

SECTION

12

Other services

Dialysis

Hospice

Clinical laboratory

Chart 12-1. Number of dialysis facilities is growing and share of for-profit and freestanding dialysis providers is increasing

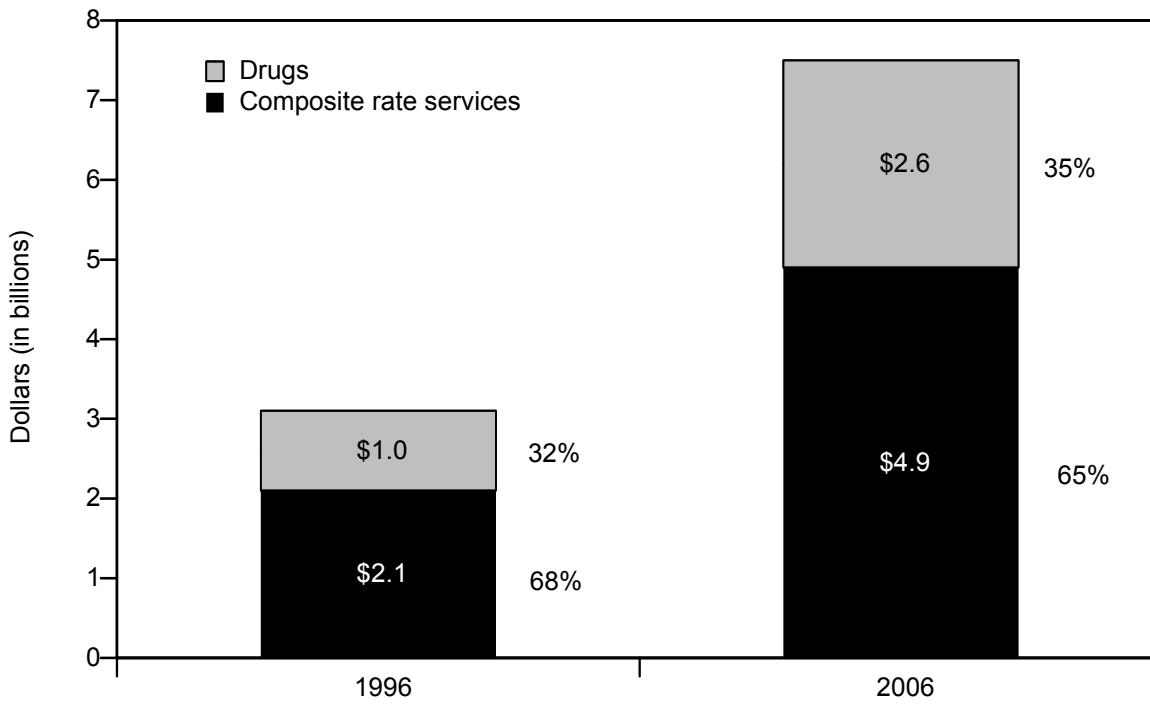
	1997	2003	2007	Average annual percent change	
				1997–2007	2003–2007
Total number of					
Dialysis facilities	3,172	4,240	4,798	4%	3%
Hemodialysis stations	49,223	72,171	83,918	5	4
Mean number of					
Hemodialysis stations	16	17	17	1	1
Percent of all facilities:					
Nonchain	N/A	29%	21%	N/A	-5
Affiliated with any chain	N/A	71	79	N/A	6
Affiliated with largest two chains	N/A	56	58	N/A	4
Hospital based	23%	16	13	-2	-2
Freestanding	77	84	87	6	4
Rural	24	25	25	5	3
Urban	76	75	75	4	3
For profit	71	76	80	5	4
Nonprofit	29	24	20	<1	-1

Note: N/A (not available). Nonprofit includes facilities designated as either nonprofit or government.

Source: Compiled by MedPAC from the CMS facility survey file and Dialysis Compare file.

- Between 1997 and 2007, the number of freestanding and for-profit facilities increased, while hospital-based and nonprofit facilities decreased. Freestanding facilities increased from 77 percent to 87 percent of all facilities, and for-profit facilities increased from 71 percent to 80 percent of all facilities.
- Two national for-profit chains own about 60 percent of all facilities and 70 percent of all freestanding facilities.
- Between 1997 and 2007, the proportion of facilities located in rural areas has remained relatively constant.
- The number of facilities has increased 4 percent per year since 1997. The size of a facility has remained about the same, as evidenced by the mean number of hemodialysis stations per facility, which increased from 16 in 1997 to 17 in 2007.

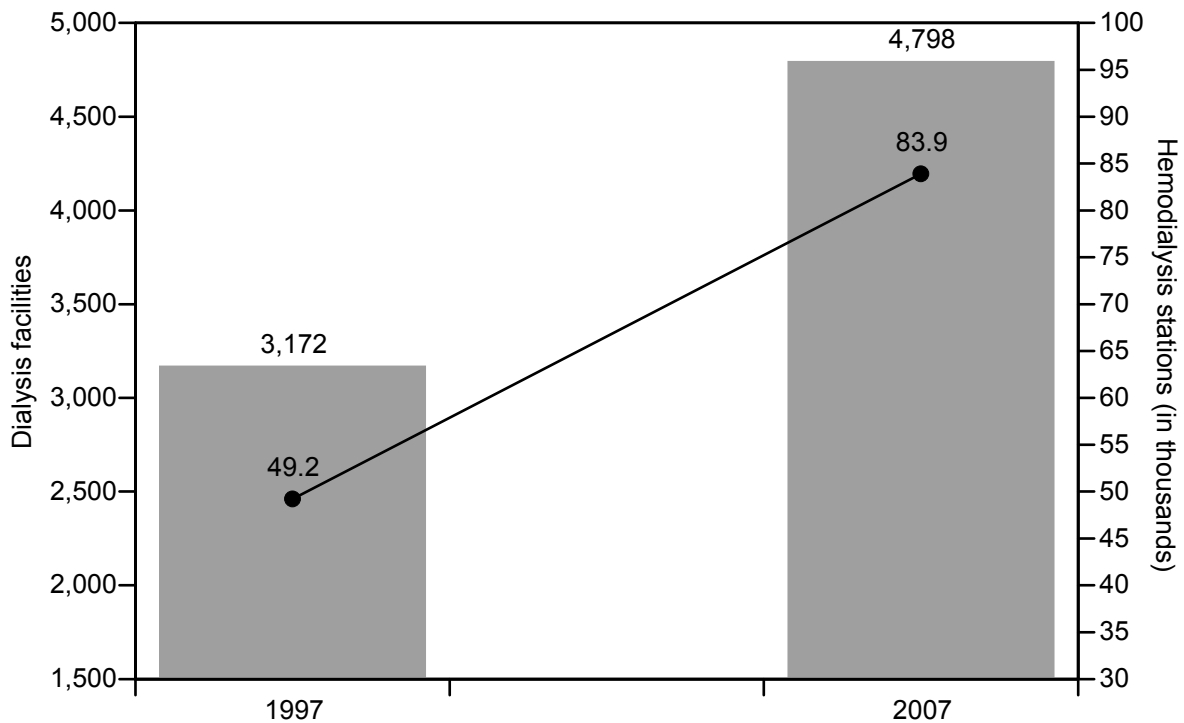
Chart 12-2. Medicare spending for outpatient dialysis services furnished by freestanding dialysis facilities, 1996 and 2006



