

SECTION

# 10

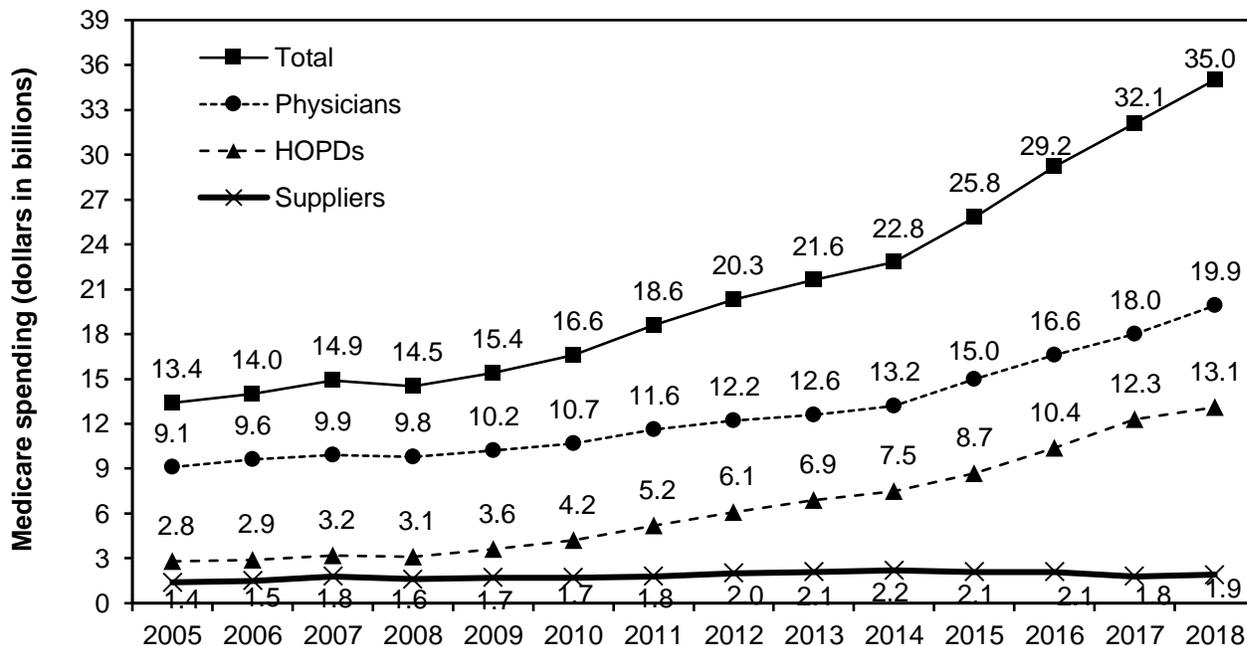
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## **Prescription drugs**

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**Chart 10-1. Medicare spending for Part B drugs furnished by physicians, hospital outpatient departments, and suppliers, 2005–2018**



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 \$35 billion on Part B drugs furnished by physicians, hospital outpatient departments (HOPDs), and suppliers in 2018, an increase of about 9 percent from 2017.
- 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 2018, total spending grew at an average annual rate of 7.7 percent. Spending growth was slower from 2005 to 2009 (about 3.7 percent per year on average) and more rapid from 2009 to 2018 (about 9.5 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.
- Spending on Part B–covered drugs in outpatient hospitals was \$13.1 billion in 2018. If the 340B payment reduction had not occurred, we estimate that Part B drug spending in outpatient hospitals would have been \$1.8 billion higher (that is, approximately \$15 billion) in 2018.

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## **Chart 10-1. Medicare spending for Part B drugs furnished by physicians, hospital outpatient departments, and suppliers, 2005–2018 (continued)**

- Of total 2018 Part B drug spending, physicians accounted for 57 percent (\$19.9 billion), HOPDs accounted for 38 percent (\$13.1 billion), and suppliers accounted for 5 percent (\$1.9 billion).
- Overall, from 2009 and 2018, 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. However, in the most recent one-year period from 2017 to 2018, Part B drug spending grew more rapidly in physician offices (11 percent) than HOPDs (7 percent) because Medicare reduced the payment rates for some Part B drugs furnished by 340B hospitals beginning 2018. If 340B hospitals had been paid ASP + 6 percent instead of ASP – 22.5 percent, we estimate that Part B drug spending in HOPDs would have grown 22 percent between 2017 and 2018 instead of 7 percent.
- Between 2017 and 2018, Medicare payments for supplier-furnished drugs (such as inhalation drugs, home infusion drugs, and three types of oral drugs) increased 4 percent. In the prior year—from 2016 to 2017—spending on supplier-furnished drugs decreased as a result of a change in the payment formula for Part B–covered home infusion drugs (from 95 percent of the average wholesale price to ASP + 6 percent) and patent expirations and generic entry for certain products.
- 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 \$930 million in critical access hospitals and \$380 million in Maryland hospitals for Part B drugs in 2018. In addition, in 2018, Medicare spent \$1.2 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, 2009–2018

	2009	2018	Average annual growth 2009–2018
<b>Total payments: Separately payable Part B drugs (in billions)</b>	\$11.9*	\$33.1*	12.0%
<b>Total payments: All Part B drugs excluding vaccines (in billions)</b>	\$11.7	\$31.8	11.7
Number of beneficiaries using a Part B drug (in millions)	2.7	3.9	4.3
Average total payments per beneficiary who used a Part B drug	\$4,402	\$8,165	7.1
Average number of Part B drugs per beneficiary	1.39	1.35	–0.4
Average annual payment per Part B drug per beneficiary	\$3,158	\$6,047	7.5
<b>Total payments: All Part B vaccines (in billions)</b>	\$0.2	\$1.3	21.9
Number of beneficiaries using a Part B vaccine (in millions)	13.4	16.8	2.5
Average total payments per beneficiary who used a Part B vaccine	\$16	\$77	18.9
Average number of Part B vaccines per beneficiary	1.08	1.20	1.2
Average annual payment per Part B vaccine per beneficiary	\$15	\$64	17.5

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 the 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 2018 (i.e., drugs that were packaged under the outpatient prospective payment system in 2009 or 2018 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 \$35.0 billion in 2018, 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 12.0 percent per year, on average, between 2009 and 2018.
- Medicare spending on separately payable Part B drugs excluding Part B–covered preventive vaccines grew at a similar rate (11.7 percent per year) between 2009 and 2018.
- The largest factor contributing to the growth in separately payable Part B drug spending (excluding vaccines) was the change in the price Medicare paid for drugs. Between 2009 and 2018, the average annual payment per drug increased on average by 7.5 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 2018 reduction in Medicare’s payment rate for certain Part B drugs provided by 340B hospitals.

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## **Chart 10-2. Change in Medicare payments and utilization for separately payable Part B drugs, 2009–2018 (continued)**

- Growth in the number of beneficiaries using nonvaccine Part B drugs (about 4.3 percent per year on average) also contributed to increased spending. The number of Part B drugs received per user declined from about 1.39 in 2009 to 1.35 in 2018, which modestly offset spending growth.
- Medicare covers 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 \$690 million for influenza, \$617 million for pneumococcal, and \$7 million for hepatitis B. (Not included in these data are vaccines furnished in other settings such as ESRD facilities. With other settings included, 2018 vaccine spending was \$706 million on influenza, \$627 million on pneumococcal, and \$38 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 22 percent per year, between 2009 and 2018.
- As with other separately paid Part B drugs, the largest driver of increased vaccine spending was price growth, as the average payment per vaccine grew at an average rate of 17.5 percent per year between 2009 and 2018. Substantial price growth occurred for both pneumococcal and flu vaccines between 2009 and 2018, with the average payment per vaccine increasing from \$36 to \$150 for pneumococcal and from \$12 to \$42 for flu vaccines over this period (data not shown). In addition, use of the pneumococcal vaccine Prevnar-13 increased following a 2014 recommendation by the Centers for Disease Control and Prevention advisory committee for a one-time vaccination of all people age 65 and older. Because the price of Prevnar-13 is higher than other Part B–covered vaccines, its increased use has contributed to growth in the average payment per vaccine.

**Chart 10-3. Top 10 Part B drugs paid based on ASP, by type of provider, 2017 and 2018**

	Dollars (in millions)					
	Total Part B drug spending		Physician and supplier Part B drug spending		HOPD Part B drug spending	
	2017	2018	2017	2018	2017	2018
Eylea	\$2,469	\$2,577	\$2,312	\$2,435	\$158	\$142
Keytruda	1,037	1,813	394	764	643	1,049
Opdivo	1,474	1,718	695	827	778	891
Rituxan	1,758	1,703	857	867	900	836
Prolia/Xgeva	1,243	1,420	763	909	481	511
Neulasta	1,405	1,373	653	640	751	733
Lucentis	1,039	1,217	1,006	1,186	32	30
Remicade	1,347	1,154	821	745	526	408
Avastin	1,071	1,014	524	503	547	511
Herceptin	786	823	354	386	432	438
<b>Total spending, top 10 drugs</b>	<b>\$13,627</b>	<b>\$14,812</b>	<b>\$8,379</b>	<b>\$9,263</b>	<b>\$5,249</b>	<b>\$5,549</b>
<b>Total spending, all Part B drugs</b>	<b>\$32,083</b>	<b>\$34,955</b>	<b>\$19,801</b>	<b>\$21,832</b>	<b>\$12,282</b>	<b>\$13,123</b>

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 2018. Data for 2017 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 700 billing codes, but spending is concentrated. Medicare spending (including cost sharing) on the top 10 drugs paid under the ASP system totaled about \$14.8 billion in 2018, about 42 percent of all Part B drug spending that year.
- As of 2018, all of the top 10 Part B drugs are biologics. Many of these products are used to treat cancer or its side effects (Keytruda, Opdivo, Rituxan, Prolia/Xgeva, Neulasta, Avastin, Herceptin). Drugs used to treat age-related macular degeneration (Eylea, Lucentis, Avastin) and rheumatoid arthritis (Remicade and Rituxan) are also in the top 10.
- Medicare spending on immune globulin (for which there are several products billed through separate billing codes) amounted to more than \$1.5 billion in 2018 (data not shown).

