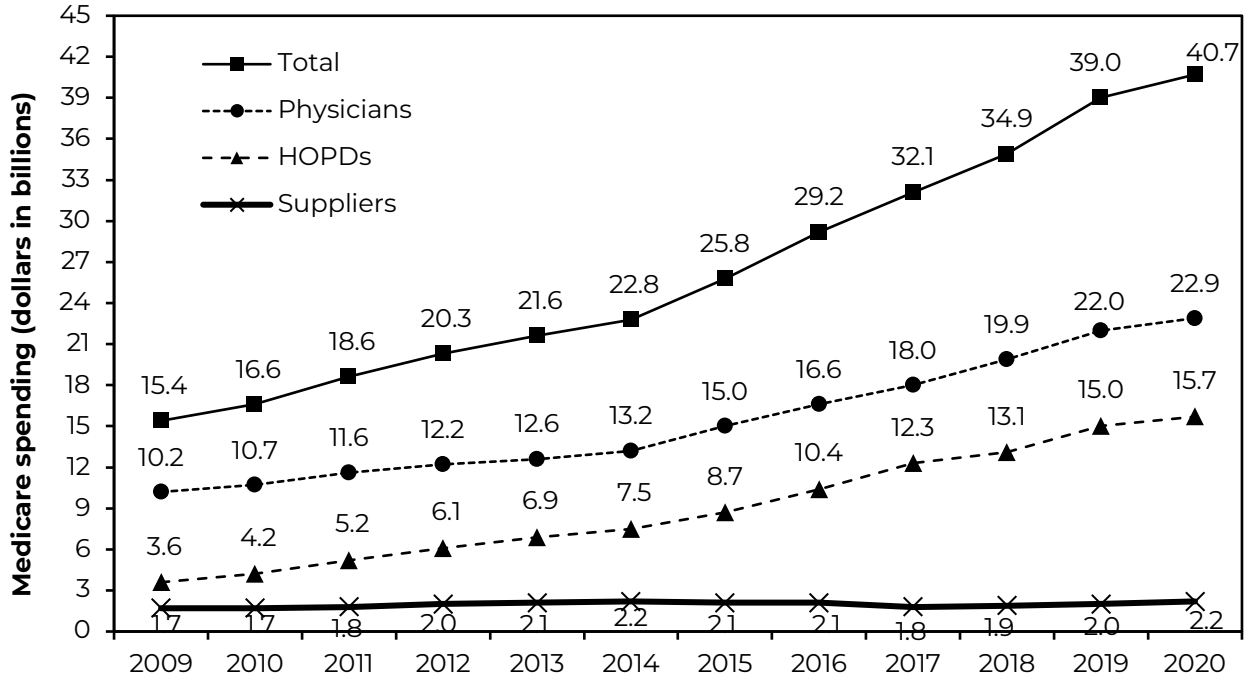
SECTION 10

Prescription drugs

Chart 10-1. Medicare spending for Part B drugs furnished by physicians, hospital outpatient departments, and suppliers, 2009–2020



Note: HOPD (hospital outpatient department). Data include Part B–covered drugs furnished by several provider types, including physicians, suppliers, and HOPDs, and exclude those furnished by critical access hospitals, Maryland hospitals, and dialysis facilities. "Medicare spending" includes program payments and beneficiary cost sharing. Data reflect all Part B drugs whether they were paid based on the average sales price or another payment formula. Data exclude blood and blood products (other than clotting factor). Components may not sum to totals due to rounding.

Source: MedPAC and Acumen LLC analysis of Medicare claims data.

- The Medicare program and beneficiaries spent about $40.7 billion on Part B drugs furnished by physicians, HOPDs, and suppliers in 2020, an increase of about 4.4 percent from 2019.
- Between 2009 and 2020, Part B drug spending grew 9.2 percent per year on average. Growth was more rapid between 2009 and 2019 (9.7 percent per year on average) than between 2019 and 2020 (4.4 percent).
- Quarterly spending growth patterns suggest that slower Part B drug spending growth in 2020 was partly due to the COVID-19 pandemic. Spending declined in the second quarter of 2020, coinciding with the first wave of the pandemic. Comparing quarterly spending in each quarter of 2020 to the same quarter of 2019, spending increased 7.4 percent in the first quarter of 2020, declined 1.2 percent in the second quarter of 2020, increased 8.4 percent in the third quarter of 2020, and increased 3.6 percent in the fourth quarter of 2020.

(Chart continued next page)

Chart 10-1. Medicare spending for Part B drugs furnished by physicians, hospital outpatient departments, and suppliers, 2009–2020 (continued)

- Savings from biosimilar competition also contributed to slower aggregate spending growth in 2020. For those categories of biologics with biosimilar availability, Medicare spending declined between 2019 and 2020 by about $800 million, from $6.3 billion to $5.5 billion. This reduction in spending largely reflects both increased biosimilar uptake and price reductions by originator biologics; reduced utilization among some categories of biologics, likely related to the pandemic, also played a role.

- Medicare pays for most Part B drugs at a rate of 106 percent of the average sales price (ASP + 6 percent). Eligible hospitals that participate in the 340B drug discount program receive substantial discounts on outpatient drugs, including those covered by Medicare Part B. Beginning in 2018, Medicare reduced the payment rate for certain Part B drugs furnished by 340B hospitals to ASP – 22.5 percent. The 340B policy reduced 2020 Medicare Part B spending on drugs in outpatient hospitals by about $2.3 billion (compared with what 2020 payments would have been in the absence of the policy).

- Of total 2020 Part B drug spending, physicians accounted for 56 percent ($23 billion), HOPDs accounted for 38 percent ($16 billion), and suppliers accounted for 5 percent ($2 billion).

- Overall, from 2009 to 2020, Part B drug spending has grown more rapidly for HOPDs than for physicians and suppliers—at average annual rates of about 14 percent, 8 percent, and 3 percent, respectively.

- Not included in these data are critical access hospitals and Maryland hospitals, which are not paid under the ASP system, and end-stage renal disease facilities, which are paid for most Part B drugs through the dialysis bundled payment rate. Medicare and beneficiaries spent approximately $1.1 billion in critical access hospitals and $0.4 billion in Maryland hospitals for Part B drugs in 2020. Also in 2020, Medicare spent $0.7 billion for calcimimetics in dialysis facilities through a transitional drug add-on payment adjustment to the bundled dialysis payment rate.

Chart 10-2. Change in Medicare payments and utilization for separately payable Part B drugs, 2009–2020

	2009	2020	Average annual growth 2009–2020
Total payments: Separately payable Part B drugs (in billions)	$11.6*	$38.5*	11.5%
Total payments: All Part B drugs excluding vaccines (in billions)	$11.4	$37.2	11.3
Number of beneficiaries using a Part B drug (in millions)	2.5	3.6	3.4
Average total payments per beneficiary who used a Part B drug	$4,584	$10,384	7.7
Average number of Part B drugs per beneficiary	1.35	1.32	–0.2
Average annual payment per Part B drug per beneficiary	$3,395	$7,845	7.9
Total payments: All Part B vaccines (in billions)	$0.2	$1.3	18.0
Number of beneficiaries using a Part B vaccine (in millions)	13.4	16.9	2.1
Average total payments per beneficiary who used a Part B vaccine	$16	$80	15.6
Average number of Part B vaccines per beneficiary	1.08	1.17	0.7
Average annual payment per Part B vaccine per beneficiary	$15	$68	14.8

Note: This analysis includes Part B drugs paid based on the average sales price as well as the small group of Part B drugs that are paid based on the average wholesale price or reasonable cost or that are contractor priced. "Vaccines" refers to three Part B–covered preventive vaccines: influenza, pneumococcal, and hepatitis B. Data include Part B drugs furnished by physicians, hospitals paid under the outpatient prospective payment system, and suppliers and exclude data for critical access hospitals, Maryland hospitals, and dialysis facilities. Yearly figures presented in the table are rounded; the average annual growth rate was calculated using unrounded data.
* For purposes of this analysis, spending on separately payable Part B drugs excludes any drug that was bundled in 2009 or 2020 (i.e., drugs that were packaged under the outpatient prospective payment system in 2009 or 2020 were excluded from both years of the analysis, regardless of the setting where the drug was administered), drugs billed under not-otherwise-classified billing codes, and blood and blood products (other than clotting factor). Without those exclusions, Part B drug spending was $15.4 billion in 2009 and $40.7 billion in 2020, as shown in Chart 10-1.

Source: MedPAC analysis of Medicare claims data for physicians, hospital outpatient departments, and suppliers.

- Total payments by the Medicare program and beneficiaries for separately payable Part B drugs increased 11.5 percent per year, on average, between 2009 and 2020.
- Medicare spending on separately payable Part B drugs excluding Part B–covered preventive vaccines grew at a similar rate (11.3 percent per year) between 2009 and 2020.
- Growth in the average price that Medicare Part B paid per drug accounted for more than half of the growth in separately payable Part B drug spending (excluding vaccines) between 2009 and 2020. During that period, the average annual payment per drug increased on average by 7.9 percent per year, which reflects increases in the prices of existing drugs; adoption of new, higher-priced drugs; and shifts in the mix of drugs. Growth in the average payment per drug would have been higher if not for the reduction in Medicare's payment rate for certain Part B drugs provided by 340B hospitals beginning in 2018.

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Chart 10-2. Change in Medicare payments and utilization for separately payable Part B drugs, 2009–2020 (continued)

- Growth in the number of beneficiaries using nonvaccine Part B drugs (about 3.4 percent per year on average) also contributed to increased spending. The number of Part B drugs received per user declined slightly from about 1.35 in 2009 to 1.32 in 2020, which modestly offset spending growth.

- In 2020, Medicare Part B covered three preventive vaccines: influenza, pneumococcal, and—for beneficiaries at high or medium risk—hepatitis B. Spending on the three preventive vaccines furnished by physicians, hospital outpatient departments, and pharmacy suppliers was $854 million for influenza, $487 million for pneumococcal, and $5 million for hepatitis B (data not shown). (Not included in these data are vaccines furnished in other settings such as end-stage renal disease facilities. With other settings included, 2020 vaccine spending was $883 million on influenza, $509 million on pneumococcal, and $35 million on hepatitis B vaccines.)

- Although Medicare Part B also covers COVID-19 vaccines, the federal government's direct purchase of COVID-19 vaccines meant that Medicare was not liable for the cost of COVID-19 vaccines in 2020.

- Although vaccines are a relatively small share of overall spending on separately payable Part B drugs, vaccine spending grew rapidly, at an average rate of about 18.0 percent per year, between 2009 and 2020.

- The largest driver of increased vaccine spending was price growth, as the average payment per vaccine grew at an average rate of 14.8 percent per year between 2009 and 2020. Substantial price growth occurred for both pneumococcal and influenza vaccines between 2009 and 2020, with the average payment per vaccine increasing from $36 to $155 for pneumococcal vaccines and from $12 to $51 for influenza vaccines over this period (data not shown). The growth in the average payment per vaccine reflects higher launch prices for new vaccines (e.g., Prevnar-13 for pneumococcal disease and Fluzone High-Dose, Fluad, and Flublok for influenza) and price growth over time among existing products (e.g., new vaccines after launch and certain older products).

Chart 10-3. Top 20 Part B drugs, 2020

		2020			Percent change, 2019–2020		
		Total spending (billions)	Average spending per user	Number of users	Total spending	Average spending per user	Number of users
Keytruda	Cancer	3.5	$59,400	58,900	31%	11%	18%
Eylea	MD	3.0	10,500	286,900	3	–2	6
Prolia/Xgeva	OS, cancer SE	1.6	2,800	587,200	1	2	0
Opdivo	Cancer	1.6	62,200	25,500	–11	5	–15
Rituxan*	Cancer, RA	1.3	22,700	57,400	–25	–7	–20
Lucentis	MD	1.1	9,200	121,600	–12	–5	–8
Orencia	RA	1.0	34,100	30,100	11	9	2
Neulasta*	Cancer SE	0.9	13,300	67,800	–23	–11	–13
Darzalex	Cancer	0.8	64,600	13,000	5	–2	8
Avastin*	Cancer, MD	0.7	3,900	176,500	–34	–17	–21
Remicade*	RA	0.7	14,800	45,100	–27	–21	–8
Tecentriq	Cancer	0.6	50,000	12,500	34	8	25
Ocrevus	MS	0.6	49,900	12,500	–1	–1	1
Soliris	Autoimmune	0.6	363,800	1,700	14	9	4
Cimzia	RA	0.5	25,900	19,700	16	8	7
Imfinzi	Cancer	0.5	55,000	9,200	13	7	5
Alimta	Cancer	0.5	26,700	18,700	–2	6	–8
Fluzone HD	Vaccine	0.5	60	8,046,600	11	11	0
Herceptin*	Cancer	0.5	34,400	13,500	–42	–13	–33
Sandostatin LAR Depot	Cancer SE	0.4	44,800	10,000	3	5	–2
Top 10 drugs		**15.6**					
Top 20 drugs		**21.0**					
All Part B drugs		**40.7**					

Note: MD (macular degeneration), OS (osteoporosis), SE (side effects), RA (rheumatoid arthritis), MS (multiple sclerosis), HD (high-dose). "Drug spending" includes Medicare program payments and beneficiary cost sharing. The 20 drugs shown in the chart reflect the Part B drug billing codes with the highest Medicare expenditures in 2020. Data include Part B–covered drugs furnished by several provider types, including physicians, suppliers, and hospital outpatient departments, but exclude those furnished by critical access hospitals, Maryland hospitals, and dialysis facilities. Data exclude blood and blood products (other than clotting factor). Components may not sum to totals due to rounding.
* For refence biologics that have biosimilar competitors, data in the table reflect only the reference biologic. If spending for a reference biologic and its biosimilars is summed, 2020 total spending was $1.6 billion for Rituxan, $1.2 billion for Neulasta, $1.0 billion for Avastin, $0.8 billion for Remicade, and $0.7 billion for Herceptin and their respective biosimilars.

