



Antonio Zatta, 1776

Costs of end-stage renal disease

328 overall & per person per year costs of ESRD

330 part D costs by low income subsidy & provider

332 summary

Total Medicare spending in 2011 rose 5 percent, to \$549.1 billion, while ESRD expenditures rose 5.4 percent, to \$34.3 billion. Because the USRDS Coordinating Center now receives up-to-date data on Part D use in the ESRD population, these numbers include the new Medicare Part D prescription drug benefit, added in 2006.

These expenditures cover 507,326 patients in the prevalent Medicare ESRD population, along with 108,573 non-Medicare patients; the latter patients cost an additional estimated \$14.93 billion (data from Table p.a in the Précis).

Medicare HMO costs for ESRD rose to \$3.62 billion in 2011, 6.8 percent higher than in 2010, and accounting for 7.4 percent of total ESRD expenditures based on insurance coverage — the highest proportion in the last 20 years. In the hemodialysis population, total fee-for-service Medicare expenditures per person per year (PPPY) were \$87,945 in 2011, 0.28 percent lower than in 2010. For peritoneal dialysis patients, in contrast, PPPY costs rose 6.6 percent, to \$71,630.

These year-to-year variations will need more complete assessment — including consideration of cause-specific hospitalizations — to define their exact source. Factors to consider include the introduction in 2011 of the new bundled Prospective Payment System (PPS), the decline (noted in Chapter Three) in overall hospitalization rates, which may contribute to lower hemodialysis patient expenditures, and recent growth in the peritoneal dialysis population. This growth may have changed the overall mix of expenditures, as patients on peritoneal dialysis use more oral medications than those treated with hemodialysis.

Costs differ widely between Medicare and EHRP patients, as illustrated by data from the Truven Health MarketScan (THMS) dataset. While PPPY costs in the Medicare dialysis population reached \$60,676 in 2011, those for THMS dialysis patients reached \$125,871 — a level 2.1 times greater, and for a population that, on average, is younger than 65. These costs do not cover prescription drugs.

Changes in the use of injectable medications are described in Chapter Ten, on ESRD providers. Expenditures for these medications can no longer be assessed, since ESAS, IV vitamin D, and IV iron are now included in the

If you want to build a ship, don't drum up the men to gather wood, divide the work and give orders. Instead, teach them to yearn for the vast and endless sea.

Antoine de Saint-Exupéry
THE WISDOM OF THE SANDS

bundled costs for each dialysis treatment. Changes in use can be determined, however, by looking at reported doses, as dosing data is required on the monthly dialysis claims. In Chapter 10, Figure 10.7, we present data from July of 2010, 2011, and 2012. ESA dosing fell 20.5 percent from 2010 to 2011, and an additional 39 percent in 2012. Dosing of IV iron fell 14.1 percent in the first year, and a further 8 percent in the second. And dosing of IV vitamin D fell 14.3 percent in the first year, while decreasing only 1.4 percent in the second.

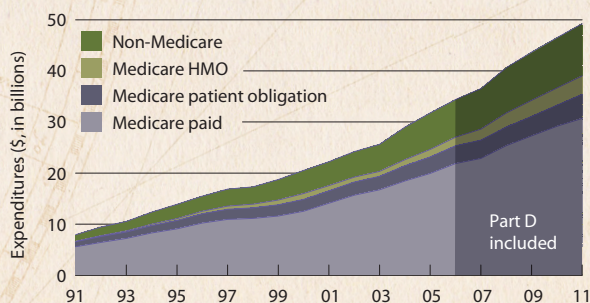
These reductions translate directly into savings for dialysis providers, as the IV dosing and expenditures included in the PPS were from 2007. The Government Accountability Office and the Office of the Inspector General recently suggested that CMS rebase the per dialysis treatment PPS bundle payment, and on July 1, 2013, CMS proposed a 12 percent reduction for 2014 payments (<http://www.cms.gov/ESRDpayment/PAY/list.asp>). The proposed new payment rule may be modified based on adjustments for inflation and on public feedback as to how the cuts might impact various collateral groups across the

provider spectrum. CMS has indicated that the reduction may be phased in, allowing providers time to adapt. Amgen recently announced a price increase of 5 percent effective May 24, 2013, increasing costs to providers at the same time that proposed payments are being lowered. The final rule for 2014 payments is expected by the fall of 2013.

