

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

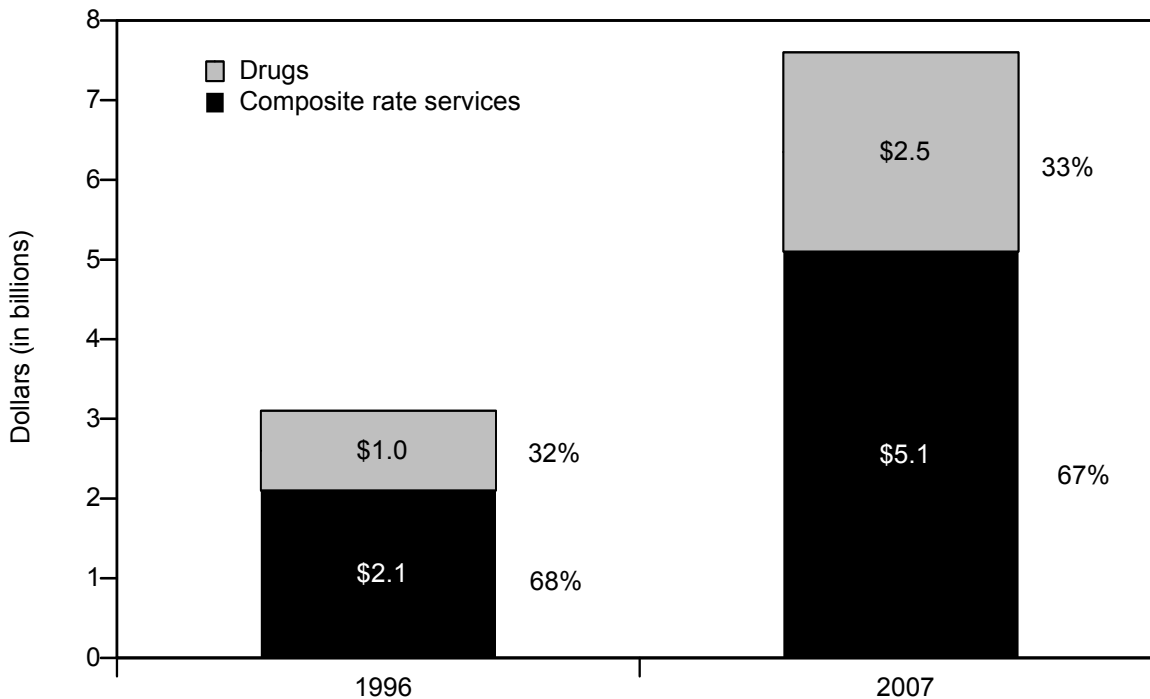
| | 1998 | 2003 | 2008 | Average annual percent change | |
|------------------------------------|--------|--------|--------|-------------------------------|-----------|
| | | | | 1998–2008 | 2003–2008 |
| Total number of | | | | | |
| Dialysis facilities | 3,394 | 4,240 | 4,957 | 4% | 3% |
| Hemodialysis stations | 52,827 | 72,171 | 86,744 | 5 | 4 |
| Mean number of | | | | | |
| Hemodialysis stations | 16 | 17 | 17 | 1 | <1 |
| Percent of all facilities: | | | | | |
| Nonchain | N/A | 29% | 21% | N/A | -3 |
| Affiliated with any chain | N/A | 71 | 79 | N/A | 5 |
| Affiliated with largest two chains | N/A | 56 | 59 | N/A | 4 |
| Hospital based | 21% | 16 | 12 | -2 | -2 |
| Freestanding | 79 | 84 | 88 | 5 | 4 |
| Rural | 25 | 25 | 25 | 4 | 3 |
| Urban | 75 | 75 | 75 | 4 | 3 |
| For profit | 75 | 76 | 81 | 5 | 4 |
| Nonprofit | 25 | 24 | 19 | 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 1998 and 2008, the number of freestanding and for-profit facilities increased, while hospital-based and nonprofit facilities decreased. Freestanding facilities increased from 79 percent to 88 percent of all facilities, and for-profit facilities increased from 75 percent to 81 percent of all facilities.
- Two national for-profit chains own about 60 percent of all facilities and 70 percent of all freestanding facilities.
- Between 1998 and 2008, the proportion of facilities located in rural areas has remained relatively constant.
- The number of facilities has increased 4 percent per year since 1998. 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 1998 to 17 in 2008.