Source: MedPAC and Acumen LLC analysis of Medicare claims data.

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Chart 10-3. Top 20 Part B drugs, 2020 (continued)

- Part B drugs are billed under roughly 900 billing codes, but spending is concentrated. In 2020, Medicare spending (including cost sharing) on the top 10 products accounted for $15.6 billion, or 38 percent of total Part B drug spending. Spending on the top 20 products accounted for $21.0 billion, or about 52 percent of total Part B drug spending.

- The top 20 Part B drugs tend to be concentrated in certain therapeutic areas. Twelve of the top 20 drugs are indicated for cancer patients: 9 drugs that treat cancer and 3 supportive drugs that treat cancer side effects. The top 20 also include 3 products used to treat macular degeneration and 4 products used to treat rheumatoid arthritis. Also among the top 20 are 1 product for multiple sclerosis, 1 product for rare autoimmune conditions, and 1 influenza vaccine product.

- Most products in the top 20 are biologics. Seventeen of the top 20 are biologics, two are drugs, and one is a preventive vaccine (data not shown).

- Five of the top 20 products have biosimilar competitors. Because the chart displays data at the billing code–level, data reflect only the originator biologic and not its biosimilars (since each biosimilar has its own billing code). If spending for an originator biologic and its biosimilars is summed, total 2020 Medicare Part B spending (including cost sharing) was $1.6 billion for Rituxan, $1.2 billion for Neulasta, $1.0 billion for Avastin, $0.8 billion for Remicade, and $0.7 billion for Herceptin and their biosimilars (data not shown).

- Among the top 20 highest-expenditure Part B drugs, average spending per user varies. Of eight products used to treat cancer (excluding Avastin, for which costs vary substantially depending on whether it is used for cancer or macular degeneration), average spending per user ranged from $23,000 to $65,000, with five products averaging $50,000 or more per user. Average spending per user ranged from $3,000 to $45,000 for three cancer supportive drugs, $15,000 to $34,000 for four drugs used to treat rheumatoid arthritis, and from $9,000 to $11,000 for two drugs used to treat macular degeneration (excluding Avastin). Soliris, a product used to treat rare autoimmune conditions, had the highest average cost per user among the top 20, $364,000.

- Between 2019 and 2020, spending increased for 11 of the top 20 Part B drugs and decreased for 9 drugs. For example, Keytruda and Tecentriq experienced the largest total spending growth (more than 30 percent), which reflected an increase in both average spending per user and number of users. In 2020, total spending also increased more than 10 percent for Cimzia, Fluzone High-Dose, Imfinzi, Orencia, and Soliris. Among the products that experienced spending decreases in 2020, five products are originator biologics that now face biosimilar competition. A few other products that experienced total spending decreases are in therapeutic classes with multiple brand products; thus, the decline in total spending and number of users for some products may reflect shifts in market share across therapeutic alternatives.

Chart 10-4. Growth in ASP for the 20 highest-expenditure Part B drugs, 2015–2022

	Total Medicare payments in 2020 (in billions)	Average annual percentage change in ASP 2015–2021	Percentage change in ASP 2021–2022
Keytruda	$3.5	2.1%[c]	3.3%
Eylea	3.0	–1.0	–0.7
Prolia/Xgeva	1.6	5.4	5.5
Opdivo	1.6	2.4[c]	2.5
Rituxan[a]	1.3	3.9	–6.2
Lucentis	1.1	–3.3	–4.8
Orencia	1.0	9.4	–21.7
Neulasta[a]	0.9	–2.1	–29.1
Darzalex	0.8	4.5[d]	2.1
Avastin[a]	0.7	1.7	–9.7
Remicade[a]	0.7	–8.0	–15.6
Tecentriq	0.6	1.0[e]	1.8
Ocrevus	0.6	0.1[e]	2.8
Soliris	0.6	1.5	–0.6
Cimzia	0.5	4.8	–23.3
Imfinzi	0.5	1.9[f]	–0.3
Alimta	0.5	3.2	3.9
Fluzone High-Dose[b]	0.5	10.6	7.0
Herceptin[a]	0.5	2.5	–11.8
Sandostatin LAR Depot	0.4	6.2	0.4
Consumer Price Index for Urban Consumers		1.9	7.5

Note: ASP (average sales price). Growth rates for ASP are calculated from first quarter to first quarter of each year and for the Consumer Price Index for Urban Consumers (CPI–U) from January to January of each year. If a product launched after 2015, the table displays average annual ASP growth between the earliest year that a first-quarter payment rate was available for the product and 2021. ASP at the billing code level is calculated using the publicly available Part B drug payment rate data on CMS's website. "Medicare payments" includes Medicare program payments and beneficiary cost sharing for these drugs furnished by physicians, suppliers, and hospital outpatient departments, but excludes those furnished by critical access hospitals, Maryland hospitals, and dialysis facilities.
[a] Indicates the product is an originator biologic that has experienced biosimilar entry. ASP trends are for the originator product only.
[b] For Fluzone High-Dose, a preventive vaccine paid 95 percent of the average wholesale price, the table displays the percent change in the actual payment rate rather than ASP.
[c] ASP growth for period from 2016 to 2021.
[d] ASP growth for period from 2017 to 2021.
[e] ASP growth for period from 2018 to 2021.
[f] ASP growth for period from 2020 to 2021.

Source: MedPAC analysis of CMS ASP pricing files and CPI–U data from the Bureau of Labor Statistics and MedPAC and Acumen LLC analysis of Medicare claims data.

(Chart continued next page)

Chart 10-4. Growth in ASP for the 20 highest-expenditure Part B drugs, 2015–2022 (continued)

- From 2015 to 2021, 16 out of 20 of the top Part B drugs have experienced net price increases, with 11 of these products' ASPs increasing faster than the CPI–U on net over the 6-year period (or between launch and 2021 if launched after 2015).

- Alimta, Cimzia, Darzalex, Orencia, Prolia/Xgeva, Rituxan, and Sandostatin LAR all experienced average ASP growth of between 3.2 percent and 9.4 percent per year between 2015 and 2021 (or since launch if after 2015). Fluzone High-Dose, which is paid 95 percent of the average wholesale price, also experienced substantial price growth (10.6 percent per year on average between 2015 and 2021).

- In the most recent year, more products in the top 20 experienced a price decrease than a price increase. ASP decreased for 11 products and increased for 9 products between the first quarters of 2021 and 2022.

- Between the first quarters of 2021 and 2022, a year with high inflation (7.5 percent growth in CPI–U), none of the nine products with price increases experienced increases greater than inflation. This contrasts with experience over a longer time horizon. For example, among 14 of the top 20 drugs that were available prior to 2015, 10 of these products experienced average annual price growth that exceeded inflation between 2005 and 2015 (or between launch and 2015 if launched after 2005).

- Some of the price declines in 2022 among the top 20 products occurred among biologics facing biosimilar competition. Avastin, Herceptin, Neulasta, Remicade, and Rituxan have all faced biosimilar entry since 2019 or earlier. Prices for these originator biologics declined between 6 percent and 29 percent between 2021 and 2022.

- Price declines in recent years among originator biologics facing biosimilar competition follow a lengthy period in which the price Medicare paid for these products rose significantly. For example, on average over the 10-year period between 2005 to 2015, the ASP increased about 5 percent per year for Herceptin and Rituxan, 4 percent per year for Neulasta, 3 percent per year for Remicade, and 2 percent per year for Avastin (data not shown).

- The ASP payment rates for Orencia and Cimzia declined by more than 20 percent between 2021 and 2022 due to a statutory change. The Consolidated Appropriations Act, 2020, required that the self-administered forms of these products, which are not covered by Part B, be excluded from the calculation of the ASP payment rates beginning July 2021. Even with the decline in 2022, these products' payment rates have grown rapidly since launch. Orencia's payment rate increased on average 6 percent per year over the 15-year period from 2007 to 2022. Cimzia's payment rate increased on average 4.4 percent per year over the 12-year period from 2010 to 2022 (data not shown).

Chart 10-5. Trends in Medicare Part B payment rates for originator biologics and their biosimilar products

	First biosimilar entry	Percent change in originator biologic's ASP		Biosimilars' payment rate as a percent of originator biologic's payment rate (2022 Q1)	Biosimilar market share (2021 Q3)
		In 10 years before biosimilar entry	Since biosimilar entry (through 2022 Q1)		
Neupogen and biosimilars	2015 Q3	71%	–1%	31%–46%	79%
Remicade and biosimilars	2016 Q4	54%	–55%	105%–120%	19%
Neulasta and biosimilars	2018 Q3	117%	–54%	111%–148%	31%
Procrit/Epogen and biosimilars	2018 Q4	35%	–33%	99%	54%
Avastin and biosimilars	2019 Q3	42%	–17%	59%–75%	56%
Herceptin and biosimilars	2019 Q3	69%	–19%	55%–71%	56%
Rituxan and biosimilars	2019 Q4	68%	–10%	66%–75%	43%

Note: ASP (average sales price), Q1 (first quarter), Q3 (third quarter), Q4 (fourth quarter) An originator biologic is a drug product derived from a living organism. A biosimilar product is a follow-on product that is approved by the Food and Drug Administration (FDA) based on the product being highly similar to the originator biologic. The biosimilars included in the analysis are Zarxio, Nivestym, and Granix for originator Neupogen; Inflectra, Renflexis, and Avsola for originator Remicade; Fulphila, Udenyca, Nyvepria, and Ziextenzo for originator Neulasta; Retacrit for originator Procrit//Epogen; Mvasi and Zirabev for originator Avastin; Ontruzant, Herzuma, Ogivri, Trazimera, and Kanjinti for originator Herceptin; and Truxima, Ruxience, and Riabni for originator Rituxan. Although Granix is not a biosimilar in the U.S. (because it was approved under the standard FDA approval process for new biologics), we include it here because it was approved as a biosimilar to Neupogen in Europe and it functions as a competitor to Neupogen in the U.S. market. "First biosimilar entry date" reflects the earliest market date for a product approved by the FDA as a biosimilar to the originator biologic.

Source: MedPAC analysis of payment rates from CMS's ASP pricing files and product market date information from CMS's database on drug products in the Medicaid Drug Rebate Program and Acumen LLC analysis of Medicare claims data.

- Under Part B, Medicare pays for an originator biologic at 106 percent of its own ASP. For biosimilars, Medicare pays 100 percent of the biosimilar's ASP plus 6 percent of the originator product's ASP. During the first two to three quarters when a biosimilar is new to the market, ASP data are unavailable and Medicare pays a rate of wholesale acquisition cost plus 3 percent.

- Biosimilar entry has generated savings for Medicare. Pricing patterns and biosimilar uptake vary across products.

(Chart continued next page)

Chart 10-5. Trends in Medicare Part B payment rates for originator biologics and their biosimilar products (continued)

- For some products, biosimilars are priced substantially below originators and biosimilar uptake has driven savings. For example, Neupogen, the originator biologic that has faced biosimilar competition for the longest period (since the third quarter of 2015), has not significantly reduced its price and has lost most of its market share to biosimilars. As of the first quarter of 2022, biosimilars' payment rates were much lower than the originator's payment rate (i.e., 31 percent to 46 percent of the originator's payment rate). Biosimilars accounted for nearly 80 percent of market share as of the third quarter of 2021.

