  
**PERCENT OF TOTAL PRESCRIPTIONS: 3.1%**  
**AVERAGE COST PER PRESCRIPTION: \$209**

Source: MA APCD

Notes: Most Prescribed Drugs refers to the highest number of prescriptions within therapeutic class.

This report does not reflect the impact of prescription drug rebates.

# THERAPEUTIC CLASS

## Hormones

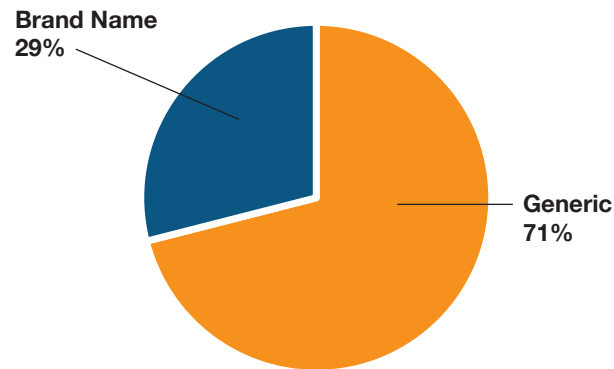
Hormones treat hormone-related conditions or needs. Conditions treated can include menopausal symptoms, osteoporosis, fertility issues, and growth delay or “wasting” caused by some illnesses. Contraceptives and thyroid medications are not included in this therapeutic class.

Prednisone and Methylprednisolone, relatively inexpensive generic drugs, accounted for over 40% of total prescriptions in this class. They are steroids used to treat many different autoimmune diseases and inflammatory conditions, including allergic reactions, asthma, and arthritis. Other commonly prescribed drugs in this class included hormones that treat symptoms caused by menopause or removal of ovaries (Estradiol and Vagifem).

### Top Five Most Prescribed Drugs, SFY 2015

Drug Name	Percentage of Total Prescriptions within Therapeutic Class	Allowed Amount per Prescription	Allowed Amount per Day's Supply
Prednisone	33%	\$ 6.68	\$ 0.44
Methylprednisolone	8%	\$ 20.07	\$ 2.76
Estradiol	6%	\$ 38.61	\$ 1.02
Vagifem	5%	\$ 183.19	\$ 4.42
Progesterone	3%	\$ 64.11	\$ 1.79

### Percentage of Prescriptions Generic vs. Brand Name



**ALLOWED AMOUNT PMPM: \$4.69**  
**PERCENT OF TOTAL PRESCRIPTIONS: 2.6%**  
**AVERAGE COST PER PRESCRIPTION: \$213**

Source: MA APCD

Notes: Most Prescribed Drugs refers to the highest number of prescriptions within therapeutic class. This report does not reflect the impact of prescription drug rebates.



# THERAPEUTIC CLASS

## Unclassified Drug Products

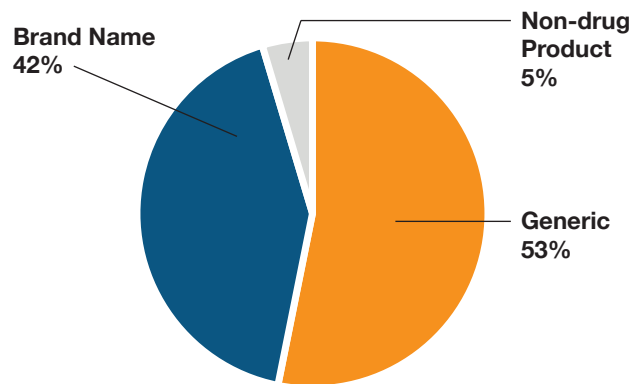
The Unclassified Drug Products therapeutic class includes drugs not otherwise categorized into one of the 44 other therapeutic classes.<sup>1</sup> It includes drugs that treat a range of conditions, including erectile dysfunction and prostate disorders; drug or alcohol dependence (e.g., Suboxone, Vivitrol); osteoporosis; and urinary tract disorders.

Viagra, Tamsulosin HCL, and Cialis, drugs that treat erectile dysfunction and prostate disorders, accounted for over 40% of the prescriptions in this therapeutic class. Suboxone represented 7.0% of this class's prescriptions and had an average cost of \$236 per prescription.