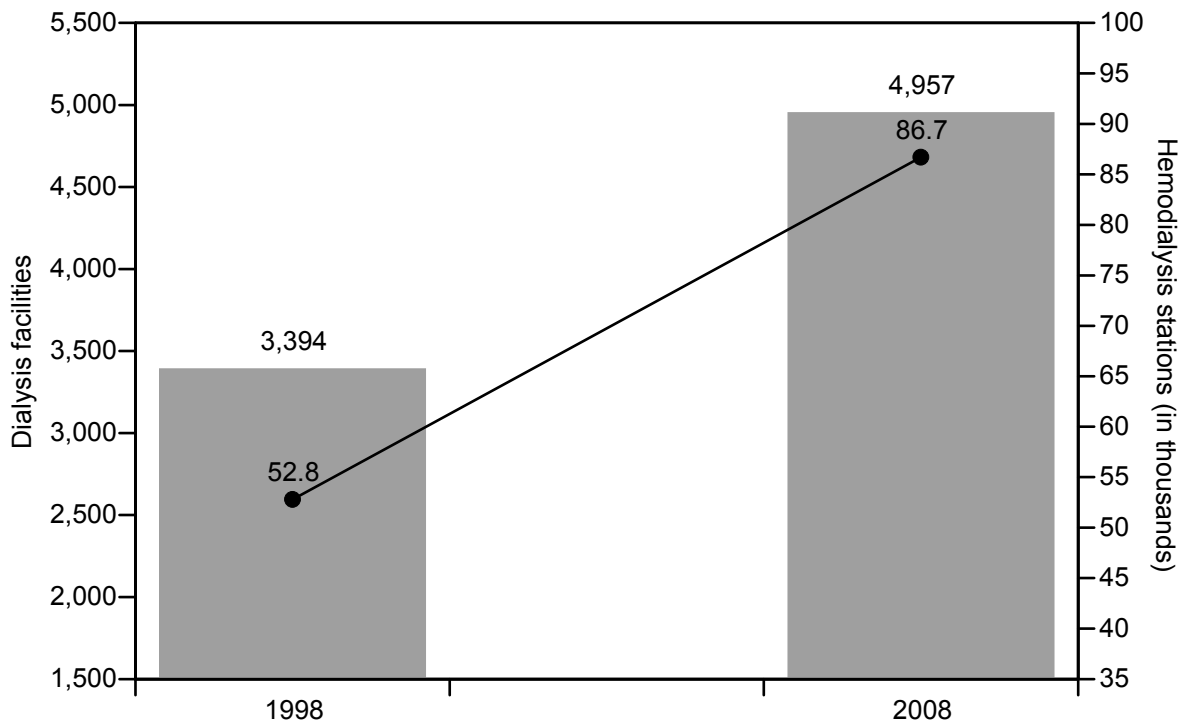
Chart 12-2. Medicare spending for outpatient dialysis services furnished by freestanding dialysis facilities, 1996 and 2007



Source: Compiled by MedPAC from the 1996 and 2007 institutional outpatient files from CMS.

- Between 1996 and 2007, 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.

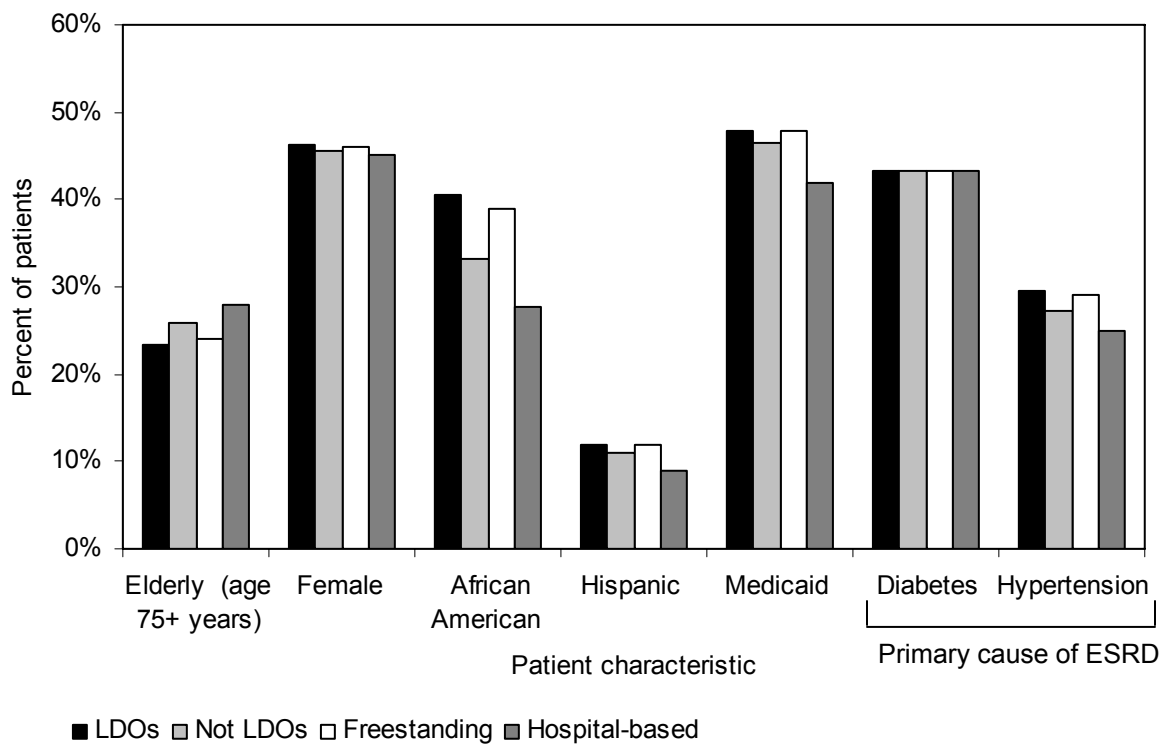
Chart 12-3. Dialysis facilities' capacity increased between 1998 and 2008



