MAGELLAN RX MANAGEMENT

MEDICAL PHARMACY TREND REPORT™

2020 ELEVENTH EDITION

TABLE OF CONTENTS

Editorial Staff

STEPHANIE STEVENS, MPH
Director, Marketing, Customer Experience and Publications

MISTY GREFICZ
Director, Marketing

Contributors

MOSTAFA KAMAL
CEO, Magellan Rx Management

STEVE CUTTS, PHARM.D.
Senior Vice President and General Manager, Specialty

KRISTEN REIMERS, R.PH.
Senior Vice President, Specialty Clinical Solutions

MICHAEL POLSON, PHARM.D.
Vice President, Clinical Outcomes Analytics

MICHELLE BOOTH, PHARM.D.
Director, Specialty Clinical Solutions

REBECCA BORGERT, PHARM.D., BCOP
Senior Director, Clinical Strategy and Innovation, Oncology

KAMERON KELLY, PHARM.D.
Manager, Specialty Clinical Solutions

JACOB LARUE, PHARM.D., CPHQ
Director, Specialty Clinical Solutions

YUQIAN LIU, PHARM.D.
Director, Specialty Clinical Solutions

HAITA MAKANJI, PHARM.D.
Vice President, Specialty Clinical Strategy and Innovation

JIM REBELLO, PHARM.D.
Vice President, Specialty Strategy

SNEHA SHARMA, PHARM.D.
Medical Pharmacy Clinical Liaison

LAURA WALTERS, R.PH.
Director, Specialty Clinical Solutions

AMY WARE, PHARM.D.
Director, Specialty Clinical Solutions

Payer Advisory Board

BECKY DEMARCO, PHARM.D.
Medical Drug Strategy Specialist
Medical Mutual of Ohio

PATRICK GILL, R.PH.
Director of Pharmacy, Commercial
Horizon BlueCross BlueShield of New Jersey

SCOTT MCCLELLAND, PHARM.D.
Vice President of Commercial and Specialty Pharmacy
Florida Blue

CARLY RODRIGUEZ, PHARM.D., FAMCP
Pharmacy Director, Clinical Innovation
Moda Health

GARY TERESO, PHARM.D.
Director of Pharmacy and Case Management Services
Health New England

© 2021 Magellan Rx Management LLC. Magellan Rx Management 2020 Medical Pharmacy Trend Report™ is published in conjunction with D Custom. All rights reserved. All trademarks are the property of their respective owners. The content — including text, graphics, images, and information obtained from third parties, licensors, and other material ("content") — is for informational purposes only. The content is not intended to be a substitute for professional medical advice, diagnosis, or treatment. Figures may be reprinted with the following citation: "Magellan Rx Management Medical Pharmacy Trend Report™, 11th Edition, © 2021. Used with permission."

INTRODUCTION

Magellan Rx Management is pleased to present the 11th edition of our Medical Pharmacy Trend Report™, the only detailed source analyzing medical benefit drug claims and primary data for trends, benchmarking, and current medical benefit drug management.

Throughout 11 years of reporting on the medical benefit, costs and PMPM trends have continued to grow. Since 2009, commercial PMPM has nearly doubled, while the cost of the top commercial drug, Remicade, has grown two and a half times.

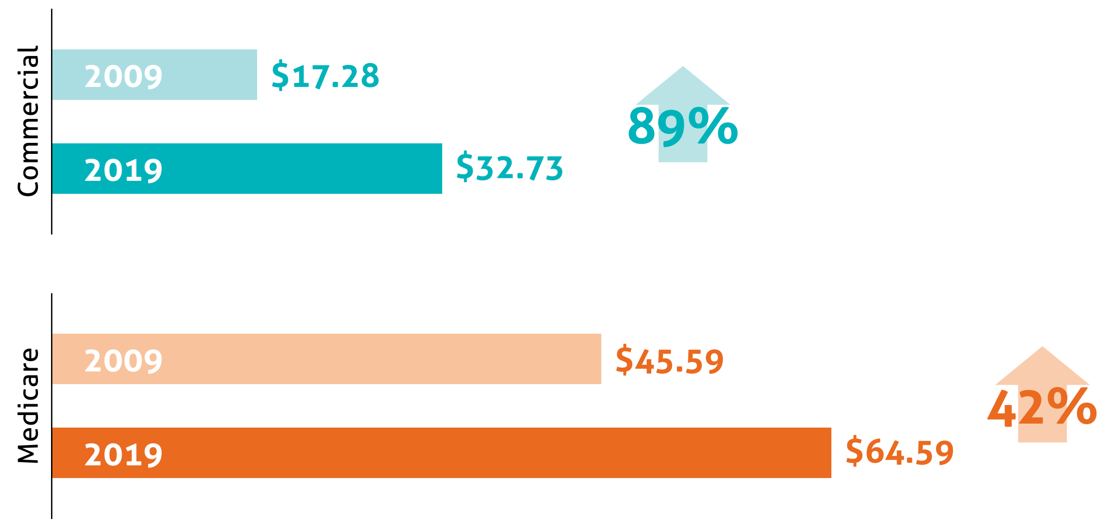
Growth of provider-administered drugs on the medical benefit is not slowing, as highlighted by the approval of a dozen biological drugs in 2019 and a robust oncology pipeline. These trends continue to be a challenge for all stakeholders involved in the care of patients with complex specialty conditions, making it vital for them to stay current and informed on medical benefit trends and forward-thinking solutions for managing provider-administered drugs.

As we celebrate 11 years of insights from the Medical Pharmacy Trend Report, we know you will glean valuable insights into the dynamic medical benefit. This report is one of the ways Magellan Rx keeps you updated on the latest trends for drugs on the medical benefit and continues to be a trusted partner for all of your pharmacy needs.

You can download the full report at **www.magellanrx.com/trendreport**.

A Decade of Trends

PMPM Growth



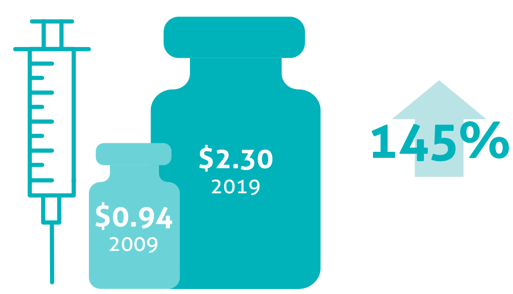
Top Commercial Trends

Top Category: Oncology

PMPM

Top Drug: Remicade

PMPM



2020 REPORT METHODOLOGY AND DEMOGRAPHICS

The methodology for the 11th edition of the Magellan Rx Management Medical Pharmacy Trend Report™ was developed with original guidance from our payer advisory board, as well as reader feedback on our previous trend reports.

This report includes a combination of primary and secondary research methodologies to deliver a comprehensive view of payer perceptions and health plan actions related to provider-administered infused or injected drugs paid under the medical benefit, also referred to as medical benefit drugs. These medical benefit drugs are commonly used to treat diseases like cancer, autoimmune disorders, immunodeficiencies, and rare diseases.

Payer Survey§

RESPONDENT SAMPLE

41
PAYERS (25 WITH MEDICARE LIVES)

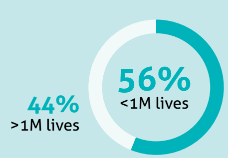
168M
MEDICAL PHARMACY LIVES

66%
PHARMACY DIRECTORS

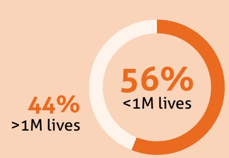
34%
MEDICAL DIRECTORS, CEOs, NETWORK DIRECTORS

RESPONDENT PLAN SIZE

COMMERCIAL



MEDICARE



§Medicaid not included in Payer Survey

Health Plan Claims Data

Medical benefit drug utilization and trend data were collected through secondary analyses of commercial, Medicare, and Medicaid health plan medical paid claims data for the most recent calendar years. Claims data were analyzed for medical pharmacy utilization across **988** HCPCS codes and several outpatient sites of service. Year over year, shifts in claims data information have occurred due to adjustments. Vaccines and radiopharmaceuticals were excluded from the analyses. Administration codes were analyzed separately in a single analysis; their utilization was not included in any other analysis. Most analyses compared calendar years 2018 and 2019. In some cases, the past five years were analyzed to show a longer period of year-over-year spend and trend.

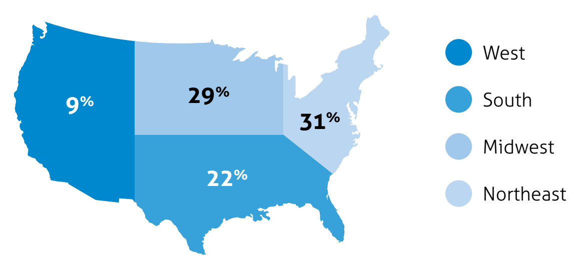
FIGURE 1: MEDICAL BENEFIT DRUG EXAMPLES FOR THERAPEUTIC CLASSES IN PAYER SURVEY

Drug Category	Example Drugs#
Antihemophilic Factors	Advate, Xyntha, Recombinate
Asthma	Nucala, Xolair, Cinqair, Fasenra
Biologic Drugs for Autoimmune Disorders	Remicade, Orencia, Cimzia, Actemra, Simponi ARIA, Stelara, Entyvio
Botulinum Toxins	Botox, Dysport, Myobloc, Xeomin
Immune Globulin	IV: Gamunex, Gammagard; Subcutaneous (SQ): Hizentra, HyQvia
Multiple Sclerosis (Infusion Only)	Tysabri, Lemtrada, Ocrevus
Oncology	Avastin, Cyramza, Vectibix, Erbitux, Herceptin, Rituxan
Oncology Immunotherapy	Opdivo, Keytruda, Tecentriq, Imfinzi, Bavencio
Oncology Support	CSFs, ESAs, antiemetics, folinic acids, octreotide/Sandostatin/LAR
Ophthalmic Injections	Lucentis, Eylea, Macugen, bevacizumab
Viscosupplementation	Orthovisc, Synvisc, Supartz, Hyalgan, Euflexxa, Gel-One, Monovisc

#Not an inclusive list

FIGURE 2: REGIONAL PLANS: GEOGRAPHIC DISPERSION OF LIVES

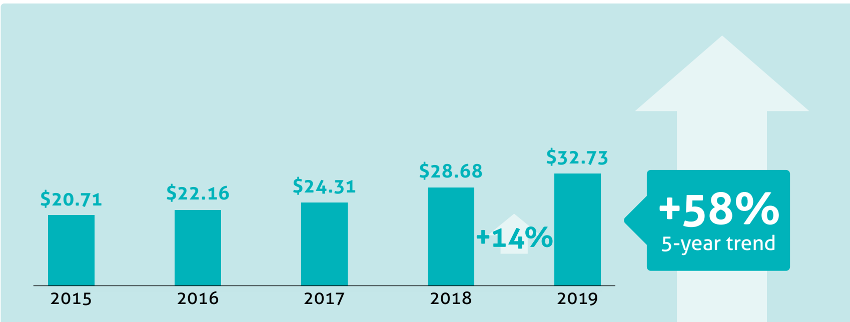
(n=41; 167.8 million covered lives) Multiple regions=10%



EXECUTIVE SUMMARY

COMMERCIAL

PMPM TREND 2015-2019



ANNUAL COST PER PATIENT

Top 10 Drugs

13%

$39,724
2018

$44,751
2019

2019 DRUG SPEND

SPECIALTY

30% of patients

96% of spend

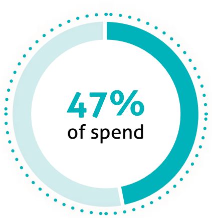
NON-SPECIALTY

70% of patients

4% of spend

2019 CATEGORY TRENDS

Oncology and oncology support accounted for:



2019 TOP DRUG TRENDS

Kadcyla

142%

Rank YOY: 55 → 24

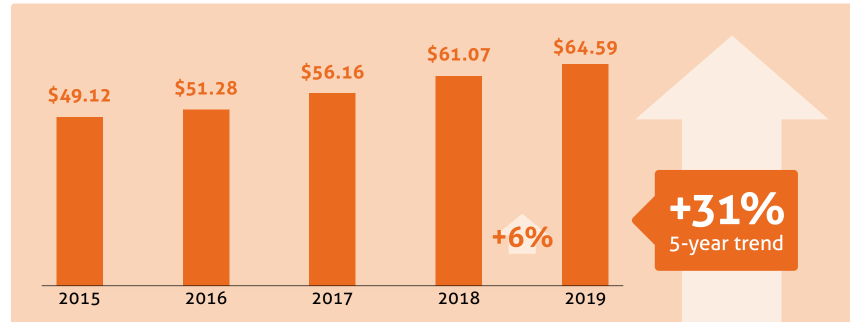
Ocrevus

85%

Rank YOY: 7 → 3

MEDICARE

PMPM TREND 2015-2019



ANNUAL COST PER PATIENT

Top 10 Drugs

8%

$9,761
2018

$10,503
2019

2019 DRUG SPEND

SPECIALTY

48% of patients

98% of spend

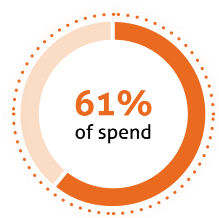
NON-SPECIALTY

52% of patients

2% of spend

2019 CATEGORY TRENDS

Oncology and oncology support accounted for:



2019 TOP DRUG TRENDS

Tecentriq

123%

Rank YOY: 34 → 15

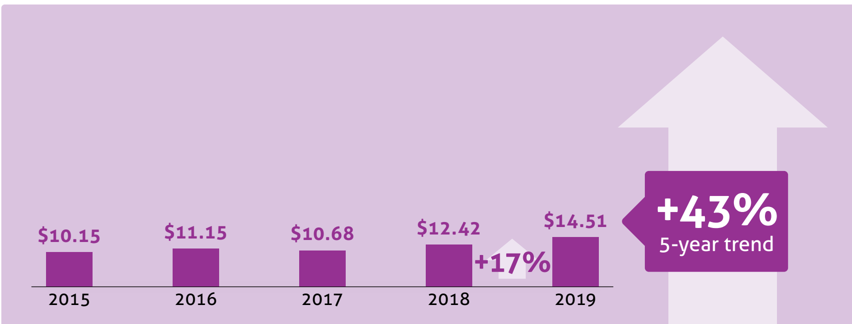
Ocrevus

58%

Rank YOY: 19 → 12

MEDICAID

PMPM TREND 2015-2019



ANNUAL COST PER PATIENT

Top 10 Drugs

15%

$30,780
2018

$35,416
2019

2019 DRUG SPEND

SPECIALTY

37% of patients

96% of spend

NON-SPECIALTY

63% of patients

4% of spend

2019 CATEGORY TRENDS

Oncology and oncology support accounted for:

43% of spend

2019 TOP DRUG TRENDS

Ocrevus

96%

Rank YOY: 14 → 7

Keytruda

78%

Rank YOY: 3 → 1

MANAGEMENT TRENDS†

Savings from Targeted Management Strategies

Dose Optimization saved plans an average of:

11%

(n=9)

Vial Rounding saved plans an average of:

7%

(n=10)

Weight-Based Dosing saved plans an average of:

6%

(n=6)

Site of Service saved plans an average of:

23%

(n=12)

†Savings self-reported by payers on the 2020 MRx Trend Report Payer Survey.

MEDICAL PHARMACY BENEFIT OVERVIEW

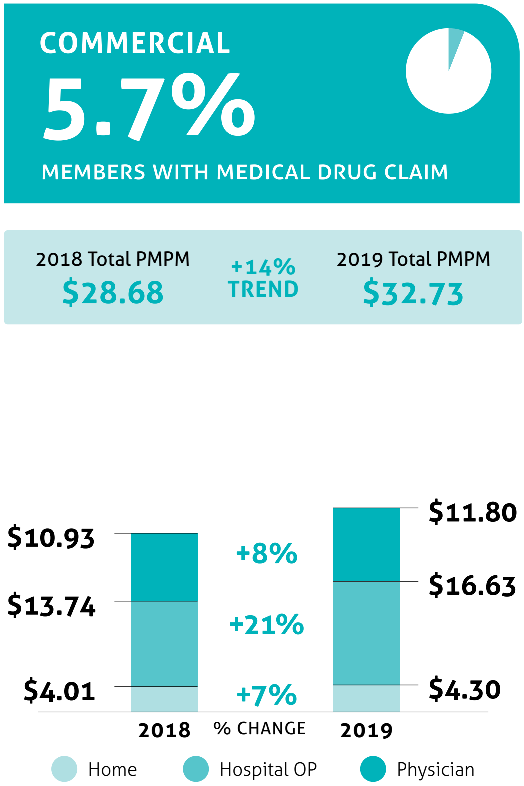
Claim Volume

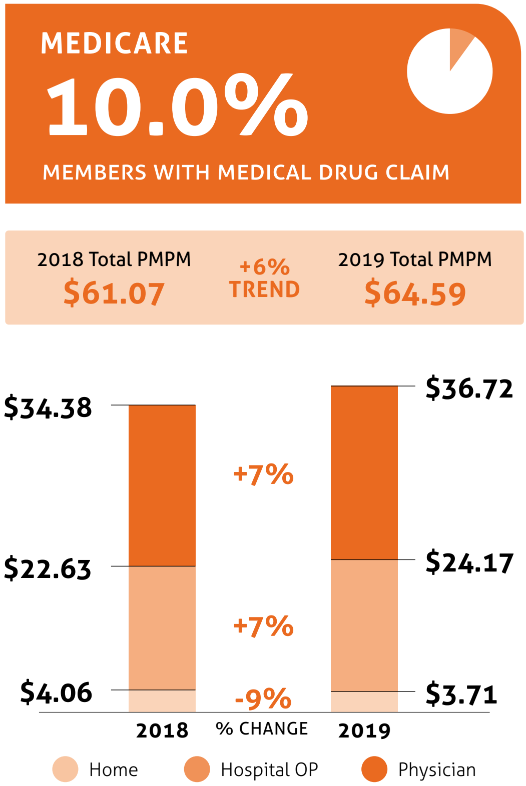
Medicare remains the highest-volume line of business in a high-cost market. Higher volume and greater utilization of high-cost drugs in Medicare leads to PMPM spend that is double that of commercial and three times higher in the physician office.

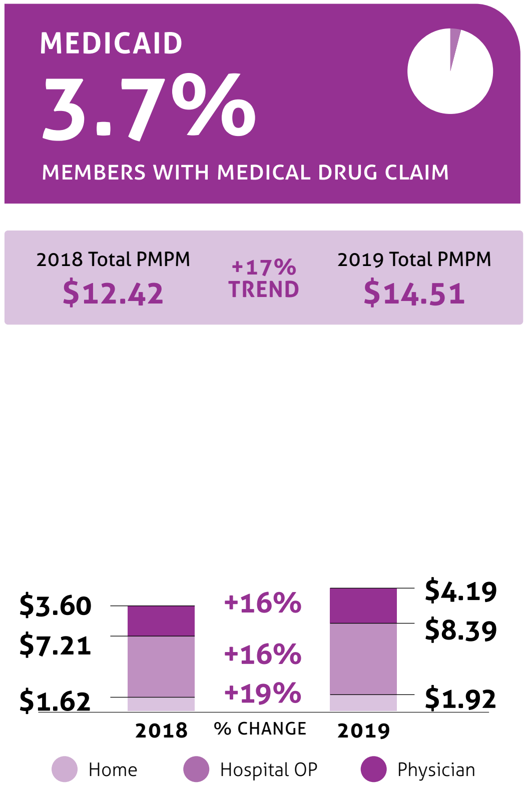
Allowed Amount PMPM

The commercial year over year trend of 14% was shaped by hospital outpatient spend, accounting for 51% of commercial PMPM. It is also the highest-spend site of service in Medicaid, accounting for 58% of spend and contributing to the 17% PMPM trend. Conversely, Medicare maintains a single-digit trend of 6%, and 57% of spend resides in the physician office.

FIGURE 3: MEDICAL PHARMACY CLAIM VOLUME AND ALLOWED AMOUNT PMPM 2018-2019







Due to rounding, totals may not add up accurately.

MEDICAL PHARMACY TREND DRIVERS

Category Trends

The top 10 categories accounted for three-quarters or more of spend in each line of business and include oncology, oncology support, BDAIDs, and MS.

Drug Trends

The top 10 drugs accounted for between one-third and half of medical drug spend across all lines of business. Utilization of the top 10 drugs is 10 times higher in Medicare, while cost per patient is 3 to 4 times higher in commercial and Medicaid, representing larger use of higher-cost drugs as opposed to Medicare, which is volume-driven.

FIGURE 4: TOP 10 DISEASE STATES OR DRUG CATEGORIES

2018	2019
$21.83 PMPM	$25.60 PMPM
14.3 Members/1K	78% % of PMPM

FIGURE 5: 2019 TOP 10 MEDICAL PHARMACY DRUGS

$13.39 PMPM	1.3 Members/1K
41% % of PMPM	$44,751 Cost per Patient

FIGURE 6: TOP 10 DISEASE STATES OR DRUG CATEGORIES

2018	2019
$51.47 PMPM	$55.24 PMPM
45.3 Members/1K	86% % of PMPM

FIGURE 7: 2019 TOP 10 MEDICAL PHARMACY DRUGS

$30.85 PMPM	13.7 Members/1K
48% % of PMPM	$10,503 Cost per Patient

FIGURE 8: TOP 10 DISEASE STATES OR DRUG CATEGORIES

2018	2019
$9.19 PMPM	$10.69 PMPM
7.5 Members/1K	74% % of PMPM

FIGURE 9: 2019 TOP 10 MEDICAL PHARMACY DRUGS

$5.23 PMPM	0.7 Members/1K
36% % of PMPM	$35,416 Cost per Patient

COMMERCIAL

Oncology and oncology support accounted for 47%, or $15.26, of allowed amount PMPM. In total, BDAIDs were the second-highest-spend category, accounting for 14% of PMPM, or $4.70. Oncology continued to have the highest spend; however, trend was highest in the MS category, with an 85% increase in Ocrevus PMPM.

A new top five: After a decade of Remicade, Neulasta, Rituxan, Herceptin, and Avastin being the top five drugs, Avastin has been replaced by Ocrevus (No. 3) and surpassed by Keytruda (No. 6).

Highest-cost drugs: Kanuma, Exondys, and Vimizim represented the highest-cost drugs based on annual cost per patient, all exceeding a staggering $1 million per patient. Although the drug lists for highest-cost drugs were similar between commercial and Medicare, average PPPY for commercial was more than double that of Medicare, due to higher use of hospital outpatient centers and smaller volume of Medicare patients with rare diseases or conditions (**see figure 70**).

HIGHEST-COST DRUGS

The 10 most expensive medical benefit drugs (**see figure 70**):

$720,297 Average Per Patient Per Year (PPPY)

$0.42 Total PMPM

FIGURE 10: UNCLASSIFIED CODE AND SELECTED DRUGS BY ALLOWED AMOUNT PMPM

J3490	Gattex, Radicava	**$0.13**
J3590	Dupixent, Fasenra, Ultomiris	**$0.07**
C9399	Polivy, Ultomiris, Zolgensma, Zulresso	**$0.03**
J9999	Elzonris, Kanjinti, Libtayo, Poteligeo	**$0.01**
	Total	**$0.24**

Due to rounding, totals may not add up accurately.

FIGURE 11: TOP 10 COMMERCIAL DISEASE STATES OR DRUG CATEGORIES BY PMPM SPEND 2018-2019

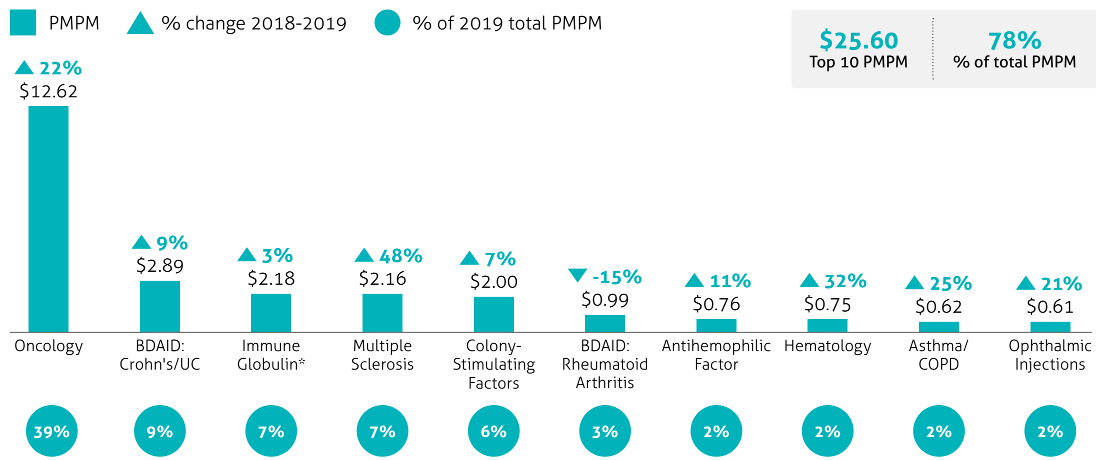
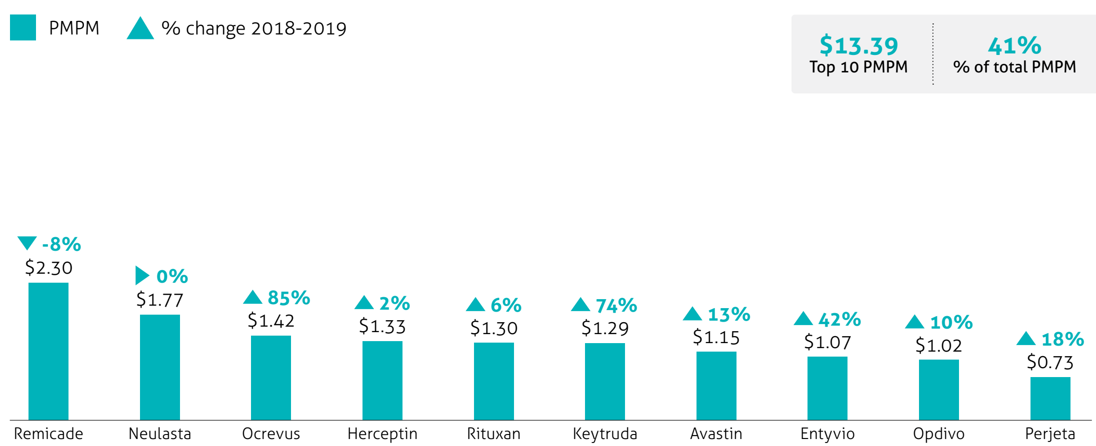


FIGURE 12: TOP 10 COMMERCIAL MEDICAL BENEFIT DRUGS BY SPEND



Immune globulin includes IV and SQ.

