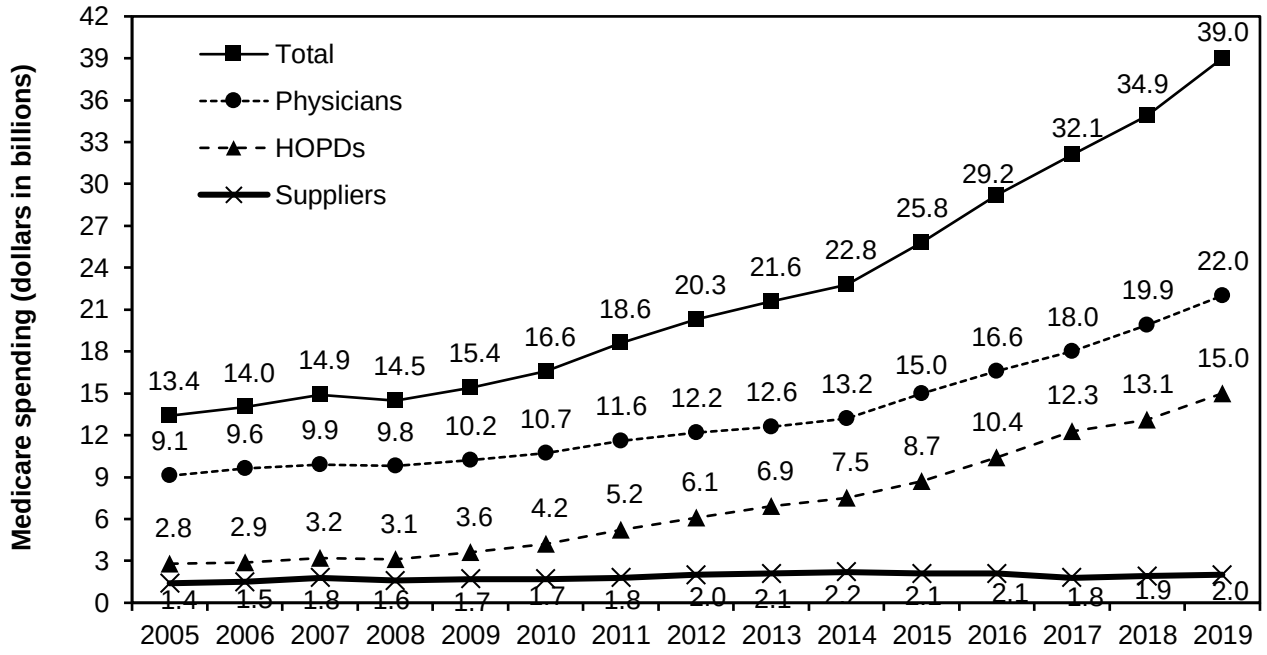
SECTION 10

Prescription drugs

Chart 10-1. Medicare spending for Part B drugs furnished by physicians, hospital outpatient departments, and suppliers, 2005–2019



Note: HOPD (hospital outpatient department). Data include Part B–covered drugs furnished by several provider types, including physicians, suppliers, and hospital outpatient departments, 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 $39 billion on Part B drugs furnished by physicians, HOPDs, and suppliers in 2019, an increase of about 11.6 percent from 2018.
- Since 2005, Medicare pays for most Part B drugs at a rate of the average sales price plus 6 percent (ASP + 6 percent). Between 2005 and 2019, total spending grew at an average annual rate of 8.0 percent. Spending growth was slower from 2005 to 2009 (about 3.7 percent per year on average) and more rapid from 2009 to 2019 (about 9.7 percent per year on average).
- Eligible hospitals that participate in the 340B drug discount program receive substantial discounts on outpatient drugs, including those covered by Medicare Part B. Beginning 2018, Medicare reduced the payment rate for certain Part B drugs furnished by 340B hospitals to ASP – 22.5 percent. The 340B policy reduced 2019 Medicare Part B spending on drugs in outpatient hospitals by about $2.2 billion (compared with what 2019 payments would have been in the absence of the policy).

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Chart 10-1. Medicare spending for Part B drugs furnished by physicians, hospital outpatient departments, and suppliers, 2005–2019 (continued)

- Of total 2019 Part B drug spending, physicians accounted for 56 percent ($22 billion), HOPDs accounted for 38 percent ($15 billion), and suppliers accounted for 5 percent ($2 billion).
- Overall, from 2009 to 2019, Part B drug spending has grown more rapidly for HOPDs than for physicians and suppliers—at average annual rates of about 15 percent, 8 percent, and 2 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 $1.0 billion in critical access hospitals and $0.4 billion in Maryland hospitals for Part B drugs in 2019. Also in 2019, Medicare spent $1.3 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, 2009–2019

	2009	2019	Average annual growth 2009–2019
Total payments: Separately payable Part B drugs (in billions)	$11.9*	$37.1*	12.1%
Total payments: All Part B drugs excluding vaccines (in billions)	$11.7	$35.8	11.9
Number of beneficiaries using a Part B drug (in millions)	2.6	4.1	4.6
Average total payments per beneficiary who used a Part B drug	$4,420	$8,639	6.9
Average number of Part B drugs per beneficiary	1.39	1.36	–0.2
Average annual payment per Part B drug per beneficiary	$3,182	$6,343	7.1
Total payments: All Part B vaccines (in billions)	$0.2	$1.3	19.5
Number of beneficiaries using a Part B vaccine (in millions)	13.4	16.5	2.1
Average total payments per beneficiary who used a Part B vaccine	$16	$78	17.0
Average number of Part B vaccines per beneficiary	1.08	1.18	0.9
Average annual payment per Part B vaccine per beneficiary	$15	$66	16.0

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 2019 (i.e., drugs that were packaged under the outpatient prospective payment system in 2009 or 2019 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 $39.0 billion in 2019, 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 12.1 percent per year, on average, between 2009 and 2019.
- Medicare spending on separately payable Part B drugs excluding Part B–covered preventive vaccines grew at a similar rate (11.9 percent per year) between 2009 and 2019.
- Price growth accounted for just over half of the growth in separately payable Part B drug spending (excluding vaccines) between 2009 and 2019. During that period, the average annual payment per drug increased on average by 7.1 percent per year, which reflects increases in the prices of existing drugs and changes in the mix of drugs, including the adoption of new, higher priced drugs. Growth in the average payment per drug would have been even 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, 2009–2019 (continued)

- Growth in the number of beneficiaries using nonvaccine Part B drugs (about 4.6 percent per year on average) also contributed to increased spending. The number of Part B drugs received per user declined slightly from about 1.39 in 2009 to 1.36 in 2019, which modestly offset spending growth.

- In 2019, 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 $702 million for influenza, $572 million for pneumococcal, and $7 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, 2019 vaccine spending was $729 million on influenza, $593 million on pneumococcal, and $39 million on hepatitis B vaccines.)

- 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 19.5 percent per year, between 2009 and 2019.

- The largest driver of increased vaccine spending was price growth, as the average payment per vaccine grew at an average rate of 16.0 percent per year between 2009 and 2019. Substantial price growth occurred for both pneumococcal and influenza vaccines between 2009 and 2019, with the average payment per vaccine increasing from $36 to $154 for pneumococcal vaccines and from $12 to $44 for influenza vaccines over this period (data not shown). The growth in the average payment per vaccine largely reflects higher launch prices for new vaccines (e.g., Prevnar-13 for pneumococcal disease and Fluzone High Dose, Fluad, and Flublok for influenza). Price growth over time among existing products (e.g., new vaccines after launch and certain older products) also contributed to this increase.

Chart 10-3. Top 10 Part B drugs paid based on ASP, by type of provider, 2018 and 2019

	Dollars (in millions)					
	Total Part B drug spending		Physician and supplier Part B drug spending		HOPD Part B drug spending	
	2018	2019	2018	2019	2018	2019
Eylea	$2,577	$2,915	$2,435	$2,763	$142	$152
Keytruda	1,812	2,676	764	1,145	1,048	1,531
Opdivo	1,718	1,784	827	815	891	970
Rituxan	1,701	1,744	866	865	835	879
Prolia/Xgeva	1,420	1,608	909	1,020	511	588
Lucentis	1,217	1,268	1,186	1,238	30	30
Neulasta	1,373	1,170	640	527	733	642
Avastin	1,013	1,037	503	489	511	548
Orencia	801	922	589	696	213	226
Remicade	1,154	912	745	611	409	301
Total spending, top 10 drugs	**$14,785**	**$16,037**	**$9,463**	**$10,168**	**$5,323**	**$5,869**
Total spending, all Part B drugs	**$34,944**	**$39,014**	**$21,824**	**$24,017**	**$13,120**	**$14,997**

Note: ASP (average sales price), HOPD (hospital outpatient department). The 10 drugs shown in the chart reflect the Part B drug billing codes paid under the ASP methodology with the highest Medicare expenditures in 2019. Data for 2018 are shown for comparison. 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. "Drug spending" includes Medicare program payments and beneficiary cost sharing. "Total spending, all Part B drugs" reflects all products, whether paid based on ASP or another method. 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.

- Part B drugs are billed under more than 800 billing codes, but spending is concentrated. Medicare spending (including cost sharing) on the top 10 drugs paid under the ASP system totaled about $16 billion in 2019, about 41 percent of all Part B drug spending that year.

- Since 2016, all of the top 10 Part B drugs have been biologics. In 2019, among the top 10 drugs are a number of products used to treat cancer or its side effects (Keytruda, Opdivo, Rituxan, Prolia/Xgeva, Neulasta, Avastin). Drugs used to treat age-related macular degeneration (Eylea, Lucentis, Avastin) and rheumatoid arthritis (Rituxan, Orencia, Remicade) are also in the top 10.

- Medicare spending on immune globulin (for which there are several products billed through separate billing codes) amounted to about $1.6 billion in 2019 (data not shown).