Source: Compiled by MedPAC from the 1996 and 2006 institutional outpatient files from CMS.

- Between 1996 and 2006, Medicare spending for both dialysis treatments (for which providers are paid a predetermined rate) and for injectable drugs administered during treatments (for which providers are paid on a per unit basis) increased by 9 percent per year.
- Two factors contributing to spending growth are the increasing size of the dialysis population and the growing use of injectable drugs, such as erythropoietin, iron supplements, and vitamin D analogues.
- The number of dialysis patients increased by 5 percent annually between 1996 and 2006. This growth is linked to a number of factors, including improvements in survival and increases in the number of people with diabetes, a risk factor for end-stage renal disease.
- Between 1996 and 2006, estimated spending for injectable drugs increased by 10 percent annually; in contrast, spending for dialysis increased by 9 percent annually during this time period.

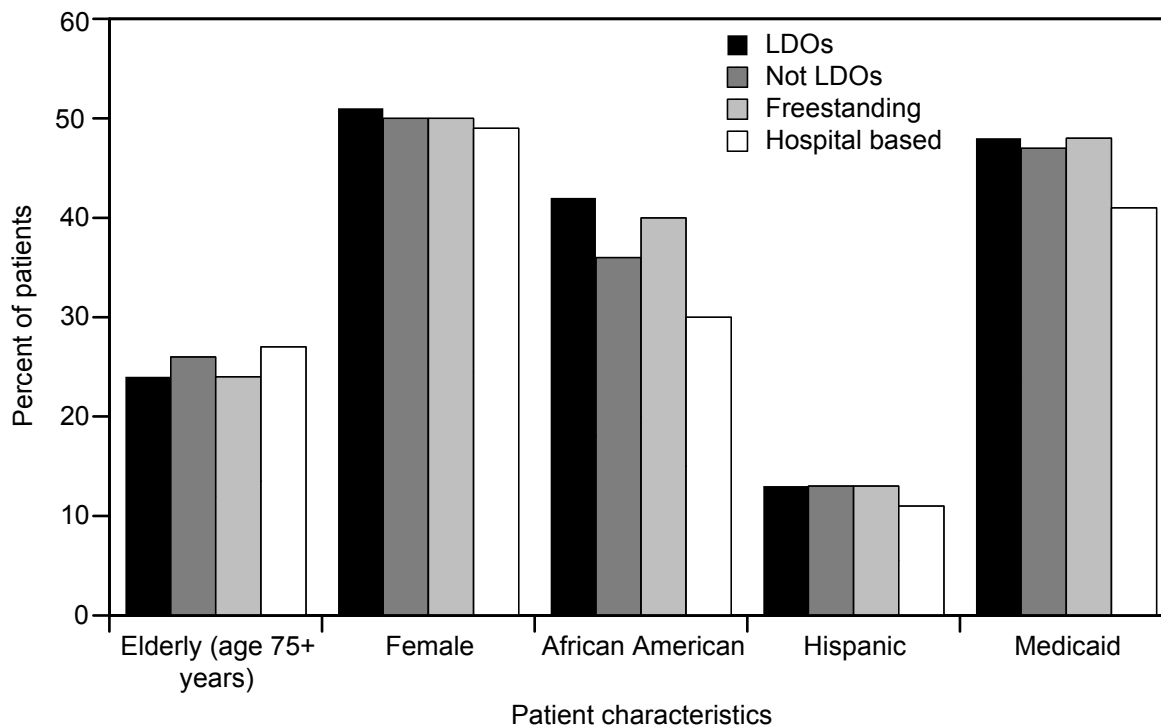
Chart 12-3. Dialysis facilities' capacity increased between 1997 and 2007



Source: Compiled by MedPAC from the 1997 Facility Survey file from CMS and the 2007 Dialysis Compare database from CMS.

- Providers have met the demand for furnishing care to an increasing number of dialysis patients by opening new facilities. In 2007, a facility had about 17 hemodialysis stations.
- Between 1997 and 2007, the total number of dialysis facilities grew by about 4 percent annually, and the number of hemodialysis stations grew by 5 percent annually.

Chart 12-4. Characteristics of dialysis patients, by type of facility, 2006



Note: LDO (large dialysis organization).

Source: MedPAC analysis of dialysis claims files, denominator files from CMS.

- Across the different provider types, the proportion of patients who are elderly, female, African American, Hispanic, and dually eligible for Medicaid does not differ by more than 1 percentage point between 2005 and 2006 (data not shown for 2005).
- This analysis suggests that providers have not changed the mix of patients they care for between 2005 and 2006, including the large dialysis organizations, which account for about 60 percent of all facilities.
- In 2005 and 2006, freestanding facilities were more likely than hospital-based facilities to treat African Americans and dual eligibles. Freestanding facilities account for more than 85 percent of all dialysis facilities.

Chart 12-5. The ESRD population is growing, and most ESRD patients undergo dialysis

	1995		2000		2005	
	Patients (thousands)	Percent	Patients (thousands)	Percent	Patients (thousands)	Percent
Total	287.4	100%	391.9	100%	485.0	100%
Dialysis	209.5	73	283.3	72	341.3	70
In-center hemodialysis	174.8	61	254.9	65	312.1	64
Home hemodialysis	3.0	1	2.2	1	2.1	<1
Peritoneal dialysis	30.2	11	25.2	6	25.9	5
Unknown	1.4	1	1.1	<1	1.2	<1
Functioning graft and kidney transplants	78.0	27	108.9	28	143.7	30

Note: ESRD (end-stage renal disease). Totals may not equal sum of components due to rounding.

