







### Introduction

MedPAC's Data Book is the result of discussions with congressional staff members regarding ways that MedPAC can better support them. It contains the type of information that MedPAC provides in publications like the March or June reports; it also combines data from other sources, such as CMS. The format is condensed into tables and figures with brief discussion. Website links to MedPAC publications or other websites are included on a "Web links" page at the end of each section.

The Data Book provides information on national health care and Medicare spending, as well as Medicare beneficiary demographics, dual-eligible beneficiaries, quality and access in the Medicare program, and Medicare beneficiary and other payer liability. It also examines provider settings—such as hospitals or post-acute care—and presents data on Medicare spending, percent of beneficiaries using the service, number of providers, volume, length of stay, and margins, if applicable. In addition, it covers the Medicare Advantage program and prescription drug coverage for Medicare beneficiaries, including Part D.

Several charts in this Data Book use data from the Medicare Current Beneficiary Survey (MCBS). We use the MCBS to make comparisons between beneficiary groups with different characteristics. The MCBS is a survey, so expenditure amounts that we show may not match to actual Medicare expenditure amounts.

Some charts in this Data Book present margins for providers operated by governmental entities. Margins for these providers should be treated cautiously because of the special context in which they operate.

Changes in aggregate spending among the fee-for-service sectors presented in this Data Book reflect changes in Medicare enrollment between the traditional fee-for-service program and Medicare Advantage. Increased enrollment in Medicare Advantage may be a significant factor in instances where spending in a given sector has leveled off or even declined. In these instances, fee-for-service spending per capita may present a more complete picture of spending changes.

Limited printed copies are being distributed. This report is, however, available through the MedPAC website: www.medpac.gov.

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### National health care and Medicare spending



Chart 1-1. Aggregate Medicare spending among FFS beneficiaries, by sector, 2000–2007

Source: Office of the Actuary at CMS and the 2008 annual report of the Boards of Trustees of the Medicare Trust Funds.

 Medicare spending among fee-for-service (FFS) beneficiaries grew strongly in most sectors from 2000 through 2005. The rate of growth slowed in 2006 and 2007, largely because enrollment in FFS Medicare declined because many beneficiaries changed their enrollment to a Medicare Advantage plan. However, spending per beneficiary remained strong in most sectors through 2006 and 2007 (see Chart 1-2).

Note: FFS (fee-for-service), ASC (ambulatory surgical center). Dollars are Medicare spending only and do not include beneficiary cost sharing. The 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.



Chart 1-2. Per capita Medicare spending among FFS beneficiaries, by sector, 2000–2007

Note: FFS (fee-for-service), ASC (ambulatory surgical center). Dollars are Medicare spending only and do not include beneficiary cost sharing.

Source: Office of the Actuary at CMS and the 2008 annual report of the Boards of Trustees of the Medicare Trust Funds.

 Medicare spending per beneficiary in fee-for-service (FFS) Medicare increased steadily in most sectors from 2000 through 2007. This contrasts with a slowing in aggregate spending in FFS Medicare in 2006 and 2007 caused by a decline in the number of FFS beneficiaries.

## Chart 1-3. Medicare made up over one-fifth of spending on personal health care in 2006



Note: SCHIP (State Children's Health Insurance Program). Out-of-pocket spending includes cost sharing for both privately and publicly insured individuals. Personal health care spending includes spending for clinical and professional services received by patients. It excludes administrative costs and profits. Premiums are included with each program (e.g., Medicare, private insurance), rather than in the out-of-pocket category. \*Includes industrial in-plant, privately funded construction, and nonpatient revenues, including philanthropy. \*Includes programs such as workers' compensation, public health activity, Department of Defense, Department of Veterans Affairs, Indian Health Service, state and local government hospital subsidies, and school health.

Source: CMS, Office of the Actuary, National Health Expenditure Accounts, 2008.

