

The background is a solid light green color. There are four dark green triangles of various sizes and orientations scattered across the page: one large triangle pointing down at the top center, one small triangle pointing down at the top right, one medium triangle pointing left at the bottom left, and one large triangle pointing right at the bottom right.

MAGELLAN RX MANAGEMENT
**MEDICAID PHARMACY
TREND REPORT™**

2020 FIFTH EDITION

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INTRODUCTION

Magellan Rx Management is pleased to present the fifth edition of the Magellan Rx Management Medicaid Pharmacy Trend Report, the industry's leading report exclusively detailing trends in the Medicaid pharmacy fee-for-service (FFS) space and the only detailed source examining Medicaid FFS gross and net drug spend trends.*

In 2019, as in prior years, we saw state legislatures struggle to balance the growing cost of state Medicaid programs with state budget projections. Across the country, states expanded authority for state Medicaid agencies to negotiate additional discounts with manufacturers for high-cost drugs, increased the use of clinical criteria, furthered the reach of preferred drug list programs, and took steps to introduce the use of outcomes-based contracting.

States also continued to move the pharmacy benefit from Medicaid managed care organizations (MCOs) back to Medicaid fee-for-service (FFS) to take advantage of lucrative federal and supplemental rebate programs. Some used drug utilization review (DUR) boards and pharmacy and therapeutics (P&T) committees to leverage clinical evidence and financial information in hopes of lowering state costs for the most expensive Medicaid covered drugs.

The four-year FFS trend clearly illustrates the variability in the Medicaid program and the inherent challenges states faced. The trend continued to grow after hitting its lowest point in 2017 (see figure 1). Specialty growth continued to drive this increasing trend and is rapidly approaching a forecast we have made since the first edition of this report in 2016 — that specialty drugs will account for 50% of net drug spend in Medicaid by 2020. In 2019, specialty accounted for 48.5% of net spend while making up just 1.3% of utilization.

Aligning with the increased trend, as noted in our annual webinar last year, we have kept an eye on a micro-trend emerging in third- and fourth-quarter specialty net cost per claim data, which showed a

year-over-year increase of 9.7% and 12.9%, respectively. That trend continued into early 2019, with a first-quarter increase of 11.7%. Fortunately, the balance of the quarters trended in single digits to bring down the trend for 2019.

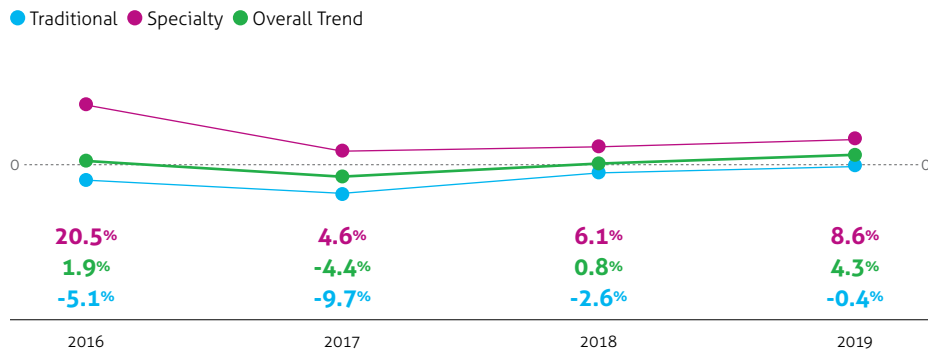
States continued to explore and implement efforts to counterbalance the increasing cost of specialty drugs with unique payment models such as subscription- and outcomes-based contracting. While still early in their life cycle, these models are critical for states that want to move the conversation from volume to value.

One area of consistency in Medicaid FFS was the Top 5 drug classes, which remained the same year-over-year. HIV/AIDS and antipsychotics accounted for more than 20% of total net spend, and the Top 5 classes accounted for almost 40% (see figure 2).

As the Medicaid Pharmacy Trend Report turns five, and the Medicaid prescription drug landscape continues to evolve, we strive to keep you ahead of the trends and challenges in the Medicaid FFS space. In this report, our now-standard in-depth analysis of the top drug classes has expanded to include an additional six categories and detail a better picture of classes with a significant net dollar impact. As usual, we have included a forecast of Medicaid FFS trend as well as pipeline updates.

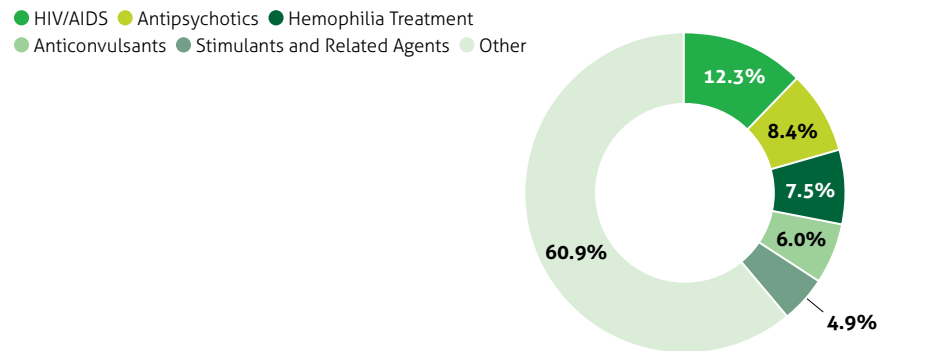
Thank you for your continued interest in the Medicaid Pharmacy Trend Report. We will continue to bring you these important trends to drive conversations and uncover strategic opportunities to better manage Medicaid pharmacy programs in the coming years.

FIGURE 1: 4-YEAR NET COST PER CLAIM TREND



*Please note: COVID-19 did not impact these data, as this report covers 2018-2019 trends.

FIGURE 2: TOP 5 CLASSES BY NET SPEND 2019



KEY TRENDS AND INSIGHTS

Overall Trends

FIGURE 3: 2019 TREND IN NET SPEND

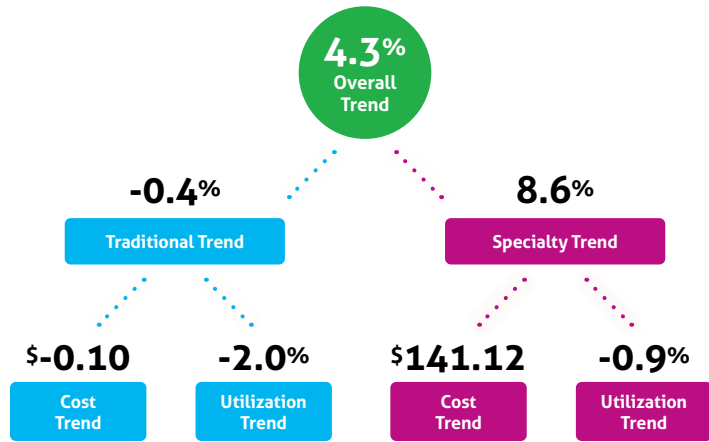
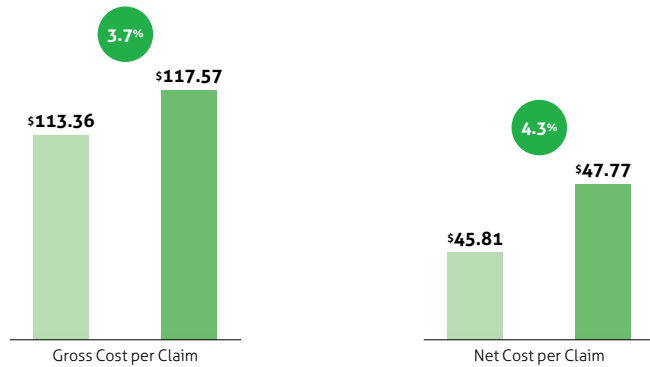


FIGURE 4: OVERALL COST TREND 2018-2019

● 2018 ● 2019 ● % Change



Traditional vs. Specialty Impact

Claim volume ratio remains virtually unchanged while total net spend on specialty drugs increased by 2.4%. Specialty drugs will account for 50% of the total net drug spend in Medicaid by 2020.

FIGURE 5: CLAIM VOLUME

● Traditional ● Specialty

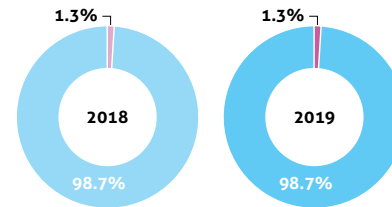


FIGURE 6: TOTAL NET COST

● Traditional ● Specialty

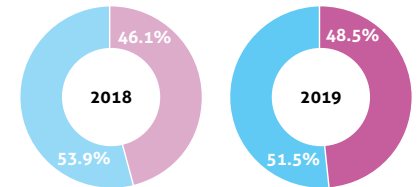


FIGURE 7: TRADITIONAL COST TREND

● 2018 ● 2019 ● % Change

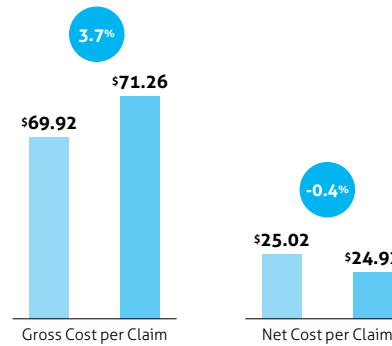
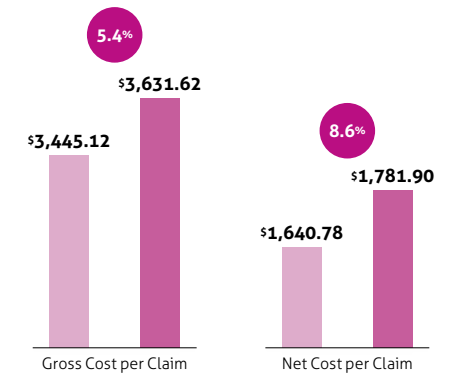


FIGURE 8: SPECIALTY COST TREND

● 2018 ● 2019 ● % Change



MEDICAID PHARMACY ECONOMICS

The Medicaid pharmacy pricing landscape has remained largely unchanged over the five years Magellan Rx has produced this report. The basic tenet of the program is the same—manufacturers agree to a base (or “federal”) rebate in exchange for mandatory pharmacy coverage for their products by states that provide the Medicaid pharmacy benefit (currently all states and the District of Columbia). Through this agreement with the Centers for Medicare & Medicaid Services (CMS), manufacturers gain “payable” status everywhere. Medicaid rules permit individual states or a group of states to contract additional (or “supplemental”) rebates to further reduce the net cost of pharmaceuticals. These contracts are protected by Medicaid’s best price exemption. The pharmacy benefit is included in the Federal Medical Assistance Percentage (FMAP), so states share supplemental rebates, as they do federal rebates, with the federal government. The other rebate factor in the equation — the rebate offset amount (ROA) — continues to go entirely to the federal government and constitutes a small portion (roughly 2.5%) of the federal rebate. In 2019, the average total discount was 59.4% (54.6% federal and 4.8% supplemental).

In 2019, the CMS continued to implement technical revisions to the rebate calculation to address the unintended consequences of the 2010 Affordable Care Act (ACA) language. This technical change was recommended by the Medicaid and CHIP Payment and Access Commission (MACPAC). In 2018, the president’s budget changed the rebate offset amount calculation in order to clarify the impact on line-extension drugs. The 2019 budget changed the blended average manufacturer price (AMP) calculation to remove any authorized generic’s AMP from the brand AMP calculation, effectively restoring AMP to pre-authorized generic levels on branded drugs. This move benefited Medicaid programs because federal rebates are proportional to AMP; therefore, increased AMP results in increased federal rebates. Multisource brands saw the desired effect in the fourth-quarter 2019 CMS rebate file as many federal rebates returned to pre-generic-launch levels. Going into 2020, more states may take advantage of brands with significant

utilization and a lower net cost than their generic equivalents.

While Medicaid programs must reimburse for utilization of these covered products, they still incorporate many utilization management tools managed care organizations (MCOs) use to drive prescription use according to product preferred drug list (PDL) statuses. Along with the benefit of the best price exemption, these tools help Medicaid programs successfully manage the pharmacy benefit to the lowest net cost possible. Possibly the biggest change to Medicaid pharmacy over the past five years is states’ uptake of the single-PDL or unified-PDL program model. Ten of 26 states included in this report have implemented the single-PDL program model, three in 2019 alone — and there will be more in 2020 and 2021. The economics that ensure that state Medicaid programs pay the lowest net cost available combined with the favorable ACA allowance for collection of federal and (under prescribed conditions) supplemental rebates for Medicaid MCO utilization make the single-PDL trend likely to continue.

Key Points in Medicaid Economics

- » Lowest net cost is calculated net of federal, supplemental, and offset rebates.
- » Do not chase supplemental rebates at the expense of lowest net cost.
- » Brand drugs can be less expensive than their generic equivalents and can save states millions of dollars.