Chart 10-4. Growth in ASP for the 20 highest expenditure Part B drugs, 2005–2021

Part B drug	Total Medicare payments in 2019 (in billions)	Average annual ASP growth 2005–2015	2015–2020	2020–2021	2005–2021	Earliest year of ASP data if not 2005
Eylea	$2.9	0.0%*	–0.7%	–2.5%	–0.8%*	2013
Keytruda	2.7	N/A	2.4*	0.8	2.1*	2016
Opdivo	1.8	N/A	2.6*	1.3	2.4*	2016
Rituxan	1.7	5.1	5.4	–3.3	4.6	
Prolia/Xgeva	1.6	0.6*	5.6	4.3	3.8*	2012
Lucentis	1.3	–0.4*	–2.6	–7.0	–1.7*	2008
Neulasta	1.2	4.4	4.0	–27.6	1.9	
Avastin	1.0	1.8	3.5	–6.8	1.7	
Orencia	0.9	7.4*	10.6	3.7	8.3*	2007
Remicade	0.9	3.4	–5.0	–21.7	–1.0	
Herceptin	0.8	4.8	4.6	–7.5	3.9	
Darzalex	0.8	N/A	4.8*	3.7	4.5*	2017
Ocrevus	0.6	N/A	0.3*	–0.2	0.1*	2018
Soliris	0.5	2.5	1.8	–0.1	2.1*	2008
Alimta	0.5	4.1	3.1	3.4	3.8	
Tecentriq	0.5	N/A	1.4*	0.4	1.0*	2018
Imfinzi	0.4	N/A	N/A	1.9	1.9*	2020
Cimzia	0.4	10.6*	5.9	–0.3	7.4*	2010
Sandostatin LAR	0.4	5.3	7.5	–0.2	5.6	
Velcade	0.4	5.1	–0.7	–0.4	2.9	
Consumer price index for urban consumers		2.1	2.0	1.4	2.0	

Note: ASP (average sales price), N/A (not applicable). Growth rates for ASP are calculated from first quarter to first quarter of each year. "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. Vaccines for which Medicare pays 95 percent of the average wholesale price are also excluded from this table. See Chart 10-2 and associated bullets for information on vaccine price growth.
*Indicates that ASP payment rates for a specific product were not available for the full period listed and the average annual growth rate was calculated based on the earliest year that a first-quarter payment rate was available.

Source: MedPAC analysis of CMS ASP pricing files and consumer price index for all urban consumers data from the Bureau of Labor Statistics and MedPAC and Acumen LLC analysis of Medicare claims data.

- Over the period from 2005 to 2021, 17 out of 20 of the top Part B drugs have experienced net price increases, with 12 of these products' ASPs increasing faster than the consumer price index for urban consumers on average over the period.

(Chart continued next page)

Chart 10-4. Growth in ASP for the 20 highest expenditure Part B drugs, 2005–2021 (continued)

- In the most recent year, more products in the top 20 experienced a price decrease than a price increase. ASP decreased for 12 products and increased for 8 products between the first quarters of 2020 and 2021. Compared with the average annual rate of price growth over the prior 5-year period, between first quarter 2020 and 2021, the ASP for 17 of the top 20 products grew at a slower rate or declined by more than they had in the previous period.

- Biosimilar competition may account for the decreases in ASP between 2020 and 2021 for some originator biologics; Rituxan, Neulasta, Remicade, Avastin, and Herceptin have all faced biosimilar entry since 2019 or earlier. For these five products, the recent price declines have begun to reverse a long period of rising prices, with average price growth over the last 16 years ranging from –1.0 percent per year for Remicade to 4.6 percent per year for Rituxan.

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

	First biosimilar entry	Percent change in originator biologics' ASP since biosimilar entry (through 2021 Q1)	Biosimilars' payment rate as a percent of originator biologic's payment rate (2021 Q1)	Biosimilar market share (2020 Q3)
Neupogen and biosimilars	2015 Q3	–6%	44%–56%	77%
Remicade and biosimilars	2016 Q4	–46%	94%–115%	16%
Neulasta and biosimilars	2018 Q3	–35%	97%–116%	27%
Procrit/Epogen and biosimilars	2018 Q4	–28%	97%	47%
Avastin and biosimilars	2019 Q3	–8%	75%–79%	41%
Herceptin and biosimilars	2019 Q3	–8%	74%–90%	40%
Rituxan and biosimilars	2019 Q4	–4%	74%–75%	24%

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, 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 and Ruxience 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 (WAC) plus 3 percent.

- Medicare payment rates for biosimilars are generally lower than those of the corresponding originator biologics because biosimilars generally have lower prices (as measured by ASP) than originator biologics. The extent to which originator biologics have lowered their prices in response to biosimilar entry and the extent to which market share has shifted to biosimilars varies by product.

(Chart continued next page)

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

- Neupogen, the originator biologic that has faced biosimilar competition for the longest period (since the third quarter of 2015), has reduced its price, as measured by ASP, only modestly (6 percent) since biosimilar entry. As of first quarter 2021, biosimilars' payment rates were roughly 50 percent lower than the originator's payment rate. Biosimilars accounted for over three quarters of market share as of the third quarter of 2020.

- The originator Remicade's price has declined substantially (46 percent) since biosimilar entry in the fourth quarter of 2016. As of the first quarter of 2021, Medicare's payment rates for Remicade and its biosimilars are relatively close, with two biosimilars' payment rates ranging from 94 percent to 96 percent of Remicade's payment rate. A third biosimilar that launched in the third quarter of 2020 was paid about 115 percent Remicade's payment that quarter. Remicade has continued to retain most of the market share, with biosimilars accounting for 16 percent of utilization as of the third quarter of 2020.

- The originator Neulasta has reduced its price by 35 percent since biosimilar entry in the third quarter of 2018. As of the first quarter of 2021, Medicare's payment rates for Neulasta and its biosimilars are in a relatively close range. The biosimilars' payment rates range from 97 percent to 116 percent of the Neulasta's payment rate. Biosimilars accounted for 27 percent of utilization as of the third quarter of 2020.

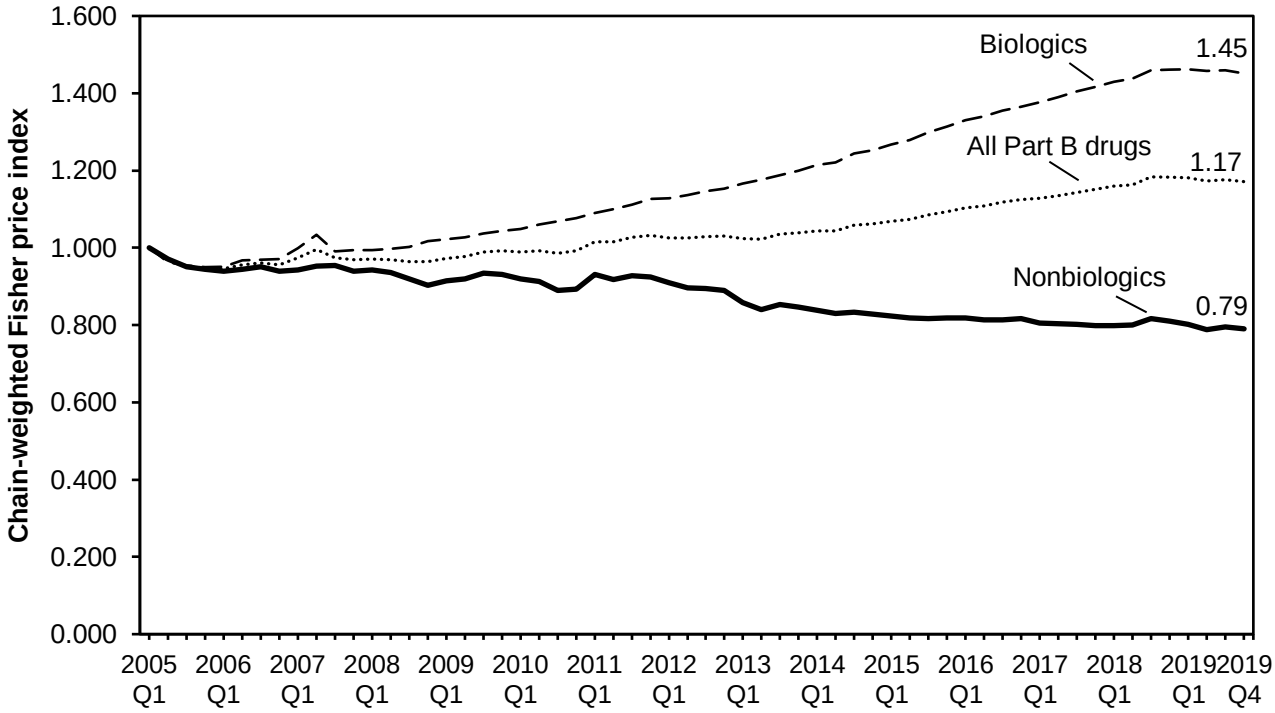
- The price of the originators Procrit/Epogen has fallen 28 percent since biosimilar entry in the fourth quarter of 2018. Medicare's payment rate for the biosimilar is slightly lower (3 percent) than for the originators, as of the first quarter of 2021. Biosimilars accounted for nearly half of utilization as of the third quarter of 2020.

- The originator Avastin has reduced its price 8 percent since biosimilar entry in the third quarter of 2019. As of the first quarter 2021, Medicare's payment rates for the biosimilars are 21 percent to 25 percent below the originator's payment rate. In the first two years of biosimilar availability, their use has grown, accounting for 41 percent of utilization as of the third quarter of 2020.

- The originator Herceptin's price has declined 8 percent since biosimilar entry in the third quarter of 2019. Medicare's first quarter 2021 payment rates for the biosimilars ranged from 10 percent to 26 percent below the originator's payment rate. As of the third quarter of 2020, Herceptin faced the largest number of biosimilar competitors (five) of any originator biologic, and the biosimilars' market share was 40 percent.

- Originator Rituxan's price has fallen slightly (4 percent) since biosimilar entry in the fourth quarter of 2019. Medicare's payment rates for biosimilars are roughly 25 percent below the originator's payment rate. Biosimilars' market share reached 24 percent in the third quarter of 2020.

Chart 10-6. Price indexes for Medicare Part B drugs, 2005–2019



Note: Q1 (first quarter), Q4 (fourth quarter). The Part B price indexes 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. These measures of price growth reflect growth in the price of individual products but do not reflect changes in price due to the introduction of new products or changes in the mix of products used. The Part B price index for biologics in this chart and in Chart 10-26 are different due to the different periods of analysis.

Source: Acumen LLC analysis for MedPAC.

- The Part B price indexes reflect growth in the average sales price (ASP) at the individual product level and do not reflect changes in price that occur as a result of changes in the mix of drugs used or the introduction of new, higher priced 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 about 17 percent cumulatively between 2005 and 2019 (an index of 1.17).
- Underlying this overall trend in the price index are different patterns by type of product. Between 2005 and 2019, the price index for Part B–covered biologics increased by 45 percent, while the price index for nonbiologics declined by 21 percent.

