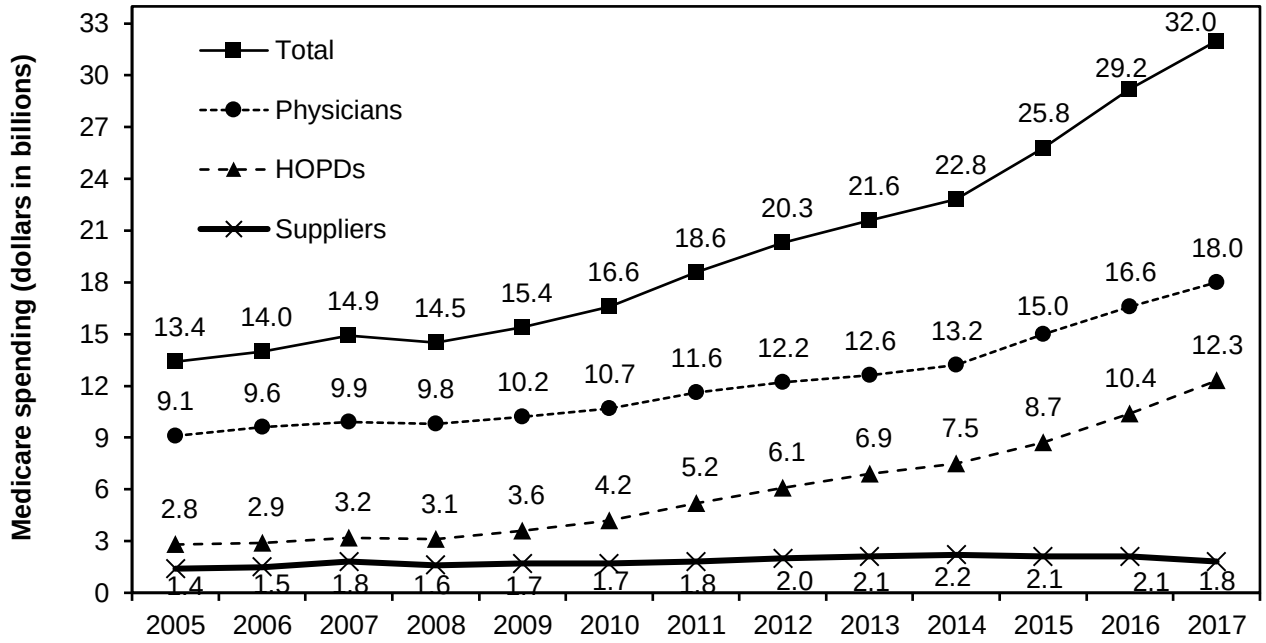
SECTION 10

Prescription drugs

Chart 10-1. Medicare spending for Part B drugs furnished by physicians, hospital outpatient departments, and suppliers, 2005–2017



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 plus 6 percent or another payment formula. Data exclude blood and blood products (other than clotting factor). Components may not sum to total due to rounding.

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

- The Medicare program and beneficiaries spent about $32 billion on Part B drugs furnished by physicians, suppliers, and hospital outpatient departments (HOPDs) in 2017, an increase of about 10 percent from 2016.
- Medicare's average sales price (ASP) payment system for Part B drugs began in 2005. Between 2005 and 2017, total spending grew at an average annual rate of 7.6 percent. Spending growth was slower from 2005 to 2009 (about 3.7 percent per year on average) and more rapid from 2009 to 2017 (about 9.6 percent per year on average).
- Of total 2017 Part B drug spending, physicians accounted for 58 percent ($18.0 billion), HOPDs accounted for 36 percent ($12.3 billion), and suppliers accounted for 6 percent ($1.8 billion).
- Between 2009 and 2017, Part B drug spending grew more rapidly for HOPDs than for physicians and suppliers—at average annual rates of about 17 percent, 7 percent, and 1 percent, respectively.

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Chart 10-1. Medicare spending for Part B drugs furnished by physicians, hospital outpatient departments, and suppliers, 2005–2017 (continued)

- Between 2016 and 2017, spending on supplier-furnished drugs declined from $2.1 billion to $1.8 billion due to a change in the payment formula for Part B–covered home infusion drugs (from 95 percent of the average wholesale price to ASP plus 6 percent) and because of 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 $770 million in critical access hospitals and $370 million in Maryland hospitals for Part B drugs in 2017.

Chart 10-2. Change in Medicare payments and utilization for separately payable Part B drugs, 2009–2016

	2009	2016	Average annual growth 2009–2016
Total payments: All Part B drugs (in billions)	$13.1	$27.3	11.1%
Total payments: All Part B drugs excluding vaccines (in billions)	$12.8	$26.1	10.7
Number of beneficiaries using a Part B drug (in millions)	2.8	3.8	4.1
Average total payments per beneficiary who used a Part B drug	$4,524	$6,962	6.4
Average number of Part B drugs per beneficiary	1.41	1.36	–0.5
Average payment per Part B drug per beneficiary	$3,206	$5,119	6.9
Total payments: All Part B vaccines (in billions)	$0.2	$1.2	28.0
Number of beneficiaries using a Part B vaccine (in millions)	13.4	16.1	2.6
Average total payments per beneficiary who used a Part B vaccine	$16	$76	24.7
Average number of Part B vaccines per beneficiary	1.08	1.25	2.1
Average payment per Part B vaccine per beneficiary	$15	$60	22.1

Note: This analysis includes all Part B drugs paid the average sales price plus 6 percent 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. Excluded from the analysis were any Part B drugs that were bundled or packaged in 2009 and/or 2016 (i.e., drugs that were packaged under the outpatient prospective payment system, regardless of the setting where they were furnished, and drugs furnished by dialysis facilities), drugs billed under not-otherwise-classified billing codes, blood and blood products (other than clotting factor), and data for critical access hospitals and Maryland hospitals. The average annual growth rates displayed in the table may differ slightly from the average annual growth rates calculated using the 2009 and 2016 values displayed in the table due to rounding.

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

- Total payments by the Medicare program and beneficiaries for separately payable Part B drugs increased 11.1 percent per year, on average, between 2009 and 2016.
- Excluding Part B–covered preventive vaccines, Medicare spending on separately payable Part B drugs grew at an average rate of 10.7 percent per year between 2009 and 2016.
- The largest factor contributing to the growth in Part B drug spending (excluding vaccines) was the change in the price Medicare paid for drugs. Between 2009 and 2016, the average payment per drug increased by 6.9 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.

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Chart 10-2. Change in Medicare payments and utilization for separately payable Part B drugs, 2009–2016 (continued)

- Growth in the number of beneficiaries using nonvaccine Part B drugs (about 4.1 percent per year on average) also contributed to increased spending. The number of Part B drugs received per user declined from about 1.41 in 2009 to 1.36 in 2016, which modestly offset spending growth.

- Medicare covers three preventive vaccines: influenza, pneumococcal, and—for beneficiaries at high or medium risk—hepatitis B. Although a relatively small share of total Part B drug spending, spending on Part B vaccines grew at an average rate of about 28 percent per year between 2009 and 2016.

- Increased spending on the pneumococcal vaccine Prevnar-13 accounts for a significant portion of the growth in vaccine spending. A Centers for Disease Control and Prevention advisory committee recommended a one-time vaccination of Prevnar-13 for all adults ages 65 and older. Medicare Part B payments to physicians and outpatient hospitals for Prevnar-13 grew from roughly $100 million in 2014 to $900 million in 2015 and $650 million in 2016 (data not shown).

- Because Prevnar-13 has a higher price than other Part B–covered preventive vaccines, its increased use contributed to the substantial growth in the average payment per vaccine between 2009 and 2016.

Chart 10-3. Top 10 Part B drugs paid based on ASP, by type of provider, 2016 and 2017

	Dollars (in millions)					
	Total Part B drug spending		Physician and supplier Part B drug spending		HOPD Part B drug spending	
	2016	2017	2016	2017	2016	2017
Eylea	$2,211	$2,469	$2,073	$2,312	$138	$157
Rituxan	1,671	1,759	842	858	829	901
Opdivo	1,224	1,475	581	696	643	779
Neulasta	1,378	1,404	682	654	696	750
Remicade	1,343	1,346	834	821	509	525
Prolia/Xgeva	1,089	1,242	684	763	405	480
Avastin	1,115	1,071	563	524	552	547
Lucentis	1,045	1,039	1,006	1006	39	32
Keytruda	328	1,036	115	393	213	643
Herceptin	706	786	335	354	371	432
Total spending, top 10 drugs	**$12,109**	**$13,626**	**$7,716**	**$8,380**	**$4,393**	**$5,246**
Total spending, all Part B drugs	**$29,161**	**$32,043**	**$18,720**	**$19,788**	**$10,440**	**$12,255**

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 2017. Data for 2016 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 plus 6 percent 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 $13.6 billion in 2017, about 43 percent of all Part B drug spending that year.
- As of 2017, all of the top 10 Part B drugs are biologics. Many of these products are used to treat cancer or its side effects (Rituxan, Opdivo, Neulasta, Prolia/Xgeva, Avastin, Keytruda, 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 $1.4 billion in 2017 (data not shown).
- Medicare Part B covers three preventive vaccines—influenza, pneumococcal, and, for certain beneficiaries, hepatitis B—and pays for them at a rate of 95 percent of the average wholesale price or reasonable cost. In 2017, Medicare Part B spent approximately $645 million on pneumococcal vaccine, $574 million on influenza vaccine, and $36 million on hepatitis B vaccine furnished by physicians, hospital outpatient departments, suppliers, end-stage renal dialysis facilities, and certain other types of providers (data not shown).