MEDICARE

Oncology and oncology support accounted for 61%, or $39.15, of allowed amount PMPM. The decrease in CSFs in Medicare and Medicaid could potentially be attributed to a decrease in the use of cytotoxic chemotherapy. This shift of less use of cytotoxic agents also drove increased oncology costs as use of immunotherapy and monoclonal antibody (MoAb) increased.

Unique to Medicare, ophthalmic injections spend is the second-highest therapeutic category, accounting for 12%, or $7.49, of allowed amount PMPM. Even so, Eylea and Lucentis experienced a relatively flat trend, with utilization and costs increasing at proportionate rates.

Rheumatoid arthritis agents under the BDAID category saw a 15% and 36% decrease in commercial and Medicare, respectively, indicating that the biosimilar products for Remicade made an impact in 2019.

Highest-cost drugs: Spinraza, likely due to dual eligibles, and Lumizyme represent the highest-cost drugs per patient in Medicare (**see figure 71**).

HIGHEST-COST DRUGS

The 10 most expensive medical benefit drugs (**see figure 71**):

$341,341 Average PPPY

$2.10 Total PMPM

FIGURE 13: UNCLASSIFIED CODE AND SELECTED DRUGS BY ALLOWED AMOUNT PMPM

J3490	Onpattro, Radicava	**$0.18**
J9999	Belrapzo, Kanjinti, Libtayo, Poteligeo	**$0.06**
C9399	Aliqopa, Polivy, Ultomiris	**$0.01**
	Total	**$0.25**

FIGURE 14: TOP 10 MEDICARE DISEASE STATES OR DRUG CATEGORIES BY PMPM SPEND 2018-2019

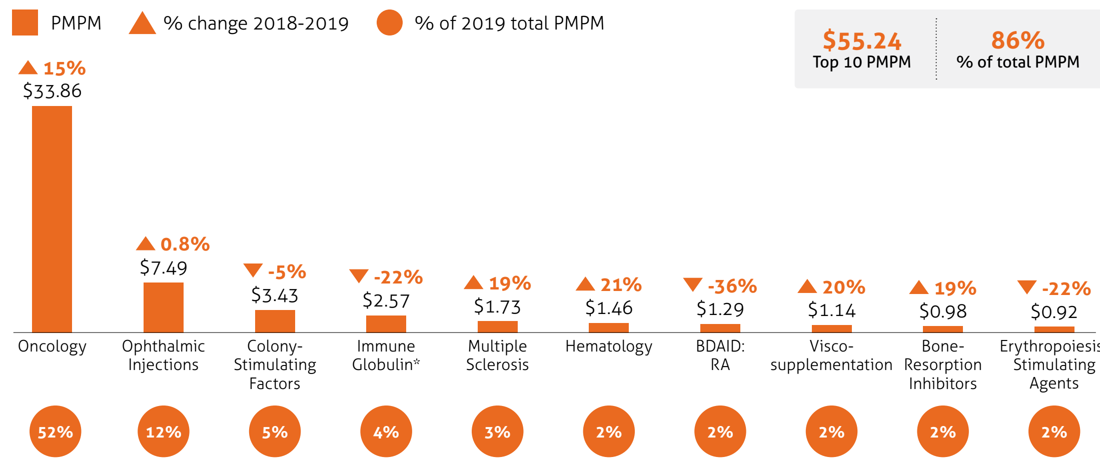
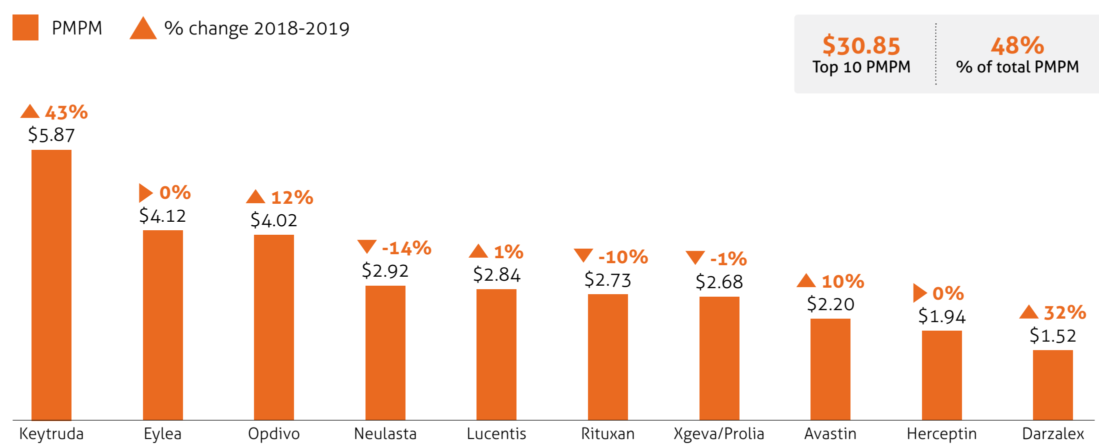


FIGURE 15: TOP 10 MEDICARE MEDICAL BENEFIT DRUGS BY SPEND



**Immune globulin includes IV and SQ.*

Due to rounding, totals may not add up accurately.

MEDICAID

Oncology and oncology support accounted for 43%, or $6.23, of allowed amount PMPM. Oncology spend is more than six times that of the next-highest category in Medicaid.

CNS drugs: Rare disease central nervous system (CNS) drugs such as Spinraza and Exondys contributed to the second-highest category, with trend of both drugs and the category at or near 50%.

Unclassified codes would rank 19th as a total drug category for Medicaid.

HIGHEST-COST DRUGS

The 10 most expensive medical benefit drugs (**see figure 72**):

$380,338 Average PPPY

$1.59 Total PMPM

FIGURE 16: UNCLASSIFIED CODE AND SELECTED DRUGS BY ALLOWED AMOUNT PMPM

J3590	Cuvitru, Benlysta (SC), Revcovi, Zolgensma	**$0.14**
C9399	Polivy, Ultomiris	**$0.01**
J9999	Imfinzi, Libtayo, Lumoxiti, Polivy	**$0.01**
	Total	**$0.16**

FIGURE 17: TOP 10 MEDICAID DISEASE STATES OR DRUG CATEGORIES BY PMPM SPEND 2018-2019

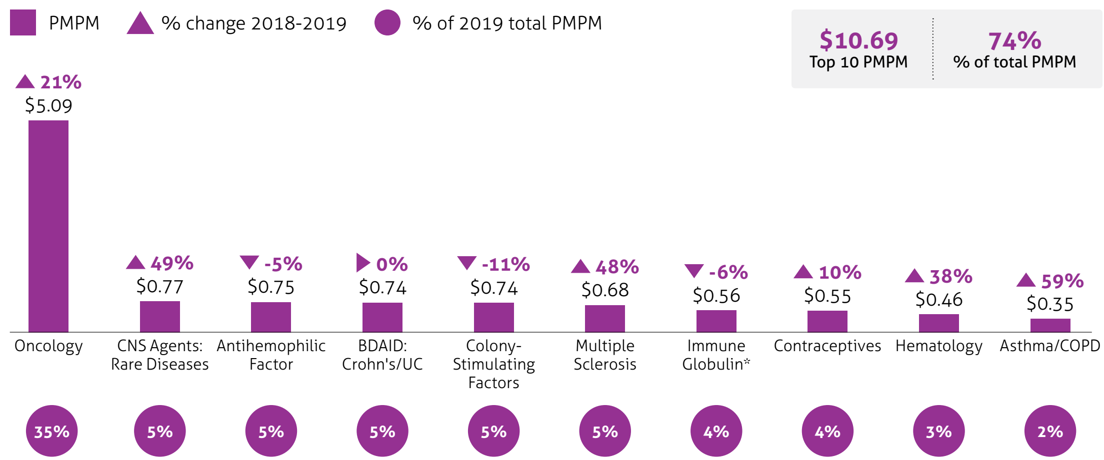
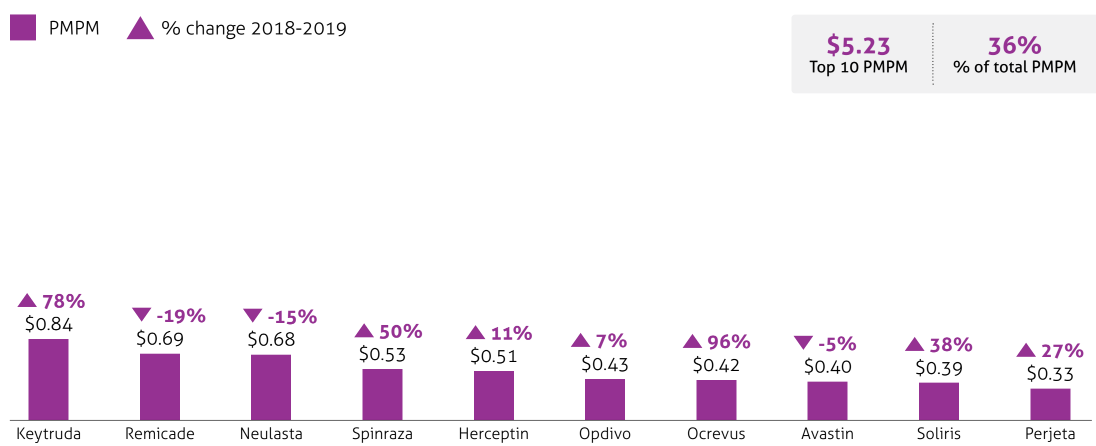


FIGURE 18: TOP 10 MEDICAID MEDICAL BENEFIT DRUGS BY SPEND



*Immune globulin includes IV and SQ.

Due to rounding, totals may not add up accurately.

Administrative Code Reimbursement

The impact of spend for the administration of medical benefit drugs was highly dependent on the site of service (SOS). Administration of chemotherapy treatment was two to three times more costly in the hospital outpatient setting compared to administration in the physician office across all lines of business, while coming in as fifth highest spend for Medicaid and top spend for commercial and Medicare.

In Medicare, administration of intravitreal injections, or the administration of ophthalmic agents, closely follows chemotherapy treatment, as ophthalmic injections were a high-volume category for Medicare members.

Medicaid's highest-spend administrative code, immunization administration, had little to no spend in the hospital, indicating that almost all administration was in the physician office.

FIGURE 19: 2019 TOP ADMINISTRATIVE CODES BY PMPM FOR HOSPITAL OUTPATIENT AND PHYSICIAN OFFICE

COMMERCIAL

CPT® Code & Description	Physician	Hospital	Total PMPM
96413 Chemotherapy administration, intravenous infusion technique; up to one hour, single or initial substance/drug	$0.26	$0.61	**$0.87**
96372 Therapeutic, prophylactic, or diagnostic injection (specify substance or drug); subcutaneous or intramuscular	$0.35	$0.11	**$0.46**
90460 Immunization administration through 18 years of age via any route of administration, with counseling by physician or other qualified healthcare professional	$0.37	$0.00	**$0.37**
96365 Intravenous infusion for therapy, prophylaxis, or diagnosis (specify substance or drug); initial, up to one hour	$0.08	$0.27	**$0.35**
96375 Therapeutic, prophylactic, or diagnostic injection (specify substance or drug); each additional sequential intravenous push of a new substance/drug	$0.03	$0.30	**$0.33**

MEDICARE

CPT® Code & Description	Physician	Hospital	Total PMPM
96413 Chemotherapy administration, intravenous infusion technique; up to one hour, single or initial substance/drug	$0.56	$1.11	**$1.67**
67028 Intravitreal injection of a pharmacologic agent (separate procedure)	$0.86	$0.05	**$0.91**
96365 Intravenous infusion for therapy, prophylaxis, or diagnosis (specify substance or drug); initial, up to one hour	$0.16	$0.57	**$0.73**
20610 Aspiration (removal of fluid) from, or injection into, a major joint (defined as a shoulder, hip, knee, or subacromial bursa), or both aspiration and injection of the same joint	$0.64	$0.05	**$0.69**
96372 Therapeutic, prophylactic, or diagnostic injection (specify substance or drug); subcutaneous or intramuscular	$0.39	$0.15	**$0.54**

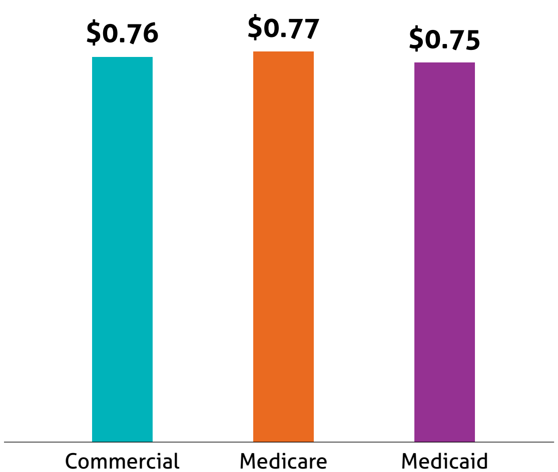
MEDICAID

CPT® Code & Description	Physician	Hospital	Total PMPM
90460 Immunization administration through 18 years of age via any route of administration, with counseling by physician or other qualified healthcare professional	$0.65	$0.00	**$0.65**
96372 Therapeutic, prophylactic, or diagnostic injection (specify substance or drug); subcutaneous or intramuscular	$0.10	$0.04	**$0.14**
96361 Intravenous infusion, hydration; each additional hour	$0.00	$0.12	**$0.12**
90461 Immunization administration each additional component	$0.12	$0.00	**$0.12**
96413 Chemotherapy administration, intravenous infusion technique; up to one hour, single or initial substance/drug	$0.03	$0.08	**$0.11**

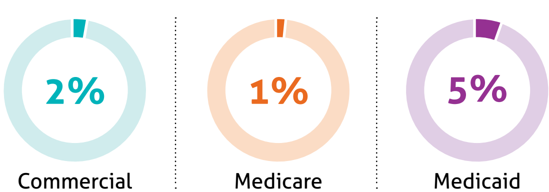
Antihemophilic Agents

Antihemophilic factor products have a strong pipeline due to the emergence of gene therapy, where several agents under development are anticipated to be one-time treatment options. These new agents will increase spend for products but decrease overall medical cost of care through reduction of hospitalizations and individual bleed events. However, duration of response will remain to be seen with completion of trials and once marketed. Long-acting hemophilia agents Hemlibra, Eloctate, and Adynovate impacted the category, accounting for 39% of PMPM spend in commercial, 46% in Medicare, and 60% in Medicaid (**see appendix figures 73, 74, and 75**).

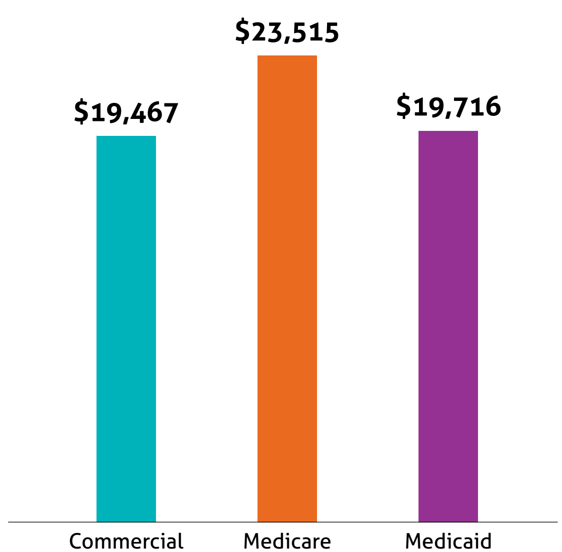
2019 CATEGORY PMPM



2019 % OF MEDICAL DRUG SPEND



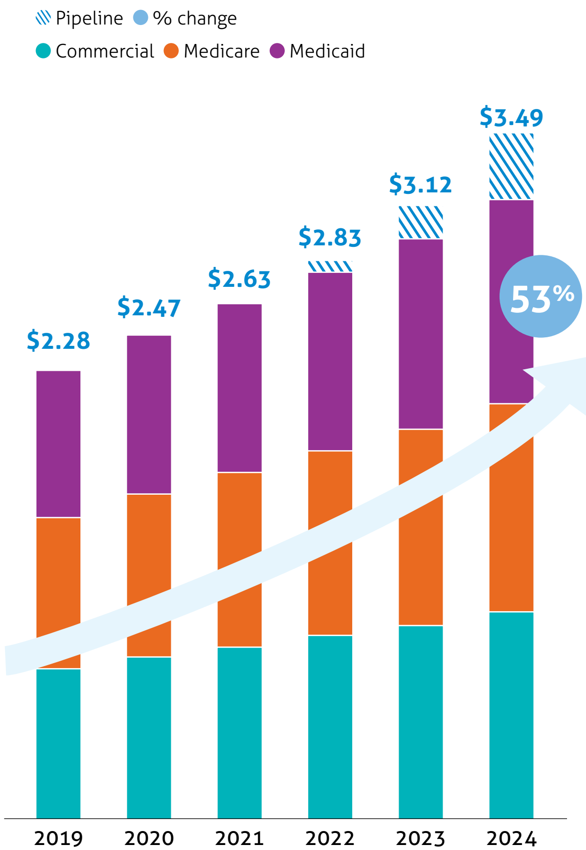
2019 AVERAGE COST PER CLAIM



2019 COST PER CLAIM: FACTOR VIII

Commercial	Medicare	Medicaid
$18,020	$11,944	$13,941

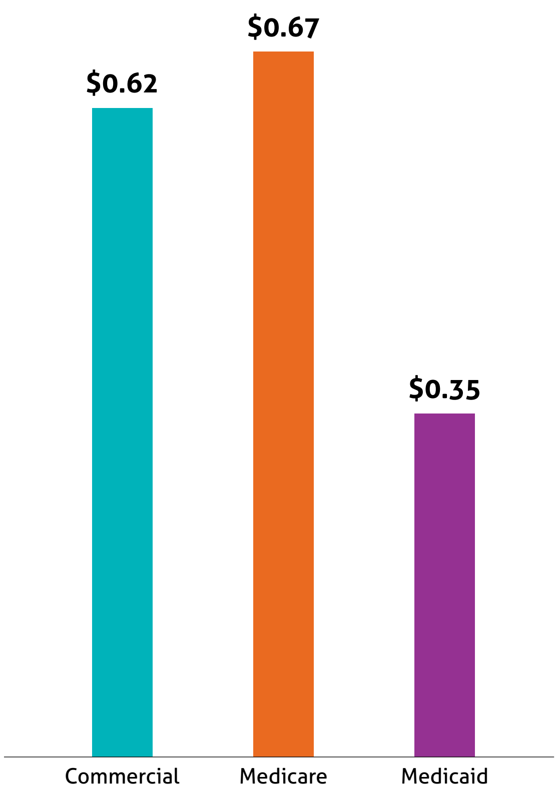
FORECAST



Asthma/COPD

Asthma/COPD had some of the highest trends among the top categories. Nucala and Fasenra gained significant market share against Cinqair. Nucala accounted for 14% to 17% of market share, and Fasenra accounted for 7% to 8% of market share across all lines of business. Xolair saw a decrease of seven percentage points in commercial market share due to the growth of these other agents (**see appendix figure 76**).

2019 CATEGORY PMPM



2018-2019 CATEGORY PMPM TREND

25%	2%	59%
Commercial	Medicare	Medicaid

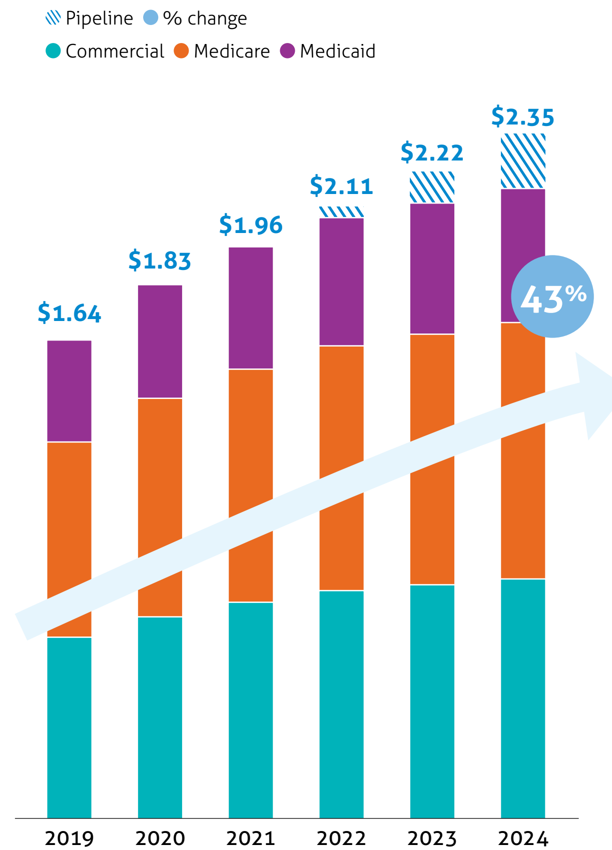
2019 MEMBERS PER 1,000

2.2	4.6	2.4
Commercial	Medicare	Medicaid

2019 COST PER CLAIM

$665	$280	$397
Commercial	Medicare	Medicaid

FORECAST

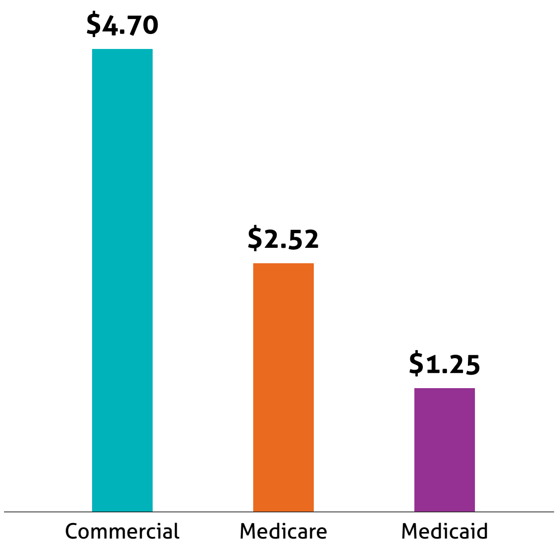


Biologic Drugs for Autoimmune Disorders (BDAIDs)

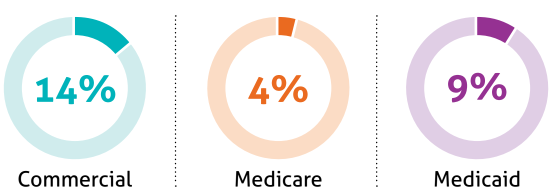
BDAIDs include the indications Ankylosing Spondylitis, Crohn's Disease/Ulcerative Colitis, Psoriasis/Psoriatic Arthritis, Rare Autoinflammatory Conditions, Rheumatoid Arthritis (RA), and Systemic Lupus Erythematosus.

In 2019, the two biosimilars Renflexis and Inflectra gained utilization and market share under the RA indication, particularly in commercial and Medicaid, doubling or tripling market share from 2018. Renflexis annual cost per patient was the lowest across all lines of business and represented the lowest market share for commercial and Medicare, but had 13% market share in Medicare (**see appendix figures 79, 80, and 81**). The continued effect of these biosimilars is additionally illustrated in the total category trend, which was flat in commercial and negative in Medicare and Medicaid, as well as in the total category forecast for 2022 to 2024.