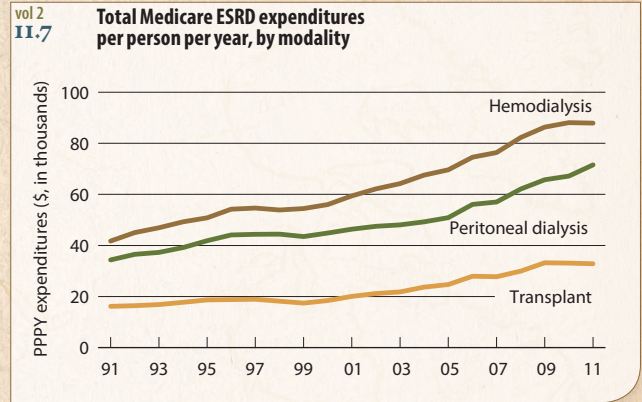
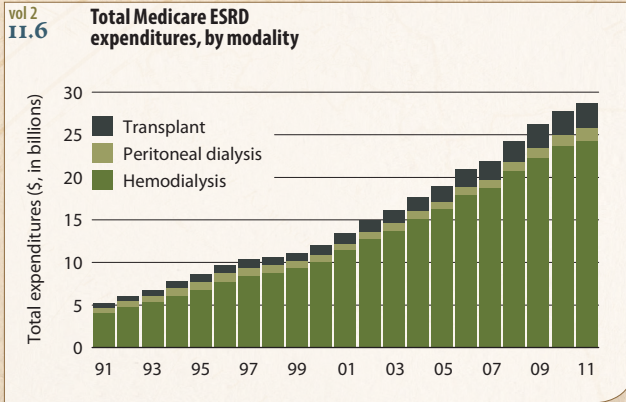
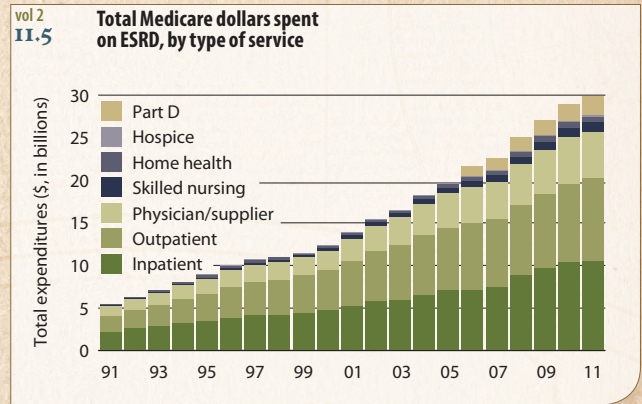
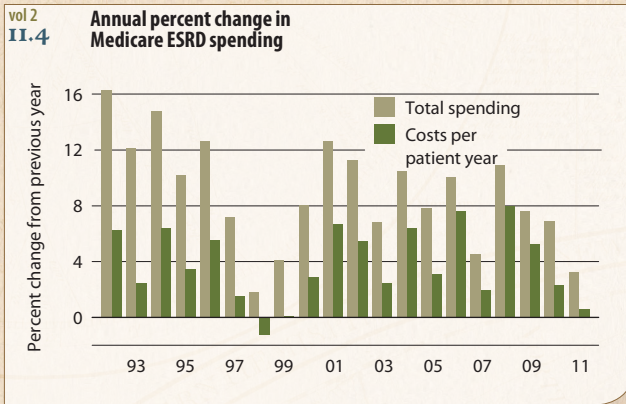
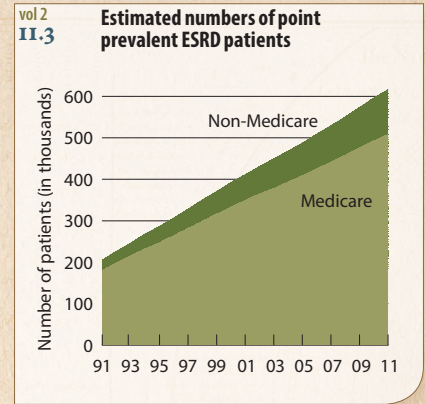
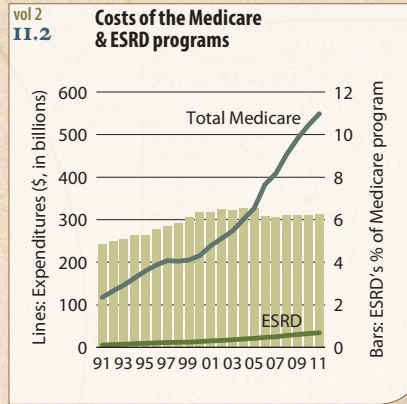
We next address use of the Part D Medicare prescription drug benefit in ESRD patients, looking at total expenditures and out-of-pocket costs by low income subsidy (LIS) status. Compared to those of non-LIS patients, medication costs PPS for patients with the LIS are three times greater. Out-of-pocket costs for non-LIS patients, in contrast, are eight times higher, at \$1,091 versus \$135.