**Chart 10-4. Growth in ASP for the 20 highest expenditure Part B drugs, 2005–2020**

Part B drug	Total Medicare payments in 2018 (in billions)	Average annual ASP growth				Earliest year of ASP data if not 2005
		2005–2015	2015–2019	2019–2020	2005–2020	
Eylea	2.6	0.0%*	–0.4%	–1.9%	–0.5%*	2013
Keytruda	1.8	N/A	2.3*	2.6	2.4*	2016
Opdivo	1.7	N/A	2.7*	2.4	2.6*	2016
Rituxan	1.7	5.1	7.1	–1.0	5.2	
Prolia/Xgeva	1.4	0.6*	6.1	3.6	3.7*	2012
Neulasta	1.4	4.4	7.6	–9.2	4.3	
Lucentis	1.2	–0.4*	–2.1	–4.6	–1.3*	2008
Remicade	1.2	3.4	0.8	–25.2	0.5	
Avastin	1.0	1.8	4.6	–0.7	2.3	
Herceptin	0.8	4.8	6.1	–1.1	4.7	
Orencia	0.8	7.4*	11.7	6.3	8.6*	2007
Darzalex	0.6	N/A	5.6*	3.3	4.8*	2017
Ocrevus	0.5	N/A	0.5*	0.1	0.3*	2018
Alimta	0.5	4.1	2.9	3.9	3.8	
Velcade	0.4	5.1	–0.5	–1.7	3.1	
Sandostatin LAR	0.4	5.3	8.4	4.1	6.1	
Xolair	0.4	6.1	7.6	0.8	6.1	
Soliris	0.4	2.5*	2.3	0.0	2.3*	2008
Gammagard	0.4	3.1*	1.9	–5.5	2.0*	2008
Gamunex-C / Gammaked	0.4	2.9*	–0.1	0.6	1.7*	2008
Consumer price index for urban consumers		2.1	1.9	2.5	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 2020, 18 out of 20 of the top Part B drugs have experienced price increases, with 14 of these products’ ASPs increasing faster than the consumer price index for urban consumers.

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## **Chart 10-4. Growth in ASP for the 20 highest expenditure Part B drugs, 2005–2020 (continued)**

- In the most recent year, price changes have been mixed. Among the top 20 Part B drugs, ASP increased for 10 products, decreased for 9 products, and was unchanged for 1 product between the first quarters of 2019 and 2020.
- Biosimilar competition may account for the decreases in ASP between 2019 and 2020 for some originator biologics, as Rituxan, Neulasta, Remicade, Avastin, and Herceptin all faced biosimilar entry during 2019 or earlier. For these five products, the recent price declines begin to reverse a long period of rising prices, with average price growth over the last 15 years ranging from 0.5 percent per year for Remicade to 5.2 percent per year for Rituxan.

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

	2016 Q1	2017 Q1	2018 Q1	2018 Q3	2019 Q1	2019 Q3	2020 Q1
<b>Neupogen and biosimilars</b>							
Neupogen's payment rate	\$1.01	\$1.00	\$1.00	\$1.02	\$1.00	\$0.98	\$0.96
Percent biosimilars' payment rates are below Neupogen's payment rate	4–24%	22–29%	31–39%	36–42%	25–42%	30–41%	34–45%
Biosimilar market share	25%	51%	63%	67%	70%	73%	N/A <sup>a</sup>
<b>Remicade and biosimilars</b>							
Remicade's payment rate	\$79.91	\$82.22	\$85.81	\$83.90	\$76.65	\$64.87	\$57.35
Percent biosimilars' payment rates are below Remicade's payment rate	N/A <sup>b</sup>	–22%	12%	17–23%	19–25%	16–21%	10–17%
Biosimilar market share	N/A <sup>b</sup>	0%	6%	9%	11%	14%	N/A <sup>a</sup>
<b>Neulasta and biosimilars</b>							
Neulasta's payment rate	\$3,828	\$4,117	\$4,442	\$4,721	\$4,682	\$4,528	\$4,252
Percent biosimilars' payment rates are below Neulasta's payment rate	N/A <sup>b</sup>	N/A <sup>b</sup>	N/A <sup>b</sup>	N/A <sup>c</sup>	8%	5–12%	5–12%
Biosimilar market share	N/A <sup>b</sup>	N/A <sup>b</sup>	N/A <sup>b</sup>	1%	8%	20%	N/A <sup>a</sup>
<b>Procrit/Epogen and biosimilars</b>							
Procrit/Epogen payment rate	\$12.33	\$12.32	\$12.13	\$13.09	\$11.95	\$11.46	\$10.56
Percent biosimilar's payment rate is below Procrit/Epogen's payment rate	N/A <sup>b</sup>	N/A <sup>b</sup>	N/A <sup>b</sup>	N/A <sup>b</sup>	5%	11%	12%
Biosimilar market share	N/A <sup>b</sup>	N/A <sup>b</sup>	N/A <sup>b</sup>	N/A <sup>b</sup>	6%	24%	N/A <sup>a</sup>

Note: Q1 (first quarter), Q3 (third quarter), N/A (not available). 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 based on the product being highly similar to the originator biologic. The biosimilars included in the analysis are Zarxio, Nivestym, and Granix for originator biologic Neupogen; Inflectra and Renflexis for originator biologic Remicade; Fulphila and Udenyca for originator Neulasta; and Retacrit for originator Procrit/Epogen. Although Granix is not a biosimilar in the U.S. (because it was approved under the standard Food and Drug Administration 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. For Remicade, the biosimilar's payment rate was 22 percent above the originator's payment rate in first quarter 2017.

<sup>a</sup>Claims data on utilization are not yet available for this quarter.

<sup>b</sup>Biosimilar product was not yet approved and/or launched.

<sup>c</sup>A published payment rate was unavailable for this product for this quarter.

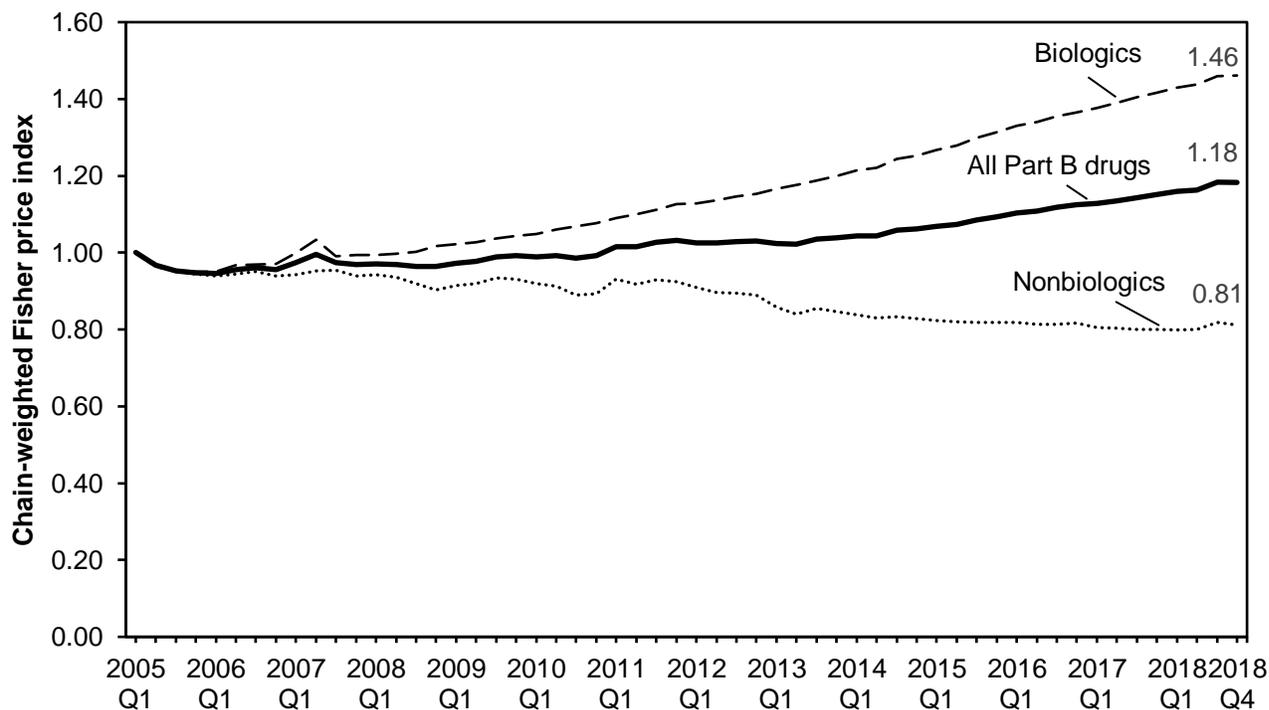
Source: MedPAC analysis of payment rates from CMS ASP pricing files. MedPAC and Acumen LLC analysis of Medicare claims data.

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

- An originator biologic is a product derived from a living organism. A biosimilar product is a follow-on product approved by the Food and Drug Administration based on the product being highly similar to the originator biologic.
- Under Part B, Medicare pays for an originator biologic at 106 percent of its own average sales price (ASP). For biosimilars, Medicare pays 100 percent of the biosimilar's ASP + 6 percent of the originator product's ASP.
- Medicare payment rates for biosimilars are lower than those of the corresponding originator biologics because biosimilars 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.
- For Neupogen, the originator biologic that has faced biosimilar competition for the longest period (since late 2015), the payment rates for biosimilar products are substantially less (34 percent to 45 percent less as of the first quarter of 2020) than for the originator. The originator Neupogen has reduced its price only modestly (5 percent) between 2016 and 2020. Biosimilars account for the majority of utilization: 73 percent market share as of the third quarter of 2019.
- For Remicade, the payment rates for biosimilar products are about 10 percent to 17 percent below the originator's payment rate as of the first quarter of 2020. After biosimilar entry in late 2016, the originator Remicade's price initially increased (4 percent between the first quarters of 2017 and 2018). Subsequently Remicade's price decreased substantially, falling 33 percent between the first quarters of 2018 and 2020. Remicade has continued to retain most of the market share, with biosimilars accounting for only 14 percent of utilization as of the third quarter of 2019.
- For Neulasta, which has faced biosimilar competition since mid-2018, biosimilars' payment rates are 5 percent to 12 percent below the originator's payment rate as of the first quarter of 2020. The originator Neulasta's price has decreased 10 percent between the third quarter of 2018 and the first quarter of 2020. Biosimilar utilization is growing, reaching a market share of 20 percent as of the third quarter of 2019.
- For Procrit/Epogen, which have faced biosimilar competition since late 2018, the payment rate of their biosimilar is 12 percent below the originator's payment rate as of the first quarter of 2020. The originator's payment rate has decreased 19 percent between the third quarter of 2018 and the first quarter of 2020. The biosimilar accounts for almost one-fourth of utilization as of the third quarter of 2019.
- Not shown in the chart, three additional originator products—Avastin, Herceptin, and Rituxan—faced biosimilar entry during the second half of 2019. The biosimilars' payment rates are 13 percent (Avastin), 14 percent (Herceptin), and 8 percent (Rituxan) below the originator's payment rate as of the first quarter of 2020 (data not shown). The originator products' ASPs have declined by roughly 1 percent between the first quarter of 2019 and 2020 (as shown in Chart 10-4).