- Of the \$1.76 trillion spent on personal health care in the United States in 2006, Medicare accounted for 22 percent, or \$381 billion. Spending by all public programs—including Medicare, Medicaid, SCHIP, and other programs—accounted for 46 percent of health care spending. Medicare is the largest single purchaser of health care in the United States. Thirty-five percent of spending was financed through private health insurance payers and 15 percent was from consumer out-of-pocket spending.
- Medicare and private health insurance spending includes premium contributions from enrollees.
- 2006 is the first year that spending for Medicare's voluntary outpatient prescription drug benefit (Part D) is included in the national health accounts.



## Chart 1-4. Medicare's share of total spending varies by type of service, 2006

Note: SCHIP (State Children's Health Insurance Program). Personal health spending includes spending for clinical and professional services received by patients. It excludes administrative costs and profits. Totals may not sum to 100 percent due to rounding.

\*Other includes private health insurance, out-of-pocket spending, and other private and public spending.

Source: CMS, Office of the Actuary, National Health Expenditure Accounts, 2008.

- The level and distribution of spending differ between Medicare and other payers, largely because Medicare covers an older, sicker population and did not cover services such as long-term care.
- In 2006, Medicare accounted for 29 percent, 21 percent, 38 percent, 17 percent, 29 percent, and 18 percent, of spending on hospital care, physician and clinical services, home health services, nursing home care, durable medical equipment, and prescription drugs, respectively.

## Chart 1-5. Health care spending has grown more rapidly than GDP, with public financing making up nearly half of all funding



Note: GDP (gross domestic product). Total health spending is the sum of all private and public spending. Medicare spending is one component of all public spending.

Source: CMS, Office of the Actuary, National Health Expenditure Accounts, 2008.

- Total health spending consumes an increasing proportion of national resources, accounting for a double-digit share of gross domestic product (GDP) annually since 1982.
- As a share of GDP, total health spending has increased from about 6 percent in 1965 to about 16 percent in 2006. It is projected to reach nearly 20 percent of GDP in 2017. Health spending's share of GDP was stable throughout much of the 1990s due to slower spending growth associated with greater use of managed care techniques and higher enrollment in managed plans as well as a strong economy.
- Medicare spending has also grown as a share of the economy from less than 1 percent when it was started in 1965 to about 3 percent today. Projections suggest that Medicare spending will make up over 4 percent of GDP by 2017.
- In 2006, all public spending made up about 46 percent of total health care spending and private spending made up 54 percent. By 2017, those percentages are projected to be 49 percent and 51 percent, respectively.



Chart 1-6. Trustees project Medicare spending to increase as a share of GDP

Note: GDP (gross domestic product). These projections are based on the trustees' intermediate set of assumptions.

Source: 2008 annual report of the Boards of Trustees of the Medicare Trust Funds.

- Over time, Medicare spending has accounted for an increasing share of gross domestic product (GDP). From less than 1 percent in 1970, it is projected to reach nearly 11 percent of GDP in 2080.
- With a 9.7 percent annual average rate of growth, nominal Medicare spending grew considerably faster over the period from 1980 to 2006 than nominal growth in the economy, which averaged 6.2 percent per year. Future Medicare spending is projected to continue growing faster than GDP, but at a rate somewhat closer to GDP growth: averaging 6.4 percent per year between 2006 and 2080 compared with an annual average growth rate of 4.6 percent for the economy as a whole. In other words, Medicare spending is projected to continue rising as a share of GDP, but at a slightly slower pace. Still, Medicare's growth rate is nearly 2 percentage points higher than GDP growth.
- During the 1990s, Medicare's share of the economy grew more slowly than it did in other periods. This was due to payment reductions enacted in 1997 combined with faster economic growth. Beginning in 2010, the aging of the baby boom generation, an expected increase in life expectancy, and the Medicare drug benefit are all likely to increase the proportion of economic resources devoted to Medicare. Additional factors such as innovation in medical technology and the widespread use of insurance (which shields individuals from facing the full price of services) will also contribute to rapid increases in health care spending.