It is anticipated that phosphate binders will be added to the dialysis PPS bundle by 2016. Data on differences in medication use across providers show that, in 2011, DaVita had the highest expenditures for calcium acetate, sevelamer, lanthanum, and cinacalcet. These costs will be followed in subsequent ADRS to determine effects of the expanded bundled payment. ♦ **Figure 11.1;** see page 445 for analytical methods. *Period prevalent ESRD patients. Includes Part D.*

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11.1 ESRD expenditures, by payer



Total Medicare costs rose 5 percent in 2011, to \$549 billion; costs for ESRD increased 5.4 percent, to \$34.3 billion, accounting for 6.3 percent of the Medicare budget. The estimated number of point prevalent Medicare ESRD patients grew to 507,326 in 2011, while the non-Medicare ESRD population rose 5.3 percent, to 108,573. + **Figures 11.2–3**; see page 445 for analytical methods. *Costs (inflated by 2 percent) include estimated costs for HMO & organ acquisition (11.2). December 31 point prevalent ESRD patients (11.3).*



Total Medicare costs for ESRD patients increased 3.3 percent between 2010 and 2011, compared to a 0.6 percent increase in costs per person per year. This growth was lower than that seen in 2010, at 6.9 and 2.3 percent, respectively.

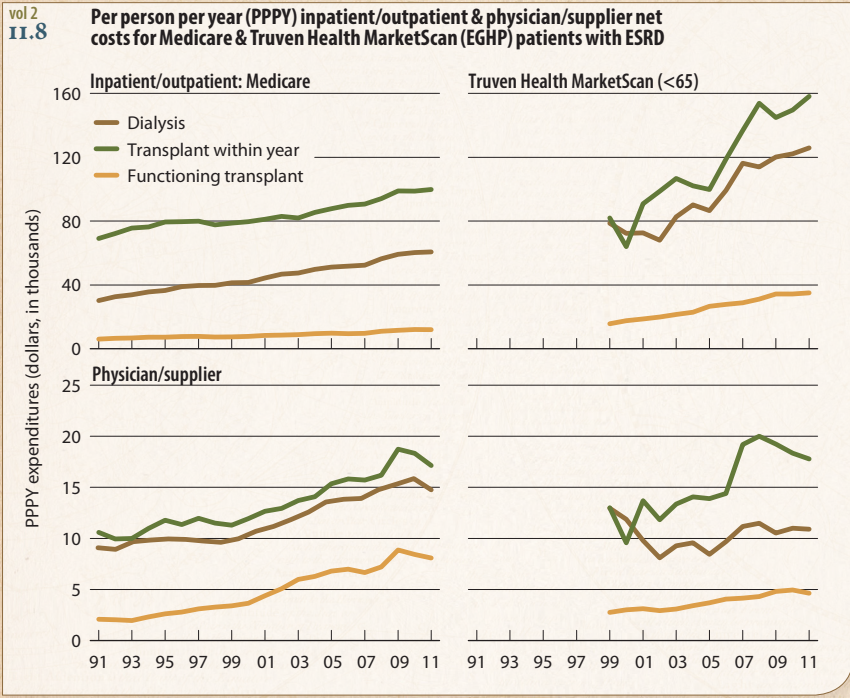
In 2010, 38 percent of Medicare's ESRD dollars were spent on inpatient services, 35 percent on outpatient care, 19 percent on physician/supplier costs, and 7.8 percent on Part D prescription drugs. Part D costs for ESRD patients reached \$2.16 billion in 2011, 12.5 percent higher than in the previous year.