### Top Five Most Prescribed Drugs, SFY 2015

Drug Name	Percentage of Total Prescriptions within Therapeutic Class	Allowed Amount per Prescription	Allowed Amount per Day's Supply
Viagra	16.5%	\$ 136.70	\$ 5.59
Tamsulosin HCL	13.0%	\$ 24.51	\$ 0.61
Cialis	11.5%	\$ 147.71	\$ 5.82
Chlorhexidine Gluconate	8.0%	\$ 6.25	\$ 0.34
Suboxone	7.0%	\$ 235.79	\$ 11.34

### Percentage of Prescriptions Generic vs. Brand Name



**ALLOWED AMOUNT PMPM: \$4.36**  
**PERCENT OF TOTAL PRESCRIPTIONS: 2.7%**  
**AVERAGE COST PER PRESCRIPTION: \$191**

Source: MA APCD

Notes: Most Prescribed Drugs refers to the highest number of prescriptions within therapeutic class. This report does not reflect the impact of prescription drug rebates.

<sup>1</sup>Based on First Databank's Generic Therapeutic Class grouping.

# THERAPEUTIC CLASS

## Antiasthmatics

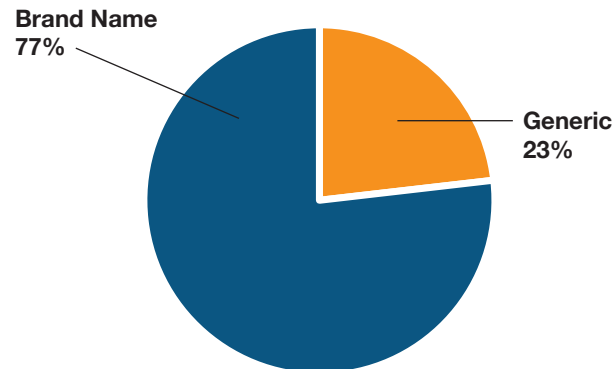
Antiasthmatics treat asthma symptoms and chronic obstructive pulmonary disease (COPD).

This therapeutic class had the highest proportion of brand name drugs of the top 10 classes. The most prescribed drug in this class (36.9% of Antiasthmatics) was Proair HFA, a brand name albuterol inhaler. In 2008, the FDA banned generic albuterol inhalers that contained chlorofluorocarbons (CFCs) and they were replaced with inhalers that used hydrofluoroalkanes (HFAs). HFA inhalers are newer and still under patent, which contributed to this class having a high share of brand name drugs compared to other therapeutic classes.

### Top Five Most Prescribed Drugs, SFY 2015

Drug Name	Percentage of Total Prescriptions within Therapeutic Class	Allowed Amount per Prescription	Allowed Amount per Day's Supply
Proair HFA	36.9%	\$ 53.70	\$ 2.11
Montelukast Sodium	15.0%	\$ 21.38	\$ 0.54
Flovent HFA	12.0%	\$ 206.90	\$ 6.00
Adviar Diskus	8.0%	\$ 349.60	\$ 9.50
Symbicort	5.0%	\$ 292.79	\$ 7.69

### Percentage of Prescriptions Generic vs. Brand Name



**ALLOWED AMOUNT PMPM: \$4.31**  
**PERCENT OF TOTAL PRESCRIPTIONS: 3.8%**  
**AVERAGE COST PER PRESCRIPTION: \$137**

Source: MA APCD

Notes: Most Prescribed Drugs refers to the highest number of prescriptions within therapeutic class. This report does not reflect the impact of prescription drug rebates.

# THERAPEUTIC CLASS

## Cardiovascular

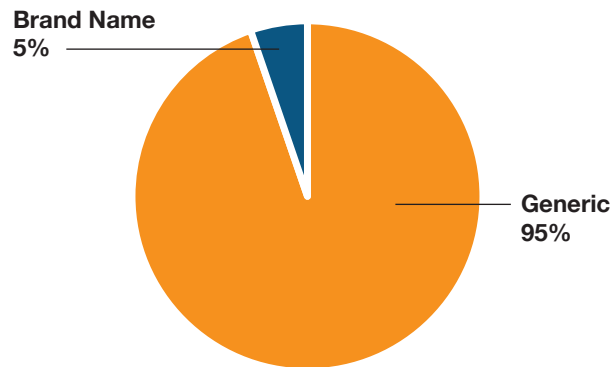
Cardiovascular drugs treat medical conditions associated with blood vessels, such as arrhythmias, blood clots, coronary artery disease, high or low blood pressure, high cholesterol, heart failure, or stroke.