The Economics

To understand Medicaid economics at the drug level, assume pharmacy reimbursement, wholesale acquisition cost (WAC), and AMP are all the same. A new brand drug enters the market with a minimum mandatory rebate of 23.1% of AMP. This drug enters a competitive class with three clinically equivalent therapeutic

alternatives, each with higher discounts and lower net costs than the new drug. With a pharmacy reimbursement cost of \$100, the net cost to the state is \$76.90 (\$100 minus 23.1%, or \$23.10). To be competitive, the manufacturer of the new brand will offer an additional discount — a supplemental rebate — to lower the net cost from \$76.90 to a competitive price of \$50. The value of the supplemental rebate at time zero is thus equal to \$26.90, and the total discount is 50%, or \$50. As time progresses, manufacturer pricing actions drive up the total discounts. Still, due to the inverse relationship between supplemental and federal rebates, supplemental discounts decline over time as the total discount increases (see figure 9).

As the patent expiration approaches, the manufacturer generally increases the cost of the drug and the Consumer Price Index for Urban Consumers (CPI-U) penalty accelerates the growth of the federal rebate in the quarters just prior to that event.

FIGURE 9: MEDICAID PHARMACY ECONOMICS

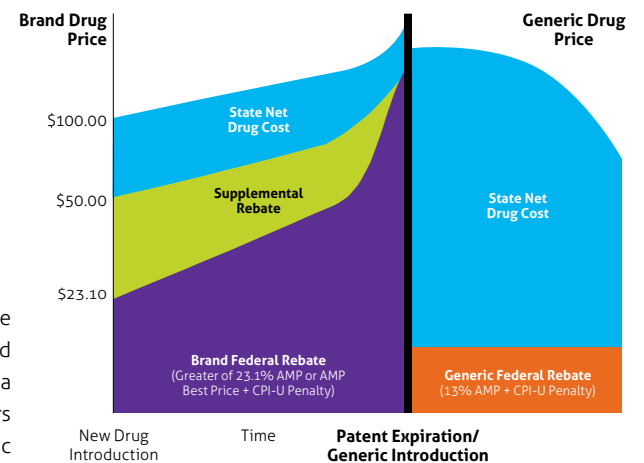
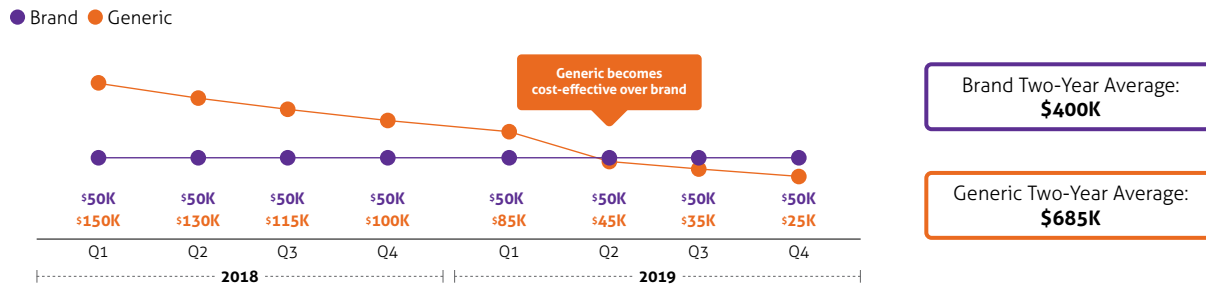


FIGURE 10: BRAND AND GENERIC NET COST PER CLAIM



Generic Impact

At patent expiration, commercial plans welcome the launch of a generic as an opportunity to lower reimbursement and overall drug cost. In Medicaid, generic launches require careful thought and financial evaluation. Generics typically enter the market at a discounted price point relative to the brand's full price but with a federal rebate at only 13% of AMP. The net cost of a brand drug can be markedly less than the generic at this time (see figure 10). Factors affecting the availability of this new generic can cause the net cost of the generic to remain relatively high for as long as six months to

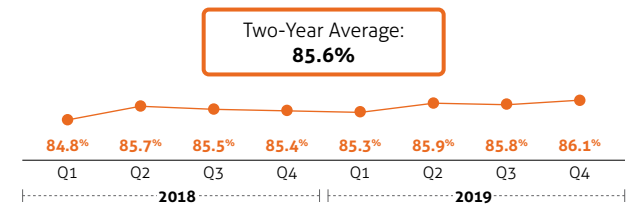
multiple years. In 2019, brand-over-generic programs accounted for \$320 million in savings for states included in this report, with an average of \$70 saved per claim.

Generic Utilization Rate

Medicaid fee-for-service (FFS) programs most often reported lower generic utilization rates than Medicaid MCO or other commercial programs due to the federal rebate's impact on the net cost of brand drugs compared to their generic equivalents. The CMS calculation

of generic efficiency requires states to classify brand and generic drugs not by their formal label name but by their CMS drug class indicator: single-source, innovator multisource, or non-innovator multisource. The impact to FFS is significant because authorized generics (AGs) that have a non-innovator multisource (generic) label name pay an innovator multisource (brand) federal rebate and thus get counted as brand drugs by the CMS. Over 2018 and 2019, states averaged an 85.6% effective generic dispensing rate (GDR) when defined as drugs that do not have a proprietary drug name and where AGs count as generic even though they pay a brand CMS rebate. Consideration of brand-over-generic use pushes this figure even higher (see figure 11).

FIGURE 11: GENERIC UTILIZATION RATE



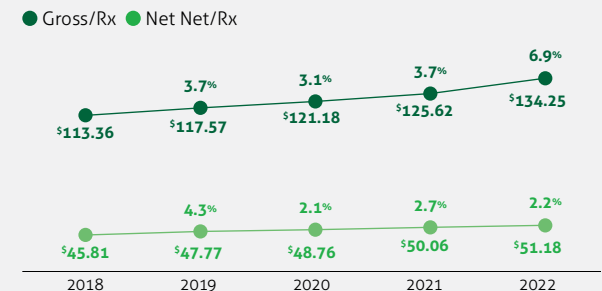
Medicaid Forecasting

MRx Predict proactively identifies patients at risk of experiencing adverse events and forecasts future drug-cost drivers for customers. Two different models are available: Drug Cost Forecasting and At-Risk Patient Identification. Drug Cost Forecasting provides macro-predictions on drug spend and trend, as well as the factors driving those future trends. At-Risk Patient Identification proactively identifies and stratifies individual patients based on

their probability of being nonadherent to chronic medications in order to improve patient outcomes. Medicaid forecasting data can be found on page 24. MRx Predict shows the overall gross trend is expected to stay relatively flat from 2019, then double from 2021 to 2022 due to new, groundbreaking therapies and specialty drugs entering the market (see figure 12). Rebates will continue to help offset increasing drug prices, but the high cost of new specialty drugs will continue to impact the net trend.



FIGURE 12: MEDICAID FORECASTING



*Please note: COVID-19 did not impact this data, as this report covers 2018-2019 trends.

MEDICAID FEE-FOR-SERVICE TRENDS

Federal Rebate Update

2019 saw a 1% decrease, from 55.6% to 54.6%, in the aggregate federal rebate percentage inclusive of the rebate offset amount, a sharp contrast to 2018's 1.5% increase. This decline, driven by new specialty drugs and a growth in specialty net spend, was significantly offset by a corresponding rise in supplemental rebates — good news for states. On closer inspection, the federal rebate on traditional drugs increased 1% while the federal rebate on specialty drugs decreased 3.6%, from 48.1% to 44.5%. Considering that new-to-market drugs start with a federal rebate of 23.1% of AMP, higher utilization of newer products is pulling down the average specialty federal rebate.

Supplemental rebates as a percent of gross spend were up 0.8% year over year (4.0% to 4.8%), driven by a select group of highly utilized specialty brand drugs. Overall, total discounts, net of federal, supplemental, and ROA, were down 0.2% year over year. The average federal rebate can subdivide as either specialty and traditional drugs or brand and generic drugs (see figure 13).

FIGURE 13: FEDERAL REBATE PERCENTAGE BY SEGMENT



*Federal rebate as a percent of pharmacy reimbursement and net of ROA.

Overall Drug Cost Trends

2019 saw an overall increase in both gross and net cost per claim. As in 2018, the growing cost of specialty drugs was the primary contributor to the rising net trend we see in this year's report.

FIGURE 14: GROSS COST PER CLAIM

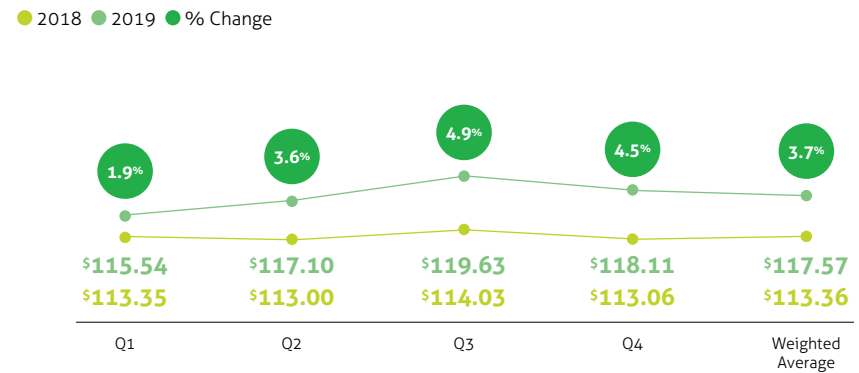
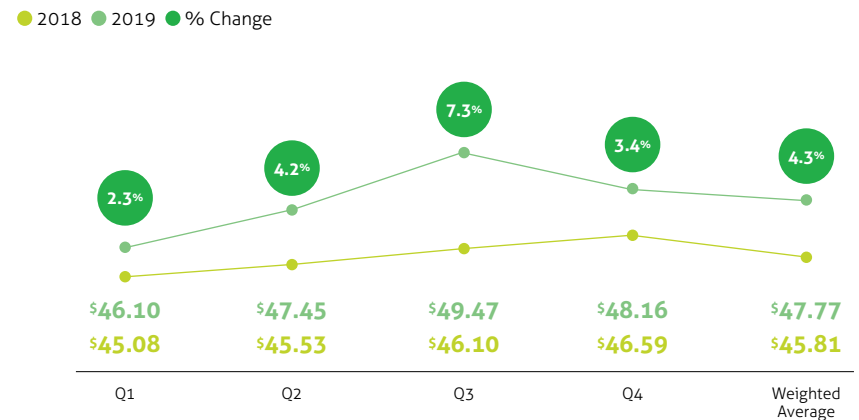


FIGURE 15: NET COST PER CLAIM



Traditional Drug Cost Trends

Traditional drug trend continued its decline for the fourth consecutive year, but, with a net cost per claim trend of just -0.4%, it is little changed since 2018. While traditional drugs still account for 98.7% of utilization, that cannot counterweight specialty drug spend's impact on the overall drug trend.

FIGURE 16: GROSS COST PER CLAIM

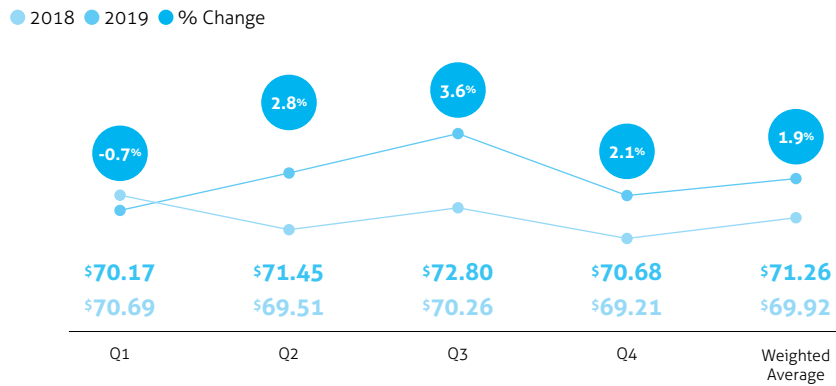
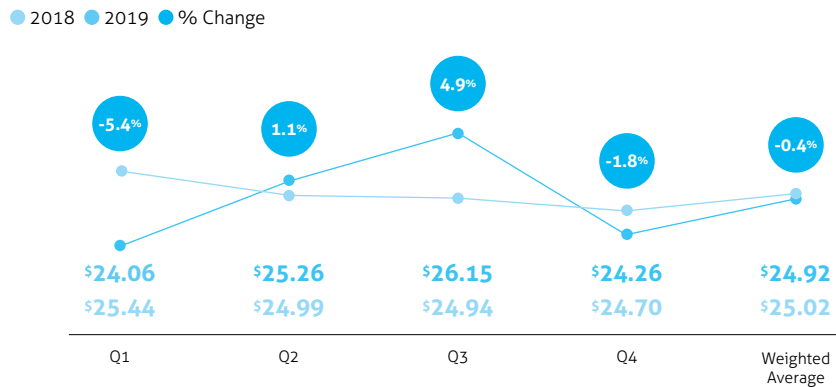


FIGURE 17: NET COST PER CLAIM



Specialty Drug Cost Trends

Cost, not utilization, drove specialty trend in 2019, which saw net cost per claim increase \$141.12 while utilization declined a modest 0.9%. For comparison, 2018 saw net cost per claim increase \$77.43 and utilization decline -5.5%.

