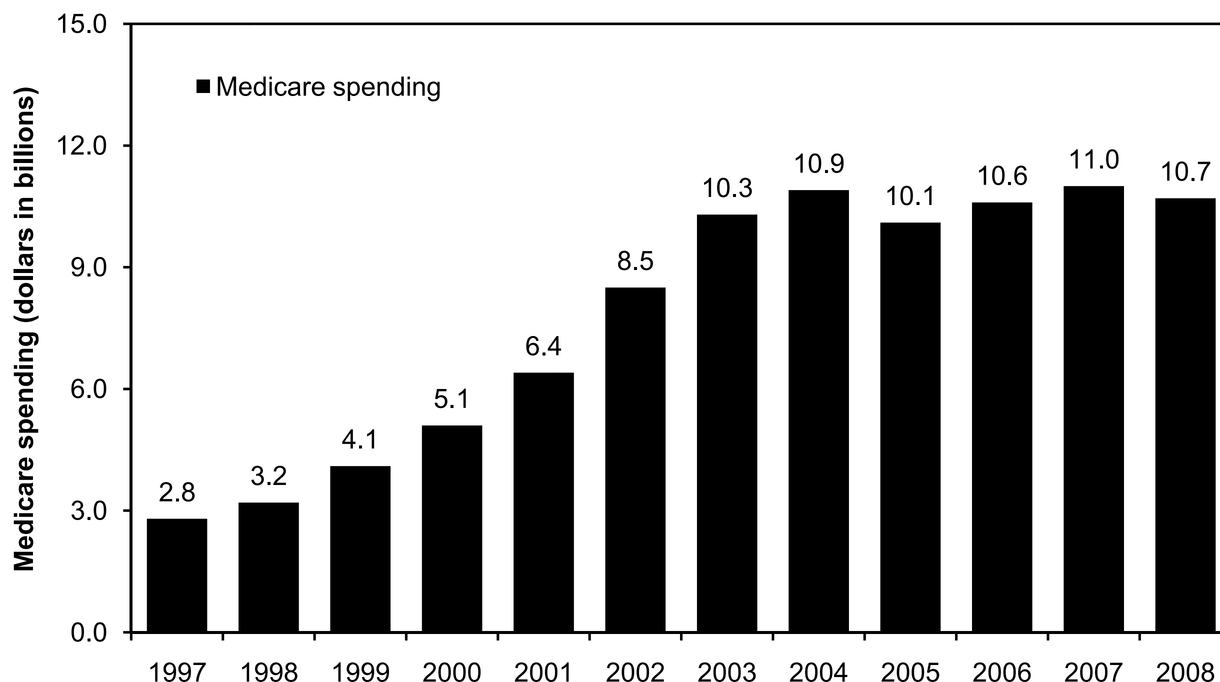
SECTION 11

Drugs

Chart 11-1. Medicare spending for Part B drugs administered in physicians' offices or furnished by suppliers



Note: Data include Part B covered drugs administered in physicians' offices or furnished by suppliers (e.g., certain oral drugs and drugs used with durable medical equipment). Data do not include Part B covered drugs furnished in hospital outpatient departments or dialysis facilities.

Source: MedPAC analysis of Medicare claims data.

- MedPAC estimates that spending for Part B drugs administered in physicians' offices or furnished by suppliers totaled $10.7 billion in 2008.
- Medicare spending on Part B drugs increased at an average rate of 25 percent per year from 1997 to 2003. In 2005, the Medicare payment rate changed from one based on the average wholesale price to 106 percent of the average sales price. Since then the rate has moderated. In 2005, spending declined by 7.8 percent compared with 2004. Spending increased 4.7 percent in 2006 and 4.5 percent in 2007 but then declined 3.2 percent in 2008.
- The decline in Part B drug spending in 2008 is attributed to reduced use of darbepoetin alfa and epoetin alfa following changes in CMS coverage guidelines.
- This total does not include drugs provided through outpatient departments of hospitals or to patients with end-stage renal disease in dialysis facilities. MedPAC estimates that payments for separately billed drugs provided in hospital outpatient departments equaled about $3.3 billion in 2008. We estimate that freestanding and hospital-based dialysis facilities billed Medicare an additional $2.7 billion for drugs in 2008.

Chart 11-2. Top 10 Part B drugs administered in physicians' offices or furnished by suppliers, by share of expenditures, 2008

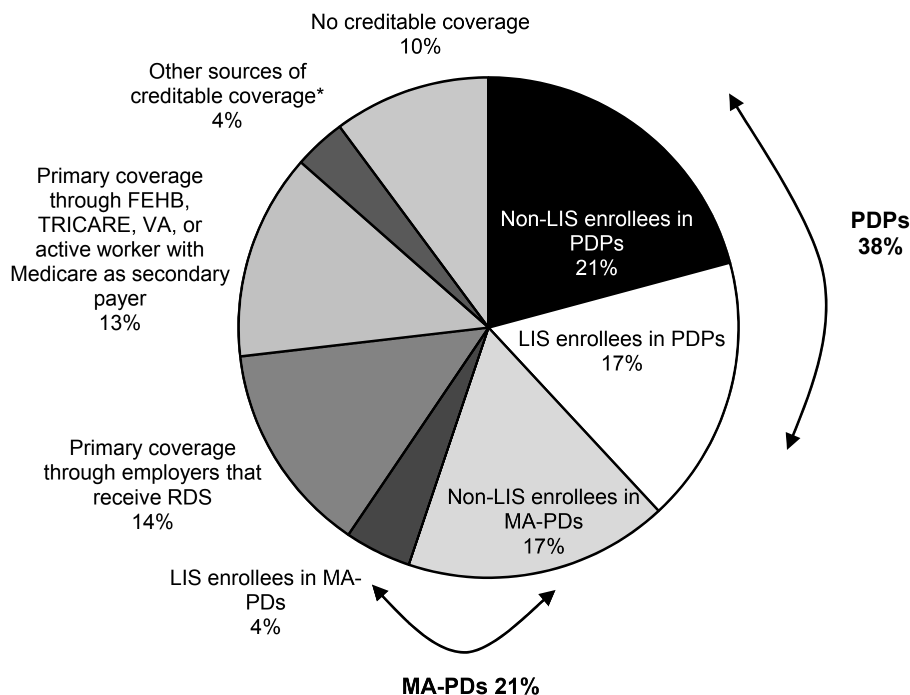
Drug name	Clinical indications	Competition	Percent of spending	Rank in 2007
Rituximab	Non-Hodgkin's lymphoma	Sole source	7.9%	2
Ranibizumab	Age-related macular degeneration	Sole source	6.5	Not on list
Bevacizumab	Cancer	Sole source	6.5	3
Infliximab	Rheumatoid arthritis, Crohn's disease	Sole source	5.9	4
Pegfilgrastim	Cancer	Sole source	5.2	5
Darbepoetin alfa	Anemia	Sole source	5.2	1
Epoetin alfa	Anemia	Multisource biological	3.3	6
Oxaliplatin	Cancer	Sole source	3.1	9
Budesonide	Asthma and other lung conditions	Sole source	2.8	8
Docetaxel	Cancer	Sole source	2.7	10

Note: Data do not include Part B drugs furnished in hospital outpatient departments or dialysis facilities.

Source: MedPAC analysis of 2008 Medicare claims data from CMS and unpublished Food and Drug Administration data.

- Medicare covers about 650 outpatient drugs under Part B, but spending is very concentrated. The top 10 drugs account for about 49 percent of all Part B drug spending.
- Spending for new drugs dominates the list. Of the top 10 listed drugs, 9 received Food and Drug Administration approval in 1999 or later.
- Treatment for cancer dominates the list (7 of the top 10 listed drugs treat cancer or the side effects associated with chemotherapy) because most cancer drugs must be administered by physicians, a requirement for coverage of most Part B drugs.
- These rankings reflect Part B drugs administered in physicians' offices or furnished by suppliers.

Chart 11-3. In 2010, about 90 percent of Medicare beneficiaries were enrolled in Part D plans or had other sources of creditable drug coverage



Note: LIS (low-income subsidy), PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]), RDS (retiree drug subsidy), FEHB (Federal Employees Health Benefits program), VA (Department of Veterans Affairs). TRICARE is the health program for military retirees and their dependents.
*Creditable coverage means drug benefits whose value is equal to or greater than that of the basic Part D benefit.

Source: CMS Management Information Integrated Repository, February 16, 2010; Office of Personnel Management; Department of Defense; Department of Veterans Affairs; CMS Coordination of Benefits Database; CMS Creditable Coverage Database.

- As of February 2010, CMS estimated that 34 million of the 46 million Medicare beneficiaries (73 percent) were either signed up for Part D plans or had prescription drug coverage through employer-sponsored plans under Medicare's retiree drug subsidy (RDS). (If an employer agrees to provide primary drug coverage to its retirees with an average benefit value that is equal to or greater in value 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.)
- About 10 million beneficiaries (nearly 22 percent) receive Part D's low-income subsidy (LIS). Of these individuals, 6.4 million are dually eligible to receive Medicare and all Medicaid benefits offered in their state. Another 3.5 million qualified for extra help either because they receive benefits through the Medicare Savings Program or Supplemental Security Income Program or because they applied directly to the Social Security Administration. Among all LIS beneficiaries, about 8 million (17 percent of all Medicare beneficiaries) are enrolled in stand-alone prescription drug plans (PDPs) and 2 million (4 percent) are in Medicare Advantage–Prescription Drug plans (MA–PDs).
- Other enrollees in stand-alone PDPs numbered 9.7 million, or 21 percent of all Medicare beneficiaries. Another 7.9 million enrollees (17 percent) are in MA–PDs or other private Medicare health plans. Individuals whose employers receive Medicare's RDS numbered 6.4 million, or 14 percent. Those groups of beneficiaries directly affect Medicare program spending.
- Other Medicare beneficiaries have creditable drug coverage, but that coverage does not affect Medicare program spending. For example, 6.2 million beneficiaries (13 percent) receive drug coverage through the Federal Employees Health Benefits program, TRICARE, the Department of Veterans Affairs, or current employers because the individual is still an active worker. CMS estimates that another 1.6 million individuals have other sources of creditable coverage.
- An estimated 4.7 million beneficiaries (10 percent) have no creditable drug coverage.