Source: Compiled by MedPAC from the United States Renal Data System.

- Persons with end-stage renal disease (ESRD) require either dialysis or a kidney transplant to maintain life. The total number of ESRD patients increased by 6 percent annually between 1995 and 2005.
- In hemodialysis, a patient's blood flows through a machine with a special filter that removes wastes and extra fluids. In peritoneal dialysis, the patient's blood is cleaned by using the lining of his or her abdomen as a filter. Peritoneal dialysis is usually performed in a patient's home.
- Most ESRD patients undergo hemodialysis administered in dialysis facilities three times a week. Between 1995 and 2005, hemodialysis use grew, while use of the two types of dialysis administered in patients' homes—peritoneal dialysis and home hemodialysis—declined.
- Functioning graft patients are patients who have had a successful kidney transplant. Patients undergoing kidney transplant may receive either a living or a cadaveric kidney donation. In 2005, 38 percent of the kidneys were from living donors and 62 percent were from cadaver donors.
- Medicare is the primary payer for about 81 percent of all dialysis patients and for about half of all patients with a kidney transplant.

Chart 12-6. Diabetics, the elderly, Asians, and Hispanics are among the fastest growing segments of the ESRD population

	Percent of total in 2005	Average annual percent change 1997–2005
Total (n = 485,012)	100%	5%
Age		
0–19	2	3
20–44	20	2
45–64	44	6
65–74	19	4
75+	16	7
Sex		
Male	56	5
Female	44	5
Race/Ethnicity		
White	61	5
African American	32	5
Native American	1	5
Asian	4	8
Hispanic	14	9
Non-Hispanic	86	4
Underlying cause of ESRD		
Diabetes	37	6
Hypertension	24	5
Glomerulonephritis	16	3
Other causes	23	5

Note: ESRD (end-stage renal disease). Totals may not equal sum of the components due to rounding.

Source: Compiled by MedPAC from the United States Renal Data System.

- Among end-stage renal disease (ESRD) patients, 35 percent are over age 65. About 60 percent are white.
- Diabetes is the most common cause of renal failure.
- The number of ESRD patients increased by 5 percent annually between 1997 and 2005. Among the fastest growing groups of patients include those who are over age 75 and those with diabetes as the cause of kidney failure.

Chart 12-7. Aggregate margins vary by type of freestanding dialysis facility, 2006

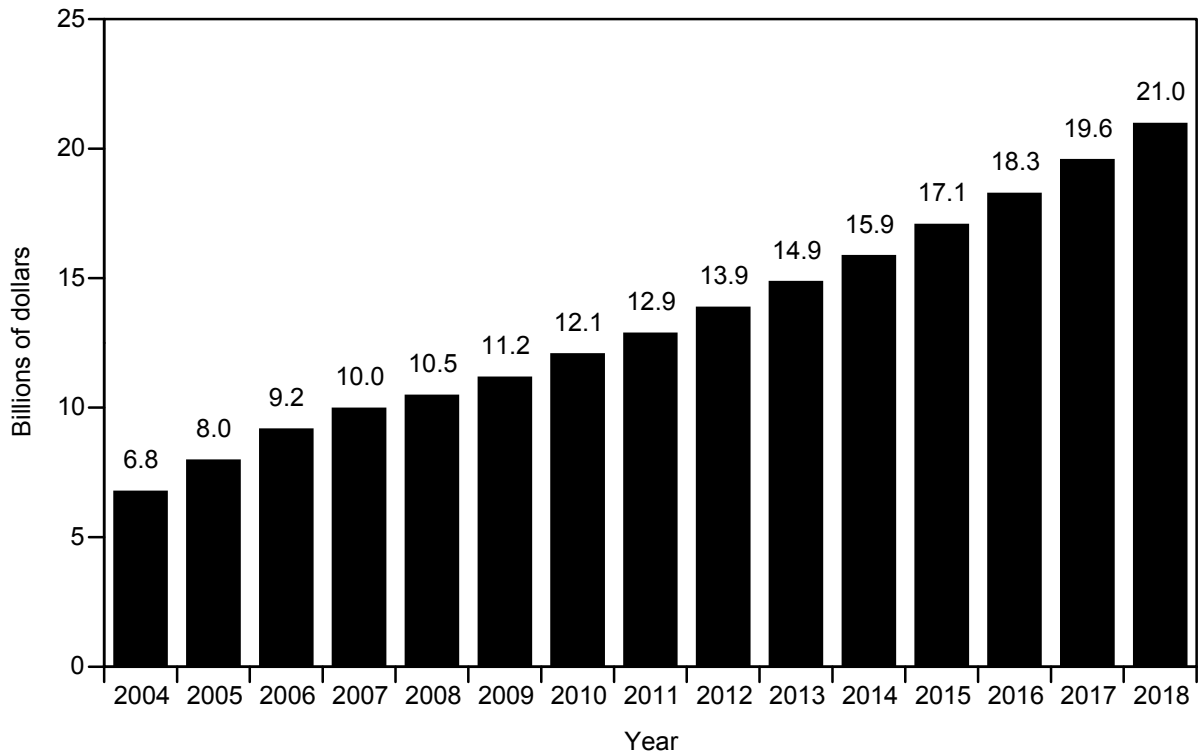
Type of facility	Percentage of spending by freestanding facilities	Aggregate margin
All facilities	100%	5.9%
Urban	82	6.2
Rural	18	4.5
Large dialysis organizations	69	7.6
Non large dialysis organizations	31	2.0

Note: LDO (large dialysis organization). Margins include payments and costs for composite rate services and injectable drugs.

Source: Compiled by MedPAC from the 2006 cost reports and the 2006 institutional outpatient file from CMS.

- For 2006, the aggregate Medicare margin for composite rate services and injectable drugs was 5.9 percent.
- As in earlier years, we continue to see higher margins for facilities affiliated with the largest two chains. This finding stems from differences in the composite rate cost per treatment and drug payment per treatment. Compared with their counterparts, the composite rate cost per treatment was lower and the drug payment per treatment was higher for the two largest chains.