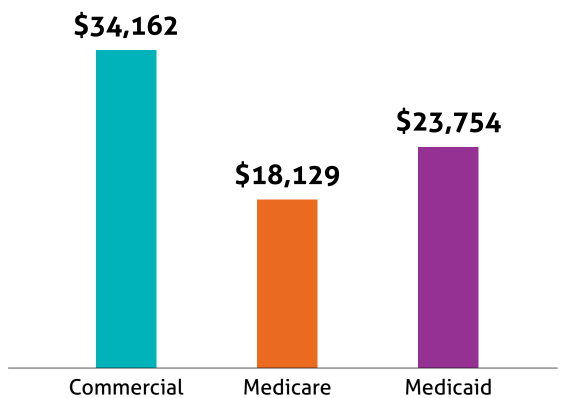
2019 CATEGORY PMPM



2019 % OF MEDICAL DRUG SPEND



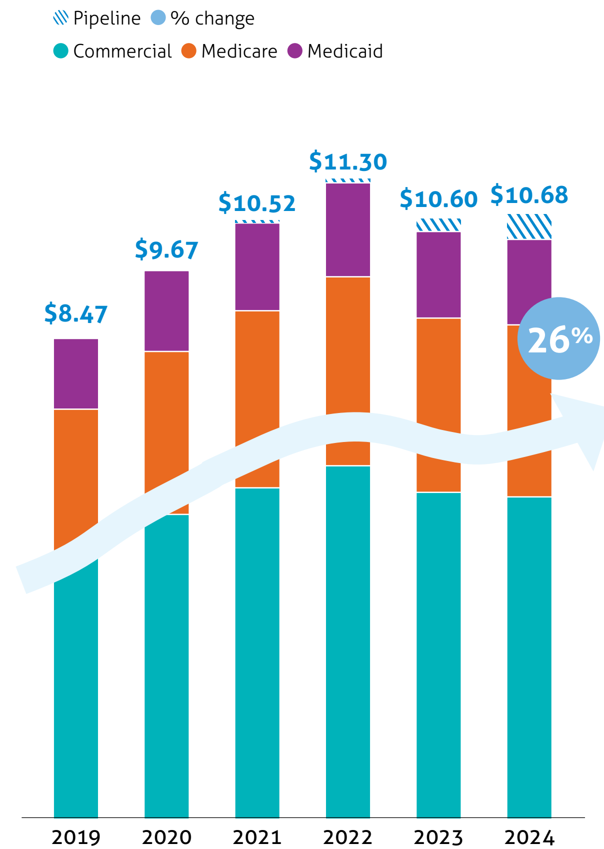
2019 AVERAGE COST PER PATIENT



2019 BIOSIMILAR PERFORMANCE FOR RA (RENFLEXIS/INFLECTRA)

Commercial	Medicare	Medicaid
6 Percentage Points Market Share	4 Percentage Points Market Share	24 Percentage Points Market Share
$19,080 Avg. Cost/ Patient	$9,682 Avg. Cost/ Patient	$6,783 Avg. Cost/ Patient

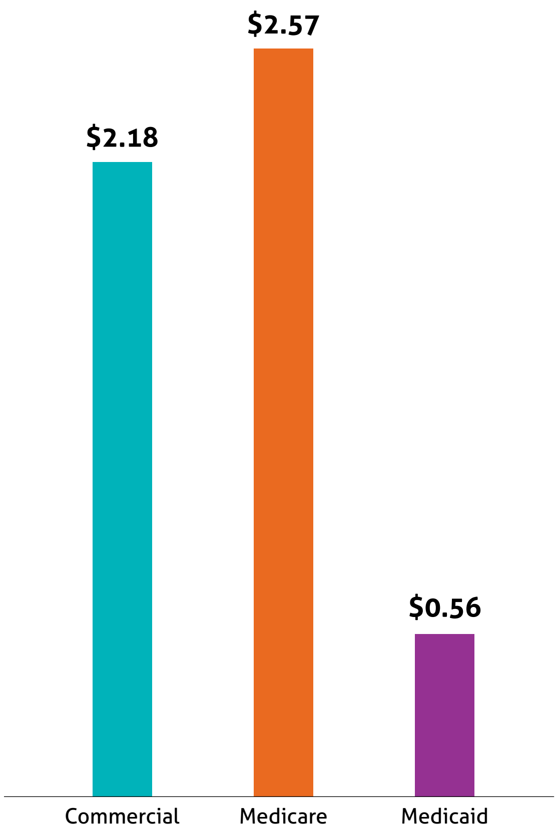
FORECAST



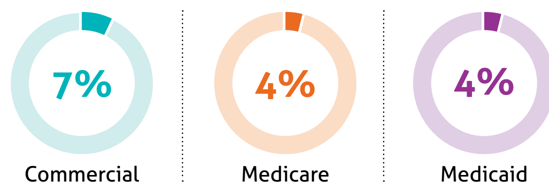
Immune Globulin (IG)

The immune globulin category was ranked third in commercial, accounting for 7% of total PMPM spend. Hospital outpatient (HOP) use was narrower in commercial, at 35%, while in Medicare and Medicaid, more than half of utilization (56% and 65%, respectively) was in the HOP setting. Decreases in Gamunex-C/Gammaked cost per patient and PMPM accounted for the decrease in Medicare PMPM trend.

2019 CATEGORY PMPM



2019 % OF MEDICAL DRUG SPEND



2018-2019 CATEGORY PMPM TREND

3% Commercial

-22% Medicare

-6% Medicaid

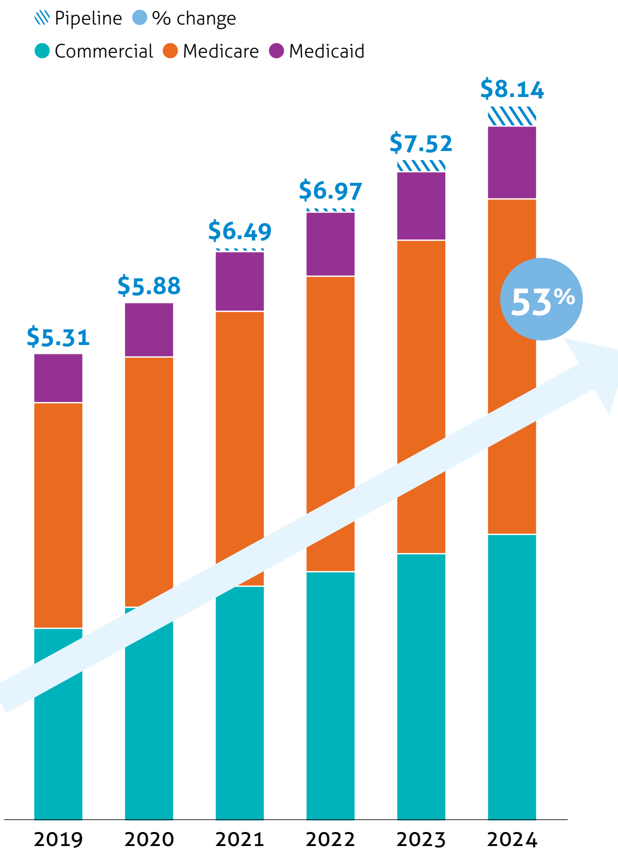
2019 COST PER CLAIM

$3,159 Commercial

$2,454 Medicare

$2,331 Medicaid

FORECAST

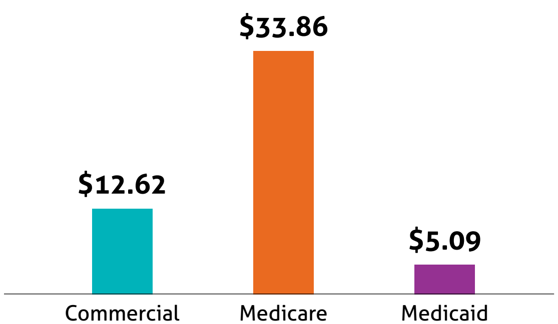


MEDICAL BENEFIT CATEGORIES

Oncology

Oncology spend remained highest among all categories, and members per thousand was highest among the categories featured in Medicare. Oncology trend was 15-22% across all lines of business. The gene therapy and biosimilar pipeline continue to be extremely robust in oncology, as clearly demonstrated in the forecast with 105% growth in the category and pipeline alone accounting for $14.59 of the staggering $106 PMPM predicted by 2024. Overall, the oncology pipeline has upward of 700 drugs in clinical trials. As a management strategy, most payers would consider incentivizing lower-cost oncology regimens when they carry the same level of compendia recommendation.

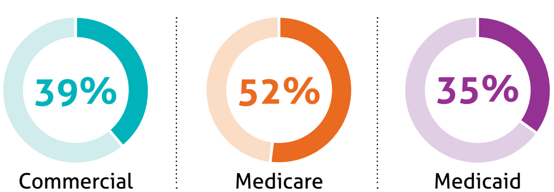
2019 CATEGORY PMPM



2018-2019 CATEGORY PMPM TREND

Commercial	Medicare	Medicaid
22%	15%	21%

2019 % OF MEDICAL DRUG SPEND



2019 MEMBERS PER 1,000

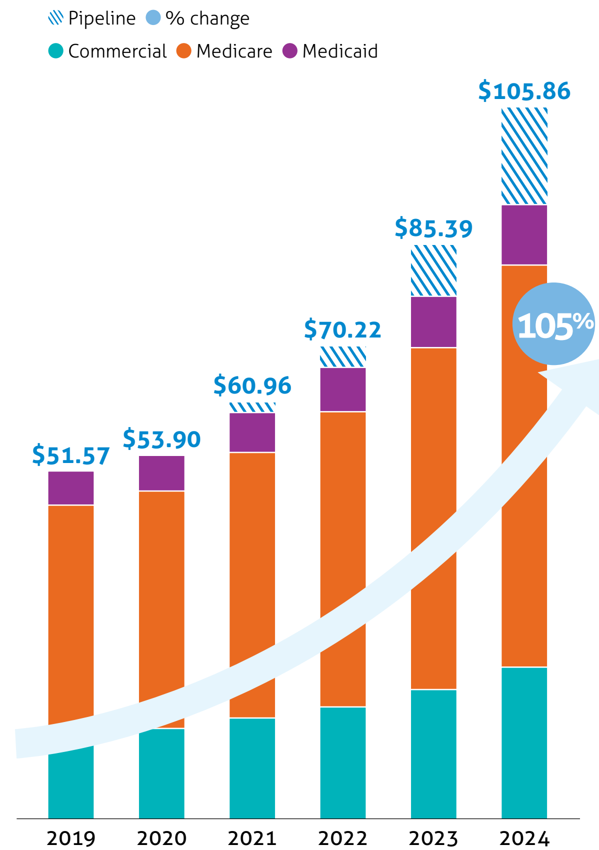
Commercial	Medicare	Medicaid
1.5	7.7	0.8

ONCOLOGY MANAGEMENT STRATEGIES

% of payers (n=41)

Strategy	% of payers
Incentivizing lower-cost regimens when they carry the same level of compendia recommendation	85%
Oncology site of service policy	56%
Limiting agents that are recently approved by the FDA under an accelerated approval pathway to patients who meet the study eligibility criteria used for FDA approval	54%
Restricting specified regimens based on the patient's performance status when aligned with NCCN recommendations	44%
Not covering NCCN 2A recommendations if evidence is lacking	34%

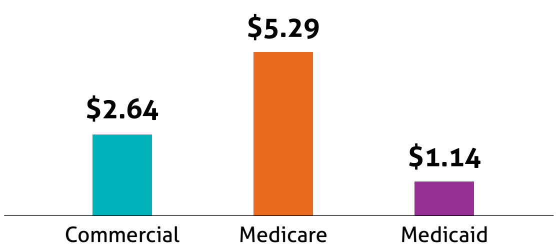
FORECAST



Oncology Support

Oncology support includes antiemetics for chemotherapy-induced nausea and vomiting, colony-stimulating factors (CSFs) for immune cell growth, erythropoiesis-stimulating agents (ESAs) for anemia due to chemotherapy, and gastrointestinal: chemoprotectant/hormonal (e.g., sandostatin). The decrease in the forecast reflected a continued decrease in the CSF category for Medicare and Medicaid. This could potentially be attributed to a decline in the use of cytotoxic chemotherapy and continued uptake of the biosimilars (**see appendix figures 45 and 46**). Except for the forecast, data reflects oncology support use for an oncology indication only.

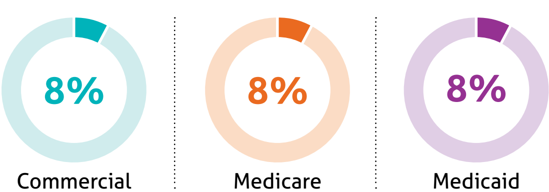
2019 CATEGORY PMPM



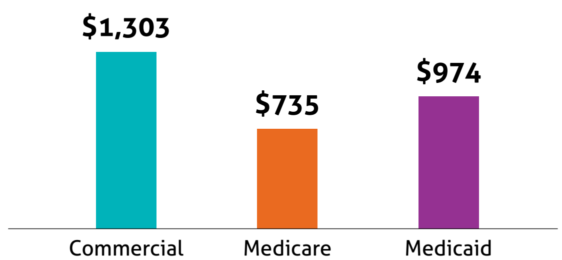
2018-2019 CATEGORY PMPM TREND

Commercial	Medicare	Medicaid
6%	-13%	-12%

2019 % OF MEDICAL DRUG SPEND



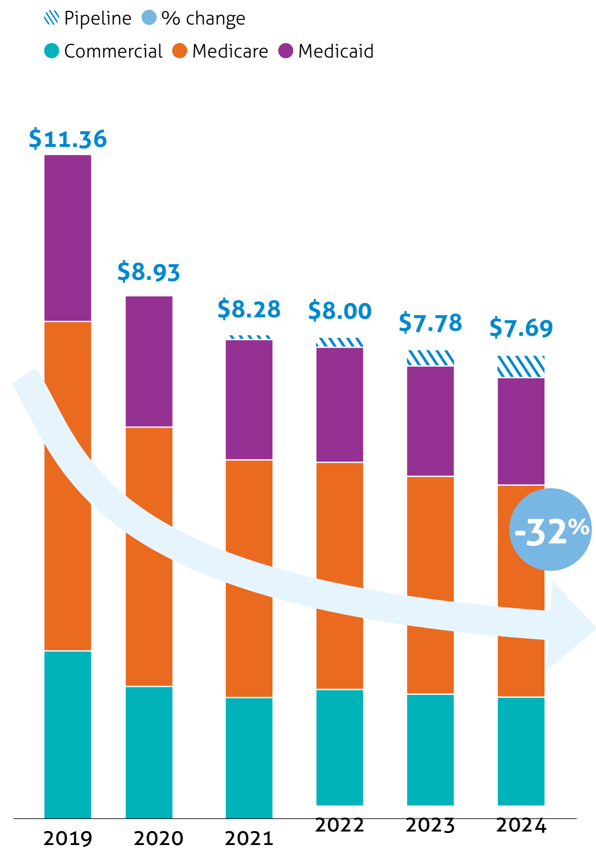
2019 AVERAGE COST PER CLAIM



2019 ONCOLOGY SUPPORT SPEND BY CATEGORY

Commercial	Medicare	Medicaid
$0.34 Antiemetics	$0.55 Antiemetics	$0.19 Antiemetics
$1.95 Colony-Stimulating Factors	$3.32 Colony-Stimulating Factors	$0.87 Colony-Stimulating Factors
$0.08 Erythropoiesis-Stimulating Agents	$0.80 Erythropoiesis-Stimulating Agents	$0.04 Erythropoiesis-Stimulating Agents
$0.25 Gastrointestinal: Chemoprotectant/ Hormonal	$0.60 Gastrointestinal: Chemoprotectant/ Hormonal	$0.03 Gastrointestinal: Chemoprotectant/ Hormonal

FORECAST*

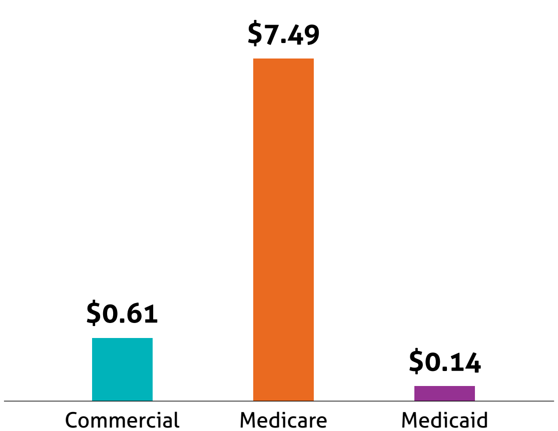


*Forecast is based on all oncology support use and is not broken out for oncology use only.

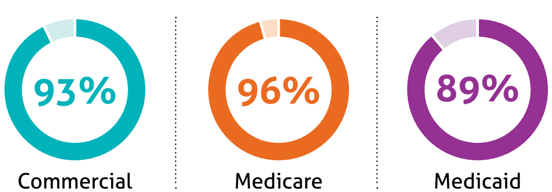
Ophthalmic Injections

The ophthalmic injection category continues to have a substantial impact on Medicare. In 2019, it did experience a flat trend, but it grew in commercial and Medicaid. Avastin remains the market leader as the most cost-effective first-line drug in this category and the lowest-cost option. Drugs in the pipeline may shift this and allow for a more competitive landscape as the prevalence of wet age-related macular degeneration (wet AMD) increases. In Medicare, Eylea was the second-highest-spend drug, accounting for $4.12, or 56%, of total category spend (**see appendix figure 107**).

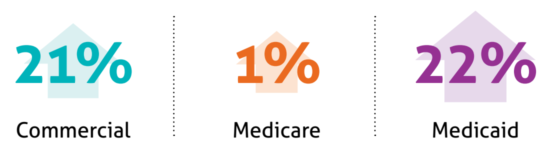
2019 CATEGORY PMPM



2019 SITE-OF-SERVICE UTILIZATION: PHYSICIAN OFFICE

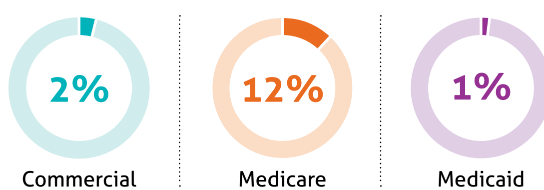


2018-2019 CATEGORY PMPM TREND

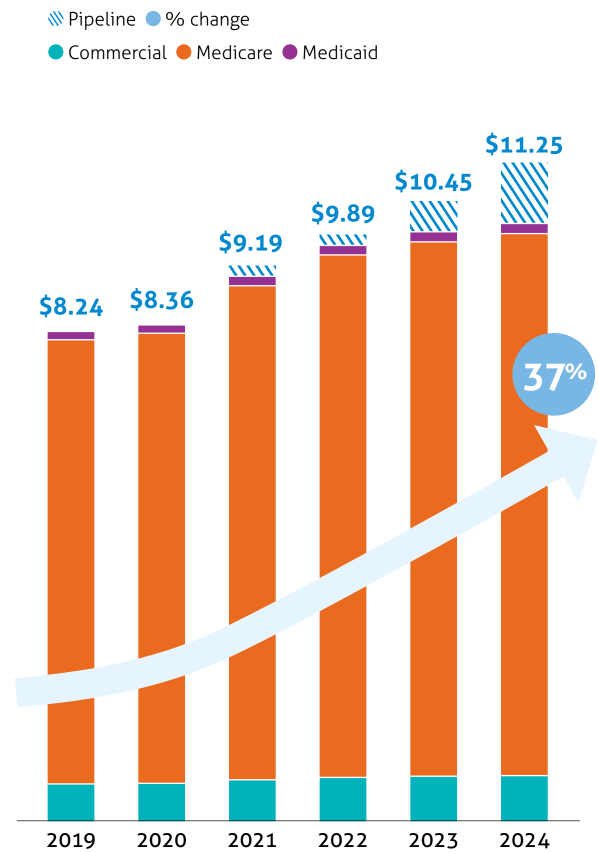


2019 MEMBERS PER 1,000

2019 % OF MEDICAL DRUG SPEND



FORECAST



Top Management Trends

We asked payers about their top concerns when thinking about drugs on the medical benefit. While overall spend was the highest concern last year, this year it dropped to second place as gene therapy took the top spot for 78% of payers.

The key to managing these concerns remains innovation. As mentioned in this report over the years, innovative management programs such as site of service, weight-based dosing, vial rounding, and dose optimization are integral strategies to mitigate rising trend.

Plans have identified other cost-saving strategies they are employing, such as:

- Centers of excellence
- Robust approval processes
- Specialty pharmacy use and elimination of buy and bill
- Reimbursement strategies for hospitals based on ASP
- Value-based contracting with shared savings incentives
- Site-of-service strategies

FIGURE 20: TOP CONCERNS FOR MEDICAL PHARMACY

% of payers (n=41)

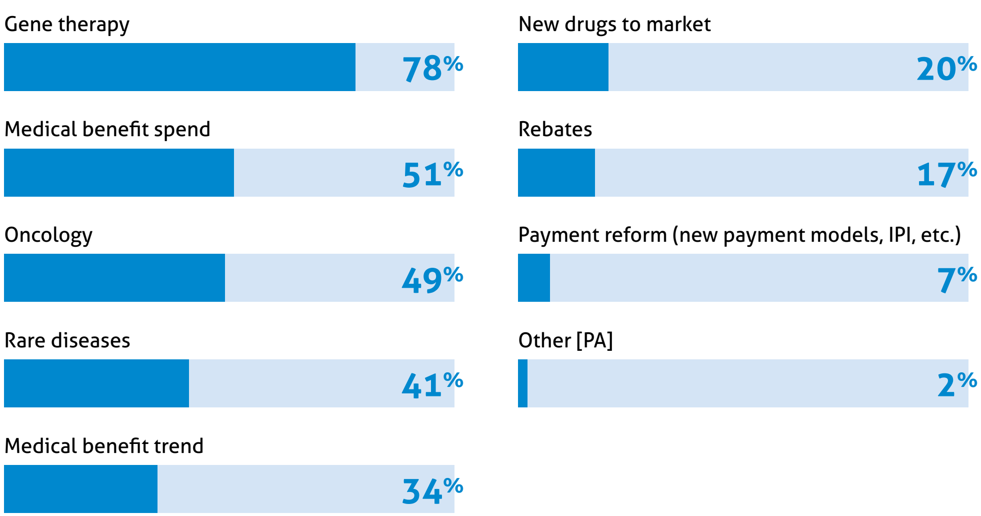
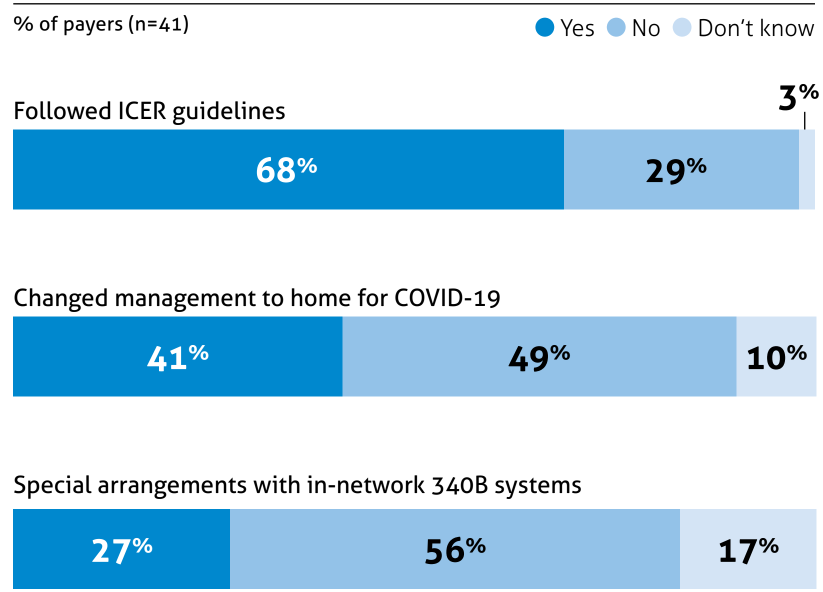


FIGURE 21: MEDICAL PHARMACY STRATEGIES

% of payers (n=41)



Utilization Management

FIGURE 22: UTILIZATION MANAGEMENT TOOLS

% of payers (n=41)

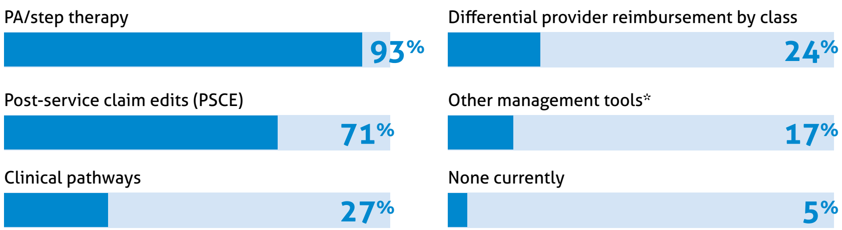


FIGURE 23: PA DETERMINATION RATES

Weighted rates

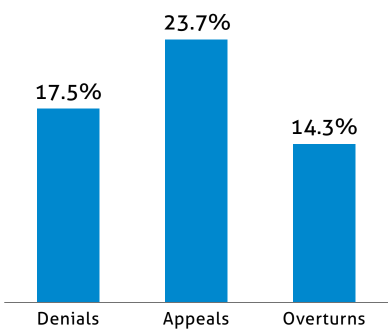


FIGURE 24: PSCE DETERMINATION RATES

Weighted rates

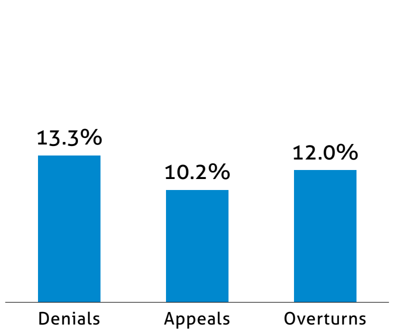
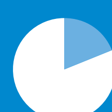


FIGURE 25: VALUABLE DISCOUNT TO PREFER MEDICAL BENEFIT DRUG

VALUABLE DISCOUNT

19%

TO PREFER MEDICAL BENEFIT DRUG



Management: Unclassified Medical Pharmacy

FIGURE 26: PA FOR NEWLY RELEASED MEDICAL BENEFIT DRUGS

% of payers (n=39)

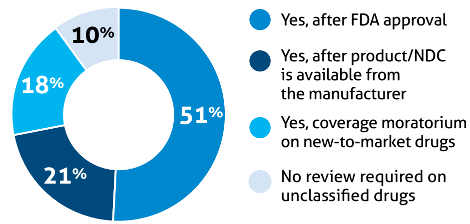


FIGURE 28: PSCE FOR NEWLY RELEASED MEDICAL SPECIALTY DRUGS

% of payers (n=37)