Total Medicare expenditures for peritoneal dialysis rose 14.7 percent in 2011, compared to increases of 2.5 and 2.1 percent for hemodialysis and transplant, respectively. Costs

reached \$24.3 billion for hemodialysis, and \$1.5 and \$2.9 billion for peritoneal dialysis and transplant.

Per person per year Medicare ESRD costs for hemodialysis and transplant fell 0.3 and 0.5 percent, respectively, to \$87,945 and \$32,922 in 2011, compared to a rise of 6.6 percent in peritoneal dialysis patients, to \$71,630. + **Figures 11.4–7**; see page 445 for analytical methods. *Total Medicare ESRD costs from claims data; includes all Medicare as primary payer claims as well as amounts paid by Medicare as secondary payer (11.4–5). Period prevalent ESRD patients (11.6–7); in 11.7, patients with Medicare as secondary payer are excluded.*

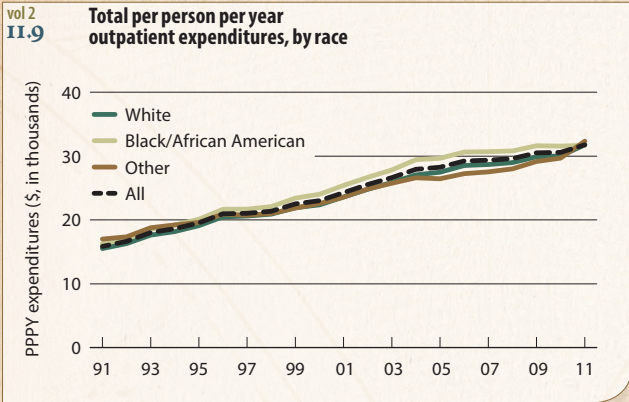
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Inpatient/outpatient costs per person per year (PPPY) for Truven MarketScan (THMS) patients with a transplant during 2011 rose 5.7 percent from the previous year, to \$158,138 — 58 percent more than the \$99,826 incurred by their Medicare counterparts, for whom costs rose just 1.0 percent. Costs for THMS patients with a functioning transplant in 2011 were 2 percent higher than in 2010, at \$35,018 — 2.9 times higher than the \$12,019 reported for Medicare patients.

In 2011, physician/supplier PPPY costs for patients with a transplant during the year fell 3.1 percent for THMS patients, to \$17,798; costs for their Medicare counterparts fell 6.5 percent, to \$17,145.