Source: Compiled by MedPAC from the 1998 Facility Survey file from CMS and the 2008 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 2008, a facility had an average of about 17 hemodialysis stations.
- Between 1998 and 2008, 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, 2007



Note: LDO (large dialysis organization), ESRD (end-stage renal disease). The facility types are not mutually exclusive (see text).

Source: MedPAC analysis of dialysis claims files, denominator files, Renal Management Information System files, and Dialysis Compare 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 2006 and 2007 (data not shown for 2006).
- This analysis suggests that providers have not changed the mix of patients they care for between 2006 and 2007, including the large dialysis organizations, which account for about 60 percent of all facilities.
- In 2006 and 2007, freestanding facilities were more likely than hospital-based facilities to treat African Americans and dual eligibles. Freestanding facilities account for about 88 percent of all dialysis facilities.

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

| | 1996 | | 2001 | | 2006 | |
|--|----------------------|---------|----------------------|---------|----------------------|---------|
| | Patients (thousands) | Percent | Patients (thousands) | Percent | Patients (thousands) | Percent |
| Total | 307.7 | 100% | 411.6 | 100% | 506.3 | 100% |
| Dialysis | 223.8 | 73 | 296.5 | 72 | 354.8 | 70 |
| In-center hemodialysis | 190.2 | 62 | 268.3 | 65 | 325.3 | 64 |
| Home hemodialysis | 2.9 | 1 | 1.9 | <1 | 2.5 | <1 |
| Peritoneal dialysis | 29.6 | 10 | 25.3 | 6 | 26.1 | 5 |
| Unknown | 1.1 | <1 | 1.0 | <1 | 0.9 | <1 |
| Functioning graft and kidney transplants | 83.9 | 27 | 115.1 | 28 | 151.5 | 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 5 percent annually between 1996 and 2006.
- 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 1996 and 2006, 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 2006, 36 percent of the kidneys were from living donors and 64 percent were from cadaver donors.

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

| | Percent of total in 2006 | Average annual percent change 1998–2006 |
|---------------------------------|--------------------------|---|
| Total (n = 506,256) | 100% | 5% |
| Age | | |
| 0–19 | 1 | 2 |
| 20–44 | 19 | 1 |
| 45–64 | 44 | 6 |
| 65–74 | 20 | 4 |
| 75+ | 16 | 6 |
| Sex | | |
| Male | 56 | 5 |
| Female | 44 | 4 |
| Race/Ethnicity | | |
| White | 61 | 5 |
| African American | 32 | 4 |
| Native American | 1 | 4 |
| Asian American | 5 | 8 |
| Hispanic | 14 | 9 |
| Non-Hispanic | 86 | 4 |
| Underlying cause of ESRD | | |
| Diabetes | 37 | 6 |
| Hypertension | 24 | 4 |
| 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, 36 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 1998 and 2006. Among the fastest growing groups of patients include those who are over age 75, Asian Americans, Hispanics, and those with diabetes as the cause of kidney failure.

Chart 12-7. Aggregate margins vary by type of freestanding dialysis facility, 2007

| Type of facility | Percentage of Medicare payments going to freestanding facilities | Aggregate margin |
|----------------------------------|--|------------------|
| All facilities | 100% | 4.8% |
| Urban | 82 | 5.1 |
| Rural | 18 | 3.1 |
| Large dialysis organizations | 68 | 6.9 |
| Non large dialysis organizations | 32 | 0.2 |

Note: Margins include payments and costs for composite rate services and injectable drugs.

Source: Compiled by MedPAC from the 2007 cost reports and the 2007 institutional outpatient file from CMS.

- For 2007, 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.