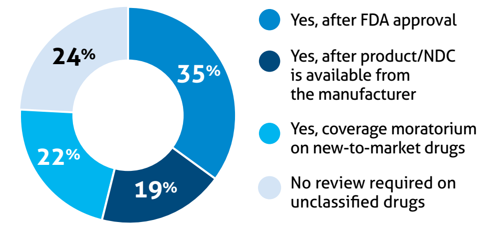


FIGURE 27: PA TIMING FOR NEWLY RELEASED MEDICAL SPECIALTY DRUGS

% of payers

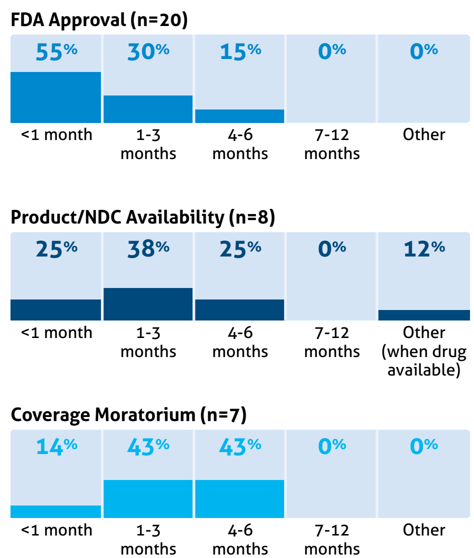
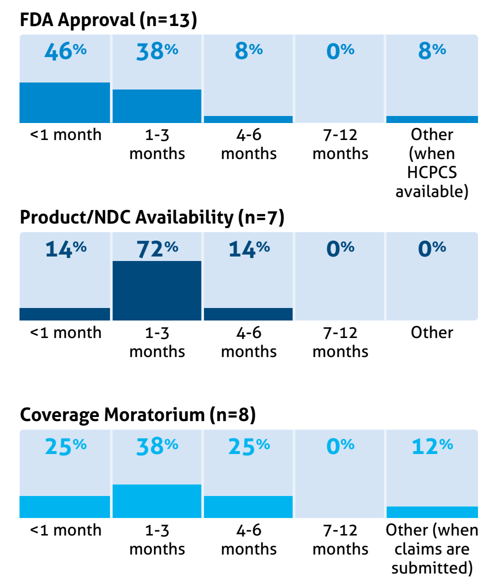


FIGURE 29: PSCE TIMING FOR NEWLY RELEASED MEDICAL SPECIALTY DRUGS

% of payers



*E.g., SOS programs, hemophilia management, episodes of care, physician education, bundled payments, and benefit carve-outs

Utilization Management: Category-Specific

HEMOPHILIA

10% of payers managed hemophilia on the pharmacy benefit only (n=41)

39% of payers managed hemophilia on both the medical and pharmacy benefit (n=41)

34% of payers managed hemophilia on the medical benefit only (n=41)

17% of payers do not have a hemophilia management strategy (n=41)

FIGURE 30: HEMOPHILIA MANAGEMENT STRATEGY

% of lives (n=160 million)

Strategy	Current strategy (n=34)	Strategy if hemophilia management adopted (n=7)
Site of service/preferred network strategy	73%	20%
Care/case management services	67%	36%
Prior authorization	64%	36%
Assay management	59%	36%
Inventory management (limiting number of doses patients can have on hand at a time)	57%	36%
Carved out to the pharmacy benefit	43%	0%
Weight-based dose optimization	36%	36%
Standard half-life prior to extended half-life products	35%	36%
Product preferencing	21%	36%
Pharmacokinetic testing requirements	12%	20%
Case reviews by independent physician experts	3%	36%
Other (SPP only; HTCs only if they share 340B savings back to plan)	3%	0%

RARE DISEASE MANAGEMENT

78% of payers require a medical record for a rare conditions PA review (n=41)

66% of payers consult specialists or key opinion leaders (KOLs) for coverage decisions (n=41)

FIGURE 31: RARE DISEASE MANAGEMENT STRATEGY

% of payers (n=41)

Strategy	%
Prior authorization/step therapy	95%
Care/case management	68%
Expert clinical review	41%
Post-service claim edits (maximum units and/or eligible diagnosis)	27%
Outcomes-based payments	24%
Clinical pathways	12%
Differential provider reimbursement by class	5%
Other tools (COE, SPP)	7%
No management tools	0%

ONCOLOGY IMMUNOTHERAPY MANAGEMENT

78% of payers are not preferencing agents with shared indications (n=41)

15% of payers preferred Keytruda when there was a shared indication (n=41)

FIGURE 32: CHECKPOINT INHIBITOR MANAGEMENT STRATEGY

% of lives (n=168 million)

Strategy	%
Prior authorization	98%
Post-service claim edits (maximum units +/or eligible diagnosis)	47%
Differential provider reimbursement (higher margins/drug profit on lower-cost alternative drugs) by class	27%
Oncology-specific site of service	6%
Other tools (NCCN, peer review)	4%
Vendor-administered clinical pathways	2%
Formulary strategy (rebates, etc.)	1%
No management tools for checkpoint inhibitor immunotherapies	0%
Don't know	0%

Utilization Management: Gene and CAR-T Therapy

GENE THERAPY MANAGEMENT

78%

of payers are concerned with managing gene therapy agents

FIGURE 33: GENE THERAPY MANAGEMENT STRATEGY

% of lives (n=168 million)

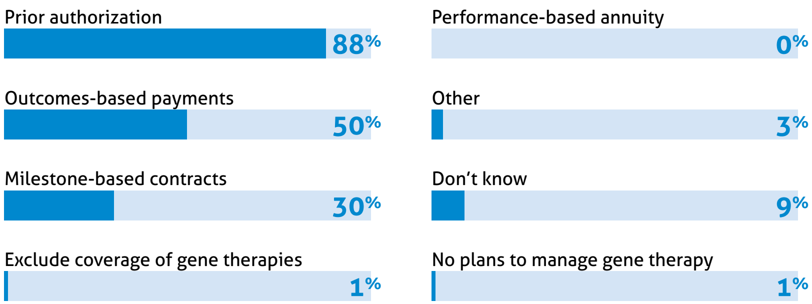


FIGURE 34: CAR-T THERAPY REVIEW

% of payers (n=41)

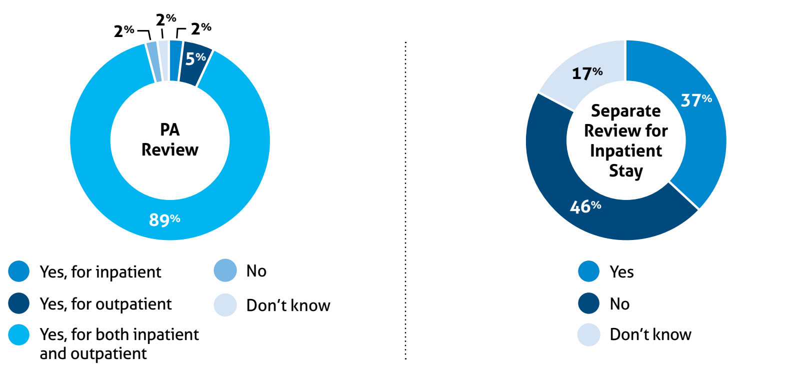


FIGURE 35: CAR-T OUTCOMES AND RESPONSE RATES

% of payers (n=41)

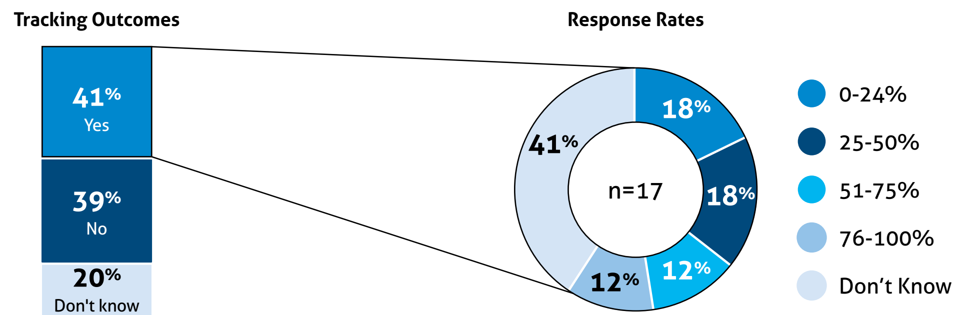
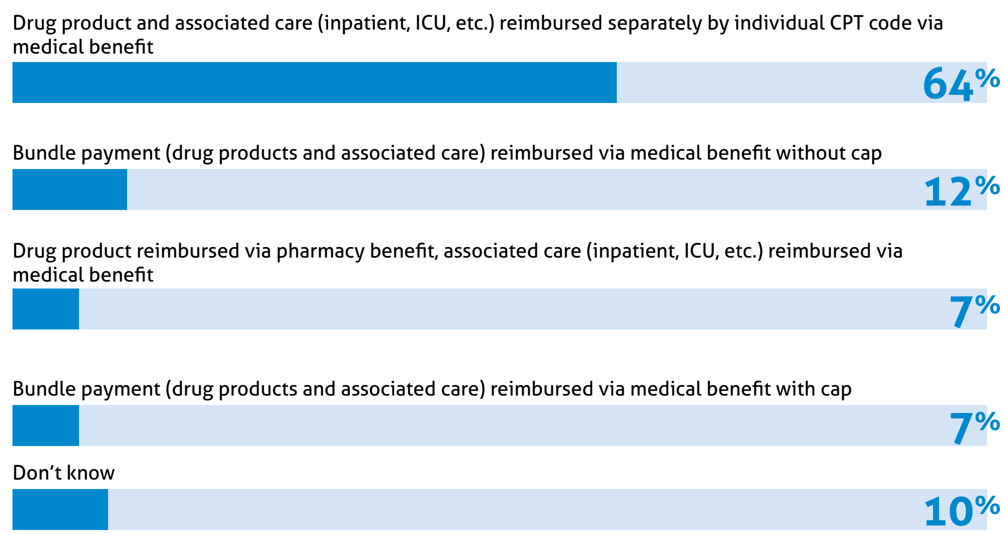


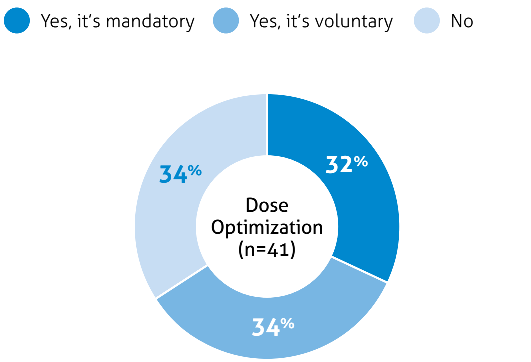
FIGURE 36: CAR-T REIMBURSEMENT

% of payers (n=41)

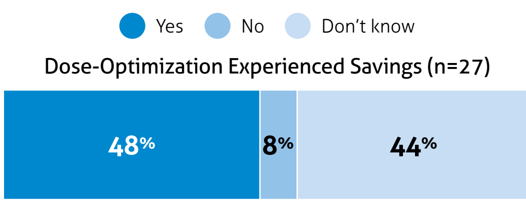


Utilization Management Programs

FIGURE 37: DOSE OPTIMIZATION PROGRAM

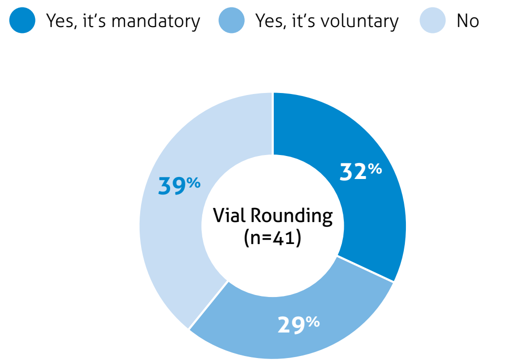


78% Immune Globulin (n=27)	63% Antihemophilic Factor (n=27)	56% BDAIDs (n=27)	56% Oncology Immunotherapy (n=27)

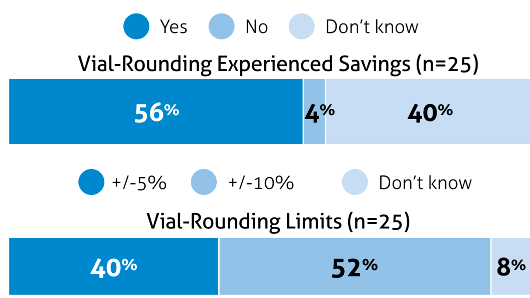


11%
Average Savings (n=9)†

FIGURE 38: VIAL ROUNDING

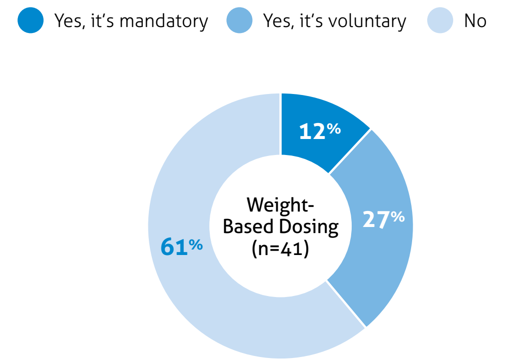


68% Immune Globulin (n=25)	64% BDAIDs (n=25)	56% Antihemophilic (n=25)

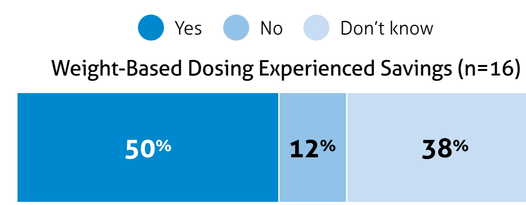


7%
Average Savings (n=10)†

FIGURE 39: WEIGHT-BASED DOSING



81% Keytruda (n=16)	69% Opdivo (n=16)	38% Bavencio (n=16)	13% None (n=16)



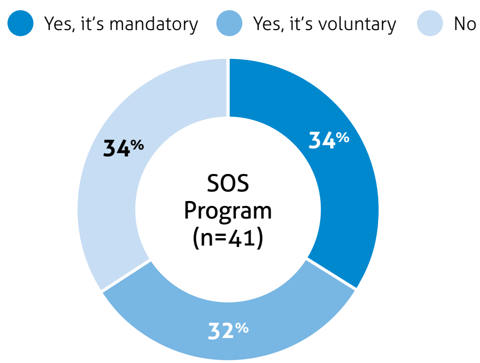
6%
Average Savings (n=6)†

†Savings self-reported

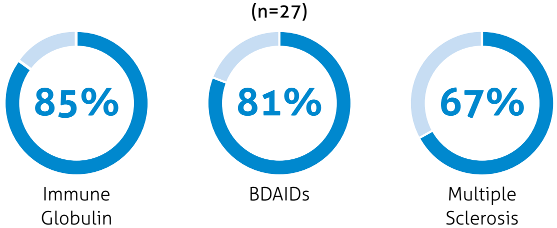
Site-of-Service (SOS) Program

FIGURE 40: SOS PROGRAM

% of payers



Categories
(n=27)



33% of payers included oncology-support drugs in their SOS program, and another **33%** included oncology agents.

Top Oncology Support Drugs
(n=9)

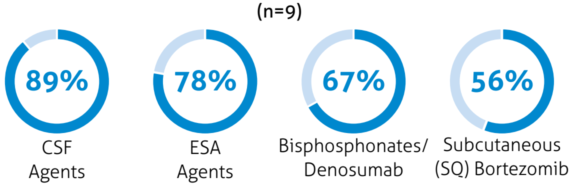


FIGURE 41: REQUIREMENTS OF SOS PROGRAM

% of payers (n=27)

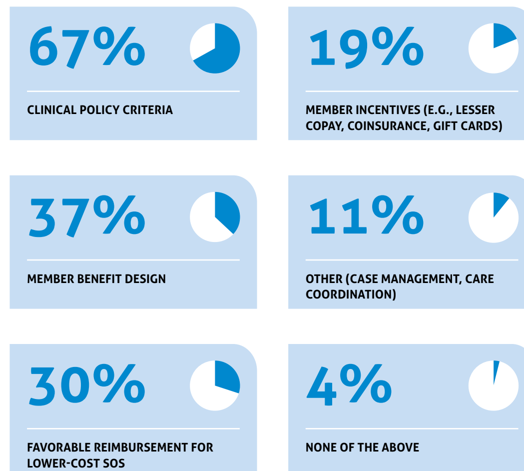


FIGURE 42: HOSPITALS WITH 340B COVERED ENTITY STATUS IN SOS PROGRAM

% of payers (n=27)

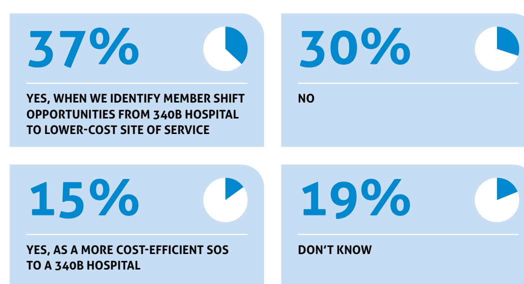
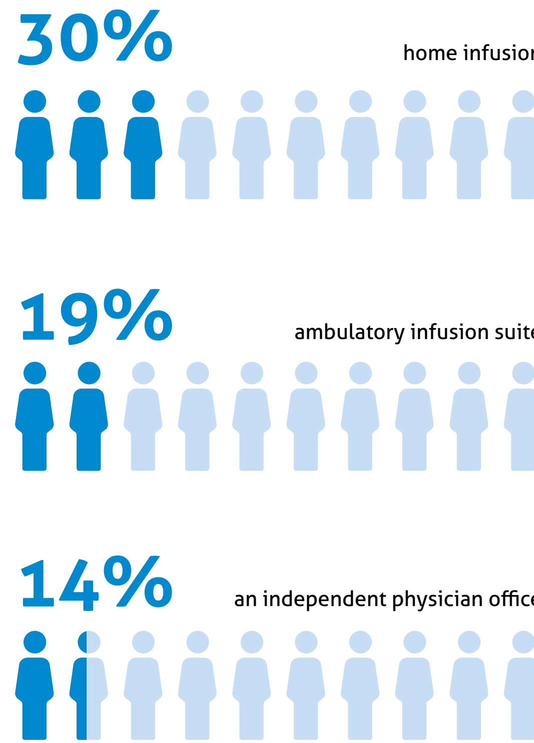


FIGURE 43: MEMBERS SHIFTED INTO

average % of members (n=27)



23%
Average Savings (n=12)†

†Savings self-reported

Biosimilar Reimbursement and Strategy

FIGURE 44: BIOSIMILAR MANAGEMENT

(n=41)

78%

OF PAYERS REIMBURSED BIOSIMILARS THE SAME WAY THEY REIMBURSED ALL MEDICAL BENEFIT DRUGS

78%

OF PAYERS PREFERRED THE BIOSIMILAR OVER THE REFERENCE PRODUCT

63%

OF PAYERS SAID PRICING OF BIOSIMILARS WAS MOST IMPACTFUL ON REIMBURSEMENT STRATEGY

27%

SAVINGS WERE NEEDED ON AVERAGE TO WARRANT PREFERENCING A BIOSIMILAR

FIGURE 45: BIOSIMILAR STEP-THERAPY PROTOCOL

% of payers

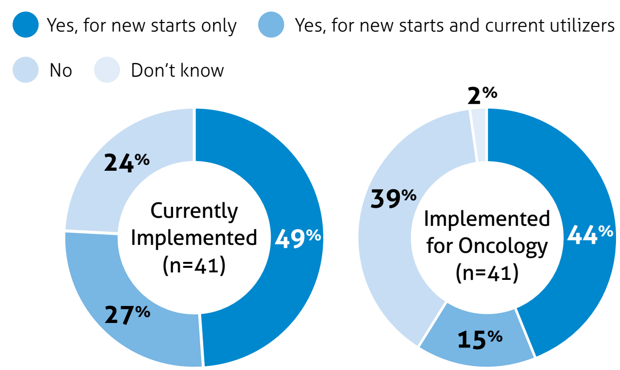


FIGURE 46: BIOSIMILAR REIMBURSEMENT STRATEGY

% of lives (n=168 million)

Medicare model (WAC+6% then ASP+6% of reference product's ASP)	50%
Other ASP+X%	17%
AWP-X%	13%
Maximum allowable cost	9%
Comparable drug profit to reference product	1%
Other (% billed, capitated, fee schedule)	10%

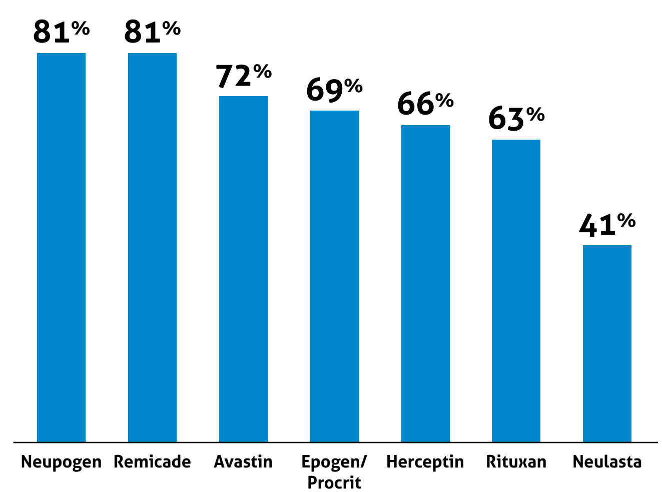
FIGURE 47: BIOSIMILAR STEP-THERAPY CRITERIA

% of payers (n=41)

Significant cost differential with biosimilar agent (average 27%)	88%
FDA designation of interchangeability	42%
Comparable side effect profile and risk of immunogenicity	39%
Provider network acceptance/support of strategy	29%
Member acceptance support of biosimilar product	0%

FIGURE 48: BIOSMILAR PRODUCTS PREFERRED OVER THE REFERENCE PRODUCT NAMED

% of payers (n=32)



Medical Benefit Drug Cost Share‡

In medical pharmacy, payer cost burden was high. Medicare members had the highest cost share compared to other lines of business. Among payers with a formal medical benefit structure, up to 44% had a three-tier structure.

76% of payers are managing out-of-network benefit use (n=41)

22% of payers have a formal out-of-pocket benefit structure for medical benefit drugs (n=41)

FIGURE 49: MEDICAL BENEFIT DRUG COST SHARE

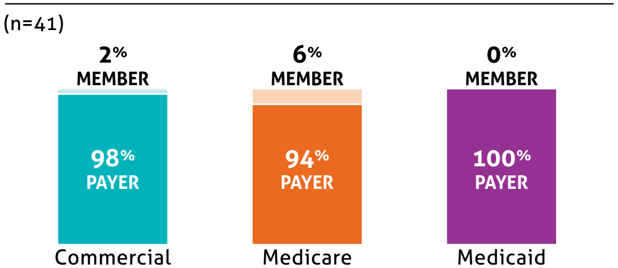


FIGURE 50: MEDICAL BENEFIT MEMBER COST SHARE TYPE

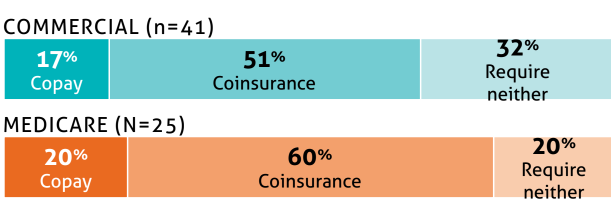
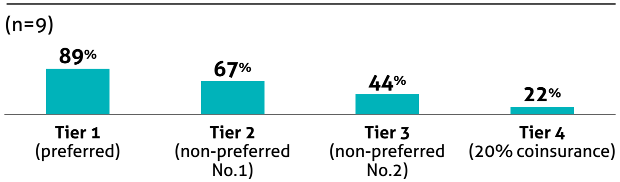


FIGURE 51: OOP COST STRUCTURE



‡Includes deductible, copay, and coinsurance

Payers were more likely to vary their cost share by SOS, with 24% varying by SOS and 34% having the capability to vary by SOS. 15% of payers varied cost share by drug, and 7% varied by indication. Of the small amount of payers varying cost share by drug, SOS, or indication, around two-thirds saw positive outcomes from this practice.

