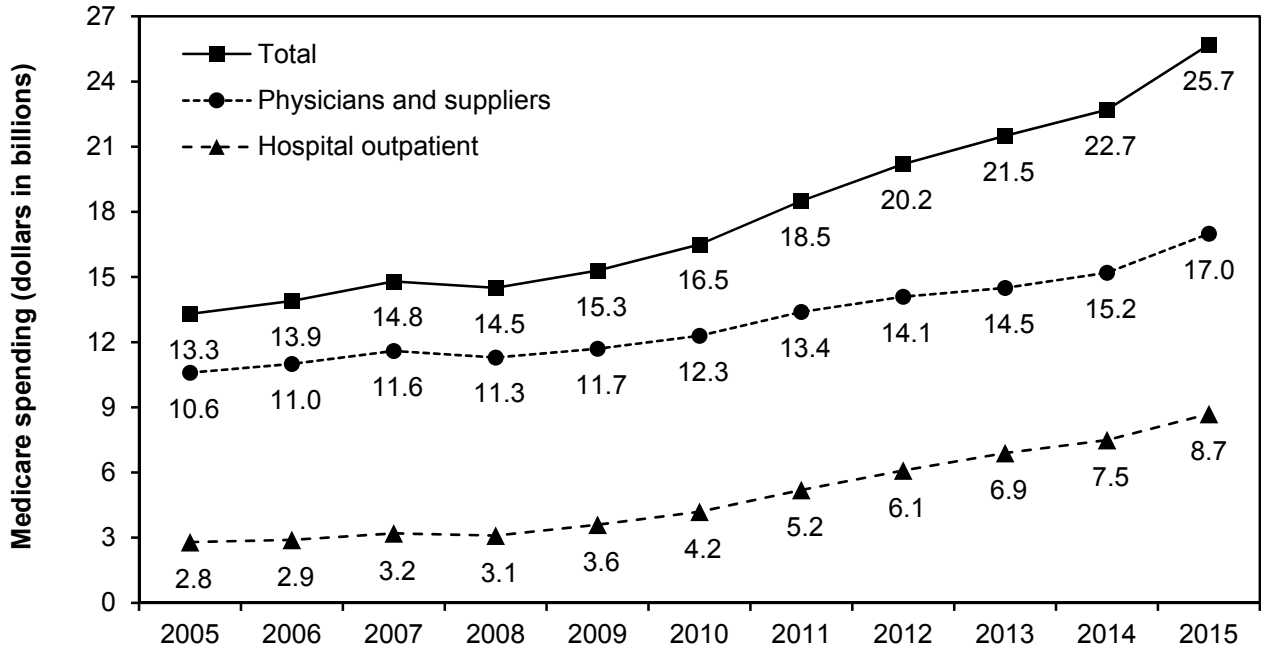
SECTION 10

Prescription drugs

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



Note: Data include Part B–covered drugs furnished by 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 are 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 $25.7 billion on Part B drugs furnished by physicians, suppliers, and hospital outpatient departments (HOPDs) in 2015, an increase of about 13.3 percent from 2014.
- Medicare's average sales price (ASP) payment system for drugs began in 2005. Between 2005 and 2015, total spending grew at an average annual rate of 6.8 percent. Spending growth was slower from 2005 to 2009 (about 3.5 percent per year on average) and was more rapid from 2009 to 2015 (about 9.0 percent per year on average).
- Physicians and suppliers accounted for about two-thirds ($17.0 billion) and HOPDs about one-third ($8.7 billion) of 2015 Part B drug spending.
- Part B drug spending has been growing more rapidly for HOPDs than for physicians and suppliers. Between 2009 and 2015, Part B drug spending grew at an average annual rate of 15.9 percent for HOPDs and 6.4 percent for physicians and suppliers.
- 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 $600 million in critical access hospitals and $300 million in Maryland hospitals for Part B drugs in 2015.

Chart 10-2. Top 10 Part B drugs paid based on ASP, by type of provider (dollars in millions), 2014 and 2015

	Total Part B drug spending		Physician and supplier Part B drug spending		Hospital outpatient Part B drug spending	
Part B drug	2014	2015	2014	2015	2014	2015
Aflibercept	$1,296	$1,815	$1,216	$1,700	$80	$115
Rituximab	1,505	1,567	830	824	674	744
Pegfilgrastim	1,175	1,263	625	650	550	613
Infliximab	1,177	1,249	758	791	419	458
Ranibizumab	1,332	1,151	1,283	1,108	49	43
Bevacizumab	1,065	1,122	579	585	486	537
Denosumab	769	919	495	583	275	336
Trastuzumab	562	648	282	313	280	335
Pemetrexed	560	549	281	261	279	287
Bortezomib	473	507	276	286	197	220
Total spending, top 10 Part B drugs	**9,913**	**10,791**	**6,625**	**7,101**	**3,288**	**3,690**
Total spending, all Part B drugs	**22,674**	**25,684**	**15,177**	**17,005**	**7,497**	**8,678**

Note: ASP (average sales price). The 10 drugs shown in the chart reflect the top 10 Part B drug billing codes paid under the ASP methodology with the highest Medicare expenditures in 2015. Data for 2014 are shown for comparison. Data include Part B–covered drugs furnished by 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 the 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, 8 of which were biologics, totaled nearly $11 billion in 2015, about 42 percent of all Part B drug spending that year.

- Many of the top 10 drugs are used to treat cancer or its side effects (rituximab, pegfilgrastim, bevacizumab, denosumab, trastuzumab, pemetrexed, and bortezomib). Drugs used to treat age-related macular degeneration (ranibizumab, aflibercept, and bevacizumab) and rheumatoid arthritis (rituximab and infliximab) are also included in the top 10.

- In 2015, Medicare and beneficiaries spent about $0.9 billion on Prevnar 13, a pneumococcal vaccine paid 95 percent of average wholesale price, up from $0.1 billion in 2014 (data not shown). In 2014, a Centers for Disease Control and Prevention advisory committee recommended a one-time vaccination of all adults age 65 and older, which led to a substantial increase in its use.

- Medicare spending on immune globulin (for which there are several products billed through separate billing codes) amounted to more than $1.2 billion in 2015 (data not shown).

Chart 10-3. Change in Medicare payments and utilization for separately payable Part B drugs, 2009–2014

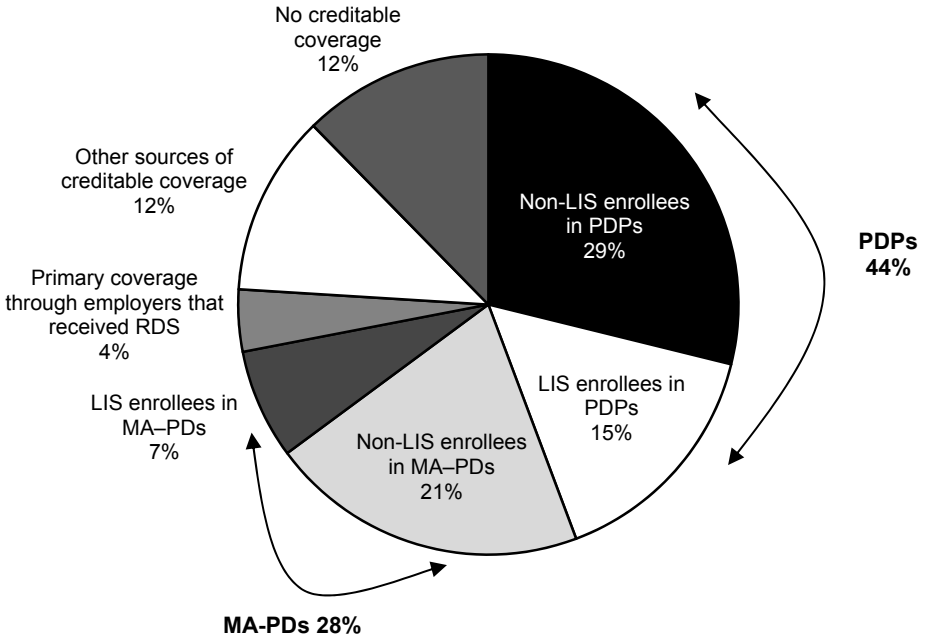
	2009	2014	Average annual growth 2009–2014
Total payments (in billions)	$13.3	$21.2	9.8%
Number of beneficiaries using a Part B drug (in millions)	15.1	17.4	2.9
Average total payments per beneficiary who used Part B drugs	$880	$1,213	6.6
Average number of drugs per beneficiary	1.27	1.32	0.8
Average payment per drug	$693	$916	5.8