Chart 12-8. Rapid growth in Medicare hospice spending projected to continue

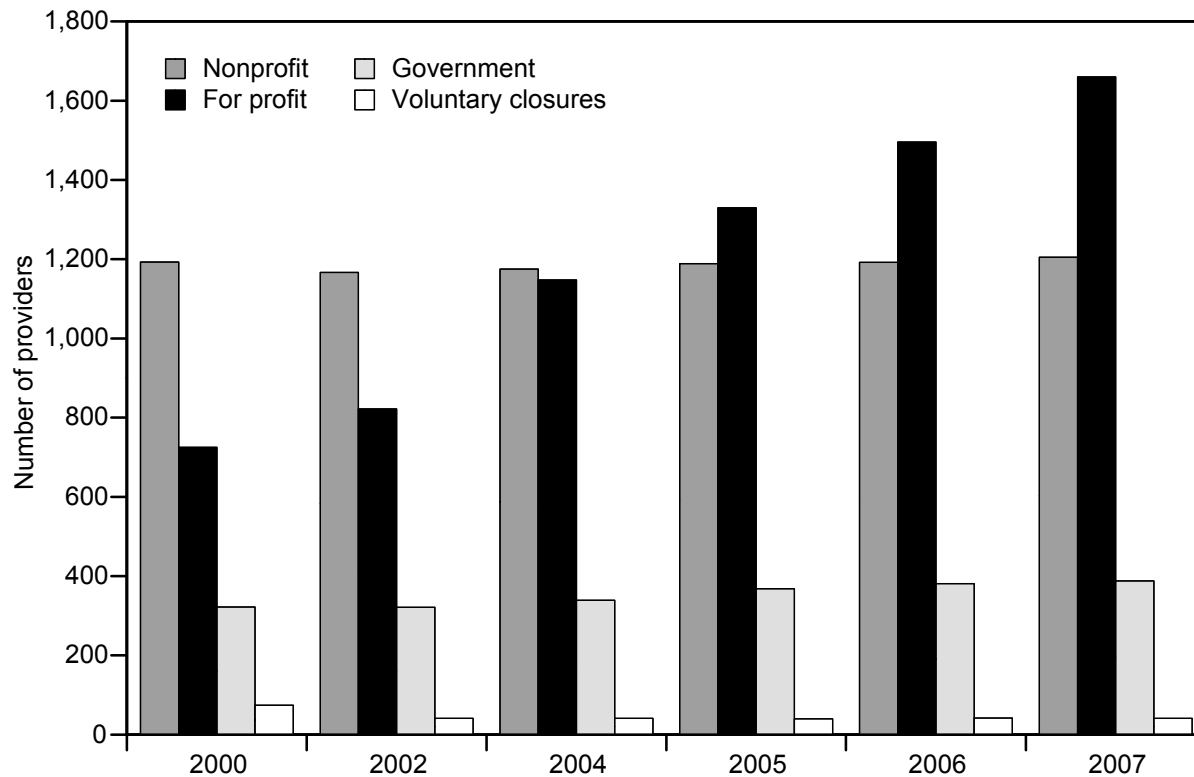


Note: 2004–2006 are incurred expenses; 2007 forward are projections.

Source: Office of the Actuary 2008 Trustees Report, Current Services.

- Medicare spending for hospice exceeded \$10 billion in 2007.
- Medicare spending for hospice is projected to more than double in the next 10 years.

Chart 12-9. Number of Medicare-participating hospices has increased, largely driven by for-profit hospices



Source: CMS Providing Data Quickly Query, February 25, 2008, https://pdq.cms.hhs.gov/report_select.jsp?which=8.

- There were over 3,200 Medicare-participating hospices in 2007. A majority of these were for-profit hospices.
- For-profit hospices have made up over 90 percent of hospices that began participating in Medicare since 2000.
- Between 2002 and 2007, just over 40 hospices voluntarily exited the Medicare program in any given year, on average.

Chart 12-10. Hospices that exceeded Medicare's annual payment cap, 2002–2005

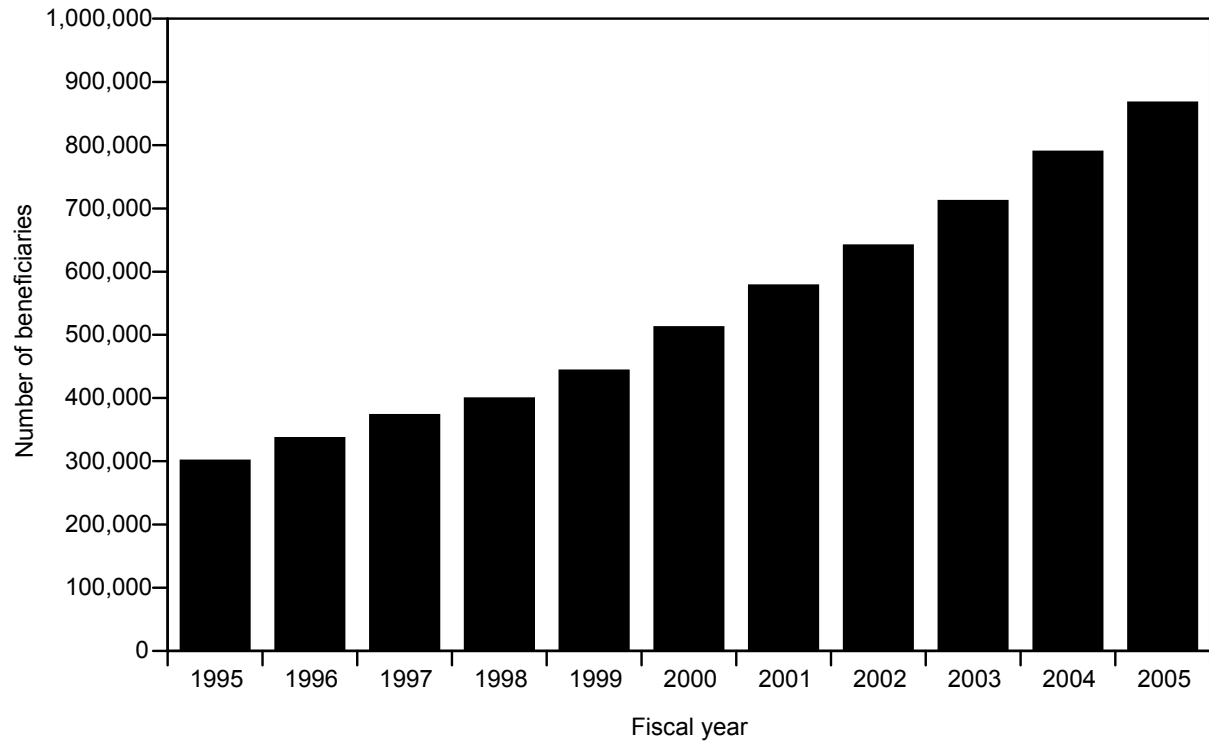
Year	2002	2003	2004	2005
Total number of hospices	2,286	2,401	2,580	2,809
Total spending (in millions)	\$4,517	\$5,682	\$6,897	\$8,155
Number of hospices exceeding cap	60	98	150	220
Percent of hospices exceeding cap	2.6%	4.1%	5.8%	7.8%
Payments over the cap subject to recovery (in millions)	\$28.2	\$65.1	\$112.3	\$166.0
Payments over the cap as percent of overall Medicare hospice spending	0.6%	1.2%	1.6%	2.0%