FIGURE 18: GROSS COST PER CLAIM

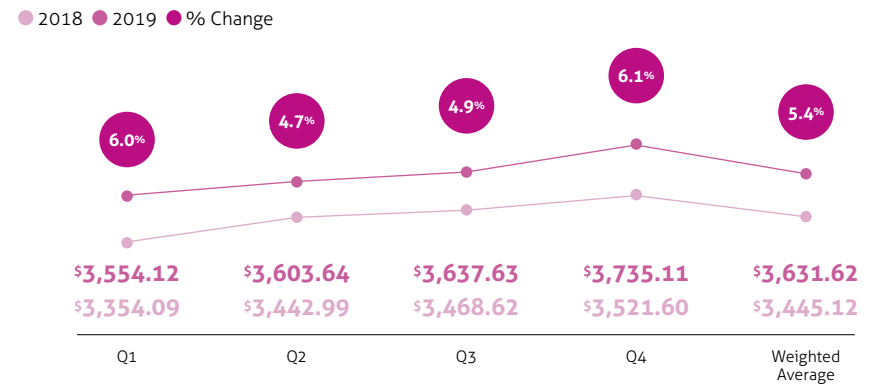
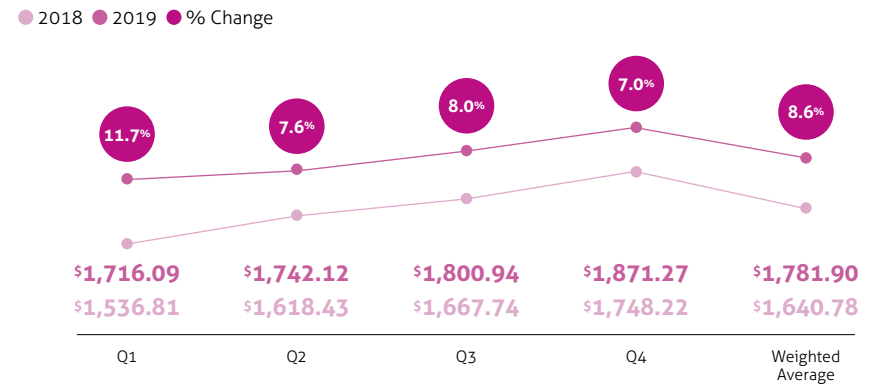


FIGURE 19: NET COST PER CLAIM



MEDICAID FEE-FOR-SERVICE TRENDS

Brand Drug Cost Trends

2019 saw a year-over-year increase in both gross and net cost per claim for brand drugs, with new specialty brand drugs such as Biktarvy, Hemlibra, and Epiodiolex driving trend.

FIGURE 20: GROSS COST PER CLAIM

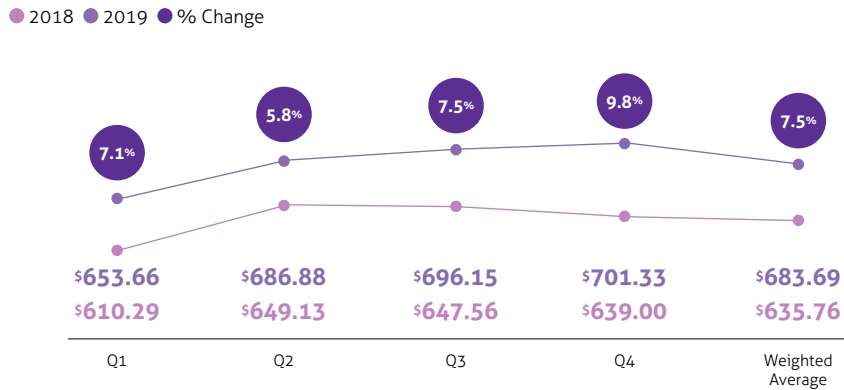
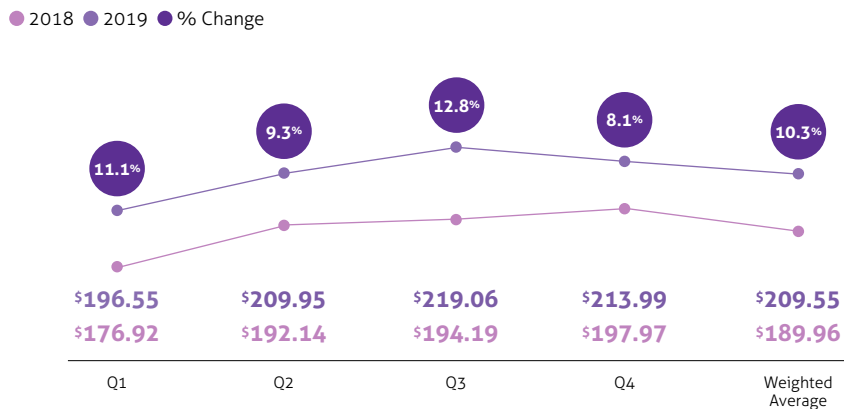


FIGURE 21: NET COST PER CLAIM



Generic Drug Cost Trends

2019 saw a decrease in both gross and net cost per claim for generic drugs.

FIGURE 22: GROSS COST PER CLAIM

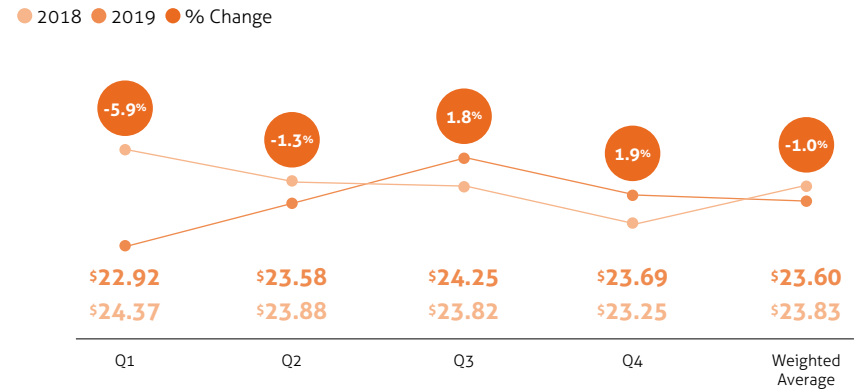
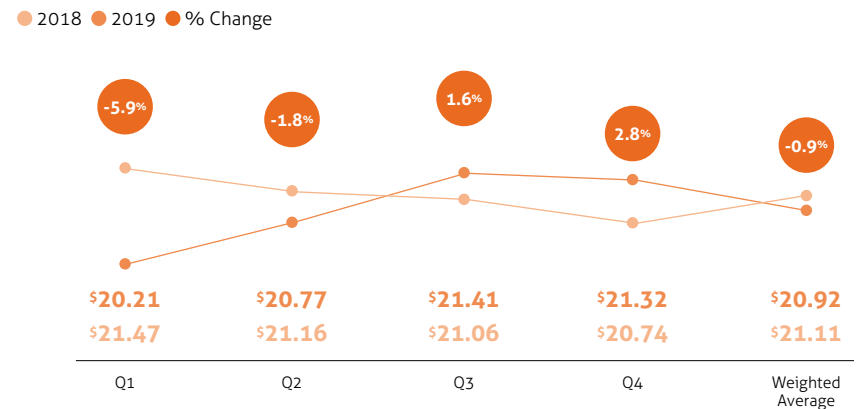


FIGURE 23: NET COST PER CLAIM



CLASS AND DRUG TRENDS

In 2019, overall net cost per claim increased by \$1.96, or 4.3%, from \$45.81 to \$47.77. In the following sections, we examine the impact of therapeutic classes and their individual drugs that contributed most to that increase.

Therapeutic Class Net Dollar Impact

Of the Top 5 classes by net spend, HIV/AIDS was the only one to also have a positive dollar impact on the Medicaid benefit (see figure 24). Conversely, stimulants and related agents were the fifth-highest-spend class but had the most negative dollar impact on the Medicaid FFS benefit, pulling the total net cost down and contributing to the negative trend in traditional net spend (see figure 25).

FIGURE 24: 2019 TOP 5 CLASSES INCREASING TOTAL NET SPEND BY DOLLAR IMPACT

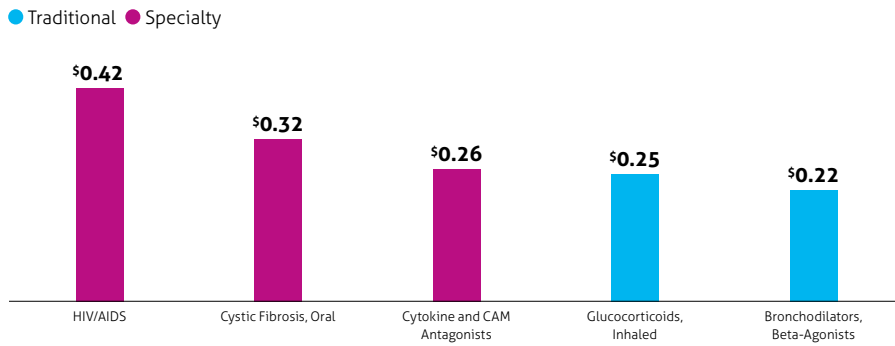
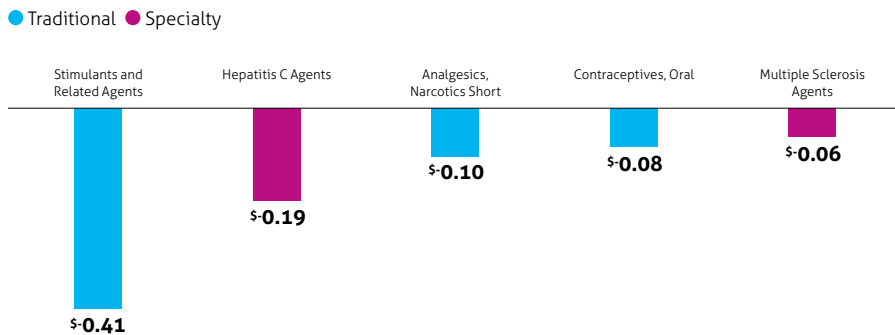


FIGURE 25: 2019 TOP 5 CLASSES DECREASING TOTAL NET SPEND BY DOLLAR IMPACT



Drug Net Spend Impact

Some of the top traditional and specialty drugs account for large majorities of their class's net spend. In traditional, gabapentin accounts for 43% of total net spend in neuropathic pain (see figure 26). In specialty, Mavyret accounts for more than half of total net spend in hepatitis C, at 62%, and Ibrance takes almost three quarters of spend in oncology, oral — breast, at 71% (see figure 27).

FIGURE 26: 2019 TOP 10 TRADITIONAL DRUGS BY PERCENT OF CLASS TOTAL NET SPEND

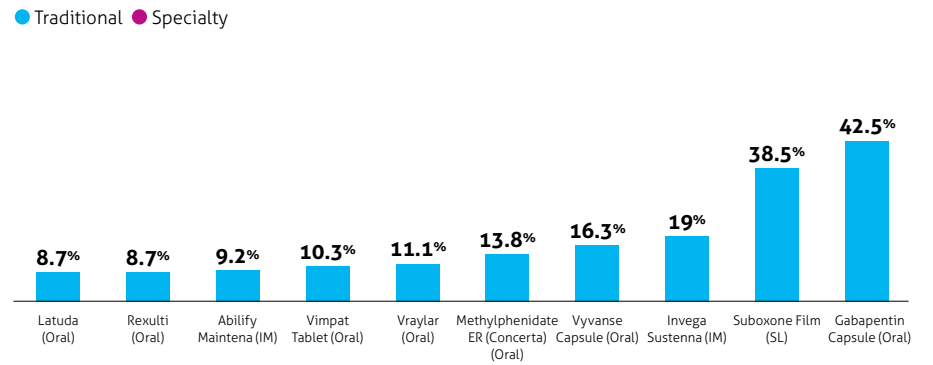
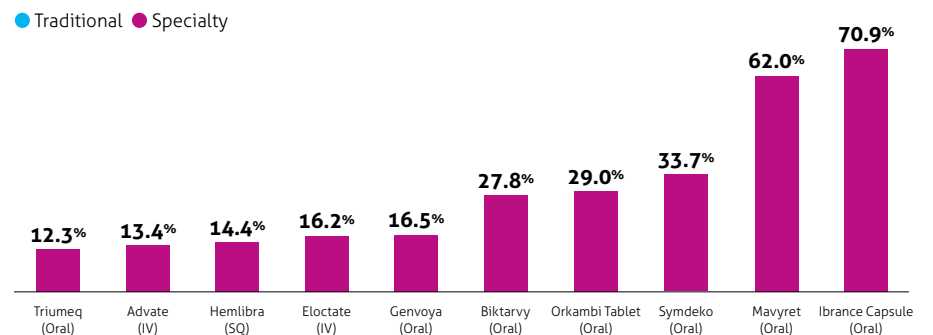


FIGURE 27: 2019 TOP 10 SPECIALTY DRUGS BY PERCENT OF CLASS TOTAL NET SPEND



Drug Net Dollar Impact

In traditional, the glucocorticoids, inhaled drug Advair Diskus had the highest net dollar impact (see figure 28). Antipsychotics had three drugs in the top 10 and had the seventh-highest impact on total net spend across all classes (see page 14). In specialty, the HIV/AIDS drug Biktarvy had the highest dollar impact at \$1.19, twice the amount of the next-highest impact drug, Hemlibra (see figure 29). Conversely, the drugs decreasing the dollar impact were also from these two classes, with Genvoya impacting total net spend by \$-0.25 and Adderall XR reducing total net spend by \$-0.28 (see figures 30 and 31).