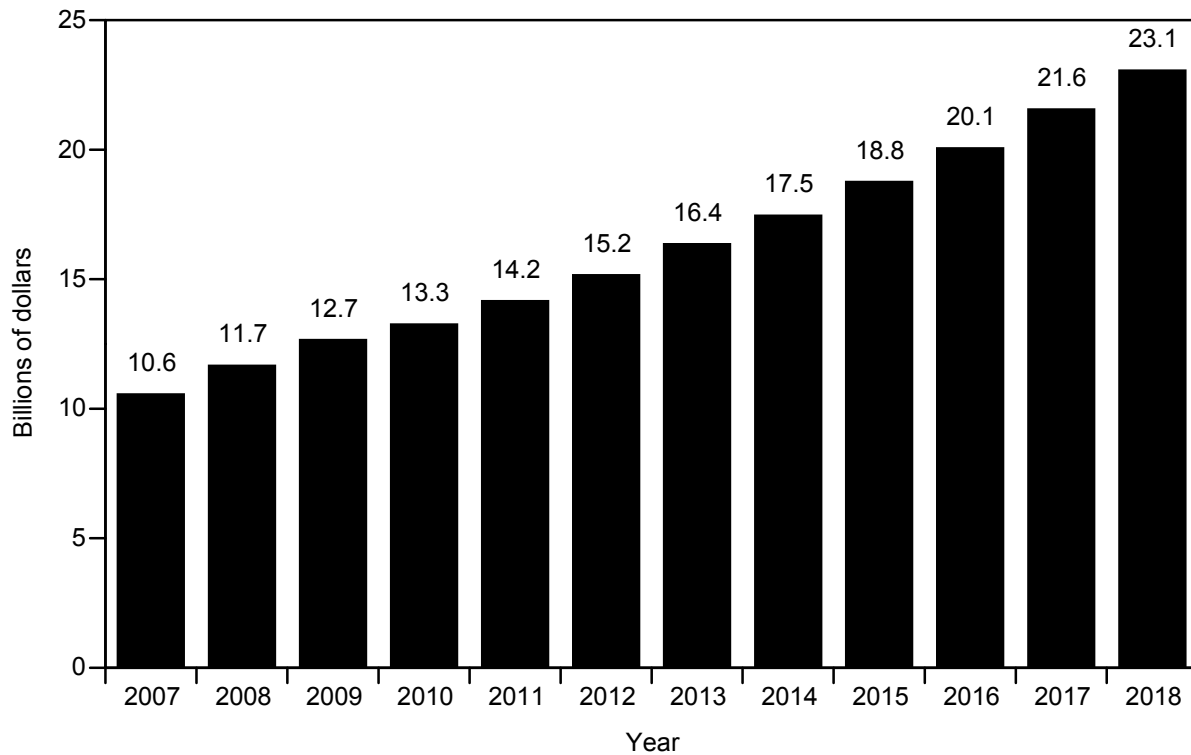
Chart 12-8. Use of hospice among Medicare beneficiaries increased from 2000 to 2007

| | 2000 | 2007 | Average annual percent change 2000–2007 |
|--------------------------|---------|-----------|---|
| Beneficiaries in hospice | 513,000 | 1,000,000 | 10% |
| Payments (in billions) | \$2.9 | \$10.1 | 20 |

Source: 2000 data from CMS analysis of 100 percent hospice claims standard analytic file: http://www.cms.hhs.gov/PropMedicareFeeSvcPmtGen/downloads/FY05update_hospice_expenditures_and_units_of_care.pdf. 2007 data from MedPAC analysis of 100 percent hospice claims standard analytic file from CMS.

- The number of Medicare beneficiaries electing hospice almost doubled between 2000 and 2007, suggesting that access to hospice care has grown.
- Total Medicare payments to hospices increased by nearly 250 percent, or about 20 percent per year, between 2000 and 2007 due to increased enrollment and longer lengths of stay.