FIGURE 52: LANDSCAPE OF VARYING COST SHARE BY DRUG

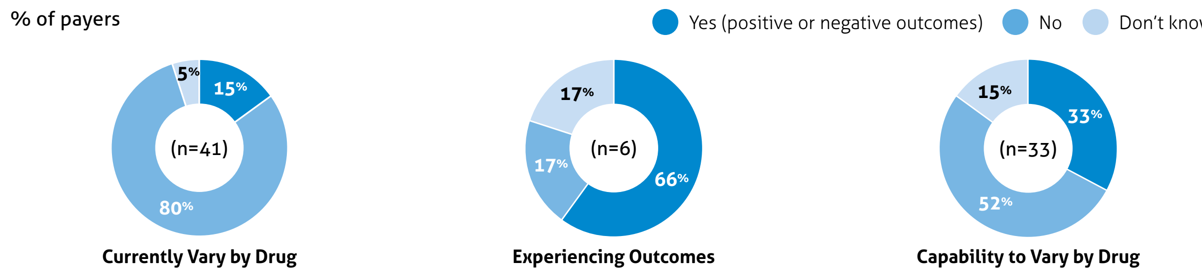


FIGURE 53: LANDSCAPE OF VARYING COST SHARE BY SITE OF SERVICE

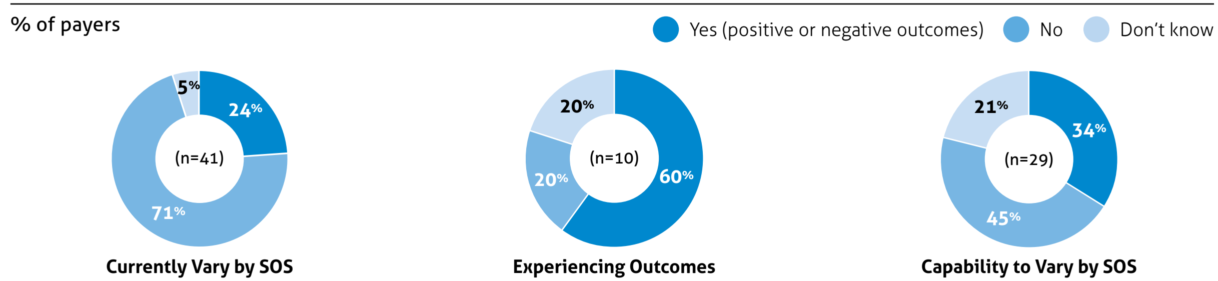
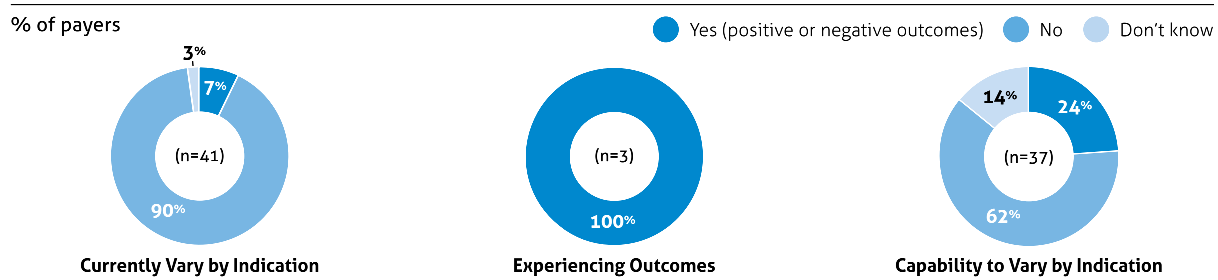


FIGURE 54: LANDSCAPE OF VARYING COST SHARE BY INDICATION



Health Information Data

71% of payers were currently collecting NDC data (n=41)

54% of payers used forecasting data on a quarterly basis (n=35)

63% of payers used forecasting across their total pharmacy strategy (n=35)

FIGURE 55: CURRENT NDC DATA COLLECTION METHODS

% of payers (n=29)

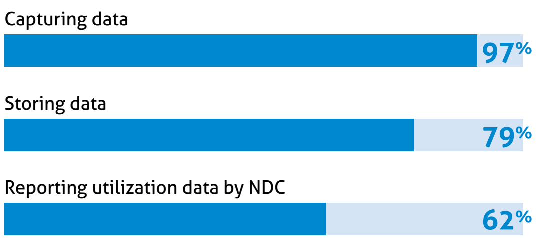


FIGURE 56: DATA COLLECTION USE

% of payers (n=29)

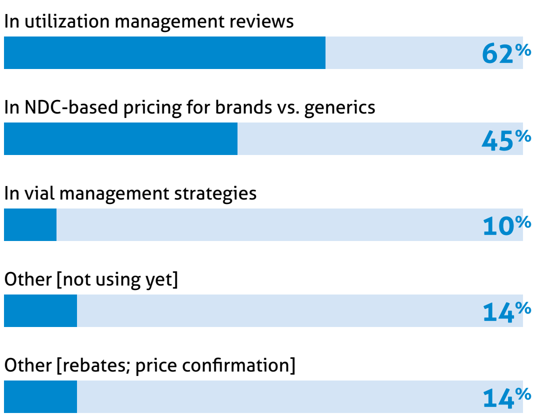


FIGURE 57: PROVIDERS COLLECTING AND REPORTING OUTCOMES DATA

% of providers (n=41)

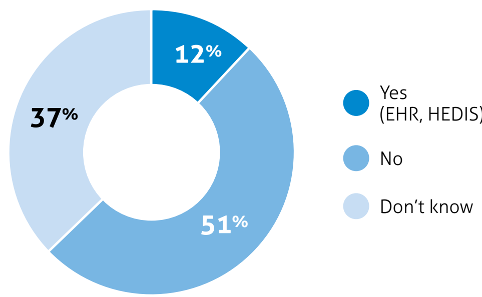


FIGURE 58: MANAGEMENT CHANGES BASED ON QUALITY AND OUTCOMES DATA COLLECTION

% of payers (n=5)

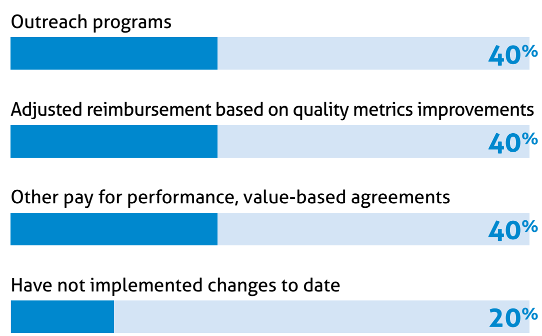


FIGURE 59: USE OF FORECASTING DATA FOR MEDICAL PHARMACY STRATEGY

% of payers (n=41)

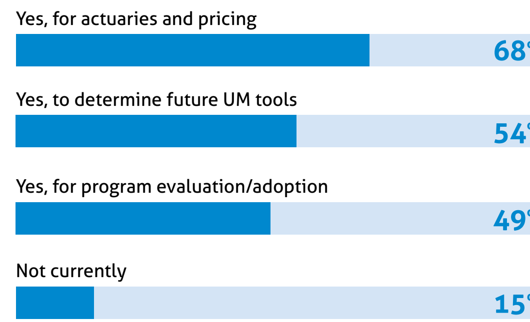
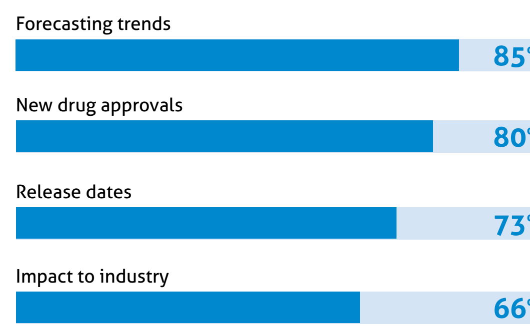


FIGURE 60: USE OF PIPELINE INFORMATION

% of payers (n=41)



MEDICAL BENEFIT PIPELINE AND FORECAST

In 2020, the FDA approved 53 new molecular entities (NMEs) and a dozen biological drugs. Most notable are the multiple agents approved to treat cancer, such as gene therapy Tecartus for mantle cell lymphoma, Sarclisa and Blenrep for multiple myeloma, Danyelza for neuroblastoma, and Trodelvy for metastatic triple-negative breast cancer, among others. There were several agents approved to treat rare disease, such as Enspryng and Uplizna for neuromyelitis optica spectrum disorder, Viltepso for Duchenne muscular dystrophy, Orladeyo for hereditary angioedema, and Evrysdi, the first oral agent to treat spinal muscular atrophy. 2020 saw multiple vaccines and Emergency Use Authorization for prevention and treatment of COVID-19, such as Veklury.

The below pipeline drug outlook is an aerial outline of drugs with anticipated FDA approval through 2021. It is not intended to be a comprehensive inventory of all drugs in the pipeline; emphasis is placed on drugs in high-impact categories. Investigational drugs with a Complete Response Letter (CRL) and those that have been withdrawn from development are also noted. (**see figure 61**). The segment of pipeline drugs anticipated to have at least $1 billion in spend is expected to increase 33%, from 48 drugs in 2019 to 64 drugs in 2025 (**see figure 62**).

For more detailed drug pipeline information, visit www.magellanrx.com/pipeline.

Forecasting powered by

MRx Predict

Data provided by Evaluate Ltd. EvaluatePharma®.

FIGURE 61: PIPELINE DRUG OUTLOOK THROUGH 2021[1]

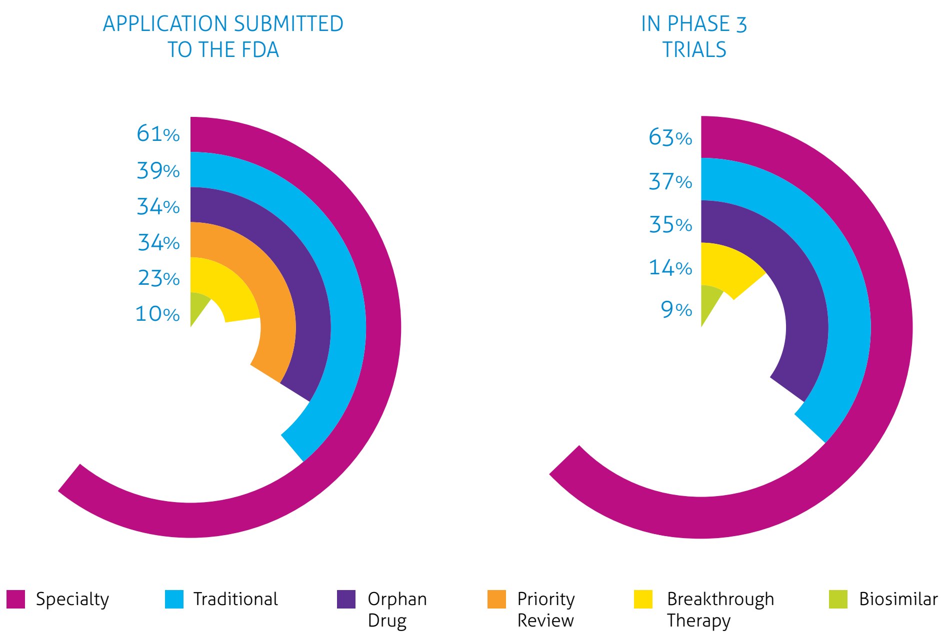
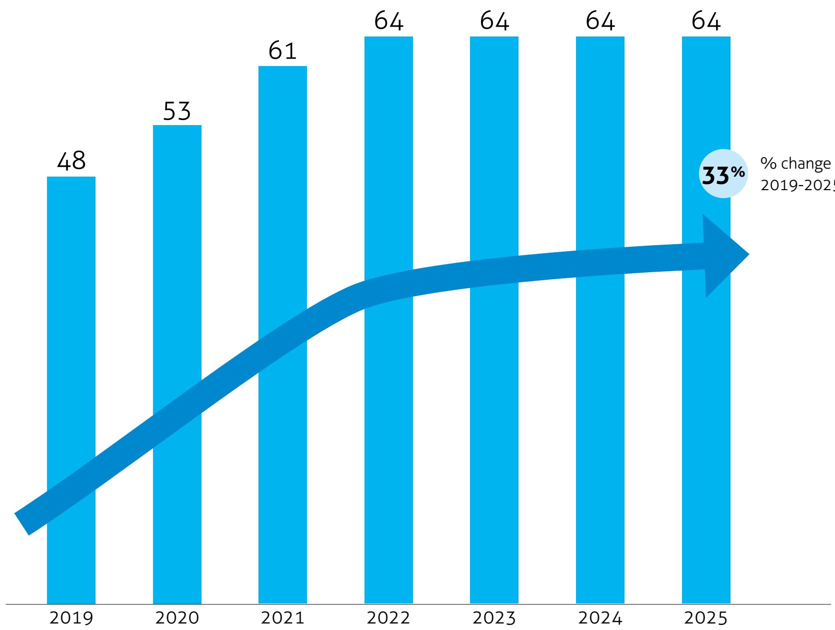


FIGURE 62: BILLION-DOLLAR DRUGS FORECAST[2]



[1]MRx Pipeline Report January 2021. https://www1.magellanrx.com/publications/mrx-pipeline/.
[2]Data provided by Evaluate Ltd. EvaluatePharma®

APPENDIX

FIGURE 63: MEDICAL PHARMACY ALLOWED AMOUNT PMPM 2015-2019

	2015	2015-2016 % Change	2016	2016-2017 % Change	2017	2017-2018 % Change	2018	2018-2019 % Change	2019
COMMERCIAL									
Home Infusion	$3.16	▲ 5%	$3.32	▲ 7%	$3.55	▲ 13%	$4.01	▲ 7%	$4.30
Hospital OP	$10.08	▲ 4%	$10.53	▲ 9%	$11.48	▲ 20%	$13.74	▲ 21%	$16.63
Physician Office	$7.47	▲ 11%	$8.31	▲ 12%	$9.28	▲ 18%	$10.93	▲ 8%	$11.80
Total	**$20.71**	**▲ 7%**	**$22.16**	**▲ 10%**	**$24.31**	**▲ 18%**	**$28.68**	**▲ 14%**	**$32.73**
MEDICARE									
Home Infusion	$3.62	▲ 11%	$4.03	▲ 6%	$4.27	▼ -5%	$4.06	▼ -9%	$3.71
Hospital OP	$18.44	▲ 8%	$19.93	▲ 5%	$20.93	▲ 8%	$22.63	▲ 7%	$24.17
Physician Office	$27.06	▲ 1%	$27.31	▲ 13%	$30.96	▲ 11%	$34.38	▲ 7%	$36.72
Total	**$49.12**	**▲ 4%**	**$51.28**	**▲ 10%**	**$56.16**	**▲ 9%**	**$61.07**	**▲ 6%**	**$64.59**
MEDICAID									
Home Infusion	$1.64	▼ -2%	$1.61	▼ -3%	$1.56	▲ 4%	$1.62	▲ 19%	$1.92
Hospital OP	$5.37	▲ 10%	$5.90	▼ -2%	$5.78	▲ 25%	$7.21	▲ 16%	$8.39
Physician Office	$3.14	▲ 16%	$3.64	▼ -8%	$3.33	▲ 8%	$3.60	▲ 16%	$4.19
Total	**$10.15**	**▲ 10%**	**$11.15**	**▼ -4%**	**$10.68**	**▲ 16%**	**$12.42**	▲ 17%	**$14.51**

Due to rounding, totals may not add up accurately.

FIGURE 64: 2019 TOP 20 COMMERCIAL COST TRENDS BY DISEASE STATE OR DRUG CATEGORY

Rank	Commercial Therapy	2018 PMPM	2019 PMPM	2018-2019 % Change	% of Total PMPM	Cost per Claim	Members per 1,000	ASP Index	AWP Index
1	Oncology	$10.30	$12.62	22%	38.6%	$3,151	1.50	1.67	1.26
2	BDAID: Crohn's Disease/Ulcerative Colitis	$2.64	$2.89	9%	8.8%	$6,716	0.32	1.67	0.94
3	Immune Globulin	$2.12	$2.18	3%	6.7%	$3,159	0.15	1.33	0.64
4	Multiple Sclerosis	$1.46	$2.16	48%	6.6%	$18,778	0.11	1.61	1.28
5	Colony-Stimulating Factors	$1.87	$2.00	7%	6.1%	$5,372	0.32	-	0.36
6	BDAID: Rheumatoid Arthritis	$1.17	$0.99	-15%	3.0%	$3,826	0.15	1.30	0.80
7	Antihemophilic Factor	$0.68	$0.76	11%	2.3%	$19,467	0.01	1.79	1.26
8	Hematology	$0.57	$0.75	32%	2.3%	$11,873	0.01	1.46	1.19
9	Other	$0.52	$0.63	21%	1.9%	$140	9.50	1.83	0.91
10	Asthma/COPD	$0.50	$0.62	25%	1.9%	$665	2.23	1.35	1.06
11	Ophthalmic Injections	$0.51	$0.61	21%	1.9%	$1,200	0.43	1.23	0.95
12	Enzyme-Replacement Therapy	$0.33	$0.47	40%	1.4%	$15,074	0.01	1.87	1.19
13	Contraceptives	$0.42	$0.46	9%	1.4%	$650	2.15	-	0.85
14	Infectious Disease	$0.47	$0.44	-7%	1.3%	$72	13.88	2.44	0.75
15	Botulinum Toxins	$0.42	$0.42	2%	1.3%	$1,066	0.54	1.36	1.09
16	BDAID: Psoriasis/Psoriatic Arthritis	$0.44	$0.40	-11%	1.2%	$6,809	0.05	1.45	0.77
17	Iron, Intravenous	$0.32	$0.39	22%	1.2%	$645	0.76	2.07	1.09
18	Antiemetics	$0.43	$0.39	-8%	1.2%	$103	8.77	2.67	1.76
19	CNS Agents: Rare Diseases	$0.24	$0.29	18%	0.9%	$62,705	0.00	-	0.94
20	Gastrointestinal: Chemoprotectant/Hormonal	$0.25	$0.29	17%	0.9%	$7,970	0.02	1.69	1.26

Due to rounding, totals may not add up accurately.

APPENDIX

FIGURE 65: 2019 TOP 20 MEDICARE COST TRENDS BY DISEASE STATE OR DRUG CATEGORY

Rank	Medicare Therapy	2018 PMPM	2019 PMPM	2018-2019 % Change	% of Total PMPM	Cost per Claim	Members per 1,000	ASP Index	AWP Index
1	Oncology	$29.50	$33.86	15%	52.4%	$2,148	7.7	1.02	0.76
2	Ophthalmic Injections	$7.43	$7.49	1%	11.6%	$925	5.9	1.07	0.83
3	Colony-Stimulating Factors	$3.62	$3.43	-5%	5.3%	$2,616	1.6	1.03	0.61
4	Immune Globulin	$3.28	$2.57	-22%	4.0%	$2,454	0.4	1.11	0.54
5	Multiple Sclerosis	$1.45	$1.73	19%	2.7%	$12,693	0.2	0.97	0.77
6	Hematology	$1.21	$1.46	21%	2.3%	$5,416	0.1	1.00	0.80
7	Other	$1.19	$1.30	10%	2.0%	$100	21.3	1.22	0.70
8	BDAID: Rheumatoid Arthritis	$2.02	$1.29	-36%	2.0%	$2,748	0.3	0.95	0.58
9	Viscosupplementation	$0.95	$1.14	20%	1.8%	$344	4.7	1.84	0.44
10	Bone Resorption Inhibitors (Osteoporosis)	$0.82	$0.98	19%	1.5%	$919	3.1	1.02	0.74
11	Erythropoiesis-Stimulating Agents	$1.19	$0.92	-22%	1.4%	$522	1.3	1.03	0.48
12	BDAID: Crohn's Disease/Ulcerative Colitis	$0.95	$0.79	-16%	1.2%	$4,152	0.2	0.97	0.57
13	Antihemophilic Factor	$0.58	$0.77	33%	1.2%	$23,515	0.0	2.09	1.37
14	Botulinum Toxins	$0.62	$0.72	16%	1.1%	$853	1.2	1.04	0.84
15	Gastrointestinal: Chemoprotectant/Hormonal	$0.84	$0.69	-18%	1.1%	$4,723	0.1	0.96	0.71
16	Iron, Intravenous	$0.58	$0.67	16%	1.0%	$393	2.2	1.02	0.52
17	Asthma/COPD	$0.65	$0.67	2%	1.0%	$280	4.6	0.97	0.59
18	Antiemetics	$0.77	$0.55	-28%	0.9%	$119	4.6	1.13	0.72
19	Enzyme-Replacement Therapy	$0.01	$0.46	-	0.7%	$6,390	0.0	1.24	0.87
20	Infectious Disease	$0.49	$0.46	-7%	0.7%	$59	13.0	1.33	0.44

Due to rounding, totals may not add up accurately.

APPENDIX

FIGURE 66: 2019 TOP 20 MEDICAID COST TRENDS BY DISEASE STATE OR DRUG CATEGORY

Rank	Medicaid Therapy	2018 PMPM	2019 PMPM	2018-2019 % Change	% of Total PMPM	Cost per Claim	Members per 1,000	ASP Index	AWP Index
1	Oncology	$4.20	$5.09	21%	35.1%	$2,450	0.8	1.27	0.97
2	CNS Agents: Rare Diseases	$0.51	$0.77	49%	5.3%	$61,047	0.0	-	0.77
3	Antihemophilic Factor	$0.79	$0.75	-5%	5.2%	$19,716	0.0	1.17	0.76
4	BDAID: Crohn's Disease/Ulcerative Colitis	$0.74	$0.74	0%	5.1%	$5,814	0.1	1.47	0.81
5	Colony-Stimulating Factors	$0.84	$0.74	-11%	5.1%	$4,266	0.2	1.39	0.82
6	Multiple Sclerosis	$0.46	$0.68	48%	4.7%	$14,630	0.1	1.20	0.95
7	Immune Globulin	$0.59	$0.56	-6%	3.8%	$2,331	0.1	1.30	0.63
8	Contraceptives	$0.50	$0.55	10%	3.8%	$363	3.9	-	0.83
9	Hematology	$0.34	$0.46	38%	3.2%	$7,550	0.0	1.23	1.01
10	Asthma/COPD	$0.22	$0.35	59%	2.4%	$397	2.4	1.14	0.91
11	Enzyme-Replacement Therapy	$0.26	$0.33	28%	2.3%	$14,463	0.0	1.44	1.07
12	Botulinum Toxins	$0.32	$0.33	2%	2.2%	$1,138	0.6	1.14	0.92
13	Progestins	$0.10	$0.28	179%	1.9%	$970	0.1	-	0.85
14	BDAID: Rheumatoid Arthritis	$0.30	$0.26	-13%	1.8%	$3,120	0.1	1.22	0.70
15	Infectious Disease	$0.22	$0.24	13%	1.7%	$78	6.1	1.52	0.58
16	Other	$0.14	$0.24	67%	1.6%	$103	4.5	1.56	1.00
17	Antiemetics	$0.22	$0.20	-11%	1.3%	$72	5.8	2.41	1.64
18	Iron, Intravenous	$0.15	$0.18	14%	1.2%	$469	0.5	1.34	0.72
19	Unclassified	$0.11	$0.17	53%	1.2%	$360	0.8	-	-
20	Corticosteroids	$0.12	$0.17	37%	1.2%	$25	14.3	2.12	1.57

Due to rounding, totals may not add up accurately.

APPENDIX

FIGURE 67: COMMERCIAL TOP 25 DRUGS COST TRENDS 2018-2019

					PMPM			COST PER PATIENT			MEMBERS/1,000	
Rank	PY Rank	Change in Rank	HCPCS	Brand	2018	2019	% Change	2018	2019	% Change	2018	2019
1	1	▶	J1745	Remicade	$2.49	$2.30	-8%	$35,610	$34,839	-2%	0.30	0.27
2	2	▶	J2505	Neulasta	$1.78	$1.77	0%	$29,233	$31,213	7%	0.27	0.24
3	7	▲	J2350	Ocrevus	$0.77	$1.42	85%	$77,957	$82,688	6%	0.04	0.07
4	3	▼	J9355	Herceptin	$1.31	$1.33	2%	$63,187	$71,235	13%	0.09	0.08
5	4	▼	J931X	Rituxan	$1.23	$1.30	6%	$38,774	$42,241	9%	0.14	0.13
6	9	▲	J9271	Keytruda	$0.74	$1.29	74%	$77,253	$87,257	13%	0.04	0.06
7	5	▼	J9035	Avastin	$1.02	$1.15	13%	$20,466	$23,588	15%	0.22	0.21
8	8	▶	J3380	Entyvio	$0.75	$1.07	42%	$38,349	$40,367	5%	0.08	0.11
9	6	▼	J9299	Opdivo	$0.93	$1.02	10%	$81,868	$92,437	13%	0.05	0.05
10	11	▲	J9306	Perjeta	$0.62	$0.73	18%	$58,706	$66,489	13%	0.06	0.05
11	12	▲	J2323	Tysabri	$0.59	$0.66	12%	$65,840	$71,220	8%	0.04	0.04
12	15	▲	J1300	Soliris	$0.45	$0.64	42%	$457,591	$474,998	4%	0.00	0.01
13	10	▼	J1561	Gamunex-C/Gammaked	$0.64	$0.63	-2%	$55,317	$48,083	-13%	0.04	0.05
14	13	▼	J1569	Gammagard Liquid	$0.51	$0.54	6%	$46,865	$46,606	-1%	0.04	0.05
15	14	▼	J0897	Xgeva/Prolia	$0.47	$0.53	13%	$4,997	$5,206	4%	0.41	0.43
16	17	▲	J2357	Xolair	$0.39	$0.41	6%	$20,143	$19,417	-4%	0.08	0.08
17	16	▼	J0585	Botox	$0.39	$0.40	2%	$3,046	$3,206	5%	0.55	0.51
18	24	▲	J9145	Darzalex	$0.26	$0.38	48%	$107,326	$114,044	6%	0.01	0.01
19	20	▲	J1459	Privigen	$0.32	$0.38	21%	$45,478	$47,356	4%	0.03	0.03
20	21	▲	J0178	Eylea	$0.31	$0.38	24%	$11,041	$11,778	7%	0.12	0.13
21	18	▼	J9228	Yervoy	$0.33	$0.36	11%	$112,689	$107,152	-5%	0.01	0.02
22	23	▲	J9305	Alimta	$0.28	$0.35	27%	$41,154	$46,502	13%	0.04	0.03
23	22	▼	J0129	Orencia	$0.29	$0.31	7%	$32,086	$32,830	2%	0.04	0.04
24	55	▲	J9354	Kadcyla	$0.12	$0.29	142%	$77,107	$106,789	38%	0.01	0.01
25	19	▼	J3357	Stelara	$0.32	$0.29	-11%	$42,406	$52,879	25%	0.03	0.02