Chart 11-4. Parameters of the defined standard benefit increase over time

	2006	2007	2008	2009	2010
Deductible	$250.00	$265.00	$275.00	$295.00	$310.00
Initial coverage limit	2,250.00	2,400.00	2,510.00	2,700.00	2,830.00
Annual out-of-pocket threshold	3,600.00	3,850.00	4,050.00	4,350.00	4,550.00
Total covered drug spending at annual out-of-pocket threshold	5,100.00	5,451.25	5,726.25	6,153.75	6,440.00
Maximum amount of cost sharing in the coverage gap	2,850.00	3,051.25	3,216.25	3,453.75	3,610.00
Minimum cost sharing above the annual out-of-pocket threshold					
Copay for generic/preferred multisource drug	2.00	2.15	2.25	2.40	2.50
Copay for other prescription drugs	5.00	5.35	5.60	6.00	6.30

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. The enrollee then reaches the coverage gap where she must pay 100 percent of covered drug spending until she reaches the annual out-of-pocket threshold. Cost sharing paid by most sources of supplemental coverage does not count toward this threshold. The enrollee pays nominal cost sharing above the limit.

Source: CMS, Office of the Actuary.

- The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 specified a defined standard benefit structure. In 2010 it has a $310 deductible, 25 percent coinsurance on covered drugs until the enrollee reaches $2,830 in total covered drug spending, and then a coverage gap in which the enrollee is responsible for the full discounted price of covered drugs until her annual out-of-pocket spending reaches $4,550. Enrollees with drug spending even higher than that amount would pay the greater of $2.50 to $6.30 per prescription or 5 percent coinsurance.

- The parameters of this defined standard benefit structure increase over time at the same rate as the annual increase in average total drug expenses of Medicare beneficiaries.

- 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. For example, a plan may use tiered copayments rather than 25 percent coinsurance. Or a plan may have no deductible but use cost-sharing requirements that are equivalent to a rate higher than 25 percent. Both defined standard benefit plans and plans that are actuarially equivalent to the defined standard benefit are known as "basic benefits."

- Once a sponsoring organization offers at least 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 11-5. Characteristics of Medicare PDPs

	2009				2010			
	Plans		Enrollees as of February 2009		Plans		Enrollees as of February 2010	
	Number	Percent	Number (in millions)	Percent	Number	Percent	Number (in millions)	Percent
Total	1,689	100%	16.6	100%	1,576	100%	16.6	100%
Type of organization								
National*	1,496	89	14.3	86	1,268	80	14.0	84
Other	193	11	2.3	14	308	20	2.7	16
Type of benefit								
Defined standard	170	10	1.6	10	172	11	1.6	9
Actuarially equivalent**	628	37	10.5	64	609	39	11.4	68
Enhanced	891	53	4.4	27	795	50	3.7	22
Type of deductible								
Zero	934	55	7.9	48	629	40	6.5	39
Reduced	189	11	0.7	4	374	24	2.1	12
Defined standard†	566	34	7.9	48	573	36	8.1	49
Drugs covered in the gap								
Some generics but no brand-name drugs	413	24	1.1	7	273	17	1.0	6
Some generic and some brand-name drugs	3	<0.5	<0.1	0	35	2	<0.1	0
None	1,273	75	15.4	93	1,268	80	15.7	94

Note: PDP (prescription drug plan). The PDPs and enrollment described here exclude employer-only plans and plans offered in U.S. territories. Excluded plans have 1.1 million enrollees in 2010 and had 0.9 million in 2009. Sums may not add to totals due to rounding.

*Reflects total numbers of plans for organizations with at least 1 PDP in each of the 34 PDP regions.
**Includes "actuarially equivalent standard" and "basic alternative" benefits.
†$295 in 2009 and $310 in 2010.

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

- Part D drew about 7 percent fewer stand-alone PDPs into the field for 2010 than in 2009. Plan sponsors are offering 1,576 PDPs in 2010 compared with 1,689 in 2009.
- In 2010, 80 percent of all PDPs are offered by sponsoring organizations that have at least 1 PDP in each of the 34 PDP regions across the country. Plans offered by those national sponsors account for 84 percent of all PDP enrollment.
- Sponsors are offering a slightly smaller proportion of PDPs with enhanced benefits (basic plus supplemental coverage) for 2010 and a slightly larger proportion of benefits with actuarially equivalent benefits—having the same average value as the defined standard benefit but with alternative benefit designs. Most enrollees (68 percent) are in actuarially equivalent plans.
- A smaller proportion of PDPs include some benefits in the coverage gap for 2010 than in 2009. Nearly all plans with some gap coverage limit that coverage to generic drugs; 17 percent offer generics only while fewer than 1 percent of plans offer generics and brand-name drugs. Among those plans that provide coverage for brand-name drugs, most limit the benefit to preferred drugs.
- In 2010, 94 percent of PDP enrollees are in plans that offered no additional benefits in the coverage gap; about 45 percent of all PDP enrollees are beneficiaries who receive Part D's low-income subsidies (LISs). As LIS enrollees do not face a coverage gap, the number of beneficiaries who face 100 percent coinsurance is considerably smaller than 94 percent. In addition, many enrollees were unlikely to exceed the initial coverage limit for drug spending.

Chart 11-6. Characteristics of MA–PDs

	2009				2010			
	Plans		Enrollees as of February 2009		Plans		Enrollees as of February 2010	
	Number	Percent	Number (in millions)	Percent	Number	Percent	Number (in millions)	Percent
Totals	2,039	100%	6.2	100%	1,834	100%	7.0	100%
Type of organization								
Local HMO	1,127	55	4.3	69	1,038	57	4.7	68
Local PPO	430	21	0.6	10	452	25	0.9	13
PFFS	449	22	1.0	17	304	17	0.9	13
Regional PPO	33	2	0.3	4	40	2	0.4	6
Type of benefit								
Defined standard	92	5	0.1	1	78	4	0.1	1
Actuarially equivalent*	161	8	0.3	6	105	6	0.3	5
Enhanced	1,786	88	5.8	94	1,651	90	6.6	94
Type of deductible								
Zero	1,797	88	5.9	94	1,657	90	6.6	94
Reduced	104	5	0.2	3	66	4	0.2	3
Defined standard**	138	7	0.2	3	111	6	0.2	2
Drugs covered in the gap								
Some generics but no brand-name drugs	701	34	2.5	39	532	29	2.3	33
Some generics and some brand-name drugs	355	17	1.5	25	408	22	1.7	25
None	983	48	2.2	36	894	49	2.9	42

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. Sums may not add to totals due to rounding.
*Benefits labeled actuarially equivalent to Part D's standard benefit include what CMS calls "actuarially equivalent standard" and "basic alternative" benefits.
**$295 in 2009 and $310 in 2010.

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

- There are 10 percent fewer MA–PDs in 2010 than in 2009. Sponsors are offering 1,834 MA–PDs compared with 2,039 the year before. Although the number of local HMOs declined between 2009 and 2010, HMOs remain the dominant kind of MA–PD. The number of drug plans offered by both local and regional preferred provider organizations increased. The number of private fee-for-service plans declined, making up 17 percent of all (unweighted) offerings in 2010 compared with 22 percent in 2009.
- A larger share of MA–PDs than stand-alone prescription drug plans (PDPs) offer enhanced benefits (compare Chart 11-6 with Chart 11-5). In 2010, 50 percent of all PDPs had enhanced benefits compared with 90 percent of MA–PDs. In 2010, enhanced MA–PDs attracted 94 percent of total MA–PD enrollment.
- Most MA–PD plans have no deductible: 90 percent of MA–PD offerings in 2010 and 88 percent in 2009. MA–PDs with no deductible attracted about 94 percent of total MA–PD enrollment in 2010.
- MA–PDs are more likely than PDPs to provide some additional benefits in the coverage gap, although mostly for generics. In 2010, 51 percent of MA–PDs included some gap coverage—29 percent with some generics but no brand-name drugs and 22 percent with some generics and some brand-name drug coverage. Those plans account for 58 percent of MA–PD enrollment.