Chart 10-4. Growth in ASP for the 20 highest expenditure Part B drugs, 2005–2019

Part B drug	Total Medicare payments in 2017 (in billions)	Average annual ASP growth 2005–2010	2010–2018	2018–2019	2005–2019	Earliest year of ASP data if not 2005
Eylea	$2.5	N/A	–0.2%*	–0.9%	–0.3%	2013
Rituxan	1.8	5.0%	5.7	8.7	5.6	
Opdivo	1.5	N/A	2.8*	2.7	2.7	2016
Neulasta	1.4	0.8	8.2	5.4	5.3	
Remicade	1.3	2.0	4.9	–10.7	2.7	
Prolia/Xgeva	1.2	N/A	3.5*	4.9	3.7	2012
Avastin	1.1	0.1	3.7	5.9	2.5	
Lucentis	1.0	–0.2*	–0.6	–5.8	–1.0	2008
Keytruda	1.0	N/A	2.3*	2.3	2.3	2016
Herceptin	0.8	4.1	5.7	6.3	5.1	
Orencia	0.7	1.4*	12.1	6.3	8.8	2007
Velcade	0.5	6.1	2.6	–2.8	3.4	
Alimta	0.5	4.5	3.4	2.7	3.8	
Darzalex	0.4	N/A	5.5*	5.7	5.6	2017
Sandostatin LAR	0.4	4.9	7.3	3.8	6.2	
Xolair	0.4	4.6	7.8	6.0	6.5	
Gammagard	0.4	10.3	0.7	3.7	2.7	
Botox	0.3	3.1	1.3	0.2	1.9	
Soliris	0.3	1.3*	2.9	0.9	2.5	2008
Cimzia	0.3	N/A	9.9	–0.6	8.7	2010
Consumer price index for urban consumers		2.6	1.7	1.6	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 paid 95 percent of the average wholesale price are also excluded. *Indicates that ASP payment rates 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.

- Between 2018 and 2019, the ASP grew by more than 5 percent for 7 of the 20 highest expenditure Part B drugs. For 13 of the top 20 Part B drugs, ASP increased faster than the consumer price index for urban consumers between 2018 and 2019.

- Eleven of the top 20 Part B drugs have been on the market since 2005 or earlier. Over the 14 years the ASP payment system has been in existence (2005 to 2019), the cumulative increase in ASP for these 11 products ranged from 30 percent to 140 percent, with 5 of these products' ASPs increasing by more than 100 percent (data not shown).

- Of those drugs that entered the market before 2010, most products' ASP has grown more rapidly after 2010 than in the first five years of the ASP payment system (2005 to 2010).

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

	Originator Neupogen and biosimilars Zarxio and Granix*			Originator Remicade and biosimilars Inflectra and Renflexis		
	Originator Neupogen's payment rate	Biosimilars' payment rate as share of originator's*	Share of total units accounted for by biosimilars*	Originator Remicade's payment rate	Biosimilars' payment rate as share of originator's	Share of total units accounted for by biosimilars
2016 Q1	$1.01	76–96%	25%	$79.91	N/A	N/A
2016 Q3	1.00	76–87	46	82.28	N/A	N/A
2017 Q1	1.00	71–78	51	82.22	122%	0%
2017 Q3	1.01	64–72	57	85.74	94	4
2018 Q1	1.00	61–69	63	85.81	88	6
2018 Q3	1.02	58–64	67	83.90	77–83	9
2019 Q1	1.00	58–63	N/A	76.65	75–81	N/A

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 based on being highly similar to the originator biologic.
*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 and Zarxio in the U.S. market.

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

- An originator biologic is a product derived from a living organism. A biosimilar product is a follow-on product that is approved based on being highly similar to the originator biologic.

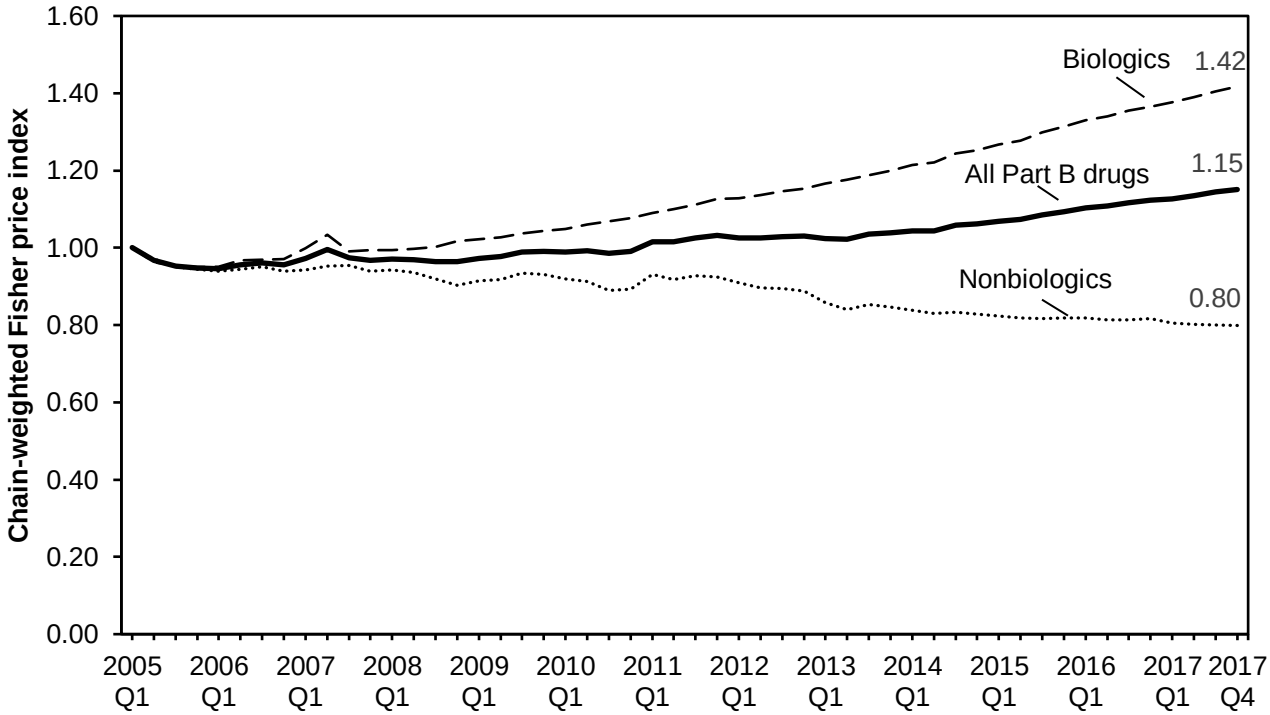
- Under Part B, Medicare pays for an originator biologic at 106 percent of its own average sales price (ASP). For biosimilars, Medicare pays 100 percent of the biosimilar's ASP plus 6 percent of the originator product's ASP.

- Medicare payment rates for biosimilars are lower than those of the corresponding originator biologics due to biosimilars' lower ASP. In the first quarter of 2019, the payment rates for the biosimilar Zarxio and Granix were 63 percent and 58 percent, respectively, of the payment rate for the originator Neupogen. The biosimilars Renflexis and Inflectra had payment rates that were 81 percent and 75 percent, respectively, of the originator Remicade's payment rate that quarter.

- Despite the entry of Zarxio and Granix, Neupogen has not lowered its price (as measured by ASP), even though market share has shifted significantly to biosimilars. As of the third quarter of 2018, two-thirds of the volume was accounted for by Zarxio and Granix, but one-third of the volume remained with the higher priced originator product.

- Following biosimilar entry, Remicade's payment rate initially increased 4 percent between the first quarter of 2017 and the first quarter of 2018, and then declined 11 percent between the first quarter of 2018 and the first quarter of 2019. Despite the decline, Remicade's payment rate remains high from a historical perspective since it increased 55 percent between 2005 and 2017 (data not shown). Uptake of the biosimilars has been modest to date, with Remicade accounting for 91 percent of the volume as of the third quarter of 2018.