**Chart 10-6. Price indexes for Medicare Part B drugs, 2005–2018**

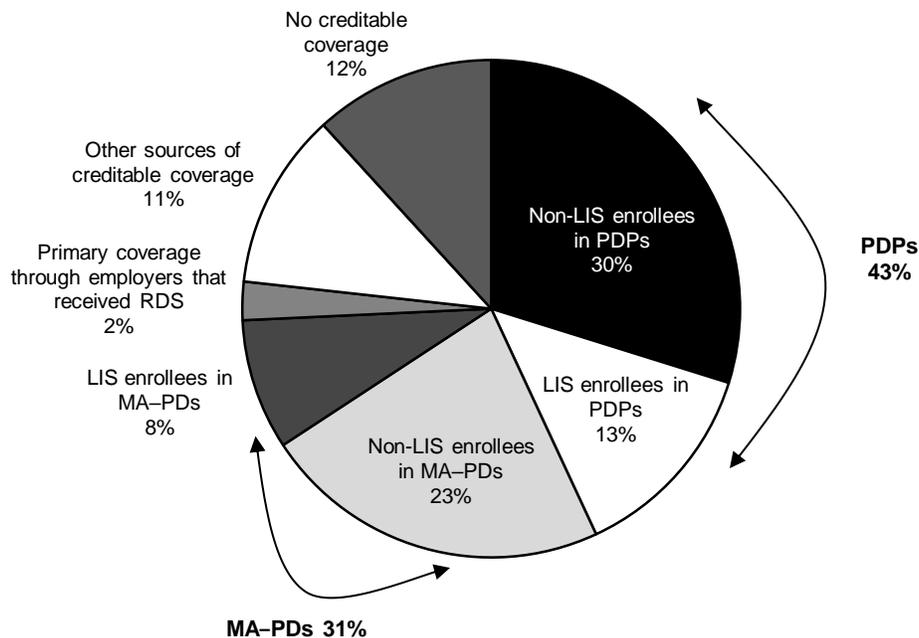


Note: Q1 (first quarter), Q4 (fourth quarter). The Part B price indexes reflect growth in the average sales price of Part B–covered drugs over time, measured for individual drugs at the level of the Healthcare Common Procedure Coding System billing code. These measures of price growth reflect growth 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 10-27 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 18 percent cumulatively between 2005 and 2018 (an index of 1.18).
- Underlying this overall trend in the price index are different patterns by type of product. The price index for Part B–covered biologics increased by 46 percent between 2005 and 2018 (an index of 1.46). In contrast, the price index for nonbiologics declined by 19 percent (an index of 0.81) over this period. 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. In 2018, 88 percent of Medicare beneficiaries were enrolled in Part D plans or had 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. Components may not total to 100 due to rounding.

Source: MedPAC analysis of the Medicare denominator file 2018.

- In 2018, 88 percent of Medicare beneficiaries were enrolled in Part D plans, got prescription drug coverage through employer-sponsored plans that received Medicare’s RDS, or had other sources of drug coverage that were equal to or greater than the average value of Part D’s defined standard benefit (called “creditable coverage”). Twelve percent of Medicare beneficiaries had no drug coverage or coverage that was less generous.
- That same year, nearly three-quarters of Medicare beneficiaries received prescription drug benefits through Part D plans: 43 percent in stand-alone PDPs and 31 percent in MA-PDs.
- Nearly 22 percent of Medicare beneficiaries received Part D’s LIS in 2018. Of all LIS beneficiaries, about three-fifths of them (13 percent of all Medicare beneficiaries) were enrolled in stand-alone PDPs, and the remaining beneficiaries (8 percent) were in MA-PDs.
- Other enrollees in stand-alone PDPs accounted for 30 percent of all Medicare beneficiaries. Another 23 percent of Medicare beneficiaries were enrolled in MA-PDs and did not receive low-income subsidies.

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## **Chart 10-7. In 2018, 88 percent of Medicare beneficiaries were enrolled in Part D plans or had other sources of creditable drug coverage (continued)**

- Employer and union health plans continue to be important sources of drug coverage for Medicare beneficiaries. In 2018, 12 percent of Medicare beneficiaries were 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, 2 percent of Medicare beneficiaries were in plans offered by employers that received 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, in 2018, 11 percent of Medicare beneficiaries had creditable drug coverage from sources other than Part D, much (but not all) of which was related to past employment, for example, through the Federal Employees Health Benefits Program, TRICARE, and employers that did not sponsor an EGWP or receive the RDS.

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

	2006	2018	2019	2020	Cumulative change 2006–2020
Deductible	\$250.00	\$405.00	\$415.00	\$435.00	74%
Initial coverage limit	2,250.00	3,750.00	3,820.00	4,020.00	79%
Annual out-of-pocket threshold	3,600.00	5,000.00	5,100.00	6,350.00	76%
Total covered drug spending at annual out-of-pocket threshold	5,100.00	8,417.60	8,139.54	9,719.38	91%
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	3.35	3.40	3.60	80%
Copay for other prescription drugs	5.00	8.35	8.50	8.95	79%

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, enrollees pay reduced cost sharing in the coverage gap. 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 not receiving Part D's low-income subsidy who have no source of supplemental coverage. Cost sharing paid by most sources of supplemental coverage does not count toward this threshold. The amount for 2019 is lower than that for 2018 because of a change in law that causes 95 percent of an enrollee's spending for brand-name drugs in Part D's coverage-gap phase to count toward the OOP threshold, compared with 85 percent in 2018. 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 2020, the standard benefit has a \$435 deductible, 25 percent coinsurance on covered drugs until the enrollee reaches \$4,020 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 2020, a person who does not receive Part D's low-income subsidy and has no supplemental coverage would, on average, reach the threshold at \$9,719.38 in total drug spending.) Before 2011, enrollees were responsible for paying the full discounted price of drugs filled during the coverage gap. Because of changes made by the Affordable Care Act of 2010, enrollees pay reduced cost sharing for drugs filled in the coverage gap. In 2020, 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 \$3.60 to \$8.95 or 5 percent coinsurance per prescription.

*(Chart continued next page)*

## 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 74 percent to 79 percent between 2006 and 2020. The out-of-pocket threshold for 2020 is 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 out-of-pocket 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 are 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 a plan 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

	2019				2020			
	Plans		Enrollees as of February 2019		Plans		Enrollees as of February 2020	
	Number	Percent	Number (in millions)	Percent	Number	Percent	Number (in millions)	Percent
Total	901	100%	20.8	100%	948	100%	20.5	100%
<b>Type of organization</b>								
National	746	83	19.4	93	716	76	18.8	92
Other	155	17	1.4	7	232	24	1.7	8
<b>Type of benefit</b>								
Defined standard	0	0	0.0	0	0	0	0.0	0
Actuarially equivalent	348	39	12.1	58	382	40	11.3	55
Enhanced	553	61	8.7	42	566	60	9.2	45
<b>Type of deductible</b>								
Zero	263	29	8.1	39	133	14	3.0	15
Reduced	170	19	3.3	16	161	17	5.0	25
Defined standard*	468	52	9.4	45	654	69	12.4	61
<b>Some formulary tiers not subject to a deductible</b>								
Some	414	46	8.2	39	504	53	11.5	56
None	487	54	12.6	61	444	47	9.0	44

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 \$415 in 2019 and is \$435 in 2020.

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

- Plan sponsors are offering 948 stand-alone PDPs in 2020 compared with 901 in 2019—an increase of more than 5 percent. Total enrollment in PDPs declined by 1.5 percent to 20.5 million beneficiaries in 2020 from 20.8 million in 2019.
- In 2020, 76 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 92 percent of all PDP enrollment.
- For 2020, 60 percent of PDP offerings include enhanced benefits (basic plus supplemental coverage), nearly the same percentage as in 2019. In 2020, the share of PDPs with actuarially equivalent benefits (having the same average value as the defined standard benefit but with alternative benefit designs) also remained fairly stable at 40 percent. Actuarially equivalent plans continue to attract the largest share of PDP enrollees (55 percent), but the share of enrollees choosing enhanced benefit plans rose slightly to 45 percent in 2020 compared with 42 percent in 2019.
- In 2020, 69 percent of PDPs use the same \$435 deductible as in Part D's defined standard benefit, up significantly from 52 percent in 2019. Only 15 percent of PDP enrollees are in plans with no deductible. Also in 2020, 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 2020, 56 percent of PDP enrollees were in such plans, up from 39 percent in 2019.

## Chart 10-10. Characteristics of MA–PDs

	2019				2020			
	Plans		Enrollees as of February 2019		Plans		Enrollees as of February 2020	
	Number	Percent	Number (in millions)	Percent	Number	Percent	Number (in millions)	Percent
Totals	2,414	100%	13.8	100%	2,799	100%	15.3	100%
<b>Type of organization</b>								
Local HMO	1,601	66	9.7	70	1,848	66	10.6	69
Local PPO	751	31	3.3	24	891	32	4.0	26
PFFS	29	1	0.1	1	26	1	0.1	0
Regional PPO	33	1	0.8	6	34	1	0.7	4
<b>Type of benefit</b>								
Defined standard	37	2	0.1	<0.5	43	2	0.1	<0.5
Actuarially equivalent	83	3	0.2	2	81	3	0.2	2
Enhanced	2,294	95	13.5	98	2,675	96	15.0	98
<b>Type of deductible</b>								
Zero	1,116	46	6.4	46	1,349	48	7.4	49
Reduced	1,138	47	7.0	50	1,244	44	7.3	48
Defined standard*	160	7	0.5	3	206	7	0.5	4
<b>Some formulary tiers not subject to a deductible</b>								
Some	1,225	51	7.2	52	1,386	50	7.7	50
None	1,189	49	6.6	48	1,413	50	7.6	50

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 \$415 in 2019 and is \$435 in 2020.