FIGURE 28: 2019 TOP 10 TRADITIONAL DRUGS INCREASING IN IMPACT

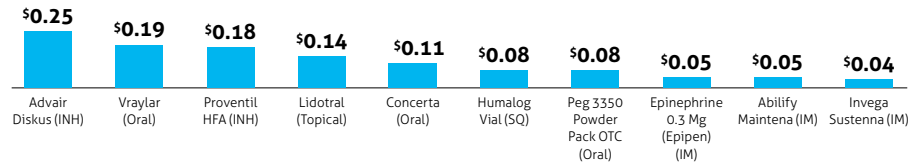


FIGURE 29: 2019 TOP 10 SPECIALTY DRUGS INCREASING IN IMPACT

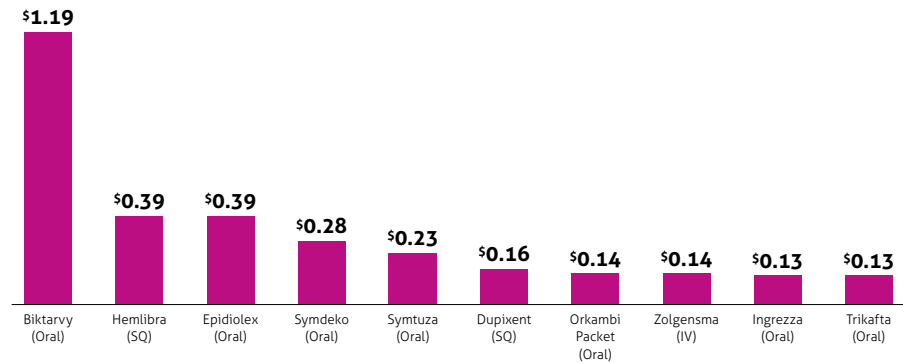


FIGURE 30: 2019 TOP 10 TRADITIONAL DRUGS DECREASING IN IMPACT

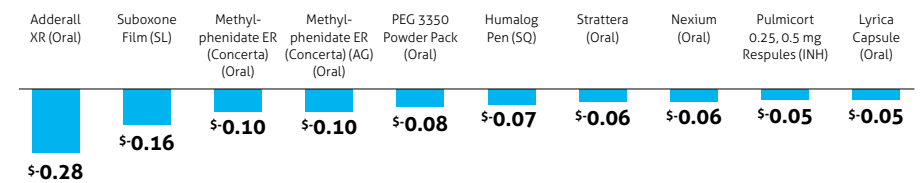
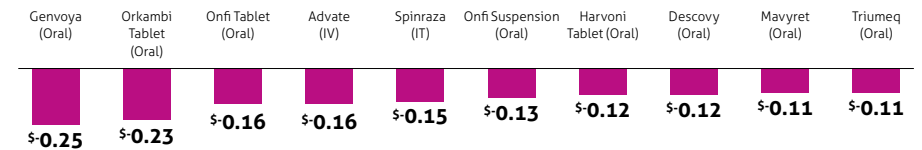
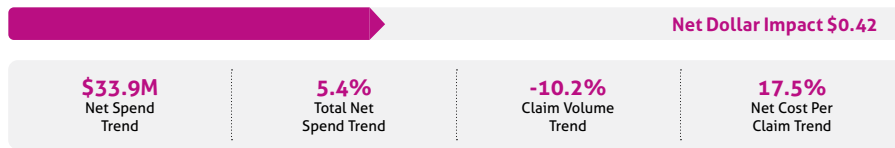


FIGURE 31: 2019 TOP 10 SPECIALTY DRUGS DECREASING IN IMPACT



KEY THERAPEUTIC CLASSES BY NET DOLLAR IMPACT

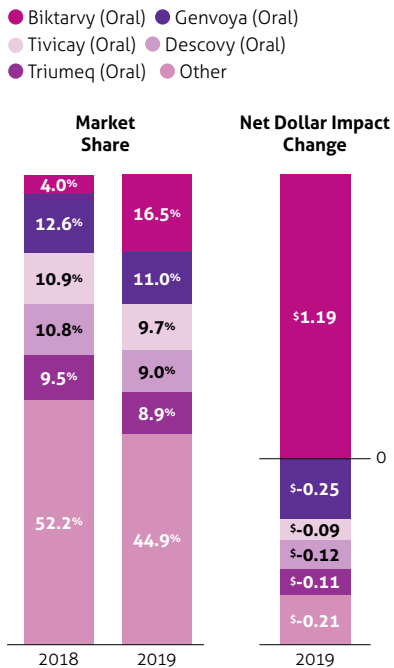
HIV/AIDS



Class Summary

HIV antiretrovirals remained the No. 1 net spend class in 2019. This class was also the No. 1 positive trend driver. With less than two years on the market, Biktarvy has quickly become the No. 1 net spend product in Medicaid. Utilization of Biktarvy drew from other Gilead products such as Genvoya, the No. 1 negative trend driver; Descovy, the No. 7 negative trend driver; products containing tenofovir disoproxil fumarate; and even Triumeq (No. 9) and Tivicay (No. 10).

FIGURE 32: MARKET SHARE AND NET DOLLAR IMPACT



MARKET

Biktarvy was not only the No. 1 net spend product but also the No. 1 positive trend driver. This class contained three of the Top 5 net spend products and was the No. 1 positive trend driver.

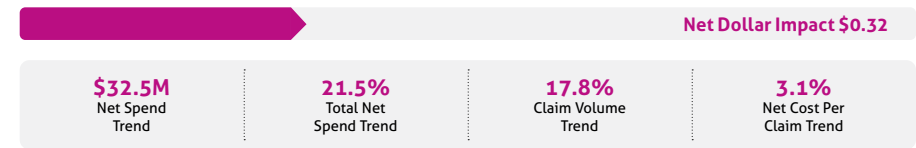
BRAND

Symtuza, the No. 5 positive trend driver, rose from the No. 253 net spend product in 2018 to No. 27 in 2019 despite the inclusion of a protease inhibitor instead of an integrase inhibitor.

CLINICAL

Dual-combination single-tablet regimens containing integrase inhibitors did not pick up significant market share, amounting to just 1% of all utilization in this class in 2019.

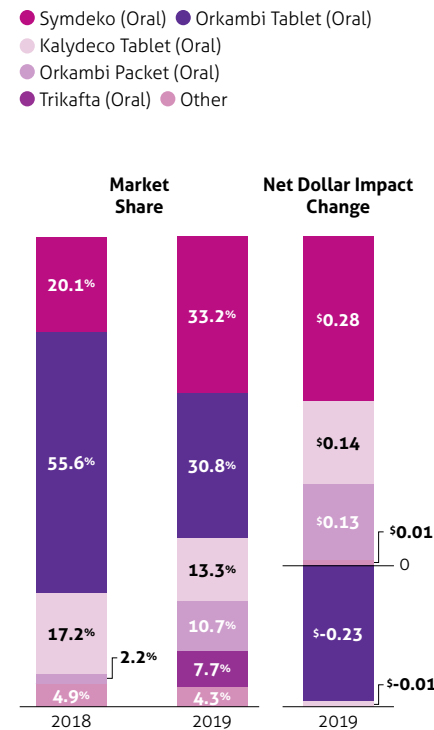
Cystic Fibrosis, Oral



Class Summary

This class was the No. 2 positive trend driver due to an 18% increase in utilization, moving from the No. 7 net spend class in 2018 to No. 6 in 2019.

FIGURE 33: MARKET SHARE AND NET DOLLAR IMPACT



MARKET

Trikafta was introduced to the market in 2019 and became the No. 76 net spend product. This pathway is similar to the other products in this class — utilization and net spend grow quickly.

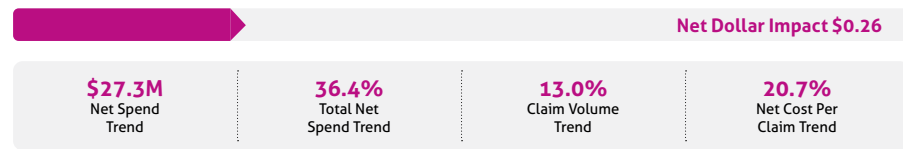
MARKET

Symdeko was the No. 4 positive trend driver, advancing from the No. 23 net spend product in 2018 to No. 7 in 2019. These increases made the class the No. 2 positive trend driver in 2019.

CLINICAL

Most investigational candidates in this class are not beyond phase two in clinical trials; therefore, market competition will not drive down net costs.

Cytokine and CAM Antagonists

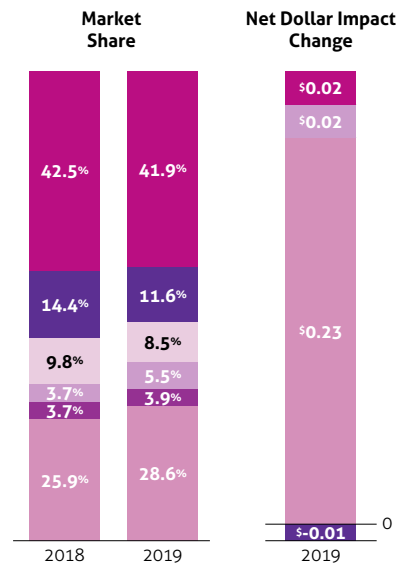


Class Summary

This class rose from the No. 10 net spend class in 2018 to No. 9 in 2019.

FIGURE 34: MARKET SHARE AND NET DOLLAR IMPACT

- Humira Pen Kit (INJ)
- Enbrel Pen (INJ)
- Humira Kit (INJ)
- Cosentyx Pen Injector (SQ)
- Otezla (Oral)
- Other



MARKET

Year-over-year, TNF-alpha inhibitors account for less market share than in the previous year as more products with other mechanisms of action came to the market. In 2019, this market share was 72%.

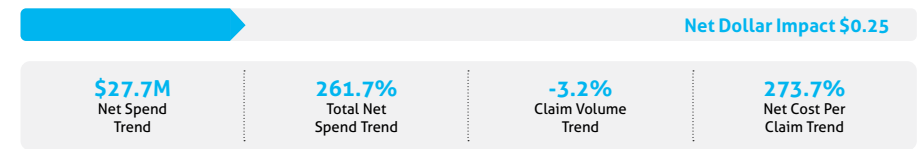
BRAND

Stelara, the No. 16 positive trend driver, rose from the No. 64 net spend product in 2018 to No. 32 in 2019 despite wide non-preferred status. This trend impact came primarily from increased utilization as opposed to an increase in net spend per prescription.

CLINICAL

Utilization of these products grew steadily in 2019, accounting for the class ranking as the No. 3 positive trend driver. Utilization increased 13% while net spend grew by 21%.

Glucocorticoids, Inhaled

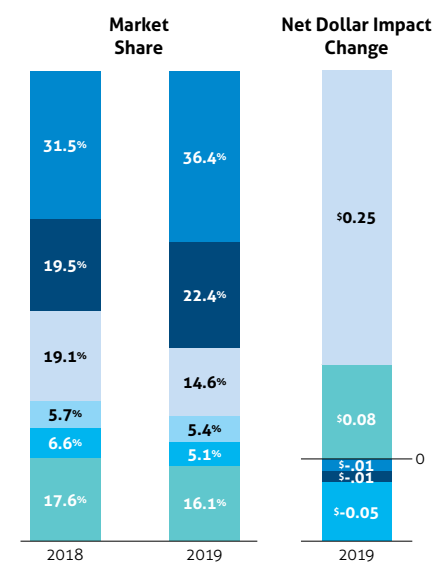


Class Summary

This class jumped from the No. 85 net spend class in 2018 to No. 28 in 2019, largely due to a temporary increase in Advair Diskus net spend. Although patent expirations on inhalers are occurring, federal rebates are still valuable as they keep brands inexpensive relative to new generic equivalents.

FIGURE 35: MARKET SHARE AND NET DOLLAR IMPACT

- Flovent Hfa (INH)
- Symbicort (INH)
- Advair Diskus (INH)
- Dulera (INH)
- Pulmicort 0.25, 0.5 Mg Respules (INH)
- Other



MARKET

This class experienced a 274% increase in net spend in 2019, mostly realized prior to the change in the AMP calculation that determines federal rebate amounts for products. It was the No. 4 positive trend driver.

BRAND

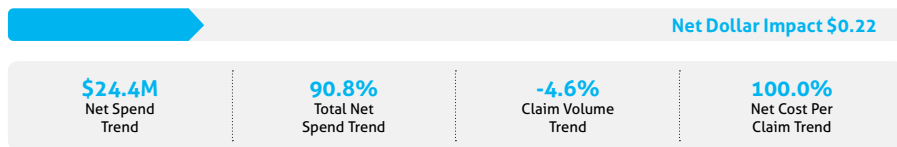
Advair Diskus was the No. 5 positive trend driver and rose to the No. 39 net spend product in 2019. For three quarters, it had the advantage of being under the old AMP calculation method, wherein federal rebates were substantially suppressed.