This class, which includes statins and beta blockers, had the lowest average cost per prescription among the top 10 classes in this report. Lisinopril, which treats high blood pressure and heart failure, and Simvastatin, a cholesterol-lowering drug, were two of the top three prescribed drugs across all therapeutic classes during SFY 2015. In addition, these two drugs were relatively inexpensive (\$5.00 and \$7.54 per prescription, respectively).

### Top Five Most Prescribed Drugs, SFY 2015

Drug Name	Percentage of Total Prescriptions within Therapeutic Class	Allowed Amount per Prescription	Allowed Amount per Day's Supply
Lisinopril	21.1%	\$ 5.00	\$ 0.11
Simvastatin	15.6%	\$ 7.54	\$ 0.16
Atorvastatin Calcium	14.1%	\$ 20.43	\$ 0.46
Atenolol	7.1%	\$ 5.24	\$ 0.11
Metoprolol Succinate	6.6%	\$ 26.73	\$ 0.67

### Percentage of Prescriptions Generic vs. Brand Name



**ALLOWED AMOUNT PMPM: \$4.15**  
**PERCENT OF TOTAL PRESCRIPTIONS: 15.6%**  
**AVERAGE COST PER PRESCRIPTION: \$32**

Source: MA APCD

Notes: Most Prescribed Drugs refers to the highest number of prescriptions within therapeutic class. This report does not reflect the impact of prescription drug rebates.

# THERAPEUTIC CLASS

## Gastrointestinal

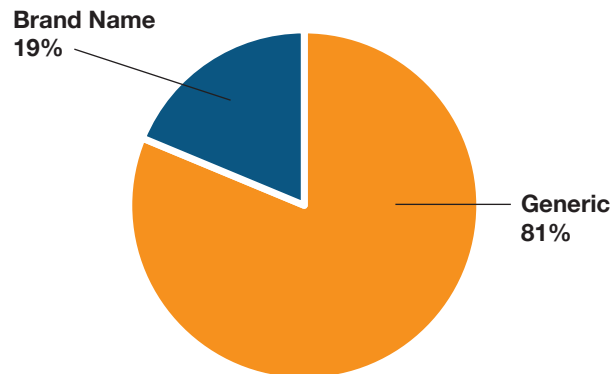
Gastrointestinal drugs treat disorders of the digestive system, such as conditions caused by excess stomach acid (e.g., gastroesophageal reflux disease, or GERD), chronic irritable bowel syndrome, constipation, and nausea.

Nearly 40% of prescriptions in this class were for Omeprazole, which is a relatively inexpensive (\$10.85 per prescription) generic drug used to treat heartburn, stomach ulcers, and GERD.

### Top Five Most Prescribed Drugs, SFY 2015

Drug Name	Percentage of Total Prescriptions within Therapeutic Class	Allowed Amount per Prescription	Allowed Amount per Day's Supply
Omeprazole	38%	\$ 10.85	\$ 0.27
Pantoprazole Sodium	8%	\$ 15.39	\$ 0.39
Ranitidine HCL	6%	\$ 14.35	\$ 0.38
Ondansetron HCL	4%	\$ 11.24	\$ 1.44
Ondanestron ODT	3%	\$ 7.86	\$ 1.39

### Percentage of Prescriptions Generic vs. Brand Name



**ALLOWED AMOUNT PMPM: \$3.61**  
**PERCENT OF TOTAL PRESCRIPTIONS: 4.4%**  
**AVERAGE COST PER PRESCRIPTION: \$97**

Source: MA APCD

Notes: Most Prescribed Drugs refers to the highest number of prescriptions within therapeutic class. This report does not reflect the impact of prescription drug rebates.