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

- There are nearly 16 percent more MA–PDs in 2020 than in 2019. Sponsors are offering 2,799 MA–PDs in 2020 compared with 2,414 the year before. Enrollment in MA–PDs grew from 13.8 million in 2019 to 15.3 million in 2020 (10.6 percent).
- Between 2019 and 2020, the number of drug plans offered by HMOs grew from 1,601 to 1,848 and remain the dominant type of MA–PD, making up 66 percent of all offerings. Over the same period, the number of drug plans offered by local PPOs also increased from 751 plans to 891 plans.
- A larger share of MA–PDs than stand-alone prescription drug plans (PDPs) offer enhanced benefits (compare Chart 10-10 with Chart 10-9). In 2020, 60 percent of all PDPs have enhanced benefits compared with 96 percent of MA–PDs. In 2020, enhanced MA–PDs attracted 98 percent of total MA–PD enrollment.
- Forty-eight percent of MA–PDs have no deductible in 2020, and those plans attracted 49 percent of all MA–PD enrollees.
- In 2020, 50 percent of MA–PDs designated certain cost-sharing tiers of their formularies that are not subject to a deductible. Those plans account for 50 percent of MA–PD enrollment.

## Chart 10-11. Change in average Part D premiums, 2016–2020

	Average monthly premium weighted by enrollment					Cumulative change in weighted average premium, 2016–2020
	2016	2017	2018	2019	2020	
<b>All plans</b>	<b>\$31</b>	<b>\$32</b>	<b>\$32</b>	<b>\$29</b>	<b>\$27</b>	<b>–12%</b>
Basic plans	28	30	30	32	30	7
Enhanced plans						
Basic benefits	27	27	26	22	20	–26
Supplemental benefits	<u>7</u>	<u>6</u>	<u>7</u>	<u>6</u>	<u>6</u>	–5
Total premium	33	33	33	28	26	–22
All basic coverage	27	29	28	25	23	–15
<b>PDPs</b>	<b>39</b>	<b>41</b>	<b>41</b>	<b>40</b>	<b>38</b>	<b>–2</b>
Basic coverage	29	31	31	32	30	4
Enhanced coverage						
Basic benefits	41	43	42	35	33	–20
Supplemental benefits	<u>12</u>	<u>11</u>	<u>15</u>	<u>15</u>	<u>15</u>	25
Total premium	53	54	57	50	48	–10
All basic coverage	34	36	35	33	31	–8
<b>MA–PDs, including SNPs</b>	<b>18</b>	<b>19</b>	<b>18</b>	<b>16</b>	<b>15</b>	<b>–17</b>
Basic coverage	22	26	28	28	26	19
Enhanced coverage						
Basic benefits	15	16	15	13	12	–18
Supplemental benefits	<u>2</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>1</u>	–43
Total premium	17	18	17	14	13	–21
All basic coverage	16	18	17	15	14	–16
MA–PD buy-down of basic premium	15	16	16	16	15	1
MA–PD buy-down of supplemental benefits	14	15	16	17	20	43
Base beneficiary premium	34.10	35.63	35.02	33.19	32.74	–4

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, 2016–2020 (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\\_19\\_partd\\_final\\_sec.pdf?sfvrsn=0](http://www.medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_19_partd_final_sec.pdf?sfvrsn=0).)
- The overall average premium paid by enrollees for any type of Part D coverage declined from \$29 per month in 2019 to \$27 per month in 2020. Over the period from 2016 to 2020, 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 \$27 in 2016 to \$23 per month in 2020, a cumulative decline of 15 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 2020 report to the Congress at [http://medpac.gov/docs/default-source/reports/mar20\\_medpac\\_ch14\\_sec.pdf?sfvrsn=0](http://medpac.gov/docs/default-source/reports/mar20_medpac_ch14_sec.pdf?sfvrsn=0).)
- Over the five-year period, the average enrollee premium for basic coverage in PDPs ranged between a low of \$29 in 2016 and a high of \$32 per month in 2019. Between 2016 and 2020, the average premium increased by a cumulative 4 percent. Among enhanced plans offered by PDPs, the average enrollee premium has ranged from \$48 in 2020 to \$57 in 2018. Over the five-year period, the average premium decreased by a cumulative 10 percent. Of the \$48 average premium in 2020 among enhanced PDPs, \$33 was for basic benefits and \$15 was for supplemental benefits. The portion of enhanced premiums attributable to supplemental benefits has grown quickly, 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 \$22 in 2016 and a high of \$28 per month in 2018 and 2019. From 2016 to 2020, the average premium increased by a cumulative 19 percent. The average premium paid by beneficiaries enrolled in MA–PDs offering enhanced coverage has decreased from \$17 in 2016 to \$13 in 2020, a cumulative 21 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 2020, MA–PD enrollees avoided having to pay \$15 per month in basic premiums and an additional \$20 per month for supplemental coverage, on average.

## Chart 10-12. More premium-free PDPs for LIS enrollees in 2020

PDP region	State(s)	Number of PDPs			Number of PDPs that have zero premium for LIS enrollees		
		2019*	2020*	Difference	2019*	2020	Difference
1	ME, NH	26	26	0	7	6	-1
2	CT, MA, RI, VT	26	25	-1	7	7	0
3	NY	23	27	4	8	9	1
4	NJ	26	28	2	6	8	2
5	DC, DE, MD	25	27	2	9	10	1
6	PA, WV	30	31	1	9	10	1
7	VA	27	29	2	6	7	1
8	NC	28	28	0	7	9	2
9	SC	26	28	2	3	5	2
10	GA	26	28	2	4	6	2
11	FL	27	27	0	2	4	2
12	AL, TN	29	30	1	6	7	1
13	MI	29	30	1	9	9	0
14	OH	26	28	2	7	2	-5
15	IN, KY	26	28	2	7	7	0
16	WI	28	30	2	8	9	1
17	IL	27	28	1	7	8	1
18	MO	26	28	2	4	5	1
19	AR	26	27	1	4	6	2
20	MS	24	25	1	5	7	2
21	LA	26	26	0	8	9	1
22	TX	27	30	3	5	5	0
23	OK	28	29	1	7	8	1
24	KS	26	28	2	4	6	2
25	IA, MN, MT, ND, NE, SD, WY	28	29	1	6	8	2
26	NM	27	26	-1	7	7	0
27	CO	26	26	0	7	7	0
28	AZ	28	31	3	10	12	2
29	NV	26	28	2	3	5	2
30	OR, WA	26	28	2	7	8	1
31	ID, UT	26	28	2	8	8	0
32	CA	30	32	2	7	8	1
33	HI	24	25	1	4	5	1
34	AK	22	24	2	7	7	0
	Total	901	948	47	215	244	29

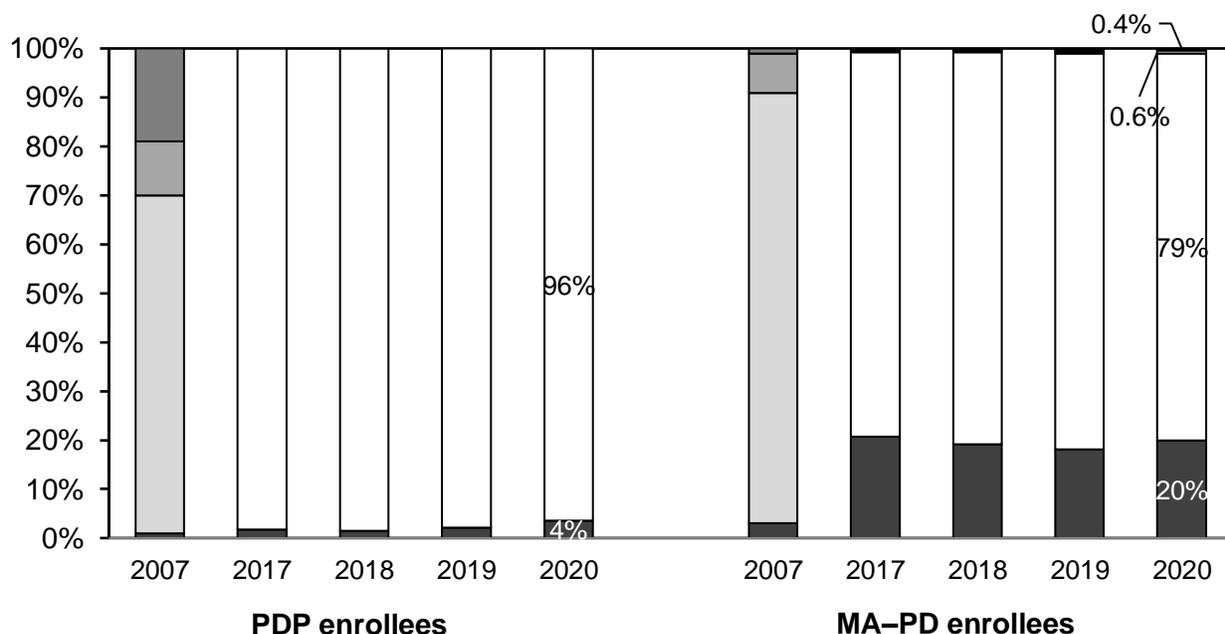
Note: LIS (low-income [drug] subsidy), PDP (prescription drug plan).

\*These figures include two plans in 2019 that did not accept new enrollees because of CMS sanctions.

Source: MedPAC based on 2019 and 2020 Part D plan report file provided by CMS.

- The total number of stand-alone PDPs increased by 5 percent, from 901 in 2019 to 948 in 2020. The median number of plans offered in PDP regions increased to 28 plans from 26 in 2019 (data not shown). In 2020, Alaska has the fewest stand-alone PDPs, with 24, and Region 32 (California) had the most, with 32.
- In 2020, 244 PDPs qualify as premium free to LIS enrollees. With the exception of Ohio, which has only two plans with no premium for LIS enrollees, at least four premium-free PDPs are available in any given region.