Chart 10-6. Price indexes for Medicare Part B drugs, 2005–2017

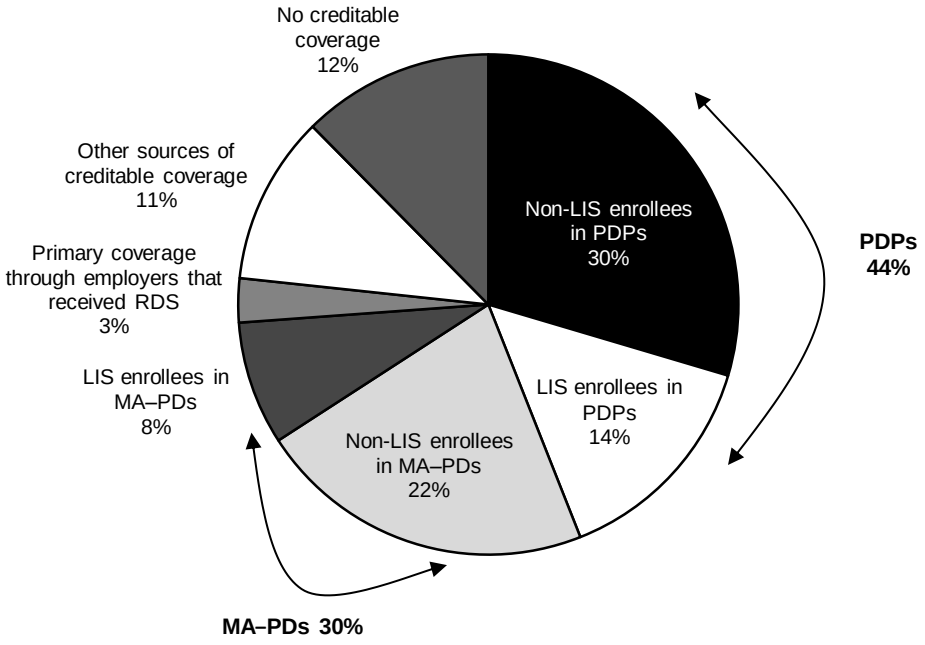


Note: Q1 (first quarter), Q4 (fourth quarter). The Part B price indexes reflect growth in the average sales price of Part B–covered drugs over time, measured for individual drugs at the level of the Healthcare Common Procedure Coding System billing code. These measures of price growth reflect growth in the price of individual products but do not reflect changes in price due to the introduction of new products or the 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 time 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 15 percent cumulatively between 2005 and 2017 (an index of 1.15).
- 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 42 percent between 2005 and 2017 (an index of 1.42). In contrast, the price index for nonbiologics declined by 20 percent (an index of 0.80) 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.

Chart 10-7. In 2017, 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.

Source: MedPAC analysis of the Medicare denominator file 2017.

- In 2017, more than three-quarters of Medicare beneficiaries either signed up for Part D plans or had prescription drug coverage through employer-sponsored plans under Medicare's RDS. (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 (called "creditable coverage"), 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.)

- The share of Medicare beneficiaries in 2017 with primary coverage through employers that received the RDS (3 percent of beneficiaries) was substantially smaller than in 2010 (14 percent; data not shown) because of a shift of enrollees into Part D employer group waiver plans. That shift reflects two sets of changes made by the Patient Protection and Affordable Care Act of 2010 that (1) increased the generosity of the Part D benefit by phasing out the coverage gap and (2) altered the tax treatment of drug expenses covered by the RDS.

- Over 22 percent of Medicare beneficiaries received Part D's LIS in 2017. Of all LIS beneficiaries, nearly two-thirds of them (14 percent of all Medicare beneficiaries) were enrolled in stand-alone PDPs, and the remaining beneficiaries (8 percent) were in MA–PDs.

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Chart 10-7. In 2017, 88 percent of Medicare beneficiaries were enrolled in Part D plans or had other sources of creditable drug coverage (continued)

- Other enrollees in stand-alone PDPs accounted for 30 percent of all Medicare beneficiaries. Another 22 percent of Medicare beneficiaries were enrolled in MA–PDs and did not receive low-income subsidies.

- Eleven percent of Medicare beneficiaries had other sources of creditable drug coverage, but that coverage did not affect Medicare program spending. Examples of these other sources of creditable coverage include the Federal Employees Health Benefits Program, TRICARE, Department of Veterans Affairs, and employers not receiving the RDS.

- Twelve percent of Medicare beneficiaries had no drug coverage or coverage that was less generous than Part D's defined standard benefit.

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

	2006	2017	2018	2019	Cumulative change 2006–2019
Deductible	$250.00	$400.00	$405.00	$415.00	66%
Initial coverage limit	2,250.00	3,700.00	3,750.00	3,820.00	70%
Annual out-of-pocket threshold	3,600.00	4,950.00	5,000.00	5,100.00	42%
Total covered drug spending at annual out-of-pocket threshold	5,100.00	8,017.16	8,417.60	8,139.54	60%
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	3.30	3.35	3.40	70%
Copay for other prescription drugs	5.00	8.25	8.35	8.50	70%

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 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 2019, the standard benefit has a $415 deductible, 25 percent coinsurance on covered drugs until the enrollee reaches $3,820 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 2019, a person who does not receive Part D's low-income subsidy and has no supplemental coverage would, on average, reach the threshold at $8,139.54 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 Patient Protection and Affordable Care Act (PPACA) of 2010, enrollees pay reduced cost sharing for drugs filled in the coverage gap. In 2019, the cost sharing for drugs filled during the gap phase is about 25 percent for brand-name drugs and 37 percent for generic drugs. Enrollees with drug spending that exceeds the annual threshold pay the greater of $3.40 to $8.50 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 around 70 percent between 2006 and 2019. By comparison, Part D's annual out-of-pocket threshold grew by 42 percent over the same period, reflecting changes in PPACA that aimed to reduce the coverage gap.

- 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.

- The Bipartisan Budget Act signed into law in 2018 closes Part D's coverage gap one year earlier than the previously scheduled 2020 time frame. In 2019, the standard benefit includes 25 percent cost sharing in the coverage-gap phase for brand-name drugs and 37 percent for generics. Under the law, manufacturers of brand-name drugs must provide a 70 percent discount in the coverage gap, and plan sponsors will be responsible for covering only 5 percent of the cost of brand-name drugs in that same phase of the benefit.

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

	2018				2019			
	Plans		Enrollees as of February 2018		Plans		Enrollees as of February 2019	
	Number	Percent	Number (in millions)	Percent	Number	Percent	Number (in millions)	Percent
Total	782	100%	20.8	100%	901	100%	20.8	100%
Type of organization								
National	677	87	19.4	93	746	83	19.4	93
Other	105	13	1.4	7	155	17	1.4	7
Type of benefit								
Defined standard	0	0	0.0	0	0	0	0.0	0
Actuarially equivalent	361	46	12.4	60	348	39	12.1	58
Enhanced	421	54	8.4	40	553	61	8.7	42
Type of deductible								
Zero	291	37	9.4	45	263	29	8.1	39
Reduced	88	11	1.9	9	170	19	3.3	16
Defined standard*	403	52	9.5	46	468	52	9.4	45
Some formulary tiers not subject to a deductible								
Some	258	33	6.5	31	414	46	8.2	39
None	524	46	14.4	69	487	54	12.6	61

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. 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 $405 in 2018 and is $415 in 2019.

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

- Plan sponsors are offering 901 stand-alone PDPs in 2019 compared with 782 in 2018—an increase of more than 15 percent.
- In 2019, 83 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 93 percent of all PDP enrollment.
- For 2019, 61 percent of PDP offerings include enhanced benefits (basic plus supplemental coverage), up from 54 percent in 2018. The share of PDPs with actuarially equivalent benefits (having the same average value as the defined standard benefit but with alternative benefit designs) declined to 39 percent from 46 percent. Actuarially equivalent plans continue to attract the largest share of PDP enrollees (58 percent), but the share of enrollees choosing enhanced benefit plans rose slightly to 42 percent in 2019 compared with 40 percent in 2018.
- In 2019, 52 percent of PDPs use the same $415 deductible as in Part D's defined standard benefit, 29 percent have no deductible, and 19 percent use a deductible less than $415. Only 39 percent of PDP enrollees are in plans with no deductible.
- In 2019, 46 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 2019, 39 percent of PDP enrollees were in such plans, up from 31 percent in 2018.

Chart 10-10. Characteristics of MA–PDs

	2018				2019			
	Plans		Enrollees as of February 2018		Plans		Enrollees as of February 2019	
	Number	Percent	Number (in millions)	Percent	Number	Percent	Number (in millions)	Percent
Totals	2,003	100%	12.7	100%	2,414	100%	13.8	100%
Type of organization								
Local HMO	1,422	71	9.1	72	1,601	66	9.7	70
Local PPO	519	26	2.6	20	751	31	3.3	24
PFFS	30	1	0.1	1	29	1	0.1	1
Regional PPO	32	2	0.9	7	33	1	0.8	6
Type of benefit								
Defined standard	22	1	0.1	<0.5	37	2	0.1	<0.5
Actuarially equivalent	101	5	0.5	4	83	3	0.2	2
Enhanced	1,880	94	12.1	96	2,294	95	13.5	98
Type of deductible								
Zero	908	45	5.4	43	1,116	46	6.4	46
Reduced	988	49	6.9	54	1,138	47	7.0	50
Defined standard*	107	5	0.4	3	160	7	0.5	3
Some formulary tiers not subject to a deductible								
Some	1,042	52	7.0	55	1,225	51	7.2	52
None	961	48	5.7	45	1,189	49	6.6	48

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 $405 in 2018 and is $415 in 2019.