Note: The cap year is defined as the period beginning September 28 and ending September 27 of the following year.

Source: MedPAC analysis of 100 percent hospice standard analytical file (claims) data, 2002–2005; Medicare hospice cost reports, 2001–2005; CMS Provider of Services file data, 2002–2005; and CMS Providing Data Quickly file.

- A small but growing number of hospices exceed Medicare's aggregate average per beneficiary payment limit, or "cap."
- About 8 percent of hospices exceeded the cap in 2005. These hospices provided care for about 5 percent of Medicare hospice patients.

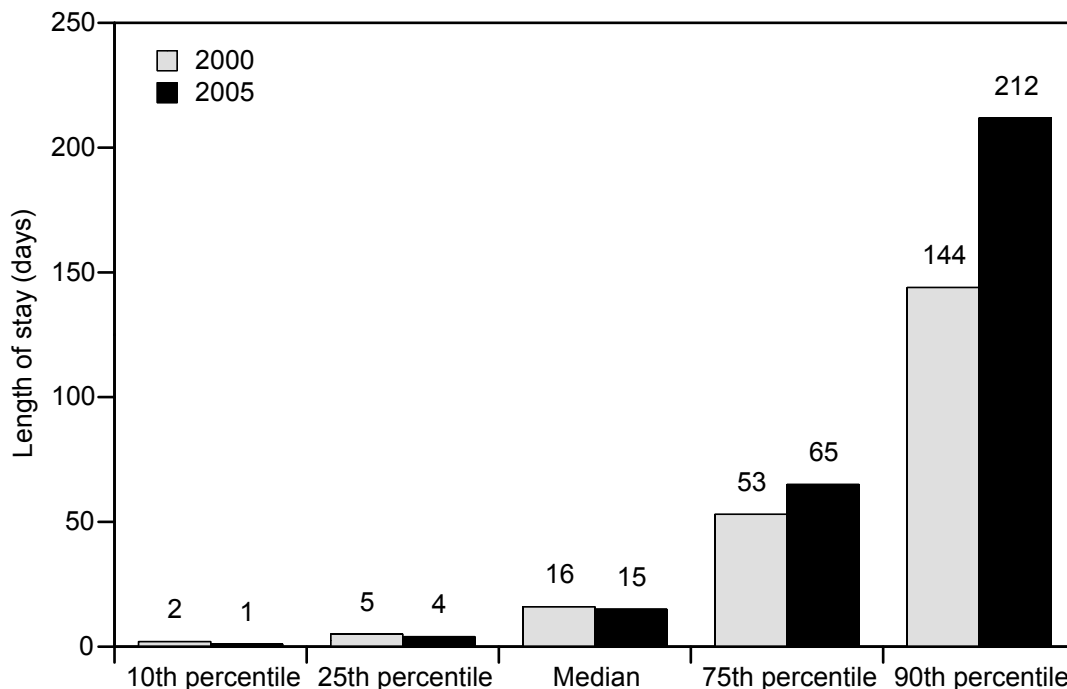
Chart 12-11. Number of unique beneficiaries using hospice, fiscal years 1995–2005



Source: Centers for Medicare & Medicaid Services, 2007. Data available at: http://www.cms.hhs.gov/PropMedicareFeeSvcPmtGen/downloads/FY05update_hospice_expenditures_and_units_of_care.pdf.

- The number of Medicare decedents who had elected hospice continues to grow.
- In 2005, about 40 percent of Medicare decedents died under the care of hospice.

Chart 12-12. Long hospice stays are getting longer, while short stays persist



Note: Data are for decedent beneficiaries in both fee-for-service Medicare and Medicare Advantage.

Source: MedPAC analysis of 2007 100 percent MBD file from CMS.

- The median length of stay in hospice was roughly two weeks (15 days) in 2005.
- Short hospice stays (those at or below the median) have remained almost unchanged between 2000 and 2005.
- Long hospice stays (those above the median) have grown longer. For example, at the 90th percentile, average length of stay increased from 144 days in 2000 to 212 days in 2005, an increase of nearly 50 percent.

Chart 12-13. Average days per hospice patient, by disease category, below-cap and above-cap hospices, all diagnoses, 2005

Disease category	Below-cap hospices			Above-cap hospices			Difference in ALOS, cap vs. non-cap
	Number of cases	Percent of total cases	ALOS	Number of cases	Percent of total cases	ALOS	
Cancer (except lung cancer)	194,089	27.2	45.9	4,831	14.5	68.3	48.9%
Lung cancer	79,560	11.2	43.6	1,914	5.8	53.6	22.9
Circulatory, except heart failure	77,653	10.9	51.4	5,200	15.7	114.2	122.1
Heart failure	57,010	8	58.3	4,184	12.6	120.5	106.8
Debility, NOS	51,616	7.2	65.1	2,485	7.5	115.5	77.3
Chronic airway obstruction, NOS	39,796	5.6	67.4	2,495	7.5	118.9	76.4
Alzheimer's and similar disease	39,572	5.5	81.9	3,184	9.6	129.7	58.4
Unspecific symptoms / signs	36,770	5.2	66.1	2,567	7.7	107.2	62.1
Dementia	28,830	4	71.3	2,136	6.4	119.2	67.3
Genitourinary diseases	23,118	3.2	21.3	579	1.7	37.3	75.3
Organic psychoses	22,907	3.2	71.6	1,282	3.9	116.1	62.1
Respiratory diseases	18,300	2.6	41.7	444	1.3	89.9	115.9
Nervous system, except Alzheimer's	18,179	2.5	77.9	996	3	134.4	72.7
Other	14,168	2	43.8	572	1.7	104.3	138.1
Digestive diseases	11,576	1.6	36.5	356	1.1	63.9	75.1
Total	713,144	100	54.4	33,225	100	104.8	92.6

Note: ALOS (average length of stay), NOS (not otherwise specified).