APPENDIX

FIGURE 68: MEDICARE TOP 25 DRUGS COST TRENDS 2018-2019

Rank	PY Rank	Change in Rank	HCPCS	Brand	PMPM			COST PER PATIENT			MEMBERS/1,000	
					2018	2019	% Change	2018	2019	% Change	2018	2019
1	2	▲	J9271	Keytruda	$4.11	$5.87	43%	$54,249	$52,650	-3%	0.67	0.45
2	1	▼	J0178	Eylea	$4.12	$4.12	0%	$9,871	$10,565	7%	1.55	1.92
3	3	▶	J9299	Opdivo	$3.59	$4.02	12%	$54,150	$58,645	8%	0.41	0.40
4	4	▶	J2505	Neulasta	$3.39	$2.92	-14%	$16,927	$16,222	-4%	1.08	1.21
5	6	▲	J2778	Lucentis	$2.81	$2.84	1%	$10,247	$10,158	-1%	1.11	1.27
6	5	▼	J931X	Rituxan	$3.02	$2.73	-10%	$24,959	$23,702	-5%	0.50	0.52
7	7	▶	J0897	Xgeva/Prolia	$2.72	$2.68	-1%	$3,332	$3,049	-8%	3.67	3.53
8	8	▶	J9035	Avastin	$2.00	$2.20	10%	$2,797	$3,093	11%	4.25	4.35
9	9	▶	J9355	Herceptin	$1.95	$1.94	0%	$43,575	$40,237	-8%	0.29	0.27
10	13	▲	J9145	Darzalex	$1.15	$1.52	32%	$60,034	$60,730	1%	0.15	0.12
11	563	▲	J9173	Imfinzi	$0.00	$1.26	-	$0	$57,920	-	0.13	0.00
12	19	▲	J2350	Ocrevus	$0.73	$1.15	58%	$40,206	$47,184	17%	0.11	0.08
13	14	▲	J9305	Alimta	$1.01	$1.10	10%	$24,986	$23,830	-5%	0.28	0.24
14	15	▲	J1300	Soliris	$0.94	$1.10	17%	$279,069	$290,023	4%	0.02	0.01
15	34	▲	J9022	Tecentriq	$0.44	$0.98	123%	$46,711	$46,168	-1%	0.13	0.06
16	12	▼	J9041	Velcade	$1.20	$0.97	-19%	$24,243	$21,873	-10%	0.26	0.30
17	10	▼	J1745	Remicade	$1.35	$0.93	-31%	$20,236	$16,563	-18%	0.23	0.29
18	25	▲	J9228	Yervoy	$0.57	$0.88	54%	$63,157	$63,378	0%	0.08	0.06
19	11	▼	J1569	Gammagard Liquid	$1.28	$0.82	-35%	$31,616	$23,143	-27%	0.14	0.16
20	22	▲	J9306	Perjeta	$0.67	$0.82	22%	$42,420	$39,540	-7%	0.12	0.10
21	20	▼	J9217	Eligard/Lupron Depot	$0.72	$0.75	5%	$1,837	$1,887	3%	1.64	1.71
22	21	▼	J9264	Abraxane	$0.71	$0.69	-3%	$18,513	$16,283	-12%	0.25	0.23
23	16	▼	J2353	Sandostatin	$0.83	$0.69	-17%	$40,901	$35,199	-14%	0.09	0.09
24	27	▲	J0585	Botox	$0.55	$0.63	15%	$2,150	$2,363	10%	1.08	1.15
25	17	▼	J1561	Gamunex-C/Gammaked	$0.80	$0.62	-22%	$29,766	$23,345	-22%	0.10	0.10

FIGURE 69: MEDICAID TOP 25 DRUGS COST TRENDS 2018-2019

Rank	PY Rank	Change in Rank	HCPCS	Brand	PMPM			COST PER PATIENT			MEMBERS/1,000	
					2018	2019	% Change	2018	2019	% Change	2018	2019
1	3	▲	J9271	Keytruda	$0.47	$0.84	78%	$53,792	$63,897	19%	0.05	0.08
2	1	▼	J1745	Remicade	$0.85	$0.69	-19%	$29,974	$25,620	-15%	0.11	0.11
3	2	▼	J2505	Neulasta	$0.80	$0.68	-15%	$21,411	$21,123	-1%	0.15	0.13
4	7	▲	J2326	Spinraza	$0.35	$0.53	50%	$316,436	$336,155	6%	0.01	0.02
5	4	▼	J9355	Herceptin	$0.46	$0.51	11%	$41,545	$46,594	12%	0.07	0.04
6	6	▶	J9299	Opdivo	$0.40	$0.43	7%	$46,022	$54,014	17%	0.05	0.03
7	14	▲	J2350	Ocrevus	$0.22	$0.42	96%	$40,521	$50,850	25%	0.02	0.03
8	5	▼	J9035	Avastin	$0.42	$0.40	-5%	$11,053	$10,668	-3%	0.23	0.22
9	9	▶	J1300	Soliris	$0.28	$0.39	38%	$245,242	$295,653	21%	0.00	0.01
10	10	▶	J9306	Perjeta	$0.26	$0.33	27%	$39,023	$43,705	12%	0.04	0.03
11	8	▼	J0585	Botox	$0.29	$0.29	1%	$3,043	$3,006	-1%	0.39	0.59
12	11	▼	J931X	Rituxan	$0.26	$0.28	9%	-	$23,608	-	0.08	0.05
13	32	▲	J1726	Makena	$0.10	$0.28	182%	$5,151	$8,143	58%	0.08	0.13
14	17	▼	J2357	Xolair	$0.18	$0.24	30%	$20,119	$17,967	-11%	0.04	0.05
15	19	▲	J1428	Exondys	$0.16	$0.23	46%	$1,104,165	$925,402	-16%	0.00	0.00
16	12	▼	J2323	Tysabri	$0.23	$0.22	-5%	$45,932	$51,620	12%	0.02	0.02
17	-	-	J7170	Hemlibra	-	$0.22	-	-	$242,055	-	-	0.01
18	24	▲	J3380	Entyvio	$0.14	$0.21	48%	$25,093	$28,223	12%	0.02	0.03
19	15	▼	J7307	Implanon	$0.19	$0.21	10%	$997	$925	-7%	0.77	0.90
20	21	▲	J9305	Alimta	$0.15	$0.19	24%	$29,310	$33,566	15%	0.03	0.03
21	13	▼	J1561	Gamunex-C/Gammaked	$0.22	$0.18	-18%	$30,762	$29,129	-5%	0.03	0.02
22	22	▶	J7298	Mirena	$0.15	$0.16	6%	$1,006	$975	-3%	0.92	0.67
23	28	▲	J9042	Adcetris	$0.11	$0.16	41%	$59,307	$243,378	310%	0.01	0.01
24	65	▲	J0256	Aralast	$0.04	$0.16	266%	$115,749	$138,578	20%	0.00	0.00
25	-	-	J9173	Imfinzi	-	$0.16	-	-	$54,488	-	-	0.02

APPENDIX

FIGURE 70: 2019 TOP 10 HIGHEST-COST COMMERCIAL MEDICAL BENEFIT DRUGS

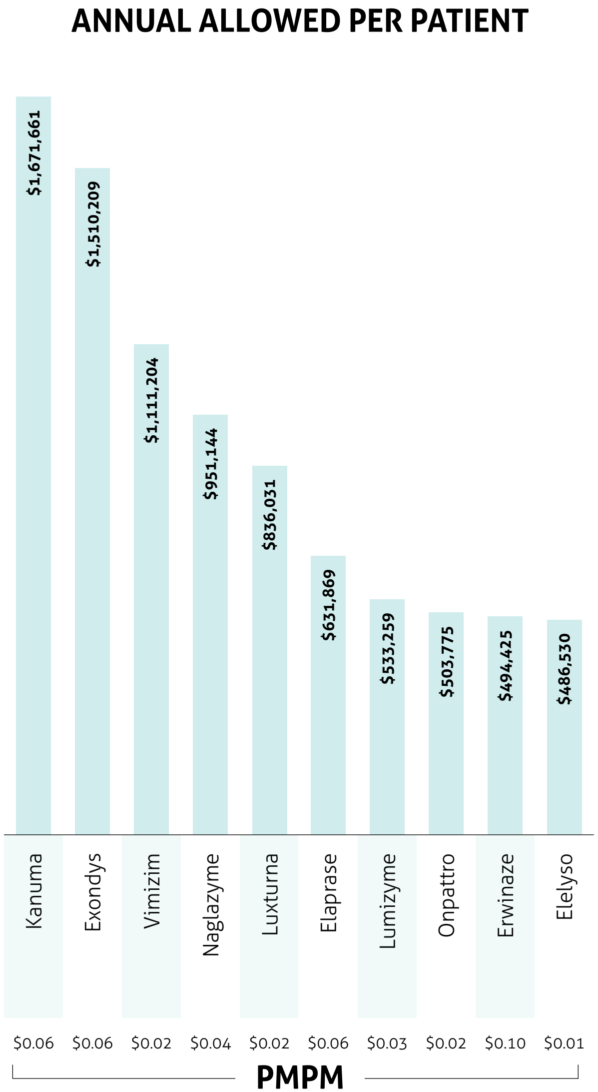


FIGURE 71: 2019 TOP 10 HIGHEST-COST MEDICARE MEDICAL BENEFIT DRUGS

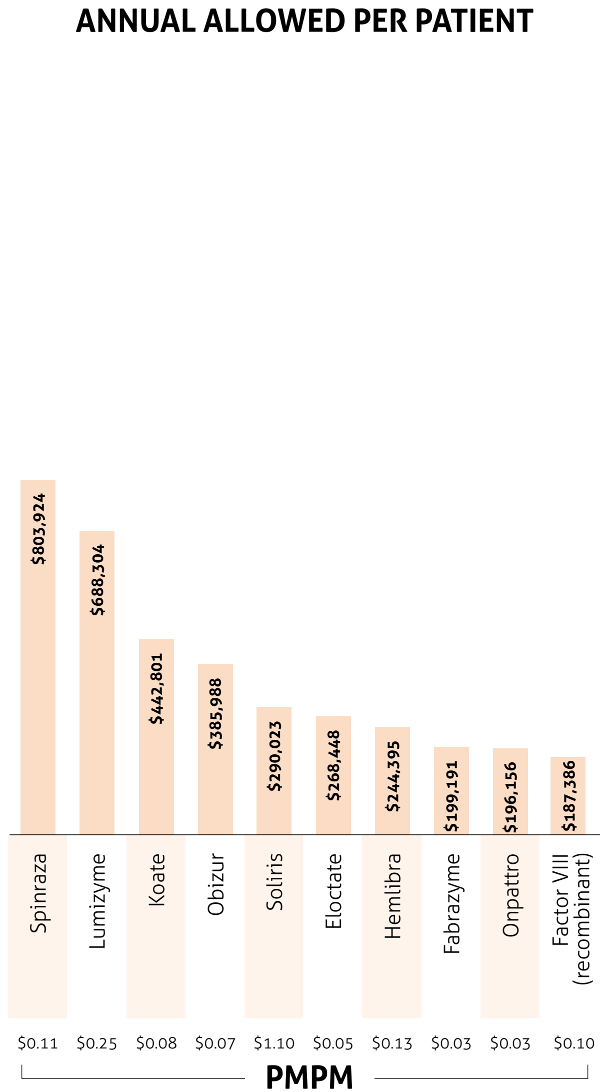
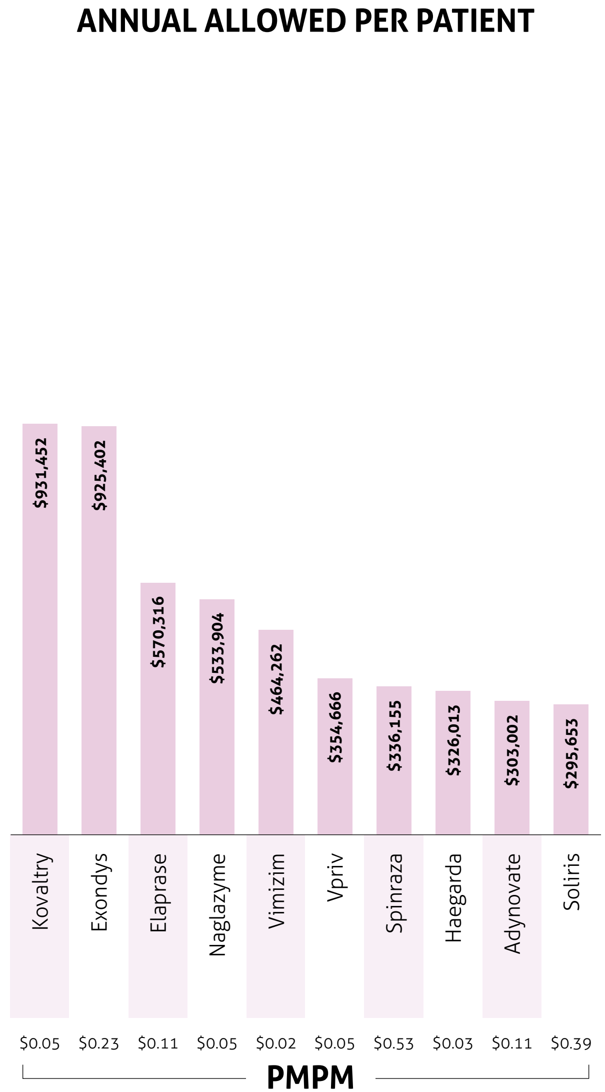


FIGURE 72: 2019 TOP 10 HIGHEST-COST MEDICAID MEDICAL BENEFIT DRUGS



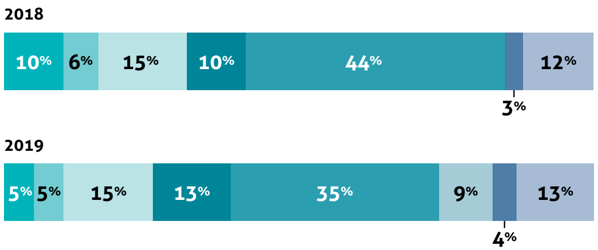
2019 MARKET SHARE TRENDS[1]

Antihemophilic

Figure 73: Commercial

Adynovate · Alprolix · Benefix · Eloctate · Factor VIII (Recombinant) · Hemlibra · Koate · Other Agents[2]

Market Share



Annual Cost per Patient[4]

Brand	2018	2019
Adynovate	$316,162	$349,852
Alprolix	$352,440	$449,552
Benefix	$158,891	$117,344
Eloctate	$384,065	$423,289
Factor VIII (Recombinant)	$172,247	$193,547
Hemlibra	-	$225,576
Koate	$169,527	$106,683
Other agents[2]	$270,762	$319,038

Allowed Amount PMPM

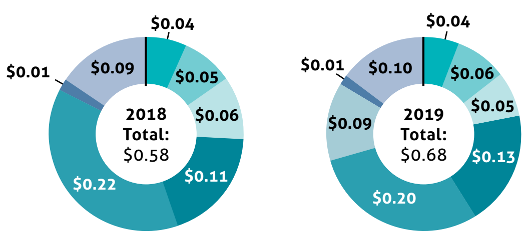
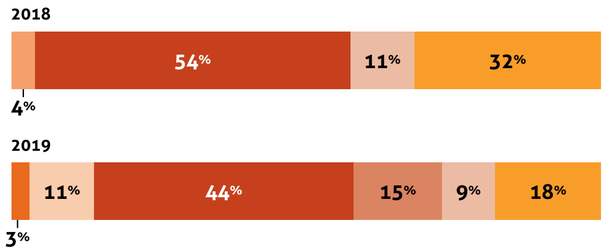


Figure 74: Medicare

Alphanate · Benefix · Eloctate · Factor VIII (Recombinant) · Hemlibra · Koate · Nuwiq

Market Share



Annual Cost per Patient

Brand	2018	2019
Benefix	$45,312	-
Eloctate	-	$268,448
Factor VIII (Recombinant)	$106,960	$187,386
Hemlibra	-	$244,395
Koate	$532,739	$442,801
Nuwiq	$405,621	$179,975

Allowed Amount PMPM

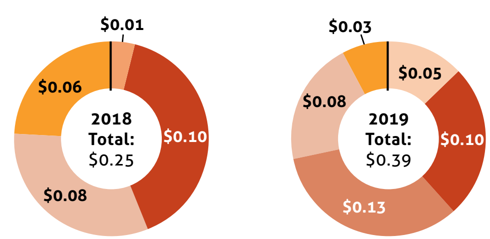
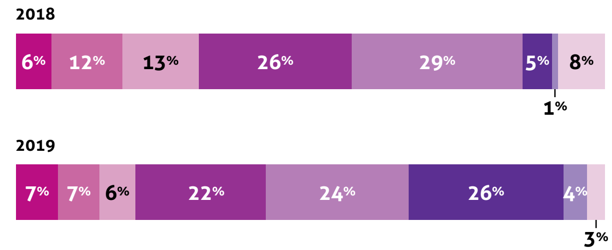


Figure 75: Medicaid

Adynovate · Alphanate · Benefix · Eloctate · Factor VIII (Recombinant) · Hemlibra · Xyntha · Other Agents[3]

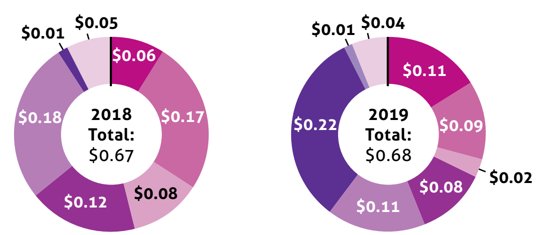
Market Share



Annual Cost per Patient

Brand	2018	2019
Adynovate	$442,322	$303,002
Alphanate	$379,115	$216,312
Benefix	$107,601	$31,049
Eloctate	$187,235	$149,218
Factor VIII (Recombinant)	$135,889	$81,500
Hemlibra	$82,993	$242,055
Xyntha	$3,728	$37,903
Other agents[3]	$137,087	$123,510

Allowed Amount PMPM



1 Only drugs with $0.01 PMPM or greater were included in market share analysis.
2 Other Commercial agents were Xyntha, Alphanate, Idelvion, Nuwiq, Tretten, and Afstyla. All accounted for between 1% and 3% of market share; Xyntha accounted for $0.03 PMPM.
3 Other Medicaid agents were Alprolix, Idelvion, Nuwiq, and Afstyla. Nuiwq accounted for 5% of market share; Alprolix and Afstyla each accounted for $0.03 PMPM.
4 Low patient count and variable disease burden may lead to increased variability in the cost per patient compared to other disease categories.

Due to rounding, totals may not add up accurately.

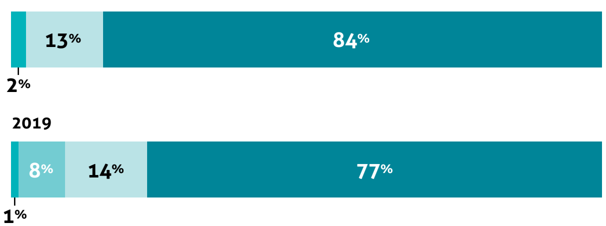
2019 MARKET SHARE TRENDS[1]

Asthma/COPD

Figure 76: Commercial

● Cinqair ● Fasenra ● Nucala ● Xolair

Market Share



Annual Cost per Patient

Brand	2018	2019
Cinqair	$33,247	$28,880
Fasenra	$28,525	$18,305
Nucala	$20,557	$24,993
Xolair	$20,143	$19,417

Allowed Amount PMPM

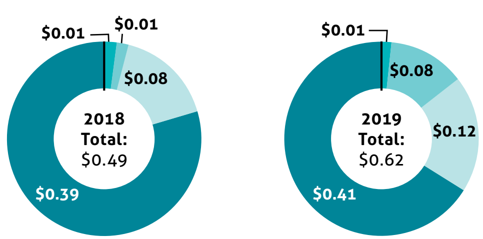
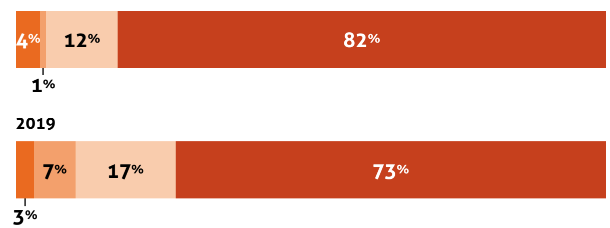


Figure 77: Medicare

● Cinqair ● Fasenra ● Nucala ● Xolair

Market Share



Annual Cost per Patient

Brand	2018	2019
Cinqair	$17,082	$18,209
Fasenra	$15,511	$17,975
Nucala	$14,883	$15,740
Xolair	$17,127	$15,134

Allowed Amount PMPM

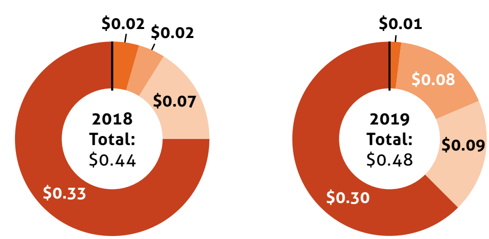
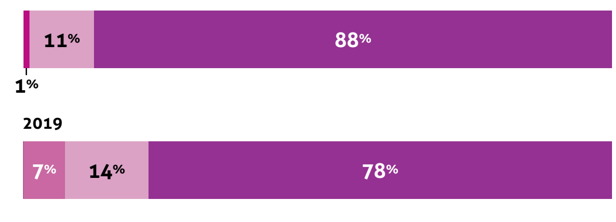


Figure 78: Medicaid

● Cinqair ● Fasenra ● Nucala ● Xolair

Market Share



Annual Cost per Patient

Brand	2018	2019
Cinqair	$7,470	$21,395
Fasenra	$2,480	$15,046
Nucala	$14,330	$15,049
Xolair	$20,119	$17,967

Allowed Amount PMPM

1 Only drugs with $0.01 PMPM or greater were included in market share analysis.

Due to rounding, totals may not add up accurately.

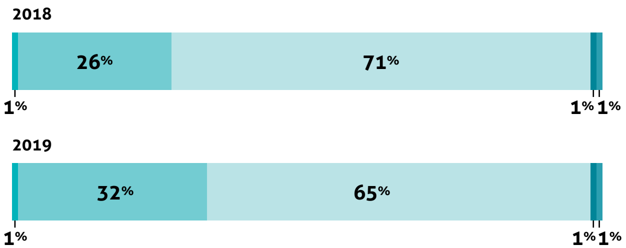
2019 MARKET SHARE TRENDS[1]

BDAIDs: Crohn's Disease/UC

Figure 79: Commercial

Cimzia · Entyvio · Remicade · Stelara · Stelara IV

Market Share



Annual Cost per Patient

Brand	2018	2019
Cimzia	$24,425	$26,974
Entyvio	$38,349	$40,367
Remicade	$35,410	$35,572
Stelara	$86,429	$132,211
Stelara IV	$7,951	$7,324

Allowed Amount PMPM

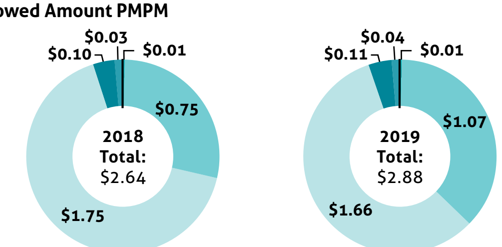
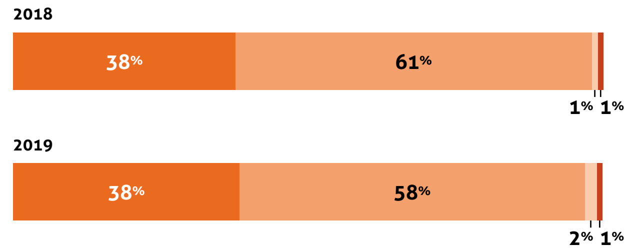


Figure 80: Medicare

Entyvio · Remicade · Stelara · Stelara IV

Market Share



Annual Cost per Patient

Brand	2018	2019
Entyvio	$28,080	$22,299
Remicade	$21,520	$16,812
Stelara	$22,686	$48,955
Stelara IV	$4,441	$5,295

Allowed Amount PMPM

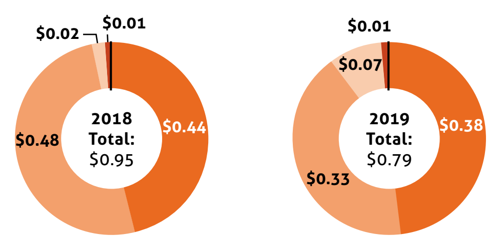
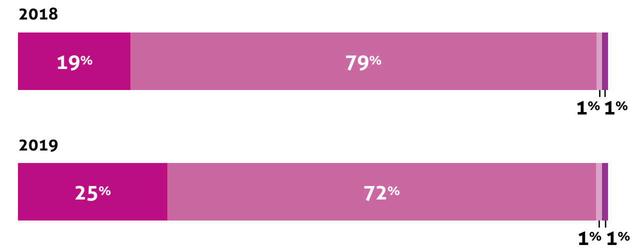


Figure 81: Medicaid

Entyvio · Remicade · Stelara · Stelara IV

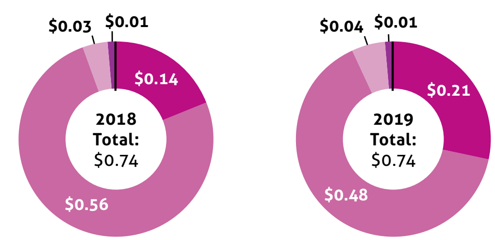
Market Share



Annual Cost per Patient

Brand	2018	2019
Entyvio	$25,093	$28,223
Remicade	$27,992	$24,257
Stelara	$44,158	$92,720
Stelara IV	$5,670	$4,019

Allowed Amount PMPM



1 Only drugs with $0.01 PMPM or greater were included in market share analysis.

Due to rounding, totals may not add up accurately.