Chart 12-9. Rapid growth in Medicare hospice spending projected to continue

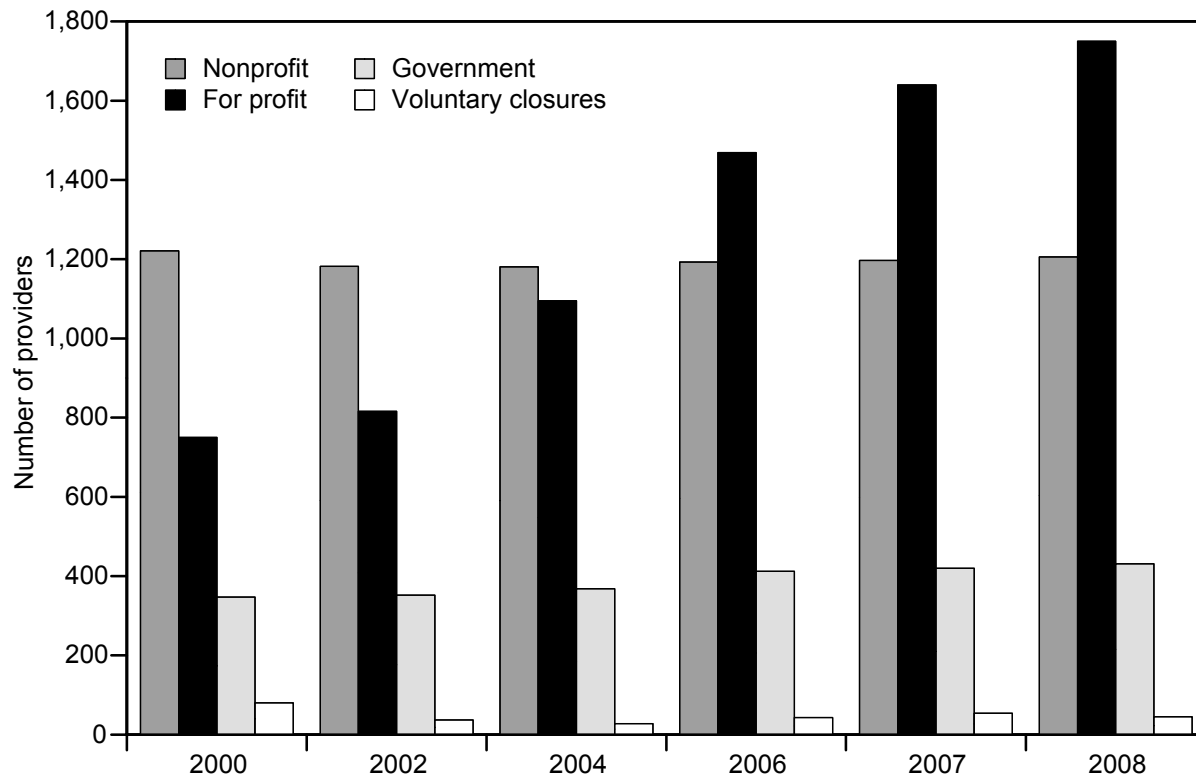


Note: 2007–2008 are incurred expenses; 2009 forward are projections.

Source: CMS Office of the Actuary.

- Medicare spending for hospice was nearly \$12 billion in 2008.
- The CMS Office of the Actuary projects that Medicare spending for hospice will almost double in the next 10 years.

Chart 12-10. Number of Medicare-participating hospices has increased, largely driven by for-profit hospices



Source: CMS Providing Data Quickly Query, May 15, 2009, <https://pdq.cms.hhs.gov/index.jsp>.

- There were over 3,300 Medicare-participating hospices in 2008. 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 2008, an average of just over 40 hospices voluntarily exited the Medicare program in any given year.