CLINICAL

The authorized generic for Advair Diskus accounted for only 13% of the utilization between it and the brand equivalent combined in 2019 due to the difference in their net prices. This was due to anticipation of the AMP calculation change.

KEY THERAPEUTIC CLASSES BY NET DOLLAR IMPACT

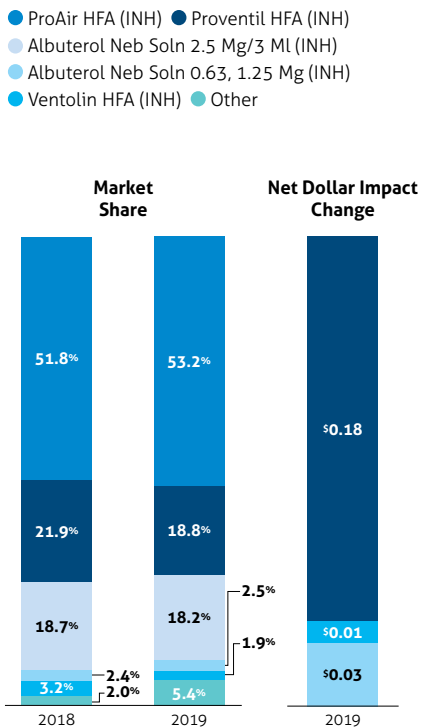
Bronchodilators, Beta-Agonist



Class Summary

As in glucocorticoids, inhaled, this class experienced a brief increase in net spend prior to the implementation of the AMP calculation change that took effect Oct. 1, 2019. These classes are tied together in that fluctuations in federal rebates can have a large financial impact in these high-volume classes.

FIGURE 36: MARKET SHARE AND NET DOLLAR IMPACT



MARKET

This class experienced a 100% increase in net spend in 2019, mostly realized prior to the AMP calculation change that determines federal rebate amounts for products. It rose from the No. 37 net spend class in 2018 to No. 17 in 2019 and was the No. 5 positive trend driver.

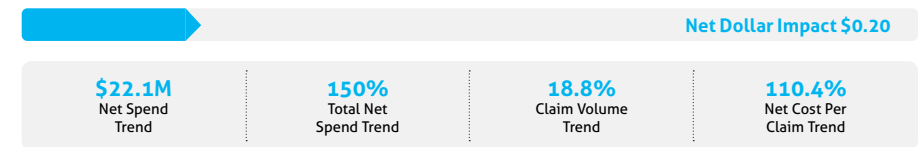
BRAND

The fact that Proventil HFA was the No. 8 positive trend driver illustrates the impact that the AMP calculation change had on net prices in Medicaid. It was the No. 41 net spend product in 2019, up from No. 796.

MARKET

In 2019, all three authorized generics for albuterol HFA brands accounted for less than 5% of all brand and generic albuterol HFA utilization due to the difference in their net prices. This was due to anticipation of the AMP calculation change.

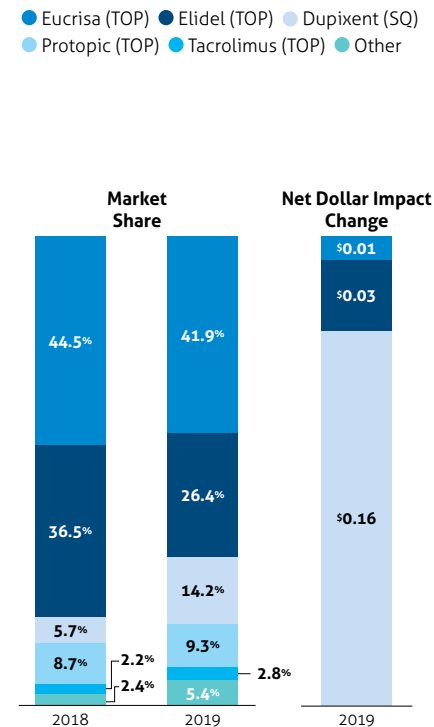
Immunomodulators, Atopic Dermatitis



Class Summary

Plenty of attention is expected for this class in coming years as the market sees injectable and oral options that claim increased efficacy but come with significantly higher net costs.

FIGURE 37: MARKET SHARE AND NET DOLLAR IMPACT



MARKET

This class was the No. 6 positive trend driver and increased its net spend rank from No. 73 in 2018 to No. 29 in 2019; net spend increased 110% with an increase in utilization of 19%.

BRAND

Dupixent was the No. 9 positive trend driver, rising from the No. 136 net spend product of 2018 to No. 33 in 2019. Its utilization increased nearly 200%.

CLINICAL

Eucrisa was the leading market-share product in 2019, with a prescription total equal to that of all calcineurin formulations combined. The net spend for Eucrisa was still well under half that for Dupixent.

Antipsychotics

Net Dollar Impact \$0.18

\$11.9M
Net Spend
Trend

2.8%
Total Net
Spend Trend

-0.9%
Claim Volume
Trend

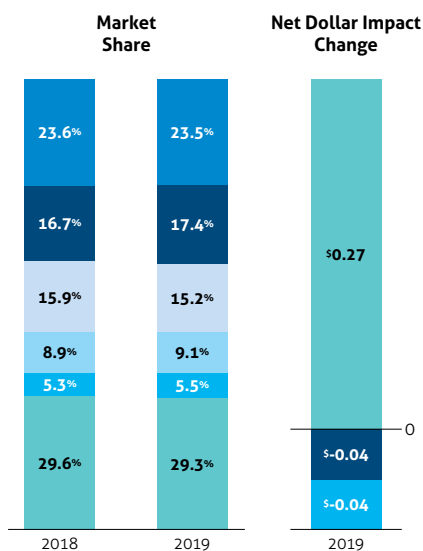
3.7%
Net Cost Per
Claim Trend

Class Summary

Antipsychotics remained the No. 2 net spend class in 2019. Although utilization decreased slightly, the increase in net spend per prescription more than compensated for the increased net spend relative to 2018. This class was the No. 7 positive trend driver on the strength of a 3.7% increase in net spend. In this class, utilization of longtime generics can also be a contributor to trend: The combined utilization of paliperidone and chlorpromazine was responsible for 8% of the class net spend.

FIGURE 38: MARKET SHARE AND NET DOLLAR IMPACT

- Quetiapine (Oral)
- Risperidone (Oral)
- Latuda (Oral)
- Aripiprazole (Oral)
- Olanzapine (Oral)
- Other



BRAND

Vraylar's market share increased from 0.9% in 2018 to 1.6% in 2019 despite largely non-preferred status across states included in the analysis. It also had \$0.19 impact on the drug trend, the largest contributor in the class.

MARKET

Latuda, Rexulti, and Vraylar utilization accounted for 8% of market share but 29% of net spend in the class.

CLINICAL

Utilization of long-acting injectables accounted for only about 4% of market share but 39% of net spend in the class.

Hemophilia Treatment

Net Dollar Impact \$0.16

\$10.5M
Net Spend
Trend

2.7%
Total Net
Spend Trend

7.7%
Claim Volume
Trend

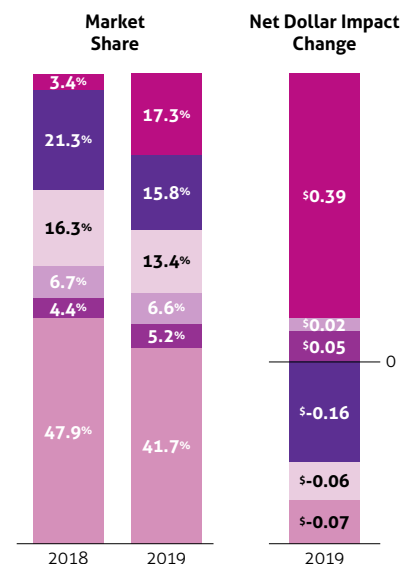
-4.7%
Net Cost Per
Claim Trend

Class Summary

As in 2018, hemophilia was the No. 3 net spend class in 2019. This class was the No. 8 positive trend driver. If the success of Hemlibra is any indication, new non-factor products to the market will continue to push net spend higher in hemophilia treatment.

FIGURE 39: MARKET SHARE AND NET DOLLAR IMPACT

- Hemlibra (SQ)
- Advate (IV)
- Eloctate (IV)
- Adynovate (IV)
- Idelvion (IV)
- Other



MARKET

This class contained three of the top 10 net spend products in 2019: Eloctate (No. 6), Hemlibra (No. 8), and Advate (No. 9). However, Advate was also the No. 5 negative trend driver.

BRAND

Hemlibra, the monoclonal antibody used as prophylaxis, was the No. 8 net spend product in 2019, up from No. 74 in 2018, and the No. 2 positive trend driver.

CLINICAL

Valoctocogene roxaparvovec is under FDA review in 2020 and could be the first gene therapy approved in this class.

KEY THERAPEUTIC CLASSES BY NET DOLLAR IMPACT

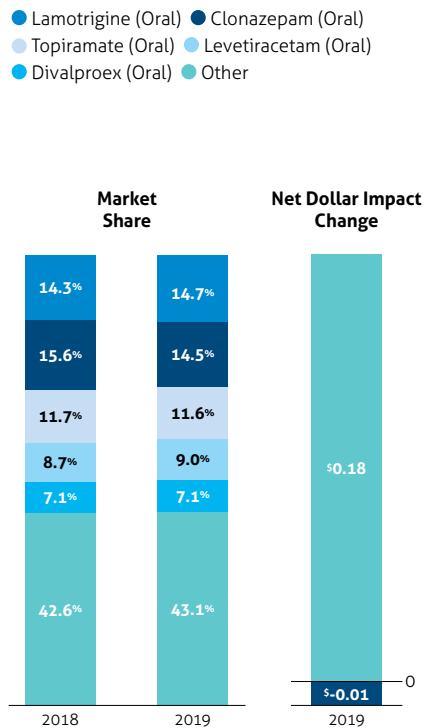
Anticonvulsants



Class Summary

Hidden in anticonvulsants' move from the No. 5 net spend class in 2018 to No. 4 in 2019 was the financial impact of Epidiolex. In its first full year on the market, it rocketed to the No. 16 net cost product. The net spend for anticonvulsants increased 8% from 2018 to 2019.

FIGURE 40: SPEND AND UTILIZATION TRENDS



BRAND

The generics for Onfi formulations provided significant savings — about \$23 million — for states in 2019 as utilization converted to the less expensive versions. Generics for the tablet and suspension were the No. 4 and No. 8 negative trend drivers, respectively.

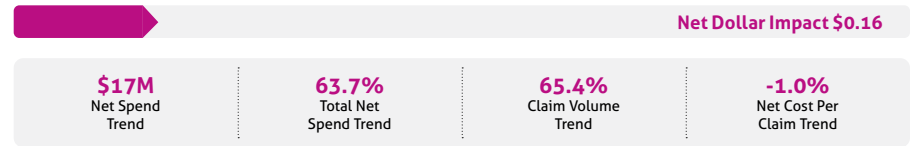
BRAND

States did a good job of keeping utilization in brand Sabril as opposed to its generics. However, the net spend for the generics was collectively about \$16 million (the No. 3 net spend product in this class) despite a prescription count that was half that of the brand utilization.

BRAND

Epidiolex, the No. 3 positive trend driver, fueled the class's No. 9 positive trend driver ranking. Epidiolex was the No. 16 net cost product in 2019.

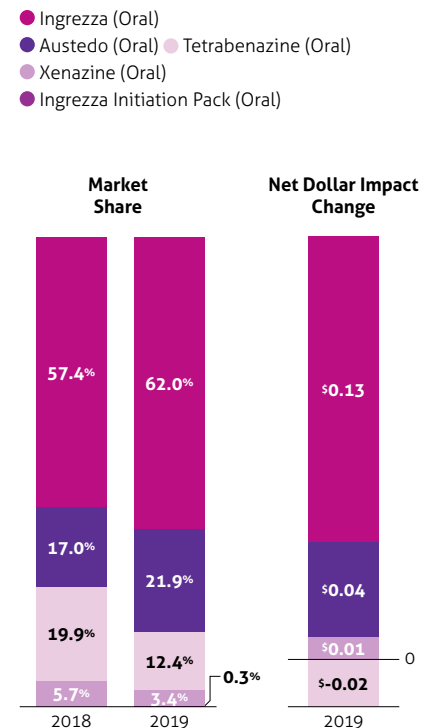
Movement Disorders



Class Summary

Utilization in this class continues to grow exponentially year-over-year, which is reflected in all net spend metrics. These drugs are commonly used to treat the side effects associated with drugs used to treat certain types of mental illness. Given the number of antipsychotic claims dispensed in Medicaid, there is plenty of room for continued growth.

FIGURE 41: SPEND AND UTILIZATION TRENDS



MARKET

A 65% increase in utilization in 2019 led to No. 10 positive trend driver status for this class. It also rose from the No. 38 net spend class in 2018 to No. 23 in 2019.