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

- There are over 20 percent more MA–PDs plans in 2019 than in 2018. Sponsors are offering 2,414 MA–PDs in 2019 compared with 2,003 the year before. HMOs remain the dominant type of MA–PD, making up 66 percent of all (unweighted) offerings in 2019. Between 2018 and 2019, the number of drug plans offered by local PPOs increased from 519 plans to 751 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 2019, 61 percent of all PDPs have enhanced benefits compared with 95 percent of MA–PDs. In 2019, enhanced MA–PDs attracted 98 percent of total MA–PD enrollment.

- Forty-six percent of MA–PDs have no deductible in 2019, and they attracted 46 percent of all MA–PD enrollees.

- In 2019, 51 percent of MA–PDs designated certain cost-sharing tiers of their formularies that are not subject to a deductible. Those plans account for 52 percent of MA–PD enrollment.

Chart 10-11. Change in average Part D premiums, 2015–2019

	Average monthly premium weighted by enrollment					Cumulative change in weighted average premium, 2015–2019
	2015	2016	2017	2018	2019	
All plans	**$30**	**$31**	**$32**	**$32**	**$29**	**–1%**
Basic plans	26	28	30	30	32	20
Enhanced plans						
Basic benefits	27	27	27	26	22	–20
Supplemental benefits	6	7	6	7	6	9
Total premium	33	33	33	33	28	–15
All basic coverage	27	27	29	28	25	–5
PDPs	**37**	**39**	**41**	**41**	**40**	**7**
Basic coverage	28	29	31	31	32	13
Enhanced coverage						
Basic benefits	39	41	43	42	35	–9
Supplemental benefits	9	12	11	15	15	64
Total premium	48	53	54	57	50	5
All basic coverage	33	34	36	35	33	1
MA–PDs, including SNPs	**18**	**18**	**19**	**18**	**16**	**–10**
Basic coverage	21	22	26	28	28	35
Enhanced coverage						
Basic benefits	14	15	16	15	13	–7
Supplemental benefits	2	2	2	1	1	–50
Total premium	17	17	18	17	14	–12
All basic coverage	17	16	18	17	15	–9
MA–PD buy-down of basic premium	14	15	16	16	16	15
MA–PD buy-down of supplemental benefits	13	14	15	16	17	32
Base beneficiary premium	33.13	34.10	35.63	35.02	33.19	<0.5

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

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

(Chart continued next page)

Chart 10-11. Change in average Part D premiums, 2015–2019 (continued)

- Part D enrollees can select between plans with basic or enhanced benefits (which 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_18_partd_final_sec.pdf?sfvrsn=0.)

- The overall average premium paid by enrollees for any type of Part D coverage declined from $32 per month in 2018 to $29 per month in 2019. One reason for the decline was a change in law that, beginning in 2019, required manufacturers of brand-name drugs to increase the discount they provide in the coverage gap to 70 percent from 50 percent in 2018. This change helped reduce the projected cost to Part D plans of providing basic benefits. Over the period from 2015 to 2019, 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 2015 to $25 per month in 2019, a cumulative decline of 5 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 2019 report to the Congress at http://medpac.gov/docs/default-source/reports/mar19_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 $28 in 2015 and a high of $32 per month in 2019, increasing by a cumulative 13 percent. Among enhanced plans offered by PDPs, the average enrollee premium has ranged between $48 in 2015 to $57 in 2018, increasing by a cumulative 5 percent from 2015 to 2019. Of the $50 average premium in 2019 among enhanced PDPs, $35 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 $21 in 2015 and a high of $28 per month in 2019, increasing by a cumulative 35 percent. The average premium paid by beneficiaries enrolled in MA−PDs offering enhanced coverage has decreased from $17 in 2015 to $14 in 2019, a cumulative 12 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 2019, MA−PD enrollees avoided having to pay $16 per month in basic premiums and an additional $17 per month for supplemental coverage, on average.

Chart 10-12. More premium-free PDPs for LIS enrollees in 2019

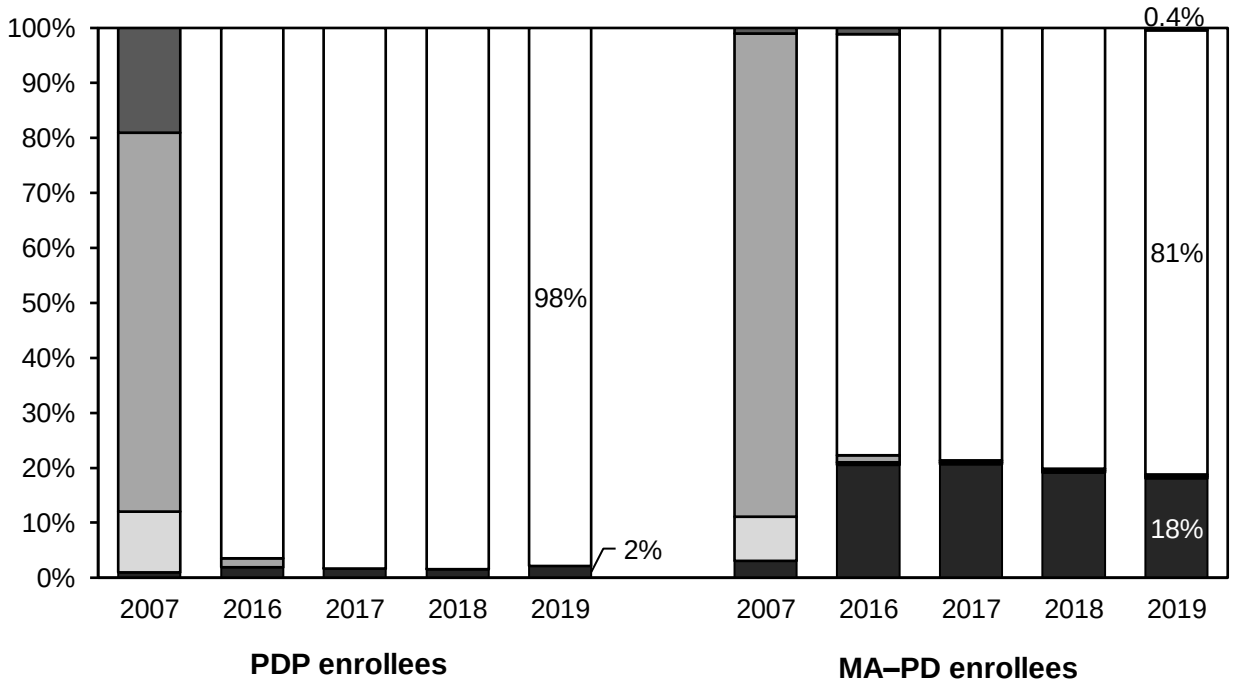
		Number of PDPs			Number of PDPs that have zero premium for LIS enrollees		
PDP region	State(s)	2018*	2019*	Difference	2018*	2019	Difference
1	ME, NH	24	26	2	7	7	0
2	CT, MA, RI, VT	22	26	4	7	7	0
3	NY	20	23	3	8	8	0
4	NJ	22	26	4	7	6	–1
5	DC, DE, MD	21	25	4	10	9	–1
6	PA, WV	26	30	4	9	9	0
7	VA	24	27	3	6	6	0
8	NC	24	28	4	7	7	0
9	SC	22	26	4	4	3	–1
10	GA	24	26	2	5	4	–1
11	FL	21	27	6	2	2	0
12	AL, TN	25	29	4	6	6	0
13	MI	24	29	5	9	9	0
14	OH	23	26	3	6	7	1
15	IN, KY	24	26	2	7	7	0
16	WI	25	28	3	8	8	0
17	IL	24	27	3	8	7	–1
18	MO	24	26	2	4	4	0
19	AR	23	26	3	4	4	0
20	MS	20	24	4	6	5	–1
21	LA	21	26	5	6	8	2
22	TX	24	27	3	7	5	–2
23	OK	23	28	5	7	7	0
24	KS	23	26	3	4	4	0
25	IA, MN, MT, ND, NE, SD, WY	23	28	5	5	6	1
26	NM	24	27	3	7	7	0
27	CO	24	26	2	6	7	1
28	AZ	23	28	5	10	10	0
29	NV	24	26	2	3	3	0
30	OR, WA	22	26	4	7	7	0
31	ID, UT	25	26	1	8	8	0
32	CA	25	30	5	5	7	2
33	HI	20	24	4	4	4	0
34	AK	19	22	3	7	7	0
	Total	782	901	119	216	215	–1

Note: LIS (low-income [drug] subsidy), PDP (prescription drug plan).
*These figures include 2 plans in 2018 and 2 in 2019 that did not accept new enrollees because of CMS sanctions.

Source: MedPAC based on 2018 and 2019 Part D plan report file provided by CMS.