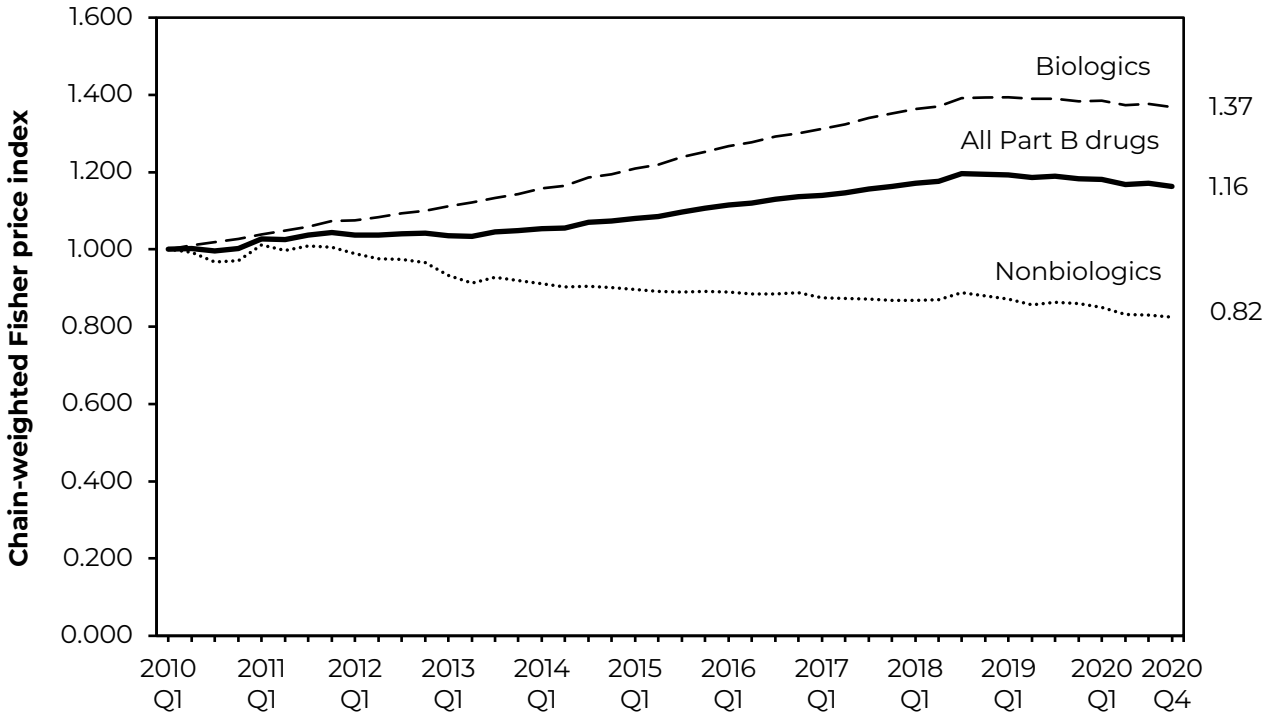
- For other products, reference biologics have responded to biosimilar entry by lowering their prices, and savings have come from both the originator biologic and biosimilars. For example, the price of the originators Procrit/Epogen has fallen 33 percent since biosimilar entry in the fourth quarter of 2018. Medicare's payment rate for the biosimilar is slightly lower (1 percent) than for the originators, as of the first quarter of 2022. Biosimilars accounted for more than half (54 percent) of utilization as of the third quarter of 2021.

- In a few cases, originator biologics are priced below biosimilars as of the first quarter of 2022. Prices have fallen substantially for originators Remicade (declining 55 percent since biosimilar entry in the fourth quarter of 2016) and Neulasta (declining 54 percent since biosimilar entry in the third quarter of 2018). As of the first quarter of 2022, Medicare's payment rates for both originator biologics were lower than its payment rates for their biosimilars. In the most recently released payment rates for the third quarter of 2022, one biosimilar to Remicade and one biosimilar to Neulasta have lower payment rates than the originator biologic, while the other biosimilars payment rates continue to exceed the originator biologics' (data not shown). Remicade has continued to retain most of its market share, accounting for 81 percent of utilization in the third quarter of 2021, while Neulasta has retained 69 percent of its market share, as of the third quarter of 2021.

- In 2019, three originator biologics used to treat cancer (Avastin, Herceptin, Rituxan) faced biosimilar entry, representing the first availability of biosimilar anticancer agents. Biosimilars for these three products have rapidly gained market share, with biosimilars accounting for between 43 percent and 56 percent of utilization among these products as of the third quarter of 2021.

- Although biosimilar competition has resulted in reduced prices for originator biologics relative to the products' prices at the time of biosimilar entry, originator biologics experienced substantial price increases prior to biosimilar entry. Across the 7 originator biologics, cumulative growth in ASP over the 10 years prior to biosimilar entry ranged from 35 percent to 117 percent.

Chart 10-6. Price indexes for Medicare Part B drugs, 2010–2020



Note: Q1 (first quarter), Q4 (fourth quarter). The Part B price indexes are Fisher price indexes and reflect growth in the average sales price of Part B–covered drugs over time, measured for individual drugs at the level of the Healthcare Common Procedure Coding System billing code. The price index is different from the change in the aggregate average price Medicare pays for drugs (Chart 10-2), which reflects changes in the prices of existing products, rising launch prices of new products, and shifts in the mix of drugs.

Source: Acumen LLC analysis for MedPAC.

- The Part B price indexes reflect growth in the average sales price (ASP) at the individual product level, which is a measure of average postlaunch price growth for Part B drugs. This is different from the change in the aggregate average price Medicare Part B pays for drugs (Chart 10-2), which reflects a broader set of dynamics (including changes in the price of existing products, rising launch prices of new products compared with older products, and shifts in the mix of drugs).

- Measured by the change in the ASP of individual Part B–covered drugs, the prices of Part B–covered drugs rose by an average of 16 percent cumulatively between 2010 and 2020 (an index of 1.16).

- Underlying overall trends in the price index are different patterns by type of product. Between 2010 and 2020, the price index for Part B–covered biologics increased by 37 percent (index of 1.37), while the price index for nonbiologics declined by 18 percent (index of 0.82).

(Chart continued next page)

Chart 10-6. Price indexes for Medicare Part B drugs, 2010–2020 (continued)

- Since the third quarter of 2018, the overall price index for Part B drugs has declined from 1.20 to 1.16, which is driven by a decline in the biologics' price index, coupled with the continued decline in the nonbiologics' price index.

- Between the first quarter of 2019 and the fourth quarter of 2020, the biologics' price index declined from 1.39 to 1.37. Pricing trends differ for biologics that face biosimilar competition and biologics that do not. Between the first quarter of 2019 and the fourth quarter of 2020, the price index declined for originator biologics and their biosimilar competitors (from 1.57 to 1.31) and increased for biologics without biosimilar competition (from 1.26 to 1.29) (data not shown).

- The nonbiologic group includes single-source drugs and drugs with generic competition. The downward price trend for nonbiologics in part reflects patent expiration and generic entry for some of these products. It also reflects the design of the ASP payment system, which spurs price competition among generics and their associated brand-name products by assigning these products to a single billing code and paying them the same average rate.

Chart 10-7. Part D enrollment by plan type, 2007–2021

	2007	2013	2017	2021	Average annual growth rate 2007-2021
Total Medicare enrollment, in millions	46.8	55.3	61.5	66.9	2.6%
Part D enrollment, in millions					
Part D plans	26.2	37.8	45.2	51.6	5.0
Non-Medicare employer plans under the RDS*	7.4	3.5	1.8	1.2	–12.4
Total Part D	33.5	41.3	47.0	52.8	3.3%
Total Part D share of Medicare enrollment	*72%*	*75%*	*76%*	*79%*	
LIS enrollment					
PDP	8.9	9.2	8.8	6.7	–2.0
MA–PD	1.5	3.2	4.9	7.6	12.2
Total LIS	10.5	12.4	13.7	14.3	2.3
Share of LIS enrollees in MA–PD	*14%*	*26%*	*36%*	*53%*	
Share of Part D plan enrollees with LIS	*40%*	*33%*	*30%*	*28%*	
EGWPs (PDPs and MA–PDs), in millions	2.0	6.4	7.2	7.8	10.1
EGWP share of total Part D enrollment	*6%*	*15%*	*15%*	*15%*	
Non-EGWP Part D plans, in millions					
PDP	17.5	19.4	22.1	20.9	1.3
MA–PD	6.6	12.0	15.9	22.9	9.3
Share of non-EGWP plan enrollees in MA–PD	*27%*	*38%*	*42%*	*52%*	

Note: RDS (retiree drug subsidy), LIS (low-income subsidy), PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]), EGWP (employer group waiver plan). A beneficiary was classified as "LIS" if that individual received Part D's LIS at some point during the year. If a beneficiary was enrolled in both a PDP and an MA–PD during the year, that individual was classified into the type of plan with the greater number of months of enrollment. Components may not sum to totals due to rounding. Average annual growth rate is calculated on unrounded numbers. Figures include all beneficiaries with at least one month of enrollment. Enrollment numbers in this table differ from those in the Commission's previous years' data books and in its 2022 March report to the Congress because this table counts individuals who were ever enrolled for at least one month in the year rather than at a single point in time.
* Excludes federal government and military retirees covered by either the Federal Employees Health Benefit Program or the TRICARE for Life program.

Source: MedPAC analysis of common Medicare environment file from CMS.

- In 2021, 79 percent of Medicare beneficiaries were enrolled in Part D plans for at least one month during the year or had prescription drug coverage through employer-sponsored plans that receive Medicare's RDS. That share is up from 72 percent in 2007.

- Between 2007 and 2021, the number of enrollees receiving the LIS grew modestly (by 2.3 percent per year, on average). During the same period, the number of non-LIS enrollees grew faster than LIS enrollees (growing by about 7 percent per year, on average) (data not shown). Faster enrollment growth among non-LIS enrollees has resulted in a decline in the share of Part D enrollees who receive the LIS. In 2021, 28 percent of Part D enrollees received the LIS (a decrease from 40 percent in 2007). Of all LIS beneficiaries, 53 percent were in MA–PDs and just under half (47 percent) were enrolled in stand-alone PDPs.

(Chart continued next page)

Chart 10-7. Part D enrollment by plan type, 2007–2021 (continued)

- Employer and union health plans continue to be important sources of drug coverage for Medicare beneficiaries. In 2021, 7.8 million Medicare beneficiaries (15 percent of Part D plan enrollees) were in plans (including PDPs and MA–PDs) set up by employers or unions for their retirees. Under these employer group waiver plans (EGWPs), Medicare is the primary payer for basic drug benefits, and typically the employer offers wraparound coverage. Separately, 1.2 million Medicare beneficiaries were in plans offered by employers that receive Medicare's RDS. (If an employer remains the primary payer of creditable drug coverage for its retirees, Medicare provides the employer with a tax-free subsidy for 28 percent of each eligible individual's drug costs that fall within a specified range of spending.)

- In 2021, among non-EGWP plans open to any Part D enrollee, 22.9 million (52 percent) were in MA–PDs and 20.9 million (48 percent) were in stand-alone PDPs. Over the 2007 to 2021 period, enrollment in PDPs has grown much more slowly than that in MA–PDs—an annual average of 1.3 percent compared with 9.3 percent.

Chart 10-8. Characteristics of Part D enrollees, 2021

	All Medicare	Part D	Plan type		Subsidy status	
			PDP	MA–PD	LIS	Non-LIS
Beneficiaries* (in millions)	66.9	51.6	25.7	25.9	14.3	37.3
Percent of all Medicare	100%	77%	38%	39%	21%	56%
Gender						
Male	46%	43%	43%	44%	41%	44%
Female	54	57	57	56	59	56
Race/ethnicity						
White, non-Hispanic	73	73	80	66	53	81
Black, non-Hispanic	11	11	8	14	21	7
Hispanic	9	9	6	13	17	6
Asian	4	4	3	4	6	3
Other	4	3	4	3	4	3
Age (years)**						
<65	15	15	14	16	37	7
65–69	27	25	25	26	20	27
70–74	23	23	23	23	15	26
75–79	15	16	16	16	10	18
80+	20	20	22	19	17	22

Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]), LIS (low-income subsidy). Components may not sum to totals due to rounding.
* Figures for "All Medicare" and "Part D" include all beneficiaries with at least one month of enrollment in the respective program. A beneficiary was classified as "LIS" if that individual received Part D's LIS at some point during the year. For individuals who switched plan types during the year, classification into plan types was based on the greater number of months of enrollment.
** Age as of July 2021.

Source: MedPAC analysis of the common Medicare environment file from CMS.

- In 2021, 51.6 million Medicare beneficiaries (77 percent) were enrolled in Part D at some point in the year. Enrollees were split nearly equally between stand-alone PDPs (25.7 million) and MA–PDs (25.9 million). Just over 14 million enrollees received Part D's LIS.
- Demographic characteristics of Part D enrollees are generally similar to the overall Medicare population, with the exception of gender (Part D enrollees are more likely to be female). MA–PD enrollees are more likely to be Hispanic or Black compared with PDP enrollees; LIS enrollees are more likely to be female, minority, and disabled beneficiaries under age 65 compared with non-LIS enrollees.

Chart 10-9. Changes in parameters of the Part D defined standard benefit over time, 2006–2022

	2006	2021	2022	Average annual change 2006–2022
Deductible	$250.00	$445.00	$480.00	4.2%
Initial coverage limit	2,250.00	4,130.00	4,430.00	4.3
Annual out-of-pocket threshold	3,600.00	6,550.00	7,050.00	4.3
Total covered drug spending at annual out-of-pocket threshold				
Enrollees eligible for manufacturers' coverage-gap discount	5,100.00	10,048.39	10,690.20	4.7
Other enrollees	5,100.00	9,313.75	10,012.50	4.3
Cost sharing above the annual out-of-pocket threshold is the greater of 5% coinsurance or these amounts:				
Copay for generic/preferred multisource drugs	2.00	3.70	3.95	4.3
Copay for other prescription drugs	5.00	9.20	9.85	4.3

Note: Under Part D's defined standard benefit, the enrollee pays the deductible and then 25 percent of covered drug spending (75 percent is paid by the plan) until total covered drug spending reaches the initial coverage limit (ICL). Before 2011, enrollees exceeding the ICL were responsible for 100 percent of covered drug spending up to the annual out-of-pocket (OOP) threshold. Beginning in 2011, certain enrollees pay reduced cost sharing in the coverage gap because manufacturers of brand-name drugs must provide a discount. Criteria to be eligible for the coverage-gap discount exclude most enrollees who receive Part D's low-income subsidy as well as enrollees in qualified retiree drug plans. For 2011 and later years, the amount of total covered drug spending at the annual OOP threshold depended on the mix of brand-name and generic drugs filled during the coverage gap. The amounts shown are for individuals who have no source of supplemental coverage with the average mix of brand and generic spending. Cost sharing paid by most sources of supplemental coverage does not count toward this threshold. Above the OOP limit, the enrollee pays 5 percent coinsurance or the respective copay shown above, whichever is greater.