Chart 11-7. Characteristics of SNPs

	2009				2010			
	Plans		Enrollees as of February 2009		Plans		Enrollees as of February 2010	
	Number	Percent	Number (in millions)	Percent	Number	Percent	Number (in millions)	Percent
Total	658	100%	1.1	100%	539	100%	1.0	100%
Type of SNP								
Chronic condition	195	30	0.2	22	136	25	0.2	19
Dual eligible	383	58	0.7	67	336	62	0.7	71
Institutionalized	80	12	0.1	11	67	12	0.1	10
Type of MA organization								
Local HMO	555	84	0.9	85	475	88	0.9	85
Local PPO	72	11	0.1	9	47	9	0.1	7
Regional PPO	31	5	0.1	7	17	3	0.1	8
Type of benefit								
Defined standard	230	35	0.4	39	249	46	0.5	45
Actuarially equivalent*	67	10	0.1	13	52	10	0.1	13
Enhanced	361	55	0.5	47	238	44	0.4	42
Type of deductible								
Zero	277	42	0.5	44	182	34	0.4	39
Reduced	22	3	<0.05	2	6	1	<0.05	1
Defined standard**	359	55	0.6	55	351	65	0.6	60
Drugs covered in the gap								
Some	158	24	0.2	22	99	18	0.1	14
None	500	76	0.8	78	440	82	0.9	86

Note: SNPs (special needs plans), MA (Medicare Advantage), HMO (health maintenance organization), PPO (preferred provider organization), PFFS (private fee-for-service). SNPs are MA plans that are permitted to limit their enrollment to a targeted population such as beneficiaries with a specific chronic condition, dual eligibles, or the institutionalized. The SNPs and enrollment described here exclude employer-only plans and plans offered in U.S. territories. Private fee-for-service plans are not permitted to offer SNPs. Sums may not add to totals due to rounding.
*Includes “actuarially equivalent standard” and “basic alternative” benefits.
**$295 in 2009 and $310 in 2010.

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

- In 2010, just over a million beneficiaries are enrolled in special needs plans (SNPs). SNPs function like and are paid in the same way as other Medicare Advantage plans, but they can focus on enrolling certain types of enrollees—beneficiaries dually eligible for Medicare and Medicaid (dual eligibles), institutionalized beneficiaries, and beneficiaries with severe or disabling chronic conditions. In practice, however, some individuals other than those categories of beneficiaries are also enrolled in SNPs.

- In 2010, the Congress extended the authority of SNPs to focus enrollment on certain populations (with some restrictions) until December 31, 2013.

- In 2010, about 62 percent of SNPs target dual eligibles and these beneficiaries make up 71 percent of SNP enrollees. Chronic condition SNPs make up 25 percent of plans and have 19 percent of total SNP enrollment.

- The vast majority of SNPs are HMOs. Private fee-for-service plans are ineligible to operate as SNPs.

Chart 11-8. Average Part D premiums

	2009 enrollment in millions	Average monthly 2009 premium weighted by 2009 enrollment	2010 enrollment (in millions)	Average monthly 2010 premium weighted by 2010 enrollment	Dollar change	Percentage change in weighted average premium
PDPs	16.6	$35.08	16.6	$37.25	$2.17	6%
MA–PDs, excluding SNPs*	6.2	14.59	7.0	13.32	–1.27	–9
SNPs*	1.1	16.55	1.0	21.62	5.06	31
All plans	23.8	28.91	24.7	29.82	0.91	3

Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]), SNP (special needs plan). The PDPs and enrollment described here exclude employer-only plans and plans offered in U.S. territories. The MA–PDs and SNPs and their enrollment described here exclude employer-only plans, plans offered in U.S. territories, 1876 cost plans, demonstrations, and Part B-only plans.
*Reflects the portion of Medicare Advantage plans' total monthly premium attributable to Part D benefits for plans that offer Part D coverage. MA–PD premiums reflect rebate dollars (75 percent of the difference between a plan's payment benchmark and its bid for providing Part A and Part B services) that were used to offset Part D premium costs.

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

- On average, Part D enrollees pay $29.82 per month in 2010, up 91 cents or 3 percent from 2009.
- The average PDP enrollee pays $37.25 per month, compared with $35.08 in 2009—a 6 percent increase.
- Medicare Advantage–Prescription Drug plans (MA–PDs) can lower the part of their monthly premium attributable to Part D using rebate dollars—75 percent of the difference between the plan's payment benchmark and its bid for providing Part A and Part B services. MA–PDs may also enhance their Part D benefit with rebate dollars. Many MA–PDs use rebate dollars in these ways, resulting in more enhanced offerings and lower average premiums compared with PDPs.
- The portion of MA premiums attributable to prescription drug benefits decreased for 2010, with the average MA–PD enrollee paying $13.32 per month compared with $14.59 in 2009 (9 percent lower).
- The average portion of SNP premiums attributable to Part D benefits increased sharply by 31 percent, growing from $16.55 in 2009 to $21.62 in 2010.

Chart 11-9. Number of PDPs qualifying as premium-free to LIS enrollees remains level in 2010

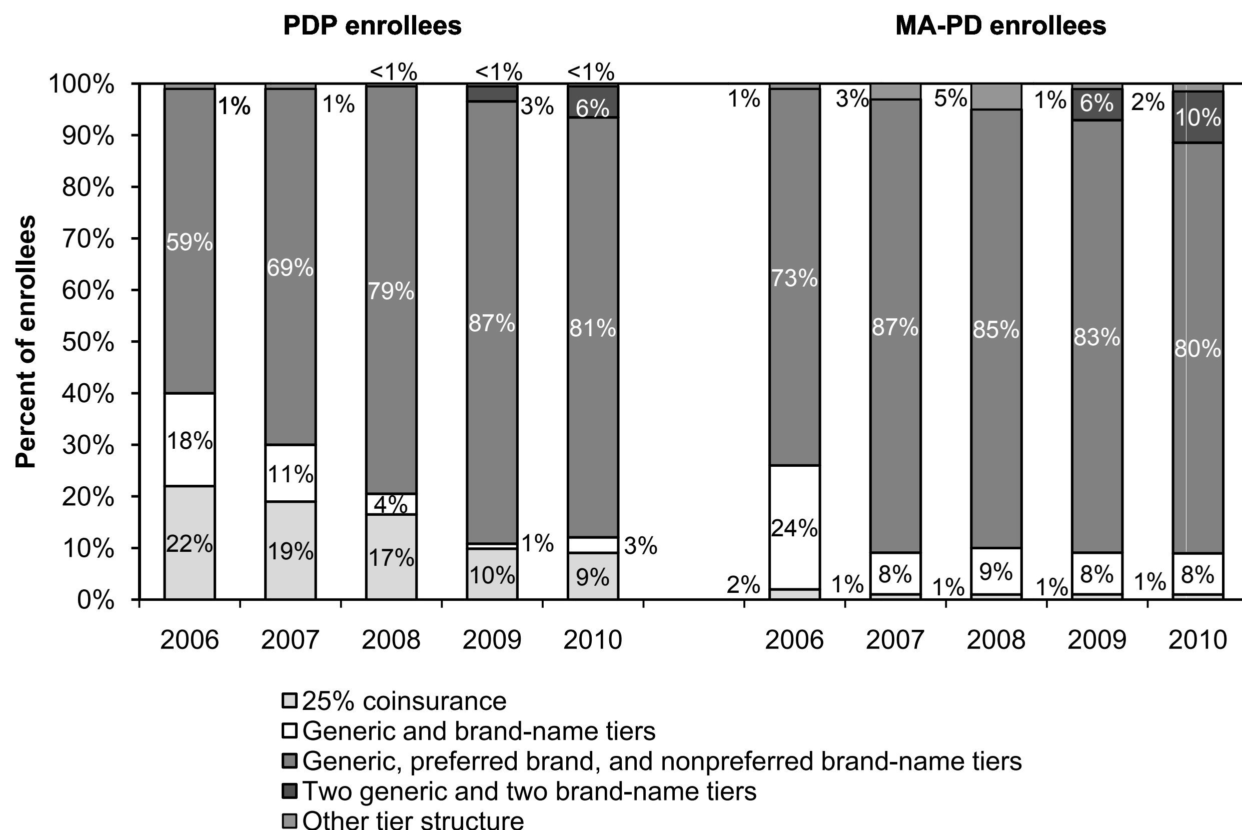
PDP region	State(s)	Number of PDPs			Number of PDPs that have zero premium for LIS enrollees		
		2009	2010	Difference	2009	2010	Difference
1	ME, NH	46	43	–3	5	4	–1
2	CT, MA, RI, VT	47	48	1	12	13	1
3	NY	51	50	–1	9	11	2
4	NJ	52	47	–5	7	6	–1
5	DE, DC, MD	48	45	–3	11	11	0
6	PA, WV	57	55	–2	9	11	2
7	VA	48	44	–4	13	11	–2
8	NC	49	47	–2	11	8	–3
9	SC	53	47	–6	15	13	–2
10	GA	50	45	–5	11	8	–3
11	FL	54	49	–5	5	5	0
12	AL, TN	49	46	–3	12	9	–3
13	MI	51	46	–5	11	9	–3
14	OH	49	46	–3	6	5	–1
15	IN, KY	48	44	–4	12	9	–3
16	WI	53	48	–5	16	10	–6
17	IL	49	46	–3	12	10	–2
18	MO	48	45	–3	6	13	7
19	AR	52	49	–3	12	15	3
20	MS	47	45	–2	13	10	–3
21	LA	47	45	–2	7	13	6
22	TX	53	50	–3	14	11	–3
23	OK	49	46	–3	8	10	–2
24	KS	48	46	–2	10	9	–1
25	IA, MN, MT, NE, ND, SD, WY	48	46	–2	9	8	–1
26	NM	50	47	–3	7	8	1
27	CO	53	48	–5	8	6	–2
28	AZ	49	46	–3	2	8	6
29	NV	49	46	–3	1	5	4
30	OR, WA	48	44	–4	7	9	2
31	ID, UT	51	48	–3	9	9	0
32	CA	51	47	–4	6	7	1
33	HI	47	41	–6	5	7	2
34	AK	45	41	–3	7	6	–1
	Total	1,689	1,576	–113	308	307	–1

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

Source: MedPAC based on 2010 PDP landscape file and LIS enrollment data provided by CMS.