Note: This analysis includes all Part B drugs paid the average sales price plus 6 percent (ASP + 6 percent) as well as the small group of Part B drugs that are paid based on the average wholesale price or that are contractor priced. Excluded from the analysis were any Part B drugs that were bundled or packaged in 2009 and/or 2014 (e.g., 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 2014 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 9.8 percent per year, on average, between 2009 and 2014.
- The largest factor contributing to the change in total payments between 2009 and 2014 was the change in the price Medicare paid for drugs. Between 2009 and 2014, the average payment per drug increased by 5.8 percent per year. This increase reflects increases in the prices of existing drugs and shifts in the mix of drugs, including the adoption of new drugs.
- Price growth accounts for more than half of spending growth, even after accounting for changes in the payment formulas between 2009 and 2014. We standardized payments to remove the effect of payment formula changes (i.e., removed the effect of the sequester and the effect of the different payment formulas in 2009 and 2014 for non-pass-through drugs furnished in outpatient hospitals). Total standardized payments grew at an average annual rate of 10.0 percent between 2009 and 2014, with the average standardized payment per drug growing at an average annual rate of 6.0 percent (data not shown).
- Also contributing to growth in Part B drug payments is growth in the number of beneficiaries using Part B drugs, which increased 2.9 percent per year between 2009 and 2014.
- Among beneficiaries who used Part B drugs, the number of drugs per user grew about 0.8 percent per year between 2009 and 2014.

Chart 10-4. In 2015, 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 2015.

- In 2015, 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 with primary coverage through employers that received the RDS (4 percent of beneficiaries) was substantially smaller than in 2012 (12 percent, data not shown) because of a shift of enrollees into Part D employer group waiver plans. That shift reflects changes made by the Patient Protection and Affordable Care Act of 2010 that increased the generosity of the Part D benefit by phasing out the coverage gap and by altering the tax treatment of drug expenses covered by the RDS.

- Nearly 23 percent of Medicare beneficiaries received Part D's LIS in 2015. Of all LIS beneficiaries, more than two-thirds of them (15 percent of all Medicare beneficiaries) were enrolled in stand-alone PDPs, and the remaining beneficiaries (7 percent) were in MA–PD plans.

(Chart continued next page)

Chart 10-4. In 2015, 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 29 percent of all Medicare beneficiaries. Another 21 percent of non-LIS enrollees were in MA–PD plans.

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

- Another 12 percent of Medicare beneficiaries had no drug coverage or coverage that was less generous than Part D's defined standard benefit.

Chart 10-5. Changes in parameters of the Part D defined standard benefit over time

	2006	2015	2016	2017	Cumulative change 2006–2017
Deductible	$250.00	$320.00	$360.00	$400.00	60%
Initial coverage limit	2,250.00	2,960.00	3,310.00	3,700.00	64%
Annual out-of-pocket threshold	3,600.00	4,700.00	4,850.00	4,950.00	38%
Total covered drug spending at annual out-of-pocket threshold	5,100.00	7,061.76	7,515.22	8,071.16	58%
Minimum cost sharing above the annual out-of-pocket threshold					
Copay for generic/preferred multisource drugs	2.00	2.65	2.95	3.30	65%
Copay for other prescription drugs	5.00	6.60	7.40	8.25	65%

Note: Under Part D's defined standard benefit, the enrollee pays the deductible and then 25 percent of covered drug spending (75 percent 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 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 out-of-pocket 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 other source of supplemental coverage. Cost sharing paid by most sources of supplemental coverage does not count toward this threshold. Above the out-of-pocket limit, the enrollee pays 5 percent coinsurance or the copays 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 2017, the standard benefit has a $400 deductible, 25 percent coinsurance on covered drugs until the enrollee reaches $3,700 in total covered drug spending, and then a coverage gap until out-of-pocket spending reaches the annual threshold. 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 of 2010, enrollees pay reduced cost sharing for drugs filled in the coverage gap. In 2017, the cost sharing for drugs filled during the gap phase is 40 percent for brand-name drugs and 51 percent for generic drugs. Enrollees with drug spending that exceeds the annual threshold pay the greater of $3.30 to $8.25 per prescription or 5 percent coinsurance.

- 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. The benefit parameters have generally increased over time, with the exception of 2014. The parameters have grown cumulatively by 38 percent to 65 percent between 2006, the year Part D began, and 2017.

(Chart continued next page)

Chart 10-5. Changes in parameters of the Part D defined standard benefit over time (continued)

- 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.

Chart 10-6. Characteristics of stand-alone Medicare PDPs

	2016				2017			
	Plans		Enrollees as of February 2016		Plans		Enrollees as of February 2017	
	Number	Percent	Number (in millions)	Percent	Number	Percent	Number (in millions)	Percent
Total	886	100%	19.9	100%	746	100%	20.5	100%
Type of organization								
National	685	77	18.1	91	643	86	19.1	93
Other	201	23	1.8	9	103	14	1.5	7
Type of benefit								
Defined standard	0	0	0.0	0	0	0	0.0	0
Actuarially equivalent	438	49	11.6	58	359	48	12.2	59
Enhanced	448	51	8.4	42	387	52	8.4	41
Type of deductible								
Zero	290	33	9.8	49	280	38	9.7	47
Reduced	128	14	0.6	3	110	15	1.5	7
Defined standard*	468	53	9.6	48	356	48	9.4	46
Drugs covered in the gap								
Some coverage	199	22	2.5	12	208	28	2.9	14
None	687	78	17.5	88	538	72	17.6	86

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 $360 in 2016 and is $400 in 2017.

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

- Between 2016 and 2017, the number of stand-alone PDPs decreased by nearly 16 percent. Plan sponsors are offering 746 PDPs in 2017 compared with 886 in 2016.
- In 2017, 86 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 2017, the share of PDP offerings including enhanced benefits (basic plus supplemental coverage) is similar to that in 2016. Likewise, the share of PDPs with actuarially equivalent benefits (having the same average value as the defined standard benefit but with alternative benefit designs) remains about the same. Sponsors are offering no PDPs with the defined standard benefit in 2017. Actuarially equivalent plans continue to attract the largest share of PDP enrollees (59 percent), and the share of enrollees choosing to enroll in enhanced benefit plans remains fairly constant at 41 percent in 2017 compared with 42 percent in 2016.
- A larger share of PDPs includes gap coverage for some drugs (usually generics) in 2017 than in 2016, and in 2017 the majority of PDP enrollees (86 percent) continue to enroll in plans that offer no additional benefits in the coverage gap. However, because of the changes made by the Patient Protection and Affordable Care Act of 2010, the Part D benefit now includes some coverage for medications filled during the gap phase. In addition, many PDP enrollees receive Part D's low-income subsidy, which effectively eliminates the coverage gap.

Chart 10-7. Characteristics of MA–PDs

	2016				2017			
	Plans		Enrollees as of February 2016		Plans		Enrollees as of February 2017	
	Number	Percent	Number (in millions)	Percent	Number	Percent	Number (in millions)	Percent
Totals	1,682	100%	11.2	100%	1,734	100%	11.9	100%
Type of organization								
Local HMO	1,205	72	8.1	72	1,241	72	8.5	72
Local PPO	409	24	2.0	18	429	25	2.3	19
PFFS	38	2	0.2	1	32	2	0.1	1
Regional PPO	30	2	0.9	8	32	2	1.0	8
Type of benefit								
Defined standard	30	2	0.1	1	24	1	0.1	1
Actuarially equivalent	185	11	1.4	13	148	9	1.3	11
Enhanced	1,467	87	9.7	86	1,562	90	10.5	89
Type of deductible								
Zero	933	55	5.5	49	852	49	5.5	46
Reduced	483	29	4.2	37	711	41	5.5	46
Defined standard*	266	16	1.6	14	171	10	1.0	8
Drugs covered in the gap								
Some coverage	744	44	5.2	47	914	53	6.3	53
None	938	56	6.0	53	820	47	5.6	47

Note: MA–PD (Medicare Advantage–Prescription Drug [plan]), HMO (health maintenance organization), PPO (preferred provider organization), PFFS (private fee-for-service). The MA–PD plans 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 $360 in 2016 and is $400 in 2017.