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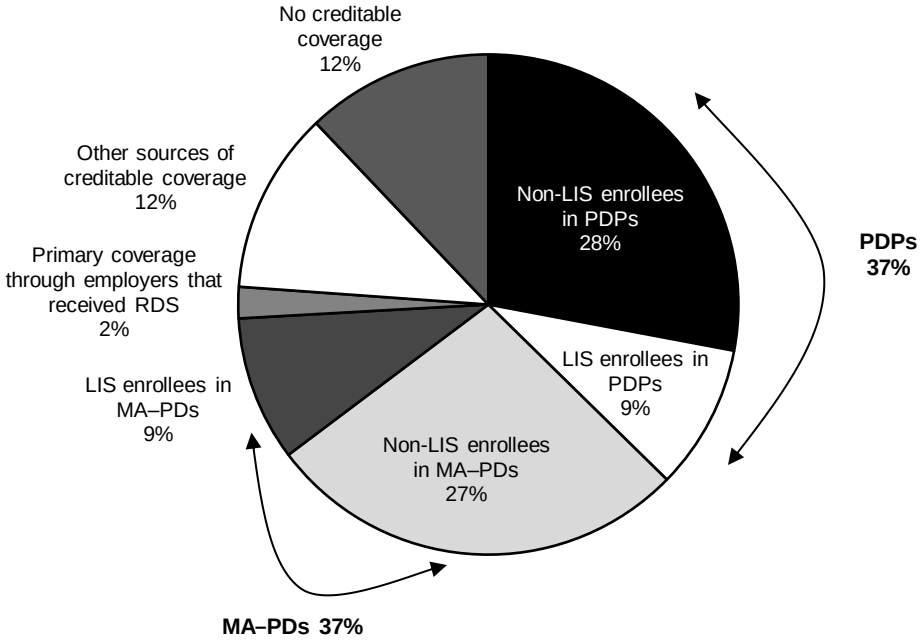
Chart 10-6. Price indexes for Medicare Part B drugs, 2005–2019 (continued)

- Since 2005, growth in biologics' prices has driven growth in the Part B drug price index. However, recently, between the third quarter of 2018 and the fourth quarter of 2019, the biologics' price index declined about 0.6 percent, due largely to price declines among products with biosimilar competition. The decline in the biologics' price index, coupled with the continued decline in the nonbiologics' price index, resulted in about a 1.1 percent decline in the overall Part B drug price index between the third quarter of 2018 and the fourth quarter of 2019.

- The nonbiologic group includes single-source drugs and drugs with generic competition. The more than decade-long 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. In 2021, approximately 88 percent of Medicare beneficiaries are enrolled in Part D plans or have other sources of creditable drug coverage



Note: LIS (low-income [drug] subsidy), PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]), RDS (retiree drug subsidy). "Creditable coverage" means the value of drug benefits is equal to or greater than that of the basic Part D benefit. Enrollment is as of April 13, 2021. Components may not sum to totals due to rounding.

Source: MedPAC analysis of PDP and MA–PD enrollment data and LIS enrollment data from CMS, Medicare enrollment projections from the 2020 Medicare Trustees' report, and analysis of the 2018 Medicare denominator file.

- In 2021, approximately 88 percent of Medicare beneficiaries are enrolled in Part D plans, have prescription drug coverage through employer-sponsored plans that receive Medicare's RDS, or have other sources of drug coverage that are equal to or greater than the average value of Part D's defined standard benefit (called "creditable coverage"). Twelve percent of Medicare beneficiaries have no drug coverage or coverage that is less generous.

- In 2021, nearly three-quarters of Medicare beneficiaries receive prescription drug benefits through Part D plans: 37 percent in stand-alone PDPs and 37 percent in MA–PDs.

- About 18 percent of Medicare beneficiaries receive Part D's LIS in 2021. Of all LIS beneficiaries, half of them (9 percent of all Medicare beneficiaries) are enrolled in stand-alone PDPs, and the other half are in MA–PDs.

- Non-LIS enrollees in stand-alone PDPs account for 28 percent of all Medicare beneficiaries. Another 27 percent of Medicare beneficiaries are enrolled in MA–PDs and do not receive low-income subsidies.

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Chart 10-7. In 2021, approximately 88 percent of Medicare beneficiaries are enrolled in Part D plans or have other sources of creditable drug coverage (continued)

- Employer and union health plans continue to be important sources of drug coverage for Medicare beneficiaries. In 2021, 11 percent of Medicare beneficiaries are in Part D plans (including PDPs and MA–PDs) set up by employers or unions for their retirees (data not shown). Under these employer group waiver plans (EGWPs), Medicare is the primary payer for basic drug benefits, and typically the employer offers wrap-around coverage. Separately, Medicare trustees estimate that 2 percent of Medicare beneficiaries are 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.) Additionally, approximately 12 percent of Medicare beneficiaries have creditable drug coverage from sources other than Part D, much (but not all) of which is related to past employment, for example, through the Federal Employees Health Benefits Program, TRICARE, and employers that do not sponsor an EGWP or receive the RDS.

Chart 10-8. Changes in parameters of the Part D defined standard benefit over time

	2006	2019	2020	2021	Cumulative change 2006–2021
Deductible	$250.00	$415.00	$435.00	$445.00	78%
Initial coverage limit	2,250.00	3,820.00	4,020.00	4,130.00	84%
Annual out-of-pocket threshold	3,600.00	5,100.00	6,350.00	6,550.00	82%
Total covered drug spending at annual out-of-pocket threshold					
Enrollees eligible for manufacturers' coverage-gap discount	5,100.00	8,139.54	9,719.38	10,048.39	97%
Other enrollees	5,100.00	7,653.75	9,038.75	9,313.75	83%
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	3.40	3.60	3.70	85%
Copay for other prescription drugs	5.00	8.50	8.95	9.20	84%

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 2021, the standard benefit has a $445 deductible, 25 percent coinsurance on covered drugs until the enrollee reaches $4,130 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 2021, 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 $10,048 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 2021, 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 $3.70 to $9.20 or 5 percent coinsurance per prescription.

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Chart 10-8. Changes in parameters of the Part D defined standard benefit over time (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 78 percent to 97 percent between 2006 and 2021. The out-of-pocket threshold for 2020 was much higher than that for 2019 because the 2019 amount was restrained by a provision in law that limited increases between 2014 and 2019. In 2020, the OOP threshold reverted to what it otherwise would have been had CMS increased it by the same factor as other benefit parameters—that is, annual growth in Part D spending per enrollee. The effects of this increase on beneficiaries were somewhat muted by the fact that manufacturers provide a 70 percent discount on brand-name drugs in the coverage-gap phase, which counts as beneficiary spending toward the threshold.

- 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. 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 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 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 10-9. Characteristics of stand-alone Medicare PDPs

	2020				2021			
	Plans		Enrollees as of February 2020		Plans		Enrollees as of February 2021	
	Number	Percent	Number (in millions)	Percent	Number	Percent	Number (in millions)	Percent
Total	948	100%	20.5	100%	996	100%	19.7	100%
Type of organization								
National	716	76	18.8	92	764	77	18.0	91
Other	232	24	1.7	8	232	23	1.7	9
Type of benefit								
Defined standard	0	0	0.0	0	1	<0.5	0.0	0
Actuarially equivalent	382	40	11.3	55	377	38	9.8	50
Enhanced	566	60	9.2	45	618	62	10.0	50
Type of deductible								
Zero	133	14	3.0	15	139	14	2.7	14
Reduced	161	17	5.0	25	192	19	4.5	23
Defined standard*	654	69	12.4	61	665	67	12.5	63
Some formulary tiers not subject to a deductible								
Some	504	53	11.5	56	587	59	12.0	61
None	444	47	9.0	44	409	41	7.7	39

Note: PDP (prescription drug plan). The PDPs and enrollment described here exclude employer-only plans and plans offered in U.S. territories. "National" data reflect the total number of plans for organizations with at least 1 PDP in each of the 34 PDP regions. "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 $435 in 2020 and is $445 in 2021.

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

- Plan sponsors are offering 996 stand-alone PDPs in 2021 compared with 948 in 2020—an increase of more than 5 percent. Total enrollment in PDPs declined by 3.8 percent to 19.7 million beneficiaries in 2021 from 20.5 million in 2020.
- In 2021, 77 percent of all PDPs are offered by sponsoring organizations that have at least 1 PDP in each of the 34 PDP regions (shown as "national" organizations in the table). Plans offered by those national sponsors account for 91 percent of all PDP enrollment.
- For 2021, 62 percent of PDP offerings include enhanced benefits (basic plus supplemental coverage), a small increase over the share in 2020. In 2021, the share of PDPs with actuarially equivalent benefits (having the same average value as the defined standard benefit but with alternative benefit designs) declined slightly to 38 percent. Enhanced plans and actuarially equivalent plans have nearly equal shares of PDP enrollees (50 percent each).
- In 2021, 67 percent of PDPs use the same $445 deductible as in Part D's defined standard benefit, compared with 69 percent in 2020. Only 14 percent of PDP enrollees are in plans with no deductible. Also in 2021, 59 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 2021, 61 percent of PDP enrollees were in such plans, up from 56 percent in 2020.

Chart 10-10. Characteristics of MA–PDs

	2020				2021			
	Plans		Enrollees as of February 2020		Plans		Enrollees as of February 2021	
	Number	Percent	Number (in millions)	Percent	Number	Percent	Number (in millions)	Percent
Totals	2,799	100%	15.3	100%	3,133	100%	16.9	100%
Type of organization								
Local HMO	1,848	66	10.6	69	2,007	64	11.3	67
Local PPO	891	32	4.0	26	1,072	34	4.9	29
PFFS	26	1	0.1	0	21	1	0.0	0
Regional PPO	34	1	0.7	4	33	1	0.6	3
Type of benefit								
Defined standard	43	2	0.1	<0.5	31	1	0.1	1
Actuarially equivalent	81	3	0.2	2	66	2	0.1	1
Enhanced	2,675	96	15.0	98	3,036	97	16.6	99
Type of deductible								
Zero	1,349	48	7.4	49	1,582	50	9.1	54
Reduced	1,244	44	7.3	48	1,317	42	7.2	43
Defined standard*	206	7	0.5	4	234	7	0.5	3
Some formulary tiers not subject to a deductible								
Some	1,386	50	7.7	50	1,497	48	7.6	45
None	1,413	50	7.6	50	1,636	52	9.2	55

Note: MA–PD (Medicare Advantage–Prescription Drug [plan]), HMO (health maintenance organization), PPO (preferred provider organization), PFFS (private fee-for-service). The MA–PDs and enrollment described here exclude employer-only plans, plans offered in U.S. territories, 1876 cost plans, special needs plans, demonstrations, 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 $435 in 2020 and is $445 in 2021.