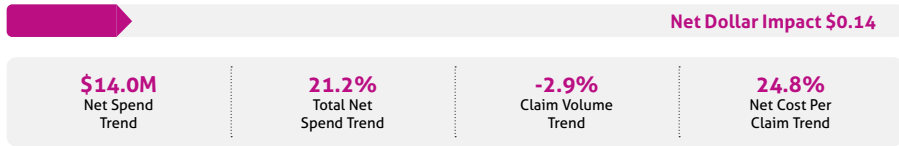
BRAND

Ingrezza was the No. 13 positive trend driver and rose from the No. 54 net spend product in 2018 to No. 26 in 2019 despite wide non-preferred status.

CLINICAL

Tetrabenazine saw no change in utilization between 2018 and 2019. A few states use a step requirement through this generic before accessing brands for the treatment of Huntington's chorea with varying success.

Oncology, Oral — Hematologic

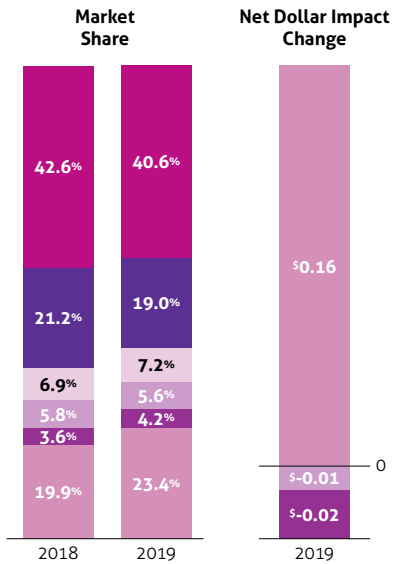


Class Summary

Despite a 3% decrease in utilization, this class experienced a 25% increase in net spend that moved it from the No. 13 net spend class in 2018 to No. 10 in 2019.

FIGURE 42: MARKET SHARE AND NET DOLLAR IMPACT

- Hydroxyurea (Oral)
- Mercaptopurine (Oral)
- Revlimid (Oral)
- Sprycel (Oral)
- Imatinib (Oral)
- Other



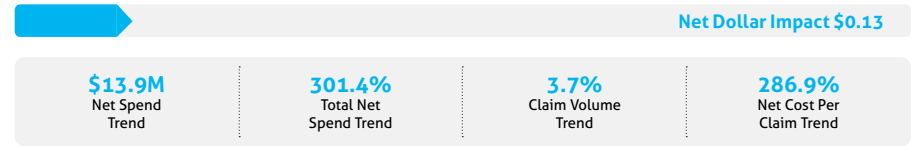
BRAND

Utilization of Gleevec is in the process of transitioning to imatinib as the net price for the generic becomes lower.

BRAND

The transition from Imbruvica capsules to Imbruvica tablets registered a double hit on the positive trend for the class, accounting for two of the Top 10 net spend products.

Anesthetics, Topical

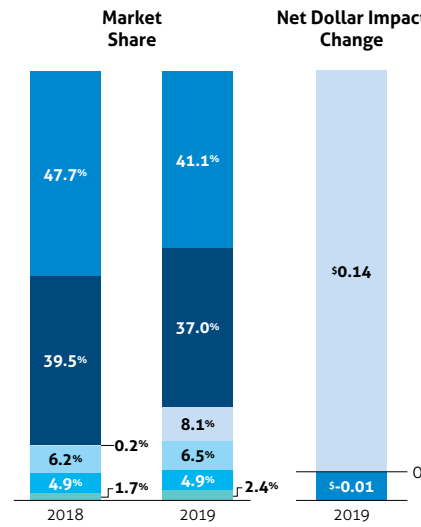


Class Summary

Numerous PDL classes continue to be monitored for net spend impact despite a composition consisting primarily of highly utilized, inexpensive generics. Products such as Lidotral, the No. 13 positive trend driver and No. 65 net spend product in 2019, are easy to spot in this environment.

FIGURE 43: MARKET SHARE AND NET DOLLAR IMPACT

- Lidocaine Hcl Ointment (TOP)
- Lidocaine/Prilocaine Cream (TOP)
- Lidotral (TOP)
- Lidocaine Hcl Cream OTC (TOP)
- Lidocaine Hcl Cream (TOP)
- Other



BRAND

Lidotral utilization accounted for \$15 million in 2019 net spend in a class with a 2018 net spend of less than \$5 million without offering a clear clinical benefit compared to existing products.

KEY THERAPEUTIC CLASSES BY NET DOLLAR IMPACT

Epinephrine, Self-Injected

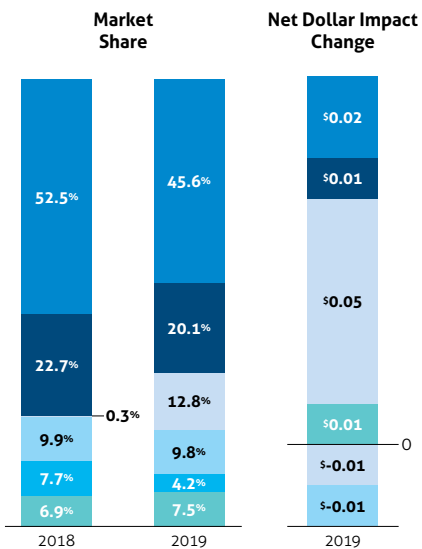


Class Summary

This class remained a source of frustration in 2019. Offering a generic that had a low net cost but was not consistently available led to increased utilization of higher-cost devices and contributed to the class status as the No. 20 positive trend driver in 2019.

FIGURE 44: MARKET SHARE AND NET DOLLAR IMPACT

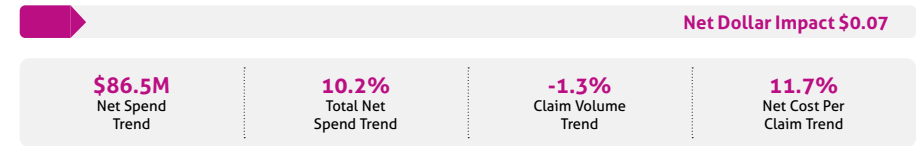
- Epinephrine 0.3 mg (EpiPen) (AG) (INJ)
- Epinephrine 0.15 mg (EpiPen Jr) (AG) (INJ)
- Epinephrine 0.3 mg (EpiPen) (INJ)
- Epinephrine 0.3 mg (Adrenaclick) (AG) (INJ)
- EpiPen (IM) ● Other



MARKET

Utilization of non-authorized generics for EpiPen rose from under 500 to over 20,000 in the span of a year. This utilization accounted for 34% of market share but virtually the entire \$8.4 million in net spend for the class.

Oncology, Oral — Breast

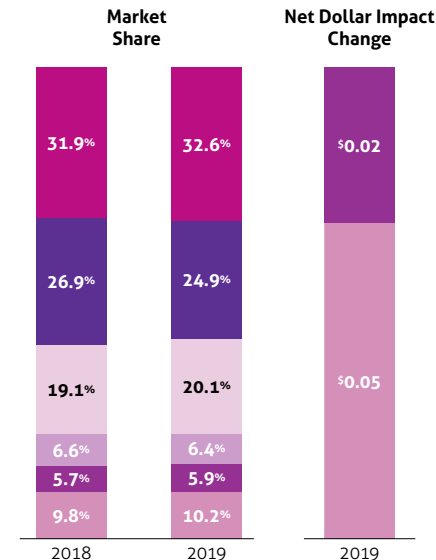


Class Summary

There were six oncologic product divisions in the Top 31 net spend classes reported in 2019; this was the second-highest individual class and the No. 14 positive driver of net spend. It rose from the No. 15 net spend class in 2018 to No. 12 in 2019.

FIGURE 45: MARKET SHARE AND NET DOLLAR IMPACT

- Anastrozole (Oral)
- Tamoxifen Citrate (Oral)
- Letrozole (Oral)
- Exemestane (Oral)
- Ibrance Capsule (Oral)
- Other



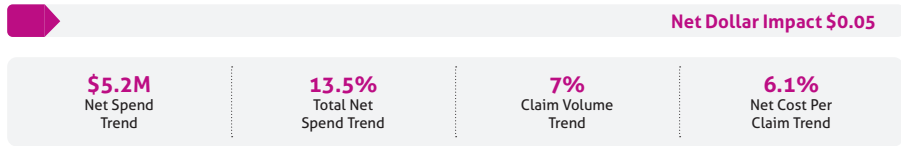
MARKET

Generics comprised nearly 89% of utilization in this class in 2019, representing a reduction of less than 1% from 2018. Overall utilization in the class went down slightly, but net spend rose more than 10%.

BRAND

Ibrance dominated this class with nearly \$50M in net spend as the No. 12 net spend product. However, growth in Verzenio utilization was the most significant driver of trend.

Immune Globulins

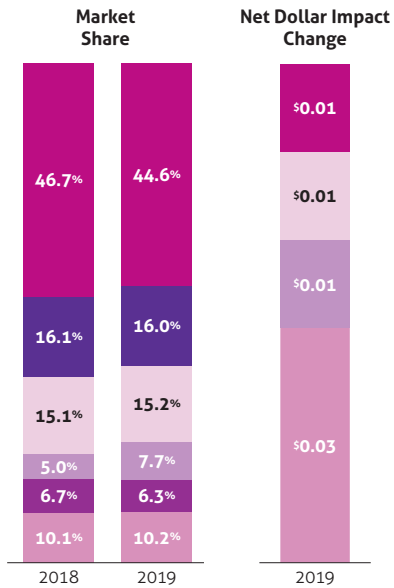


Class Summary

This class was the No. 15 positive trend driver in 2019 and moved up from the No. 26 net spend class in 2018 to No. 22 in 2019.

FIGURE 46: MARKET SHARE AND NET DOLLAR IMPACT

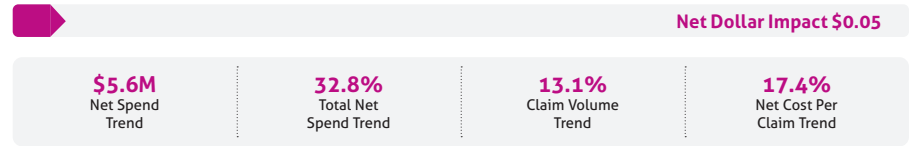
- Hizentra Vial (SQ)
- Gamunex-c (INJ)
- Gammagard Liquid (INJ)
- Privigen (IV)
- Cuvitru (SQ)
- Other



MARKET

There was a slight uptick in utilization in 2019, evenly distributed among available products. Subcutaneously administered products continue to make up just over half the overall utilization.

Immunomodulators, Asthma

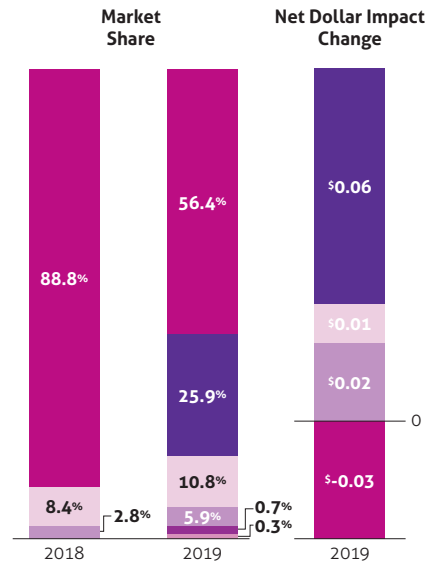


Class Summary

This class experienced modest increases in utilization and net spend, ranking as the No. 46 net spend class in 2019. If Dupixent had been categorized in this class instead of in immunomodulators, atopic dermatitis, this would have been a Top 20 net spend class.

FIGURE 47: MARKET SHARE AND NET DOLLAR IMPACT

- Xolair Vial (SQ)
- Xolair Syringe (SQ)
- Nucala Vial (SQ)
- Fasenra Syringe (SQ)
- Nucala Auto-injector (SQ)
- Other

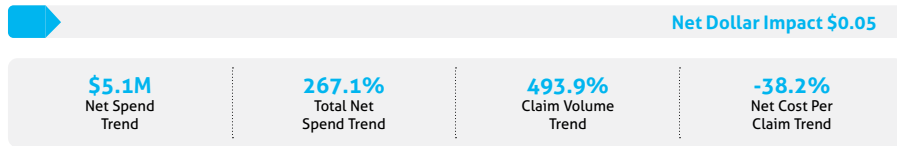


BRAND

Formulation changes contributed significantly to the increased net spend in 2019, led by Xolair's syringe — the No. 22 positive trend driver.