- The total number of stand-alone PDPs increased by 15 percent, from 782 in 2018 to 901 in 2019. The median number of plans offered in PDP regions increased to 26 plans from 24 in 2018 (data not shown). In 2019, Alaska has the fewest stand-alone PDPs, with 22, and Regions 6 (Pennsylvania, West Virginia) and 32 (California) had the most, with 30.
- In 2019, 215 PDPs qualify as premium free to LIS enrollees. With the exception of Florida, which has only two plans with no premium for LIS enrollees, at least three premium-free PDPs are available in any given region.

Chart 10-13. In 2019, most Part D enrollees are in plans that use a five-tier formulary structure

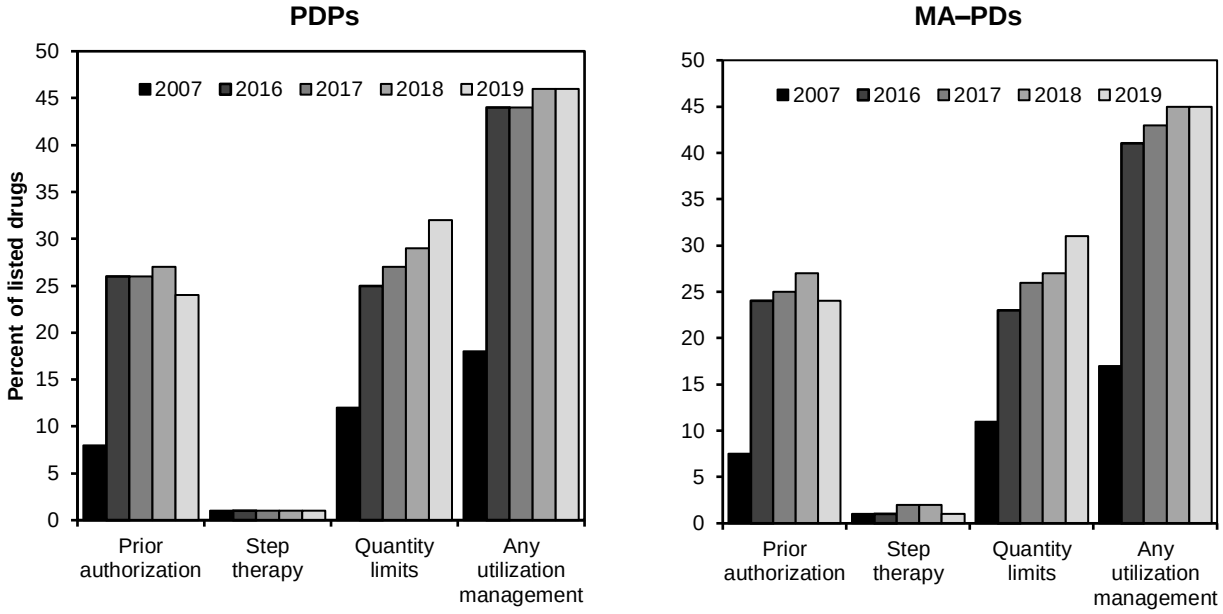


Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]). Calculations are weighted by enrollment. All calculations exclude employer-only groups and plans offered in U.S. territories. In addition, MA–PDs exclude demonstration programs, special needs plans, and 1876 cost plans. Less than 1 percent of MA−PD enrollees are in plans that have only two tiers (for generic and brand-name drugs) or use another tier structure. 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. The algorithm used to classify formularies was modified beginning with 2016 data, but this does not materially affect results.

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 2019, nearly all PDP enrollees continue to enroll in plans with this five-tier structure. Eighty-one percent of MA–PD enrollees are in such plans in 2019, a slight increase from 80 percent in 2018.
- For enrollees in PDPs with a five-tier structure, the median copay in 2019 is $40 for a preferred brand-name drug and 40 percent coinsurance for a nonpreferred drug (data not shown). The median copay for a generic drug is $1 for drugs on a lower tier and $5 for those on a higher tier. For MA–PD enrollees, in 2019, 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 2019, 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 2019, PDPs and MA–PDs apply some utilization management to about 45 percent of listed drugs



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. The algorithm used to classify formularies was modified beginning with 2016 data, but that does not materially affect results.

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 must try specified drugs before being prescribed other drugs in the same therapeutic category)—can affect access to certain drugs.

- In 2019, the use of some form of utilization management, on average, remained unchanged from 2018—46 percent of drugs listed on a plan's formulary in stand-alone PDPs and 45 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 2019 decreased to less than a quarter for both stand-alone PDPs and MA–PDs, while the share with quantity limits increased for both types of plans. In 2019, on average, quantity limits apply to 32 percent of drugs listed on formularies of stand-alone PDPs and 31 percent of the drugs listed on formularies of 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, 2017

	All Medicare	Part D	Plan type		Subsidy status	
			PDP	MA–PD	LIS	Non-LIS
Beneficiaries[a] (in millions)	61.3	45.2	27.0	18.3	13.7	31.5
Percent of all Medicare	100%	74%	44%	30%	22%	51%
Gender						
Male	46%	43%	43%	43%	40%	44%
Female	54	57	57	57	60	56
Race/ethnicity						
White, non-Hispanic	74	73	78	66	54	82
African American, non-Hispanic	10	11	10	13	20	7
Hispanic	9	10	6	15	17	7
Asian	3	3	3	4	6	2
Other	3	3	3	3	3	3
Age (years)[b]						
<65	17	18	19	16	41	8
65–69	27	25	24	25	18	28
70–74	21	21	20	23	13	25
75–79	14	15	15	16	10	17
80+	21	21	22	20	18	22
Urbanicity[c]						
Metropolitan	82	83	78	89	81	83
Micropolitan	10	10	12	7	11	10
Rural	7	7	9	4	8	7

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]Age as of July 2017.
[c]Urbanicity designation is based on the Office of Management and Budget's core-based statistical areas as of July 2015. A metropolitan area contains a core urban area of 50,000 or more people, and a micropolitan area contains an urban core of at least 10,000 (but fewer than 50,000) people. About 1 percent of Medicare beneficiaries were excluded because of an unidentifiable core-based statistical area designation.

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

- In 2017, over 45 million Medicare beneficiaries (74 percent) were enrolled in Part D at some point in the year. Twenty-seven million were in stand-alone PDPs, and the remaining 18.3 million were in MA–PDs. Just under 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 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.
- Patterns of enrollment by urbanicity for Part D enrollees were similar to the overall Medicare population: 83 percent in metropolitan areas, 10 percent in micropolitan areas, and 7 percent in rural areas. (About 1 percent of Medicare beneficiaries were excluded because of an unidentifiable core-based statistical area designation.)

Chart 10-16. Part D enrollment trends, 2007–2017

					Average annual growth rate		
	2007	2010	2014	2017	2007–2010	2010–2014	2014–2017
Part D enrollment (in millions)*							
Total	26.1	29.7	40.0	45.2	4.4%	7.7%	4.2%
Employer group waiver plans	2.0	2.6	7.0	7.2	9.2	27.4	1.1
By plan type							
PDP	18.3	18.9	25.1	27.0	1.1	7.3	2.5
MA–PD	7.8	10.6	14.9	18.3	10.9	8.9	7.0
By subsidy status							
LIS	10.4	11.3	12.8	13.7	2.7	3.1	2.4
Non-LIS	15.7	18.4	27.2	31.5	5.5	10.2	5.0
By race/ethnicity							
White, non-Hispanic	19.4	22.0	29.6	33.1	4.3	7.7	3.8
African American, non-Hispanic	2.9	3.3	4.4	4.9	4.1	7.4	3.7
Hispanic	2.5	3.0	3.9	4.3	5.8	6.7	4.0
Other	1.3	1.4	2.1	2.8	3.9	10.3	10.8
By age (years)**							
<65	5.5	6.3	7.8	8.1	4.7	5.5	1.2
65–69	5.4	6.6	9.5	11.2	6.5	9.9	5.4
70–79	8.8	9.9	13.9	16.4	3.8	8.9	5.9
80+	6.4	7.1	8.8	9.6	3.2	5.7	2.7
Part D enrollment (in percent)							
Total	100%	100%	100%	100%			
Employer group waiver plans	8	9	17	16			
By plan type							
PDP	70	64	63	60			
MA–PD	30	36	37	40			
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	18			
65–69	21	22	24	25			
70–79	34	33	35	36			
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–PDs 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.
*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.

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Chart 10-16. Part D enrollment trends, 2007–2017 (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 2017 (AAGR of 4.2 percent). The faster enrollment growth between 2010 and 2014 largely reflects the growth in enrollment in Part D plans operated for employers and 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 2017, with AAGR of between 2.4 percent and 3.1 percent. During the same period, the number of non-LIS enrollees grew faster than LIS enrollees, with AAGR of 10.2 percent between 2010 and 2014 and AAGR of 5 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 2017, the largest growth in enrollment was observed for beneficiaries ages 70 to 79 (5.9 percent annually, on average), followed by beneficiaries ages 65 to 69 (5.4 percent annually, on average), reversing the pattern observed before 2014, when the enrollment growth was largest among beneficiaries ages 65 to 69.