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

- There are 12 percent more MA–PDs in 2021 than in 2020. Sponsors are offering 3,133 MA–PDs in 2021 compared with 2,799 the year before. Enrollment in MA–PDs grew from 15.3 million in 2020 to 16.9 million in 2021 (10 percent).
- Between 2020 and 2021, the number of drug plans offered by HMOs grew from 1,848 to 2,007; HMO drug plans remain the dominant type of MA–PD, making up 64 percent of all offerings. Over the same period, the number of drug plans offered by local PPOs also increased from 891 plans to 1,072 plans.
- A much larger share of MA–PDs than stand-alone prescription drug plans (PDPs) offer enhanced benefits. In 2021, 97 percent of MA–PDs have enhanced benefits compared with 62 percent of all PDPs (see Chart 10-9). In 2021, enhanced MA–PDs attracted 99 percent of total MA–PD enrollment.
- Fifty percent of MA–PDs have no deductible in 2021, and those plans attracted 54 percent of all MA–PD enrollees.
- In 2021, 48 percent of MA–PDs designate certain cost-sharing tiers of their formularies that are not subject to a deductible. Those plans account for 45 percent of MA–PD enrollment.

Chart 10-11. Change in average Part D premiums, 2017–2021

	Average monthly premium weighted by enrollment					Cumulative change in weighted average premium, 2017–2021
	2017	2018	2019	2020	2021	
All plans	**$32**	**$32**	**$29**	**$27**	**$26**	**–17%**
Basic plans	30	30	32	30	32	4
Enhanced plans						
Basic benefits	27	26	22	20	18	–35
Supplemental benefits	6	7	6	6	6	6
Total premium	33	33	28	26	24	–27
All basic coverage	29	28	25	23	22	–23
PDPs	**41**	**41**	**40**	**38**	**38**	**–6**
Basic plans	31	31	32	30	32	2
Enhanced plans						
Basic benefits	43	42	35	33	29	–33
Supplemental benefits	11	15	15	15	16	42
Total premium	54	57	50	48	45	–17
All basic coverage	36	35	33	31	30	–16
MA–PDs, including SNPs	**19**	**18**	**16**	**15**	**15**	**–23**
Basic plans	26	28	28	26	31	16
Enhanced plans						
Basic benefits	16	15	13	12	12	–25
Supplemental benefits	2	1	1	1	1	–29
Total premium	18	17	14	13	13	–27
All basic coverage	18	17	15	14	14	–21
MA–PD buy-down of basic premium	16	16	16	15	19	20
MA–PD buy-down of supplemental benefits	15	16	17	20	21	45
Base beneficiary premium	35.63	35.02	33.19	32.74	33.06	–7

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 10-11. Change in average Part D premiums, 2017–2021 (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 http://www.medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_20_partd_final_sec.pdf?sfvrsn=0.)

- The overall average premium paid by enrollees for any type of Part D coverage declined from $27 per month in 2020 to $26 per month in 2021. Over the period from 2017 to 2021, 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 $29 in 2017 to $22 per month in 2021, a cumulative decline of 23 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 14 of the Commission's March 2021 report to the Congress at http://www.medpac.gov/docs/default-source/reports/mar21_medpac_report_ch13_sec.pdf?sfvrsn=0.)

- 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 $32 per month in 2021. Between 2017 and 2021, the average premium increased by a cumulative 2 percent. Among enhanced plans offered by PDPs, the average enrollee premium has ranged from $45 in 2021 to $57 in 2018. Over the five-year period, the average premium decreased by a cumulative 17 percent. Of the $45 average premium in 2021 among enhanced PDPs, $29 was for basic benefits and $16 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 $31 per month in 2021. From 2017 to 2021, the average premium increased by a cumulative 16 percent. The average premium paid by beneficiaries enrolled in MA−PDs offering enhanced coverage has decreased from $18 in 2017 to $13 in 2021, 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 2021, MA−PD enrollees avoided having to pay $19 per month in basic premiums and an additional $21 per month for supplemental coverage, on average.

Chart 10-12. More premium-free PDPs for LIS enrollees in 2021

		Number of PDPs			Number of PDPs that have zero premium for LIS enrollees		
PDP region	State(s)	2020	2021	Difference	2020	2021	Difference
1	ME, NH	26	28	2	6	7	1
2	CT, MA, RI, VT	25	27	2	7	8	1
3	NY	27	28	1	9	7	2
4	NJ	28	30	2	8	7	–1
5	DC, DE, MD	27	27	0	10	9	–1
6	PA, WV	31	33	2	10	10	0
7	VA	29	30	1	7	7	0
8	NC	28	31	3	9	9	0
9	SC	28	29	1	5	5	0
10	GA	28	32	4	6	8	2
11	FL	27	28	1	4	5	1
12	AL, TN	30	32	2	7	8	1
13	MI	30	29	–1	9	9	0
14	OH	28	30	2	2	5	3
15	IN, KY	28	30	2	7	8	1
16	WI	30	31	1	9	9	0
17	IL	28	31	3	8	10	2
18	MO	28	29	1	5	6	1
19	AR	27	31	4	6	7	1
20	MS	25	27	2	7	7	0
21	LA	26	26	0	9	8	–1
22	TX	30	35	5	5	8	3
23	OK	29	30	1	8	9	1
24	KS	28	29	1	6	7	1
25	IA, MN, MT, ND, NE, SD, WY	29	28	–1	8	7	–1
26	NM	26	27	1	7	7	0
27	CO	26	27	1	7	8	1
28	AZ	31	32	1	12	10	–2
29	NV	28	29	1	5	7	2
30	OR, WA	28	29	1	8	9	1
31	ID, UT	28	28	0	8	9	1
32	CA	32	32	0	8	7	–1
33	HI	25	26	1	5	5	0
34	AK	24	25	1	7	7	0
	Total	948	996	48	244	259	15

Note: PDP (prescription drug plan), LIS (low-income [drug] subsidy).

Source: MedPAC based on 2020 and 2021 Part D plan report file provided by CMS.

- The total number of stand-alone PDPs increased by 5 percent, from 948 in 2020 to 996 in 2021. The median number of plans offered in PDP regions increased to 29 plans from 28 in 2020 (data not shown). In 2021, Alaska has the fewest stand-alone PDPs, with 25, and Region 22 (Texas) had the most, with 35.
- In 2021, 259 PDPs qualify as premium free to LIS enrollees. At least five premium-free PDPs are available in any given region.

Chart 10-13. In 2021, about one in two listed drugs are subject to some utilization management

	PDP enrollees	MA–PD enrollees
5-tier formulary structure[a] (in percent)	100%[b]	99%
Drugs on formulary as % of all Part D drugs[c]	72%	78%
Median cost-sharing amounts		
Tier 1: generic drugs	$0	$1
Tier 2: other generic drugs	5	10
Tier 3: preferred brand-name drugs	40	47
Tier 4: nonpreferred drugs	40%	100
Tier 5: specialty-tier drugs	25%	33%
Drugs with utilization management requirement (in percent)		
Prior authorization	28%	26%
Step therapy	1	1
Quantity limits	37	36
Any utilization management	51	48

Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]). Calculations are weighted by enrollment. All calculations 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.
[a] Includes formularies with an additional (sixth) tier used for certain types of drugs, such as over-the-counter medications.
[b] Less than 1 percent of enrollees were in a plan that did not use a tiered formulary structure.
[c] Number of all Part D drugs is based on the counts of unique chemical entities listed on CMS's formulary reference file for 2021 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 2021, nearly all enrollees are enrolled in plans with this five-tier structure, including plans with an additional (sixth) tier for certain types of drugs, such as over-the-counter medications.
- The number of drugs listed on a plan's formulary affects a beneficiary's access to medications. In 2021, on average, PDP enrollees have access to 72 percent of all Part D covered drug products compared with 78 percent among MA–PD enrollees.

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Chart 10-13. In 2021, about one in two listed drugs are subject to some utilization management, 2021 (continued)

- For enrollees in PDPs with a five-tier structure, the median copay in 2021 is $0 for a generic drug on a lower tier and $5 for other generic drugs. The median copay is $40 for a preferred brand-name drug and 40 percent coinsurance for a nonpreferred drug. For MA–PD enrollees, in 2021, the median copays for generic drugs are $1 and $10 for the two generic tiers, respectively. The median copay is $47 for a preferred brand and $100 for a nonpreferred drug. (About 14 percent of MA–PDs use 45 percent coinsurance for nonpreferred drugs.) Both PDPs and MA–PDs use coinsurance for specialty-tier drugs (25 percent and 33 percent, respectively).

- 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 2021, the use of some form of utilization management, on average, increased to 51 percent of drugs listed on a plan's formulary in stand-alone PDPs and 48 percent in MA–PDs. 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 2021 increased for both stand-alone PDPs and MA–PDs (to 28 percent and 26 percent, respectively). The share with quantity limits increased for both types of plans. In 2021, on average, quantity limits apply to 37 percent and 36 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 10-14. Characteristics of Part D enrollees, 2019

	All Medicare	Part D	Plan type		Subsidy status	
			PDP	MA–PD	LIS	Non-LIS
Beneficiaries[a] (in millions)	65.4	48.4	27.2	21.2	14.1	34.2
Percent of all Medicare	100%	74%	42%	32%	22%	52%
Gender						
Male	46%	43%	43%	43%	41%	44%
Female	54	57	57	57	59	56
Race/ethnicity[b]						
White, non-Hispanic	74	73	78	66	53	81
African American, non-Hispanic	10	11	9	13	20	7
Hispanic	9	10	6	15	17	7
Asian	3	4	3	4	6	2
Other	3	3	3	2	3	3
Age (years)[c]						
<65	14	14	15	14	36	5
65–69	24	22	22	22	18	24
70–74	23	23	23	24	15	27
75–79	16	17	16	17	11	19
80+	23	23	24	22	20	25

Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]), LIS (low-income [drug] subsidy). Components may not sum to totals due to rounding.
[a] 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.
[b] Because we did not have race and ethnicity information for 2019 that was adjusted for undercounting Hispanic population, the figures shown are distributions based on 2018 data.
[c] Age as of July 2019.

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

- In 2019, 48.4 million Medicare beneficiaries (74 percent) were enrolled in Part D at some point in the year. About 27 million were in stand-alone PDPs, and the remaining 21 million were in MA–PDs. 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 African American 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 10-15. Part D enrollment trends, 2007–2019

	2007	2010	2014	2019	Average annual growth rate 2007–2010	2010–2014	2014–2019
Part D enrollment (in millions)*							
Total	26.1	29.7	40.0	48.4	4.4%	7.7%	3.9%
Employer group waiver plans	2.0	2.6	7.0	7.5	9.2	27.4	1.5
By plan type							
PDP	18.3	18.9	25.1	27.2	1.1	7.3	1.6
MA–PD	7.8	10.6	14.9	21.2	10.9	8.9	7.2
By subsidy status							
LIS	10.4	11.3	12.8	14.1	2.7	3.1	2.0
Non-LIS	15.7	18.4	27.2	34.2	5.5	10.2	4.7
By age (years)[b]							
<65	5.5	6.3	7.8	6.8	4.7	5.5	–2.5
65–69	5.4	6.6	9.5	10.8	6.5	9.9	2.5
70–79	8.8	9.9	13.9	19.5	3.8	8.9	7.0
80+	6.4	7.1	8.8	11.3	3.2	5.7	5.1
Part D enrollment (in percent)							
Total	100%	100%	100%	100%			
Employer group waiver plans	8	9	17	15			
By plan type							
PDP	70	64	63	56			
MA–PD	30	36	37	44			
By subsidy status							
LIS	40	38	32	29			
Non-LIS	60	62	68	71			
By age (years)**							
<65	21	21	19	14			
65–69	21	22	24	22			
70–79	34	33	35	40			
80+	25	24	22	23			

Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]), LIS (low-income [drug] subsidy). 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.