KEY THERAPEUTIC CLASSES BY NET DOLLAR IMPACT

Antimigraine Agents, Other

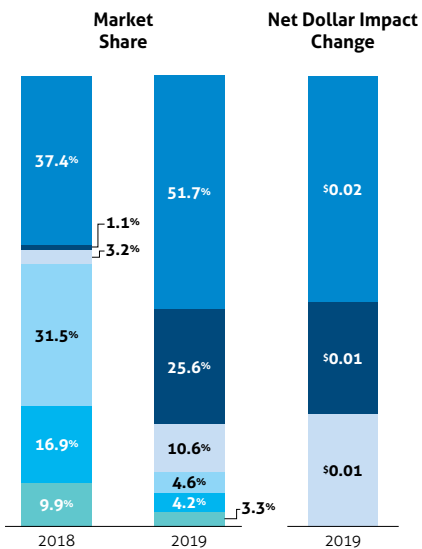


Class Summary

As expected, prophylactic calcitonin gene-related peptide (CGRP) inhibitors caused a significant increase in this class utilization and net spend in their first full year on the market. Still, this class did not break into the Top 100 classes in net spend due to substantial discounts available to Medicaid. It was the No. 18 positive driver of trend.

FIGURE 48: MARKET SHARE AND NET DOLLAR IMPACT

- Aimovig (SQ) ● Emgality Pen (SQ)
- Ajoovy (SQ) ● Cambia (Oral)
- Dihydroergotamine Mesylate (Nasal) ● Other



CLINICAL

New non-triptan treatment options expected to launch in 2020 will keep a focus on the impact of this class.

PAH Agents, Oral and Inhaled

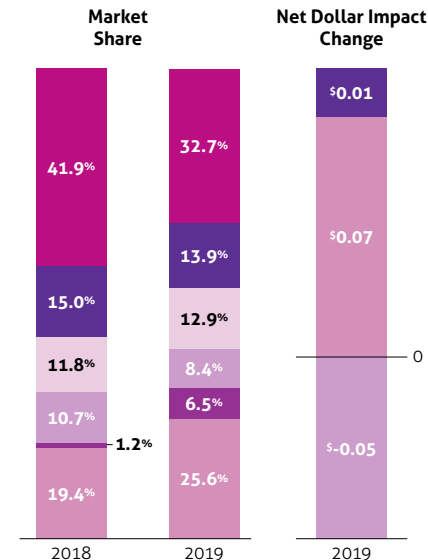


Class Summary

This class stayed at No. 18 in net spend in 2019 but was the No. 19 positive driver of trend at the same time. This was possible due to a 21% increase in net spend owing largely to a new generic for Revatio suspension. However, there were several new generics in this class (Letairis and Tracleer) that also contributed to a lesser extent.

FIGURE 49: MARKET SHARE AND NET DOLLAR IMPACT

- Sildenafil Tablet (Oral) ● Adcirca (Oral)
- Letairis (Oral) ● Revatio Suspension (Oral)
- Tadalafil (Adcirca) (Oral) ● Other



MARKET

The use of Revatio suspension accounted for about 75% of utilization between the brand and its generic but less than 50% of the net spend between the two. Medicaid programs would have spent less money by preferring this brand over its generic equivalent.

COPD Agents

Net Dollar Impact \$-0.04

\$-4.4M
Net Spend
Trend

-50.5%
Total Net
Spend Trend

-1.1%
Claim Volume
Trend

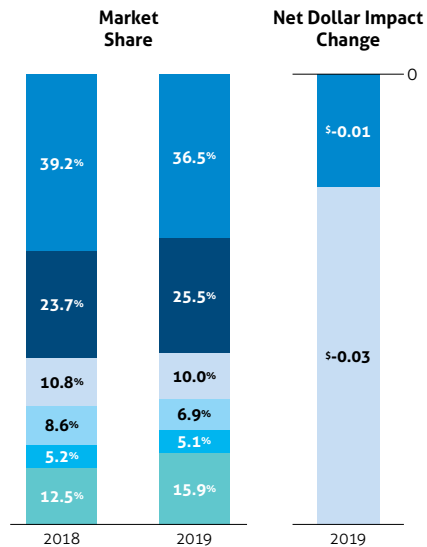
-50.0%
Net Cost Per
Claim Trend

Class Summary

In a year when negative trend drivers were less impactful than their counterparts, COPD agents had some significance. The No. 11 negative trend driver, this class experienced a decline in net spend due to increased rebate totals.

FIGURE 50: MARKET SHARE AND NET DOLLAR IMPACT

- Spiriva (INH)
- Ipratropium/Albuterol (INH)
- Combivent Respimat (INH)
- Ipratropium Nebulizer (INH)
- Atrovent HFA (INH)
- Other



BRAND

The impact of Combivent Respimat's lower net cost per prescription had the greatest financial impact in the class, but the product benefited from additional states listing it as preferred.

Neuropathic Pain

Net Dollar Impact \$-0.04

\$-5.9M
Net Spend
Trend

-8.2%
Total Net
Spend Trend

-4.5%
Claim Volume
Trend

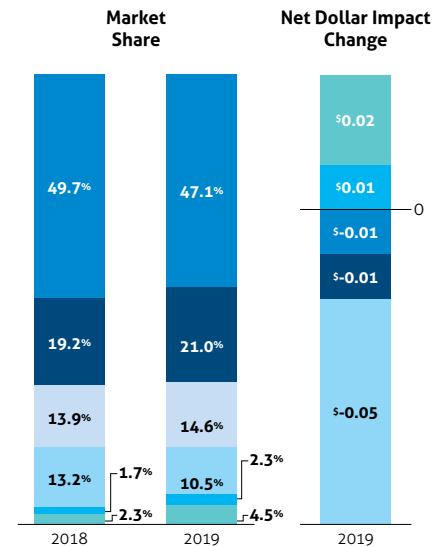
-3.9%
Net Cost Per
Claim Trend

Class Summary

Neuropathic pain fell from the No. 11 net spend class in 2018 to No. 14 in 2019 — the No. 10 negative class driver of net spend.

FIGURE 51: MARKET SHARE AND NET DOLLAR IMPACT

- Gabapentin Capsule (Oral)
- Duloxetine (Cymbalta) (Oral)
- Gabapentin Tablet (Oral)
- Lyrica Capsule (Oral)
- Lidocaine (TOP)
- Other



MARKET

Although Lyrica brand utilization decreased slightly with the launch of its generic, it was actually its declining net spend that contributed most to the class's fall in net spend ranking.

KEY THERAPEUTIC CLASSES BY NET DOLLAR IMPACT

Analgesics, Narcotics Long

Net Dollar Impact \$-0.05

\$-5.9M
Net Spend
Trend

-32.4%
Total Net
Spend Trend

-15.3%
Claim Volume
Trend

-20.1%
Net Cost Per
Claim Trend

Class Summary

This class served as a negative trend driver based on the 15.3% reduction in prescriptions and the 20.1% reduction in net spend.

Hypoglycemics, Insulin

Net Dollar Impact \$-0.05

\$-5.3M
Net Spend
Trend

30.8%
Total Net
Spend Trend

-0.3%
Claim Volume
Trend

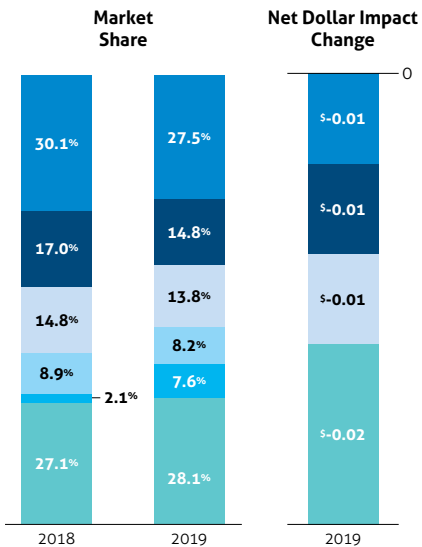
31.2%
Net Cost Per
Claim Trend

Class Summary

This class remains at the bottom of the rankings according to net spend yet continues to decline in overall financial impact to Medicaid, ranking as the No. 6 negative driver of trend in 2019.

FIGURE 52: MARKET SHARE AND NET DOLLAR IMPACT

- Morphine ER Tablet (Oral)
- Fentanyl (TD)
- Methadone Tablet (Oral)
- Methadone (Oral)
- Oxycontin (Oral)
- Other

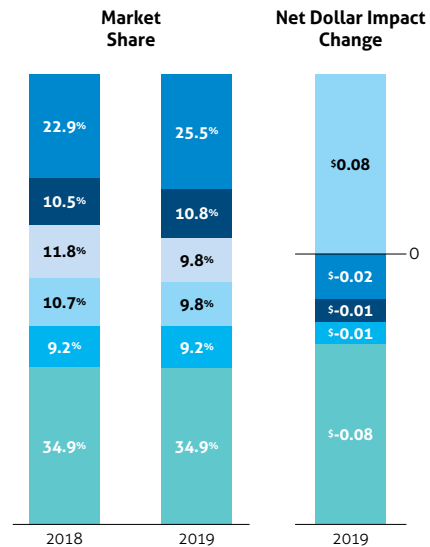


CLINICAL

The continued trend away from opioid analgesic utilization resulted in No. 7 negative class trend driver status for this class. Utilization fell 15% in 2019 after a double-digit decrease in 2018, as well.

FIGURE 53: MARKET SHARE AND NET DOLLAR IMPACT

- Lantus Solostar Pen (SQ)
- Lantus Vial (SQ)
- Levemir Pens (SQ)
- Novolog Pen (SQ)
- Humalog Vial (SQ)
- Other



MARKET

As expected, authorized generics and biosimilars again did not make an impact in utilization in this class due to their high relative net cost compared to reference brands. Less than 2% of utilization was in these product types.

Multiple Sclerosis Agents

Net Dollar Impact \$-0.06

\$-7.8M
Net Spend
Trend

-14.9%
Total Net
Spend Trend

-12.6%
Claim Volume
Trend

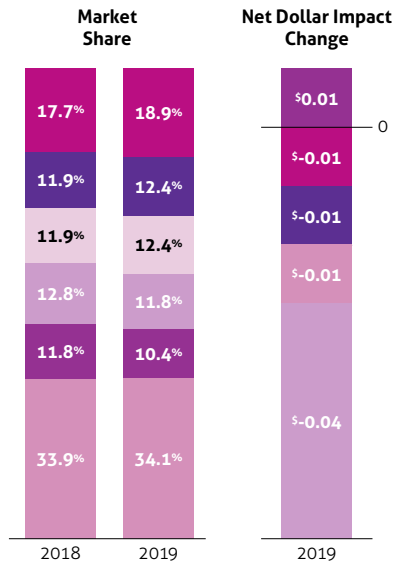
-2.5%
Net Cost Per
Claim Trend

Class Summary

A 13% reduction in utilization was primarily responsible for this class' status as the No. 5 negative trend driver in 2019. There were slight increases in oral therapies and small declines in injectable ones.

FIGURE 54: MARKET SHARE AND NET DOLLAR IMPACT

- Tecfidera (Oral)
- Gilenya (Oral)
- Aubagio (Oral)
- Copaxone 40 mg/ml (SQ)
- Copaxone 20 mg/ml (SQ)
- Other



BRAND

Increased rebate obligation for Copaxone 40 mg/ml injection was the most significant net price change in this class. Even so, this only rated as the No. 43 negative trend driver.

CLINICAL

New product launches for Mavenclad and Mayzent did not make an impact in a market with sufficient oral options for treatment.

Analgesics, Narcotics Short

Net Dollar Impact \$-0.10

\$-12.0M
Net Spend
Trend

-18.9%
Total Net
Spend Trend

-17.8%
Claim Volume
Trend

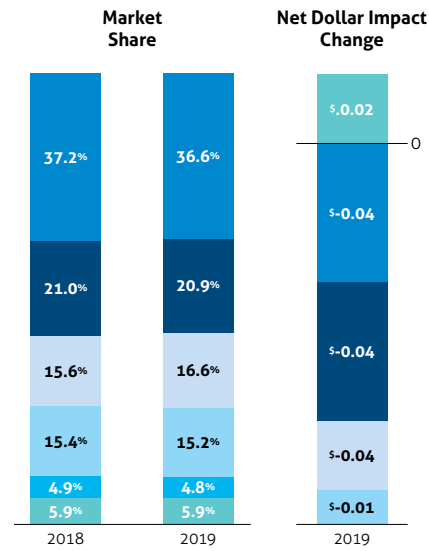
-1.3%
Net Cost Per
Claim Trend

Class Summary

This class had the third-most negative trend due to a 17.8% decrease in utilization and an 18.9% decrease in net spend.

FIGURE 55: MARKET SHARE AND NET DOLLAR IMPACT

- Hydrocodone/APAP (Oral)
- Oxycodone/APAP (Oral)
- Oxycodone (Oral)
- Tramadol (Oral)
- APAP/Codeine (Oral)
- Other



CLINICAL

The continued trend away from opioid analgesic utilization resulted in No. 3 negative class trend driver status for this class. Utilization fell 18% in 2019 after a double-digit decrease in 2018, as well.