- 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 2017 (AAGR of 7 percent and 2.5 percent, respectively).

Chart 10-17. Part D enrollment by region, 2017

PDP region	State(s)	Percent of Medicare enrollment		Percent of Part D enrollment			
				Plan type		Subsidy status	
		Part D	RDS	PDP	MA–PD	LIS	Non-LIS
1	ME, NH	70%	3%	75%	25%	33%	67%
2	CT, MA, RI, VT	77	3	69	31	35	65
3	NY	78	4	55	45	37	63
4	NJ	74	4	80	20	25	75
5	DE, DC, MD	64	3	85	15	32	68
6	PA, WV	76	3	57	43	28	72
7	VA	64	2	74	26	28	72
8	NC	74	4	60	40	30	70
9	SC	72	2	67	33	30	70
10	GA	73	2	54	46	34	66
11	FL	76	3	47	53	30	70
12	AL, TN	74	2	53	47	35	65
13	MI	79	3	71	29	25	75
14	OH	78	3	60	40	26	74
15	IN, KY	76	2	70	30	30	70
16	WI	72	2	58	42	24	76
17	IL	73	5	71	29	29	71
18	MO	76	2	62	38	27	73
19	AR	70	3	72	28	37	63
20	MS	72	1	78	22	44	56
21	LA	75	4	57	43	40	60
22	TX	72	2	60	40	33	67
23	OK	67	1	77	23	31	69
24	KS	71	1	81	19	23	77
25	IA, MN, MT, NE, ND, SD, WY	74	2	74	26	22	78
26	NM	72	1	55	45	39	61
27	CO	73	2	52	48	24	76
28	AZ	74	2	50	50	27	73
29	NV	70	3	51	49	26	74
30	OR, WA	69	6	52	48	28	72
31	ID, UT	70	2	55	45	22	78
32	CA	79	2	48	52	35	65
33	HI	71	2	38	62	27	73
34	AK	41	25	98	2	53	47
	Mean	74	3	60	40	30	70
	Minimum	41	1	38	2	22	47
	Maximum	79	25	98	62	53	78

Note: PDP (prescription drug plan), RDS (retiree drug subsidy), 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 RDS (see Chart 10-7).

Source: MedPAC analysis of Part D enrollment data from CMS.

- Among Part D regions in 2017, all but one region (Region 34 (AK)) had over 60 percent of all Medicare beneficiaries enrolled in Part D. Beneficiaries were less likely to enroll in Part D in regions where employer-sponsored drug coverage continued to be available. For example, in Region 34, the share of Medicare beneficiaries enrolled in Part D was 41 percent, while the share of beneficiaries enrolled in employer-sponsored plans that received the RDS was 25 percent. In other regions (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, 2017 (continued)

- In 2017, all regions except Region 8 and Region 34 experienced a decrease in the number of beneficiaries who received the RDS (data not shown). In some of the regions, the decreases in RDS recipients were accompanied by larger than average increases in Part D enrollment (e.g., Region 2, Region 17, and Region 22). The continued trend is likely motivated by changes made by the Patient Protection and Affordable Care Act of 2010 that increased the generosity of Part D coverage and altered the tax treatment of drug expenses covered by the RDS.

- 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 53 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	2016	Average annual growth 2009–2016
Total gross spending (in billions)	**$73.7**	**$146.2**	**10.3%**
High-cost beneficiaries	29.2	85.1	16.5%
Lower cost beneficiaries	44.6	61.1	4.6%
Number of beneficiaries using a Part D drug (in millions)	**26.5**	**40.5**	**6.2%**
High-cost beneficiaries	2.4	3.6	6.2%
Lower cost beneficiaries	24.1	36.9	6.2%
Amount per beneficiary who used Part D drugs			
Gross drug spending per year	$2,781	$3,606	3.8%
Average price per 30-day prescription	$55	$66	2.5%
Number of 30-day prescriptions	50.4	55.0	1.2%
Amount per high-cost beneficiary who used Part D drugs			
Gross drug spending per year	$12,294	$23,478	9.7%
Average price per 30-day prescription	$110	$207	9.4%
Number of 30-day prescriptions	111.4	113.3	0.2%
Amount per lower cost beneficiary who used Part D drugs			
Gross drug spending per year	$1,846	$1,655	–1.6%
Average price per 30-day prescription	$42	$34	–3.0%
Number of 30-day prescriptions	44.5	49.3	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.

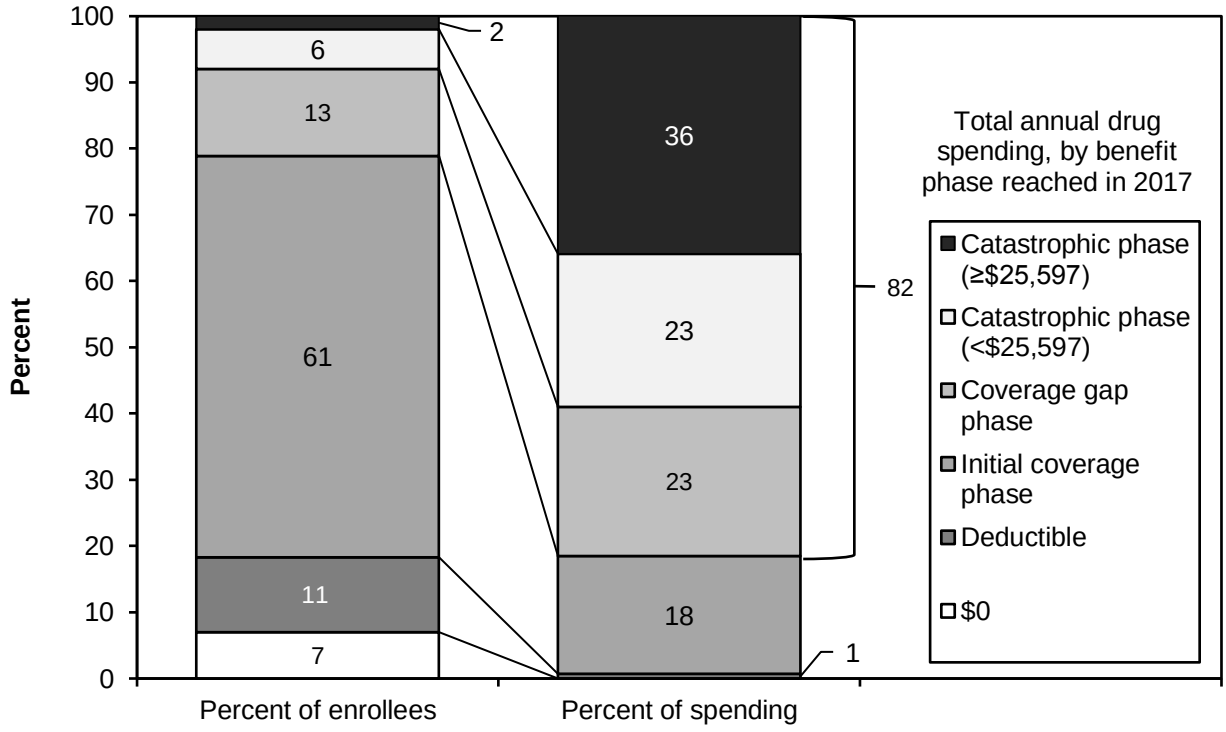
- Between 2009 and 2016, gross spending on drugs under the Part D program grew by an annual average rate of 10.3 percent. The annual growth in spending was considerably higher (16.5 percent) among high-cost beneficiaries (individuals who incurred spending high enough to reach the catastrophic phase of the benefit) compared with 4.6 percent for lower cost beneficiaries.

- During the 2009 through 2016 period, the number of beneficiaries who used Part D drugs grew by an annual average rate of 6.2 percent. The same rate of growth was 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 $66 in 2016. Overall, growth in price per prescription accounted for nearly two-thirds (2.5 percentage points) of the 3.8 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 (9.4 percent) accounted for nearly all of the spending growth (9.7 percent) during this period. In contrast, among lower cost beneficiaries, the average annual decrease in prices (–3.0 percent) resulted in an overall decrease in spending (–1.6 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 one-fifth of all Part D enrollees, 2017



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 2017, the defined standard basic benefit included a $400 deductible and 25 percent coinsurance until the enrollee reached $3,700 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 $8,071.16 in total drug spending. In 2017, among those who reached the catastrophic phase of the benefit, an enrollee at the 75th percentile of the distribution had drug spending totaling $25,597. 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 2017, about 21 percent of Part D enrollees had annual spending exceeding the initial coverage limit (typically set at $3,700 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 $8,071 in gross drug spending under the defined standard benefit for beneficiaries not receiving Part D's low-income subsidy (LIS)). These beneficiaries accounted for 82 percent of total Part D spending.

- The costliest 8 percent of beneficiaries, those with drug spending above the catastrophic threshold, accounted for about 60 percent of total Part D spending. Seventy-one 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 2016 figures).