Chart 1-7. Changes in spending per enrollee, Medicare and

Source: CMS, Office of the Actuary, National Health Statistics Group, 2008.

- Although rates of growth in per capita spending for Medicare and private insurance often differ from year to year, over the long term they have been guite similar. When comparing spending for benefits that private insurance and Medicare have had in common-notably, excluding prescription drugs—Medicare's per enrollee spending has grown at a rate that is 1 percentage point lower than that for private insurance over the 1970 to 2006 period.
- This comparison is sensitive to the endpoints of time one uses for calculating average growth rates. Also, private insurers and Medicare do not buy the same mix of services, and Medicare covers an older population that tends to be more costly. In addition, the data do not allow analysis of the extent to which these spending trends were affected by changes in the generosity of covered benefits and, in turn, changes in enrollees' out-of-pocket spending.
- Differences appear to be more pronounced since 1985, when Medicare began introducing the prospective payment system for hospital inpatient services. Some analysts believe that since the mid-1980s. Medicare has had greater success at containing cost growth than private payers by using its larger purchasing power. Others maintain that relative to the 1970s, benefits offered by private insurers have expanded and cost-sharing requirements declined. In addition, enrollment in managed care plans grew during the 1990s. These factors make the comparison problematic, since Medicare's benefits changed little over the same period.

Note: PHI (private health insurance). Chart compares services covered by Medicare and PHI, including hospital services, physician and clinical services, and durable medical products.

## Chart 1-8. Trustees and CBO project Medicare spending to grow at an annual average rate of 7 percent over the next 10 years



Note: CBO (Congressional Budget Office). All data are nominal, gross program outlays (mandatory plus administrative expenses) by calendar year.

- Medicare spending has grown nearly 12-fold, from \$37 billion in 1980 to \$432 billion in 2007.
- Medicare spending increased significantly after 2006 with the introduction of Part D, Medicare's voluntary outpatient prescription drug benefit.
- The Congressional Budget Office projects that mandatory spending for Medicare will grow at an average annual rate of 7 percent between 2007 and 2017. The Medicare trustees' intermediate projections for 2007 to 2017 assume about 7.4 percent average annual growth. Forecasts of future Medicare spending are inherently uncertain, and differences can stem from different assumptions about the economy (which affect provider payment annual updates) and about growth in the volume and intensity of services delivered to Medicare beneficiaries, among other factors.

Source: 2008 annual report of the Boards of Trustees of the Medicare Trust Funds. CBO March 2008 baseline.





Note: Medicare's outpatient drug benefit began in 2006, and thus the distribution of spending for 2007 differs significantly from earlier years. Spending amounts are gross outlays, meaning that they include spending financed by beneficiary premiums but do not include spending by beneficiaries (or spending on their behalf) for cost-sharing requirements of Medicare-covered services. Values are reported on a calendar year, incurred basis and do not include spending on program administration. Totals may not sum to 100 percent due to rounding.

<sup>a</sup> Includes all hospitals—those paid under the prospective payment system (PPS) and PPS-exempt hospitals.

<sup>b</sup> Includes stand-alone prescription drug plans and Medicare Advantage prescription drug plans.

<sup>°</sup> Includes hospice, nonhospital outpatient laboratory, durable medical equipment, physician-administered drugs, ambulance services, ambulatory surgical centers, dialysis, rural health clinics, federally qualified health centers, and outpatient rehabilitation facilities.

Source: CMS, Office of the Actuary, 2008.