**Chart 10-13. In 2020, most Part D enrollees are in plans that use a five-tier formulary structure**



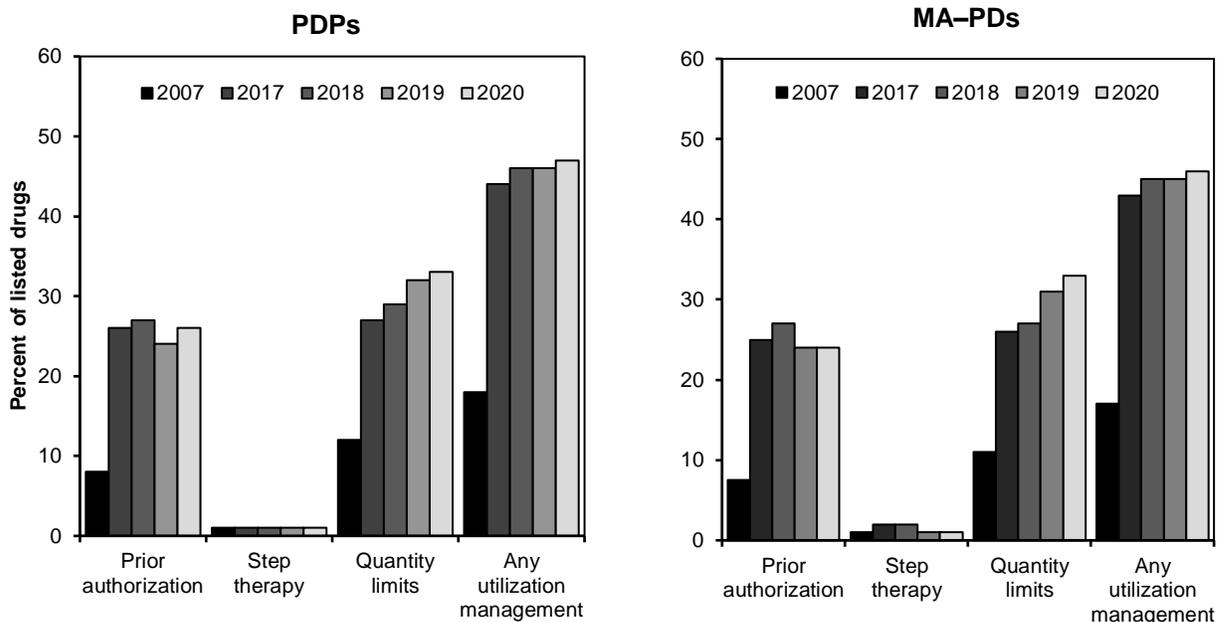
- 25% coinsurance
- Three tiers: Generic, brand, and specialty
- Four tiers: Generic, preferred brand, nonpreferred, and specialty
- Five tiers: Preferred generic, other generic, preferred brand, nonpreferred, and specialty
- Other tier structure

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. Components may not sum to totals due to rounding. All stand-alone PDP enrollees and about 98 percent of MA-PD enrollees have a specialty tier in addition to the tiers listed above.

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 2020, nearly all PDP enrollees continue to enroll in plans with this five-tier structure. Seventy-nine percent of MA-PD enrollees are in such plans in 2020, a slight decrease from 81 percent in 2019.
- For enrollees in PDPs with a five-tier structure, the median copay in 2020 is \$43 for a preferred brand-name drug and 38 percent coinsurance for a nonpreferred drug (data not shown). The median copay for a generic drug is \$0 for drugs on a lower tier and \$4 for those on a higher tier. For MA-PD enrollees, in 2020, the median copay is \$47 for a preferred brand and \$100 for a nonpreferred brand. The median copays for generic drugs are \$2 and \$10 for the two generic tiers, respectively.
- All stand-alone PDPs and about 98 percent of MA-PDs use a specialty tier for drugs that have a negotiated price of \$670 per month or more. In 2020, median cost sharing for a specialty-tier drug is 25 percent among PDPs and 31 percent among MA-PDs (data not shown).

**Chart 10-14. In 2020, the share of listed drugs subject to some utilization management increased slightly**



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.

Source: MedPAC analysis of formularies submitted to CMS.

- 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 2020, the use of some form of utilization management, on average, increased slightly to 47 percent of drugs listed on a plan’s formulary in stand-alone PDPs and 46 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 2020 increased to just over a quarter for stand-alone PDPs while the share for MA-PDs remained the same at 24 percent. The share with quantity limits increased for both types of plans. In 2020, on average, quantity limits apply to 33 percent of drugs listed on formularies of both stand-alone PDPs and MA-PDs. The share of drugs listed on plan formularies that requires the use of step therapy remained very low for both stand-alone PDPs and MA-PDs.

## Chart 10-15. Characteristics of Part D enrollees, 2018

	All Medicare	Part D	Plan type		Subsidy status	
			PDP	MA–PD	LIS	Non-LIS
Beneficiaries* (in millions)	62.8	46.8	27.2	19.5	14.0	32.8
Percent of all Medicare	100%	74%	43%	31%	22%	52%
<b>Gender</b>						
Male	46%	43%	43%	43%	41%	44%
Female	54	57	57	57	59	56
<b>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
<b>Age (years)**</b>						
<65	17	17	18	16	40	7
65–69	27	25	25	25	18	27
70–74	21	22	21	23	13	25
75–79	15	16	15	16	10	18
80+	20	21	22	20	18	22

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.

\*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 2018.

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

- In 2018, nearly 47 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 19.5 million were in MA–PDs. Fourteen 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 less likely to be disabled beneficiaries under age 65 and 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 10-16. Part D enrollment trends, 2007–2018

	2007	2010	2014	2018	Average annual growth rate		
					2007–2010	2010–2014	2014–2018
<b>Part D enrollment (in millions)*</b>							
Total	26.1	29.7	40.0	46.8	4.4%	7.7%	4.0%
Employer group waiver plans	2.0	2.6	7.0	7.3	9.2	27.4	0.8
By plan type							
PDP	18.3	18.9	25.1	27.2	1.1	7.3	2.1
MA–PD	7.8	10.6	14.9	19.5	10.9	8.9	6.9
By subsidy status							
LIS	10.4	11.3	12.8	14.0	2.7	3.1	2.2
Non-LIS	15.7	18.4	27.2	32.8	5.5	10.2	4.8
By race/ethnicity							
White, non-Hispanic	19.4	22.0	29.6	34.1	4.3	7.7	3.6
African American, non-Hispanic	2.9	3.3	4.4	5.1	4.1	7.4	3.6
Hispanic	2.5	3.0	3.9	4.7	5.8	6.7	4.8
Other	1.3	1.4	2.1	2.9	3.9	10.3	8.8
By age (years)**							
<65	5.5	6.3	7.8	8.0	4.7	5.5	0.8
65–69	5.4	6.6	9.5	11.6	6.5	9.9	4.9
70–79	8.8	9.9	13.9	17.4	3.8	8.9	5.8
80+	6.4	7.1	8.8	9.8	3.2	5.7	2.7
<b>Part D enrollment (in percent)</b>							
Total	100%	100%	100%	100%			
Employer group waiver plans	8	9	17	16			
By plan type							
PDP	70	64	63	58			
MA–PD	30	36	37	42			
By subsidy status							
LIS	40	38	32	30			
Non-LIS	60	62	68	70			
By race/ethnicity							
White, non-Hispanic	74	74	74	73			
African American, non-Hispanic	11	11	11	11			
Hispanic	10	10	10	10			
Other	5	5	5	6			
By age (years)**							
<65	21	21	19	17			
65–69	21	22	24	25			
70–79	34	33	35	37			
80+	25	24	22	21			

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.

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

*(Chart continued next page)*

## Chart 10-16. Part D enrollment trends, 2007–2018 (continued)

- 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 2018 (AAGR of 4.0 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.
- The number of enrollees receiving the LIS grew modestly between 2007 and 2018, with an AAGR of between 2.2 percent (from 2014 to 2018) 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 4.8 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 2018, the largest growth in enrollment was observed for beneficiaries ages 70 to 79 (5.8 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 2018 (AAGR of 6.9 percent and 2.1 percent, respectively).

## Chart 10-17. Part D enrollment by region, 2018

PDP region	State(s)	Share of Medicare enrollment			Share of Part D enrollment*			
		Part D*	RDS	EGWP	Plan type		Subsidy status	
					PDP	MA-PD	LIS	Non-LIS
1	ME, NH	71%	3%	9%	71%	29%	32%	68%
2	CT, MA, RI, VT	78	2	15	66	34	34	66
3	NY	79	4	18	53	47	37	63
4	NJ	75	3	18	78	22	24	76
5	DE, DC, MD	65	3	15	84	16	31	69
6	PA, WV	77	3	14	56	44	28	72
7	VA	65	2	9	74	26	28	72
8	NC	75	2	12	57	43	30	70
9	SC	73	2	13	65	35	29	71
10	GA	74	2	12	52	48	34	66
11	FL	77	3	7	45	55	29	71
12	AL, TN	75	2	9	51	49	34	66
13	MI	80	3	26	70	30	25	75
14	OH	79	3	13	59	41	26	74
15	IN, KY	77	2	12	68	32	30	70
16	WI	73	2	9	56	44	24	76
17	IL	74	4	12	70	30	28	72
18	MO	76	2	9	60	40	26	74
19	AR	71	3	3	70	30	37	63
20	MS	73	1	3	76	24	44	56
21	LA	76	4	9	56	44	40	60
22	TX	73	2	11	58	42	32	68
23	OK	67	1	9	76	24	31	69
24	KS	72	1	4	80	20	23	77
25	IA, MN, MT, NE, ND, SD, WY	75	2	6	73	27	22	78
26	NM	73	2	13	55	45	39	61
27	CO	74	2	10	54	46	24	76
28	AZ	75	2	8	50	50	27	73
29	NV	70	2	6	50	50	26	74
30	OR, WA	69	5	7	51	49	27	73
31	ID, UT	71	2	7	54	46	22	78
32	CA	80	2	13	48	52	35	65
33	HI	71	2	25	38	62	26	74
34	AK	42	26	3	98	2	52	48
	Mean	74	2	12	58	42	30	70
	Minimum	42	1	3	38	2	22	48
	Maximum	80	26	26	98	62	52	78

Note: PDP (prescription drug plan), RDS (retiree drug subsidy), 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. If an employer agrees to provide primary drug coverage to its retirees with a benefit value that is equal to or greater than that of Part D, Medicare provides the employer with an RDS (see Chart 10-7).  
\*Includes enrollment in Part D plans operated for employees and their retirees (EGWPs).