- The number of stand-alone PDPs declined by 7 percent around the country, from 1,689 in 2009 to 1,576 in 2010. The median number of plans offered in each region is 46 compared with 49 in 2009.
- Alaska and Hawaii had the fewest stand-alone plans with 41. The Pennsylvania–West Virginia region had the most with 55 PDPs.
- In 2010, enrollees who receive Part D's low-income subsidy have about the same number of options for PDPs in which they pay no premium. In 2010, 307 PDPs qualified to be premium-free to those enrollees, compared with 308 in 2009.
- Each region has at least four PDPs available to LIS enrollees at no premium.

Chart 11-10. In 2010 most Part D enrollees are in plans that charge higher copayments for nonpreferred brand-name drugs

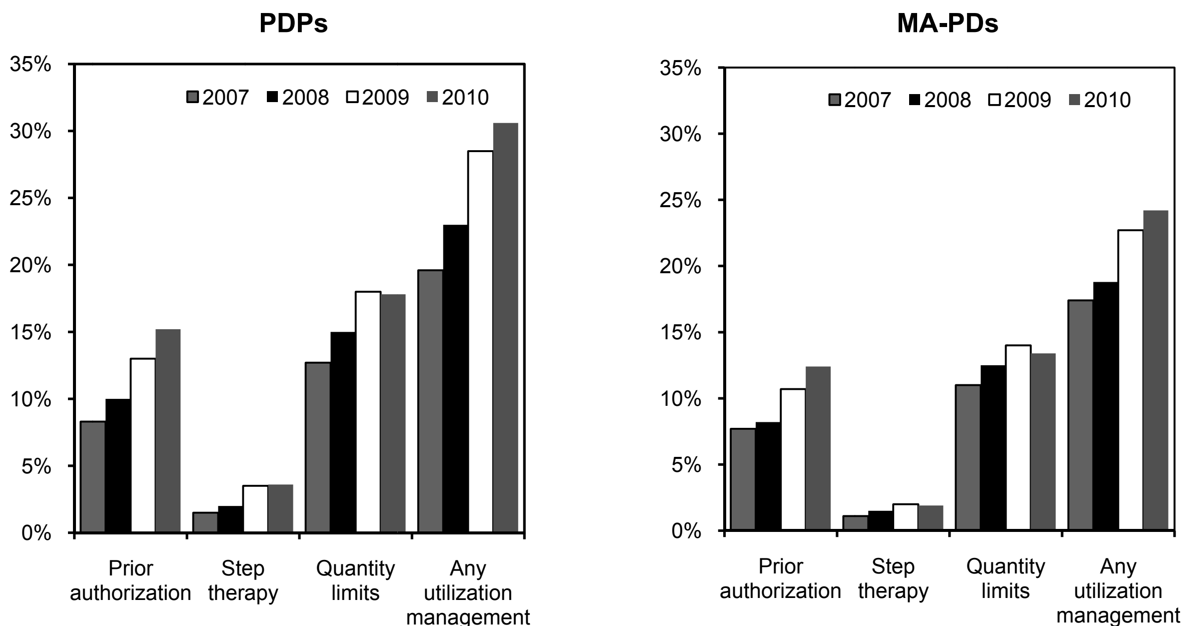


Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]). Calculations are weighted by enrollment. All calculations exclude employer-only groups and plans offered in U.S. territories. In addition, MA–PDs exclude demonstration programs, special needs plans, and 1876 cost plans. Sums may not add to totals due to rounding.

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

- In 2010, 81 percent of PDP enrollees are in plans that distinguish between preferred and nonpreferred brand-name drugs, and another 6 percent are in plans with two generic and two brand-name tiers. In 2006, only 59 percent of PDP enrollees were in plans with such distinctions. Similarly, 90 percent of MA–PD enrollees are in such plans in 2010, up from 73 percent in 2006.
- For enrollees in PDPs that distinguish between preferred and nonpreferred brand-name drugs, the median copay in 2010 is $42 for a preferred brand and $76.50 for a nonpreferred brand. The median copay for generic drugs is $7. For MA–PD enrollees, in 2010, the median copay is $39 for a preferred brand, $79 for a nonpreferred brand, and $6 for a generic drug.
- Most plans, except those that use the defined standard benefit's 25 percent coinsurance for all drugs, also use a specialty tier for drugs that have a negotiated price of $600 per month or more. In 2010, median cost sharing for a specialty tier drug is 30 percent among PDPs and 33 percent among MA–PDs. Enrollees may not appeal cost sharing for drugs on specialty tiers.

Chart 11-11. In 2010, PDPs are slightly more likely to apply utilization management tools than MA–PDs



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 percent 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 first before moving to other drugs. Quantity limits mean that plans limit the number of doses of a drug available to the enrollee in a given time period.

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

- The number of drugs listed on a plan's formulary does not necessarily represent beneficiary access to medications. Plans' processes for nonformulary exceptions, prior authorization (preapproval from plan before coverage), quantity limits (plans limit the number of doses of a particular drug covered in a given time period), and step therapy requirements (enrollees must try specified drugs before moving to other drugs) can affect access to certain drugs. For example, unlisted drugs may be covered through the nonformulary exceptions process, which may be relatively easy for some plans and more burdensome for others. Alternatively, on-formulary drugs may not be covered in cases in which a plan does not approve a prior authorization request. Also, a formulary's size can be deceptively large if it includes drugs that are no longer used in common practice.

- In 2010, the average enrollee in a stand-alone prescription drug plan faces some form of utilization management for 28 percent of drugs listed on a plan's formulary, compared with 24 percent for the average MA–PD enrollee. The most commonly used utilization management tool is quantity limits, followed by prior authorization, and then step therapy.

Chart 11-12. Characteristics of Part D enrollees, 2008

	All Medicare	Part D	Plan type		Subsidy status	
			PDP	MA–PD	LIS	Non-LIS
Beneficiaries* (in millions)	47.7	27.5	18.6	8.9	10.7	16.9
Percent of all Medicare	100%	58%	39%	19%	22%	35%
Gender						
Male	45%	41%	39%	43%	38%	42%
Female	55	59	61	57	62	58
Race/ethnicity						
White, non-Hispanic	78	74	76	71	59	84
African American, non-Hispanic	10	11	11	10	20	6
Hispanic	8	10	8	14	14	7
Asian	2	3	3	3	5	2
Other	2	2	2	1	3	1
Age (years)						
<65	22	23	27	16	41	12
65–69	23	21	20	24	14	26
70–74	18	18	16	21	13	21
75–79	15	15	14	17	11	17
80+	22	23	23	22	21	24
Urbanicity**						
Metropolitan	79	79	74	90	77	80
Micropolitan	12	12	15	6	13	11
Rural	8	9	11	4	10	8
Average risk score†	1.035	1.085	1.109	1.036	1.181	1.025
Percent relative to all Part D		100%	102%	95%	109%	94%

Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]), LIS (low-income subsidy). Totals may not sum to 100 percent due to rounding.
*Figures for 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 a greater number of months of enrollment.
**Urbanicity based on the Office of Management and Budget's core-based statistical area. A metropolitan area contains a core urban area of 50,000 or more population, and a micropolitan area contains an urban core of at least 10,000 (but less than 50,000) population. Fewer than 1 percent of Medicare beneficiaries were excluded due to an unidentifiable core-based statistical area designation.
†Part D risk scores are calculated by CMS using the prescription drug hierarchical condition category model developed before 2006. Risk scores shown here are not adjusted for LIS or institutionalized status (multipliers).

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

- In 2008, 27.5 million Medicare beneficiaries (58 percent) were enrolled in Part D at some point during the year. Most of them (18.6 million) were in stand-alone prescription drug plans (PDPs), with 8.9 million in MA–PDs. About 10.7 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, and 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 with 79 percent in metropolitan areas, 12 percent in micropolitan areas, and the remaining 9 percent in rural areas.
- The average risk score for PDP enrollees is higher (1.109) than the average for all Part D enrollees (1.085), while the average risk score for MA–PD enrollees is lower (1.036).

Chart 11-13. Part D enrollment trends, 2006–2008

	2006	2007	2008
Part D enrollment, in millions*			
Total	24.5	26.1	27.5
By plan type			
PDP	17.7	18.3	18.6
MA–PD	6.8	7.8	8.9
By subsidy status			
LIS	10.2	10.4	10.7
Non-LIS	14.3	15.7	16.9
By race/ethnicity			
White, non-Hispanic	17.2	19.4	20.5
African American, non-Hispanic	2.6	2.9	3.1
Hispanic	2.2	2.5	2.7
Other	2.5	1.3	1.3
By age (years)			
<65	5.6	6.1	6.4
65–69	5.0	5.4	5.9
70-79	8.3	8.7	9.0
80+	5.6	6.0	6.3
Enrollment growth, in percent			
Total		7%	5%
By plan type			
PDP		4	2
MA–PD		14	14
By subsidy status			
LIS		2	2
Non-LIS		10	8
By race/ethnicity			
White, non-Hispanic		13	5
African American, non-Hispanic		13	5
Hispanic		14	6
Other		–49	6
By age (years)			
<65		8	6
65–69		8	8
70–79		5	4
80+		7	4

Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]), LIS (low-income subsidy). *Figures include all beneficiaries with at least one month of enrollment. 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 a greater number of months of enrollment.