Chart 12-11. Hospice length of stay, by diagnosis, 2006

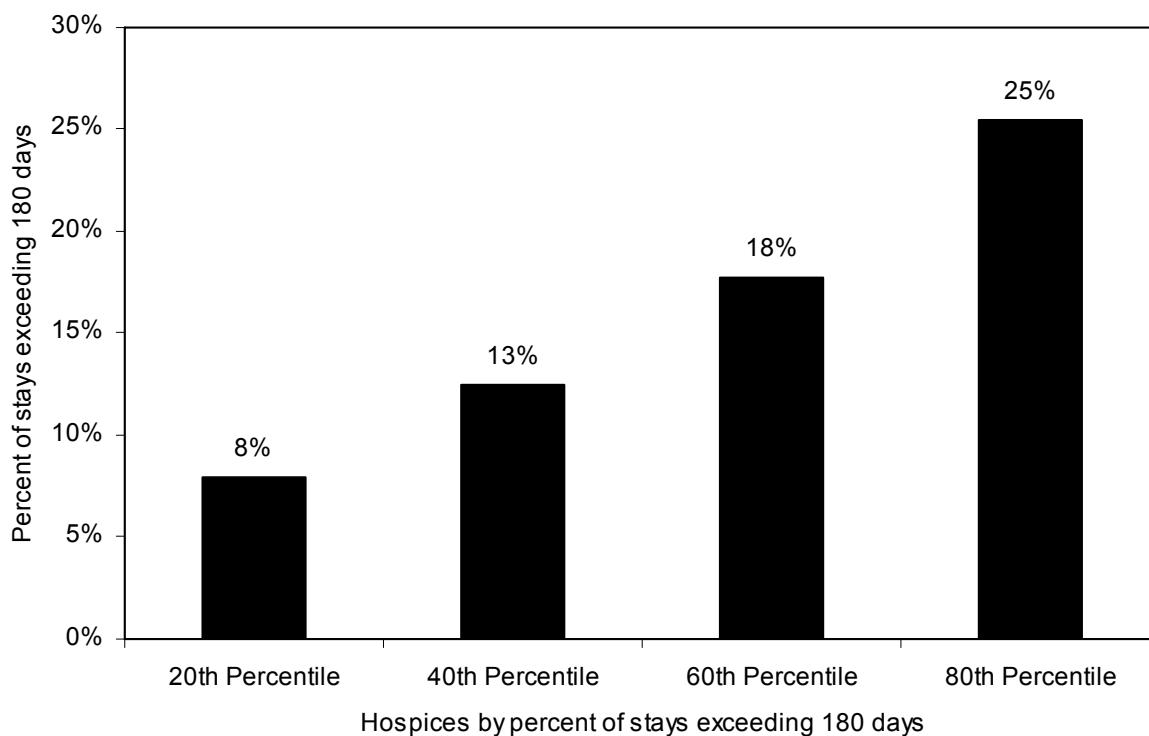
| | Diagnosis share of total cases | Percent of cases with length of stay greater than 180 days |
|------------------------------------|-----------------------------------|--|
| Cancer (except lung cancer) | 24% | 9% |
| Circulatory, except heart failure | 11 | 19 |
| Lung cancer | 10 | 8 |
| Heart failure | 8 | 20 |
| Debility, NOS | 8 | 21 |
| Alzheimer's and similar disease | 6 | 31 |
| Chronic airway obstruction, NOS | 6 | 24 |
| Unspecific symptoms / signs | 6 | 21 |
| Dementia | 5 | 26 |
| Organic psychoses | 4 | 25 |
| Genitourinary disease | 3 | 5 |
| Nervous system, except Alzheimer's | 3 | 28 |
| Respiratory diseases | 3 | 12 |
| Other | 2 | 13 |
| Digestive diseases | 2 | 9 |
| All | 100 | 17 |

Note: NOS (not otherwise specified). Totals may not sum to 100 percent due to rounding.

Source: MedPAC analysis of 2006 100 percent hospice claims standard analytical file from CMS.

- In 2006, the most common terminal diagnosis among Medicare hospice patients was cancer, accounting for roughly one-third of patients. The next most common diagnoses were heart failure and other circulatory conditions (nearly 20 percent of cases) and Alzheimer's disease and dementia (11 percent of cases).
- Length of stays varies by diagnosis. At least a quarter of hospice patients with Alzheimer's disease, neurological conditions, dementia, or organic psychoses had length stay exceeding 180 days. Long hospice stays were least common among beneficiaries with cancer, digestive diseases, or genitourinary disease.

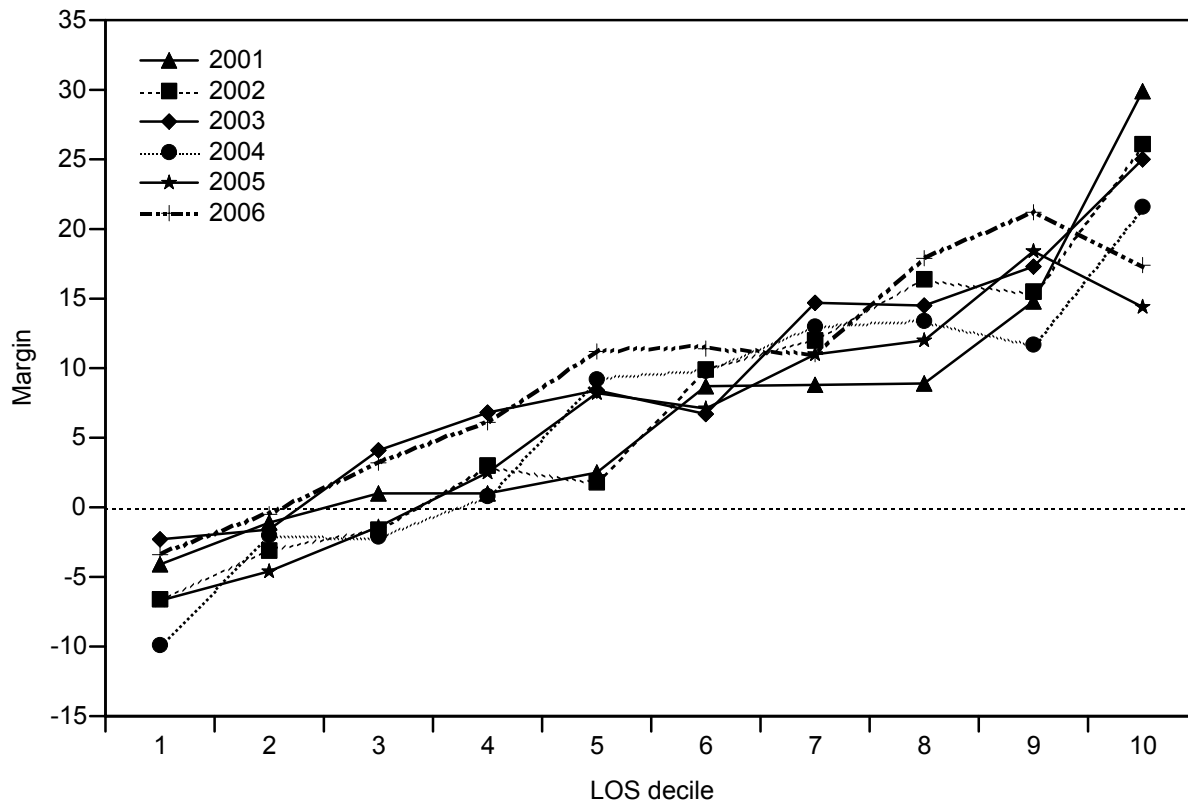
Chart 12-12. Substantial variation exists across hospices in the prevalence of long stay patients