- Medicare spending is concentrated on certain services, and the distribution among services and settings can vary substantially over time.
- In 2007, Medicare program spending was \$428 billion, or nearly \$10,500 per enrollee. Inpatient hospital services were by far the largest spending category (30 percent), followed by managed care (18 percent), physicians (14 percent), outpatient prescription drugs provided under Part D (12 percent), and other fee-for-service settings (12 percent).
- Although inpatient hospital services still made up the largest spending category, spending for those services was a smaller share of total Medicare spending in 2007 than it was in 1997, falling from 43 percent to 30 percent. Two reasons account for this decline: 1) a shift toward providing more care in outpatient settings, and 2) the introduction of Part D beginning in 2006. (Medicare did not pay for outpatient prescription drugs in 1997.) Spending on beneficiaries enrolled in managed care plans has grown from 13 percent to 18 percent over the same period. The number of beneficiaries enrolled in managed care plans has grown rapidly over the past several years, and current enrollment is higher than it was a decade ago.

Chart 1-10. FFS program spending is highly concentrated in a small group of beneficiaries, 2005



Note: FFS (fee-for-service). Excludes beneficiaries with any group health enrollment during the year. Numbers do not sum to 100 percent due to rounding.

Source: MedPAC analysis of Medicare Current Beneficiary Survey, Cost and Use files.

- Medicare fee-for-service (FFS) spending is concentrated among a small number of beneficiaries. In 2005, the costliest 5 percent of beneficiaries accounted for 44 percent of annual Medicare FFS spending and the costliest quartile accounted for 86 percent. By contrast, the least costly half of beneficiaries accounted for only 3 percent of FFS spending.
- Costly beneficiaries tend to include those who have multiple chronic conditions, those using inpatient hospital care, and those who are in the last year of life.

i	in 2019			
Estimate	Year costs exceed income	Year HI trust fund assets exhausted		
High Intermediate	2008	2015		
Low	2020	2040		

## Chart 1-11. Medicare HI trust fund is projected to be insolvent in 2019

Note: HI (Hospital Insurance). Income includes taxes (payroll and Social Security benefits taxes, railroad retirement tax transfer), income from the fraud and abuse program, and interest from trust fund assets.

Source: 2008 annual report of the Boards of Trustees of the Medicare Trust Funds; CMS, Office of the Actuary.

- The Medicare program is financed through two trust funds: one for Hospital Insurance (HI), which covers services provided by hospitals and other providers such as skilled nursing facilities, and one for Supplementary Medical Insurance (SMI) services, such as physician visits and Medicare's new prescription drug benefit. Dedicated payroll taxes on current workers largely finance HI spending and are held in the HI trust fund. The HI trust fund can be exhausted if spending exceeds payroll tax revenues and fund reserves. General revenues finance roughly 75 percent of SMI services, and beneficiary premiums finance about 25 percent. (General revenues are federal tax dollars that are not dedicated to a particular use but are made up of income and other taxes on individuals and corporations.)
- The SMI trust fund is financed with general revenues and beneficiary premiums. Some analysts believe that the levels of premiums and general revenues required to finance projected spending for SMI services would impose a significant burden on Medicare beneficiaries and on growth in the U.S. economy.
- Medicare trustees project that under intermediate assumptions, HI cost will exceed income (including interest income) by 2010 and the HI trust fund will be exhausted in 2019.
- Under high cost assumptions, the HI trust fund could be exhausted as early as 2015. Under low cost assumptions, it would remain solvent until 2040.



Chart 1-12. Medicare faces serious challenges with long-term financing

Note: GDP (gross domestic product), HI (Hospital Insurance). These projections are based on the trustees' intermediate set of assumptions. Tax on benefits refers to a portion of income taxes that higher income individuals pay on Social Security benefits that is designated for Medicare. State transfers (often called the Part D "clawback") refer to payments called for within the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 from the states to Medicare for assuming primary responsibility for prescription drug spending.

Source: 2008 annual report of the Boards of Trustees of the Medicare Trust Funds.