Source: CMS Office of the Actuary.

- The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 specified a defined standard benefit structure for Part D. In 2022, the standard benefit has a $480 deductible, 25 percent coinsurance on covered drugs until the enrollee reaches $4,430 in total covered drug spending, and then a coverage gap until OOP spending reaches the annual threshold. (The total dollar amount of drug spending at which a beneficiary reaches the OOP threshold varies from person to person, depending on the mix of brand-name and generic prescriptions filled. CMS estimates that in 2022, a person who does not receive Part D's low-income subsidy and has no supplemental coverage would, on average, reach the threshold at about $10,690 in total drug spending.) Before 2011, enrollees were responsible for paying the full discounted price of drugs filled during the coverage gap. Subsequently, certain enrollees pay reduced cost sharing for drugs filled in the coverage gap because manufacturers of brand-name drugs must provide a discount. In 2022, the cost sharing for drugs filled during the gap phase is about 25 percent for brand-name drugs and generics. Enrollees with drug spending that exceeds the annual threshold pay the greater of $3.95 to $9.85 or 5 percent coinsurance per prescription.

(Chart continued next page)

Chart 10-9. Changes in parameters of the Part D defined standard benefit over time, 2006–2022 (continued)

- Most parameters of this defined standard benefit structure have changed over time at the same rate as the annual change in average total drug expenses of Medicare beneficiaries enrolled in Part D, with cumulative changes of 92 percent to 110 percent between 2006 and 2022.

- Within certain limits, sponsoring organizations may offer Part D plans that have the same actuarial value as the defined standard benefit but a different benefit structure, and most sponsoring organizations do offer such plans. For example, a plan may use tiered copayments rather than 25 percent coinsurance or have no deductible but use cost-sharing requirements that are equivalent to a rate higher than 25 percent (see Chart 10-15). Defined standard benefit plans and plans that are actuarially equivalent to the defined standard benefit are both known as "basic benefits."

- Once a sponsoring organization offers one plan with basic benefits within a prescription drug plan region, it may also offer up to two plans with enhanced benefits—basic and supplemental coverage combined.

- Under the Bipartisan Budget Act of 2018, manufacturers of brand-name drugs must provide a 70 percent discount to eligible enrollees in the coverage gap, enrollees pay 25 percent cost sharing, and plan sponsors are responsible for covering only 5 percent of the cost of brand-name drugs.

Chart 10-10. Characteristics of stand-alone Medicare PDPs, 2021–2022

	2021				2022			
	Plans		Enrollees as of February 2021		Plans		Enrollees as of February 2022	
	Number	Percent	Number (in millions)	Percent	Number	Percent	Number (in millions)	Percent
Total	996	100%	19.7	100%	766	100%	19.0	100%
Type of benefit								
Defined standard	1	<0.5	0.0	0	0	0	0.0	0
Actuarially equivalent	377	38	9.8	50	302	39	8.7	46
Enhanced	618	62	10.0	50	464	61	10.3	54
Type of deductible								
Zero	139	14	2.7	14	136	18	2.7	14
Reduced	192	19	4.5	23	90	12	1.2	6
Defined standard*	665	67	12.5	63	540	70	15.1	79
Some formulary tiers not subject to a deductible	587	59	12.0	61	405	53	11.9	63
Participate in SSM	308	31	5.4	28	256	33	6.1	32

Note: PDP (prescription drug plan), SSM (Senior Savings Model). The PDPs and enrollment described here exclude employer-only plans and plans offered in U.S. territories. "Actuarially equivalent" includes both actuarially equivalent standard and basic alternative benefits. "Enhanced" refers to plans with basic plus supplemental coverage. Components may not sum to totals due to rounding.
* The defined standard benefit's deductible was $445 in 2021 and is $480 in 2022.

Source: MedPAC analysis of CMS landscape, premium, and enrollment data.

- Plan sponsors are offering 766 stand-alone PDPs in 2022 compared with 996 in 2021—a decrease of more than 23 percent due primarily to mergers among plan sponsors and requirements that plan sponsors offer no more than one basic and two enhanced PDPs per region. Total enrollment in PDPs declined by 3.6 percent to 19.0 million beneficiaries in 2022 from 19.7 million in 2021, as enrollees shifted to MA–PDs (see Chart 10-7).
- For 2022, 61 percent of PDP offerings include enhanced benefits (basic plus supplemental coverage), a small decrease from the share in 2021. Enhanced plans have increased their share of enrollment, up to 54 percent in 2022 from 50 percent in 2021.
- In 2022, 70 percent of PDPs use the same $480 deductible as in Part D's defined standard benefit compared with 67 percent in 2021. Only 14 percent of PDP enrollees are in plans with no deductible. Also in 2022, 53 percent of all PDPs designate certain formulary tiers that are not subject to the deductible. If, for example, a PDP used such a designation for preferred generic drugs, an enrollee would pay just the plan's cost sharing for that tier rather than the full cost of the prescription up to the amount of the deductible. In 2022, 63 percent of PDP enrollees were in such plans, up from 61 percent in 2021.
- In 2022, 256 PDPs (33 percent) participate in the Center for Medicare and Medicaid Innovation's Part D Senior Savings Model that covers certain insulins at cost sharing of no more than $35 per one-month supply. Those participating PDPs enroll 6.1 million beneficiaries (32 percent of all PDP enrollees), compared with 5.4 million SSM enrollees in 2021.

Chart 10-11. Characteristics of general MA–PDs, 2021–2022

	2021				2022			
	Plans		Enrollees as of February 2021		Plans		Enrollees as of February 2022	
	Number	Percent	Number (in millions)	Percent	Number	Percent	Number (in millions)	Percent
Total	3,133	100%	16.9	100%	3,365	100%	18.1	100%
Type of organization								
Local HMO	2,007	64	11.3	67	2,052	61	11.7	64
Local PPO	1,072	34	4.9	29	1,261	37	6.0	33
PFFS	21	1	0.0	0	19	1	0.0	0
Regional PPO	33	1	0.6	3	33	1	0.4	2
Type of benefit								
Defined standard	31	1	0.1	1	25	1	0.1	0
Actuarially equivalent	66	2	0.1	1	51	2	0.1	1
Enhanced	3,036	97	16.6	99	3,289	98	17.9	99
Type of deductible								
Zero	1,582	50	9.1	54	1,900	56	11.3	63
Reduced	1,317	42	7.2	43	1,229	37	6.2	34
Defined standard*	234	7	0.5	3	236	7	0.6	3
Some formulary tiers not subject to a deductible	1,497	48	7.6	45	1,415	42	6.7	37
Participate in SSM	1,045	33	8.0	48	1,512	45	10.5	58

Note: MA–PD (Medicare Advantage–Prescription Drug [plan]), HMO (health maintenance organization), PPO (preferred provider organization), PFFS (private fee-for-service), SSM (Senior Savings Model). The MA–PDs and enrollment described here exclude employer-only plans, plans offered in U.S. territories, 1876 cost plans, special needs plans, and Part B–only plans. Components may not sum to totals due to rounding.
"Actuarially equivalent" includes both actuarially equivalent standard and basic alternative benefits.
"Enhanced" refers to plans with basic plus supplemental coverage.
* The defined standard benefit's deductible was $445 in 2021 and is $480 in 2022.

Source: MedPAC analysis of CMS landscape, premium, and enrollment data.

- Sponsors are offering 3,365 MA–PDs in 2022 compared with 3,133 in 2021 (7 percent more). Enrollment in MA–PDs grew 7.3 percent from 16.9 million in 2021 to 18.1 million in 2022—a deceleration from more than 10 percent growth in the prior two years (data not shown).

- Between 2021 and 2022, the number of drug plans offered by HMOs grew slightly from 2,007 to 2,052; HMO drug plans remain the dominant type of MA–PD, making up 61 percent of all offerings. But local PPOs are growing in popularity. Over the same period, the number of drug plans offered by local PPOs increased nearly 18 percent from 1,072 plans to 1,261 plans, and their enrollees grew from 4.9 million to 6.0 million.

- In 2022, 98 percent of MA–PDs have enhanced benefits compared with 54 percent of PDPs (see Chart 10-10). In 2022, those MA–PDs enrolled 99 percent of all MA–PD beneficiaries.

- Fifty-six percent of MA–PDs have no deductible in 2022, and those plans attracted 63 percent of all MA–PD enrollees. In addition, 37 percent of enrollees are in plans that designate certain cost-sharing tiers of their formularies that are not subject to a deductible.

- In 2022, 10.5 million MA–PD enrollees (58 percent) participate in the Part D Senior Savings Model that covers certain insulins at cost sharing of no more than $35 per one-month supply.

Chart 10-12. Characteristics of SNPs, 2021–2022

	2021				2022			
	Plans		Enrollees as of February 2021		Plans		Enrollees as of February 2022	
	Number	Percent	Number (in millions)	Percent	Number	Percent	Number (in millions)	Percent
Total	949	100%	3.5	100%	1,130	100%	4.3	100%
Type of SNP								
Chronic condition	200	21	0.4	11	267	24	0.4	9
Dual eligible	575	61	3.1	87	679	60	3.8	89
Institutionalized	174	18	0.1	2	184	16	0.1	2
Type of benefit								
Defined standard	307	32	1.9	53	347	31	2.0	46
Actuarially equivalent	103	11	0.4	11	68	6	0.5	11
Enhanced	539	57	1.3	37	715	63	1.8	43
Type of deductible								
Zero	194	20	0.2	6	241	21	0.2	5
Reduced	136	14	0.4	10	140	12	0.4	9
Defined standard*	619	65	3.0	84	749	66	3.7	86
Some formulary tiers not subject to a deductible	399	42	1.3	36	377	33	1.4	33
Participate in SSM	133	14	0.2	7	190	17	0.3	6

Note: SNP (special needs plan), HMO (health maintenance organization), PPO (preferred provider organization), PFFS (private fee-for-service), SSM (Senior Savings Model). The SNPs and enrollment described here exclude plans offered in U.S. territories. Components may not sum to totals due to rounding. "Actuarially equivalent" includes both actuarially equivalent standard and basic alternative benefits. "Enhanced" refers to plans with basic plus supplemental coverage.
* The defined standard benefit's deductible was $445 in 2021 and is $480 in 2022.

Source: MedPAC analysis of CMS landscape, premium, and enrollment data.

- The number of SNPs (MA–PDs designed for certain groups of beneficiaries) has grown rapidly; in 2022, there are 19 percent more than in 2021. Enrollment in SNPs grew 21.7 percent from 3.5 million in 2021 to 4.3 million in 2022—continuing the trend of double-digit growth that has occurred since 2017.

- SNPs for individuals dually eligible for Medicare and Medicaid (D–SNPs) are the most popular type. In 2022, 60 percent of SNPs were D–SNPs, and they enrolled 89 percent of all SNP enrollees. Other types of SNPs include those for individuals who have certain chronic conditions and those for institutionalized beneficiaries.

- Compared with PDPs and MA–PDs, SNPs are more likely to offer a defined standard benefit, with 31 percent of SNPs offering such coverage in 2022. These plans enrolled 46 percent of SNP beneficiaries. While 63 percent of all SNPs provide enhanced coverage in 2022, they enrolled just 43 percent of all SNP enrollees.

- Dually eligible beneficiaries automatically receive Part D's low-income subsidy, which means that most recipients pay nominal copayments while the subsidy pays the remainder of their plan's cost sharing. Because nominal copayments limit the effectiveness of a formulary with tiered cost sharing, sponsors of D–SNPs more frequently use Part D's defined standard benefit design. For the same reason, D–SNPs are also less likely to have some formulary tiers not subject to a deductible and are less likely to participate in the Part D's Senior Saving Model.