KEY THERAPEUTIC CLASSES BY NET DOLLAR IMPACT

Hepatitis C Agents

Net Dollar Impact \$-0.19

\$-24.7M
Net Spend
Trend

-14.8%
Total Net
Spend Trend

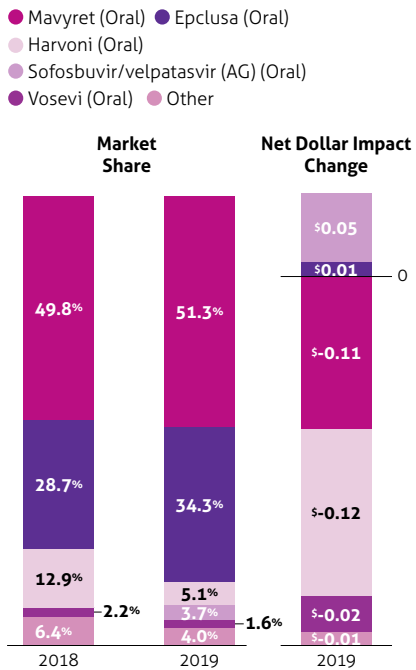
-1.8%
Claim Volume
Trend

-13.2%
Net Cost Per
Claim Trend

Class Summary

This class dropped in the net spend rankings from No. 6 in 2018 to No. 7 in 2019. Utilization of salvage treatments remained low, speaking to the high real-world effectiveness of the oral treatment options.

FIGURE 56: MARKET SHARE AND NET DOLLAR IMPACT



BRAND

The authorized generic for Epclusa (and, to a lesser extent, Harvoni) ranked a modest No. 207 in 2019. The manufacturer launched its own authorized generic as a mechanism to decrease reimbursement costs. However, net prices in Medicaid were such that the appeal of the authorized generic did not extend throughout this market.

MARKET

Mavyret was the No. 11 negative trend driver and its net spend rank fell from No. 2 in 2018 to No. 3 in 2019. Utilization was relatively unchanged.

MARKET

Utilization did not change appreciably year-over-year; a lower net spend (-13%) designated this class the No. 2 negative trend driver.

Stimulants and Related Agents

Net Dollar Impact \$-0.41

\$-51.2M
Net Spend
Trend

-16.5%
Total Net
Spend Trend

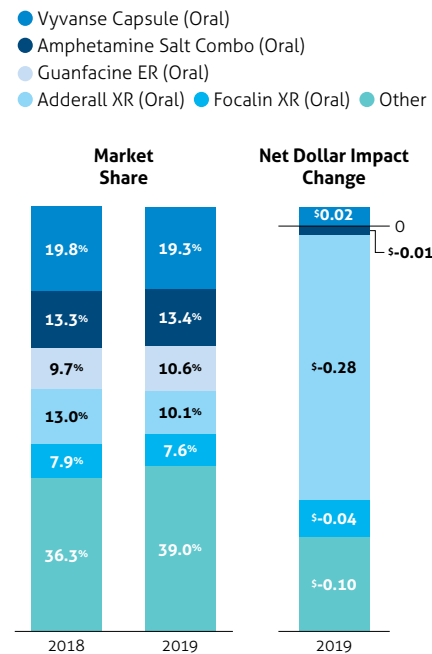
-2.8%
Claim Volume
Trend

-14.1%
Net Cost Per
Claim Trend

Class Summary

Despite its status as the No. 1 negative trend driver among PDL classes, stimulants and related agents was still the No. 5 net spend class in 2019. Net spend fell over 14% between 2018 and 2019, largely due to utilization movement between brand and generic equivalents. As discussed on page 4, federal rebate values were significantly changed by the removal of authorized generics from the blended AMP calculation upon which federal rebates are based. Increases in Adderall XR and Concerta federal rebates following the revised calculation resulted in net prices to states that were far more attractive than that of their generic equivalents.

FIGURE 57: MARKET SHARE AND NET DOLLAR IMPACT



BRAND

Concerta was the No. 15 positive trend driver and rose to the No. 110 net spend product in 2019, up from No. 7,300 in 2018. Its generics, authorized and non-authorized, were the No. 13 and No. 14 negative trend drivers, respectively, and together would have been the No. 4 negative trend driver.

BRAND

Adderall XR was the No. 1 negative trend driver and fell from the No. 13 net spend product in 2018 to No. 56 in 2019. The class was also the No. 1 negative trend driver, as net spend fell 14% in 2019.

MARKET

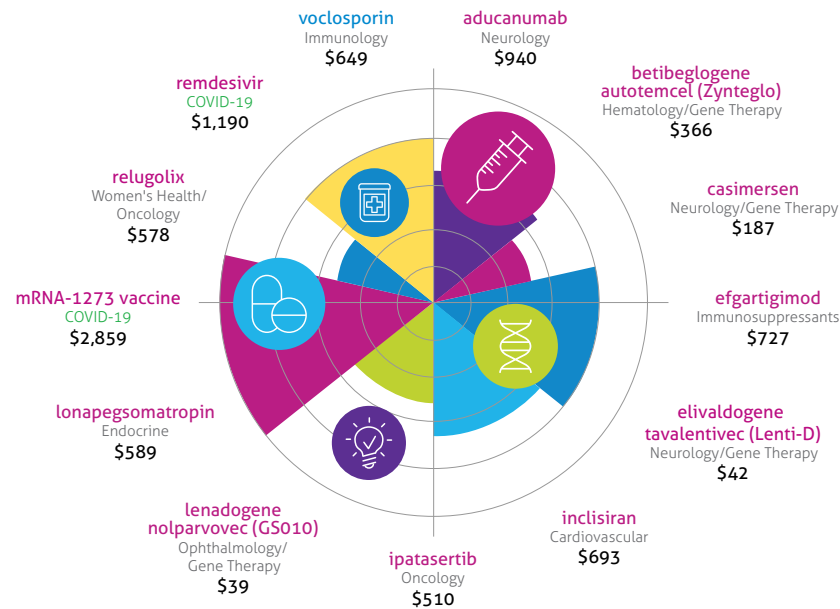
The impact of the AMP calculation change, effective Oct. 1, 2019, will continue to be felt throughout 2020 and beyond for some key products, leading to increased market share shifts from generics to their brand equivalents.

PIPELINE AND FORECASTING

Keep on Your Radar

Notable agents that are further from approval have been identified in **Figure 58**.² These products have the potential for significant clinical and financial impact. Their development status is being tracked on the MRx Pipeline radar. These pipeline products, their respective class or proposed indication, and an estimated financial forecast for the year 2024 are displayed. The financials are projected total annual U.S. sales, reported in millions.

FIGURE 58: KEEP ON YOUR RADAR²



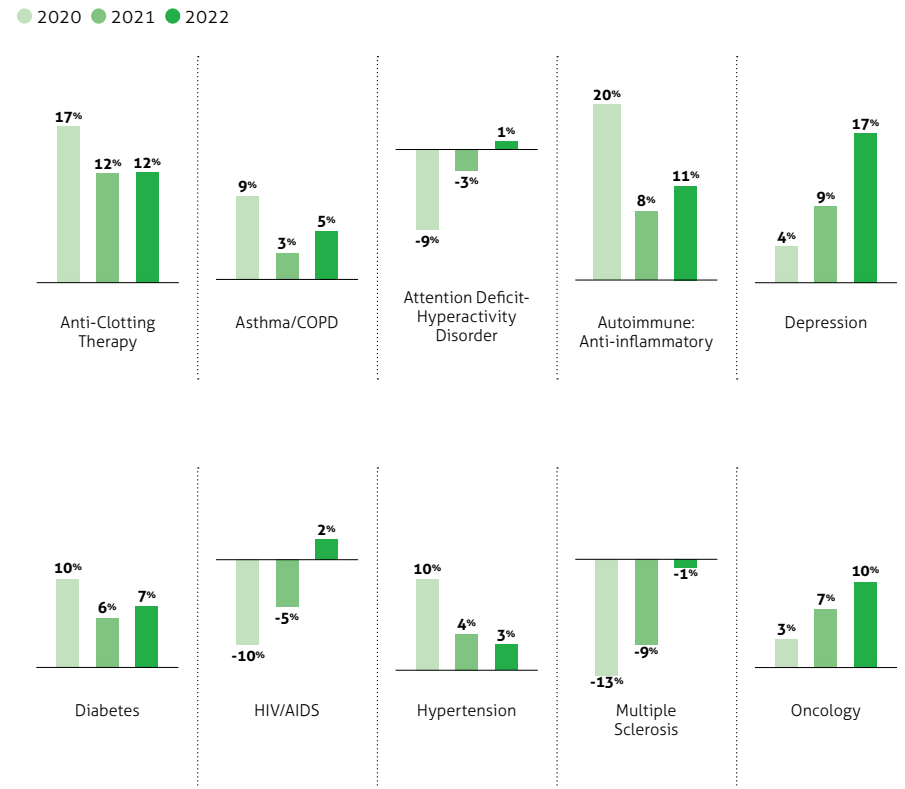
For more detailed information on the pipeline, please see the latest MRx Pipeline Report on our website.³

★ Specialty drug names appear in magenta throughout the publication.

Key Conditions Forecast

With a steady increase in the pipeline, many key conditions, notably those with generic introductions or specialized management strategies, such as pain conditions, hepatitis C, and MS, will see steady annual increases in trend over the next three years (see figure 59).

FIGURE 59: KEY CONDITIONS FORECAST



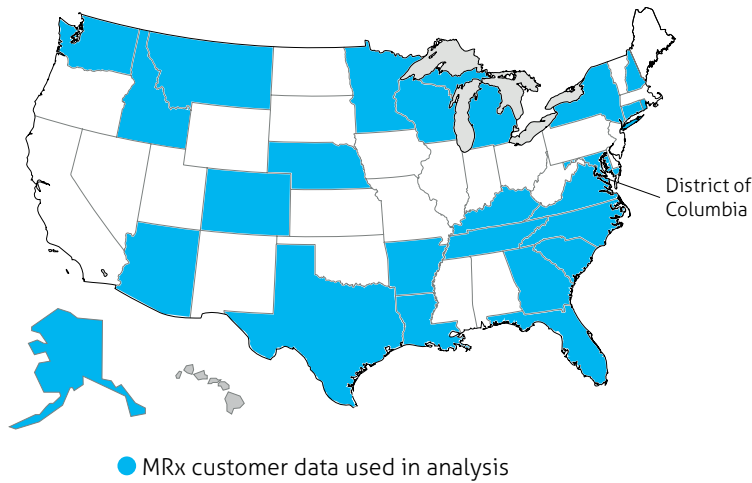
² This unique watch list displays products with the potential for significant clinical and financial impact. These pipeline products, their respective class or proposed indication, and an estimated financial forecast for the year 2024 are displayed. The financials are projected total annual U.S. sales, reported in millions.

³ MRx Pipeline Report. https://issuu.com/magellanrx/docs/mrx_pipeline_jul_2020_mrx1119_0720?fr=sNmViZjE3MzMOOTQ accessed July 2020.

METHODOLOGY

The Magellan Rx Medicaid Trend Report focused exclusively on Medicaid FFS drug spend and does not include managed care organization (MCO) utilization. It provides a comprehensive year-over-year analysis of Medicaid FFS pharmacy claims data on a cost-per-claim basis.

- » The report trends are based on gross and net cost per claim and compare 2018 calendar year data to 2019 calendar year data.
- » The data set used in this evaluation contains more than 111 million claims with a gross cost of \$13 billion and a net cost of \$5.3 billion.
- » Data was obtained from 26 Medicaid FFS clients across the country from which two years of complete FFS data are available. Claims data used in this report is publicly available on the CMS website: <https://www.medicaid.gov/medicaid/prescription-drugs/state-drug-utilization-data/index.html>.
- » As in commercial plans, traditional and specialty drug trends are not immune to manufacturer price actions at the gross cost level; however, the increase at the net cost level is somewhat mitigated by supplemental rebates (where applicable) and the CPI-U penalty component of the federal rebate.
- » To achieve the highest level of accuracy for the Medicaid FFS space, this report again incorporates the CMS federal rebate data for both 2018 and 2019. Federal rebate data at the drug level is confidential and protected by federal law under the Social Security Act at 42 U.S.C. 1396r-8 (b)(3)(d). Therefore, this report does not disclose net cost pricing information on a per-drug basis.



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GLOSSARY

ACA.....	Affordable Care Act	INH.....	inhaled/inhalation
AG.....	authorized generic	INJ.....	injectable
AMP.....	average manufacturer price	IV.....	intravenous
ASP.....	average sales price	LOB.....	line of business
AWP.....	average wholesale price	MACPAC.....	Medicaid and CHIP Payment and Access Commission
CGRP.....	calcitonin gene-related peptide	MCO.....	managed care organization
CMS.....	Centers for Medicare & Medicaid Services	P&T.....	pharmacy and therapeutics
COPD.....	chronic obstructive pulmonary disease	PDL.....	Preferred Drug List
CPI-U.....	Consumer Price Index for All Urban Consumers	ROA.....	rebate offset amount
DUR.....	drug utilization review	SOS.....	site of service
ER.....	extended release	SQ.....	subcutaneous
FDA.....	U.S. Food and Drug Administration	TD.....	transdermal
FFS.....	fee-for-service	TOP.....	topical
FMAP.....	federal medical assistance percentage	WAC.....	wholesale acquisition cost
GDR.....	generic dispensing rate	XR.....	extended release
HHS.....	U.S. Department of Health and Human Services		
IM.....	intramuscular		