- Under an intermediate set of assumptions, the trustees project that Medicare spending will grow rapidly, from about 3 percent of gross domestic product today to 7.1 percent by 2036 and to nearly 11 percent by 2080.
- Medicare's problems with long-term financing may become more visible to policymakers because of a warning system set up in the Medicare Prescription Drug, Improvement, and Modernization Act of 2003. Each year, the trustees are required to project the share of Medicare outlays that is financed with general revenues in the current and six succeeding fiscal years. If two consecutive annual reports project that general revenue will fund 45 percent or more of Medicare outlays in any given year, then the President must propose and the Congress must consider legislation to bring Medicare's spending below this threshold. In their 2008 report, the Medicare trustees projected that the program would hit this 45 percent trigger in 2014, the last year of the seven-year projection window. This is the third consecutive report with such a finding. As was the case for 2008, the administration must propose and policymakers must consider broad changes to Medicare's benefits and financing in the spring of 2009.

sharing are projected to grow faster than the average monthly Social Security benefit \$3,000 Projected Actual Average SMI benefit \$2,500 Monthly amounts per person in 2007 dollars \$2,000 Average Social Security benefit \$1,500 \$1,000 Average SMI premium \$500 plus cost sharing \$0 1970 1980 1990 2000 2010 2020 2030 2040 2050 2060 2070 2080

## Chart 1-13. Average monthly SMI benefits, premiums, and cost

SMI (Supplementary Medical Insurance). Average SMI benefit and average SMI premium plus cost-sharing values are for Note: a beneficiary enrolled in Part B and (after 2006) Part D. Beneficiary spending on outpatient prescription drugs prior to 2006 is not shown.

Source: 2008 annual report of the Boards of Trustees of the Medicare Trust Funds.

- Between 1970 and 2007, the average monthly Social Security benefit (adjusted for inflation) increased by an annual average rate of 1.6 percent. Over the same period, average Supplementary Medical Insurance (SMI) premiums plus cost sharing and average SMI benefits grew by annual averages of 5.5 percent and 6.7 percent, respectively. Under current hold-harmless policies, Medicare Part B premiums cannot increase by a larger dollar amount than the cost-of-living increase in a beneficiary's Social Security benefit. From 2003 to 2006, Part B premium increases offset 20 percent to 40 percent of the dollar increase in the average Social Security benefit. For 2007 and 2008, the increase in the Part B premium offsets 13 percent and 8 percent of the Social Security benefit increase, respectively. Part D premium increases are not subject to a hold-harmless provision.
- Most beneficiaries who enroll in Medicare's new prescription drug benefit see lower out-of-pocket (OOP) spending. CMS's Office of the Actuary estimates that in 2006, with Part D coverage, about 10 percent of elderly Medicare beneficiaries' total spending for prescription drugs would come from direct out-of-pocket spending, compared with roughly 31 percent in the absence of Part D coverage. Beneficiaries' OOP spending on prescription drugs prior to 2006 is not shown in this figure.
- Growth over time in Medicare premiums and cost sharing will continue to outpace growth in Social Security income. Medicare trustees project that between 2007 and 2037 the average Social Security benefit will grow by just over 1 percent annually (after adjusting for inflation), compared with about 3 percent annual growth in average SMI premiums plus cost sharing.

Provider type	Number of providers, 2007	CY 2007 program spending (billions)
Inpatient hospitals	6,176 <sup>a</sup>	\$129.6
Hospital outpatient PPS	3,884°	20.7
and nonphysician practitioners	1 075 571	58 6
Skilled nursing facilities	15.060	22.3
Home health agencies	9,227	15.5
Hospices	3,071	10.0
Ambulatory surgical centers	4,707 <sup>c</sup>	2.3
End-stage renal disease facilities	4,798	8.4 <sup>c</sup>
Clinical laboratories	199,817	6.8 <sup>d</sup>
Durable medical equipment suppliers	~116,000	8.2

#### Chart 1-14. Medicare FFS providers: Number and spending

Note: FFS (fee-for-service), CY (calendar year), PPS (prospective payment system). Data include program spending only and do not include cost sharing or administrative expenses.