**Age as of July of the respective year. Changes in the distribution of enrollment by age for 2019 are largely due to the changes in the data source.

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

- Part D enrollment grew faster between 2010 and 2014 (average annual growth rate (AAGR) of 7.7 percent) than between 2007 and 2010 (AAGR of 4.4 percent) or between 2014 and 2019 (AAGR of 3.9 percent). The faster enrollment growth between 2010 and 2014 largely reflects the growth in enrollment in Part D plans operated by employers for their retirees (employer group waiver plans, or EGWPs). Enrollment in EGWPs grew from 2.6 million to 7.0 million (AAGR of 27.4 percent) during this period.

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Chart 10-15. Part D enrollment trends, 2007–2019 (continued)

- The number of enrollees receiving the LIS grew modestly between 2007 and 2019, with an AAGR of between 2 percent (from 2014 to 2019) and 3.1 percent (from 2010 to 2014). During the same period, the number of non-LIS enrollees grew faster than LIS enrollees, with an AAGR of 10.2 percent between 2010 and 2014 and an AAGR of 4.7 percent or greater before 2010 and after 2014. Faster enrollment growth among non-LIS enrollees is partly attributable to the recent growth in EGWPs that shifted beneficiaries into Part D plans from employer plans that had previously received Medicare's retiree drug subsidy (RDS) (see Chart 10-7 for information on the RDS).

- Between 2014 and 2019, the largest growth in enrollment was observed for beneficiaries ages 70 to 79 (7 percent annually, on average), reflecting the aging of the baby-boom cohort.

- While MA–PD enrollment growth decelerated in recent years from the nearly 11 percent AAGR observed between 2007 and 2010, enrollment in MA–PDs continued to exceed that of PDPs between 2014 and 2019 (AAGR of 7.2 percent and 1.6 percent, respectively).

Chart 10-16. Part D enrollment by region, 2019

PDP region	State(s)	Share of Medicare enrollment		Share of Part D enrollment*			
				Plan type		Subsidy status	
		Part D*	EGWP	PDP	MA–PD	LIS	Non-LIS
1	ME, NH	72%	9%	67%	33%	31%	69%
2	CT, MA, RI, VT	78	15	64	36	33	67
3	NY	79	19	52	48	37	63
4	NJ	75	17	76	24	24	76
5	DE, DC, MD	65	15	83	17	31	69
6	PA, WV	78	14	54	46	27	73
7	VA	66	9	71	29	27	73
8	NC	76	12	54	46	29	71
9	SC	74	13	62	38	29	71
10	GA	74	12	49	51	34	66
11	FL	78	7	43	57	29	71
12	AL, TN	75	9	48	52	33	67
13	MI	80	26	68	32	25	75
14	OH	80	13	56	44	25	75
15	IN, KY	77	12	65	35	29	71
16	WI	74	9	54	46	23	77
17	IL	75	12	68	32	28	72
18	MO	77	9	57	43	26	74
19	AR	72	3	66	34	36	64
20	MS	73	3	75	25	43	57
21	LA	77	10	52	48	39	61
22	TX	74	11	56	44	31	69
23	OK	69	9	72	28	30	70
24	KS	73	4	78	22	22	78
25	IA, MN, MT, NE, ND, SD, WY	76	6	69	31	21	79
26	NM	73	13	52	48	38	62
27	CO	74	10	53	47	23	77
28	AZ	75	8	48	52	27	73
29	NV	71	6	49	51	25	75
30	OR, WA	70	7	49	51	26	74
31	ID, UT	72	7	53	47	21	79
32	CA	79	13	47	53	34	66
33	HI	72	25	37	63	26	74
34	AK	66	27	99	1	33	67
	Mean	74	11	56	44	29	71
	Minimum	65	3	37	1	21	57
	Maximum	80	27	99	63	43	79

Note: PDP (prescription drug plan), EGWP (employer group waiver plans), MA–PD (Medicare Advantage–Prescription Drug [plan]), LIS (low-income [drug] subsidy). Definition of regions is based on PDP regions used in Part D.
*Includes enrollment in Part D plans operated for EGWPs.

Source: MedPAC analysis of Medicare Part D denominator and common Medicare environment files from CMS.

- Among Part D regions in 2019, all regions had 65 percent or more of all Medicare beneficiaries enrolled in Part D. In some regions with lower than average enrollment in Part D (Region 5 and Region 7), many beneficiaries likely received their drug coverage through the Federal Employees Health Benefits Program.

- Since 2010, many employers have switched from operating retiree drug subsidy (RDS)–eligible employer plans to sponsoring Part D plans for their retirees (EGWPs). In 2019, 11 percent of Medicare beneficiaries were enrolled in EGWPs compared with 5 percent or less before 2010 (see Chart 10-7 for information on the RDS).

(Chart continued next page)

Chart 10-16. Part D enrollment by region, 2019 (continued)

- Before 2019, beneficiaries in Alaska were less likely to enroll in Part D because alternative employer-sponsored drug coverage was more widely available: The share of Medicare beneficiaries enrolled in employer-sponsored plans that received the RDS was 26 percent, compared with an average of 2 percent nationwide. In 2019, those beneficiaries were moved to Part D as employers switched from operating RDS-eligible plans to operating EGWPs.

- The share of Medicare beneficiaries in EGWPs varied from 3 percent in Region 19 (AR) and Region 20 (MS) to 25 percent or more in Region 13 (MI), Region 33 (HI), and Region 34 (AK).

- Wide variation was seen in the shares of Part D beneficiaries who enrolled in PDPs and MA–PDs across PDP regions. The pattern of MA–PD enrollment is generally consistent with availability of and enrollment in Medicare Advantage plans.

- The share of Part D enrollees receiving the LIS ranged from 21 percent in Region 25 (IA, MN, MT, NE, ND, SD, and WY) and Region 31 (ID and UT) to 43 percent in Region 20 (MS).

Chart 10-17. Components of Part D spending growth

	2009	2019	Average annual growth 2009–2019
Total gross spending (in billions)	**$73.7**	**$183.1**	**9.5%**
High-cost beneficiaries	29.2	116.6	14.9%
Lower cost beneficiaries	44.6	66.5	4.1%
Number of beneficiaries using a Part D drug (in millions)	**26.5**	**45.1**	**5.4%**
High-cost beneficiaries	2.4	4.3	6.2%
Lower cost beneficiaries	24.1	40.8	5.4%
Amount per beneficiary who used Part D drugs			
Gross drug spending per year	$2,781	$4,062	3.9%
Average price per 30-day prescription	$55	$72	2.7%
Number of 30-day prescriptions	50.4	56.3	1.1%
Amount per high-cost beneficiary who used Part D drugs			
Gross drug spending per year	$12,294	$26,983	8.2%
Average price per 30-day prescription	$110	$236	7.9%
Number of 30-day prescriptions	111.4	114.4	0.3%
Amount per lower cost beneficiary who used Part D drugs			
Gross drug spending per year	$1,846	$1,632	–1.2%
Average price per 30-day prescription	$42	$33	–2.4%
Number of 30-day prescriptions	44.5	50.1	1.2%

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 denominator files from CMS.

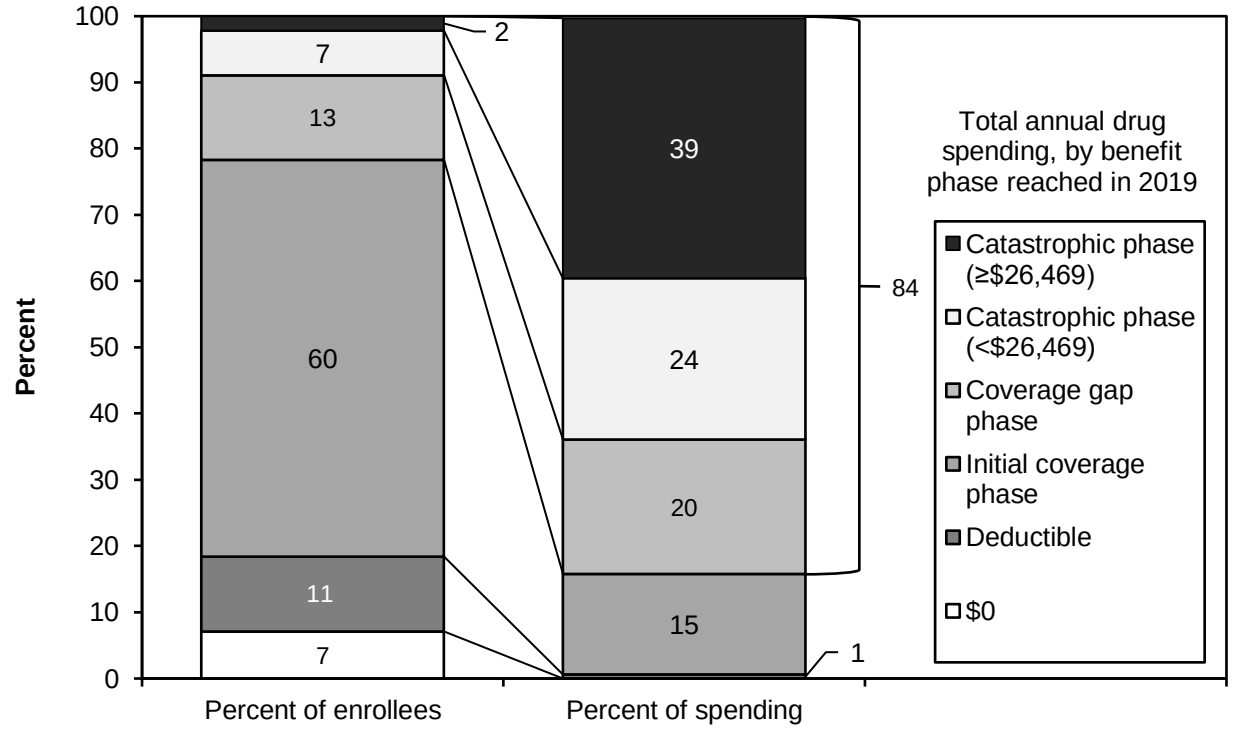
- Between 2009 and 2019, gross spending on drugs under the Part D program grew by an annual average rate of 9.5 percent. The annual growth in spending was considerably higher (14.9 percent) among high-cost beneficiaries (individuals who incurred spending high enough to reach the catastrophic phase of the benefit) compared with 4.1 percent for lower cost beneficiaries.