2019 MARKET SHARE TRENDS[1]

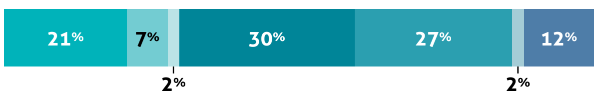
BDAIDs: Rheumatoid Arthritis

Figure 82: Commercial

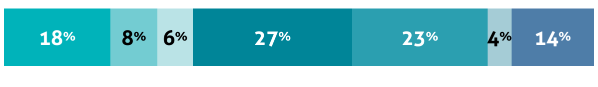
Actemra · Cimzia · Inflectra · Orencia · Remicade · Renflexis · Simponi Aria

Market Share

2018



2019



Annual Cost per Patient

Brand	2018	2019
Actemra	$24,956	$24,698
Cimzia	$21,998	$24,390
Inflectra	$18,602	$22,046
Orencia	$32,086	$32,830
Remicade	$30,925	$28,622
Renflexis	$19,558	$19,358
Simponi Aria	$22,023	$21,536

Allowed Amount PMPM

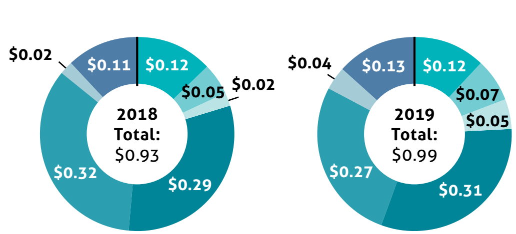


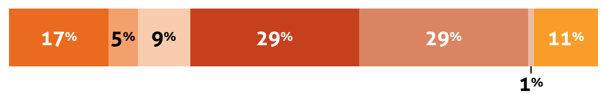
Figure 83: Medicare

Actemra · Cimzia · Inflectra · Orencia · Remicade · Renflexis · Simponi Aria

Market Share

2018

2019



Annual Cost per Patient

Brand	2018	2019
Actemra	$12,847	$13,290
Cimzia	$15,245	$15,479
Inflectra	$8,835	$14,699
Orencia	$22,366	$22,573
Remicade	$17,787	$15,159
Renflexis	$10,528	$3,204
Simponi Aria	$13,339	$13,712

Allowed Amount PMPM

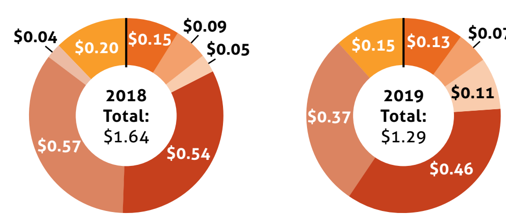
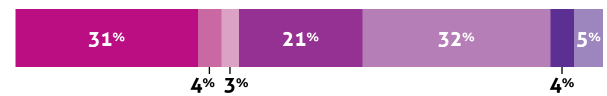


Figure 84: Medicaid

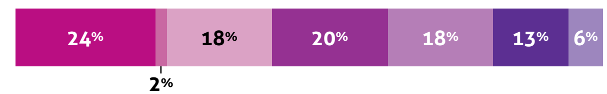
Actemra · Cimzia · Inflectra · Orencia · Remicade · Renflexis · Simponi Aria

Market Share

2018



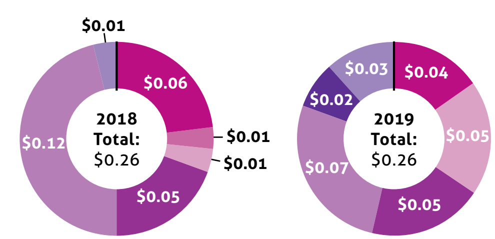
2019



Annual Cost per Patient

Brand	2018	2019
Actemra	$24,708	$21,390
Cimzia	$12,102	$13,492
Inflectra	$8,854	$14,198
Orencia	$23,136	$19,482
Remicade	$29,569	$19,841
Renflexis	$4,712	$9,007
Simponi Aria	$13,836	$25,886

Allowed Amount PMPM



1 Only drugs with $0.01 PMPM or greater were included in market share analysis.

Due to rounding, totals may not add up accurately.

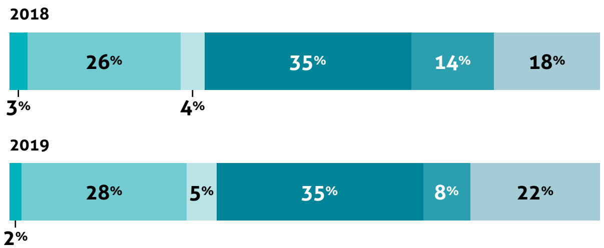
2019 MARKET SHARE TRENDS[1]

Immune Globulin (IV)

Figure 85: Commercial

Carimune/Gammagard · Gammagard Liquid · Gammaplex · Gamunex-C/Gammaked · Octagam · Privigen

Market Share



Annual Cost per Patient

Brand	2018	2019
Carimune/Gammagard	$46,005	$60,701
Gammagard Liquid	$46,865	$46,606
Gammaplex	$58,377	$72,619
Gamunex-C/Gammaked	$55,317	$48,083
Octagam	$33,477	$21,830
Privigen	$45,478	$47,356

Allowed Amount PMPM

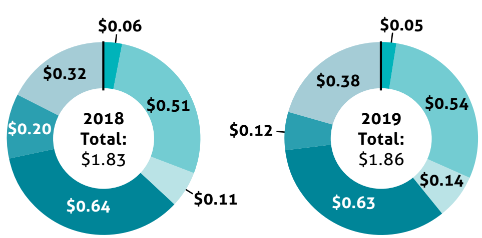
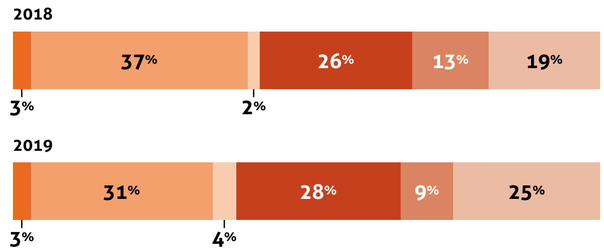


Figure 86: Medicare

Carimune/Gammagard · Gammagard Liquid · Gammaplex · Gamunex-C/Gammaked · Octagam · Privigen

Market Share



Annual Cost per Patient

Brand	2018	2019
Carimune/Gammagard	$31,640	$24,083
Gammagard Liquid	$31,616	$23,143
Gammaplex	$17,694	$64,138
Gamunex-C/Gammaked	$29,766	$23,345
Octagam	$18,887	$16,174
Privigen	$32,925	$17,369

Allowed Amount PMPM

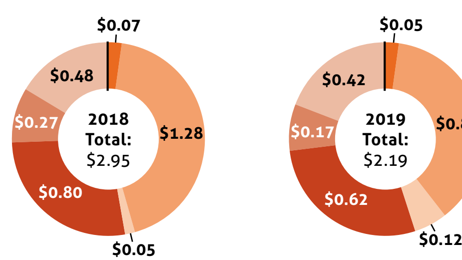
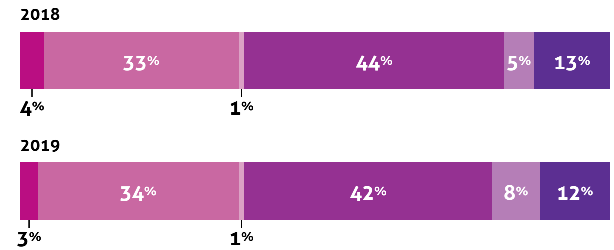


Figure 87: Medicaid

Carimune/Gammagard · Gammagard Liquid · Gammaplex · Gamunex-C/Gammaked · Octagam · Privigen

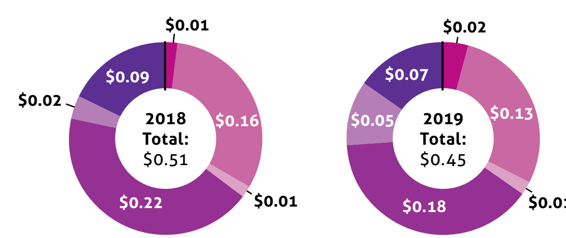
Market Share



Annual Cost per Patient

Brand	2018	2019
Carimune/Gammagard	$22,801	$29,881
Gammagard Liquid	$23,426	$22,061
Gammaplex	$52,262	$26,734
Gamunex-C/Gammaked	$30,762	$29,129
Octagam	$21,166	$40,121
Privigen	$37,688	$30,565

Allowed Amount PMPM



1 Only drugs with $0.01 PMPM or greater were included in market share analysis.

Due to rounding, totals may not add up accurately.

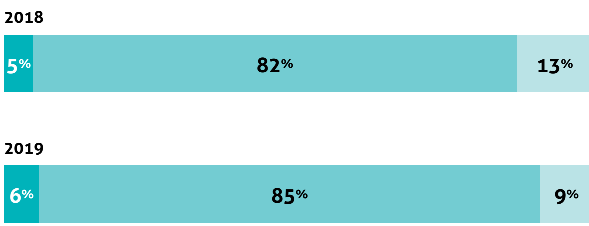
2019 MARKET SHARE TRENDS[1]

Immune Globulin (SQ)

Figure 88: Commercial

Cuvitru Hizentra Hyqvia

Market Share



Annual Cost per Patient

Brand	2018	2019
Cuvitru	$36,382	$44,513
Hizentra	$47,065	$52,654
Hyqvia	$81,449	$63,980

Allowed Amount PMPM

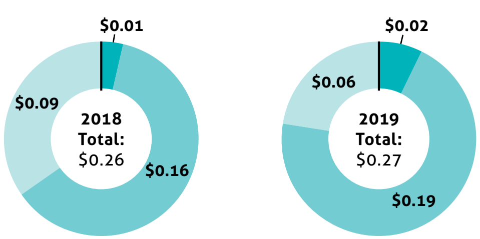
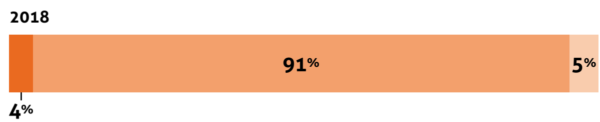


Figure 89: Medicare

Cuvitru Hizentra Hyqvia

Market Share



Annual Cost per Patient

Brand	2018	2019
Cuvitru	$20,680	$34,121
Hizentra	$46,832	$48,513
Hyqvia	$50,809	$52,817

Allowed Amount PMPM

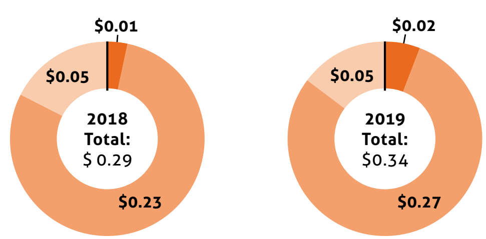
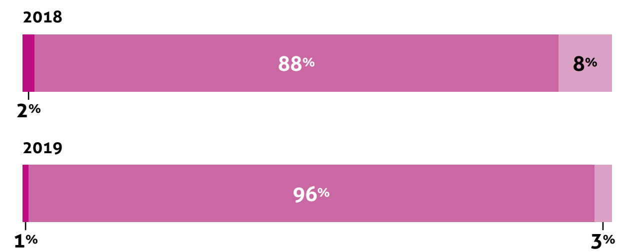


Figure 90: Medicaid

Cuvitru Hizentra Hyqvia

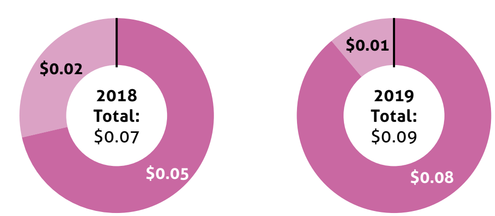
Market Share



Annual Cost per Patient

Brand	2018	2019
Cuvitru	$13,807	$38,371
Hizentra	$28,319	$32,354
Hyqvia	$62,886	$39,796

Allowed Amount PMPM



1 Only drugs with $0.01 PMPM or greater were included in market share analysis.

Due to rounding, totals may not add up accurately.

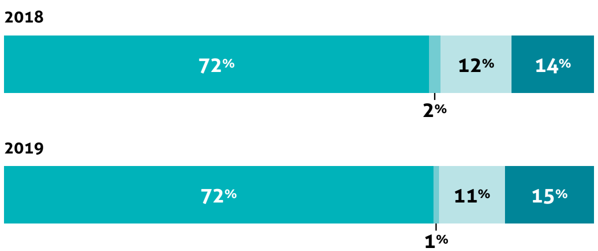
2019 MARKET SHARE TRENDS[1]

Oncology: Colorectal

Figure 91: Commercial

Avastin, Cyramza, Erbitux, Vectibix

Market Share



Annual Cost per Patient

Brand	2018	2019
Avastin	$45,762	$50,112
Cyramza	$72,447	$78,102
Erbitux	$60,719	$61,064
Vectibix	$68,555	$69,346

Allowed Amount PMPM

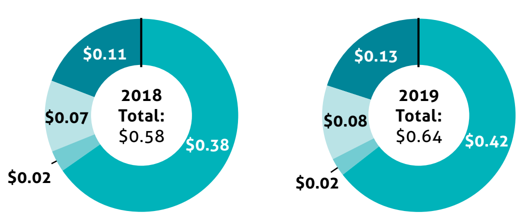
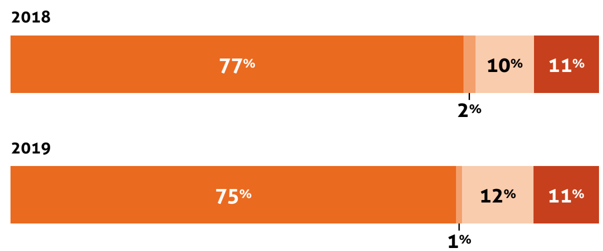


Figure 92: Medicare

Avastin, Cyramza, Erbitux, Vectibix

Market Share



Annual Cost per Patient

Brand	2018	2019
Avastin	$26,859	$26,457
Cyramza	$30,640	$56,157
Erbitux	$33,734	$33,949
Vectibix	$39,561	$25,222

Allowed Amount PMPM

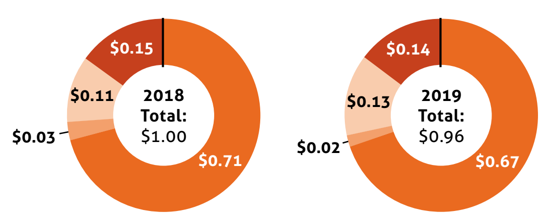
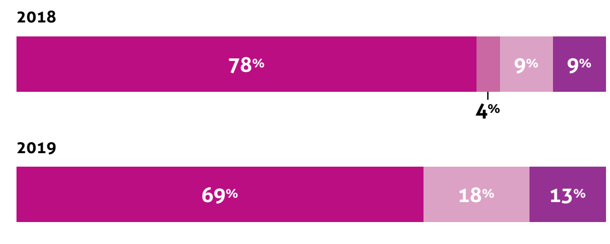


Figure 93: Medicaid

Avastin, Cyramza, Erbitux, Vectibix

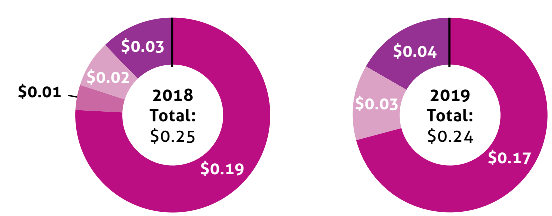
Market Share



Annual Cost per Patient

Brand	2018	2019
Avastin	$29,221	$36,357
Cyramza	$90,509	-
Erbitux	$30,004	$29,182
Vectibix	$27,666	$38,002

Allowed Amount PMPM



1 Only drugs with $0.01 PMPM or greater were included in market share analysis.
Due to rounding, totals may not add up accurately.

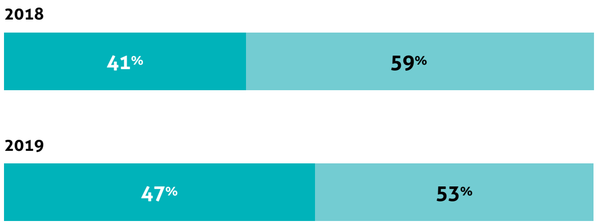
2019 MARKET SHARE TRENDS[1]

Oncology: Multiple Myeloma

Figure 94: Commercial

Darzalex Kyprolis

Market Share



Annual Cost per Patient

Brand	2018	2019
Darzalex	$107,035	$111,550
Kyprolis	$81,663	$84,676

Allowed Amount PMPM

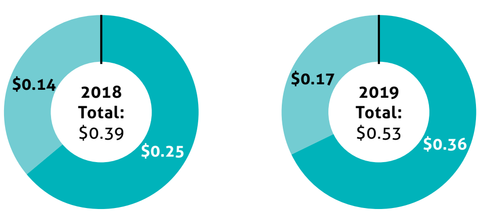
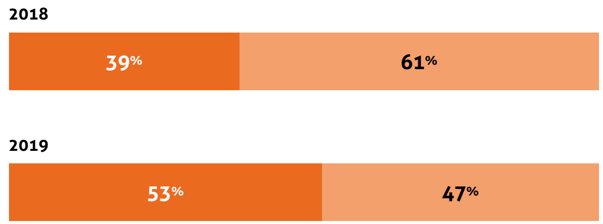


Figure 95: Medicare

Darzalex Kyprolis

Market Share



Annual Cost per Patient

Brand	2018	2019
Darzalex	$58,672	$60,687
Kyprolis	$64,481	$44,292

Allowed Amount PMPM

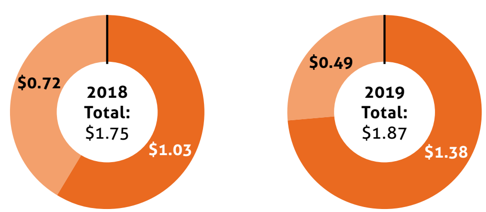
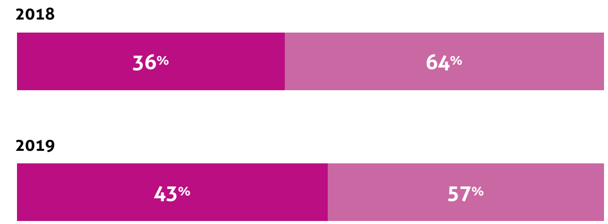


Figure 96: Medicaid

Darzalex Kyprolis

Market Share



Annual Cost per Patient

Brand	2018	2019
Darzalex	$65,888	$77,714
Kyprolis	$71,737	$53,433

Allowed Amount PMPM

1 Only drugs with $0.01 PMPM or greater were included in market share analysis.

Due to rounding, totals may not add up accurately.

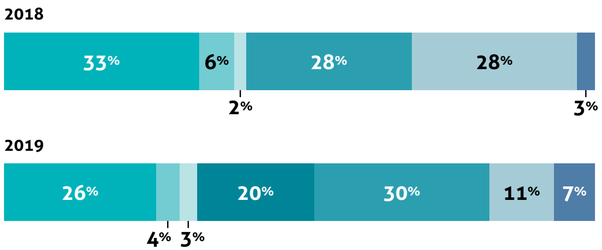
2019 MARKET SHARE TRENDS[1]

Oncology: NSCLC

Figure 97: Commercial

Alimta Avastin Cyramza Imfinzi Keytruda Opdivo Tecentriq

Market Share



Annual Cost per Patient

Brand	2018	2019
Alimta	$37,637	$45,893
Avastin	$64,416	$69,998
Cyramza	$47,848	$50,947
Imfinzi	-	$98,285
Keytruda	$70,505	$88,659
Opdivo	$77,711	$83,326
Tecentriq	$54,718	$70,614

Allowed Amount PMPM

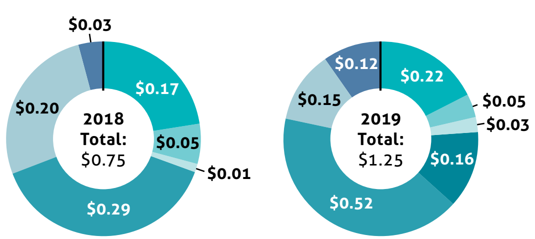
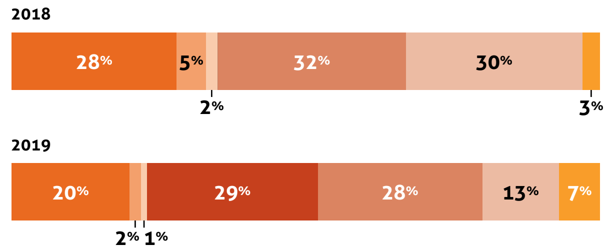


Figure 98: Medicare

Alimta Avastin Cyramza Imfinzi Keytruda Opdivo Tecentriq

Market Share



Annual Cost per Patient

Brand	2018	2019
Alimta	$24,724	$23,186
Avastin	$33,180	$34,865
Cyramza	$18,490	$35,311
Imfinzi	-	$56,823
Keytruda	$48,186	$49,270
Opdivo	$50,531	$55,748
Tecentriq	$31,822	$41,847

Allowed Amount PMPM

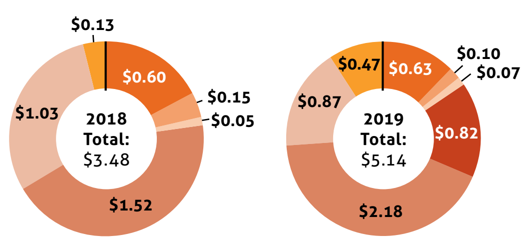
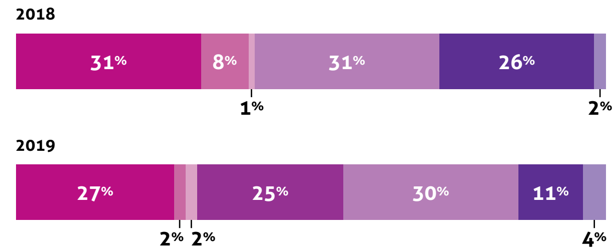


Figure 99: Medicaid

Alimta Avastin Cyramza Imfinzi Keytruda Opdivo Tecentriq

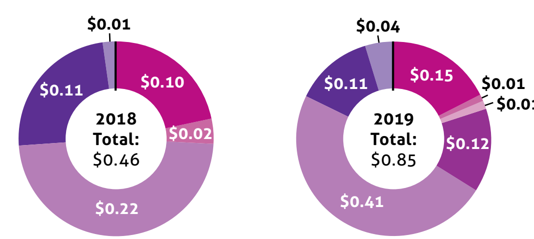
Market Share



Annual Cost per Patient

Brand	2018	2019
Alimta	$29,251	$37,956
Avastin	$28,219	$56,606
Cyramza	$30,506	$25,796
Imfinzi	-	$54,455
Keytruda	$54,108	$74,987
Opdivo	$45,534	$58,770
Tecentriq	$39,506	$33,375

Allowed Amount PMPM



1 Only drugs with $0.01 PMPM or greater were included in market share analysis.

Due to rounding, totals may not add up accurately.

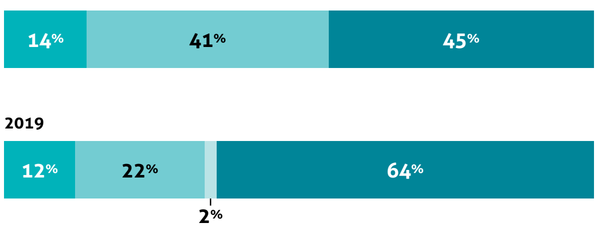
2019 MARKET SHARE TRENDS[1]

Oncology Support: Colony Stimulating Factors, Short-Acting

Figure 100: Commercial

Granix Neupogen Nivestym Zarxio

Market Share



Annual Cost per Patient

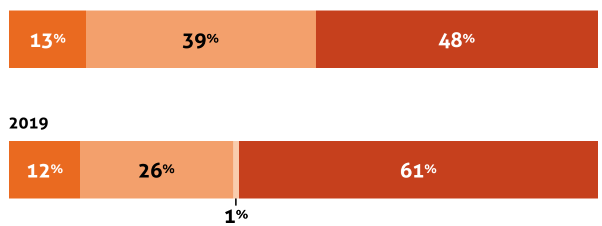
Brand	2018	2019
Granix	$5,630	$5,099
Neupogen	$6,510	$6,941
Nivestym	$1,849	$3,843
Zarxio	$6,958	$6,828

Allowed Amount PMPM

Figure 101: Medicare

Granix Neupogen Nivestym Zarxio

Market Share



Annual Cost per Patient

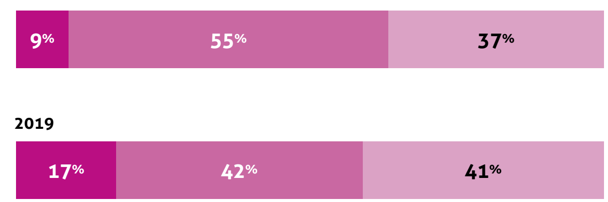
Brand	2018	2019
Granix	$2,552	$1,758
Neupogen	$5,140	$5,481
Nivestym	$2,347	-
Zarxio	$2,936	$3,479

Allowed Amount PMPM

Figure 102: Medicaid

Granix Neupogen Zarxio

Market Share



Annual Cost per Patient

Brand	2018	2019
Granix	$2,885	$3,409
Neupogen	$10,259	$11,621
Zarxio	$3,010	$4,294

Allowed Amount PMPM

1 Only drugs with $0.01 PMPM or greater were included in market share analysis.

Due to rounding, totals may not add up accurately.