<sup>a</sup>Short-stay and non-short-stay hospitals.

<sup>b</sup>Analysis does not include alcohol and drug abuse and critical access hospitals but does include psychiatric, rehabilitation, and children's hospitals that bill under the outpatient PPS. <sup>c</sup>Numbers are for 2006. <sup>d</sup>Includes carrier and intermediary lab spending.

- Source: U.S. Department of Health and Human Services, 2007 CMS Statistics. CMS's Provider of Service file. Spending from Office of the Actuary.
- The most numerous Medicare providers are physicians, limited license practitioners, and nonphysician practitioners. Among the more than one million of these practitioners, physicians numbered 660,819. Clinical laboratories and durable medical equipment suppliers are the next most numerous categories of Medicare providers.
- Among the more than 6,000 hospitals, 3,375 operate under the inpatient prospective payment system, 1,283 are critical access hospitals, 480 are psychiatric hospitals, 391 are long-term care hospitals, and 217 are inpatient rehabilitation facilities.

### Web links. National health care and Medicare spending

• The Trustees' Report provides information on the financial operations and actuarial status of the Medicare program.

http://www.cms.hhs.gov/ReportsTrustFunds/

• The National Health Expenditure Accounts developed by the Office of the Actuary at CMS provide information about spending for health care in the United States.

http://cms.hhs.gov/NationalHealthExpendData/

• The CMS chart series provides information on the U.S. health care system and Medicare program spending.

http://www.cms.gov/TheChartSeries/

• CMS statistics provides information about Medicare beneficiaries, providers, utilization, and spending.

http://www.cms.hhs.gov/CapMarketUpdates/02\_CMSstatistics.asp

• The Congressional Budget Office provides projections of Medicare spending.

http://www.cbo.gov/budget/factsheets/2008b/medicare.pdf

 MedPAC's March 2008 Report to the Congress provides an overview of Medicare and U.S. health care spending in Chapter 1, Context for Medicare Payment Policy.

http://www.medpac.gov/chapters/Mar08\_Ch01.pdf



### Medicare beneficiary demographics

# Chart 2-1. Aged beneficiaries account for the greatest share of the Medicare population and program spending, 2005



Note: ESRD (end-stage renal disease). ESRD refers to beneficiaries under age 65 with ESRD. The disabled category refers to beneficiaries under age 65 without ESRD. The aged category refers to beneficiaries age 65 and older. Totals may not sum to 100 percent due to rounding.

- The highest percentage of Medicare expenditures is for aged beneficiaries, reflecting their greater share of the Medicare population.
- A disproportionate share of Medicare expenditures is devoted to Medicare beneficiaries who are eligible due to end-stage renal disease (ESRD). On average, ESRD beneficiaries cost at least five times as much as beneficiaries in other categories: \$7,085 is spent per (non-ESRD) aged beneficiary, \$6,225 per (non-ESRD) disabled beneficiary, and \$59,417 per ESRD beneficiary. On average, Medicare spending per beneficiary is \$7,363.

Source: MedPAC analysis of the Medicare Current Beneficiary Survey, Cost and Use file, 2005. 2005 spending per ESRD beneficiary is from the United States Renal Data System.



### Chart 2-2. Medicare spending rises as beneficiaries age, 2005

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

Source: MedPAC analysis of the Medicare Current Beneficiary Survey, Cost and Use file, 2005.

- Per capita expenditures increase with age. Per capita expenditures were \$5,390 for beneficiaries ages 65 to 74, \$8,561 for those 75 to 84, and \$11,026 for those 85 and older. Per capita expenditures for Medicare beneficiaries under age 65, enrolled due to disability (both end-stage renal disease (ESRD) and non-ESRD) were \$7,488. On average, Medicare spending per beneficiary was \$7,363.
- In each age group, much of the spending is concentrated among people with chronic conditions and those who die.