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

- There are 3 percent more MA–PD plans in 2017 than in 2016. Sponsors are offering 1,734 MA–PD plans in 2017 compared with 1,682 the year before. HMOs remain the dominant kind of MA–PD plan, making up 72 percent of all (unweighted) offerings in 2017. The number of PFFS plans continues to decline, from 38 in 2016 to 32 in 2017. Between 2016 and 2017, the number of drug plans offered by local PPOs increased from 409 plans to 429 plans, and the number of drug plans offered by regional PPOs increased from 30 plans to 32 plans.

- A larger share of MA–PD plans than stand-alone prescription drug plans (PDPs) offer enhanced benefits (compare Chart 10-7 with Chart 10-6). In 2017, 52 percent of all PDPs have enhanced benefits compared with 90 percent of MA–PD plans. In 2017, enhanced MA–PD plans attracted 89 percent of total MA–PD enrollment.

- Forty-nine percent of MA–PD plans have no deductible in 2017. These plans attracted 46 percent of total MA–PD enrollees in 2017.

- MA–PD plans are more likely than PDPs to provide some additional benefits in the coverage gap. In 2017, about 53 percent of MA–PD plans include some gap coverage—higher than the year before. Those plans account for 53 percent of MA–PD enrollment.

Chart 10-8. Change in average Part D premiums, 2013–2017

	Average monthly premium weighted by enrollment					Cumulative change in weighted average premium, 2013–2017
	2013	2014	2015	2016	2017	
All plans						
Basic coverage	$32	$29	$26	$28	$30	–4%
Enhanced coverage	28	30	33	33	33	17
Any coverage	30	29	30	31	32	7
PDPs						
Basic coverage	32	30	28	29	31	–3
Enhanced coverage	49	49	48	53	54	11
Any coverage	39	38	37	39	41	5
MA–PDs, including SNPs						
Basic coverage	29	25	21	22	26	–9
Enhanced coverage	13	13	16	17	18	40
Any coverage	15	16	18	18	19	29
Base beneficiary premium	31.17	32.42	33.13	34.10	35.63	14

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–PD plans 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–PD plans are lower than for basic MA–PD plans 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.

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

- The overall average premium (for any coverage) paid by Part D enrollees grew slowly from $30 per month in 2013 to $32 per month in 2017. However, year-to-year changes have differed by the type of benefit (basic vs. enhanced coverage) and type of plan (PDP vs. MA−PD), and they generally have not corresponded to changes observed in the base beneficiary premium.

- Over the five-year period, the average enrollee premium for basic coverage in PDPs ranged between a high of $32 per month in 2013 and a low of $28 in 2015, decreasing by a cumulative 3 percent from 2013 to 2017. The average enrollee premium for PDPs offering enhanced coverage has increased from $49 in 2013 to $54 in 2017, a cumulative 11 percent increase.

- Between 2013 and 2017, the average premium paid by beneficiaries enrolled in MA−PD plans with basic coverage ranged between a high of $29 per month in 2013 and a low of $21 in 2015, decreasing by a cumulative 9 percent. The average premium paid by beneficiaries enrolled in MA−PD plans offering enhanced coverage has increased from $13 in 2013 to $18 in 2017, a cumulative 40 percent increase.

Chart 10-9. More premium-free (for LIS enrollees) PDPs in 2017

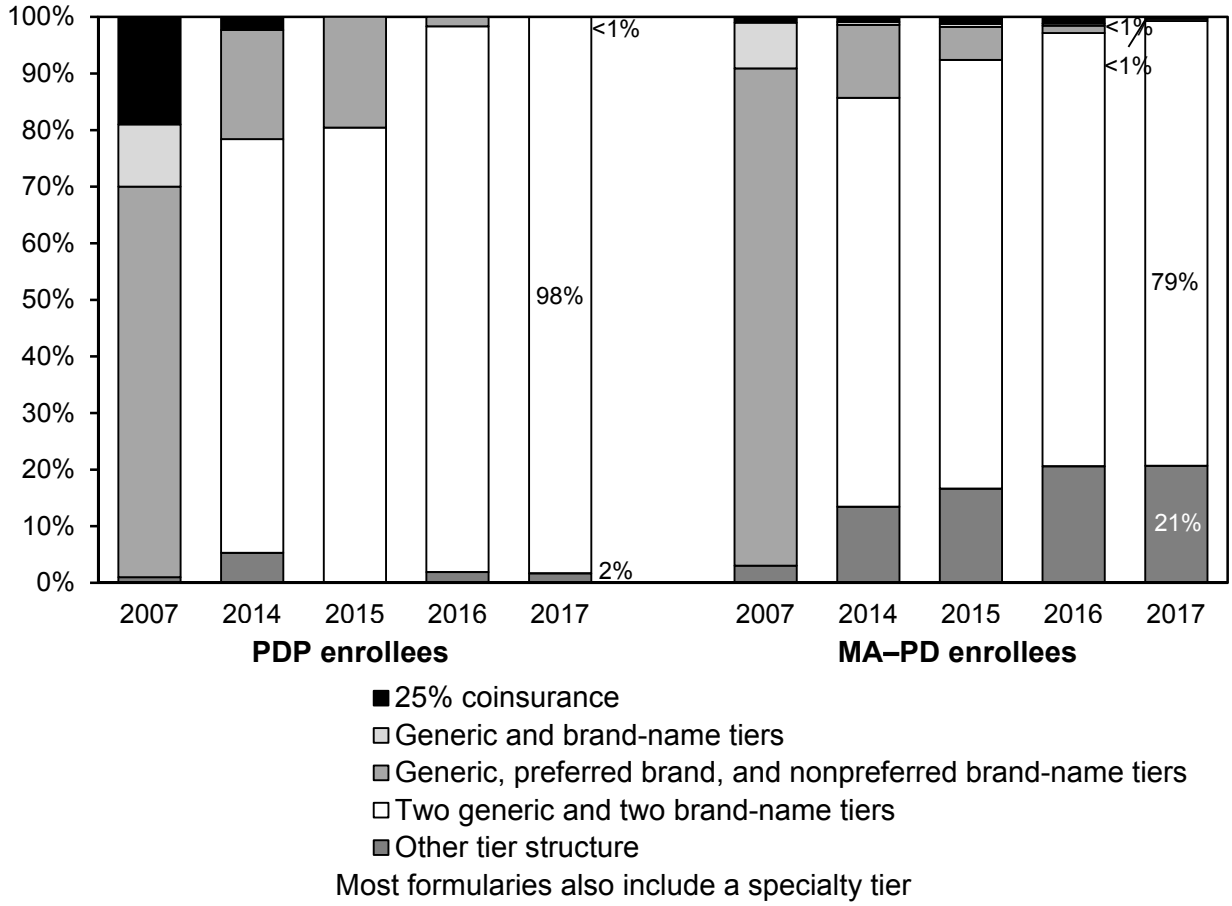
PDP region	State(s)	Number of PDPs			Number of PDPs that have zero premium for LIS enrollees		
		2016*	2017*	Difference	2016*	2017*	Difference
1	ME, NH	27	23	–4	9	8	–1
2	CT, MA, RI, VT	26	21	–5	6	7	1
3	NY	22	19	–3	7	8	1
4	NJ	25	21	–4	8	8	0
5	DC, DE, MD	24	20	–4	10	10	0
6	PA, WV	29	24	–5	9	9	0
7	VA	28	23	–5	7	7	0
8	NC	26	22	–4	5	7	2
9	SC	27	21	–6	4	6	2
10	GA	27	23	–4	5	4	–1
11	FL	22	20	–2	3	3	0
12	AL, TN	27	24	–3	7	7	0
13	MI	28	23	–5	7	8	1
14	OH	27	22	–5	5	6	1
15	IN, KY	28	23	–5	7	7	0
16	WI	27	24	–3	7	7	0
17	IL	28	23	–5	9	9	0
18	MO	28	23	–5	4	4	0
19	AR	26	22	–4	4	5	1
20	MS	24	19	–5	6	7	1
21	LA	25	20	–5	7	7	0
22	TX	28	23	–5	7	6	–1
23	OK	27	22	–5	6	7	1
24	KS	25	22	–3	4	5	1
25	IA, MN, MT, ND, NE, SD, WY	26	22	–4	5	6	1
26	NM	27	23	–4	8	9	1
27	CO	26	23	–3	6	7	1
28	AZ	26	22	–4	10	10	0
29	NV	28	23	–5	4	4	0
30	OR, WA	26	21	–5	9	8	–1
31	ID, UT	28	24	–4	9	9	0
32	CA	28	24	–4	6	6	0
33	HI	21	19	–2	2	5	3
34	AK	19	18	–1	6	5	–1
	Total	886	746	–140	218	231	13

Note: LIS (low-income [drug] subsidy), PDP (prescription drug plan).
*These figures include 12 plans in 2016 and 25 plans in 2017 that did not accept new enrollees because of CMS sanctions.