♦ **Figure 11.8;** see page 445 for analytical methods. *Period prevalent Medicare ESRD patients; period prevalent Truven Health MarketScan ESRD patients age 64 & younger.*



Total per person per year outpatient expenditures in the prevalent dialysis population do not vary widely by race. In 2011, costs were \$31,779 for white patients, \$31,686 for blacks/African Americans, and \$32,340 for patients of other races. ♦ **Figure 11.9;** see page 446 for analytical methods. *Period prevalent dialysis patients.*

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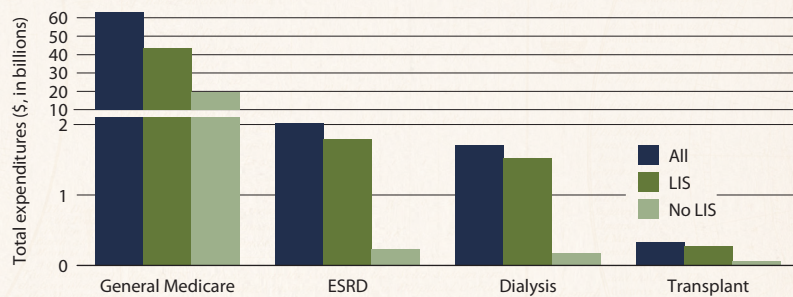
In 2011, total Part D net costs were \$63 billion in the general Medicare population, and reached \$2.0 billion, \$1.7 billion, and \$323 million in the ESRD, dialysis, and transplant populations. Costs for general Medicare patients with the low income subsidy (LIS) totaled \$43.6 billion, compared to \$19.6 billion in non-LIS patients.

Among dialysis and transplant patients with the LIS, net per person per year Part D costs in 2011 were \$8,003 and \$6,459, respectively, compared to costs of \$4,194 in the general Medicare population. In patients with no LIS, Part D costs were noticeably lower, at \$2,302 for dialysis patients, \$2,105 for transplant patients, and \$1,043 in the general population.

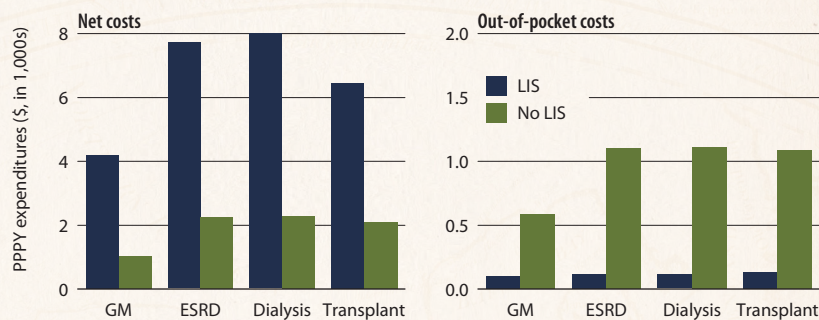
Out-of-pocket Part D costs for patients with the LIS are a fraction of those realized by non-LIS patients, at \$105 and \$590, respectively, for general Medicare patients, and \$119 versus \$1,106 for patients with ESRD.

In 2011, total per person per year (PPPY) Part D costs for LIS patients were highest in facilities owned by DaVita and in those that operated independently, at \$9,917 and \$8,792, respectively. In patients with no LIS, PPPY costs were similar across all facilities, ranging from \$2,218 to \$2,525. + Figures 11.10–12; see page 446 for analytical methods. 11.10–11: Part D-enrolled general Medicare patients from the 5 percent sample & period prevalent dialysis & transplant patients, 2011. 11.12: Part D-enrolled dialysis patients, 2011.

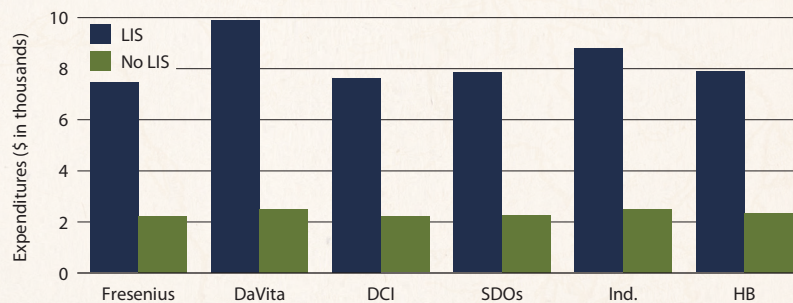
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11.10 Total Part D net costs, by low income subsidy (LIS) status, 2011