Chart 10-13. Change in average Part D premiums, 2018–2022

	Average monthly premium weighted by enrollment					Cumulative change in weighted average premium, 2018–2022
	2018	2019	2020	2021	2022	
All plans	**$32**	**$29**	**$27**	**$26**	**$26**	**–17%**
Basic plans	30	32	30	32	34	14
Enhanced plans						
Basic benefits	26	22	20	18	15	–41
Supplemental benefits	7	6	6	6	8	15
Total premium	33	28	26	24	23	–29
All basic coverage	28	25	23	22	21	–25
PDPs	**41**	**40**	**38**	**38**	**40**	**–3**
Basic plans	31	32	30	32	35	14
Enhanced plans						
Basic benefits	42	35	33	29	23	–45
Supplemental benefits	15	15	15	16	21	42
Total premium	57	50	48	45	44	–22
All basic coverage	35	33	31	30	28	–19
MA–PDs, including SNPs	**18**	**16**	**15**	**15**	**15**	**–19**
Basic plans	28	28	26	31	33	19
Enhanced plans						
Basic benefits	15	13	12	12	11	–25
Supplemental benefits	1	1	1	1	1	–41
Total premium	17	14	13	13	12	–27
All basic coverage	17	15	14	14	14	–18
Average MA–PD buy-down of basic premium	16	16	15	19	22	40
Average MA–PD buy-down of supplemental benefits	16	17	20	21	26	59
Base beneficiary premium	35.02	33.19	32.74	33.06	33.37	–5

Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]), SNP (special needs plan). All calculations exclude employer-only groups and plans offered in U.S. territories. In addition, MA–PDs exclude Part B–only plans, demonstrations, and 1876 cost plans. The MA–PD data reflect the portion of Medicare Advantage plans' total monthly premium attributable to Part D benefits for plans that offer Part D coverage, as well as Part C rebate dollars that were used to offset Part D premium costs. The fact that average premiums for enhanced MA–PDs are lower than for basic MA–PDs could reflect several factors such as changes in enrollment among plan sponsors and counties of operation and differences in the average health status of plan enrollees. Cumulative changes were calculated from unrounded data. Components may not sum to totals due to rounding.

Source: MedPAC analysis of CMS landscape, plan report, enrollment data, and bid data.

(Chart continued next page)

Chart 10-13. Change in average Part D premiums, 2018–2022 (continued)

- Part D enrollees can select between plans with basic or enhanced benefits (the latter combine basic and supplemental coverage). Medicare aims to subsidize 74.5 percent of the average cost of basic benefits; enrollees pay premiums for the remaining 25.5 percent and all of the cost of any supplemental benefits. (For more about how plan premiums are determined, see Part D *Payment Basics* at https://www.medpac.gov/wp-content/uploads/2021/11/medpac_payment_basics_21_partd_final_sec.pdf.)

- The overall average premium paid by enrollees for any type of Part D coverage declined only slightly in 2022 from 2021, rounding to $26 per month in both years. Over the period from 2018 to 2022, year-to-year changes in average premiums have varied by type of benefit (basic vs. enhanced) and type of plan (PDP vs. MA–PD); the changes have not necessarily corresponded to changes observed in the base beneficiary premium.

- Across all basic plans and the basic portion of enhanced plans, the average premium for basic benefits fell from $28 in 2018 to $21 per month in 2022, a cumulative decline of 25 percent. This decline occurred despite very rapid growth in spending for Part D's catastrophic phase of the benefit (data not shown). In the catastrophic phase, Medicare subsidizes 80 percent of enrollees' drug spending. (For more information about Medicare's Part D spending, see Chapter 13 of the Commission's March 2022 report to the Congress at https://www.medpac.gov/wp-content/uploads/2022/03/Mar22_MedPAC_ReportToCongress_Ch13_SEC.pdf.)

- Over the five-year period, the average enrollee premium for basic coverage in PDPs ranged between a low of $30 in 2020 and a high of $35 per month in 2022. Between 2018 and 2022, the average premium for such plans increased by a cumulative 14 percent. Among enhanced plans offered by PDPs, the average enrollee premium has ranged from $44 in 2022 to $57 in 2018. Over the five-year period, the average premium for these plans decreased by a cumulative 22 percent. Of the $44 average premium in 2022 among enhanced PDPs, $23 was for basic benefits and $21 was for supplemental benefits. The portion of enhanced premiums attributable to supplemental benefits has grown, while the portion for basic benefits has declined.

- The average Part D premium paid by beneficiaries enrolled in MA–PDs with basic coverage ranged between a low of $26 in 2020 and a high of $33 per month in 2022. From 2018 to 2022, the average premium for such plans increased by a cumulative 19 percent. The average premium paid by beneficiaries enrolled in MA–PDs offering enhanced coverage has decreased from $17 in 2018 to $12 in 2022, a cumulative 27 percent decrease. MA–PD sponsors typically use a portion of Medicare's Part C (Medicare Advantage) payments to "buy down" the premiums that plan enrollees would otherwise have to pay for Part D basic premiums and supplemental benefits. Because of those Part C payment "rebates," in 2022, MA–PD enrollees avoided having to pay $22 per month in basic premiums and an additional $26 per month for supplemental coverage, on average.

Chart 10-14. Part D benchmarks for LIS premiums and number of qualifying PDPs, by region

Region	State(s)	2007 Benchmark amount	2007 Number of PDPs	2022 Benchmark amount	2022 Number of PDPs	Cumulative change, 2007–2022 Benchmark amount	Cumulative change, 2007–2022 Number of PDPs
1	ME, NH	$36	18	$31	5	–15%	–72%
2	CT, MA, RI, VT	30	15	36	6	20	–60
3	NY	30	13	42	4	42	–69
4	NJ	31	19	37	6	18	–68
5	DC, DE, MD	33	16	37	6	10	–63
6	PA, WV	33	20	41	7	25	–65
7	VA	34	17	35	7	2	–59
8	NC	36	14	36	6	–1	–57
9	SC	35	16	31	5	–11	–69
10	GA	33	16	32	6	–2	–63
11	FL	29	5	34	4	18	–20
12	AL, TN	32	14	33	7	1	–50
13	MI	33	15	31	7	–5	–53
14	OH	31	13	34	4	9	–69
15	IN, KY	36	17	30	6	–17	–65
16	WI	31	19	42	7	35	–63
17	IL	32	17	29	7	–8	–59
18	MO	31	10	33	5	7	–50
19	AR	35	18	27	5	–25	–72
20	MS	36	15	29	6	–20	–60
21	LA	34	8	36	6	6	–25
22	TX	32	12	25	5	–21	–58
23	OK	35	14	31	7	–12	–50
24	KS	33	16	33	5	–2	–69
25	IA, MN, MT, ND, NE, SD, WY	33	16	39	6	17	–63
26	NM	26	9	34	6	32	–33
27	CO	29	15	40	5	38	–67
28	AZ	25	8	40	9	63	13
29	NV	23	7	32	5	35	–29
30	OR, WA	31	16	40	7	32	–56
31	ID, UT	34	18	43	7	28	–61
32	CA	23	9	33	5	43	–44
33	HI	27	13	36	5	31	–62
34	AK	35	15	33	4	–6	–73

Note: LIS (low-income subsidy), PDP (prescription drug plan). All calculations exclude plans offered in U.S. territories.

Source: MedPAC analysis of CMS benchmark amounts and plan report data.

(Chart continued next page)

Chart 10-14. Part D benchmarks for LIS premiums and number of qualifying PDPs, by region (continued)

- Part D's LIS covers most premiums and cost sharing for enrollees with low incomes and assets. The LIS's coverage of premiums has a dollar limit, known as the benchmark, that encourages beneficiaries to enroll in lower-cost PDPs. Beneficiaries who enroll in plans with premiums that are less than the benchmark do not pay a premium; those who enroll in plans with higher premiums pay the difference. The PDPs for which LIS beneficiaries do not pay a premium are known as benchmark plans. When LIS beneficiaries do not select a PDP, Medicare automatically enrolls them in benchmark plans.

- The LIS benchmark equals the average premium for basic coverage in a region. CMS calculates it using a weighted average of both PDP and MA–PD premiums. For plans that offer enhanced coverage, CMS uses the portion of the plan's premium that reflects the cost of basic coverage only. For MA–PDs, CMS uses the amount of the premium for basic coverage before the plan sponsor has used any Part C (Medicare Advantage) rebates to reduce or eliminate the premium. The weight for each plan equals its share of LIS enrollment. CMS calculates separate benchmarks for each Part D region and updates them annually.

- In 2022, the lowest benchmark premium was $25 in Region 22 (Texas). This region also had the lowest benchmark premium in 2020 and 2021. Region 31 (Idaho and Utah) had the highest benchmark premium in 2022 at $43 per month.

- The average benchmark premium across regions (not weighted by numbers of enrollees) has been relatively stable over the years, rising from $32 per month in 2007 to $35 in 2022, an increase of 9 percent over 15 years (data not shown).

- In 2007, the average number of benchmark plans in a region was 14; by 2022, that figure had dropped to 6, a decline of 59 percent (data not shown). The number of benchmark plans has declined between 2007 and 2022 in every region except 28 (Arizona), which has 13 percent more plans in 2022 than in 2007. Several factors explain this decline, particularly (1) a change in policy in 2010 under which CMS only permitted plan sponsors to offer one basic plan (because any additional basic plan would have the same actuarial value) and (2) mergers and acquisitions among plan sponsors. The maximum number of benchmark plans in any region in 2022 is 9, compared with 20 in 2007.

Chart 10-15. In 2022, about one in two listed drugs is subject to some utilization management

	Benchmark PDPs	PDP enrollees	MA–PD enrollees
5-tier formulary structure* (in percent)	100%	100%	99%
Drugs on formulary as % of all Part D drugs**	69%	71%	77%
Median cost-sharing amounts			
Tier 1: generic drugs	$0	$0	$0
Tier 2: other generic drugs	5	5	10
Tier 3: preferred brand-name drugs	38	42	47
Tier 4: nonpreferred drugs	38%	40%	$100
Tier 5: specialty-tier drugs	25%	25%	33%
Drugs with utilization management requirement (in percent)			
Prior authorization	31%	31%	27%
Step therapy	0	1	1
Quantity limits	38	40	42
Any utilization management	51	52	54

Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]). Figures exclude employer-only groups and plans offered in U.S. territories. In addition, MA–PDs exclude demonstration programs, special needs plans, and 1876 cost plans. Values reflect the share of listed chemical entities that are subject to utilization management, weighted by plan enrollment. "Prior authorization" means that the enrollee must get preapproval from the plan before coverage. "Step therapy" refers to a requirement that the enrollee try specified drugs before being prescribed other drugs in the same therapeutic category. "Quantity limits" means that plans limit the number of doses of a drug available to the enrollee in a given time period. Generic drugs placed on Tier 1 are "preferred" (i.e., lowest cost sharing) relative to generic drugs placed on higher tiers, including Tier 2.
* Includes formularies with an additional (sixth) tier used for certain types of drugs, such as over-the-counter medications.
** Number of all Part D drugs is based on the counts of unique chemical entities listed on CMS's formulary reference file for the 2022 benefit year.

Source: MedPAC analysis of formularies submitted to CMS.

- Most Part D enrollees choose plans that have a five-tier structure: two generic, one preferred brand-name tier, and one nonpreferred drug tier (which may include both brand-name and generic drugs), plus a specialty tier. In 2022, nearly all enrollees are enrolled in plans with this five-tier structure, including plans with an additional (sixth) tier for certain types of drugs (for example, vaccines), typically with no cost sharing.
- The number of drugs listed on a plan's formulary affects a beneficiary's access to medications. In 2022, on average, PDP enrollees have access to 71 percent of all Part D–covered drug products compared with 77 percent among MA–PD enrollees. That share was lower (69 percent) for beneficiaries enrolled in benchmark plans—basic PDPs for which LIS enrollees do not have to pay a premium (see Chart 10-14 for information about benchmark plans).

(Chart continued next page)

Chart 10-15. In 2022, about one in two listed drugs is subject to some utilization management (continued)

- For enrollees in PDPs with a five-tier structure, the median copay in 2022 is $0 for a generic drug on a lower tier and $5 for other generic drugs. The median copay is $42 for a preferred brand-name drug and 40 percent coinsurance for a nonpreferred drug. Average cost-sharing amounts for benchmark plans are generally similar to other PDPs, with somewhat lower cost sharing for brand-name drugs. For MA–PD enrollees, in 2022, the median copays for generic drugs are $0 and $10 for the two generic tiers, respectively. The median copay is $47 for a preferred brand and $100 for a nonpreferred drug. About 15 percent of MA–PDs use coinsurance (median is 44 percent) for nonpreferred drugs. Both PDPs and MA–PDs use coinsurance (25 percent and 33 percent, respectively) for specialty-tier drugs.

- In addition to the number of drugs listed on a plan's formulary, plans' processes for nonformulary exceptions and use of utilization management tools—prior authorization (preapproval for coverage), quantity limits (limitations on the number of doses of a particular drug covered in a given period), and step therapy requirements (enrollees being required to try specified drugs before being prescribed other drugs in the same therapeutic category)—can affect access to certain drugs.

- In 2022, the use of some form of utilization management, on average, increased to 52 percent of drugs listed on a plan's formulary in stand-alone PDPs and 54 percent in MA–PDs. Use of utilization management among benchmark plans is similar to that of other PDPs. Part D plans typically use quantity limits or prior authorization to manage enrollees' prescription drug use.

- Among the drugs listed on plan formularies, on average, the share that requires prior authorization in 2022 increased for both stand-alone PDPs and MA–PDs (to 31 percent and 27 percent, respectively) (2021 data not shown). The share with quantity limits increased for both types of plans. In 2022, on average, quantity limits apply to 40 percent and 42 percent of drugs listed on formularies of stand-alone PDPs and MA–PDs, respectively. The share of drugs listed on plan formularies that require the use of step therapy remains very low for both stand-alone PDPs and MA–PDs.