Source: MedPAC based on 2016 and 2017 PDP landscape file provided by CMS.

- The total number of stand-alone PDPs decreased by 16 percent, from 886 in 2016 to 746 in 2017. The median number of plans offered in PDP regions decreased to 22 plans from 27 in 2016 (data not shown). In 2017, AK has the fewest stand-alone PDPs, with 18; 5 regions have the most, with 24—Region 6 (PA, WV), Region 12 (AL, TN), Region 16 (WI), Region 31 (ID, UT), and Region 32 (CA).
- In 2017, 231 PDPs qualify as premium free to LIS enrollees. With the exception of FL, which has only three plans with no premium for LIS enrollees, at least four premium-free PDPs are available in any given region. However, 25 plans were not accepting new enrollees because of CMS sanctions, reducing the number of premium-free options to 206 PDPs.

Chart 10-10. In 2017, most Part D enrollees are in plans that use a five-tier formulary structure

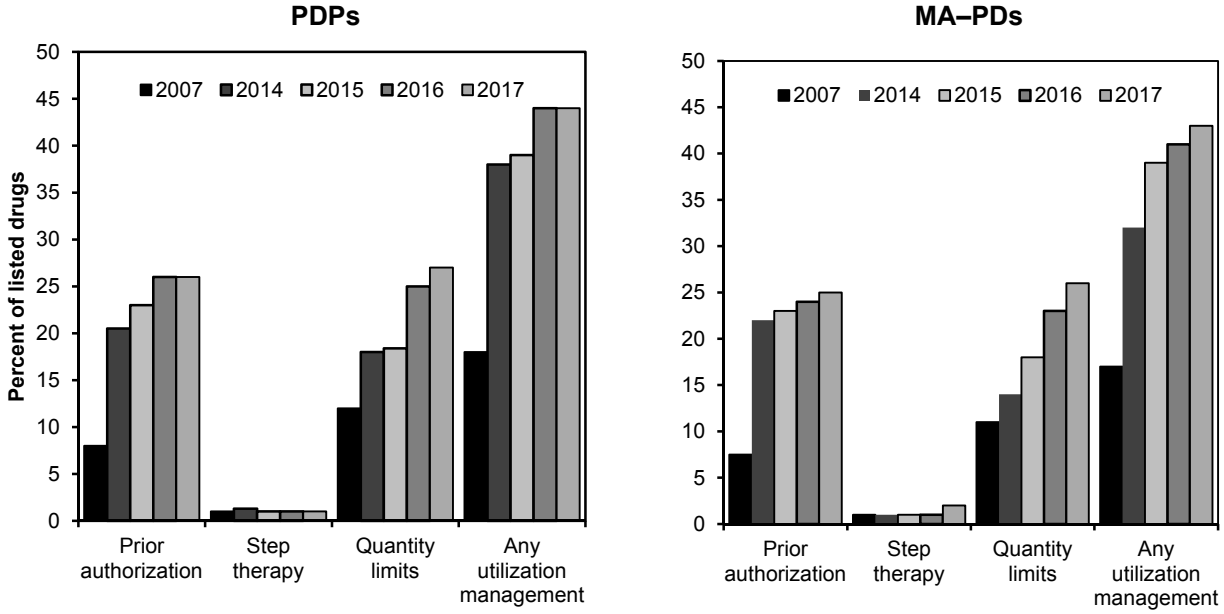


Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]). Calculations are weighted by enrollment. All calculations exclude employer-only groups and plans offered in U.S. territories. In addition, MA–PDs exclude demonstration programs, special needs plans, and 1876 cost plans. Components may not sum to totals due to rounding. Over 99 percent of stand-alone PDPs and MA−PDs have a specialty tier in addition to the tiers listed above. The algorithm used to classify formularies was modified beginning with 2016 data but does not materially affect results.

Source: MedPAC and MedPAC-sponsored analyses by NORC/Social and Scientific Systems of formularies submitted to CMS.

- Most Part D enrollees choose plans that distinguish between preferred and nonpreferred brand-name drugs and preferred and nonpreferred generic drugs. In 2017, 98 percent of PDP enrollees are in plans that have two generic and two brand-name tiers, an increase from 96 percent in 2016. About 79 percent of MA–PD enrollees are in such plans in 2017, an increase from 77 percent in 2016.
- For enrollees in PDPs with two generic and two brand-name tiers, the median copay in 2017 is $40 for a preferred brand-name drug and 40 percent coinsurance for a nonpreferred brand-name drug (data not shown). The median copay for generic drugs is $1 for generic drugs on the lower tier and $7 for the higher tier. For MA–PD enrollees, in 2017, the median copay is $47 for a preferred brand, 45 percent coinsurance for a nonpreferred brand, and $2 and $11 for a generic drug on the two generic tiers, respectively.
- Most plans also use a specialty tier for drugs that have a negotiated price of $670 per month or more. In 2017, median cost sharing for a specialty-tier drug is 25 percent among PDPs and 29 percent among MA–PD plans (data not shown).

Chart 10-11. In 2017, PDPs and MA–PDs apply some utilization management to more than 40 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–PD plans 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 does not materially affect results.

Source: MedPAC and MedPAC-sponsored analyses by NORC/Social and Scientific Systems of formularies submitted to CMS.

- In addition to the number of drugs listed on a plan's formulary, plans' processes for nonformulary exceptions—prior authorization (preapproval from plans before coverage), quantity limits (plan 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 2017, the average enrollee in a stand-alone PDP faces some form of utilization management for about 44 percent of drugs listed on a plan's formulary, about the same rate as in 2016. The average MA–PD enrollee faces some form of utilization management for 43 percent of drugs listed on a plan's formulary, an increase from 41 percent in 2016. Part D plans typically use quantity limits or prior authorization to manage enrollees' prescription drug use.

- Among the drugs listed on plan formularies for stand-alone PDPs, the share that requires prior authorization in 2017 remained unchanged from 2016 at 26 percent. The share with quantity limits increased from 25 percent in 2016 to 27 percent in 2017. Among MA–PDs, both the use of prior authorization and the use of quantity limits increased between 2016 and 2017, from 24 percent to 25 percent for prior authorization and from 23 percent to 26 percent for quantity limits. 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 10-12. Characteristics of Part D enrollees, 2014

	All Medicare	Part D	Plan type		Subsidy status	
			PDP	MA–PD	LIS	Non-LIS
Beneficiaries[a] (in millions)	56.6	40.0	25.1	14.9	12.8	27.2
Percent of all Medicare	100%	71%	44%	26%	23%	48%
Gender						
Male	46%	42%	42%	43%	40%	44%
Female	54	58	58	57	60	56
Race/ethnicity						
White, non-Hispanic	76	74	77	69	56	83
African American, non-Hispanic	10	11	11	11	20	7
Hispanic	9	10	7	15	16	7
Asian	3	3	3	4	6	2
Other	2	2	2	2	2	2
Age (years)[b]						
<65	19	19	22	16	42	9
65–69	26	24	23	26	16	28
70–74	19	20	19	22	13	24
75–79	14	15	14	15	10	17
80+	22	22	23	21	19	24
Urbanicity[c]						
Metropolitan	82	82	78	89	81	83
Micropolitan	10	10	12	7	11	10
Rural	8	8	10	4	8	7

Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]), LIS (low-income [drug] subsidy). Percentages may not sum to 100 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 is classified as "LIS" if that individual received Part D's LIS at some point during the year. For individuals who switch plan types during the year, classification into plan types is based on the greater number of months of enrollment.
[b]Age as of July 2014.
[c]Urbanicity is based on the Office of Management and Budget's core-based statistical areas as of February 2013. 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 2014, 40 million Medicare beneficiaries (71 percent) were enrolled in Part D at some point in the year. Most of them (25.1 million) were in stand-alone PDPs, with 14.9 million in MA–PD plans. Nearly 13 million enrollees received Part D's LIS.
- Compared with the overall Medicare population, Part D enrollees are more likely to be female and non-White. MA–PD enrollees are less likely to be disabled beneficiaries under age 65 and more likely to be Hispanic compared with PDP enrollees; LIS enrollees are more likely to be female, non-White, 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: 82 percent in metropolitan areas, 10 percent in micropolitan areas, and the remaining 8 percent in rural areas.