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

- Among Part D regions in 2018, all but one region (Region 34 (Alaska, or AK)) had 65 percent or more of all Medicare beneficiaries enrolled in Part D. (Beneficiaries in Alaska are less likely to enroll in Part D because alternative employer-sponsored drug coverage is 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 some other 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, which does not receive the RDS.

(Chart continued next page)

## Chart 10-17. Part D enrollment by region, 2018 (continued)

- In 2018, all regions except Region 26 and Region 34 experienced a decrease in the number of beneficiaries who received the RDS (data not shown). Since 2010, many employers have switched from operating RDS-eligible employer plans to sponsoring Part D plans for their retirees (EGWPs). In 2018, 12 percent of Medicare beneficiaries were enrolled in EGWPs compared with 2 percent who were in employer plans that received the RDS (see Chart 10-7 for information on the RDS).
- The share of Medicare beneficiaries in EGWPs varied from 3 percent in Region 34 (AK) to about a quarter in Region 13 (MI) and Region 33 (HI).
- 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 22 percent in Region 25 (IA, MN, MT, NE, ND, SD, and WY) and Region 31 (ID and UT) to 52 percent in Region 34 (AK). In all but 2 of the 34 PDP regions, LIS enrollees accounted for 40 percent or less of total Part D enrollment.

## Chart 10-18. Components of Part D spending growth

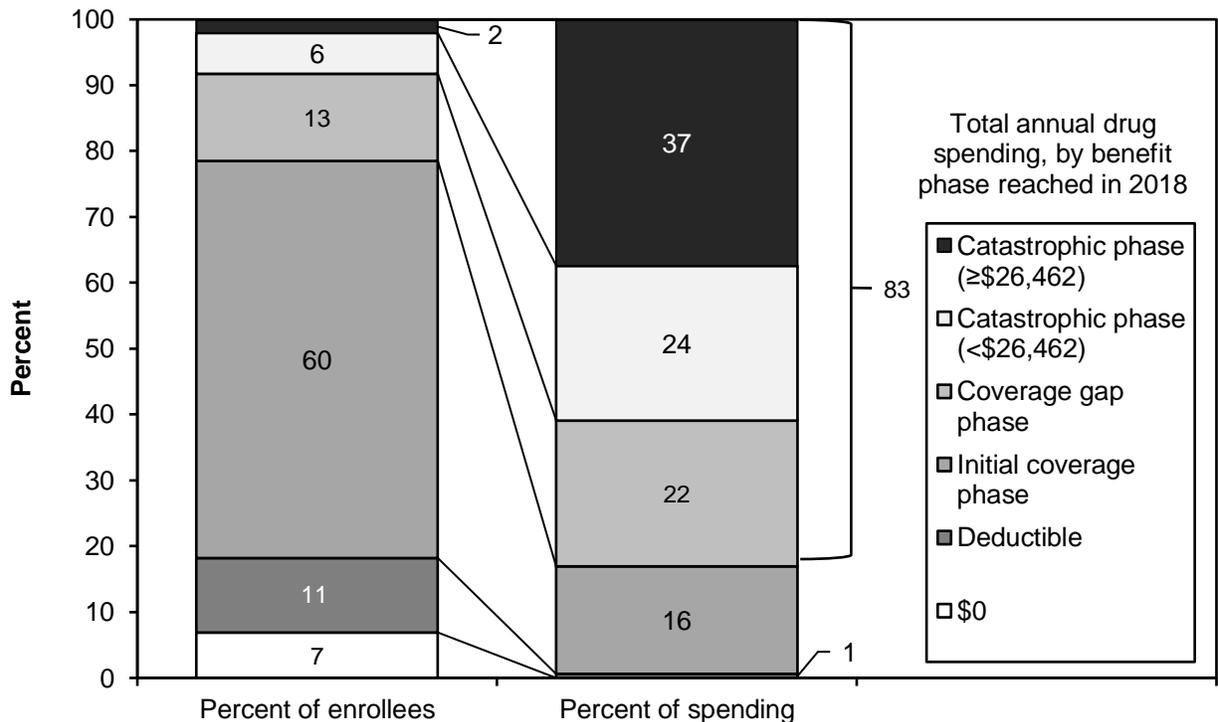
	2009	2018	Average annual growth 2009–2018
<b>Total gross spending (in billions)</b>	<b>\$73.7</b>	<b>\$168.1</b>	<b>9.6%</b>
High-cost beneficiaries	29.2	102.2	14.9%
Lower cost beneficiaries	44.6	65.9	4.4%
<b>Number of beneficiaries using a Part D drug (in millions)</b>	<b>26.5</b>	<b>43.5</b>	<b>5.7%</b>
High-cost beneficiaries	2.4	3.9	5.5%
Lower cost beneficiaries	24.1	39.7	5.7%
<b>Amount per beneficiary who used Part D drugs</b>			
Gross drug spending per year	\$2,781	\$3,861	3.7%
Average price per 30-day prescription	\$55	\$69	2.5%
Number of 30-day prescriptions	50.4	55.9	1.1%
<b>Amount per high-cost beneficiary who used Part D drugs</b>			
Gross drug spending per year	\$12,294	\$26,482	8.9%
Average price per 30-day prescription	\$110	\$247	9.3%
Number of 30-day prescriptions	111.4	107.4	–0.4%
<b>Amount per lower cost beneficiary who used Part D drugs</b>			
Gross drug spending per year	\$1,846	\$1,662	–1.2%
Average price per 30-day prescription	\$42	\$33	–2.6%
Number of 30-day prescriptions	44.5	50.9	1.5%

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 2018, gross spending on drugs under the Part D program grew by an annual average rate of 9.6 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 4.4 percent for lower cost beneficiaries.
- During the 2009 through 2018 period, the number of beneficiaries who used Part D drugs grew by an annual average rate of 5.7 percent. Similar rates of growth were observed among high-cost beneficiaries and lower cost beneficiaries.
- The average price per 30-day prescription covered under Part D rose from \$55 in 2009 to \$69 in 2018. Overall, growth in price per prescription accounted for nearly two-thirds (2.5 percentage points) of the 3.7 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 (9.3 percent) accounted for all of the spending growth (8.9 percent) during this period. In contrast, among lower cost beneficiaries, the average annual decrease in prices (–2.6 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 10-19. The majority of Part D spending was incurred by just over one-fifth of all Part D enrollees, 2018**



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 2018, the defined standard basic benefit included a \$405 deductible and 25 percent coinsurance until the enrollee reached \$3,750 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 \$8,418 in total drug spending. In 2018, among those who reached the catastrophic phase of the benefit, an enrollee at the 75th percentile of the distribution had drug spending totaling \$26,462. 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 2018, about 21 percent of Part D enrollees had annual spending exceeding the initial coverage limit (typically set at \$3,750 in gross drug spending), at which point enrollees were responsible for a higher proportion of the cost of the drugs until they reached the catastrophic phase of the benefit (at about \$8,418 in gross drug spending under the defined standard benefit for beneficiaries not receiving Part D's low-income subsidy (LIS)). These beneficiaries accounted for 83 percent of total Part D spending.
- The costliest 8 percent of beneficiaries, those with drug spending above the catastrophic threshold, accounted for about 61 percent of total Part D spending. Seventy percent of beneficiaries with the highest spending received the LIS (data not shown; see Chart 10-20). Spending on prescription drugs has become more concentrated over time. Before 2011, the costliest 8 percent of beneficiaries accounted for 40 percent or less of total Part D spending (data not shown). In comparison, for Medicare Part A and Part B spending, Medicare fee-for-service spending accounted for by the costliest 5 percent of beneficiaries has been stable at about 40 percent for many years (data not shown; see Chart 1-11 for 2017 figures).
- In 2018, among Part D enrollees who reached the catastrophic phase of the benefit, those enrollees with annual spending at or above \$26,462 (2 percent of all Part D enrollees) accounted for 37 percent of total Part D spending.

**Chart 10-20. Characteristics of Part D enrollees, by benefit phase reached, 2018**

	Annual drug spending		
	Below initial coverage limit	Coverage-gap phase	Catastrophic phase
<b>Sex</b>			
Male	43%	43%	43%
Female	57	57	57
<b>Race/ethnicity</b>			
White, non-Hispanic	73	75	66
African American, non-Hispanic	10	10	15
Hispanic	10	9	12
Other	6	5	7
<b>Age (years)</b>			
<65	15	16	37
65–69	26	20	19
70–74	22	21	17
75–80	16	18	12
80+	21	26	15
<b>LIS status*</b>			
LIS	25	32	70
Non-LIS	75	68	30
<b>Plan type**</b>			
PDP	57	62	65
MA–PD	43	38	35

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 2018, the defined standard basic benefit included a \$405 deductible and 25 percent coinsurance until the enrollee reached \$3,750 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 \$8,418 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 Part D denominator file from CMS.

- In 2018, Part D enrollees who reached the catastrophic phase of the benefit were more likely to be minority, 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 70 percent in 2018. 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 (65 percent) compared with enrollees whose spending was below the initial coverage limit (57 percent) or enrollees in the coverage gap who did not reach the catastrophic threshold (62 percent). Some of this difference likely reflects the facts that LIS enrollees are more costly on average and are more likely to be in PDPs.

## Chart 10-21. Part D spending and use per enrollee, 2018

	Part D	Plan type		LIS status	
		PDP	MA-PD	LIS	Non-LIS
Total gross spending (billions)*	\$168.1	\$106.2	\$61.9	\$81.8	\$86.3
Total number of prescriptions (millions)	2,433	1,428	1,005	877	1,556
Average spending per prescription	\$69	\$74	\$62	\$93	\$55
<b>Per enrollee per month</b>					
Total spending	\$317	\$346	\$276	\$529	\$229
OOP spending	33	36	28	6	44
Manufacturer gap discount	13	15	10	N/A	18
Plan liability	209	226	186	363	146
Low-income cost-sharing subsidy	47	51	40	160	N/A
Other**	15	18	11	<1	21
Number of prescriptions	4.6	4.7	4.5	5.7	4.1

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.