# Top Drugs Ranked by Number of Prescriptions, SFY 2015

	Drug Name	Number of Prescriptions	Total Allowed Amount	Allowed Amount PMPM	Allowed Amount per Prescription
1	Lisinopril	438,464	\$2,190,422	\$0.13	\$5.00
2	Levothyroxine Sodium	354,315	\$4,058,963	\$0.25	\$11.46
3	Simvastatin	308,783	\$2,329,055	\$0.14	\$7.54
4	Atorvastatin Calcium	290,710	\$5,939,325	\$0.36	\$20.43
5	Citalopram HBR	232,593	\$1,122,526	\$0.07	\$4.83
6	Omeprazole	231,460	\$2,594,304	\$0.16	\$11.21
7	Sertraline HCL	228,033	\$1,462,122	\$0.09	\$6.41
8	Hydrochlorothiazide	212,026	\$932,123	\$0.06	\$4.40
9	Fluticasone Propionate	202,425	\$2,539,870	\$0.16	\$12.55
10	Lorazepam	200,260	\$725,063	\$0.04	\$3.62
11	Amoxicillin	189,140	\$1,076,178	\$0.07	\$5.69
12	Proair HFA	188,547	\$10,124,460	\$0.62	\$53.70
13	Fluoxetine HCL	182,239	\$2,602,819	\$0.16	\$14.28
14	Amlodipine Besylate	178,970	\$914,887	\$0.06	\$5.11
15	Azithromycin	153,980	\$1,214,088	\$0.07	\$7.88
16	Atenolol	142,298	\$748,492	\$0.05	\$5.26
17	Metformin HCL	138,174	\$973,859	\$0.06	\$7.05
18	Ibuprofen	135,718	\$816,573	\$0.05	\$6.02
19	Metoprolol Succinate	135,209	\$3,613,573	\$0.22	\$26.73
20	Clonazepam	122,797	\$535,551	\$0.03	\$4.36

Source: MA APCD

Notes: Based on analysis of fully-insured commercial lines of business for the following eight payers: Blue Cross Blue Shield of Massachusetts, Boston Medical Center HealthNet Plan, CeltiCare Health, Fallon Health, Harvard Pilgrim Health Care, Neighborhood Health Plan, Tufts Health Plan, and Tufts Health Public Plans (formerly Network Health), for Massachusetts residents. This report does not reflect the impact of prescription drug rebates.

# Top Drugs Ranked by Total Allowed Amount, SFY 2015

	Drug Name	Total Allowed Amount	Number of Prescriptions	Allowed Amount PMPM	Allowed Amount per Prescription
1	Harvoni	\$51,469,608	1,659	\$3.15	\$31,024.48
2	Humira Pen	\$50,302,744	14,574	\$3.08	\$3,451.54
3	Enbrel	\$43,232,232	13,557	\$2.65	\$3,188.92
4	Copaxone	\$31,013,268	5,909	\$1.90	\$5,248.48
5	Tecfidera	\$24,358,334	4,631	\$1.49	\$5,259.84
6	Abilify	\$23,629,047	24,366	\$1.45	\$969.75
7	Sovaldi	\$21,454,881	770	\$1.31	\$27,863.48
8	Dextroamphetamine-Amphet ER	\$17,200,301	118,330	\$1.05	\$145.36
9	Gonal-F RFF Redi-Ject	\$15,778,632	3,702	\$0.97	\$4,262.19
10	Atripla	\$15,731,790	5,414	\$0.96	\$2,905.76
11	Lantus Solostar	\$15,486,611	29,979	\$0.95	\$516.58
12	Crestor	\$15,299,850	58,203	\$0.94	\$262.87
13	Advair Diskus	\$14,098,316	40,327	\$0.86	\$349.60
14	Flovent HFA	\$12,984,359	62,758	\$0.80	\$206.90
15	Humalog	\$12,583,881	20,410	\$0.77	\$616.55
16	Methylphenidate ER	\$12,281,488	71,828	\$0.75	\$170.98
17	Truvada	\$11,412,776	6,895	\$0.70	\$1,655.22
18	EpiPen 2-Pak	\$10,842,072	27,321	\$0.66	\$396.84
19	Humira	\$10,720,600	3,068	\$0.66	\$3,494.33
20	Revlimid	\$10,540,663	1,139	\$0.65	\$9,254.31

Source: MA APCD

Notes: Based on analysis of fully-insured commercial lines of business for the following eight payers: Blue Cross Blue Shield of Massachusetts, Boston Medical Center HealthNet Plan, CeltiCare Health, Fallon Health, Harvard Pilgrim Health Care, Neighborhood Health Plan, Tufts Health Plan, and Tufts Health Public Plans (formerly Network Health), for Massachusetts residents. This report does not reflect the impact of prescription drug rebates.