Chart 10-13. Part D enrollment trends, 2007–2014

	2007	2010	2014	Average annual growth rate 2007–2010	2010–2014	2007–2014
Part D enrollment (in millions)*						
Total	26.1	29.7	40.0	4.4%	7.7%	6.3%
By plan type						
PDP	18.3	18.9	25.1	1.1	7.3	4.6
MA–PD	7.8	10.6	14.9	10.9	8.9	9.8
By subsidy status						
LIS	10.4	11.3	12.8	2.7	3.1	2.9
Non-LIS	15.7	18.4	27.2	5.5	10.2	8.2
By race/ethnicity						
White, non-Hispanic	19.4	22.0	29.6	4.3	7.7	6.2
African American, non-Hispanic	2.9	3.3	4.4	4.1	7.4	5.9
Hispanic	2.5	3.0	3.9	5.8	6.7	6.3
Other	1.3	1.4	2.1	3.9	10.3	7.5
By age (years)**						
<65	5.5	6.3	7.8	4.7	5.5	5.2
65–69	5.4	6.6	9.5	6.5	9.9	8.4
70–79	8.8	9.9	13.9	3.8	8.9	6.7
80+	6.4	7.1	8.8	3.2	5.7	4.6
Part D enrollment (in percent)						
Total	100%	100%	100%			
By plan type						
PDP	70	64	63			
MA–PD	30	36	37			
By subsidy status						
LIS	40	38	32			
Non-LIS	60	62	68			
By race/ethnicity						
White, non-Hispanic	74	74	74			
African American, non-Hispanic	11	11	11			
Hispanic	10	10	10			
Other	5	5	5			
By age (years)**						
<65	21	21	19			
65–69	21	22	24			
70–79	34	33	35			
80+	25	24	22			

Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]), LIS (low-income [drug] subsidy). A beneficiary is 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 plan during the year, that individual was classified into the type of plan with the greater number of months of enrollment. Numbers may not sum to totals due to rounding.
*Figures include all beneficiaries with at least one month of enrollment.
**Age figures are as of July of the respective year.

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

(Chart continued next page)

Chart 10-13. Part D enrollment trends, 2007–2014 (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). Between 2010 and 2014, the largest growth in enrollment was observed for beneficiaries ages 65 to 69 (9.9 percent annually, on average), followed by beneficiaries ages 70 to 79 (8.9 percent annually, on average).

- While MA–PD plan enrollment grew faster than PDP enrollment between 2007 and 2010 (nearly 11 percent annually compared with about 1 percent annually, on average, respectively), the growth rates were more comparable between MA–PDs and PDPs between 2010 and 2014 (AAGR of 8.9 percent and 7.3 percent, respectively).

- The number of enrollees receiving the LIS grew modestly between 2007 and 2010 at 2.7 percent per year. Higher growth rates (3.1 percent) were observed between 2010 and 2014. The average annual growth in the number of non-LIS enrollees was also greater between 2010 and 2014 (10.2 percent) than it was between 2007 and 2010 (5.5 percent). Faster enrollment growth among non-LIS enrollees is partly attributable to the recent growth in employer group waiver plans that shifted beneficiaries into Part D plans from employer plans that had previously received Medicare's retiree drug subsidy (RDS) (see Chart 10-4 for information on the RDS).

Chart 10-14. Part D enrollment by region, 2014

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	65%	5%	80%	20%	39%	61%
2	CT, MA, RI, VT	69	9	70	30	39	61
3	NY	76	6	56	44	38	62
4	NJ	71	6	82	18	26	74
5	DE, DC, MD	59	7	87	13	34	66
6	PA, WV	73	5	58	42	29	71
7	VA	61	4	77	23	31	69
8	NC	72	5	63	37	33	67
9	SC	70	3	71	29	33	67
10	GA	70	3	60	40	37	63
11	FL	73	5	50	50	31	69
12	AL, TN	72	4	62	38	37	63
13	MI	76	5	76	24	26	74
14	OH	76	4	67	33	27	73
15	IN, KY	72	5	74	26	32	68
16	WI	69	4	61	39	26	74
17	IL	69	8	78	22	32	68
18	MO	72	3	66	34	29	71
19	AR	67	5	75	25	40	60
20	MS	70	2	82	18	47	53
21	LA	72	5	62	38	41	59
22	TX	68	5	66	34	36	64
23	OK	65	2	78	22	33	67
24	KS	69	2	83	17	25	75
25	IA, MN, MT, NE, ND, SD, WY	72	3	74	26	24	76
26	NM	69	3	57	43	37	63
27	CO	70	4	51	49	25	75
28	AZ	70	4	49	51	28	72
29	NV	66	5	52	48	26	74
30	OR, WA	66	7	53	47	29	71
31	ID, UT	65	5	54	46	25	75
32	CA	76	4	50	50	36	64
33	HI	70	2	37	63	27	73
34	AK	41	23	98	2	55	45
	Mean	71	5	63	37	32	68
	Minimum	41	2	37	2	24	45
	Maximum	76	23	98	63	55	76

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.

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

- Among Part D regions in 2014, all but two regions (Region 5 (DE, DC, MD), and 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 continues 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 23 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 10-14. Part D enrollment by region, 2014 (continued)

- In 2014, all regions except Region 34 experienced a decrease in the number of beneficiaries who received the RDS (data not shown). In many regions, the decreases in RDS recipients were accompanied by larger than average increases in Part D enrollment (e.g., Region 5, Region 9, Region 17, and Region 27). 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–PD plans across PDP regions. The pattern of MA–PD enrollment is generally consistent with enrollment in Medicare Advantage plans.

- The share of Part D enrollees receiving the LIS ranged from 24 percent in Region 25 (IA, MN, MT, NE, ND, SD, and WY) to 55 percent in Region 34 (AK). In 19 of the 34 PDP regions, LIS enrollees accounted for 30 percent to 50 percent of enrollment.

Chart 10-15. Components of Part D spending growth

	2009	2014	Average annual growth 2009–2014
Total gross spending (in billions)			
High-cost beneficiaries	$29.2	$64.6	17.2%
Lower cost beneficiaries	44.6	56.7	4.9%
All beneficiaries	73.7	121.4	10.5%
Number of beneficiaries using a Part D drug (in millions)			
High-cost beneficiaries	2.4	3.4	7.6%
Lower cost beneficiaries	24.1	33.7	6.9%
All beneficiaries	26.5	37.1	7.0%
Amount per beneficiary who used Part D drugs			
Average price per 30-day prescription	$55	$60	1.7%
Number of 30-day prescriptions	50.4	54.5	1.5%
Gross drug spending per year	$2,781	$3,267	3.3%
Amount per high-cost beneficiary who used Part D drugs			
Average price per 30-day prescription	$110	$166	8.4%
Number of 30-day prescriptions	111.4	113.9	0.4%
Gross drug spending per year	$12,294	$18,845	8.9%
Amount per lower cost beneficiary who used Part D drugs			
Average price per 30-day prescription	$42	$35	–3.5%
Number of 30-day prescriptions	44.5	48.4	1.7%
Gross drug spending per year	$1,846	$1,683	–1.8%

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.