Chart 10-16. Components of Part D spending growth, 2009–2020

	2009	2020	Average annual growth 2009–2020
Total gross spending (in billions)	$73.7	$198.6	9.4%
High-cost beneficiaries	29.2	122.8	14.0%
Lower-cost beneficiaries	44.6	75.8	4.9%
Number of beneficiaries using a Part D drug (in millions)	26.5	46.3	5.2%
High-cost beneficiaries	2.4	3.8	4.4%
Lower-cost beneficiaries	24.1	42.4	5.3%
Amount per beneficiary who used Part D drugs			
Gross drug spending per year	$2,781	$4,294	4.0%
Average price per 30-day prescription	$55	$75	2.9%
Number of 30-day prescriptions	50.4	57.0	1.1%
Amount per high-cost beneficiary who used Part D drugs			
Gross drug spending per year	$12,294	$32,108	9.1%
Average price per 30-day prescription	$110	$276	8.7%
Number of 30-day prescriptions	111.4	116.2	0.4%
Amount per lower-cost beneficiary who used Part D drugs			
Gross drug spending per year	$1,846	$1,786	–0.3%
Average price per 30-day prescription	$42	$35	–1.7%
Number of 30-day prescriptions	44.5	51.7	1.4%

Note: "High-cost beneficiaries" refers to individuals who incurred spending high enough to reach the catastrophic phase of the benefit. "Gross spending" reflects payments to pharmacies from all payers, including beneficiary cost sharing, but does not include rebates and discounts from pharmacies and manufacturers that are not reflected in prices at the pharmacies. Changes in the average price per prescription reflect both price inflation and changes in the mix of drugs used. Components may not sum to totals due to rounding.

Source: MedPAC analysis of Part D prescription drug event data and common Medicare environment file from CMS.

- Between 2009 and 2020, gross spending on drugs under the Part D program grew by an annual average rate of 9.4 percent. The annual growth in spending was considerably higher (14 percent) among high-cost beneficiaries (individuals who incurred spending high enough to reach the catastrophic phase of the benefit) compared with 4.9 percent for lower-cost beneficiaries.

- During the 2009 through 2020 period, the number of beneficiaries who used Part D drugs grew by an annual average rate of 5.2 percent. The number of high-cost beneficiaries grew more slowly (4.4 percent) compared with lower cost beneficiaries (5.3 percent). The slower growth in the number of high-cost beneficiaries reflects the 25 percent increase ($1,250) in the out-of-pocket (OOP) threshold between 2019 and 2020. As a result, the number of high-cost enrollees fell by more than 11 percent from 4.3 million to 3.8 million (data not shown). (For more information about the impact of the increase in the OOP threshold in 2020, see Chapter 13 of the Commission's March 2022 report to the Congress at https://www.medpac.gov/wp-content/uploads/2022/03/Mar22_MedPAC_ReportToCongress_Ch13_SEC.pdf.)

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Chart 10-16. Components of Part D spending growth, 2009–2020 (continued)

- The average price per 30-day prescription covered under Part D rose from $55 in 2009 to $75 in 2020. Overall, growth in price per prescription accounted for more than two-thirds (2.9 percentage points) of the 4.0 percent average annual growth in spending per beneficiary among beneficiaries who used Part D drugs. Growth in prices per prescription reflects increases in the prices of existing drugs and changes in the mix of drugs, including the adoption of new, higher-priced drugs.

- The average annual growth rate in overall spending per beneficiary reflects two distinct patterns of price and spending growth, one for high-cost beneficiaries and another for lower-cost beneficiaries. Among high-cost beneficiaries, annual growth in prices (8.7 percent) accounted for nearly all of the spending growth (9.1 percent) during this period. In contrast, among lower-cost beneficiaries, the average annual decrease in prices (–1.7 percent) resulted in an overall decrease in spending (–0.3 percent annually), despite an increase in the number of prescriptions filled during the same period.

Chart 10-17. Distribution of annual gross Part D drug spending for EGWP and other plan enrollees by percentile, 2020

		Enrollees in all plans other than EGWPs		
	EGWP enrollees	All	LIS	Non-LIS
Number of beneficiaries, in millions	7.6	42.5	14.1	28.4
Share of beneficiaries with no drug use	5%	8%	9%	8%
Mean annual gross drug spending	$4,391	$3,889	$6,565	$2,556
Distribution of annual gross drug spending, by percentile				
10th	$41	$12	$9	$13
30th	299	215	374	181
50th	791	590	1,409	447
70th	2,767	2,003	4,943	1,162
90th	8,975	8,050	15,221	5,646
95th	14,722	14,414	26,409	8,170
98th	31,332	30,783	50,430	15,331
99th	65,424	53,884	78,267	28,815

Note: EGWP (employer group waiver plan), LIS (low-income subsidy). Figures include all beneficiaries with at least one month of enrollment. A beneficiary was classified as "LIS" if that individual received Part D's LIS at some point during the year. "Gross drug spending" reflects payments to pharmacies from all payers, including beneficiary cost sharing, but does not include rebates and discounts from pharmacies and manufacturers that are not reflected in prices at the pharmacies.

Source: MedPAC analysis of Medicare Part D prescription drug event data and the common Medicare environment file from CMS.

- In 2020, annual gross Part D spending averaged $4,391 among beneficiaries in Part D plans operated by employers (EGWPs) compared with $3,889 among beneficiaries in other plans. EGWPs have distinct characteristics from other Part D plans. For example, in 2020, only 2 percent of EGWP enrollees received Part D's LIS, compared with 33 percent of enrollees in other plans (data not shown). EGWPs also tend to offer more generous benefits that supplement the standard Part D benefit (see Chart 10-7 for more information on EGWP plans). Among beneficiaries enrolled in non-EGWPs, 8 percent did not have any Part D claims. That share was 5 percent among beneficiaries enrolled in EGWPs.
- Based on annual gross spending, about 9 percent of EGWP enrollees and 8 percent of non-EGWP enrollees would have reached the catastrophic phase of the benefit (at about $9,000 and $9,700 in gross spending for beneficiaries with and without the LIS, respectively). However, the actual shares of beneficiaries who reach the catastrophic phase of the benefit are lower than the numbers estimated using gross drug spending because, under Part D's "true out-of-pocket (OOP)" provision, supplemental benefits that reduce an enrollee's OOP costs delay the point at which the individual reaches the OOP threshold.
- Among beneficiaries enrolled in plans other than EGWPs, beneficiaries who received the LIS were more likely to incur higher gross spending (with average annual spending of $6,565) compared with beneficiaries without the LIS ($2,556). About 10 percent of beneficiaries with the LIS had annual gross spending of more than $15,000 ($15,221 at the 90th percentile of the distribution) compared with just under 2 percent among beneficiaries without the LIS ($15,331 at the 98th percentile of the distribution).

Chart 10-18. Part D spending and use per enrollee, 2020

		Plan type		LIS status	
	Part D	PDP	MA–PD	LIS	Non-LIS
Total gross spending (billions)*	$198.6	$113.6	$85.0	$92.8	$105.8
Above OOP threshold (billions)	83.1	48.6	34.5	47.3	35.9
Share above OOP threshold	*42%*	*43%*	*41%*	*51%*	*34%*
Total number of prescriptions (millions)	2,638	1,400	1,238	907	1,731
Average spending per prescription	$75	$81	$69	$102	$61
Per enrollee per month					
Total spending	$349	$376	$318	$588	$257
OOP spending	31	36	24	5	40
Manufacturer gap discount	22	26	18	N/A	31
Plan liability	230	243	215	396	166
Low-income cost-sharing subsidy	52	53	50	186	N/A
Number of prescriptions	4.6	4.6	4.6	5.8	4.2

Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]), LIS (low-income subsidy), OOP (out-of-pocket), N/A (not applicable). "Total gross spending" reflects payments from all payers, including beneficiaries (cost sharing) but does not include rebates and discounts from pharmacies and manufacturers that are not reflected in prices at the pharmacies. Part D prescription drug event (PDE) records are classified into plan types based on the contract identification on each record. For purposes of classifying the PDE records by LIS status, monthly LIS eligibility information in Part D's denominator file was used. Estimates are sensitive to the method used to classify PDE records to each plan type and LIS status. "Plan liability" includes plan payments for drugs covered by both basic and supplemental (enhanced) benefits. In addition to the major categories shown in the chart, total spending includes amounts paid by other relatively minor payers such as group health plans, workers' compensation, and charities. "Number of prescriptions" is standardized to a 30-day supply. Components may not sum to totals due to rounding.
* "Total gross spending" includes $12.6 billion in manufacturer discounts for brand-name drugs and biologics filled by non-LIS enrollees during the coverage gap.

Source: MedPAC analysis of Medicare Part D PDE data and common Medicare environment file from CMS.

- In 2020, gross spending on drugs for the Part D program totaled $198.6 billion, with about 57 percent ($113.6 billion) accounted for by Medicare beneficiaries enrolled in stand-alone PDPs. Part D enrollees receiving the LIS accounted for about 47 percent ($92.8 billion) of the total. Manufacturer discounts for brand-name drugs filled by non-LIS enrollees while they were in the coverage gap accounted for 6.3 percent of the total, or 11.9 percent of the gross spending by non-LIS enrollees (up from 5.5 percent and 10.5 percent, respectively, in 2019; data not shown).

- Overall, 42 percent of gross spending was incurred after a beneficiary reached the annual OOP threshold ($6,350 in 2020). That share was higher among those who received the LIS (51 percent) compared with other enrollees (34 percent).

- The number of prescriptions filled by Part D enrollees totaled over 2.6 billion, with 53 percent (1.4 billion) accounted for by PDP enrollees. The 28 percent of enrollees who received the LIS accounted for about 34 percent (907 million) of the total number of prescriptions filled.

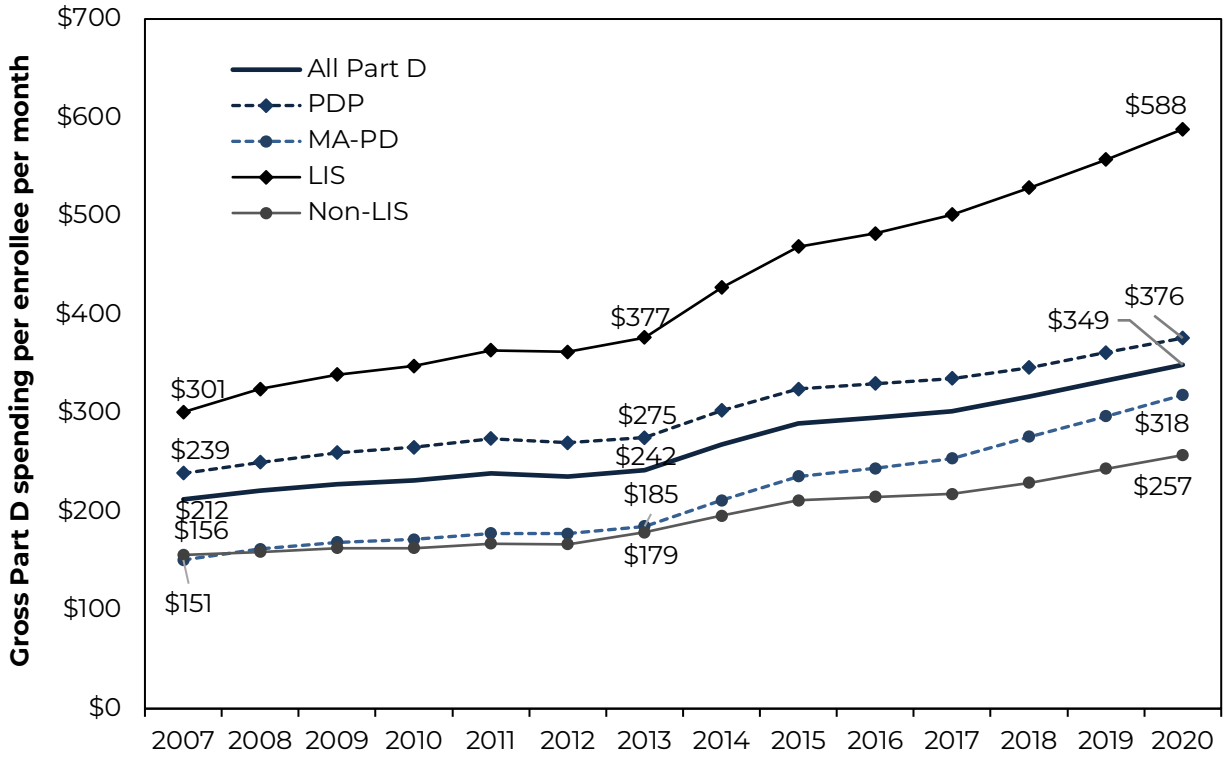
(Chart continued next page)

Chart 10-18. Part D spending and use per enrollee, 2020 (continued)

- In 2020, Part D enrollees filled 4.6 prescriptions at $349 per month on average, an increase from $333 per month (for 4.6 prescriptions) in 2019 (2019 data not shown). The average monthly plan liability for PDP enrollees ($243) was considerably higher than that of MA–PD enrollees ($215), who were more likely to receive supplemental benefits under enhanced benefit plans (see Chart 10-11). The average monthly OOP spending was smaller for MA–PD enrollees than PDP enrollees ($24 vs. $36, respectively). The difference in average monthly low-income cost-sharing subsidy between PDP enrollees MA–PD enrollees narrowed in 2020 to just $3 ($53 vs. $50), a decrease from a difference of about $7 ($50 vs. $43) in 2019 (2019 data not shown).