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

- Between 2006 and 2008, MA–PD enrollment grew by 14 percent per year, compared with growth rates of less than 5 percent for PDPs. During the same period, the number of enrollees receiving the LIS remained relatively flat, while the number of non-LIS enrollees grew by 10 percent in 2007 and by 8 percent in 2008.

Chart 11-14. Part D enrollment by region, 2008

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	53%	14%	93%	7%	51%	49%
2	CT, MA, RI, VT	57	18	71	29	42	58
3	NY	58	19	60	40	47	53
4	NJ	52	22	83	17	36	64
5	DE, DC, MD	45	19	86	14	42	58
6	PA, WV	62	14	56	44	33	67
7	VA	51	11	84	16	39	61
8	NC	59	16	78	22	44	56
9	SC	54	16	82	18	47	53
10	GA	59	11	83	17	45	55
11	FL	58	14	56	44	35	65
12	AL, TN	61	12	71	29	48	52
13	MI	50	28	65	35	37	63
14	OH	50	28	66	34	38	62
15	IN, KY	54	19	87	13	43	57
16	WI	52	15	72	28	34	66
17	IL	55	19	88	12	38	62
18	MO	61	12	73	27	36	64
19	AR	60	10	85	15	46	54
20	MS	64	6	92	8	55	45
21	LA	61	13	71	29	50	50
22	TX	56	15	74	26	46	54
23	OK	59	9	81	19	39	61
24	KS	61	8	88	12	29	71
25	IA, MN, MT, NE, ND, SD, WY	65	9	77	23	27	73
26	NM	61	8	66	34	40	60
27	CO	58	13	51	49	30	70
28	AZ	60	12	43	57	32	68
29	NV	55	13	47	53	28	72
30	OR, WA	57	11	64	36	32	68
31	ID, UT	55	11	67	33	29	71
32	CA	69	10	53	47	40	60
33	HI	65	4	51	49	30	70
34	AK	40	25	98	2	63	37
	Mean	58	15	68	32	39	61
	Minimum	40	4	43	2	27	37
	Maximum	69	28	98	57	63	73

Note: PDP (prescription drug plan), RDS (retiree drug subsidy), MA–PD (Medicare Advantage–Prescription Drug [plan]), LIS (low-income subsidy). Definition of regions based on prescription drug plan regions used in Part D.

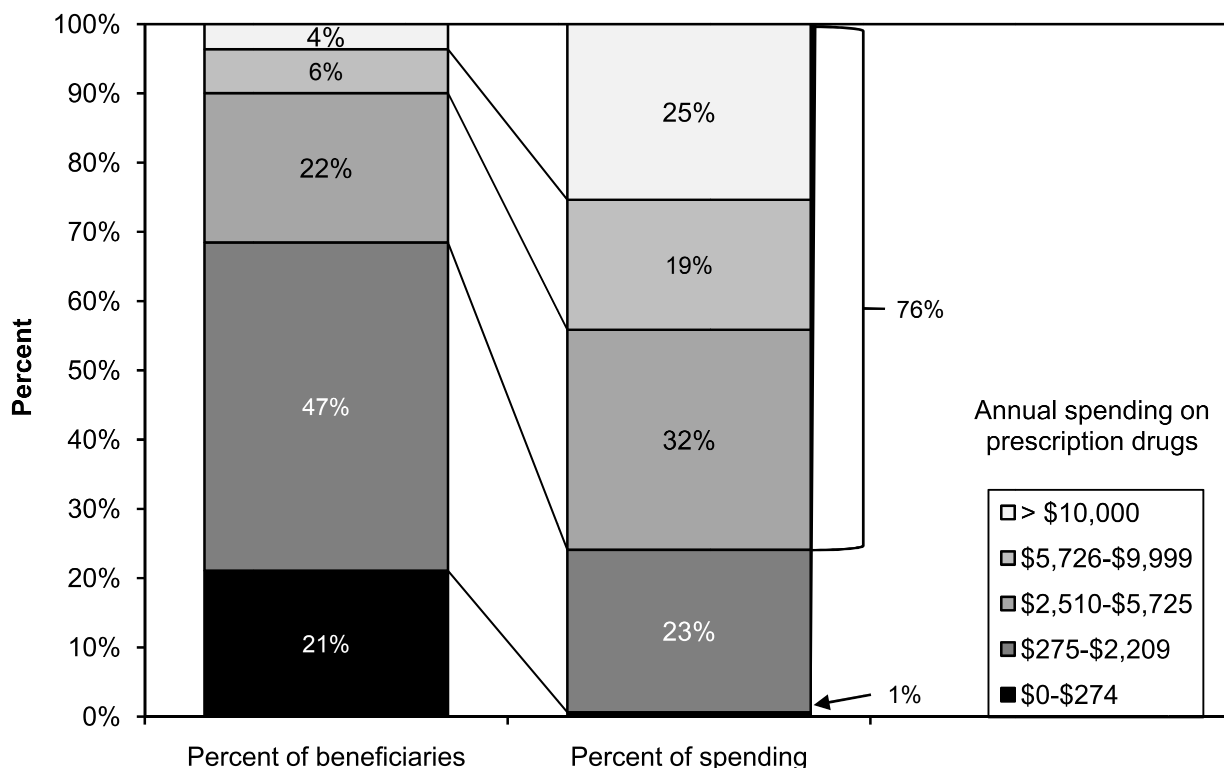
Source: MedPAC analysis of Part D enrollment data from CMS.

- Among Part D regions, in 2008, between 40 percent and 69 percent of all Medicare beneficiaries enrolled in Part D. Beneficiaries were more likely to enroll in Part D in regions where a low take-up rate for the retiree drug subsidy (RDS) was observed. For example, in Region 32 (California) and Region 33 (Hawaii), the shares of Medicare beneficiaries enrolled in Part D were 69 percent and 65 percent, respectively. In these two regions, 10 percent or fewer beneficiaries enrolled in employer-sponsored plans that received the RDS.

- A wide variation was seen in the shares of Part D enrollees who enrolled in PDPs and MA–PD plans across prescription drug plan regions. The pattern of MA–PD enrollment is generally consistent with enrollment in Medicare Advantage plans.

- The share of Part D enrollees receiving the low-income subsidy (LIS) ranged from 27 percent in Region 25 (Iowa, Minnesota, Montana, North Dakota, Nebraska, South Dakota, and Wyoming) to 63 percent in Region 34 (Alaska). In 25 of the 34 prescription drug plan regions, LIS enrollees account for 30 percent to 50 percent of enrollment. In four regions (Region 1 (Maine and New Hampshire), Region 20 (Mississippi), Region 21 (Louisiana), and Region 34 (Alaska)), LIS enrollees account for more than half of Part D enrollment.

Chart 11-15. The majority of Part D spending is incurred by fewer than half of all Part D enrollees, 2008



Note: Numbers may not sum to 100 percent due to rounding.

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

- Medicare Part D spending is concentrated among a subset of beneficiaries. In 2008, 32 percent of Part D enrollees had annual spending of $2,510 or more, at which point enrollees were responsible for 100 percent of the cost of the drug until their spending reached $5,725 under the defined standard benefit. These beneficiaries accounted for 76 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 44 percent of total Part D spending. Spending on prescription drugs is less concentrated than Medicare Part A and Part B spending. In 2008, the costliest 5 percent of beneficiaries accounted for 46 percent of annual Medicare fee-for-service (FFS) spending and the costliest quartile accounted for 87 percent of Medicare FFS spending

Chart 11-16. Characteristics of Part D enrollees, by spending levels, 2008

	Annual drug spending		
	<$2,510	$2,510–$5,726	>$5,726
Sex			
Male	42%	37%	39%
Female	58	63	61
Race/ethnicity			
White, non-Hispanic	74	76	73
African American, non-Hispanic	11	11	13
Hispanic	10	9	9
Other	5	4	5
Age (years)			
<65	21	21	44
65–69	23	19	14
70–74	19	17	12
75–80	15	16	11
80+	22	27	19
LIS status*			
LIS	32	44	75
Non-LIS	68	56	25
Plan type**			
PDP	64	73	83
MA–PD	36	27	17

Note: LIS (low-income subsidy), PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]). A small number of beneficiaries were excluded from the analysis because of missing data. Totals may not sum to 100 percent due to rounding.
*A beneficiary is assigned LIS status if that individual received Part D's LIS at some point during the year.
**If a beneficiary was enrolled in both PDP and MA–PD plans during the year, that individual was classified into the type of plan with a greater number of months of enrollment.

Source: MedPAC analysis of Medicare Part D prescription drug events data and Part D denominator file from CMS.

- In 2008, beneficiaries with annual drug spending of more than $2,510 were more likely to be female compared with beneficiaries with annual spending below $2,510 (63 percent and 61 percent compared with 58 percent).

- Beneficiaries with annual spending greater than $5,726 are more likely to be disabled beneficiaries under age 65 and receive the LIS compared with those with annual spending below $2,510.

- Most beneficiaries with spending greater than $5,726 are enrolled in stand-alone PDPs (83 percent) compared with MA–PDs (17 percent). Beneficiaries with annual spending below $2,510, on the other hand, are more likely to be in MA–PDs compared with those with higher annual spending (36 percent compared with 17 percent). This finding reflects the fact that most LIS enrollees are more costly on average and are in PDPs.