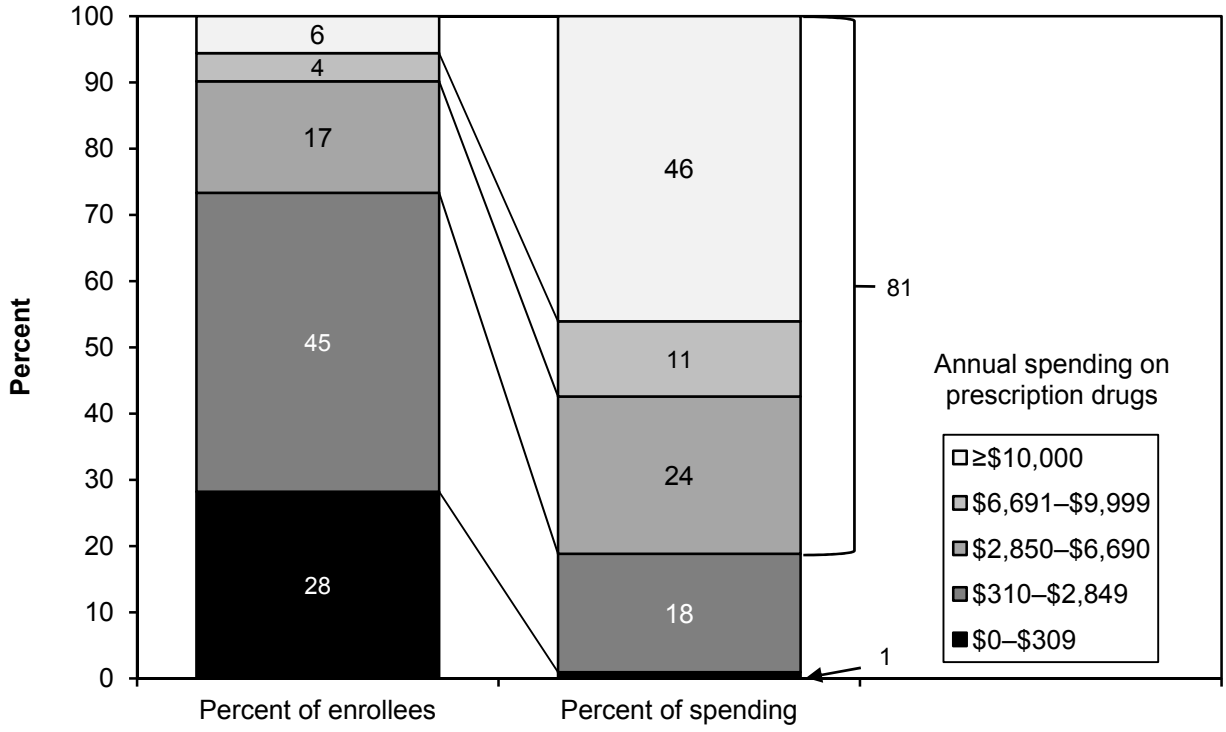
- Between 2009 and 2014, gross spending on drugs under the Part D program grew by an annual average rate of 10.5 percent. The annual growth in spending was considerably higher (17.2 percent) among high-cost beneficiaries (individuals who incurred spending high enough to reach the catastrophic phase of the benefit) compared with less than 5 percent for lower cost beneficiaries.

- During the 2009 through 2014 period, the number of beneficiaries who used Part D drugs grew by an annual average rate of 7 percent, with faster growth observed among high-cost beneficiaries (7.6 percent) than among lower cost beneficiaries (6.9 percent).

- Overall, between 2009 and 2014, the growth in prices per 30-day prescription accounted for slightly more than half (1.7 percent) of the 3.3 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 for high-cost beneficiaries and lower cost beneficiaries. Among high-cost beneficiaries, annual growth in prices (8.4 percent) accounted for nearly all of the spending growth (8.9 percent) during this period. In contrast, among lower cost beneficiaries, the annual decrease in prices (3.5 percent) resulted in an overall decrease in spending (–1.8 percent annually), despite an increase in the number of prescriptions filled during the same period.

Chart 10-16. The majority of Part D spending was incurred by slightly over one-quarter of all Part D enrollees, 2014



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. Annual spending categories used for this analysis generally correspond to the parameters of the defined standard benefit. In 2014, an individual without Part D's low-income subsidy or other sources of supplemental coverage would have reached the catastrophic phase of the benefit at $6,690.77 in total drug spending, assuming that expenses for brand-name drugs accounted for 86.2 percent of total drug spending in the coverage gap. 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 2014, about 27 percent of Part D enrollees had annual spending of $2,850 or more, at which point enrollees were responsible for a higher proportion of the cost of the drug until their spending reached $6,690.77 under the defined standard benefit. These beneficiaries accounted for 81 percent of total Part D spending.

- The costliest 10 percent of beneficiaries, those with drug spending above the catastrophic threshold under the defined standard benefit, accounted for 57 percent of total Part D spending. Sixty-two percent of beneficiaries with the highest spending received Part D's low-income [drug] subsidy (see Chart 10-17). Spending on prescription drugs is less concentrated than Medicare Part A and Part B spending. In 2013, the costliest 5 percent of beneficiaries accounted for 42 percent of annual Medicare fee-for-service (FFS) spending, and the costliest quartile accounted for 84 percent of Medicare FFS spending (see Chart 1-11).

- In 2014, the share of Part D enrollees with annual gross spending at or above $10,000 increased to 6 percent from 5 percent in 2013 and earlier years. Those costliest 6 percent of enrollees accounted for 46 percent of spending in 2014.

Chart 10-17. Characteristics of Part D enrollees, by spending levels, 2014

	Annual drug spending		
	<$2,850	$2,850–$6,690	≥$6,691
Sex			
Male	43%	40%	41%
Female	57	60	59
Race/ethnicity			
White, non-Hispanic	74	76	70
African American, non-Hispanic	11	11	14
Hispanic	10	9	10
Other	5	5	6
Age (years)			
<65	17	20	37
65–69	26	19	17
70–74	21	20	16
75–80	15	16	12
80+	22	25	17
LIS status*			
LIS	26	39	62
Non-LIS	74	61	38
Plan type**			
PDP	60	68	74
MA–PD	40	32	26

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. A small number of beneficiaries were excluded from the analysis because of missing data. Percentages 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 plan 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 2014, Part D enrollees with annual drug spending between $2,850 and $6,690 and those with spending at or above $6,691 were more likely to be female than enrollees with annual spending below $2,850 (60 percent and 59 percent, respectively, compared with 57 percent).

- Part D enrollees with annual spending at or above $6,691 were more likely to be non-White, disabled, under age 65, and receiving the LIS compared with those with annual spending below $2,850.

- Part D enrollees entered the catastrophic phase of the benefit at about $6,691 in total drug spending in 2014. While LIS enrollees are more likely to reach the catastrophic phase of the benefit, their share has been declining, from more than three-quarters in 2010 and earlier years to 65 percent in 2013 (not shown in chart) and 62 percent in 2014. This decline reflects more rapid enrollment growth among individuals who do not receive the LIS as well as the growth in average prices of drugs taken by those individuals.

- About three-quarters of Part D enrollees with spending at or above $6,691 were enrolled in stand-alone PDPs (74 percent) compared with MA–PD plans (26 percent). In contrast, beneficiaries with annual spending below $2,850 were more likely to be in MA–PDs compared with those with higher annual spending (40 percent compared with 26 percent). This contrast reflects the facts that LIS enrollees are more costly on average and are more likely to be in PDPs.

Chart 10-18. Part D spending and use per enrollee, 2014

	Part D	Plan type		LIS status	
		PDP	MA–PD	LIS	Non-LIS
Total gross spending (billions)*	$121.4	$85.1	$36.2	$60.3	$61.0
Total number of prescriptions (millions)	2,023	1,307	716	774	1,249
Average spending per prescription	$60	$65	$51	$78	$49
Per enrollee per month					
Total spending	$268	$303	$211	$427	$196
OOP spending	33	34	31	6	45
Manufacturer gap discount	11	13	8	N/A	16
Plan liability	164	182	134	273	115
Low-income cost-sharing subsidy	46	56	30	148	N/A
Number of prescriptions	4.5	4.6	4.2	5.5	4.0

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. Total spending does not necessarily equal the sum of OOP spending, manufacturer gap discount, plan liability, and low-income cost-sharing subsidy because other smaller sources of payment are not shown. 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. "OOP spending" includes all payments that count toward the annual OOP spending threshold. "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 over $5 million in manufacturer discounts for brand-name drugs filled by non-LIS enrollees during the coverage gap.

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

- In 2014, gross spending on drugs for the Part D program totaled $121.4 billion, with about 70 percent ($85.1 billion) accounted for by Medicare beneficiaries enrolled in stand-alone PDPs. Part D enrollees receiving the LIS accounted for about 50 percent ($60.3 billion) of the total. Manufacturer discounts for brand-name drugs filled by non-LIS enrollees while they were in the coverage gap accounted for 4.2 percent of the total, or 8.4 percent of the gross spending by non-LIS enrollees (data not shown).

- The number of prescriptions filled by Part D enrollees totaled 2,023 million, with about two-thirds (1,307 million) accounted for by PDP enrollees. The 32 percent of enrollees who received the LIS accounted for about 38 percent (774 million) of the total number of prescriptions filled.