Source: MedPAC analysis of 2006 100 percent hospice claims standard analytic file from CMS.

- The 20 percent of hospices with the most long stay patients have one-quarter or more of their cases with stays exceeding 180 days. Among these hospices, on average 34 percent of stays exceeded 180 days.
- The 20 percent of hospices with the fewest long stay patients have less than 8 percent of their cases with stays exceeding 180 days.

Chart 12-13. Hospice Medicare margins increase with length of stay, 2001–2006



Note: LOS (length of stay). Data are for freestanding facilities. Margins are before the return of overpayments received by hospices that exceed the cap on the average annual Medicare payment per beneficiary.

Source: 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.
- Profitability of Medicare hospice episodes (prior to the return of overpayments by hospices that exceed the cap) increases with length of stay.

Chart 12-14. Characteristics of institutionalized and noninstitutionalized Medicare hospice beneficiaries, 2006

| | Hospice beneficiaries | |
|---|-----------------------|----------------------|
| | Institutionalized | Noninstitutionalized |
| Percent of all hospice beneficiaries | 18.0% | 82.0% |
| Percent eligible for Medicare and Medicaid | 51.1 | 16.6 |
| Average age (in years) | 84.6 | 80.0 |
| Percent female | 72.5 | 54.9 |
| Percent of all beneficiaries by diagnosis | | |
| Ill-defined debility | 12.7 | 6.2 |
| Alzheimer's disease | 11.8 | 4.1 |
| Circulatory diseases | 11.1 | 10.7 |
| Dementia | 10.5 | 2.7 |
| Cancer (lung and other) | 10.2 | 41.9 |
| Unspecific symptoms/signs | 9.6 | 4.4 |
| Heart failure | 7.2 | 8.1 |
| Organic psychosis | 7.2 | 2.3 |
| Chronic airway obstruction, not otherwise specified | 4.1 | 5.7 |
| Multiple diagnoses during episode | 3.6 | 2.7 |
| Genitourinary diseases | 3.6 | 3.4 |
| Nervous system | 3.4 | 2.2 |
| Respiratory diseases | 2.1 | 2.8 |
| Other | 2.0 | 1.8 |
| Digestive diseases | 0.9 | 1.7 |

Note: Institutionalized beneficiaries are defined as beneficiaries who spent at least 90 days in a nursing facility leading up to or during their hospice stay.

Source: MedPAC analysis of 100 percent hospice claims standard analytic file and beneficiary data from CMS for 2006.

- Medicare hospice patients residing in institutions (i.e., nursing facilities) were on average older and more likely to be female and dually eligible for Medicare and Medicaid than hospice patients residing in the community.
- Institutionalized beneficiaries were more likely than beneficiaries living in the community to have the terminal diagnoses that typically incur long hospice stays, such as Alzheimer's, dementia, and ill-defined debility.
- Overall, institutionalized beneficiaries had hospice stays that were over 50 percent longer than their counterparts residing in the community. For most terminal diagnoses, institutionalized beneficiaries had longer hospice lengths of stay than beneficiaries residing in the community with the same diagnosis.