- During the 2009 through 2019 period, the number of beneficiaries who used Part D drugs grew by an annual average rate of 5.4 percent. The number of high-cost beneficiaries grew more rapidly (6.2 percent) compared with lower cost beneficiaries (5.4 percent).

- The average price per 30-day prescription covered under Part D rose from $55 in 2009 to $72 in 2019. Overall, growth in price per prescription accounted for more than two-thirds (2.7 percentage points) of the 3.9 percent average annual growth in spending per beneficiary among beneficiaries who used Part D 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 (7.9 percent) accounted for nearly all of the spending growth (8.2 percent) during this period. In contrast, among lower cost beneficiaries, the average annual decrease in prices (–2.4 percent) resulted in an overall decrease in spending (–1.2 percent annually), despite an increase in the number of prescriptions filled during the same period.

Chart 10-18. The majority of Part D spending was incurred by just over one-fifth of all Part D enrollees, 2019



Note: "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. In 2019, the defined standard basic benefit included a $415 deductible and 25 percent coinsurance until the enrollee reached $3,820 in total covered drug spending. An individual with an average mix of drugs who did not receive Part D's low-income subsidy and who had no other supplemental coverage would have reached the catastrophic phase of the benefit at about $8,140 in total drug spending. In 2019, among those who reached the catastrophic phase of the benefit, an enrollee at the 75th percentile of the distribution had drug spending totaling $26,469. Components may not sum to totals due to rounding.

Source: MedPAC analysis of Medicare Part D prescription drug event data from CMS.

- Medicare Part D spending is concentrated in a subset of beneficiaries. In 2019, about 22 percent of Part D enrollees had annual spending exceeding the initial coverage limit (ICL) (typically set at $3,820 in gross drug spending). For spending exceeding the ICL until they reached the catastrophic phase of the benefit (at about $8,140 in gross drug spending under the defined standard benefit for beneficiaries not receiving Part D's low-income subsidy (LIS)), enrollees were responsible for a coinsurance 25 percent or greater. (For LIS enrollees, Part D's LIS paid the difference between the 100 percent coinsurance and the applicable maximum copay amounts of no more than $8.50.) These beneficiaries accounted for 84 percent of total Part D spending.

- Spending on prescription drugs has become more concentrated over time. The costliest 9 percent of beneficiaries, those with drug spending above the catastrophic threshold, accounted for about 64 percent of total Part D spending. Before 2011, the costliest 8 percent of beneficiaries accounted for 40 percent or less of total Part D spending (data not shown). Just 2 percent of Part D enrollees with the highest spending (annual spending at or above $26,469) accounted for 39 percent of total Part D spending. In comparison, for Medicare Part A and Part B spending, Medicare fee-for-service spending accounted for by the costliest 5 percent of beneficiaries was 43 percent in 2018 (data not shown; see Chart 1-14).

- While the majority (65 percent) of beneficiaries with the highest spending continues to be those who receive the LIS, those who do not receive the LIS are increasingly reaching the catastrophic phase of the benefit (data not shown; see Chart 10-19).

Chart 10-19. Characteristics of Part D enrollees, by benefit phase reached, 2019

	Annual drug spending		
	Below initial coverage limit	Coverage-gap phase	Catastrophic phase
Sex			
Male	43%	43%	43%
Female	57	57	57
Age (years)			
<65	12	14	32
65–69	24	17	18
70–74	24	22	19
75–80	17	19	14
80+	23	29	18
LIS status*			
LIS	25	32	65
Non-LIS	75	68	35
Plan type**			
PDP	55	60	62
MA–PD	45	40	38

Note: LIS (low-income [drug] subsidy), PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]). "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. In 2019, the defined standard basic benefit included a $415 deductible and 25 percent coinsurance until the enrollee reached $3,820 in total covered drug spending, and then a coverage gap until out-of-pocket (OOP) spending reached the annual OOP threshold of $5,100. (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 estimated that in 2019, a person who did not receive Part D's LIS and had no supplemental coverage would, on average, have reached the threshold at about $8,140 in total drug spending.) A small number of beneficiaries were excluded from the analysis because of missing data. Components may not sum to 100 due to rounding.
*A beneficiary was assigned LIS status 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 in the type of plan with the greater number of months of enrollment.

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

- In 2019, Part D enrollees who reached the catastrophic phase of the benefit were more likely to be disabled and under age 65, and receiving the LIS compared with Part D enrollees with annual spending below the catastrophic threshold.

- While LIS enrollees are more likely to reach the catastrophic phase of the benefit, their share has been declining, from more than 80 percent in 2010 and earlier years (data not shown) to 65 percent in 2019. This decline reflects more rapid growth in enrollment of individuals who do not receive the LIS as well as the growth in average prices of drugs taken by those individuals.

- Part D enrollees who reached the catastrophic phase of the benefit were more likely to be enrolled in stand-alone PDPs (62 percent) compared with enrollees whose spending was below the initial coverage limit (55 percent) or enrollees in the coverage gap who did not reach the catastrophic threshold (60 percent). Some of this difference likely reflects the facts that LIS enrollees are more costly on average and were more likely to be in PDPs in 2019.

Chart 10-20. Part D spending and use per enrollee, 2019

	Part D	Plan type		LIS status	
		PDP	MA–PD	LIS	Non-LIS
Total gross spending (billions)*	$183.1	$111.0	$72.1	$87.5	$95.6
Total number of prescriptions (millions)	2,538	1,429	1,108	897	1,640
Average spending per prescription	$72	$78	$65	$97	$58
Per enrollee per month					
Total spending	$333	$362	$297	$554	$244
OOP spending	31	36	26	5	42
Manufacturer gap discount	18	21	15	N/A	26
Plan liability	223	239	204	384	158
Low-income cost-sharing subsidy	47	50	43	164	N/A
Other**	13	16	9	<1	18
Number of prescriptions	4.6	4.7	4.6	5.7	4.2

Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]), LIS (low-income [drug] 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 slightly over $10 billion in manufacturer discounts for brand-name drugs and biologics filled by non-LIS enrollees during the coverage gap.
**"Other" amount includes payments by patient assistance organizations and third-party payers other than Part D plans that reduce the patient cost-sharing liability.

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

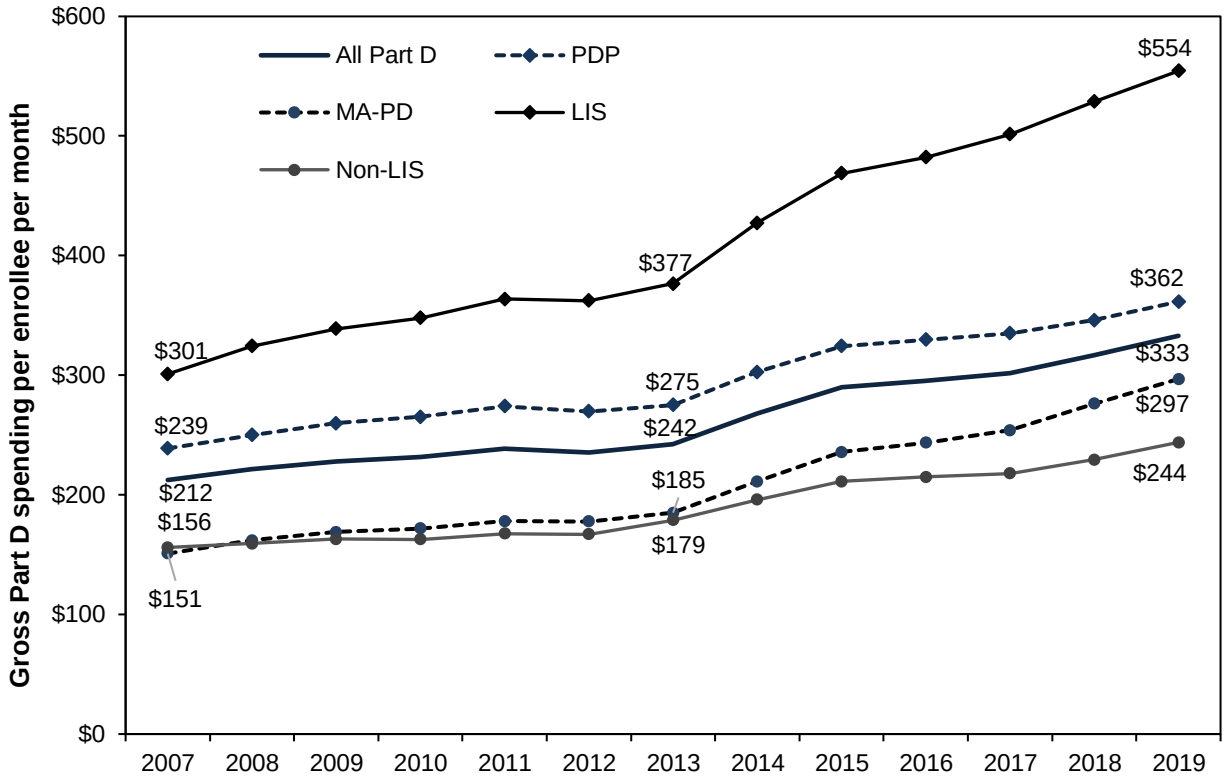
- In 2019, gross spending on drugs for the Part D program totaled $183.1 billion, with more than 60 percent ($111 billion) accounted for by Medicare beneficiaries enrolled in stand-alone PDPs. Part D enrollees receiving the LIS accounted for about 48 percent ($87.5 billion) of the total. Manufacturer discounts for brand-name drugs filled by non-LIS enrollees while they were in the coverage gap accounted for 5.5 percent of the total, or 10.5 percent of the gross spending by non-LIS enrollees (up from 4.1 percent and 8 percent, respectively, in 2018; data not shown).

- The number of prescriptions filled by Part D enrollees totaled over 2.5 billion, with 56 percent (over 1.4 billion) accounted for by PDP enrollees. The 29 percent of enrollees who received the LIS accounted for about 35 percent (897 million) of the total number of prescriptions filled.

- In 2019, Part D enrollees filled 4.6 prescriptions at $333 per month on average, an increase from $317 per month (for 4.6 prescriptions) in 2018 (2018 data not shown). The average monthly plan liability for PDP enrollees ($239) was considerably higher than that of MA–PD enrollees ($204). The average monthly OOP spending was smaller for MA–PD enrollees than PDP enrollees ($36 vs. $26, respectively). The average monthly low-income cost-sharing subsidy among PDP enrollees ($50) continues to exceed that for MA–PD enrollees ($43), although that difference has been decreasing as an increasing share of LIS beneficiaries have enrolled in MA–PDs.