- In 2014, Part D enrollees filled 4.5 prescriptions at $268 per month on average, an increase from $242 per month (for 4.5 prescriptions) in 2013 (2013 data not shown). The average monthly plan liability for PDP enrollees ($182) was considerably higher than that of MA–PD enrollees ($134), while average monthly OOP spending was similar for enrollees in both types of plans ($34 vs. $31, respectively). The average monthly low-income cost-sharing subsidy was much higher for PDP enrollees ($56) compared with MA–PD enrollees ($30).

- Average monthly spending per LIS enrollee ($427) was more than double that of a non-LIS enrollee ($196), while the average number of prescriptions filled per month by an LIS enrollee was 5.5 compared with 4.0 for a non-LIS enrollee. LIS enrollees had much lower OOP spending, on average, than non-LIS enrollees ($6 vs. $45, respectively). Part D's LIS pays for most of the cost sharing for LIS enrollees, averaging $148 per month in 2014.

Chart 10-19. Trends in Part D spending and use per enrollee, 2007–2014

	Average spending and number of prescriptions						Average annual growth rate, 2007–2014	
	2007	2010	2011	2012	2013	2014	Number	Percent
Average spending per month								
All Part D	$212	$231	$239	$235	$242	$268	$9	3.4%
By LIS status								
LIS	301	348	364	362	377	427	21	5.1
Non-LIS	156	163	167	167	179	196	7	3.3
By plan type								
PDP	239	265	274	270	275	303	11	3.4
MA−PD	151	172	178	178	185	211	10	4.9
Average number of prescriptions per month*								
All Part D	3.9	4.2	4.3	4.3	4.5	4.5	0.1	1.9
By LIS status								
LIS	4.6	5.1	5.1	5.2	5.4	5.5	0.1	2.5
Non-LIS	3.4	3.7	3.8	3.8	4.0	4.0	0.1	2.4
By plan type								
PDP	4.1	4.4	4.5	4.5	4.6	4.6	0.1	1.7
MA−PD	3.4	3.8	3.9	4.0	4.1	4.2	0.1	2.8

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. 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
*Number of prescriptions is standardized to a 30-day supply.

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

- Between 2007 and 2014, average per capita spending for Part D–covered drugs grew at an average annual rate of 3.4 percent, or by about 26 percent cumulatively. Growth in average per capita spending has fluctuated over the years, ranging from –1.5 percent between 2011 and 2012 to nearly 11 percent between 2013 and 2014 (data not shown).

- Spending growth for non-LIS enrollees was lower than that for LIS enrollees (average annual growth rate of 3.3 percent compared with 5.1 percent) during the 2007 to 2014 period, resulting in a larger difference in per capita spending between the two groups—from $145 in 2007 to about $230 per member per month in 2014. The growth in the number of prescriptions filled by LIS and non-LIS enrollees was comparable during this period.

- The growth in per capita drug spending among MA−PD enrollees exceeded that of PDP enrollees during the 2007 to 2014 period (4.9 percent compared with 3.4 percent), but the average growth was the same for both PDP and MA−PD enrollees in terms of the dollar increase ($11 and $10, respectively), and the average per capita spending for MA−PD enrollees continued to be below that of PDP enrollees by about $90.

Chart 10-20. Top 15 therapeutic classes of drugs covered under Part D, by spending and volume, 2014

Top 15 therapeutic classes by spending	Dollars		Top 15 therapeutic classes by volume	Prescriptions	
	Billions	Percent		Millions	Percent
Diabetic therapy	$14.1	11.6%	Antihypertensive therapy agents	209.7	10.4%
Antivirals	9.1	7.5	Antihyperlipidemics	203.2	10.0
Asthma/COPD therapy agents	8.3	6.8	Beta adrenergic blockers	126.5	6.3
Antihyperlipidemics	7.7	6.3	Diabetic therapy	126.1	6.2
Antipsychotics	6.2	5.1	Antidepressants	115.9	5.7
Antihypertensive therapy agents	5.5	4.6	Peptic ulcer therapy	104.4	5.2
Analgesic (anti-inflammatory/ antipyretic, non-narcotic)	4.4	3.6	Diuretics	100.1	5.0
Peptic ulcer therapy	4.4	3.6	Calcium channel blockers	87.3	4.3
Analgesics (narcotic)	4.1	3.4	Analgesics (narcotic)	84.0	4.1
Anticonvulsant	3.8	3.1	Thyroid therapy	76.9	3.8
Antineoplastic enzyme inhibitors	3.6	2.9	Anticonvulsant	73.0	3.6
Antidepressants	3.3	2.7	Asthma/COPD therapy agents	54.7	2.7
Cognitive disorder therapy (antidementia)	2.7	2.2	Antibacterial agents	51.8	2.6
Anticoagulants	2.7	2.2	Antianxiety agents	37.6	1.9
Calcium and bone metabolism regulators	2.1	1.8	Analgesic (anti-inflammatory/ antipyretic, non-narcotic)	37.2	1.8
Subtotal, top 15 classes	82.0	67.6	Subtotal, top 15 classes	1,488.3	73.6
Total, all classes	121.4	100.0	Total, all classes	2,023.1	100.0

Note: COPD (chronic obstructive pulmonary disease). "Spending" (gross) reflects payments from all payers, including beneficiaries (cost sharing), but does not include rebates and discounts from pharmacies and manufacturers that are not reflected in prices at the pharmacies. "Volume" is the number of prescriptions, standardized to a 30-day supply. Therapeutic classification is based on the First DataBank Enhanced Therapeutic Classification System 1.0. Components may not sum to totals due to rounding.

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

- In 2014, the top 15 therapeutic classes by spending accounted for about two-thirds of the $121.4 billion spent on prescription drugs covered by Part D plans. The top 15 therapeutic classes by volume accounted for about three-quarters of the roughly 2 billion prescriptions dispensed in 2014.

- 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 doubled Part D spending on antivirals between 2013 and 2014 (2013 data not shown). As a result, antivirals became the second highest spending category in 2014, accounting for $9.1 billion, or 7.5 percent of total spending, up from $4.3 billion, or about 4 percent of total spending in 2013.

- In 2014, spending on drugs to treat diabetes totaled $14.1 billion, an increase of about 28 percent from $11 billion in 2013, while the number of prescriptions filled for diabetic therapy totaled 126.1 million, an increase of 7.5 percent from 117.2 million in 2013 (2013 data not shown). Nearly 20 percent of the growth in spending on drugs to treat diabetes was due to the increase in the average price per standardized 30-day prescription.

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Chart 10-20. Top 15 therapeutic classes of drugs covered under Part D, by spending and volume, 2014 (continued)

- Antianxiety agents appeared on the top-15 list by volume for the first time in 2013. The number of prescriptions for antianxiety agents totaled 37.6 million in 2014, an increase of about 7 percent from 35.2 million in 2013. Before 2013, the use of antianxiety drugs was relatively low (8.5 million in 2012). The increase in the use of antianxiety agents since 2012 reflects the addition of benzodiazepines to the list of Part D–covered drugs beginning in 2013.

- Nine therapeutic classes are among the top 15 in both spending and volume. Diabetic therapy dominates the list by spending, accounting for more than 17 percent of spending for the top 15 therapeutic classes, followed by central nervous system agents (antipsychotics, anticonvulsants, and antidepressants) and cardiovascular agents (antihyperlipidemics and antihypertensive therapy agents), each accounting for about 16 percent of spending. 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 10-21. Drug spending and use and the characteristics of beneficiaries filling the most prescriptions, 2014

	Beneficiaries in the top 5 percent*		
		As a share of Part D	All Part D
Number of beneficiaries (in millions)	1.9	5%	40.0
Aggregate spending and use			
Gross spending (in billions)	$23.0	19	$121.4
Number of prescriptions (in millions)	277	20	1,416
Average spending per prescription	$83		$86
Per enrollee per year			
Gross spending	$12,307		$3,217
Out-of-pocket spending	$494		$394
Number of prescriptions	148		54
Demographic characteristics			
Female	66%		58%
White	72		74
LIS	78		32
PDP	74		63

Note: LIS (low-income [drug] subsidy), PDP (prescription drug plan). "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. "Out-of-pocket spending" includes all payments that count toward the annual out-of-pocket spending threshold. "Number of prescriptions" is based on counts of prescription drug events (PDEs) (not standardized to a 30-day supply).
*"Beneficiaries in the top 5 percent" is based on the volume of prescriptions filled by those who filled at least one prescription in 2014. Because roughly 7 percent of Part D enrollees did not fill any prescriptions for a Part D–covered drug in 2014, "the top 5 percent" translates to about 4.7 percent of all Part D enrollees. The figures reported in the table include claims for a small number beneficiaries who did not have a record of Part D enrollment in the denominator file and claims that were missing beneficiary identification information. These claims accounted for about 9,000 prescriptions at a gross cost of over $600,000.