- In 2017, among Part D enrollees who reached the catastrophic phase of the benefit, those enrollees with annual spending at or above $25,597 (2 percent of all Part D enrollees) accounted for 36 percent of total Part D spending.

Chart 10-20. Characteristics of Part D enrollees, by benefit phase reached, 2017

	Annual drug spending		
	Below initial coverage limit	Coverage-gap phase	Catastrophic phase
Sex			
Male	43%	42%	42%
Female	57	58	58
Race/ethnicity			
White, non-Hispanic	74	76	66
African American, non-Hispanic	10	10	16
Hispanic	10	9	12
Other	6	5	7
Age (years)			
<65	16	17	39
65–69	26	20	18
70–74	22	21	16
75–80	15	17	12
80+	21	25	15
LIS status*			
LIS	26	34	71
Non-LIS	74	66	29
Plan type**			
PDP	58	64	68
MA–PD	42	36	32

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 2017, the defined standard basic benefit included a $400 deductible and 25 percent coinsurance until the enrollee reached $3,700 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 $8,071.16 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 2017, 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 71 percent in 2017. 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 (68 percent) compared with enrollees whose spending was below the initial coverage limit (58 percent) or enrollees in the coverage gap who did not reach the catastrophic threshold (64 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, 2017

	Part D	Plan type		LIS status	
		PDP	MA–PD	LIS	Non-LIS
Total gross spending (billions)*	$154.9	$101.6	$53.3	$76.2	$78.7
Total number of prescriptions (millions)	2,329	1,406	922	851	1,478
Average spending per prescription	$67	$72	$58	$90	$53
Per enrollee per month					
Total spending	$302	$335	$254	$502	$218
OOP spending	33	35	29	6	44
Manufacturer gap discount	12	13	9	N/A	16
Plan liability	197	216	169	341	136
Low-income cost-sharing subsidy	46	52	37	155	N/A
Other**	15	18	10	<1	21
Number of prescriptions	4.5	4.6	4.4	5.6	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 about $5.9 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.

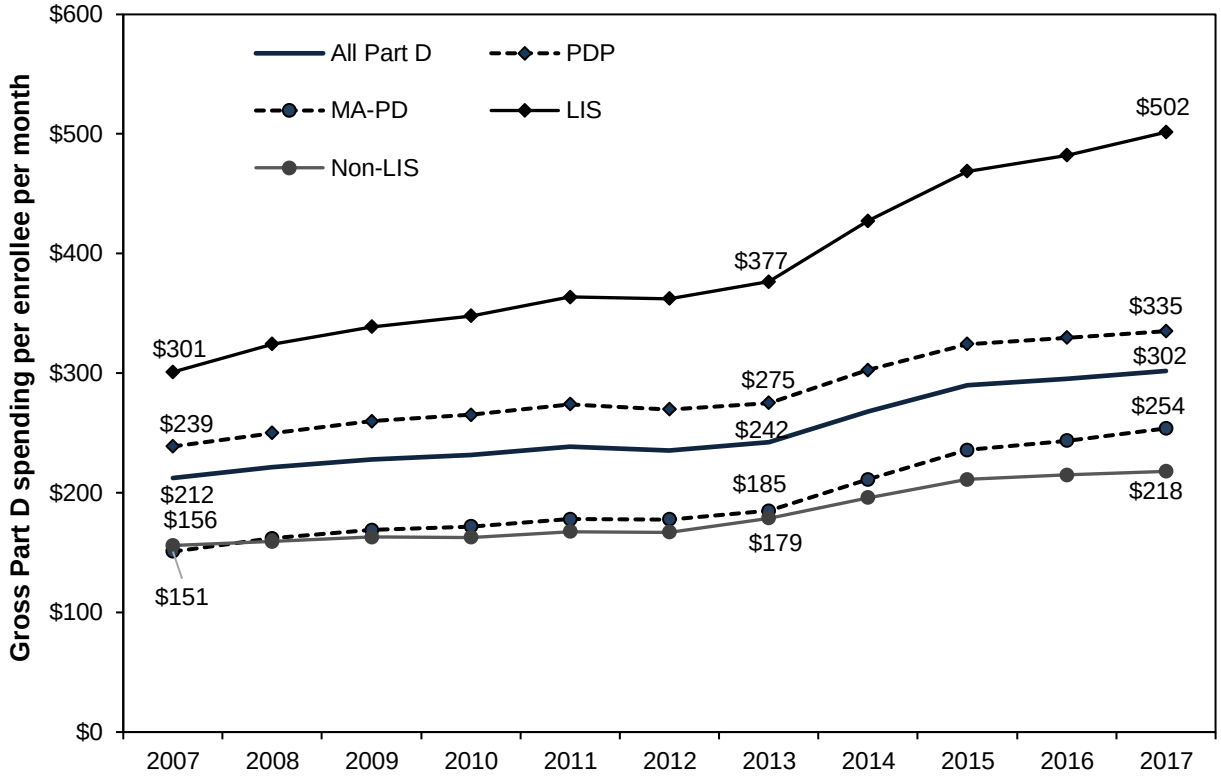
- In 2017, gross spending on drugs for the Part D program totaled $154.9 billion, with nearly two-thirds ($101.6 billion) accounted for by Medicare beneficiaries enrolled in stand-alone PDPs. Part D enrollees receiving the LIS accounted for $76.2 billion (49 percent) of the total. Manufacturer discounts for brand-name drugs filled by non-LIS enrollees while they were in the coverage gap accounted for 3.8 percent of the total, or 7.5 percent of the gross spending by non-LIS enrollees (down from 4.2 percent and 8.3 percent, respectively, in 2015) (data not shown).

- The number of prescriptions filled by Part D enrollees totaled over 2.3 billion, with about 60 percent (about 1.4 billion) accounted for by PDP enrollees. The 30 percent of enrollees who received the LIS accounted for about 37 percent (851 million) of the total number of prescriptions filled.

- In 2017, Part D enrollees filled 4.5 prescriptions at $302 per month on average, an increase from $296 per month (for 4.5 prescriptions) in 2016 (2016 data not shown). The average monthly plan liability for PDP enrollees ($216) was considerably higher than that of MA–PD enrollees ($169), while the difference in average monthly OOP spending was smaller between the two types of plans ($35 vs. $29, respectively). The average monthly low-income cost-sharing subsidy was much higher for PDP enrollees ($52) compared with MA–PD enrollees ($37).

- Average monthly spending per LIS enrollee ($502) was more than double that of a non-LIS enrollee ($218), while the average number of prescriptions filled per month by an LIS enrollee was 5.6 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 $155 per month in 2017.

Chart 10-22. Trends in Part D spending and use per enrollee per month, 2007–2017



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 2017, average per capita spending per month for Part D–covered drugs grew from $212 to $302, an average growth of 3.6 percent annually, or about 42 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 2017, monthly per capita spending for LIS enrollees grew faster than that for non-LIS enrollees, increasing from $301 to $502 (a cumulative growth of nearly 67 percent) compared with an increase from $156 to $218 for non-LIS enrollees (a cumulative growth of just under 40 percent). The number of prescriptions filled by both LIS and non-LIS enrollees grew by about 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 2017 period (annual average growth of 5.3 percent and 3.4 percent, respectively). However, the growth was comparable in terms of the dollar increase (cumulative increases of $103 and $96, respectively), and the average per capita spending for MA−PD enrollees continued to be lower than that of PDP enrollees by about $80 per month.

Chart 10-23. Top 15 therapeutic classes of drugs covered under Part D, by spending and volume, 2017

Top 15 therapeutic classes by spending	Dollars		Top 15 therapeutic classes by volume	Prescriptions	
	Billions	Percent		Millions	Percent
Diabetic therapy	$23.3	15.0%	Antihyperlipidemics	241.2	10.4%
Asthma/COPD therapy agents	11.0	7.1	Antihypertensive therapy agents	240.2	10.3
Antivirals	10.4	6.7	Diabetic therapy	155.4	6.7
Antineoplastic enzyme inhibitors	8.1	5.2	Beta-adrenergic blockers	144.2	6.2
Anticoagulants	6.8	4.4	Antidepressants	142.6	6.1
Analgesics (anti-inflammatory/ antipyretic, non-narcotic)	6.6	4.3	Peptic ulcer therapy	118.4	5.1
Antihyperlipidemics	5.5	3.5	Diuretics	111.0	4.8
Antipsychotics	5.5	3.5	Calcium channel blockers	103.7	4.5
Anticonvulsants	5.4	3.5	Thyroid therapy	92.0	3.9
Antihypertensive therapy agents	5.0	3.2	Anticonvulsants	90.8	3.9
Antineoplastics (immunomodulators)	4.0	2.6	Analgesics (narcotic)	77.6	3.3
Analgesics (narcotic)	3.4	2.2	Asthma/COPD therapy agents	64.9	2.8
Peptic ulcer therapy	3.0	1.9	Antibacterial agents	57.6	2.5
Calcium and bone metabolism regulators	2.7	1.7	Prostatic hypertrophy agents	44.9	1.9
Multiple sclerosis agents	2.6	1.7	Analgesics (anti-inflammatory/ antipyretic, non-narcotic)	42.3	1.8
Subtotal, top 15 classes	103.3	66.7	Subtotal, top 15 classes	1,726.9	74.2
Total, all classes	154.9	100.0	Total, all classes	2,328.5	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 2017, the top 15 therapeutic classes by spending accounted for about two-thirds of the $154.9 billion spent on prescription drugs covered by Part D plans. The top 15 therapeutic classes by volume accounted for nearly three-quarters of the roughly 2.3 billion prescriptions dispensed in 2017.
- 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 2017, antivirals accounted for $10.4 billion, down from $11.7 billion in 2016 (2016 data not shown). The growth in spending for drugs to treat cancer resulted in two classes of antineoplastic therapies (enzyme inhibitors and immunomodulators) appearing on the top-15 list for the first time in 2015, 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, 2017 (continued)

- Spending on drugs to treat diabetes has grown at a double-digit rate since 2007. In 2017, spending on diabetic therapy totaled $23.3 billion, an increase of about 15 percent from $20.3 billion in 2016 (2016 data not shown). The number of prescriptions filled for diabetic therapy totaled 155.4 million, an increase of 6.7 percent from 145.7 million in 2016.