- Average monthly spending per LIS enrollee ($588) was more than double that of a non-LIS enrollee ($257), and the average number of prescriptions filled per month by an LIS enrollee was 5.8 compared with 4.2 for a non-LIS enrollee. LIS enrollees had much lower monthly OOP spending, on average, than non-LIS enrollees ($5 vs. $40, respectively). Part D's LIS pays for most of the cost sharing for LIS enrollees, averaging $186 per month in 2020.

Chart 10-19. Trends in Part D spending and use per enrollee per month, 2007–2020



Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]), LIS (low-income subsidy). "Spending" (gross) reflects payments from all payers, including beneficiaries (cost sharing) but does not include rebates and discounts from pharmacies and manufacturers that are not reflected in prices at the pharmacies. Part D prescription drug event (PDE) records are classified into plan types based on the contract identification on each record. For purposes of classifying the PDE records by LIS status, monthly LIS eligibility information in Part D's denominator file was used. Figures are sensitive to the method used to classify PDE records to each plan type and LIS status.

Source: MedPAC analysis of Medicare Part D PDE data and Part D denominator file from CMS.

- Between 2007 and 2020, average per capita spending per month for Part D–covered drugs grew from $212 to $349, an average growth rate of 3.9 percent annually, or about 64 percent cumulatively. The rate of growth in average per capita spending more than doubled after 2013, in part reflecting the introduction of new hepatitis C treatments in 2014 and other new expensive therapies in subsequent years.

- Between 2007 and 2020, monthly per capita spending for LIS enrollees grew faster than that for non-LIS enrollees, increasing from $301 to $588 (a cumulative growth of over 95 percent) compared with an increase from $156 to $257 for non-LIS enrollees (a cumulative growth of 65 percent). The number of prescriptions filled by both LIS and non-LIS enrollees grew by just under 2 percent annually during this period (data not shown).

- The growth in monthly per capita drug spending among MA–PD enrollees exceeded that of PDP enrollees during the 2007 to 2020 period (annual average growth of 5.9 percent and 3.6 percent, respectively). The average per capita spending for MA–PD enrollees continued to be lower than that of PDP enrollees (by $58 per month in 2020); however, that difference has been declining since 2014.

Chart 10-20. Top 15 therapeutic classes of drugs covered under Part D, by spending, 2020

	Gross spending		Negotiated rebates as a share of gross spending	Coverage-gap discount (billions)
	Billions	Percent		
Diabetic therapy	$34.5	17.4%	≥50%	$4.2
Antineoplastics	25.6	12.9	<10%	0.7
Anticoagulants	15.5	7.8	40% to 49%	2.5
Asthma/COPD therapy agents	14.6	7.4	40% to 49%	1.3
Disease-modifying anti-rheumatoid drugs	9.1	4.6	20% to 29%	0.3
Antipsychotics (neuroleptics)	7.1	3.6	10% to 19%	0.1
Antiretrovirals	7.0	3.5	<10%	0.2
Antihypertensive therapy agents	6.4	3.2	<10%	0.3
Ophthalmic agents	5.3	2.7	30% to 39%	0.4
multiple sclerosis agents	5.1	2.6	<10%	0.1
Antihyperlipidemics	4.7	2.4	10% to 19%	0.2
Anticonvulsants	4.1	2.1	<10%	0.1
Antidepressants	2.9	1.4	<10%	0.1
Analgesics (opioid)	2.7	1.3	10% to 19%	0.1
Dermatological (antipsoriatics)	2.6	1.3	<10%	0.1
Subtotal, top 15 drug classes	**147.2**	**74.1**	**25%**	**10.7**
Total all drug classes	**198.6**	**100.0**	**22%**	**12.6**

Note: COPD (chronic obstructive pulmonary disease). "Gross spending" reflects payments from all payers, including beneficiaries (cost sharing) but does not include rebates and discounts from pharmacies and manufacturers that are not reflected in prices at the pharmacies. Therapeutic classification is based on the First DataBank Enhanced Therapeutic Classification System. Components may not sum to totals due to rounding.

Source: MedPAC analysis of Medicare Part D prescription drug event and direct and indirect remuneration data from CMS.

- In 2020, the top 15 therapeutic classes by spending accounted for more than 74 percent of the $198.6 billion spent on prescription drugs covered by Part D plans.
- In 2020, total manufacturer rebates as a share of gross spending ranged from less than 10 percent to more than 50 percent. Some of that variation likely reflects the degree of competition within each therapeutic class. Overall, rebates for the top 15 classes averaged 25 percent of gross spending, higher than the average of 22 percent for all Part D spending. Rebates were the highest (greater than or equal to 50 percent) for diabetic therapies, which accounted for about 17 percent of total gross spending in Part D.
- In addition to negotiated rebates, manufacturers must provide discounts for brand-name drugs and biologics filled by non-LIS enrollees when they fill prescriptions in the coverage-gap phase of the benefit. In 2020, these top 15 classes accounted for 85 percent ($10.7 billion) of all coverage-gap discounts. Diabetic therapies alone accounted for roughly one-third of all coverage-gap discounts.

Chart 10-21. Despite high generic use, brand-name drugs accounted for the majority of spending in the top 15 therapeutic classes by spending, 2020

	Prescriptions*		Generic dispensing rate	Brand share of gross spending	LIS share of prescriptions
	Millions	Percent			
Diabetic therapy	184.6	7.0%	63%	97%	31%
Antineoplastics	14.6	0.6	87	95	21
Anticoagulants	52.0	2.0	30	98	26
Asthma/COPD therapy agents	80.3	3.0	47	92	44
Disease modifying anti-rheumatoid drugs	2.6	0.1	35	99	48
Antipsychotics (neuroleptics)	34.1	1.3	90	80	69
Antiretrovirals	3.3	0.1	16	98	70
Antihypertensive therapy agents	270.6	10.3	99	78	19
Ophthalmic agents	57.1	2.2	77	79	28
Multiple sclerosis agents	0.8	<0.1	24	93	51
Antihyperlipidemics	294.3	11.2	98	39	19
Anticonvulsants	102.2	3.9	98	49	46
Antidepressants	169.5	6.4	99	26	32
Analgesics (opioid)	63.9	2.4	97	43	44
Dermatological (antipsoriatics)	0.6	<0.1	45	97	56
Subtotal, top 15 drug classes	**1,330.7**	**50.5**	**86**	**89**	**29**
Total, all drug classes	**2,637.1**	**100.0**	**90**	**80**	**28**

Note: COPD (chronic obstructive pulmonary disease). "Gross spending" reflects payments from all payers, including beneficiaries (cost sharing) but does not include rebates and discounts from pharmacies and manufacturers that are not reflected in prices at the pharmacies. Therapeutic classification is based on the First DataBank Enhanced Therapeutic Classification System. Components may not sum to totals due to rounding.

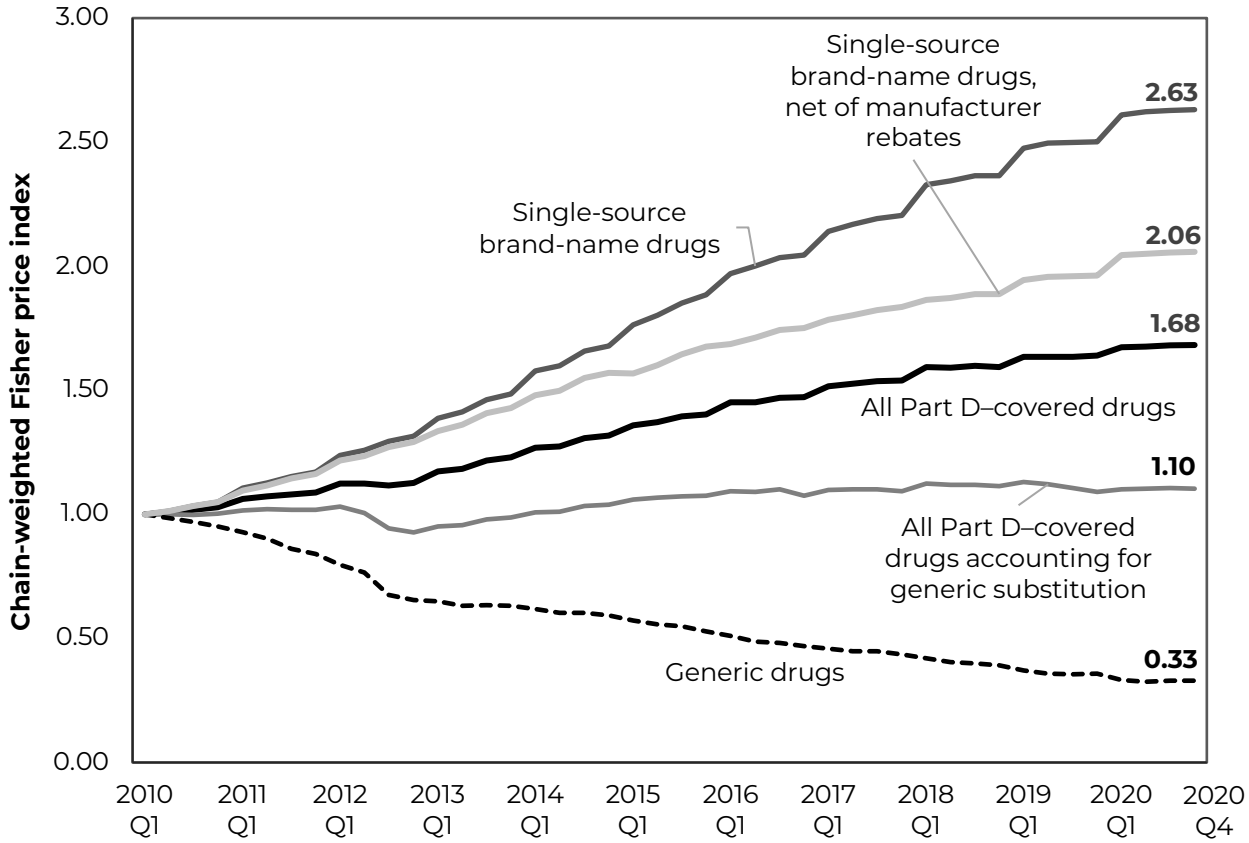
Source: MedPAC analysis of Medicare Part D prescription drug event and direct and indirect remuneration data from CMS.

- Prescriptions filled by Part D enrollees in the top 15 therapeutic classes by spending in 2020 (from Chart 10-20) totaled more than 1.3 billion prescriptions, accounting for about 50 percent of all prescriptions filled in Part D. While 86 percent of these prescriptions were for generic drugs, brand-name products accounted for 89 percent of the gross spending for these products in 2020.

- In 2020, LIS beneficiaries filled 29 percent of total prescriptions for products in these 15 classes, roughly equal to their share of prescriptions among all Part D drugs (28 percent). Nevertheless, LIS enrollees accounted for a disproportionate share of prescriptions in a few classes such as antiretrovirals (70 percent) and antipsychotics (69 percent).

- Even when generic drugs are widely used by Part D beneficiaries, for some therapeutic classes, brand-name drugs may still account for the vast majority of spending. For example, in 2020, generic drugs accounted for 87 percent of prescriptions for antineoplastics, but brand-name drugs accounted for 95 percent of gross spending for that class.

Chart 10-22. Price growth for Part D–covered drugs, 2010–2020



Note: Q1 (first quarter), Q4 (fourth quarter). Unless noted otherwise, Part D indexes reflect total amounts paid to pharmacies and do not reflect retrospective rebates or discounts from manufacturers and pharmacies.

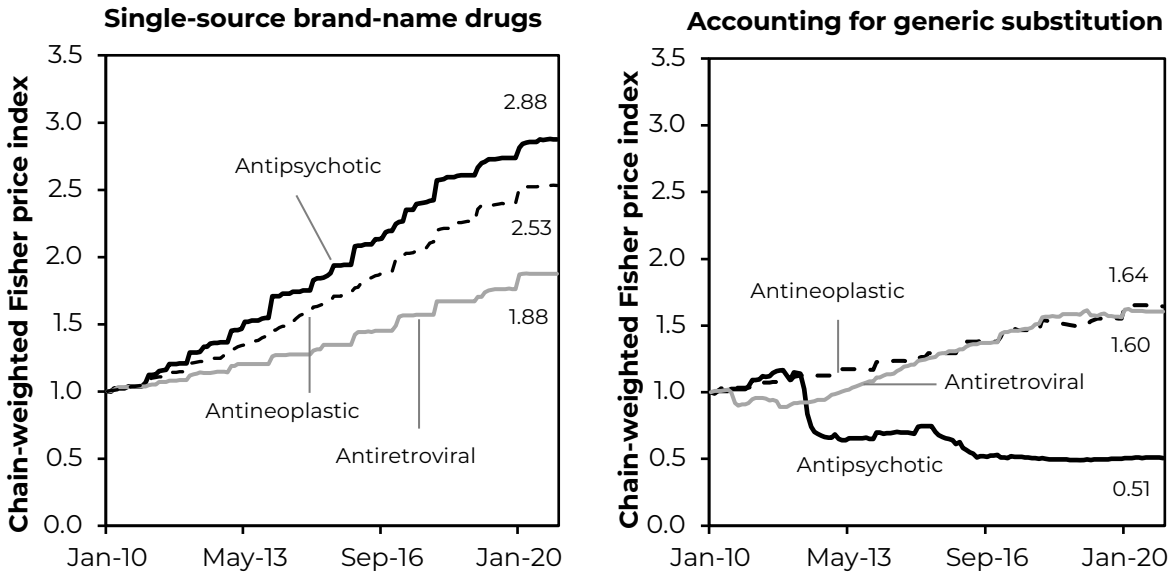
Source: Acumen LLC analysis for MedPAC.