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

- In 2014, Part D enrollees in the top 5 percent (1.9 million) based on the number of prescriptions filled accounted for $23 billion in gross spending (19 percent of total gross spending) for drugs covered under the Part D program. The number of prescriptions filled by enrollees in the top 5 percent totaled 277 million, or 20 percent of all prescriptions filled under the Part D program.

- In 2014, Part D enrollees in the top 5 percent each filled an average of 148 prescriptions each at a gross annual cost of $12,307, compared with an average of 54 prescriptions each at a gross annual cost of $3,217 for all Part D enrollees. Compared with the difference in gross spending, the difference in beneficiary out-of-pocket spending between enrollees in the top 5 percent and all Part D enrollees was much smaller ($494 compared with $394).

- Compared with the overall Part D population, enrollees in the top 5 percent were more likely to be female. Nearly 80 percent of the enrollees in the top 5 percent received the low-income subsidy compared with 32 percent for all Part D enrollees, and 74 percent were enrolled in a stand-alone prescription drug plan compared with 63 percent for all Part D enrollees.

Chart 10-22. Part D spending and use, 2014

	Part D	Plan type	
		PDP	MA–PD
Total gross spending (billions)	$121.4	$81.9	$36.1
Total number of prescriptions (millions)	1,414	905	480
Average cost per prescription	$86	$90	$75
Total gross spending by specialty (billions)			
Primary care providers*	$68.2	$45.3	$21.2
Specialty and other providers	$53.1	$36.6	$14.9
Total number of prescriptions by specialty (millions)			
Primary care providers*	1,008.2	643.8	348.7
Specialty and other providers	405.8	261.6	131.1
Average cost per prescription			
Primary care providers*	$67.66	$70.30	$60.79
Specialty and other providers	$130.93	$140.06	$113.80

Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]). "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 lack of information about plan type for some observations. "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 2014 prescription counts shown in Chart 10-15 and Chart 10-18 through Chart 10-21.
*The definition of "primary care" used here is based on the definition used for the Primary Care Incentive Payment Program and includes practitioners who have a primary Medicare specialty designation of family practice, internal medicine, pediatrics, geriatrics, nurse practitioner and clinical nurse specialist, or physician assistant.

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

- In 2014, gross spending on drugs for the Part D program totaled $121.4 billion, with about two-thirds ($81.9 billion) accounted for by Medicare beneficiaries enrolled in PDPs, according to CMS's Part D claims data summarized at the prescriber level. The number of prescriptions (not adjusted for the number of days' supply) filled by Part D enrollees totaled about 1.4 billion, with about 64 percent (905 million) accounted for by PDP enrollees. The cost per prescription dispensed averaged $86 across all Part D enrollees. The average cost per prescription is higher among PDP enrollees ($90) compared with that of MA–PD enrollees ($75).

- Prescriptions written by primary care providers accounted for about 56 percent ($68.2 billion) of gross spending and 71 percent (1,008.2 million) of prescriptions dispensed under the Part D program. The shares of spending and prescriptions written by primary care providers were lower in PDPs (about 55 percent of gross spending and about 71 percent of prescriptions) than in MA–PDs (about 59 percent of gross spending and about 73 percent of prescriptions).

- The average cost per prescription dispensed was lower among primary care providers (about $68) compared with specialty and other providers (about $131). The cost per prescription dispensed for PDP enrollees was higher than that of MA–PD enrollees regardless of the provider type (primary care vs. specialty and other providers).

Chart 10-23. Part D patterns of prescribing by provider type, 2014

	Part D	Provider type: Primary care*	Provider type: Specialty/others
Number of individual prescribers (thousands)	1,073	440	633
Percent of all individual prescribers		41%	59%
Average beneficiary (patient) count	148	190	118
Average per beneficiary			
Gross spending	$666	$748	$606
Number of prescriptions	6.5	9.3	4.4
Prescribers in the top 1 percent based on number of prescriptions filled per beneficiary			
Number of individual prescribers	9,367	7,727	1,640
Percent of all individual prescribers		82%	18%
Total gross spending (billions)	$8.8	$7.5	$1.3
Percent of total gross spending (by column)	7%	11%	2%
Total number of prescriptions (millions)	137	120	17
Percent of all prescriptions filled	10%	12%	4%
Average per beneficiary			
Gross spending	$3,575	$3,253	$5,092
Number of prescriptions	44	44	44

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. 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, they are not comparable with the 2014 prescription counts shown in Chart 10-15 and Chart 10-18 through Chart 10-21.
*The definition of "primary care" used here is based on the definition used for the Primary Care Incentive Payment Program and includes practitioners who have a primary Medicare specialty designation of family practice, internal medicine, pediatrics, geriatrics, nurse practitioner and clinical nurse specialist, or physician assistant.

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

- In 2014, over 1 million individual providers wrote prescriptions for Medicare beneficiaries that were filled under Part D. Of those, about 41 percent were primary care providers and 59 percent were specialty or other types of providers.
- The average count of (Medicare-only) beneficiaries (patients) was higher among primary care providers compared with specialty and other types of providers—190 beneficiaries versus 118 beneficiaries.

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Chart 10-23. Part D patterns of prescribing by provider type, 2014 (continued)

- On a per beneficiary basis, average gross spending for Part D prescriptions was higher for prescriptions written by primary care providers ($748) compared with the average for specialty and other providers ($606). Primary care providers also wrote more prescriptions per beneficiary, on average, than specialty and other providers: 9.3 compared with 4.4.

- More than 9,300 prescribers were among the top 1 percent of all prescribers, as ranked by the average number of Part D prescriptions filled per beneficiary in 2014. Of those prescribers, 82 percent were primary care providers and 18 percent were specialty and other providers.

- The top 1 percent of prescribers accounted for 7 percent of total gross spending and 10 percent of all prescriptions filled. Among primary care prescribers, results were more concentrated: The top 1 percent of prescribers accounted for 11 percent of gross spending and 12 percent of all prescriptions.

- Among the prescriptions that were written by prescribers in the top 1 percent of all prescribers in 2014, per beneficiary Part D spending averaged nearly $3,600 for 44 prescriptions filled.

Chart 10-24. Part D patterns of prescribing for selected specialties, 2014

	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	1,073.0	100%	$666	6.5
All specialty/others	632.8	59	606	4.4
Selected specialties:				
Psychiatry	25.9	4	1,445	13.3
Cardiology	22.8	4	628	9.1
Ophthalmology	19.6	3	380	4.2
Psychiatry & Neurology	13.6	2	1,262	10.9
Neurology	13.2	2	2,525	7.8
Gastroenterology	12.9	2	1,798	3.9
Urology	10.7	2	359	4.1
Pulmonary disease	9.0	1	1,829	7.1
Nephrology	8.1	1	1,450	9.6
Hematology & Oncology	8.0	1	4,946	6.4
Endocrinology	5.4	1	1,710	8.6
Infectious disease	5.0	1	5,565	9.8
Rheumatology	4.4	1	2,193	8.6
Medical oncology	2.8	<0.5	4,683	6.1

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 2014 prescription counts shown in Chart 10-15 and Chart 10-18 through Chart 10-21.

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

- Psychiatrists and cardiologists were among the most numerous types of specialty care prescribers, each making up 4 percent of all Part D prescribers in 2014. 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 $1,445 in gross spending per patient. Those are more than double the overall Part D averages of 6.5 prescriptions and $666 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 10-24. Part D patterns of prescribing for selected specialties, 2014 (continued)

- Other specialties such as ophthalmology and urology had lower average gross spending per beneficiary. Cardiologists had average gross spending per beneficiary similar to that of all Part D prescribers ($628 vs. $666, respectively), but wrote an average of 9.1 prescriptions per beneficiary—considerably higher than the average of 6.5 per beneficiary for all Part D prescribers. This distinction reflects the widespread availability of generic cardiology medications.