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11.11 Total per person per year Part D net & out-of-pocket costs, by low income subsidy (LIS) status, 2011

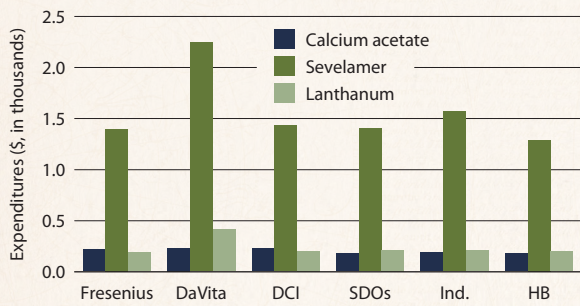


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11.12 Total per person per year Part D costs, by low income subsidy (LIS) status & provider, 2011



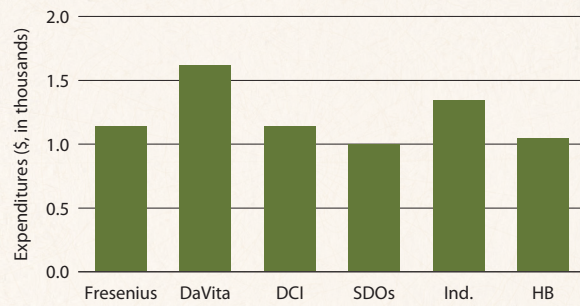
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Total per person per year (PPPY) Part D costs for phosphate binders, by provider, 2011



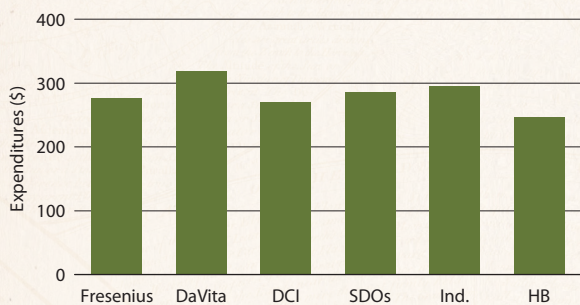
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Total per person per year (PPPY) Part D costs for cinacalcet, by provider, 2011



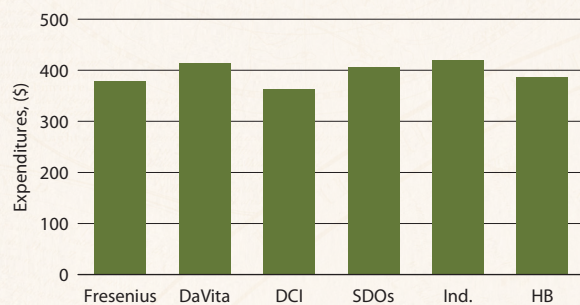
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Total per person per year (PPPY) Part D costs for antihypertensives, by provider, 2011



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Total per person per year (PPPY) Part D costs for diabetes agents, by provider, 2011



Total per person per year (PPPY) Part D costs in 2011 for phosphate binders, calcium acetate, sevelamer, and lanthanum were highest in units owned by DaVita, at \$233, \$2,244, and \$418, respectively, and totaling \$2,894; costs in hospital-based units, in contrast, totaled \$1,665, 42 percent lower than costs incurred by DaVita facilities.

Small dialysis organizations (SDOs) and hospital-based units had the lowest PPPY cinacalcet costs, at \$996 and \$1,048, respectively, while costs were highest in units owned by DaVita, at \$1,618.

Part D PPPY costs for antihypertensives totaled \$647 in units owned by DaVita, followed by costs of \$601 for independent units, while costs were lowest were in hospital-based units, at \$499.