Chart 11-17. Part D spending and utilization per enrollee, 2008

		Plan type		LIS status	
	Part D	PDP	MA–PD	LIS	Non-LIS
Total gross spending (billions)	$68.6	$52.2	$16.3	$37.8	$30.7
Total number of prescriptions* (millions)	1,255	890	365	566	689
Average spending per prescription	$55	$59	$45	$67	$45
Per enrollee per month					
Total spending	$221	$250	$162	$324	$159
Out-of-pocket spending**	38	40	36	7	57
Plan liability†	133	145	107	184	102
Low-income cost sharing subsidy	50	65	19	133	N/A
Number of prescriptions*	4.1	4.3	3.6	4.9	3.6

Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]), LIS (low-income subsidy), N/A (not applicable). 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 standardized to a 30-day supply.
**Out-of-pocket (OOP) spending includes all payments that count toward the annual OOP spending threshold.
†Plan liability includes plan payments for both covered and noncovered drugs.

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

- In 2008, gross spending on drugs for the Part D program totaled $68.6 billion, with roughly three-quarters ($52.2 billion) accounted for by Medicare beneficiaries enrolled in PDPs. Part D enrollees receiving the LIS accounted for about 55 percent ($37.8 million) of the total.

- The number of prescriptions taken by Part D enrollees totaled 1.26 billion, with slightly more than 70 percent (890 million) accounted for by PDP enrollees. The 39 percent of enrollees who received the LIS accounted for about 45 percent (566 million) of the total number of prescriptions filled.

- Medicare beneficiaries enrolled in Part D plans fill 4.1 prescriptions at $221 per month on average. PDP enrollees have higher average monthly spending and more prescriptions filled compared with MA–PD enrollees.

- The average monthly plan liability for MA–PD enrollees ($107) is considerably lower than that of PDP enrollees ($145), while average monthly OOP spending is similar for enrollees in both types of plans ($36 vs. $40). The average monthly low-income cost sharing subsidy is much lower for MA–PD enrollees ($19) compared with PDP enrollees ($65). Most of that difference likely reflects the much smaller share of enrollment accounted for by LIS enrollees in MA–PDs compared with PDPs.

- Average monthly spending per enrollee for an LIS enrollee ($324) is more than double that of a non-LIS enrollee ($159), while the average number of prescriptions filled per month by an LIS enrollee is 4.9 compared with 3.6 for a non-LIS enrollee. LIS enrollees have much lower OOP spending, on average, compared with non-LIS enrollees ($7 vs. $57). Part D's LIS pays for most of the cost sharing for LIS enrollees, averaging $133 per month.

Chart 11-18. Part D risk scores vary across regions, by plan type and by LIS status, 2008

PDP region	State(s)	Percent enrolled in PDPs vs. MA–PDs	Percent of Part D enrollees receiving LIS	Average risk score (RxHCC) Part D	PDP	MA–PD	LIS	Non-LIS
				Average absolute risk score				
All regions				1.085	1.109	1.036	1.181	1.025
				Average normalized risk score (mean = 1.0)				
1	ME, NH	93%	51%	0.990	0.975	0.946	0.970	0.976
2	CT, MA, RI, VT	71	42	1.013	1.011	1.010	1.017	1.001
3	NY	60	47	1.035	1.054	1.017	1.016	1.028
4	NJ	83	36	1.044	1.043	0.987	1.039	1.055
5	DE, DC, MD	86	42	1.040	1.023	1.052	1.038	1.032
6	PA, WV	56	33	1.014	1.021	1.023	1.012	1.027
7	VA	84	39	1.008	0.997	0.995	1.007	1.008
8	NC	78	44	1.013	1.011	0.987	1.015	0.997
9	SC	82	47	1.025	1.008	1.050	1.002	1.024
10	GA	83	45	1.031	1.018	1.033	1.016	1.027
11	FL	56	35	1.050	1.063	1.053	1.059	1.055
12	AL, TN	71	48	1.041	1.030	1.060	1.025	1.028
13	MI	65	37	1.004	1.031	0.952	1.024	0.994
14	OH	66	38	1.035	1.048	1.014	1.058	1.021
15	IN, KY	87	43	1.024	1.013	0.999	1.020	1.018
16	WI	72	34	0.958	0.959	0.942	0.990	0.950
17	IL	88	38	0.990	0.979	0.958	0.988	0.994
18	MO	73	36	1.003	1.008	0.974	1.027	0.995
19	AR	85	46	0.998	0.985	0.999	0.973	1.001
20	MS	92	55	1.004	0.986	0.998	0.966	1.002
21	LA	71	50	1.017	1.019	1.005	0.988	1.015
22	TX	74	46	1.030	1.025	1.029	1.019	1.019
23	OK	81	39	0.989	0.982	0.971	0.984	0.992
24	KS	88	29	0.963	0.951	0.942	0.981	0.974
25	IA, MN, MT, NE, ND, SD, WY	77	27	0.918	0.908	0.929	0.957	0.923
26	NM	66	40	0.894	0.926	0.832	0.897	0.888
27	CO	51	30	0.921	0.917	0.947	0.944	0.927
28	AZ	43	32	0.953	0.929	1.001	0.951	0.968
29	NV	47	28	0.952	0.958	0.972	0.960	0.969
30	OR, WA	64	32	0.916	0.913	0.929	0.927	0.925
31	ID, UT	67	29	0.909	0.908	0.912	0.925	0.921
32	CA	53	40	0.957	0.971	0.960	0.946	0.963
33	HI	51	30	0.939	0.930	0.972	0.910	0.971
34	AK	98	63	0.944	0.924	0.959	0.910	0.917
	Mean	68	39	1.000	1.000	1.000	1.000	1.000
	Minimum	43	27	0.894	0.908	0.832	0.897	0.888
	Maximum	98	63	1.050	1.063	1.060	1.059	1.055

Note: LIS (low-income subsidy), PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]), RxHCC (prescription drug hierarchical condition category). Part D risk scores are calculated by CMS using the RxHCC model developed before 2006. Risk scores shown here are not adjusted for LIS or institutionalized status (multipliers) and are normalized so that the average across Part D enrollees in each group equals 1.0. 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 a greater number of months of enrollment.

Source: MedPAC analysis of Medicare enrollment files from CMS.

(Chart continued next page)

Chart 11-18. Part D risk scores vary across regions, by plan type and by LIS status, 2008 (continued)

- Under Part D, payments to stand-alone prescription drug plans (PDPs) and Medicare Advantage–Prescription Drug plans (MA–PDs) are adjusted to account for differences in enrollees' expected costs using the prescription drug hierarchical condition category (RxHCC) model developed before 2006. The RxHCC model uses age, gender, disability status, and medical diagnosis to predict Part D benefit spending. As is true for any risk-adjustment model, the RxHCC model does not explain all variation in future payments. The model may also produce higher scores in areas with high service use because there are more opportunities to make diagnoses in those areas and the RxHCC model uses diagnoses among other factors in its score.

- In 2008, the normalized average risk scores for Part D enrollees varied from 0.894 in New Mexico (Region 26) to 1.05 in Florida (Region 11), meaning that costs per enrollee, on average, are expected to be about 11 percent below the national average in New Mexico and about 5 percent above the national average in Florida.

- The overall average risk score for PDP enrollees (1.109) is higher compared with that of MA–PD enrollees (1.036) and is consistently so across all regions, except in Arizona (Region 28), where the majority (57 percent) of Part D enrollees are enrolled in MA–PDs. In contrast, normalized risk scores for both PDP and MA–PD enrollees are similar in most regions, with the difference exceeding 0.05 (5 percentage points) in only four regions: New Jersey (Region 4), Michigan (Region 13), New Mexico (Region 26), and Arizona (Region 28).

- The overall average risk score for enrollees receiving the low-income subsidy (LIS) (1.181) is higher than that of non-LIS enrollees (1.025) and is consistently so across all regions. In contrast, normalized risk scores for both LIS and non-LIS enrollees are similar in most regions, with the difference exceeding 0.05 (5 percentage points) only in Hawaii (Region 33), where a relatively small share of enrollees receive the LIS (30 percent).

Chart 11-19. Part D spending varies across regions even after controlling for prices and health status, 2008

PDP region	State(s)	Percent enrolled in PDPs	Percent of Part D enrollees receiving LIS	Relative average Part D spending per capita*	
				Unadjusted	Adjusted**
1	ME, NH	93%	51%	1.01	0.94
2	CT, MA, RI, VT	71	42	1.05	1.01
3	NY	60	47	1.20	1.13
4	NJ	83	36	1.23	1.16
5	DE, DC, MD	86	42	1.10	0.98
6	PA, WV	56	33	1.03	1.07
7	VA	84	39	1.00	0.98
8	NC	78	44	1.12	1.05
9	SC	82	47	1.10	1.00
10	GA	83	45	1.05	0.96
11	FL	56	35	0.97	0.92
12	AL, TN	71	48	1.07	0.97
13	MI	65	37	1.04	1.03
14	OH	66	38	1.01	0.98
15	IN, KY	87	43	1.08	1.02
16	WI	72	34	0.97	1.04
17	IL	88	38	0.98	0.98
18	MO	73	36	1.01	1.01
19	AR	85	46	0.94	0.91
20	MS	92	55	1.03	0.94
21	LA	71	50	1.07	1.02
22	TX	74	46	1.01	0.93
23	OK	81	39	1.04	1.05
24	KS	88	29	0.96	1.04
25	IA, MN, MT, NE, ND, SD, WY	77	27	0.86	1.03
26	NM	66	40	0.78	0.88
27	CO	51	30	0.85	1.01
28	AZ	43	32	0.79	0.90
29	NV	47	28	0.79	0.94
30	OR, WA	64	32	0.89	1.03
31	ID, UT	67	29	0.91	1.07
32	CA	53	40	0.92	0.98
33	HI	51	30	0.94	1.11
34	AK	98	63	1.34	1.23
	Mean	68	39	1.00	1.00
	Minimum	43	27	0.78	0.88
	Maximum	98	63	1.34	1.23
National average spending				$2,545	N/A

Note: PDP (prescription drug plan), LIS (low-income subsidy), N/A (not available).
*Spending includes payments for ingredient costs and dispensing fees. Figures (per capita spending and index values) are for beneficiaries residing in a community setting only. Per capita based on full-year equivalent enrollment.
**Adjusted spending controls for regional differences in prices, demographic characteristics (such as age, gender, disability, and low-income subsidy status), and beneficiaries' health status as measured by medical diagnoses used for prescription drug hierarchical condition categories.