Source: MedPAC analysis of 2005 100 percent hospice standard analytical file from CMS.

- Hospices that exceed the cap have a different mix of patients than hospices that do not exceed the cap.
- Above-cap hospices have a smaller share of cancer patients, on average, who tend to have shorter lengths of stay than patients with neurological or non-specific diagnoses.
- Patients at hospices that exceeded the cap had longer lengths of stay than patients at below-cap hospices for all diagnoses. Stays for lung cancer patients at above-cap hospices were 23 percent longer than at below-cap hospices. Stays for patients with circulatory diseases were 122 percent longer at above-cap hospices than below-cap hospices.

Chart 12-14. Hospice aggregate Medicare margins, 2001–2005

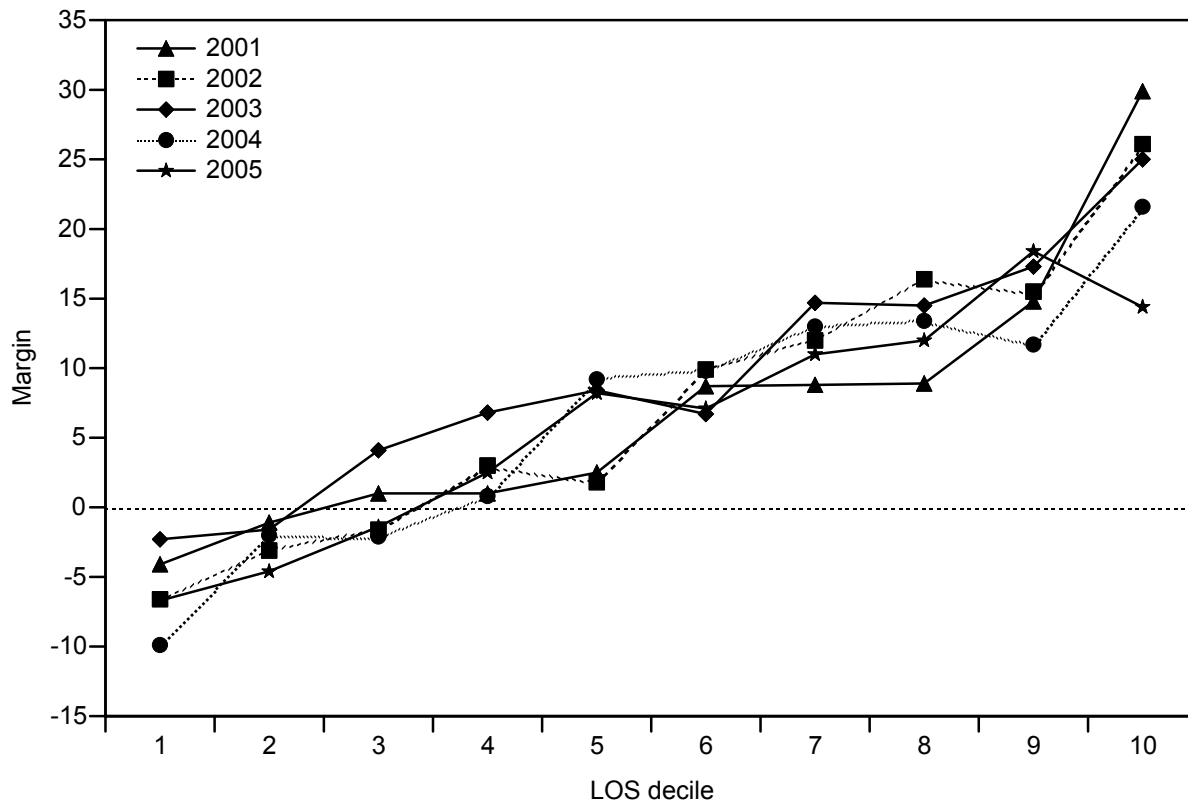
Category	Percent of hospices (2005)	2001	2002	2003	2004	2005
All	100	1.0	3.1	4.5	3.2	3.4
Freestanding	59	5.6	6.8	9.0	6.7	6.3
Provider-based	41	-10.5	-7.6	-8.9	-7.5	-5.6
For-profit	43	12.0	14.6	15.9	12.4	11.8
Nonprofit	48	-4.4	-3.7	-2.9	-3.6	-2.8
Urban	64	1.4	3.6	4.9	3.6	3.4
Rural	36	-1.8	0.1	2.5	0	3.3
Below-cap	91	N/A	2.1	3.3	1.8	1.5
Above-cap (including overpayments)	9	N/A	30.1	23.0	17.4	18.9
Above-cap (net of overpayments)	9	N/A	13.3	2.1	-4.6	-2.9

Note: N/A (not available). Totals by ownership do not sum to 100 percent due to exclusion of government facilities.

Source: MedPAC analysis of Medicare hospice cost reports, 100 percent hospice claims standard analytical file (SAF), and Medicare Provider of Services data from CMS.

- Aggregate hospice margins are generally positive in all years from 2001 to 2005.
- Freestanding hospices' margins are positive, at just over six percent in 2005. Provider-based hospices tend to have negative margins, on average.
- Provider-based hospices' costs tend to be higher than those of free-standing hospices, partly reflecting allocating of overhead costs from the parent provider.
- For-profit hospice margins are strongly positive, at nearly 12 percent in 2005. Non-profit hospices' margins were -2.8 percent in that year.
- Hospices that exceed Medicare's payment cap have the highest margins of any category of hospices, prior to the return of overpayments to Medicare.