PPPY costs for diabetic agents do not differ widely by facility, and in 2011 ranged from a low of \$363 in units owned by DCI to a high of \$414 in units owned by DaVita. ♦ **Figures 11.13–16;** see page 446 for analytical methods. *Part D-enrolled dialysis patients, 2011.*

unit affiliation

- All All units
- F Fresenius
- DV DaVita
- DCI Dialysis Clinic, Inc.
- SDOs Small dialysis organizations (defined as 20–199 dialysis units; unit classification assigned by the USRDS)
- Ind Independent units
- HB Hospital-based units

overall and per person per year costs of esrd

ESRD SPENDING, BY PAYER, 2011 (FIGURE II.1)

Medicare paid: \$30.7 billion; Medicare patient obligation: \$4.7 billion;
Medicare HMO: \$3.6 billion; non-Medicare: \$10.2 billion

PERCENT OF TOTAL MEDICARE DOLLARS SPENT ON ESRD, BY TYPE OF SERVICE, 2011 (FIGURE II.5)

inpatient: 38%; outpatient: 35%; physician/supplier: 19%; skilled nursing: 4.3%; home health: 2.3%; hospice: 0.5%; Part D: 7.8%

TOTAL MEDICARE EXPENDITURES FOR ESRD, BY MODALITY, 2011 (FIGURE II.6)

hemodialysis: \$24.3 billion; peritoneal dialysis: \$1.5 billion; transplant: \$2.9 billion

TOTAL MEDICARE EXPENDITURES PER PERSON PER YEAR, BY MODALITY, 2011 (FIGURE II.7)

hemodialysis: \$87,945; peritoneal dialysis: \$71,630; transplant: \$32,922

part d costs

TOTAL PART D NET COSTS IN THE GENERAL MEDICARE & ESRD POPULATIONS, BY LOW INCOME SUBSIDY (LIS) STATUS, 2011 (FIGURE II.10)

	general Medicare	ESRD	dialysis	transplant
all	\$63,209,157,772	\$2,019,523,326	\$1,696,574,821	\$322,948,505
LIS	\$43,623,385,784	\$1,792,041,444	\$1,524,690,232	\$267,351,212
no LIS	\$19,585,771,988	\$227,481,882	\$171,884,589	\$55,597,294

PER PERSON PER YEAR PART D NET & OUT-OF-POCKET COSTS, BY LOW INCOME SUBSIDY (LIS) STATUS, 2011 (FIGURE II.11)

	general Medicare	ESRD	dialysis	transplant
net costs, LIS	\$4,194	\$7,728	\$8,003	\$6,459
net costs, no LIS	\$1,043	\$2,251	\$2,302	\$2,105
out-of-pocket costs, LIS	\$105	\$119	\$115	\$135
out-of-pocket costs, no LIS	\$590	\$1,106	\$1,112	\$1,091

PER PERSON PER YEAR PART D COSTS, BY LOW INCOME SUBSIDY (LIS) STATUS & PROVIDER, 2011 (FIGURE II.12)

	Fresenius	DaVita	DCI	SDOs	independent	hospital-based
LIS	\$7,464	\$9,917	\$7,642	\$7,863	\$8,792	\$7,894
no LIS	\$2,231	\$2,524	\$2,218	\$2,277	\$2,525	\$2,363

PER PERSON PER YEAR PART D COSTS FOR PHOSPHATE BINDERS, BY PROVIDER, 2011 (FIGURE II.13)

	Fresenius	DaVita	DCI	SDOs	independent	hospital-based
calcium acetate	\$217	\$233	\$227	\$184	\$190	\$178
sevelamer	\$1,397	\$2,244	\$1,433	\$1,405	\$1,566	\$1,291
lanthanum	\$187	\$418	\$205	\$214	\$210	\$196

PER PERSON PER YEAR PART D COSTS FOR ANTIHYPERTENSIVES, BY PROVIDER, 2011 (FIGURE II.15)

Fresenius: \$276; DaVita: \$318; DCI: \$270; SDOs: \$285; independent: \$295; hospital-based: \$247