- Eight therapeutic classes are among the top 15 in both spending and volume. Diabetic therapy dominates the list by spending, accounting for more than 22 percent of spending for the top 15 therapeutic classes, followed by asthma/COPD therapy agents. Cardiovascular agents (antihyperlipidemics, antihypertensive therapy agents, beta-adrenergic blockers, calcium channel blockers, and diuretics) dominate the list by volume, accounting for about 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*	Provider type: Specialty/ others	Provider type: 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
Top 1 percent of prescribers based on number of prescriptions filled per beneficiary				
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 2017 prescription counts shown in Chart 10-18 and Chart 10-21 through 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. Of those prescribers, 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 2017 prescription counts shown in Chart 10-18 and Chart 10-21 through 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.

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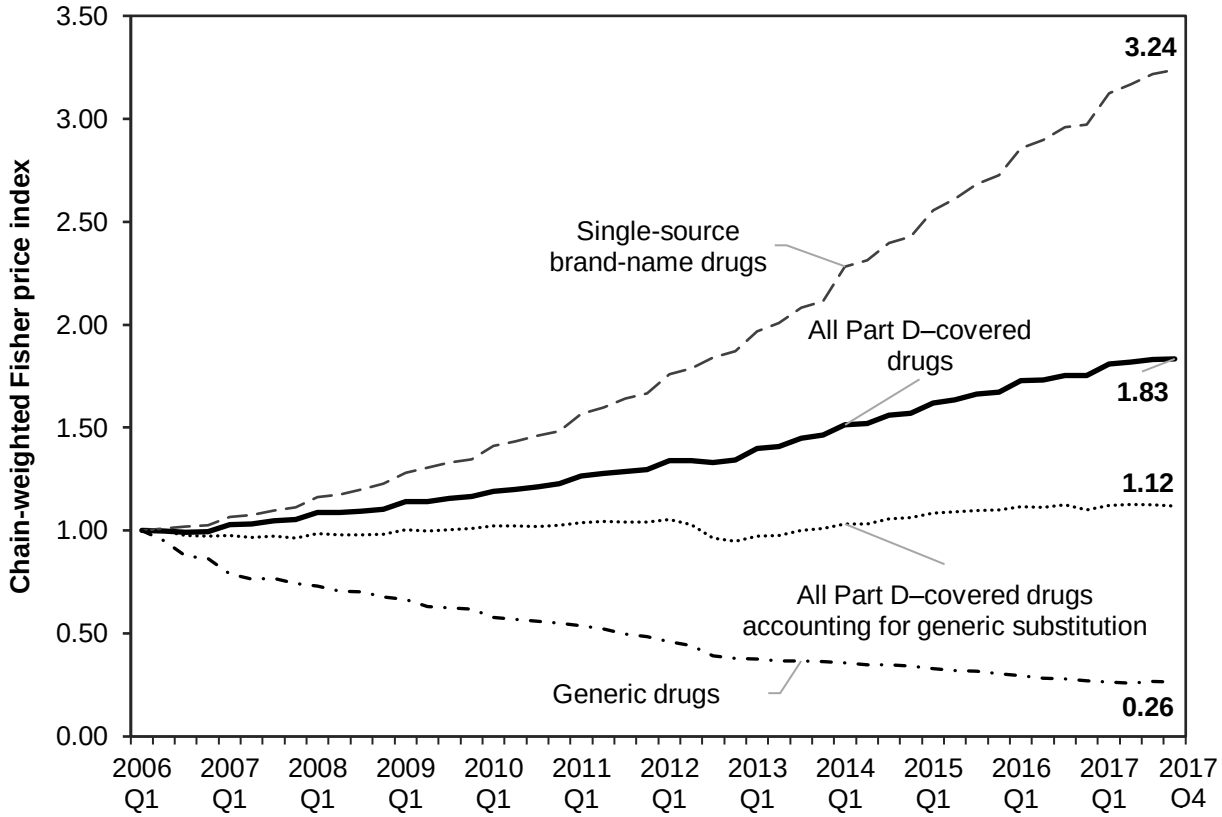
Chart 10-25. Part D patterns of prescribing for selected specialties, 2017 (continued)

- 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, 2006–2017



Note: 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.

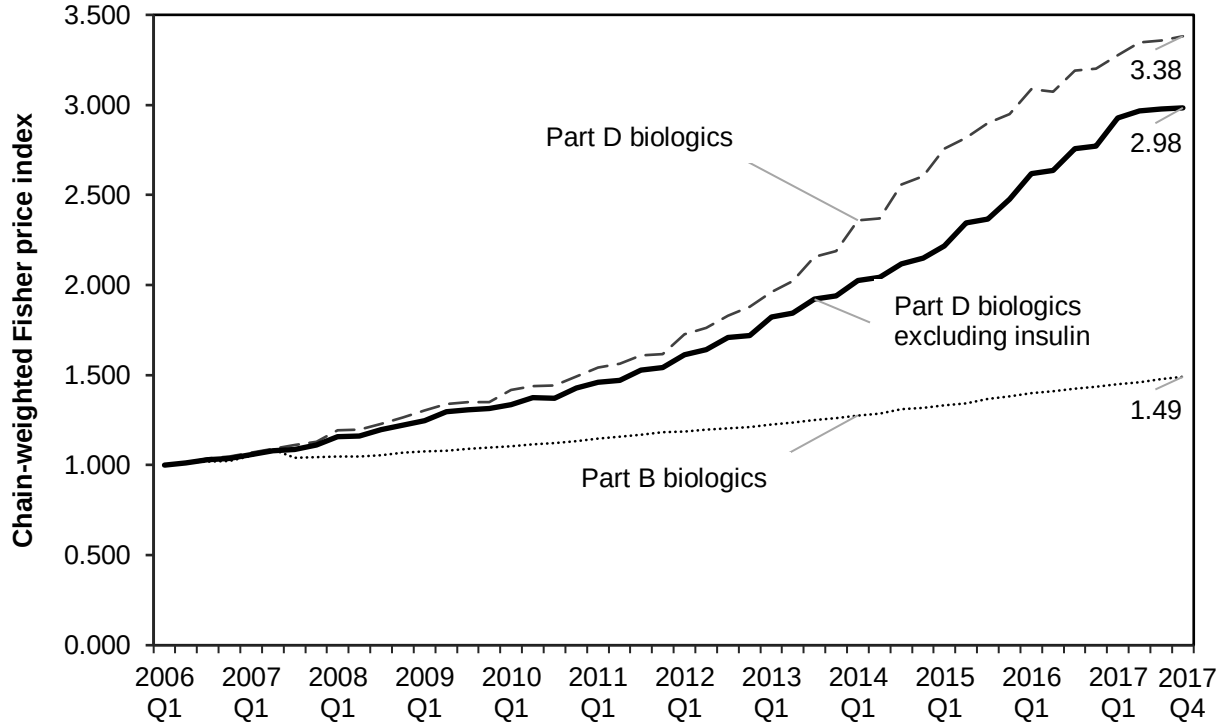
Source: Acumen LLC analysis for MedPAC.

- Measured by individual national drug codes, prices of drugs and biologics covered under Part D rose 83 percent cumulatively between 2006 and 2017 (an index of 1.83). (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 12 percent cumulatively (an index of 1.12) over the 11-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 2017, prices of generic drugs covered under Part D decreased to 26 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 224 percent (an index of 3.24) during the same period.

Chart 10-27. Comparison of price growth for Part B and Part D biologics, 2006–2017



Note: 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 49 percent cumulatively between 2006 and 2017 (an index of 1.49). Measured by individual national drug codes, prices of biologics covered under Part D rose 238 percent cumulatively during the same period (an index of 3.38) (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 198 percent cumulatively, an index of 2.98) 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.