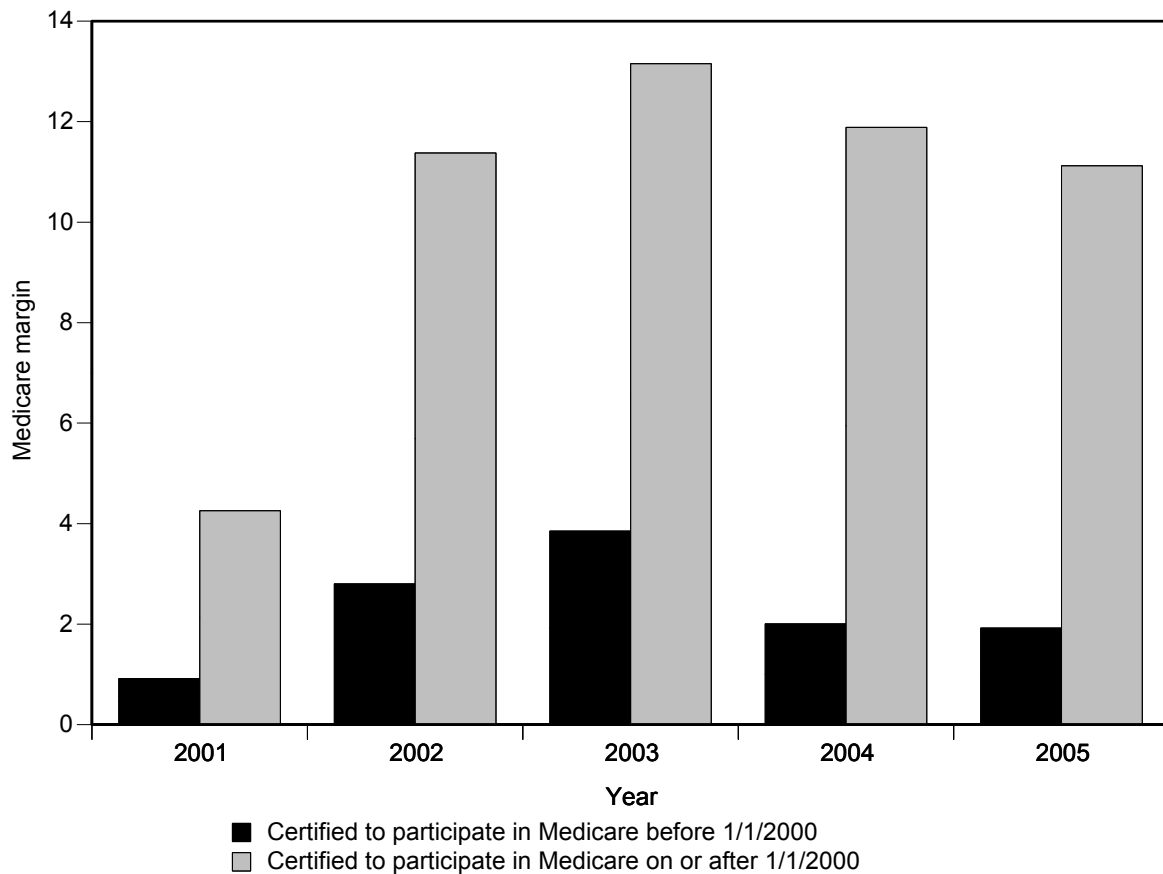
Chart 12-15. Hospice Medicare margins increase with length of stay, 2001–2005



Source: LOS (length of stay). MedPAC analysis of Medicare hospice cost reports, 100 percent hospice claims standard analytical file, and Medicare Provider of Services data from CMS.

- Medicare’s per-diem-based payment system for hospice provides an incentive for longer lengths of stay.
- Extremely short hospice stays (those below the 20th percentile of the length of stay distribution) tend to be unprofitable.
- Profitability of Medicare hospice episodes (prior to the return of overpayments received by above-cap hospices) increases almost linearly with length of stay.

Chart 12-16. Hospice Medicare margins are greater for new hospices, 2001–2005



Source: MedPAC analysis of Medicare cost reports, 100 percent hospice claims standard analytical file (SAF), and Medicare Provider of Services data from CMS.

- Nearly all hospices newly participating in Medicare since 2000 are for-profit entities.
- Consistent with this trend, newer hospices have margins five to six times higher than more established hospices. Again, these margins include overpayments that above-cap hospices are required to return to Medicare.

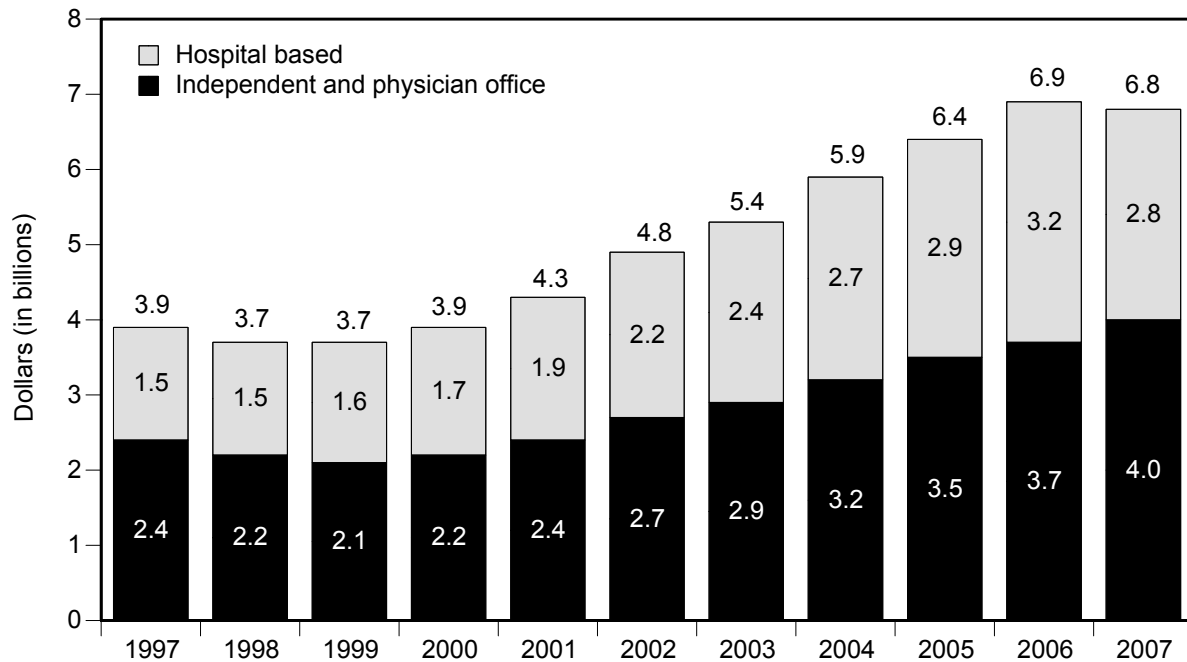
Chart 12-17. Hospice access not compromised by the cap at the 10 states with highest rate of Medicare patient hospice election, 2005