# Top Drugs Ranked by Allowed Amount per Prescription, SFY 2015

	Drug Name	Total Allowed Amount per Prescription	Number of Prescriptions*	Total Allowed Amount	Allowed Amount PMPM
1	Harvoni	\$31,024.48	1,659	\$51,469,608	\$3.15
2	Sovaldi	\$27,863.48	770	\$21,454,881	\$1.31
3	Fluticasone Propionate Micro	\$12,638.55	335	\$4,233,915	\$0.26
4	Afinitor	\$12,020.74	206	\$2,476,273	\$0.15
5	Stelara	\$11,554.59	840	\$9,705,859	\$0.59
6	Sprycel	\$9,500.73	353	\$3,353,758	\$0.21
7	Revlimid	\$9,254.31	1,139	\$10,540,663	\$0.65
8	Gleevec	\$9,078.01	942	\$8,551,489	\$0.52
9	Tasigna	\$8,693.89	229	\$1,990,900	\$0.12
10	Imbruvica	\$8,667.37	306	\$2,652,215	\$0.16
11	Humira Pen Crohn-Uc-Hs Starter	\$8,514.84	241	\$2,052,077	\$0.13
12	Xyrem	\$8,492.10	437	\$3,711,046	\$0.23
13	Tarceva	\$6,066.80	271	\$1,644,102	\$0.10
14	Neulasta	\$5,879.93	1,089	\$6,403,241	\$0.39
15	Gilenya	\$5,347.72	1,872	\$10,010,931	\$0.61
16	Rebif	\$5,340.41	1,132	\$6,045,339	\$0.37
17	Tecfidera	\$5,259.84	4,631	\$24,358,334	\$1.49
18	Betaseron	\$5,249.31	624	\$3,275,567	\$0.20
19	Copaxone	\$5,248.48	5,909	\$31,013,268	\$1.90
20	Avonex Pen	\$5,141.81	980	\$5,038,973	\$0.31

Source: MA APCD

\*Drugs with fewer than 200 prescriptions were excluded from this list.

Notes: Based on analysis of fully-insured commercial lines of business for the following eight payers: Blue Cross Blue Shield of Massachusetts, Boston Medical Center HealthNet Plan, CeltiCare Health, Fallon Health, Harvard Pilgrim Health Care, Neighborhood Health Plan, Tufts Health Plan, and Tufts Health Public Plans (formerly Network Health), for Massachusetts residents. This report does not reflect the impact of prescription drug rebates.

# Glossary of Terms

**Allowed Amount:** A payer's contracted maximum amount that it will allow to be paid for a claim. It includes a portion that the insurer will pay plus a portion designated as the insured's out-of-pocket liability (copay, coinsurance, and deductible).

**Allowed Amount Per Day's Supply:** The maximum contracted amount that an insurance company will allow as payment (payer paid + patient out-of-pocket) divided by the number of days' supply that the prescription is for.

**Allowed Amount Per Member Per Month (PMPM):** The maximum contracted amount that an insurance company will allow as payment (payer paid + patient out-of-pocket) for a prescription, divided by the total number of member months for that insurance company.

**Allowed Amount Per Prescription:** The maximum contracted amount that an insurance company will allow as payment divided by the number of prescriptions.

**Patient Out-of-Pocket:** Amount the patient is expected to pay under his or her health insurance contract, usually through a deductible, copayment, or coinsurance.

**Payer Paid:** The amount an insurance plan paid for a claim.

**Therapeutic Class:** CHIA uses First Databank (FDB) as a grouper, which categorizes drugs that are similar in pharmacologic, therapeutic, and/or chemical characteristics into therapeutic classes. This report used FDB's Generic Therapeutic Class, which has 45 classes. ■

Notes: Please see the [technical appendix](#) for more information.





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