- Average monthly spending per LIS enrollee ($554) was more than double that of a non-LIS enrollee ($244), and the average number of prescriptions filled per month by an LIS enrollee was 5.7 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. $42, respectively). Part D's LIS pays for most of the cost sharing for LIS enrollees, averaging $164 per month in 2019.

Chart 10-21. Trends in Part D spending and use per enrollee per month, 2007–2019



Note: PDP (prescription drug plan), LIS (low-income [drug] subsidy), MA–PD (Medicare Advantage–Prescription Drug [plan]). "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 2019, average per capita spending per month for Part D–covered drugs grew from $212 to $333, an average growth rate of 3.8 percent annually, or about 57 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 2019, monthly per capita spending for LIS enrollees grew faster than that for non-LIS enrollees, increasing from $301 to $554 (a cumulative growth of 84 percent) compared with an increase from $156 to $244 for non-LIS enrollees (a cumulative growth of 56 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 2019 period (annual average growth of 5.8 percent and 3.5 percent, respectively). The average per capita spending for MA−PD enrollees continued to be lower than that of PDP enrollees (by $65 per month in 2019); however, that difference has been declining since 2014.

Chart 10-22. Top 15 therapeutic classes of drugs covered under Part D, by spending and volume, 2019

Top 15 therapeutic classes by spending	Dollars		Top 15 therapeutic classes by volume	Prescriptions	
	Billions	Percent		Millions	Percent
Diabetic therapy	$30.7	16.8%	Antihyperlipidemics	273.6	10.8%
Asthma/COPD therapy agents	13.3	7.3	Antihypertensive therapy agents	260.1	10.3
Anticoagulants	12.4	6.8	Diabetic therapy	173.6	6.8
Antineoplastics (enzyme inhibitors)	11.5	6.3	Antidepressants	160.3	6.3
Antivirals	9.3	5.1	Beta-adrenergic blockers	155.6	6.1
Analgesics (anti-inflammatory/ antipyretic, non-narcotic)	8.8	4.8	Peptic ulcer therapy	128.9	5.1
Antipsychotics	6.6	3.6	Diuretics	121.9	4.8
Antineoplastics (immunomodulators)	5.9	3.2	Calcium channel blockers	117.4	4.6
Anticonvulsants	5.7	3.1	Thyroid therapy	100.8	4.0
Antihypertensive therapy agents	5.5	3.0	Anticonvulsants	98.1	3.9
Antihyperlipidemics	4.7	2.5	Asthma/COPD therapy agents	74.0	2.9
Antineoplastics (hormone antagonists)	3.2	1.8	Analgesics (narcotic)	67.0	2.6
Analgesics (narcotic)	2.8	1.5	Antibacterial agents	59.2	2.3
Antidepressants	2.8	1.5	Prostatic hypertrophy agents	52.1	2.1
Urinary incontinence treatment agents	2.5	1.4	Anticoagulants	48.5	1.9
Subtotal, top 15 classes	125.6	68.6	Subtotal, top 15 classes	1,891.2	74.5
Total, all classes	183.1	100.0	Total, all classes	2,537.1	100.0

Note: COPD (chronic obstructive pulmonary disease). "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. "Volume" is the number of prescriptions, standardized to a 30-day supply. Therapeutic classification is based on the First DataBank Enhanced Therapeutic Classification System 1.0. Components may not sum to totals due to rounding.

Source: MedPAC analysis of Medicare Part D prescription drug event data from CMS.

- In 2019, the top 15 therapeutic classes by spending accounted for more than two-thirds of the $183.1 billion spent on prescription drugs covered by Part D plans. The top 15 therapeutic classes by volume accounted for nearly three-quarters of the over 2.5 billion prescriptions dispensed in 2019.
- While many of the same therapeutic classes on the top-15 list appear year after year, the ranking has changed from time to time. For example, market entries of new hepatitis C therapies more than tripled Part D spending on antivirals between 2013 and 2015 (data not shown). In 2019, antivirals accounted for $9.3 billion, down from $11.7 billion in 2016 (2016 data not shown). The growth in spending for drugs to treat cancer resulted in three classes of antineoplastic therapies (enzyme inhibitors, immunomodulators, and hormone antagonists) appearing on the top-15 list for the first time in 2018, compared with just one class between 2012 and 2014 and none before 2012 (data not shown). In 2019, these three classes of antineoplastics accounted for about $21 billion, or 11.2 percent of spending for the top 15 therapeutic classes.

(Chart continued next page)

Chart 10-22. Top 15 therapeutic classes of drugs covered under Part D, by spending and volume, 2019 (continued)

- Spending on drugs to treat diabetes has grown at a double-digit rate since 2007 (data not shown). In 2019, spending on diabetic therapy totaled $30.7 billion, an increase of about 15 percent from $26.8 billion in 2018 (2018 data not shown). The number of prescriptions filled for diabetic therapy totaled 173.6 million, an increase of about 6 percent from 163.9 million in 2018.

- Eight therapeutic classes are among the top 15 in both spending and volume. Diabetic therapy dominates the list by spending, accounting for almost 17 percent of total spending and nearly a quarter of spending for the top 15 therapeutic classes, followed by asthma/COPD therapy agents. Cardiovascular agents (antihyperlipidemics, antihypertensive therapy agents, beta-adrenergic blockers, diuretics, and calcium channel blockers) dominate the list by volume, accounting for about 37 percent of all prescriptions and nearly 50 percent of the prescriptions in the top 15 therapeutic classes.

Chart 10-23. Part D patterns of prescribing by provider type, 2018

		Provider type		
	Part D	Primary care*	Specialty/ others	NP/PA/ CNS
Number of individual prescribers (thousands)	1,205	251	683	271
Share of all individual prescribers		21%	57%	23%
Average beneficiary count	161	264	126	151
Average per beneficiary				
Gross spending	$780	$947	$775	$645
Number of prescriptions	5.8	10.9	4.0	5.4
Top 1 percent of prescribers based on number of prescriptions filled per beneficiary				
Number of individual prescribers	9,531	6,415	1,802	1,314
Share of top 1 percent of prescribers		67%	19%	14%
Total gross spending (billions)	$9.4	$7.1	$1.5	$0.8
Share of provider type's total gross spending	6%	12%	2%	3%
Total number of prescriptions (millions)	129	104	16	9
Share of provider type's total prescriptions filled	9%	13%	4%	4%
Average per beneficiary				
Gross spending	$4,028	$3,428	$5,521	$4,910
Number of prescriptions	42	43	42	41

Note: NP (nurse practitioner), PA (physician assistant), CNS (clinical nurse specialist). "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. "Number of prescriptions" is a count of prescription drug events and is not adjusted for the size (number of days' supply) of the prescriptions. As such, these figures are not comparable with the prescription counts shown in Chart 10-17, Chart 10-20, and Chart 10-22. Components may not sum to totals due to rounding.
*The definition of "primary care" used here includes practitioners who have a primary Medicare specialty designation of family practice, internal medicine, pediatrics, or geriatrics.

Source: MedPAC analysis of Medicare Part D prescriber-level public use file from CMS.

- In 2018, over 1.2 million individual providers wrote prescriptions for Medicare beneficiaries that were filled under Part D. Of those, about 21 percent were primary care providers, 57 percent were specialty or other types of providers, and 23 percent were NPs, PAs, or CNSs in primary and specialty care. While historically, NPs and PAs have been concentrated in primary care, more recent patterns suggest that they are increasingly practicing in specialty fields.

- The average count of Medicare beneficiaries was higher among primary care providers compared with specialty and other types of providers and with NPs, PAs, and CNSs—264 beneficiaries versus 126 beneficiaries and 151 beneficiaries, respectively.

(Chart continued next page)

Chart 10-23. Part D patterns of prescribing by provider type, 2018 (continued)

- On a per beneficiary basis, average gross spending for Part D prescriptions was much higher for prescriptions written by primary care providers ($947) compared with the average for specialty and other providers ($775) and for NPs, PAs, and CNSs ($645). Primary care providers also wrote more prescriptions per beneficiary, on average: 10.9 compared with 4.0 for specialty and other providers and 5.4 for NPs, PAs, and CNSs.

- More than 9,500 prescribers were among the top 1 percent of all prescribers, as ranked by the average number of Part D prescriptions filled per beneficiary in 2018. The top prescribers were much more likely than all providers to be practicing in primary care: 67 percent were primary care providers, 19 percent were specialty and other providers, and 14 percent were NPs, PAs, and CNSs.

- The top 1 percent of prescribers accounted for 6 percent of total gross spending and 9 percent of all prescriptions filled. Among primary care prescribers who were within the top 1 percent, results were more concentrated: They accounted for 12 percent of gross prescription spending and 13 percent of all prescriptions written by primary care providers.

- Among the prescriptions that were written by prescribers in the top 1 percent of all prescribers in 2018, per beneficiary Part D spending averaged $4,028 for 42 prescriptions filled.

Chart 10-24. Part D patterns of prescribing for selected specialties, 2018

	Number of individual Part D prescribers (thousands)	Share of all Part D prescribers (percent)	Average per beneficiary	
			Gross spending (in dollars)	Number of prescriptions
All Part D	1,204.9	100%	$780	5.8
All specialty/others	683.0	57	775	4.0
Selected specialties:				
Psychiatry	25.3	4	1,327	13.1
Cardiology	19.8	3	839	7.9
Ophthalmology	19.8	3	476	4.0
Psychiatry & neurology	14.4	2	1,255	11.0
Neurology	14.1	2	3,148	7.2
Gastroenterology	13.9	2	1,486	3.5
Urology	10.8	2	479	3.8
Pulmonary disease	9.5	1	3,357	6.7
Nephrology	8.8	1	1,209	7.8
Hematology & oncology	8.5	1	9,376	6.0
Endocrinology	6.1	1	2,640	7.9
Infectious disease	5.5	1	6,728	8.6
Rheumatology	4.8	1	3,717	7.6
Medical oncology	3.2	<0.5	8,571	5.6

Note: "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. "Number of prescriptions" is a count of prescription drug events and is not adjusted for the size (number of days' supply) of the prescriptions. As such, they are not comparable with the prescription counts shown in Chart 10-17, Chart 10-20, and Chart 10-22.

Source: MedPAC analysis of Medicare Part D prescriber-level public use file from CMS.

- Of specialty care prescribers, psychiatrists were among the most numerous, making up 4 percent of all Part D prescribers in 2018. Cardiologists, ophthalmologists, psychiatrists/neurologists, neurologists, gastroenterologists, and urologists each made up another 2 percent to 3 percent of Part D prescribers.