- Measured by individual national drug codes, prices of drugs and biologics covered under Part D rose 68 percent cumulatively between 2010 and 2020 (an index of 1.68). (Prices reflect total amounts paid to pharmacies and do not reflect retrospective rebates or discounts from manufacturers and pharmacies.)

- Overall, between 2010 and 2020, prices of generic drugs covered under Part D decreased to 33 percent of the average price observed at the beginning of 2010. As a result, when measured by a price index that takes generic substitution into account, Part D prices have remained relatively flat since 2016, with cumulative increase in prices at the end of 2020 at 10 percent above the prices at the beginning of 2010 (an index of 1.10). New and increased generic competition for selected therapeutic classes, such as anticonvulsants, antineoplastics, and drugs for multiple sclerosis, played a key role in slowing the growth in overall Part D prices during this period.

- Between 2010 and 2020, prices for all single-source, brand-name drugs (drugs with no generic substitutes) grew by a cumulative 163 percent (an index value of 2.63), compared with 106 percent (an index value of 2.06) for prices net of manufacturer rebates.

Chart 10-23. Price growth for therapeutic classes with protected status under Part D, 2010–2020



Note: Price indexes reflect total amounts paid to pharmacies and do not reflect retrospective rebates or discounts from manufacturers and pharmacies.

Source: Acumen LLC analysis for MedPAC.

- Medicare Part D designates six “protected classes" for which plan sponsors must include “all or substantially all” available drugs on their formularies: antidepressants, antipsychotics, anticonvulsants, immunosuppressants for treatment of transplant rejection, antiretrovirals, and antineoplastics. This policy provides patients with broader access to products, but it may also give manufacturers greater market power to raise prices for drugs already on the market or set high prices for new drugs. However, there are considerable differences in the competitive pressures within each drug class that can affect pricing trends. Here we illustrate that variation with three of the protected classes that fall within Part D's top 15 therapeutic classes by gross spending (see Chart 10-20).

- Measured by individual national drug codes, between 2010 and 2020, cumulative price growth for single-source brand-name drugs in the three protected classes ranged from 88 percent (an index of 1.88) for antiretroviral therapies and 188 percent for antipsychotics (an index of 2.88). (Prices reflect total amounts paid to pharmacies and do not reflect retrospective rebates or discounts from manufacturers and pharmacies.)

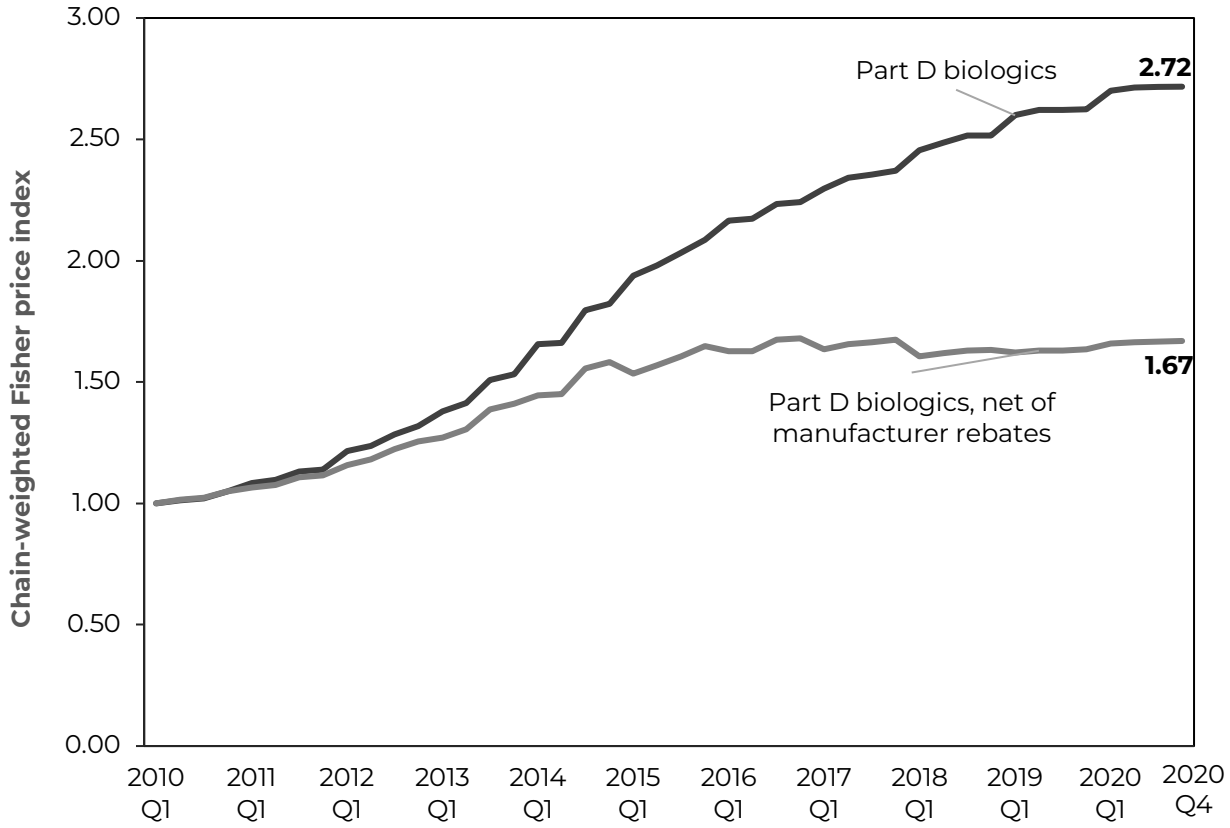
- The availability of generics varies considerably across the protected classes, and widespread use of generics can influence overall price growth. Antipsychotics are one such class. Despite 188 percent growth over the 10-year period in the price index for brand-name antipsychotics, an index for that class that accounts for generic substitution fell to roughly half of its 2010 level (index value of 0.51).

(Chart continued next page)

Chart 10-23. Price growth for therapeutic classes with protected status under Part D, 2010–2020 (continued)

- However, in other protected classes such as antineoplastics, the availability of generics does not necessarily constrain price growth. Despite a generic dispensing rate (GDR) of 87 percent, the price index for antineoplastics that accounts for generic substitution grew by 64 percent (an index value of 1.64), similar to growth in prices of antiretrovirals (1.60), which consists mostly of brand-name drugs (a GDR of just 16 percent) (see Chart 10-21 for GDR data). Generic use may not constrain overall prices for antineoplastic products because patients may use a generic product initially and then move to other brand-name products if their disease progresses, or the patient may take a combination of generic and brand-name products.

Chart 10-24. Price growth for biologics covered under Part D, 2010–2020



Note: Q1 (first quarter), Q4 (fourth quarter). Part D biologics indexes were constructed using total amounts paid to pharmacies with and without retrospective rebates and discounts from manufacturers. The indexes do not reflect retrospective fees and discounts from pharmacies.

Source: Acumen LLC analysis for MedPAC.

- Measured by individual national drug codes, prices of biologics (without retrospective rebates, fees, or discounts) covered under Part D rose 172 percent cumulatively between 2010 and 2020 (an index of 2.72). This increase is similar to the growth in prices for all single-source drugs and biologics (163 percent, or an index value of 2.63). (See Chart 10-22 for index measuring prices of all single-source drugs and biologics.)
- In comparison, between 2010 and 2020, prices of biologics net of retrospective rebates and discounts from manufacturers grew by a cumulative 67 percent (an index value of 1.67). The effect of manufacturer rebates on the prices of biologics was greater than that for all single-source drugs and biologics, which grew by a cumulative 106 percent (an index value of 2.06) for prices net of manufacturer rebates. (See Chart 10-22 for index measuring prices of all single-source drugs (including biologics) net of manufacturer rebates.)
- Prices of biologics are highly influenced by prices of insulins. In 2020, insulins accounted for about 40 percent of total gross spending on biologics. Insulins and other antidiabetic therapies had some of the highest rebates, totaling more than 50 percent of gross spending for therapies in that class (see Chart 10-20).

Chart 10-25. Potential impact of biosimilars and certain follow-on biologics on Part B and Part D spending

Brand name	Earliest biosimilar launch date (expected)	Number of biosimilars: Approved	Number of biosimilars: In pipeline	2020: Part B spending on originator product (billions)	2020: Part D spending on originator product (billions)	2020: Total Part B and Part D spending on biosimilars (billions)
Products with an approved biosimilar on the market						
Neupogen	2015	3	1–3	$0.02	$0.02	$0.08
Remicade	2016	4	1–3	0.66	0.10	0.13
Procrit/Epogen	2018	1	1–3	0.10	0.16	0.09
Neulasta	2018	5	4–6	0.90	0.07	0.33
Humalog	2018	2*	1–3	**	1.66	0.21
Rituxan	2019	3	4–6	1.30	0.05	0.27
Avastin	2019	3	7+	0.68	0.02	0.34
Herceptin	2019	5	4–6	0.46	0.01	0.22
Lantus	2020	3*	1–3	-	3.72	0.69
Novolog	2020	1*	1–3	-	2.44	0.04
Novolog Mix	2020	1*	0	-	0.53	0.01
Subtotal				***4.12***	***8.80***	***2.42***
Products with a biosimilar approved but not yet on the market						
Lucentis	2022	1	1–3	1.11	0.00	-
Humira	(2023)	7	4–6	-	4.17	-
Enbrel	(2028)	2	1–3	-	2.15	-
Subtotal				***1.11***	***6.32***	***-***
Products with a biosimilar in development but none approved						
Stelara			7+	0.30	1.11	-
Toujeo			1–3	-	0.78	-
Soliris			1–3	0.61	0.21	-
Cimzia			1–3	0.51	0.20	-
Actemra			4–6	0.28	0.18	-
Simponi			1–3	0.36	0.16	-
Xolair			4–6	0.40	0.15	-
Tysabri			1–3	0.22	0.04	-
Eylea			7+	3.01	0.03	-
Prolia/Xgeva			7+	1.63	-	-
Subtotal				***7.32***	***2.85***	***-***
TOTAL		**41**	**87**	**12.55**	**17.97**	**2.42**

Note: Products included in this analysis include those approved or known to be in development as of May 2022.
* Authorized generics and follow-on insulins are included as biosimilars for purposes of this analysis. While the biosimilar approval pathway was created in 2010 following passage of the Biologics Price Competition and Innovation Act (included in the Affordable Care Act of 2010), biosimilar insulin products were unable to use this pathway until March 2020. For a list of biosimilars currently on the market and available under Part B, refer to Chart 10-5. Others included in this analysis: Avastin: Alymsys; Enbrel: Erelzi, Eticovo; Humalog: Admelog, insulin lispro AG; Humira: Amjevita, Cyltezo (INT), Hyrimoz, Hadlima, Abrilada, Hulio, Yusimry; Lantus: Basaglar, Semglee (INT), Rezvoglar; Lucentis: Byooviz; Neulasta: Fylnetra; Neupogen: Releuko; Novolog: insulin aspart AG; Novolog Mix: insulin aspart protamine AG.
** Not able to distinguish spending on Humalog from other insulin lispro products in Part B.

Source: MedPAC analysis of CMS Drug Spending Dashboard.

(Chart continued next page)

Chart 10-25. Potential impact of biosimilars and certain follow-on biologics on Part B and Part D spending (continued)

- The first biosimilar product licensed under the Public Health Service Act was launched in the U.S. in 2015. As of May 2022, the Food and Drug Administration (FDA) has approved 41 biological products to compete with innovator biologics (36 biosimilars and 5 follow-on or authorized generic insulin products). As of May 2022, manufacturers have launched 21 biosimilars in the U.S. and another 88 are in development.

- While most of the biosimilars launched so far have been for top-selling products primarily covered under Part B (including Rituxan, Neulasta, Remicade, and Avastin), several recently approved biosimilars are for originator products with some of the highest spending in Part D, including Humira, Lantus, and Enbrel. Humira and Lantus are the first two products for which a biosimilar has been designated as interchangeable, which in some states allows a pharmacist to substitute it for the originator product without the prescribing doctor's approval. This option may help increase the biosimilar's market share more rapidly.

- In 2020, Medicare spent $13.1 billion ($4.12 billion in Part B and $8.80 billion in Part D) on originator drugs for which biosimilars were available. Medicare spent another $7.4 billion ($1.11 billion in Part B and $6.32 billion in Part D) on drugs for which the FDA has approved biosimilars but manufacturers have not yet launched their products on the market. Spending on products for which biosimilars are in development but none are yet approved equaled $10.2 billion ($7.32 billion in Part B and $2.85 billion in Part D). In 2020, these products combined accounted for 14 percent of all Medicare spending for separately payable drugs in Part B and Part D.

- In 2020, $2.42 billion was spent on biosimilars, with 57 percent of that spending (data not shown) occurring in Part B.