Source: Acumen, LLC, analysis for MedPAC.

- Average per capita drug spending for drugs under Part D varies widely across PDP regions. The national average per capita spending was $2,545 in 2008. Relative to the national average, the unadjusted regional average per capita spending ranges from 78 percent (0.78) in New Mexico (Region 26) to 134 percent (1.34) in Alaska (Region 34).

- Adjusting per capita drug spending for regional differences in prices and beneficiaries' health status reduces the variation across PDP regions: After the adjustment, the difference between minimum and maximum decreases from 0.56 (1.34 minus 0.78) to 0.35 (1.23 minus 0.88). Relative to the national average, the adjusted average per capita spending ranges from 88 percent (0.88) in New Mexico (Region 26) to 123 percent (1.23) in Alaska (Region 34).

Chart 11-20. Top 15 therapeutic classes of drugs under Part D, by spending and volume, 2008

Top 15 therapeutic classes by spending	Dollars	
	Billions	Percent
Antihyperlipidemics	$6.3	9.2%
Antipsychotics	5.7	8.3
Diabetic therapy	4.7	6.8
Antihypertensive therapy agents	4.5	6.6
Peptic ulcer therapy	4.4	6.4
Asthma therapy agents	3.6	5.3
Anticonvulsants	3.3	4.8
Antidepressants	2.9	4.2
Analgesics (narcotic)	2.6	3.8
Platelet aggregation inhibitors	2.5	3.7
Cognitive disorder therapy (antidementia)	2.3	3.4
Calcium & bone metabolism regulators	2.2	3.2
Antivirals	2.1	3.1
Analgesics (anti-inflammatory/antipyretic, non-narcotic)	1.6	2.3
Antibacterial agents	1.5	2.2
Subtotal, top 15 classes	50.1	73.1
Total, all classes	68.6	100.0

Top 15 therapeutic classes by volume	Prescriptions	
	Millions	Percent
Antihypertensive therapy agents	130.5	10.4%
Antihyperlipidemics	113.5	9.0
Beta adrenergic blockers	80.2	6.4
Diabetic therapy	77.6	6.2
Diuretics	73.6	5.9
Antidepressants	66.9	5.3
Analgesics (narcotic)	59.3	4.7
Peptic ulcer therapy	57.8	4.6
Calcium channel blockers	51.7	4.1
Thyroid therapy	43.5	3.5
Antibacterial agents	36.4	2.9
Asthma therapy agents	34.9	2.8
Anticonvulsants	32.3	2.6
Calcium & bone metabolism regulators	27.7	2.2
Analgesics (anti-inflammatory/antipyretic, non-narcotic)	24.3	1.9
Subtotal, top 15 classes	910.4	72.5
Total, all classes	1,255.4	100.0

Note: Volume is the number of prescriptions standardized to a 30-day supply. Therapeutic classification based on the First DataBank Enhanced Therapeutic Classification System 1.0.

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

- In 2008, gross spending on prescription drugs covered by Part D plans totaled $68.6 billion. The top 15 therapeutic classes by spending accounted for about 73 percent of the total.
- More than 1.2 billion prescriptions were dispensed in 2008, with the top 15 therapeutic classes by volume accounting for 72.5 percent of the total.
- Eleven therapeutic classes are among the top 15 based on spending and volume. Central nervous system agents (antipsychotics, anticonvulsants, and antidepressants) dominate the list by spending, accounting for about a quarter of the spending, while cardiovascular agents (antihyperlipidemics, antihypertensive therapy agents, beta adrenergic blockers, calcium channel blockers, and diuretics) dominate the list by volume, accounting for nearly 50 percent of the prescriptions in the top 15 therapeutic classes.

Chart 11-21. Generic dispensing rate for the top 15 therapeutic classes, by plan type, 2008

By order of aggregate spending	PDP share of all prescriptions	Generic dispensing rate		
		All	PDPs	MA–PDs
Antihyperlipidemics	67%	54%	49%	63%
Antipsychotics	86	27	27	29
Diabetic therapy	68	60	58	66
Antihypertensive therapy agents	67	70	68	75
Peptic ulcer therapy	72	65	62	75
Asthma therapy agents	73	19	19	19
Anticonvulsants	79	58	55	67
Antidepressants	75	74	73	80
Analgesics (narcotic)	76	93	93	95
Platelet aggregation inhibitors	71	9	8	12
Cognitive disorder therapy (antidementia)	77	1	1	1
Calcium & bone metabolism regulators	69	37	37	38
Antivirals	79	23	21	34
Analgesics (anti-inflammatory/ antipyretic, non-narcotic)	71	79	78	84
Antibacterial agents	73	85	84	88
All therapeutic classes	71	67	66	71

Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]). Shares are calculated as a percent of all prescriptions standardized to a 30-day supply. Therapeutic classification is based on the First DataBank Enhanced Therapeutic Classification System 1.0. Generic dispensing rate is defined as the proportion of generic prescriptions dispensed within a therapeutic class. Part D prescription drug event records are classified as PDP or MA–PD records based on the contract identification on each record.

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

- In 2008, Part D enrollees in stand-alone PDPs accounted for 71 percent of prescriptions dispensed under Part D. PDP enrollees accounted for a disproportionately high share of prescriptions for classes such as antipsychotics, antivirals, and anticonvulsants. Most of the prescriptions in these classes were taken by low-income subsidy (LIS) beneficiaries, of whom more than 80 percent are enrolled in PDPs.

- Overall, analgesics (narcotic) have the highest generic dispensing rate (GDR) (93 percent), followed by antibacterial agents (85 percent) and non-narcotic analgesics (79 percent), compared with 67 percent across all therapeutic classes.

- The GDR for PDP enrollees averages 66 percent across all therapeutic classes, compared with 71 percent for MA–PD enrollees. Across the 15 therapeutic classes, GDRs for PDP enrollees were generally lower than for MA–PD enrollees with the exception of asthma therapy agents and cognitive disorder therapy, where there are few or no generic alternatives.

- There were large differences in GDRs for PDPs and MA–PDs. The largest difference was for antihyperlipidemics, with a 14 percentage point difference. Some of the difference in the GDRs reflects the fact that most beneficiaries receiving the LIS are in PDPs. On average, LIS enrollees are less likely to take a generic medication in a given therapeutic class (see Chart 11-22).

Chart 11-22. Generic dispensing rate for the top 15 therapeutic classes, by low-income subsidy status, 2008

By order of aggregate spending	LIS share of prescriptions	Generic dispensing rate		
		All	LIS	Non-LIS
Antihyperlipidemics	35%	54%	49%	56%
Antipsychotics	83	27	27	27
Diabetic therapy	48	60	53	67
Antihypertensive therapy agents	36	70	69	71
Peptic ulcer therapy	52	65	60	70
Asthma therapy agents	57	19	22	16
Anticonvulsants	65	58	52	68
Antidepressants	54	74	72	78
Analgesics (narcotic)	59	93	92	95
Platelet aggregation inhibitors	44	9	9	9
Cognitive disorder therapy (antidementia)	51	1	1	1
Calcium & bone metabolism regulators	34	37	34	39
Antivirals	68	23	15	41
Analgesics (anti-inflammatory/ antipyretic, non-narcotic)	49	79	80	79
Antibacterial agents	46	85	84	87
All therapeutic classes	45	67	65	69

Note: LIS (low-income subsidy). Shares are calculated as a percent of all prescriptions standardized to a 30-day supply. Therapeutic classification is based on the First DataBank Enhanced Therapeutic Classification system 1.0. Generic dispensing rate is defined as the proportion of generic prescriptions dispensed within a therapeutic class. Part D prescription drug event (PDE) records are classified as LIS or non-LIS records based on monthly LIS eligibility information in the Part D's denominator file. Estimates are sensitive to the method used to classify PDE records as LIS or non-LIS.

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

- In 2008, Part D enrollees receiving the LIS accounted for 45 percent of prescriptions dispensed under Part D. In 11 of 15 therapeutic classes ranked by spending, the share of prescriptions dispensed to LIS beneficiaries was greater than 45 percent, and in 3 classes the share was greater than 60 percent.

- The generic dispensing rate (GDR) for non-LIS beneficiaries averages 69 percent across all therapeutic classes, compared with 65 percent for LIS beneficiaries. Across the top 15 therapeutic classes, GDRs for non-LIS beneficiaries are higher than those of LIS beneficiaries in 10 classes, roughly the same in 3 classes (antipsychotics, platelet aggregation inhibitors, and cognitive disorder therapy), and lower in 2 classes (asthma therapy agents and non-narcotic analgesics).