State	Number of hospices, 2005	Hospices per 10,000 beneficiaries	Percent of hospices in state exceeding the cap	Medicare hospice users/ decedents
Utah	52	2.4	21.2%	70.2%
Arizona	50	0.7	20.0	67.6
Oklahoma	145	2.9	28.3	60.0
Colorado	45	0.9	0.0	57.4
Florida	41	0.1	4.9	57.3
Alabama	103	1.5	41.7	56.5
New Mexico	39	1.6	17.9	56.3
Oregon	48	1.0	2.1	53.2
Mississippi	100	2.3	36.0	51.5
Kansas	49	1.3	6.1	50.8

Source: CMS Providing Data Quickly Query, October 18, 2007, https://pdq.cms.hhs.gov/report_select.jsp?which=8; MedPAC analysis of 100 percent Medicare hospice claims standard analytical files; and Medicare hospice cost reports from CMS.

- Access to hospice, measured by the number of hospice users over Medicare decedents, is highest in Utah, Arizona, and Oklahoma.
- Among the 10 states with the highest Medicare access to hospice by this measure, three are states with the highest rates of hospices exceeding the Medicare payment cap.

Chart 12-18. Medicare spending for clinical laboratory services, in billions, fiscal years 1997–2007



Note: Spending is for services paid under the clinical laboratory fee schedule. Hospital-based services are furnished to outpatients in labs owned or operated by hospitals. Total spending appears on top of each bar. The segments of each bar may not sum to the totals on top of each bar due to rounding. The rate of growth in spending was slowed in 2006 and 2007 by large increases in the number of Medicare Advantage enrollees, who are not included in these aggregate totals.

Source: CMS, Office of the Actuary.

- After declining in the late 1990s, Medicare spending for clinical laboratory services grew by an average of 9 percent per year between 1999 and 2006. This growth was driven by rising volume, as there was only one increase in lab payment rates during those years. Spending declined by 1 percent between 2006 and 2007 due to a drop in hospital-based lab spending.
- In 2007, Medicare spent \$6.8 billion (2 percent of total program spending) on clinical lab services.
- Hospital-based labs' share of total clinical lab spending increased from 38 percent in 1997 to 46 percent in 2006, but fell to 42 percent in 2007.

Web links. Other services

Dialysis

- More information on Medicare's payment system for outpatient dialysis services can be found in MedPAC's Payment Basics series.
http://www.medpac.gov/documents/MedPAC_Payment_Basics_07_dialysis.pdf
- The U.S. Renal Data System provides information about the incidence and prevalence of patients with renal disease, their demographic and clinical characteristics, and their spending patterns.
<http://www.usrds.org>
- The National Institute of Diabetes and Digestive and Kidney Diseases and the National Kidney Foundation provide health information about kidney disease for consumers.
<http://www.niddk.nih.gov/>
<http://www.kidney.org/>
- CMS provides specific information about each dialysis facility.
<http://www.medicare.gov/Dialysis/Home.asp>
- Chapter 2C of the MedPAC March 2008 Report to the Congress provides information about the financial performance of dialysis facilities.
http://www.medpac.gov/chapters/Mar08_Ch02C.pdf
- MedPAC's June 2005 Report to the Congress recommends changes to how Medicare pays for composite rate services and injectable drugs.
http://www.medpac.gov/publications%5Ccongressional_reports%5CJune05_ch4.pdf
- MedPAC's October 2003 report describes how Medicare could modernize the outpatient dialysis payment system.
http://www.medpac.gov/publications/congressional_reports/oct2003_Dialysis.pdf
- MedPAC's comment on revisions to payment policies under the physician fee schedule for calendar year 2004 includes changes in how to pay for services furnished by nephrologists.
http://www.medpac.gov/publications/other_reports/100603_RevPhysFeeSched_CB_comment.pdf
- MedPAC's comment on revisions to payment policies under the physician fee schedule for calendar year 2005 includes changes in how to pay for dialysis drugs.
http://www.medpac.gov/publications/other_reports/093005_physicianpayment_comment.pdf
- MedPAC's comment on revisions to payment policies under the physician fee schedule for calendar year 2006 on payment for composite rate services.
http://www.medpac.gov/publications/other_reports/101106_PartB_comment_AW.pdf

Hospice

- More information on Medicare's payment system for hospice services can be found in MedPAC's Payment Basics series.

http://www.medpac.gov/documents/MedPAC_Payment_Basics_07_hospice.pdf.

- Additional information and analysis related to the Medicare hospice benefit, with a specific focus on the hospice cap, can be found in Chapter 8 of MedPAC's June 2008 Report to the Congress, available at

http://www.medpac.gov/chapters/Jun08_ch08.pdf

- General analysis and information related to the Medicare hospice benefit can be found in Chapter 3 of MedPAC's June 2006 Report to the Congress, available at

http://www.medpac.gov/publications/Congressional_reports/Jun06_Ch03.pdf

- Chapter 6 of MedPAC's June 2004 Report to the Congress reviews trends and policy issues for the Medicare hospice benefit.

http://www.medpac.gov/publications/congressional_reports/June04_ch6.pdf

- The MedPAC May 2002 Report to the Congress: Medicare beneficiaries' access to hospice provides useful benchmark information on hospice utilization early in this decade:

http://www.medpac.gov/publications/congressional_reports/may2002_HospiceAccess.pdf

- The Centers for Medicare & Medicaid Services (CMS) maintains a variety of information related to the hospice benefit.

<http://www.cms.hhs.gov/center/hospice.asp>

- CMS also provides information on hospice for its beneficiaries:

<http://www.medicare.gov/Publications/Pubs/pdf/02154.pdf>

Clinical laboratory

- More information on Medicare's payment system for clinical lab services can be found in MedPAC's Payment Basics series.

http://medpac.gov/documents/MedPAC_briefs_Payment_Basics_07_clinical_lab.pdf

- Information about CMS's regulation of clinical laboratories, including the number and type of certified labs in the U.S., can be found on the CMS website.

<http://www.cms.hhs.gov/CLIA>