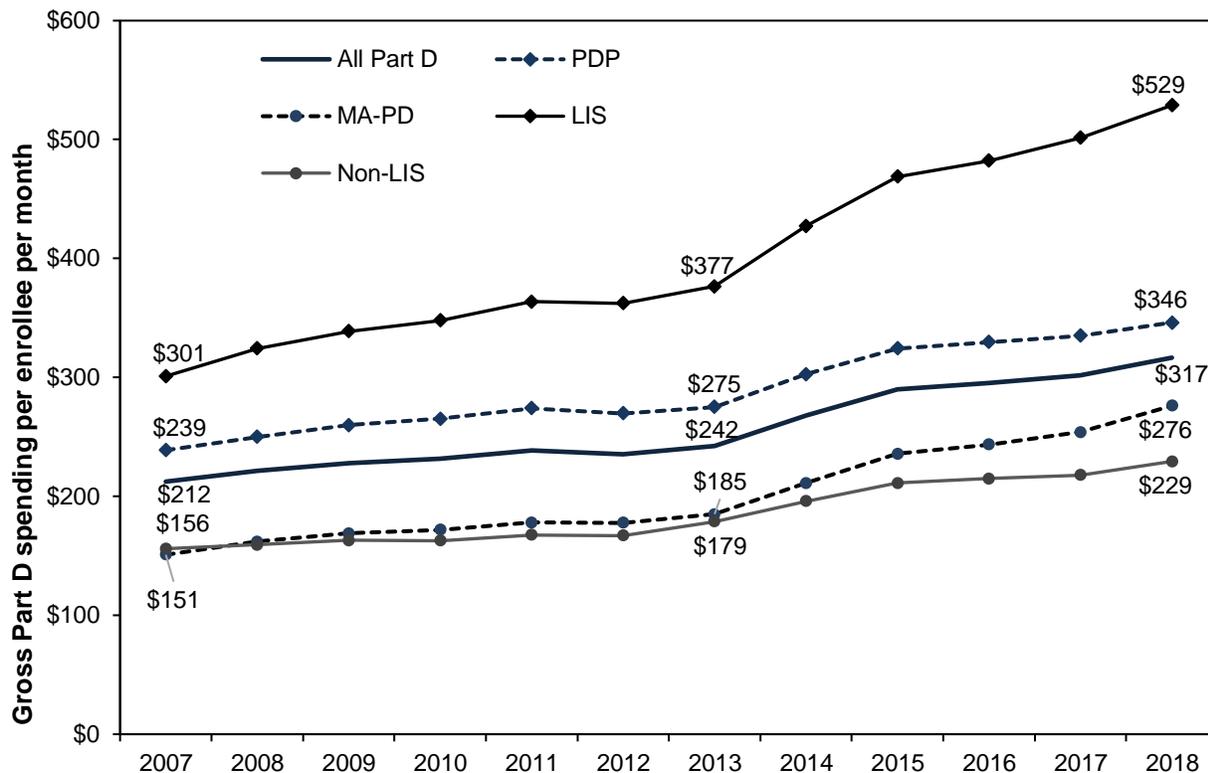
\*\*"Total gross spending" includes nearly \$6.9 billion in manufacturer discounts for brand-name drugs filled by non-LIS enrollees during the coverage gap.

\*\*\*"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 2018, gross spending on drugs for the Part D program totaled \$168.1 billion, with more than 60 percent (\$106.2 billion) accounted for by Medicare beneficiaries enrolled in stand-alone PDPs. Part D enrollees receiving the LIS accounted for nearly half (\$81.8 billion) of the total. Manufacturer discounts for brand-name drugs filled by non-LIS enrollees while they were in the coverage gap accounted for 4.1 percent of the total, or 8 percent of the gross spending by non-LIS enrollees (up from 3.8 percent and 7.5 percent, respectively, in 2017) (data not shown).
- The number of prescriptions filled by Part D enrollees totaled over 2.4 billion, with nearly 60 percent (about 1.4 billion) accounted for by PDP enrollees. The 30 percent of enrollees who received the LIS accounted for about 36 percent (877 million) of the total number of prescriptions filled.
- In 2018, Part D enrollees filled 4.6 prescriptions at \$317 per month on average, an increase from \$302 per month (for 4.5 prescriptions) in 2017 (2017 data not shown). The average monthly plan liability for PDP enrollees (\$226) was considerably higher than that of MA-PD enrollees (\$186), while the difference in average monthly OOP spending was smaller for MA-PD enrollees than PDP enrollees (\$36 vs. \$28, respectively). The average monthly low-income cost-sharing subsidy was higher for PDP enrollees (\$51) compared with MA-PD enrollees (\$40).
- Average monthly spending per LIS enrollee (\$529) was more than double that of a non-LIS enrollee (\$229), and the average number of prescriptions filled per month by an LIS enrollee was 5.7 compared with 4.1 for a non-LIS enrollee. LIS enrollees had much lower monthly OOP spending, on average, than non-LIS enrollees (\$6 vs. \$44, respectively). Part D's LIS pays for most of the cost sharing for LIS enrollees, averaging \$160 per month in 2018.

**Chart 10-22. Trends in Part D spending and use per enrollee per month, 2007–2018**



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 2018, average per capita spending per month for Part D–covered drugs grew from \$212 to \$317, an average growth of 3.7 percent annually, or about 49 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 subsequent years.
- Between 2007 and 2018, monthly per capita spending for LIS enrollees grew faster than that for non-LIS enrollees, increasing from \$301 to \$529 (a cumulative growth of nearly 76 percent) compared with an increase from \$156 to \$229 for non-LIS enrollees (a cumulative growth of 47 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 2018 period (annual average growth of 5.6 percent and 3.4 percent, respectively). However, the average per capita spending for MA–PD enrollees continued to be lower than that of PDP enrollees (by about \$70 per month in 2018).

**Chart 10-23. Top 15 therapeutic classes of drugs covered under Part D, by spending and volume, 2018**

Top 15 therapeutic classes by spending			Top 15 therapeutic classes by volume		
	Dollars			Prescriptions	
	Billions	Percent		Millions	Percent
Diabetic therapy	\$26.8	15.9%	Antihyperlipidemics	257.4	10.6%
Asthma/COPD therapy agents	12.4	7.4	Antihypertensive therapy agents	252.6	10.4
Antivirals	9.8	5.8	Diabetic therapy	163.9	6.7
Antineoplastic (enzyme inhibitors)	9.5	5.6	Antidepressants	151.2	6.2
Anticoagulants	9.4	5.6	Beta-adrenergic blockers	150.4	6.2
Analgesics (anti-inflammatory/antipyretic, non-narcotic)	7.7	4.6	Peptic ulcer therapy	123.2	5.1
Anticonvulsants	6.2	3.7	Diuretics	115.4	4.7
Antipsychotics	5.9	3.5	Calcium channel blockers	110.5	4.5
Antihypertensive therapy agents	5.0	3.0	Thyroid therapy	96.7	4.0
Antineoplastics (immunomodulators)	5.0	3.0	Anticonvulsants	94.9	3.9
Antihyperlipidemics	4.6	2.7	Analgesics (narcotic)	71.7	2.9
Analgesics (narcotic)	3.1	1.9	Asthma/COPD therapy agents	69.1	2.8
Antineoplastics (hormone antagonists)	3.0	1.8	Antibacterial agents	57.7	2.4
Antidepressants	2.7	1.6	Prostatic hypertrophy agents	48.4	2.0
Peptic ulcer therapy	2.7	1.6	Anticoagulants	45.0	1.8
Subtotal, top 15 classes	113.9	67.8	Subtotal, top 15 classes	1,808.0	74.3
Total, all classes	168.1	100.0	Total, all classes	2,432.5	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 2018, the top 15 therapeutic classes by spending accounted for more than two-thirds of the \$168.1 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 2.4 billion prescriptions dispensed in 2018.
- 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 2018, antivirals accounted for \$9.8 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.

(Chart continued next page)

## Chart 10-23. Top 15 therapeutic classes of drugs covered under Part D, by spending and volume, 2018 (continued)

- Spending on drugs to treat diabetes has grown at a double-digit rate since 2007 (data not shown). In 2018, spending on diabetic therapy totaled \$26.8 billion, an increase of about 15 percent from \$23.3 billion in 2017 (2017 data not shown). The number of prescriptions filled for diabetic therapy totaled 163.9 million, an increase of 5.5 percent from 155.4 million in 2017.
- Nine therapeutic classes are among the top 15 in both spending and volume. Diabetic therapy dominates the list by spending, accounting for almost 16 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 36 percent of all prescriptions and 50 percent of the prescriptions in the top 15 therapeutic classes.

## Chart 10-24. Part D patterns of prescribing by provider type, 2017

	Part D	Provider type		
		Primary care*	Specialty/ others	NP/PA/ CNS
Number of individual prescribers (thousands)	1,163	254	660	249
Share of all individual prescribers		22%	57%	21%
Average beneficiary count	158	254	125	146
Average per beneficiary				
Gross spending	\$753	\$912	\$745	\$617
Number of prescriptions	6.0	11.2	4.2	5.4
<b>Top 1 percent of prescribers based on number of prescriptions filled per beneficiary</b>				
Number of individual prescribers	10,311	7,228	1,921	1,162
Share of top 1 percent of prescribers		70%	19%	11%
Total gross spending (billions)	\$9.9	\$7.7	\$1.5	\$0.7
Share of provider type's total gross spending	6%	13%	2%	3%
Total number of prescriptions (millions)	142	118	17	8
Share of provider type's total prescriptions filled	10%	14%	4%	3%
Average per beneficiary				
Gross spending	\$3,812	\$3,243	\$5,371	\$4,773
Number of prescriptions	42	42	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. Numbers may not sum to totals due to rounding. "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 10-18, Chart 10-21, and Chart 10-23.  
\*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 2017, nearly 1.2 million individual providers wrote prescriptions for Medicare beneficiaries that were filled under Part D. Of those, about 22 percent were primary care providers, 57 percent were specialty or other types of providers, and 21 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-only beneficiaries was higher among primary care providers compared with specialty and other types of providers and with NPs, PAs, and CNSs—254 beneficiaries versus 125 beneficiaries and 146 beneficiaries, respectively.