- There are large differences in GDRs across classes between LIS and non-LIS beneficiaries. The largest difference is for antivirals (26 percentage points). Some of the difference in the GDRs for this therapeutic class likely reflects the differences in the mix of drugs taken between the two groups.

Chart 11-23. Pharmacies participating in Part D, 2008

	Pharmacies	Prescriptions	Gross spending
Totals	64,518	1,255.4 million	$68.6 billion
Pharmacy class			
Chain pharmacy	61.7%	61.0%	58.5%
Independent pharmacy	32.7	33.9	36.7
Franchise pharmacy	1.3	1.2	1.2
Government pharmacy	1.0	0.4	0.5
Alternate dispensing site*	3.3	3.1	2.7
Other**	N/A	0.4	0.4
Pharmacy type			
Retail†	91.5%	79.4%	77.9%
Long-term care	2.6	9.5	11.1
Mail order	0.2	8.0	7.1
Physician's office	0.7	<0.1	<0.1
Institution	1.3	0.5	0.7
MCO pharmacy	0.2	0.7	0.4
Clinic	1.4	1.0	1.0
Specialty pharmacy	0.3	0.1	0.8
Other††	1.8	0.8	1.1

Note: MCO (managed care organization), N/A (not available). Some pharmacies could not be classified because of missing and other data issues. Prescription size is standardized to a 30-day supply. Pharmacy class and type are based on 2008 National Council for Prescription Drug Programs classification.
*Alternate dispensing site includes physician offices, emergency departments, urgent care centers, and rural health facilities.
**Number of prescriptions and spending for other class include institutions and pharmacies that could not be classified because of missing and other data issues.
†Retail includes all community pharmacies, grocery pharmacies, and department store pharmacies.
††Other type includes the Indian Health Service, Department of Veterans Affairs hospitals, nuclear pharmacies, military/U.S. Coast Guard pharmacies, compounding pharmacies, and facilities specializing in intravenous infusion. Number of prescriptions and spending for other type include pharmacies that could not be classified because of missing and other data issues.

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

- In 2008, more than 64,000 pharmacies dispensed prescription drugs to Medicare beneficiaries enrolled in Part D. Most pharmacies (61.7 percent) are chain pharmacies, followed by independent pharmacies (32.7 percent).

- Chain pharmacies account for about 60 percent of prescriptions and spending, while independent pharmacies account for 34 percent of prescriptions and about 37 percent of spending.

- Retail pharmacies account for more than 90 percent of the pharmacies and about 80 percent of prescriptions and spending. Long-term care pharmacies account for 2.6 percent of the pharmacies, but close to 10 percent of prescriptions and slightly more than 11 percent of spending. Mail-order pharmacies account for less than 1 percent of the pharmacies but account for 8 percent of prescriptions and about 7 percent of spending.

Chart 11-24. Prescriptions dispensed, by pharmacy characteristics and urbanicity, 2008

	CBSA designation		
	Metropolitan	Micropolitan	Rural
Number of pharmacies	52,235	7,140	5,130
As percent of total	81.0%	11.1%	8.0%
Prescriptions dispensed			
By pharmacy location	80.6%	11.3%	7.7%
By beneficiary location	77.9	12.6	9.4
Pharmacy class and pharmacy location			
Chain pharmacy	63.9%	55.7%	41.6%
Independent pharmacy	31.1	40.4	55.0
Franchise pharmacy	1.0	2.4	1.9
Government pharmacy	0.3	0.6	0.7
Alternate dispensing site*	3.7	0.9	0.8
Pharmacy type and pharmacy location			
Retail**	76.5%	91.9%	95.7%
Long-term care	10.6	6.1	2.6
Mail order	9.9	<0.1	<0.1
Other†	2.9	2.0	1.8
Pharmacy type and beneficiary location			
Retail**	78.4%	81.8%	85.1%
Long-term care	9.7	9.5	7.4
Mail order	8.5	6.6	5.3
Other†	3.4	2.1	2.2

Note: CBSA (core-based statistical area). A metropolitan area contains a core urban area of 50,000 or more population, and a micropolitan area contains an urban core of at least 10,000 (but less than 50,000) population. Fewer than 1 percent of prescription drug event records could not be classified because the CBSA designation could not be identified. Pharmacy class and type are based on the 2008 National Council for Prescription Drug Programs classification. Number of prescriptions is standardized to a 30-day supply. Totals may not sum to 100 percent due to rounding.
*Alternate dispensing site includes physicians' offices, emergency departments, urgent care centers, and rural health facilities.
**Retail includes all community pharmacies, grocery pharmacies, and department store pharmacies.
†Other type includes physicians' offices, institutions, managed care organization pharmacies, clinics, specialty pharmacies, the Indian Health Service, Department of Veterans Affairs hospitals, nuclear pharmacies, military/U.S. Coast Guard pharmacies, compounding pharmacies, and facilities specializing in intravenous infusion.

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

(Chart continued next page)

Chart 11-24. Prescriptions dispensed, by pharmacy characteristics and urbanicity, 2008 (continued)

- In 2008, of the pharmacies that participated in Part D, 81 percent (52,235) were in metropolitan areas, about 11 percent (7,140) were in micropolitan areas, and the remaining 8 percent (5,130) were in rural areas. This distribution is similar to that of Part D enrollees (see Chart 11-12). Distributions of prescriptions dispensed followed similar patterns regardless of whether they were classified according to pharmacy locations or beneficiary locations.

- In metropolitan areas, chain pharmacies account for about 64 percent of all prescriptions dispensed under Part D, while independent pharmacies account for slightly more than 30 percent of the prescriptions dispensed. In micropolitan areas, independent pharmacies account for a larger share of prescriptions dispensed (40.4 percent), but chain pharmacies still account for a majority of the prescriptions dispensed (55.7 percent). In rural areas, most prescriptions dispensed (55 percent) are accounted for by independent pharmacies.

- Retail pharmacies account for the largest share of prescriptions dispensed under Part D in all areas, but there are some differences. For example, in metropolitan areas, retail pharmacies account for 76.5 percent of the prescriptions and roughly the same share of beneficiaries (78.4 percent) obtain their prescriptions at retail pharmacies. On the other hand, in micropolitan and rural areas more than 90 percent of prescriptions are accounted for by retail pharmacies, but beneficiaries residing in those areas fill fewer than 90 percent (81.8 percent and 85.1 percent) of their medications at retail pharmacies.

- Long-term care pharmacies located in metropolitan areas account for a larger share of prescriptions (10.6 percent) compared with micropolitan areas (6.1 percent) and rural areas (2.6 percent). The prescriptions filled by beneficiaries residing in different areas do not vary as much; 9.7 percent are filled by beneficiaries in metropolitan areas compared with 9.5 percent and 7.4 percent filled by those in micropolitan and rural areas, respectively.

- Most mail-order pharmacies are located in metropolitan areas, and beneficiaries residing in metropolitan areas fill more prescriptions through mail-order pharmacies (8.5 percent) compared with those in micropolitan and rural areas (6.6 percent and 5.3 percent).

Web links. Drugs

- Chapters in several of MedPAC's Reports to the Congress provide information on the Medicare Part D program, as does MedPAC's March 2010 Part D Data Book and Payment Basics series.

  http://www.medpac.gov/chapters/Mar10_Ch05.pdf
  http://www.medpac.gov/documents/Mar10_PartDDataBook.pdf
  http://www.medpac.gov/chapters/Mar09_Ch04.pdf
  http://www.medpac.gov/chapters/Mar08_Ch04.pdf
  http://www.medpac.gov/chapters/Mar08_Ch05.pdf
  http://www.medpac.gov/chapters/Jun07_Ch07.pdf
  http://www.medpac.gov/chapters/Mar07_Ch04.pdf
  http://www.medpac.gov/publications/congressional_reports/Jun06_Ch07.pdf
  http://www.medpac.gov/publications/congressional_reports/Jun06_Ch08.pdf
  http://www.medpac.gov/publications/congressional_reports/June05_ch1.pdf
  http://www.medpac.gov/publications/congressional_reports/June04_ch1.pdf
  http://www.medpac.gov/documents/MedPAC_Payment_Basics_09_PartD.pdf

- Analysis of Medicare payment systems and follow-on biologics can be found in MedPAC's June 2009 Report to the Congress.

  http://www.medpac.gov/chapters/Jun09_Ch05.pdf

- Analysis of Medicare spending on Part B drugs can be found in MedPAC's January 2007 and January 2006 Reports to the Congress.

  http://www.medpac.gov/documents/Jan07_PartB_mandated_report.pdf
  http://www.medpac.gov/publications/congressional_reports/Jan06_Oncology_mandated_report.pdf

- A series of Kaiser Family Foundation fact sheets data spotlights provide information on the Medicare Part D benefit.

  http://www.kff.org/medicare/rxdrugbenefits/partddataspotlights.cfm

- CMS information on Part D.

  http://www.cms.gov/PrescriptionDrugCovGenIn/
  http://www.cms.hhs.gov/MCRAdvPartDEnrolData/
  http://www.cms.gov/PrescriptionDrugCovGenIn/06_PerformanceData.asp#TopOfPage
  http://www.cms.gov/PrescriptionDrugCovGenIn/09_ProgramReports.asp