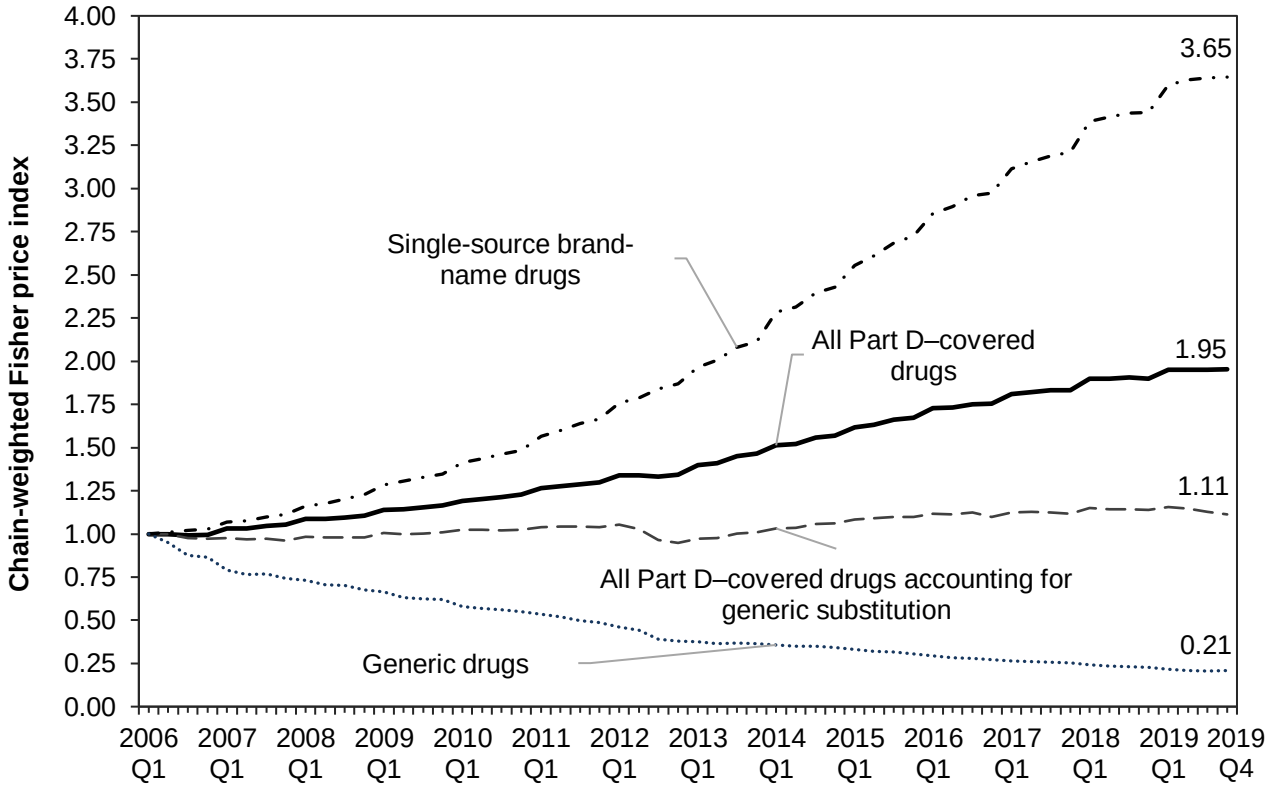
- Psychiatrists wrote an average of 13.1 prescriptions per beneficiary, with an average of $1,327 in gross spending per patient. Those averages were higher than the overall Part D averages of 5.8 prescriptions and $780 in average gross spending per beneficiary. Other specialties with comparatively high average gross spending per beneficiary include psychiatry/neurology, neurology, gastroenterology, pulmonary disease, nephrology, hematology/oncology, endocrinology, infectious disease, rheumatology, and medical oncology.

(Chart continued next page)

Chart 10-24. Part D patterns of prescribing for selected specialties, 2018 (continued)

- Other specialties such as ophthalmology and urology had lower average gross spending per beneficiary. Cardiologists had average gross spending per beneficiary slightly higher than that of all Part D specialty prescribers ($839 vs. $775 respectively) but wrote an average of 7.9 prescriptions per beneficiary—considerably more than the average of 4.0 per beneficiary for all Part D specialty prescribers.

Chart 10-25. Price growth for Part D–covered drugs, 2006–2019



Note: Q1 (first quarter), Q4 (fourth quarter). Part D indexes reflect total amounts paid to pharmacies and do not reflect retrospective rebates or discounts from manufacturers and pharmacies. These measures of price growth reflect growth in the price of individual products but do not reflect changes in price due to the introduction of new products or to changes in the mix of products used.

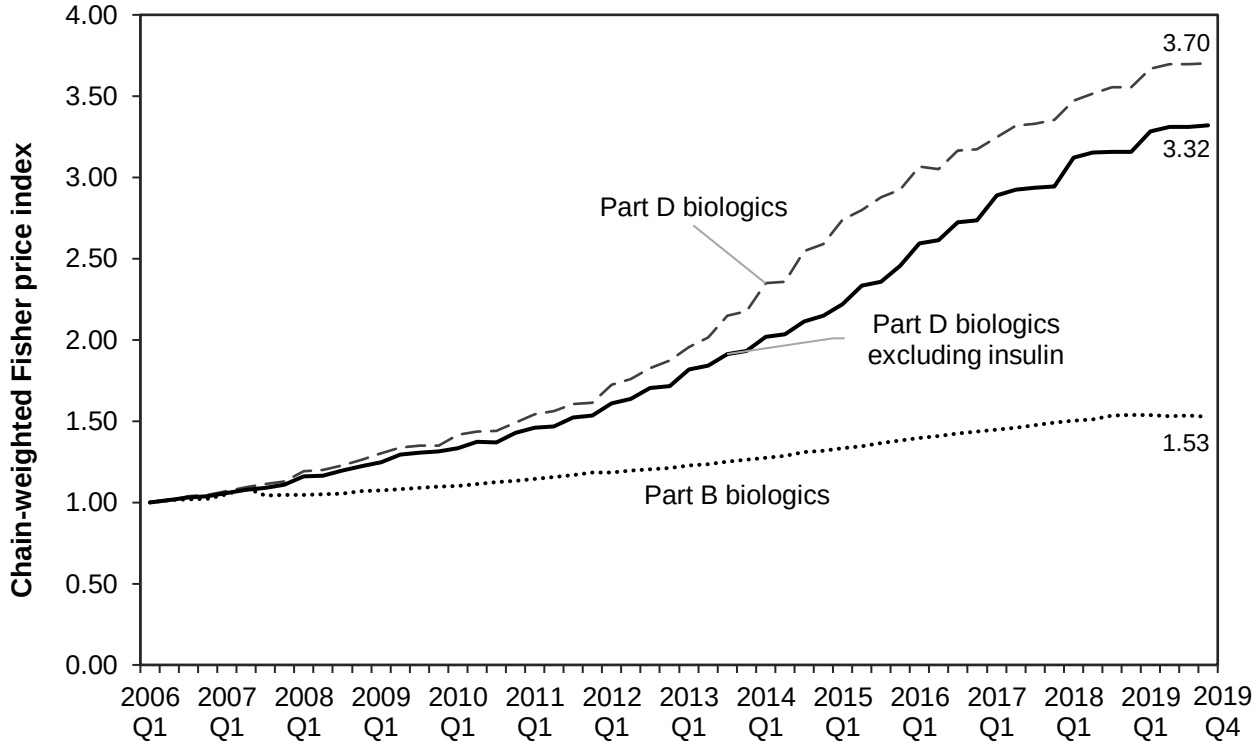
Source: Acumen LLC analysis for MedPAC.

- Measured by individual national drug codes, prices of drugs and biologics covered under Part D rose 95 percent cumulatively between 2006 and 2019 (an index of 1.95). (Prices reflect total amounts paid to pharmacies and do not reflect retrospective rebates or discounts from manufacturers and pharmacies.)

- As measured by a price index that takes generic substitution into account, Part D prices decreased by 2.1 percent between December of 2018 and December of 2019, reversing the inflationary trend that began after 2012. As a result, cumulative increase in prices at the end of 2019 were lower (11 percent, or an index of 1.11) compared with cumulative increase in prices at the end of 2018 (14 percent, or an index of 1.14). New and increased generic competition for selected therapeutic classes, such as anticonvulsants, antineoplastics, and drugs for multiple sclerosis, played a key role in the decline in the overall Part D prices in 2019.

- Overall, between 2006 and 2019, prices of generic drugs covered under Part D decreased to 21 percent of the average price observed at the beginning of 2006. In comparison, prices of single-source, brand-name drugs (drugs with no generic substitutes) grew by a cumulative 265 percent (an index of 3.65) during the same period.

Chart 10-26. Comparison of price growth for Part B and Part D biologics, 2006–2019



Note: Q1 (first quarter), Q4 (fourth quarter). Part D indexes reflect total amounts paid to pharmacies and do not reflect retrospective rebates or discounts from manufacturers and pharmacies. The Part B index reflects growth in the average sales price of Part B–covered biologics over time, measured for individual biologics at the Healthcare Common Procedure Coding System billing code level. These measures of price growth reflect growth in the price of individual products but do not reflect changes in price due to the introduction of new products or the changes in the mix of products used. The Part B price index for biologics in this chart and in Chart 10-6 are different due to the different periods of analysis.

Source: Acumen LLC analysis for MedPAC.

- Measured by the change in the average sales price of individual Part B–covered biologics, the prices of Part B–covered biologics rose by an average of 53 percent cumulatively between 2006 and 2019 (an index of 1.53). Measured by individual national drug codes, prices of biologics covered under Part D rose 270 percent cumulatively during the same period (an index of 3.70). (Prices reflect total amounts paid to pharmacies and do not reflect retrospective rebates or discounts from manufacturers and pharmacies).
- The price index for Part B biologics, which had increased for more than a decade, declined 0.6 percent between third quarter 2019 and fourth quarter 2019, largely due to price declines among products with biosimilar competition. (See Chart 10-5 for more information on biosimilars.)
- Prices of noninsulin biologics covered under Part D grew less rapidly (by an average of 232 percent cumulatively, an index of 3.32) compared with the growth in prices of all Part D biologics during the same period.

(Chart continued next page)

Chart 10-26. Comparison of price growth for Part B and Part D biologics, 2006–2019 (continued)

- These measures of price growth reflect growth in price at the individual product level and do not reflect changes in price that occur as a result of shifts in the mix of biologics used or the introduction of new, higher priced biologics.

- Currently, biologics that may be covered under either Part B or Part D are limited to a subset of drugs within therapeutic classes such as therapies to treat inflammatory conditions (e.g., rheumatoid arthritis) and certain types of cancer.