Chart 12-15. Comparison of hospice providers with a low and high proportion of their Medicare patients residing in institutions

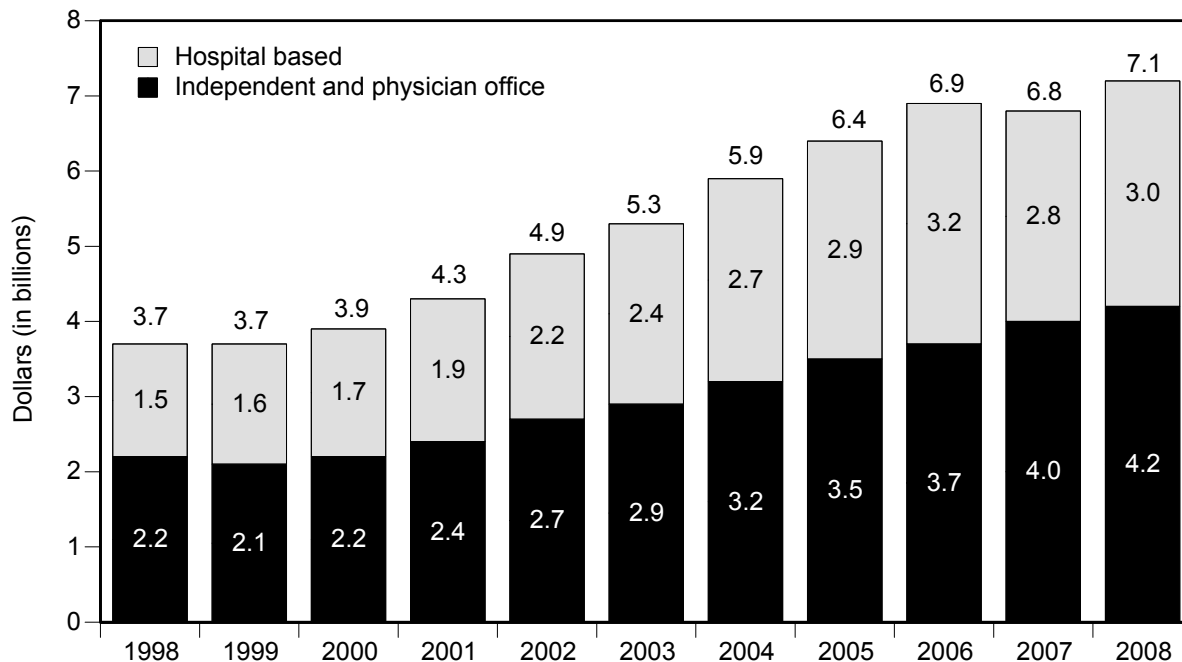
| | Low-institutionalized hospices (less than 15 percent institutionalized) | High-institutionalized hospices (more than 40 percent institutionalized) |
|--|--|---|
| Number of providers serving institutionalized beneficiaries, 2006 | 1,329 | 290 |
| Average percent of institutionalized beneficiaries as proportion of caseload, 2006 | 9% | 52% |
| Percent, 2006: | | |
| Freestanding | 57 | 80 |
| For profit | 45 | 72 |
| Urban | 68 | 74 |
| Average length of episode (in days), 2005 | 79 | 117 |
| Percent of stays above 180 days, 2005 | 14 | 24 |

Note: Low- and high-institutionalized hospices are defined based on the percent of Medicare patients institutionalized—less than 15 percent and more than 40 percent. Patients are considered institutionalized if they spent at least 90 days in a nursing facility leading up to or during their hospice stay.

Source: MedPAC analysis of 100 percent hospice claims standard analytic file and beneficiary data for 2004, 2005, and 2006 from CMS.

- Hospices with a large share of their Medicare patients institutionalized are more likely to be freestanding, for profit, and urban compared with hospices with few institutionalized patients.
- Compared to hospices with a small institutionalized caseload, high institutionalized hospices had episode lengths that averaged about 50 percent longer and had almost twice the proportion of stays exceeding 180 days.

Chart 12-16. Medicare spending for clinical laboratory services, fiscal years 1998–2008



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.

Source: CMS, Office of the Actuary.

- Medicare spending for clinical laboratory services grew by an average of 8.0 percent per year between 1998 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 0.5 percent between 2006 and 2007 due to a drop in hospital-based lab spending, and increased by 4.4 percent between 2007 and 2008.
- In 2008, Medicare spent \$7.1 billion (1.5 percent of total program spending) on clinical lab services.
- Hospital-based labs' share of total clinical lab spending increased from 41 percent in 1998 to 46 percent in 2006, but fell to 42 percent in 2007 and 2008.

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_08_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/Mar09_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 2009 includes changes in how to pay for dialysis services

<http://www.medpac.gov/documents/Physician%20fee%20schedule%202009%20NPRM%20comment%20letter%20to%20CMS.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_08_hospice.pdf.

- Additional information and analysis related to the Medicare hospice benefit, including recommendations for reforms to the hospice payment system, can be found in Chapter 6 of MedPAC's June 2009 Report to the Congress, available at

http://www.medpac.gov/chapters/Mar09_ch06.pdf

- 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_Ch6.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_08_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>