(Chart continued next page)

## Chart 10-24. Part D patterns of prescribing by provider type, 2017 (continued)

- On a per beneficiary basis, average gross spending for Part D prescriptions was much higher for prescriptions written by primary care providers (\$912) compared with the average for specialty and other providers (\$745) and for NPs, PAs, and CNSs (\$617). Primary care providers also wrote more prescriptions per beneficiary, on average: 11.2 compared with 4.2 for specialty and other providers and 5.4 for NPs, PAs, and CNSs.
- More than 10,300 prescribers were among the top 1 percent of all prescribers, as ranked by the average number of Part D prescriptions filled per beneficiary in 2017. The top prescribers were much more likely than all providers to be practicing in primary care: 70 percent were primary care providers, 19 percent were specialty and other providers, and 11 percent were NPs, PAs, and CNSs.
- The top 1 percent of prescribers accounted for 6 percent of total gross spending and 10 percent of all prescriptions filled. Among primary care prescribers who were within the top 1 percent, results were more concentrated: They accounted for 13 percent of gross prescription spending and 14 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 2017, per beneficiary Part D spending averaged \$3,812 for 42 prescriptions filled.

**Chart 10-25. Part D patterns of prescribing for selected specialties, 2017**

	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	1,162.9	100%	\$753	6.0
All specialty/others	659.6	57	745	4.2
Selected specialties:				
Psychiatry	25.4	4	1,260	13.3
Cardiology	20.3	3	799	8.3
Ophthalmology	19.8	3	454	4.1
Psychiatry & neurology	14.2	2	1,232	11.3
Neurology	13.9	2	3,050	7.4
Gastroenterology	13.6	2	1,669	3.6
Urology	10.7	2	423	3.9
Pulmonary disease	9.5	1	2,977	6.8
Nephrology	8.6	1	1,793	8.5
Hematology & oncology	8.5	1	8,081	6.1
Endocrinology	5.9	1	2,421	8.1
Infectious disease	5.4	1	6,635	8.9
Rheumatology	4.7	1	3,374	7.9
Medical oncology	3.2	<0.5	7,422	5.7

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 10-18, Chart 10-21, and Chart 10-23.

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

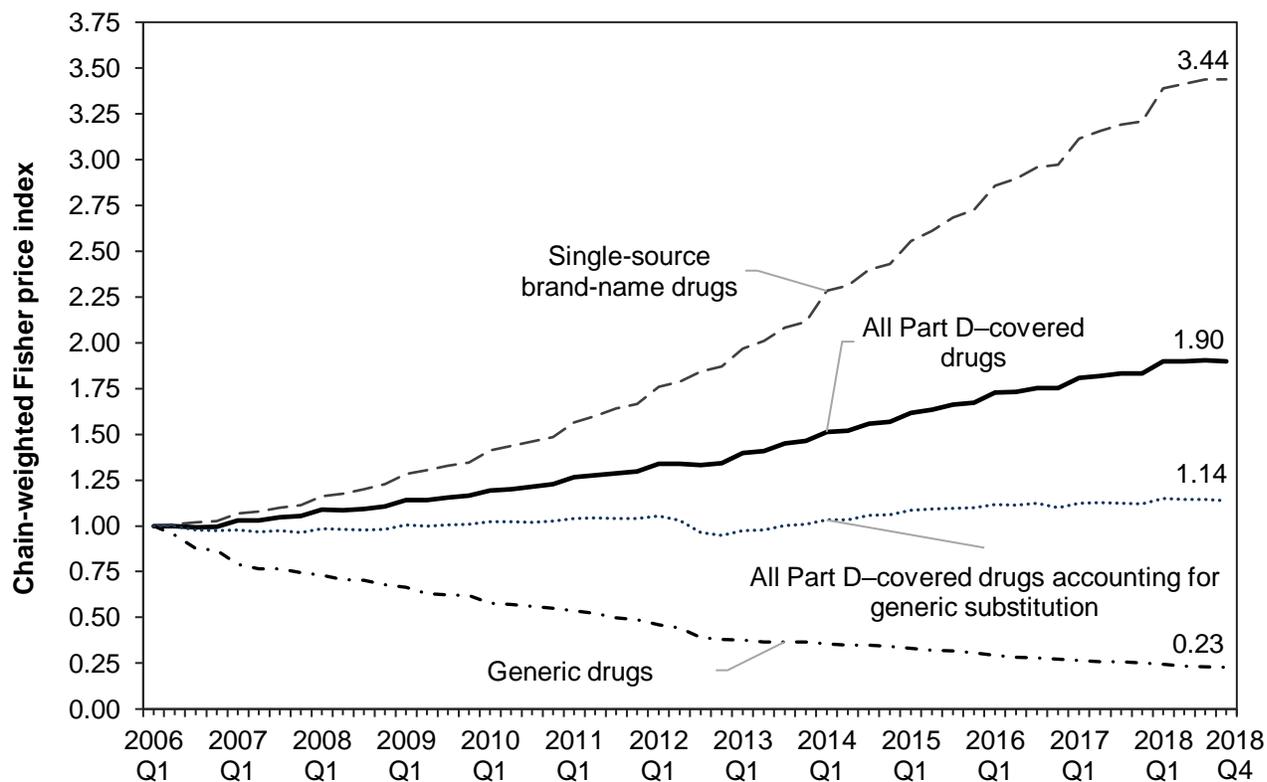
- Of specialty care prescribers, psychiatrists were among the most numerous, making up 4 percent of all Part D prescribers in 2017. Cardiologists, ophthalmologists, psychiatrist/neurologists, neurologists, gastroenterologists, and urologists each made up another 2 percent to 3 percent of Part D prescribers.
- Psychiatrists wrote an average of 13.3 prescriptions per beneficiary, with an average of \$1,260 in gross spending per patient. Those are higher than the overall Part D averages of 6.0 prescriptions and \$753 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 10-25. Part D patterns of prescribing for selected specialties, 2017 (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 (\$799 vs. \$753, respectively), but wrote an average of 8.3 prescriptions per beneficiary—considerably more than the average of 4.2 per beneficiary for all Part D specialty prescribers.

**Chart 10-26. Price growth for Part D–covered drugs, 2006–2018**

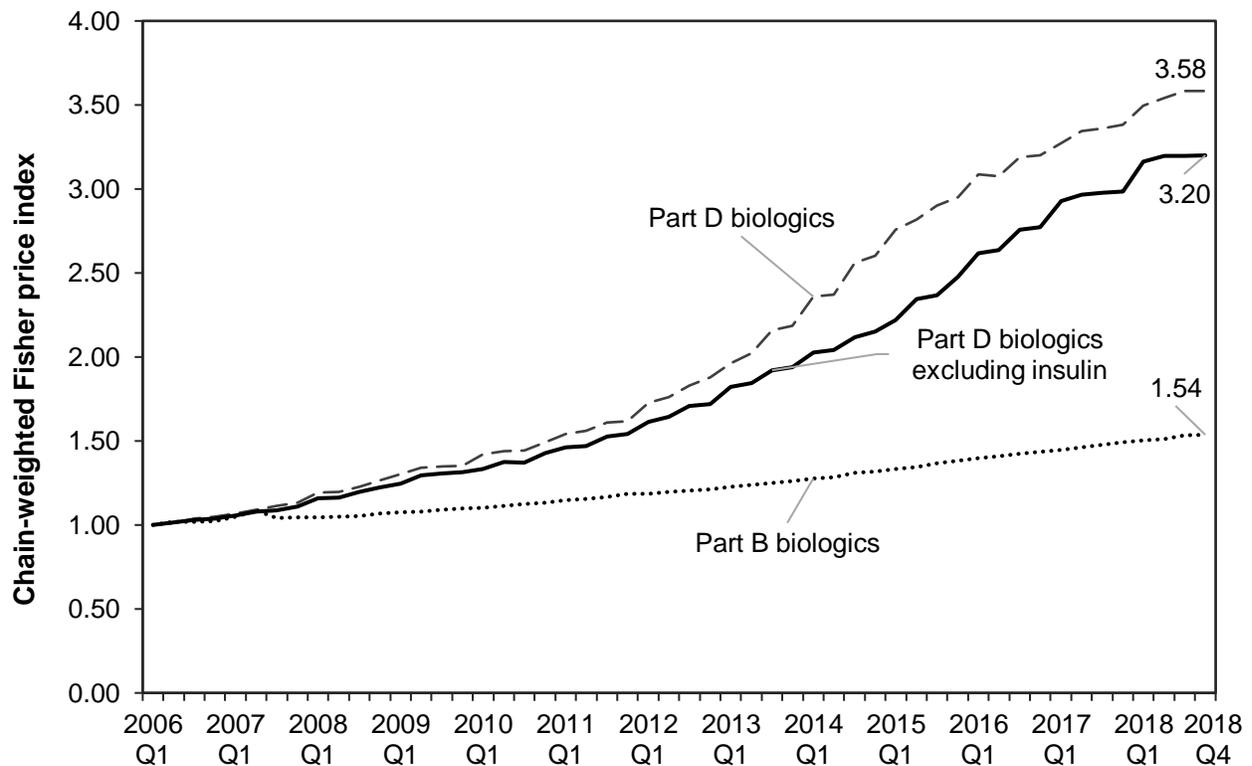


Note: Q1 (first quarter), Q4 (fourth quarter). Part D indexes reflect total amounts paid to pharmacies and do not reflect retrospective rebates or discounts from manufacturers and pharmacies. These measures of price growth reflect growth in the price of individual products but do not reflect changes 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 90 percent cumulatively between 2006 and 2018 (an index of 1.90). (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 increased by just 14 percent cumulatively (an index of 1.14) over the 12-year period. Before 2013, increased generic use kept overall prices stable by offsetting increases in prices of brand-name drugs. From 2013 to 2015, however, the introduction of new generics slowed, and prices for brand-name drugs grew more rapidly—as reflected by an uptick in the price index.
- Overall, between 2006 and 2018, prices of generic drugs covered under Part D decreased to 23 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 244 percent (an index of 3.44) during the same period.

**Chart 10-27. Comparison of price growth for Part B and Part D biologics, 2006–2018**



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 54 percent cumulatively between 2006 and 2018 (an index of 1.54). Measured by individual national drug codes, prices of biologics covered under Part D rose 258 percent cumulatively during the same period (an index of 3.58). (Prices reflect total amounts paid to pharmacies and do not reflect retrospective rebates or discounts from manufacturers and pharmacies).
- Prices of noninsulin biologics covered under Part D grew less rapidly (by an average of 220 percent cumulatively, an index of 3.20) compared with the growth in prices of all Part D biologics during the same period.
- 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.