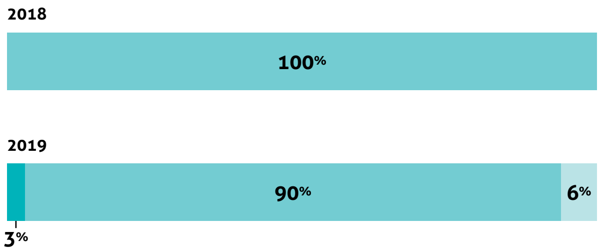
2019 MARKET SHARE TRENDS[1]

Oncology Support: Colony Stimulating Factors, Long-Acting

Figure 103: Commercial

Fulphila Neulasta Udenyca

Market Share



Annual Cost per Patient

Brand	2018	2019
Fulphila	$19,522	$34,917
Neulasta	$47,116	$49,425
Udenyca	-	$41,698

Allowed Amount PMPM

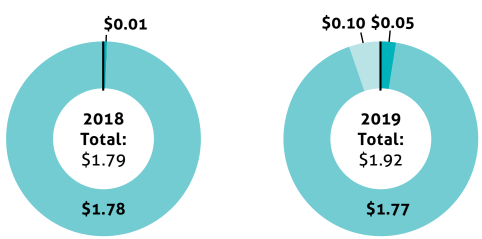
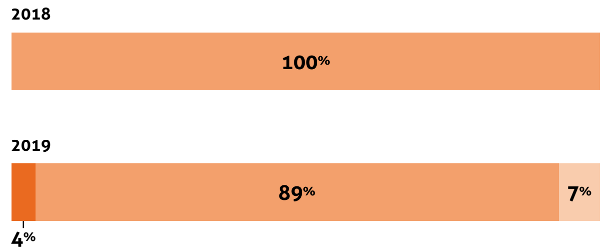


Figure 104: Medicare

Fulphila Neulasta Udenyca

Market Share



Annual Cost per Patient

Brand	2018	2019
Fulphila	$7,991	$20,356
Neulasta	$28,367	$28,084
Udenyca	-	$22,148

Allowed Amount PMPM

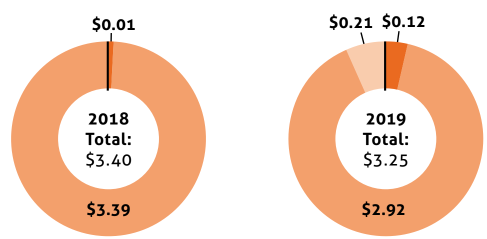
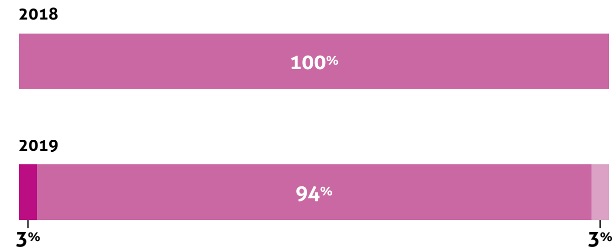


Figure 105: Medicaid

Fulphila Neulasta Udenyca

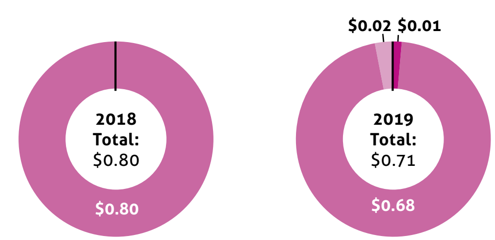
Market Share



Annual Cost per Patient

Brand	2018	2019
Fulphila	$6,290	$14,109
Neulasta	$30,094	$31,245
Udenyca	-	$18,065

Allowed Amount PMPM



1 Only drugs with $0.01 PMPM or greater were included in market share analysis.

Due to rounding, totals may not add up accurately.

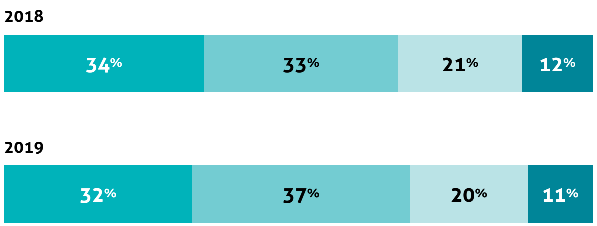
2019 MARKET SHARE TRENDS[1]

Ophthalmic Injections

Figure 106: Commercial

Avastin · Eylea · Lucentis · Unclassified

Market Share



Annual Cost per Patient

Brand	2018	2019
Avastin	$288	$298
Eylea	$11,041	$11,778
Lucentis	$8,582	$8,704
Unclassified	$611	$645

Allowed Amount PMPM

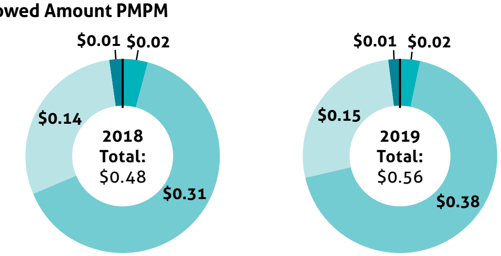
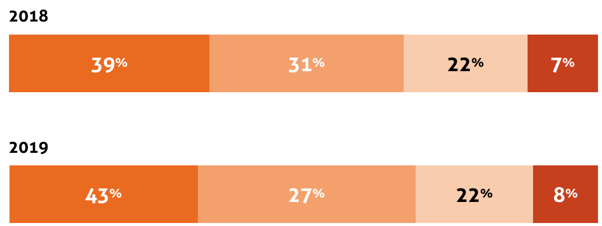


Figure 107: Medicare

Avastin · Eylea · Lucentis · Unclassified

Market Share



Annual Cost per Patient

Brand	2018	2019
Avastin	$289	$324
Eylea	$9,871	$10,565
Lucentis	$10,247	$10,158
Unclassified	$807	$818

Allowed Amount PMPM

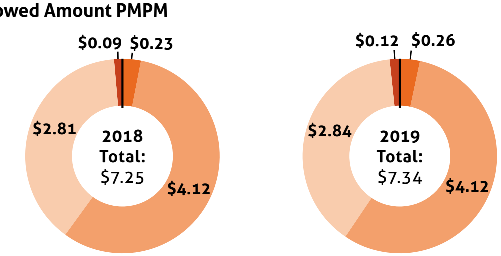
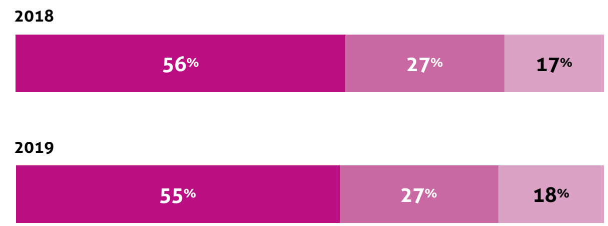


Figure 108: Medicaid

Avastin · Eylea · Lucentis · Unclassified

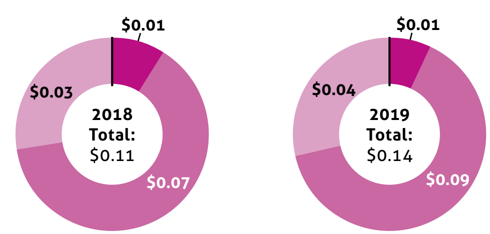
Market Share



Annual Cost per Patient

Brand	2018	2019
Avastin	$238	$392
Eylea	$7,693	$8,433
Lucentis	$6,069	$5,968
Unclassified	$192	$28

Allowed Amount PMPM



1 Only drugs with $0.01 PMPM or greater were included in market share analysis.

Due to rounding, totals may not add up accurately.

APPENDIX

FIGURE 109: 2019 COMMERCIAL TOP 25 DRUGS COST TRENDS BY SITE OF SERVICE

			COST PER CLAIM			COST PER UNIT			MARKET SHARE BY SOS		
Rank	HCPCS	Brand	HOME	HOSPITAL OP	PHYSICIAN	HOME	HOSPITAL OP	PHYSICIAN	HOME	HOSPITAL OP	PHYSICIAN
1	J1745	Remicade	$6,185	$7,975	$3,991	$128	$170	$81	12%	29%	59%
2	J2505	Neulasta	-	$9,722	$5,680	$5,967	$1,835	$5,674	-	50%	50%
3	J2350	Ocrevus	$28,061	$52,148	$29,450	$71	$109	$64	4%	51%	44%
4	J9355	Herceptin	-	$7,192	$4,015	$108	$197	$116	-	51%	49%
5	J9312	Rituxan	-	$11,754	$7,170	$109	$190	$105	-	52%	47%
6	J9271	Keytruda	-	$17,697	$10,452	$47	$88	$53	-	55%	45%
7	J9035	Avastin	-	$7,720	$2,009	$93	$136	$88	-	36%	64%
8	J3380	Entyvio	$6,631	$10,284	$6,468	$25	$35	$22	19%	29%	52%
9	J9299	Opdivo	-	$15,790	$8,257	$22	$50	$30	-	52%	48%
10	J9306	Perjeta	-	$10,870	$5,894	$12	$24	$13	-	53%	46%
11	J2323	Tysabri	$6,439	$11,253	$6,448	$23	$38	$23	4%	39%	57%
12	J1300	Soliris	$29,607	$41,727	$27,799	$252	$432	$244	28%	39%	33%
13	J1561	Gamunex-C/Gammaked	$4,330	$4,803	$3,417	$32	$81	$37	47%	29%	24%
14	J1569	Gammagard Liquid	$4,107	$6,597	$3,847	$33	$105	$57	46%	23%	31%
15	J0897	Xgeva/Prolia	$1,283	$3,593	$1,655	$21	$36	$21	2%	32%	66%
16	J2357	Xolair	$2,666	$3,056	$2,289	$39	$62	$46	19%	12%	68%
17	J0585	Botox	$1,187	$1,631	$961	$6	$10	$7	7%	12%	82%
18	J9145	Darzalex	-	$10,110	$5,648	$53	$98	$60	-	49%	51%
19	J1459	Privigen	$4,472	$5,497	$2,906	$29	$94	$53	37%	32%	31%
20	J0178	Eylea	-	$3,364	$2,169	$967	$1,508	$1,009	-	3%	97%
21	J9228	Yervoy	-	$29,945	$21,689	-	$244	$164	-	61%	39%
22	J9305	Alimta	-	$8,301	$5,025	$78	$127	$76	-	56%	44%
23	J0129	Orencia	$3,676	$5,211	$4,295	$59	$75	$54	5%	11%	85%
24	J9354	Kadcyla	-	$11,957	$6,157	$31	$70	$34	-	59%	41%
25	J3357	Stelara	$17,667	$26,722	$14,508	$261	$338	$246	30%	13%	57%

APPENDIX

FIGURE 110: 2019 MEDICARE TOP 25 DRUGS COST TRENDS BY SITE OF SERVICE

			COST PER CLAIM			COST PER UNIT			MARKET SHARE BY SOS		
Rank	HCPCS	Brand	HOME	HOSPITAL OP	PHYSICIAN	HOME	HOSPITAL OP	PHYSICIAN	HOME	HOSPITAL OP	PHYSICIAN
1	J9271	Keytruda	-	$8,873	$9,506	-	$45	$48	-	52%	48%
2	J0178	Eylea	-	$745	$2,017	-	$341	$956	-	1%	99%
3	J9299	Opdivo	-	$8,205	$7,792	-	$25	$27	-	48%	52%
4	J2505	Neulasta	-	$4,255	$4,622	-	$4,255	$4,600	-	50%	50%
5	J2778	Lucentis	-	$1,430	$1,736	-	$250	$361	-	-	100%
6	J9312	Rituxan	-	$4,397	$5,261	-	$88	$94	-	51%	49%
7	J0897	Xgeva/Prolia	$1,239	$1,510	$1,486	$21	$17	$19	1%	29%	70%
8	J9035	Avastin	-	$3,568	$354	-	$73	$78	-	8%	92%
9	J9355	Herceptin	-	$2,922	$3,352	-	$96	$106	-	47%	53%
10	J9145	Darzalex	-	$4,151	$4,606	-	$51	$53	-	32%	68%
11	J9173	Imfinzi	-	$3,303	$3,396	-	$76	$72	-	42%	58%
12	J2350	Ocrevus	$30,130	$28,326	$26,280	$57	$57	$54	4%	62%	34%
13	J9305	Alimta	-	$3,809	$4,010	-	$63	$67	-	50%	50%
14	J1300	Soliris	-	$20,911	$25,407	-	$200	$226	-	43%	57%
15	J9022	Tecentriq	-	$7,834	$8,938	-	$70	$75	-	43%	57%
16	J9041	Velcade	-	$737	$959	-	$39	$45	-	39%	61%
17	J1745	Remicade	$4,716	$2,627	$3,472	$103	$60	$72	1%	29%	70%
18	J9228	Yervoy	-	$14,283	$19,231	-	$130	$153	-	54%	46%
19	J1569	Gammagard Liquid	$4,132	$2,266	$2,965	$56	$38	$41	35%	26%	39%
20	J9306	Perjeta	-	$4,963	$5,357	-	$11	$12	-	50%	50%
21	J9217	Eligard/Lupron Depot	-	$828	$890	-	$255	$223	-	23%	77%
22	J9264	Abraxane	-	$1,638	$1,641	-	$11	$12	-	42%	58%
23	J2353	Sandostatin	$6,422	$5,270	$5,493	$214	$184	$179	1%	62%	37%
24	J0585	Botox	-	$918	$847	-	$6	$6	-	10%	90%
25	J1561	Gamunex-C/Gammaked	$2,552	$2,199	$2,965	$48	$38	$39	32%	37%	31%

FIGURE 111: 2019 MEDICAID TOP 25 DRUGS COST TRENDS BY SITE OF SERVICE

			COST PER CLAIM			COST PER UNIT			MARKET SHARE BY SOS		
Rank	HCPCS	Brand	HOME	HOSPITAL OP	PHYSICIAN	HOME	HOSPITAL OP	PHYSICIAN	HOME	HOSPITAL OP	PHYSICIAN
1	J9271	Keytruda	-	$11,295	$10,887	-	$57	$54	-	76%	24%
2	J1745	Remicade	$4,549	$6,779	$3,399	$81	$128	$75	12%	55%	33%
3	J2505	Neulasta	$4,913	$6,681	$5,130	$4,913	$6,681	$5,130	1%	59%	41%
4	J2326	Spinraza	-	$108,656	-	-	$916	-	-	100%	-
5	J9355	Herceptin	-	$4,137	$3,966	-	$122	$130	-	65%	35%
6	J2350	Ocrevus	$31,507	$27,261	$26,919	$61	$60	$65	12%	78%	10%
7	J9299	Opdivo	-	$9,058	$9,202	-	$32	$30	-	68%	32%
8	J9035	Avastin	-	$4,787	$1,290	-	$113	$88	-	38%	62%
9	J1300	Soliris	$31,141	$32,284	$26,498	$231	$282	$252	3%	83%	14%
10	J9306	Perjeta	-	$6,753	$6,162	-	$15	$14	-	70%	30%
11	J0585	Botox	-	$1,173	$1,104	-	$6	$7	-	25%	75%
12	J9312	Rituxan	$11,757	$6,295	$5,292	$95	$115	$99	3%	76%	21%
13	J1726	Makena	$1,025	$958	$998	$30	$39	$27	57%	6%	37%
14	J2357	Xolair	-	$1,880	$2,261	-	$42	$40	-	35%	64%
15	J1428	Exondys	$30,242	-	-	$169	-	-	100%	-	-
16	J2323	Tysabri	$6,553	$7,876	$7,262	$22	$27	$25	6%	67%	27%
17	J7170	Hemlibra	$10,262	$45,123	-	$49	$76	-	53%	47%	-
18	J3380	Entyvio	$6,100	$6,893	$6,064	$20	$24	$20	20%	62%	19%
19	J7307	Implanon	-	$846	$904	-	$846	$904	-	13%	87%
20	J9305	Alimta	-	$4,686	$4,739	-	$80	$77	-	71%	29%
21	J1561	Gamunex-C/Gammaked	$2,517	$3,078	$3,117	$43	$70	$42	28%	56%	16%
22	J7298	Mirena	-	$915	$942	-	$915	$942	-	17%	83%
23	J9042	Adcetris	-	$18,825	$13,589	-	$170	$177	-	68%	32%
24	J0256	Aralast	$2,201	$20,672	$1,943	$3	$45	$5	60%	32%	8%
25	J9173	Imfinzi	-	$3,770	$4,040	-	$80	$78	-	71%	29%

FIGURE 112: 2019 HOSPITAL ADMINISTRATION CODE TRENDS BY LOB

		COMMERCIAL		MEDICARE		MEDICAID	
CPT	DESCRIPTION	PMPM	UNIT COST	PMPM	UNIT COST	PMPM	UNIT COST
96413	Chemotherapy administration, intravenous infusion technique; up to 1 hour, single or initial substance/drug	$0.61	$605.45	$1.11	$361.02	$0.08	$232.39
96375	Therapeutic, prophylactic, or diagnostic injection (specify substance or drug); each additional sequential intravenous push of a new substance/drug	$0.30	$127.97	$0.25	$61.19	$0.05	$24.74
96365	Intravenous infusion, for therapy, prophylaxis, or diagnosis (specify substance or drug); initial, up to 1 hour	$0.27	$337.82	$0.57	$297.63	$0.07	$92.56
96374	Therapeutic, prophylactic, or diagnostic injection (specify substance or drug); intravenous push, single or initial substance/drug	$0.23	$181.38	$0.47	$189.75	$0.10	$58.42
96361	Intravenous infusion, hydration; each additional hour	$0.17	$90.68	$0.12	$49.69	$0.12	$38.12
96372	Therapeutic, prophylactic, or diagnostic injection (specify substance or drug); subcutaneous or intramuscular	$0.11	$82.24	$0.15	$122.74	$0.04	$23.76
96415	Chemotherapy administration, intravenous infusion technique; each additional hour	$0.11	$224.63	$0.06	$64.03	$0.01	$56.14
96360	Intravenous infusion, hydration; initial, 31 minutes to 1 hour	$0.09	$301.81	$0.10	$248.20	$0.03	$86.49
96367	Intravenous infusion, for therapy, prophylaxis, or diagnosis (specify substance or drug); additional sequential infusion of a new drug/substance, up to 1 hour	$0.08	$184.29	$0.24	$168.91	$0.03	$74.52
96417	Chemotherapy administration, intravenous infusion technique; each additional sequential infusion (different substance/drug), up to 1 hour	$0.08	$277.84	$0.04	$67.39	$0.01	$85.31
96366	Intravenous infusion for therapy, prophylaxis, or diagnosis (specify substance or drug); each additional hour	$0.06	$110.26	$0.05	$38.25	$0.02	$31.86
96416	Chemotherapy administration, intravenous infusion technique; initiation of prolonged chemotherapy infusion (more than 8 hours), requiring use of a portable or implantable pump	$0.04	$575.10	$0.03	$269.33	-	-
96411	Chemotherapy administration; intravenous, push technique, each additional substance/drug	$0.04	$274.68	$0.02	$74.21	$0.00	$81.91
20610	Under general introduction or removal procedures on the musculoskeletal system	$0.04	$449.70	$0.05	$177.16	$0.00	$92.87
96376	Intravenous push, single or initial substance/drug; each additional sequential intravenous push of the same substance/drug provided in a facility	$0.03	$67.05	-	-	$0.01	$13.50
96409	Chemotherapy administration; intravenous, push technique; single or initial substance/drug	$0.03	$408.45	$0.06	$315.51	$0.01	$179.08
67028	Intravitreal injection of a pharmacologic agent (separate procedure)	$0.02	$860.02	$0.05	$427.14	$0.00	$163.99
96401	Chemotherapy administration, subcutaneous or intramuscular; nonhormonal antineoplastic	$0.02	$154.16	$0.05	$141.11	$0.00	$71.65
96402	Chemotherapy administration, subcutaneous or intramuscular; hormonal antineoplastic	$0.02	$236.41	$0.04	$192.66	-	-
90471	Immunization administration through 18 years of age via any route of administration; first or only component of each vaccine or toxoid administered	$0.02	$72.44	$0.00	$41.66	$0.01	$9.82
96450	Chemotherapy administration, into CNS (e.g., intrathecal), requiring and including spinal puncture	$0.01	$780.39	-	-	-	-
96368	Intravenous infusion for therapy, prophylaxis, or diagnosis (specify substance or drug); concurrent infusion	$0.01	$162.74	$0.02	$894.21	-	-
96523	Irrigation of implanted venous access device for drug-delivery systems	$0.01	$152.96	$0.02	$83.69	-	-
95165	Supervision of preparation and provision of antigens for allergen immunotherapy; single or multiple antigens (specify number of doses)	$0.01	$36.13	$0.00	$2.96	-	-
95117	Immunotherapy injections	$0.01	$107.03	$0.00	$59.23	-	-
G0008	Administration of influenza virus vaccine	$0.00	$31.81	$0.02	$34.00	$0.00	$6.25
G0009	Administration of pneumococcal vaccine	$0.00	$46.20	$0.01	$33.24	$0.00	$6.84

FIGURE 113: 2019 PHYSICIAN OFFICE ADMINISTRATION CODE TRENDS BY LOB

		COMMERCIAL		MEDICARE		MEDICAID	
CPT	DESCRIPTION	PMPM	UNIT COST	PMPM	UNIT COST	PMPM	UNIT COST
90460	Immunization administration through 18 years of age via any route of administration, with counseling by physician or other qualified healthcare professional; first or only component of each vaccine or toxoid administered	$0.37	$23.91	-	-	$0.65	$22.59
96372	Therapeutic, prophylactic, or diagnostic injection (specify substance or drug); subcutaneous or intramuscular	$0.35	$25.51	$0.39	$15.90	$0.10	$17.67
95165	Supervision of preparation and provision of antigens for allergen immunotherapy; single or multiple antigens (specify number of doses)	$0.32	$13.81	$0.08	$12.88	-	-
20610	Under general introduction or removal procedures on the musculoskeletal system	$0.26	$102.88	$0.64	$59.33	$0.03	$77.90
96413	Chemotherapy administration, intravenous infusion technique; up to 1 hour, single or initial substance/drug	$0.26	$212.56	$0.56	$142.58	$0.03	$125.18
90471	Immunization administration through 18 years of age via any route of administration; first or only component of each vaccine or toxoid administered	$0.26	$23.61	$0.14	$18.94	$0.04	$8.58
90461	Immunization administration each additional component	$0.14	$12.99	-	-	$0.12	$27.95
67028	Intravitreal injection of a pharmacologic agent (separate procedure)	$0.09	$194.68	$0.86	$115.36	$0.03	$290.07
96365	Intravenous infusion, for therapy, prophylaxis, or diagnosis (specify substance or drug); initial, up to 1 hour	$0.08	$93.22	$0.16	$71.14	$0.01	$54.12
95117	Immunotherapy injections	$0.06	$13.73	$0.02	$9.99	-	-
96401	Chemotherapy administration, subcutaneous or intramuscular; nonhormonal antineoplastic	$0.05	$88.15	$0.13	$74.71	$0.01	$42.55
96367	Intravenous infusion, for therapy, prophylaxis, or diagnosis (specify substance or drug); additional sequential infusion of a new drug/substance, up to 1 hour	$0.04	$47.95	$0.11	$30.97	$0.04	$107.34
96375	Therapeutic, prophylactic, or diagnostic injection (specify substance or drug); each additional sequential intravenous push of a new substance/drug	$0.03	$34.05	$0.05	$17.41	$0.00	$16.75
96417	Chemotherapy administration, intravenous infusion technique; each additional sequential infusion (different substance/drug), up to 1 hour	$0.03	$111.26	$0.07	$67.26	$0.00	$61.73
96415	Chemotherapy administration, intravenous infusion technique; each additional hour	$0.03	$47.04	$0.06	$30.83	$0.00	$28.05
90472	Immunization administration through 18 years of age via any route of administration	$0.03	$14.66	$0.01	$13.54	$0.02	$8.39
96416	Chemotherapy administration, intravenous infusion technique; initiation of prolonged chemotherapy infusion (more than 8 hours), requiring use of a portable or implantable pump	$0.03	$250.67	$0.03	$157.91	-	-
96411	Chemotherapy administration; intravenous push technique, each additional substance/drug	$0.01	$96.99	$0.03	$58.89	$0.00	$51.66
96374	Therapeutic, prophylactic, or diagnostic injection (specify substance or drug); intravenous push, single or initial substance/drug	$0.01	$72.62	$0.02	$40.28	$0.00	$41.36
96360	Intravenous infusion, hydration; initial, 31 minutes to 1 hour	$0.01	$78.25	$0.02	$41.97	$0.00	$45.49
96366	Intravenous infusion for therapy, prophylaxis, or diagnosis (specify substance or drug); each additional hour	$0.01	$31.89	$0.02	$23.95	$0.00	$24.26
95115	Immunotherapy one injection	$0.01	$11.91	-	-	-	-
G0008	Administration of influenza virus vaccine	$0.01	$22.23	$0.25	$18.31	-	-

GLOSSARY

ACO	accountable care organization
AMD	age-related (wet) macular degeneration
AMP	average manufacturer price
ASP	average sales price
AWP	average wholesale price
BDAIDs	biologic drugs for autoimmune disorders
CAR-T	chimeric antigen receptor therapy
COE	centers of excellence
COPD	chronic obstructive pulmonary disease
COVID-19	severe acute respiratory syndrome coronavirus 2
CPT	Current Procedural Terminology
CRL	complete response letter
Crohn's/UC	Crohn’s Disease/Ulcerative Colitis
CSF	colony-stimulating factors
ER	extended release
ESA	erythropoiesis-stimulating agent
ESRD	end stage renal disease
FDA	U.S. Food and Drug Administration
HCPCS	Healthcare Common Procedure Coding System
HEDIS	Healthcare Effectiveness Data and Information Set
HI	home infusion
HOP	hospital outpatient
ICER	Institute for Clinical and Economic Review
ICU	Intensive Care Unit
IG	immune globulin
IV	intravenous
IVIG	intravenous immune globulin
KOL	key opinion leader
LOB	line of business
MA	Medicare Advantage
MCO	managed care organization
MoAb	monoclonal antibody
MS	multiple sclerosis
NCCN	National Comprehensive Cancer Network
NCQA	National Committee for Quality Assurance
NMEs	new molecular entities
NDC	National Drug Code
P&T	pharmacy and therapeutics
PA	prior authorization
PBM	pharmacy benefit manager
PDL	preferred drug list
PMPM	per member per month
PPPY	per patient per year
PSCE	post-service claim edits
RA	rheumatoid arthritis
SOS	site of service
SPP	specialty pharmacy provider
SQ	subcutaneous
TPA	third party administrator
UC	ulcerative colitis
UM	utilization management
WAC	wholesale acquisition cost
XR	extended release
YOY	year over year