# Chart 2-3. Beneficiaries who report being in poor health account for a disproportionate share of Medicare spending, 2005



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

Source: MedPAC analysis of the Medicare Current Beneficiary Survey, Cost and Use file, 2005.

- Most beneficiaries report relatively good health. Less than 10 percent report poor health.
- Medicare spending is strongly associated with self-reported health status. Per capita expenditures are \$4,286 for those with excellent health, \$8,346 for those with good or fair health, and \$15,705 for those with poor health. On average, Medicare spending per beneficiary is \$7,363.



Chart 2-4. Enrollment in the Medicare program is projected to grow fastest in the next 30 years

Note: Enrollment numbers are based on Part A enrollment only. Beneficiaries enrolled only in Part B are not included.

Source: CMS, Office of the Actuary, 2007.

- The total number of people enrolled in the Medicare program will double between 2000 and 2030, from about 39 million to 79 million beneficiaries.
- The rate of increase in Medicare enrollment will accelerate around 2010 when members of the baby boom generation start to become eligible and will slow around 2030 when the entire baby boom generation has become eligible.

Characteristic	Percent of the Medicare population*	Characteristic	Percent of the Medicare population*
Total (43,400,577)	100%		
Sex		Education	
Male	44	No high school diploma	28%
Female	56	High school diploma on	ly 30
		Some college or more	41
Race/ethnicity		-	
White, non-Hispanic	78	Income status	
African American, non-Hispa	anic 9	Below poverty	16
Hispanic	8	100–125% of poverty	9
Other	5	125–200% of poverty	20
Age		200–400% of poverty	31
< 65	16	Over 400% of poverty	23
65–74	42	1 5	
75–84	31	Supplemental insurance s	tatus
85+	12	Medicare only	11
Health status		Managed care	13
Excellent or very good	40	Employer	33
Good or fair	50	Medigap	20
Poor	9	Medigap/employer	5
Residence		Medicaid	16
Urban	76	Other	1
Rural	24		
Living arrangement			
Institution	5		
Alone	28		
Spouse	49		
Other	18		

### Chart 2-5. Characteristics of the Medicare population, 2005

Note: Urban indicates beneficiaries living in metropolitan statistical areas (MSAs). Rural indicates beneficiaries living outside MSAs. In 2005, poverty was defined as income of \$9,367 for people living alone and as \$11,815 for married couples. Totals may not sum to 100 percent due to rounding. \*Based on a representative sample of the Medicare population.

Source: MedPAC analysis of the Medicare Current Beneficiary Survey, Cost and Use file, 2005.

• The Medicare population tends to be female, white, between the ages of 65 and 84, in good or fair health, and living with a spouse. Most beneficiaries live in urban areas, have graduated from high school, and have some form of supplemental insurance coverage. Almost half have incomes under 200 percent of poverty.
Characteristics	Percent of urban	Percent of rural
	medicare population	Medicare population
Sex		
Male	44%	45%
Female	56	55
Race/ethnicity		
White, non-Hispanic	76	86
African American, non-Hispanic	10	6
Hispanic	9	3
Other	5	5
Age		
⊂<65	15	18
65–74	42	42
75–84	31	29
85+	12	11
Health status		
Excellent or very good	42	36
Good or fair	50	52
Poor	8	12
Income status		
Below poverty	15	18
100–125% of poverty	9	10
125–200% of poverty	20	22
200–400% of poverty	30	32
Over 400% of poverty	25	18

## Chart 2-6. Characteristics of the Medicare population, by rural and urban residence, 2005

Note: Urban indicates beneficiaries living in metropolitan statistical areas (MSAs). Rural indicates beneficiaries living outside MSAs. In 2005, poverty was defined as income of \$9,367 for people living alone and as \$11,815 for married couples. Totals may not sum to 100 percent due to rounding.

Source: MedPAC analysis of the Medicare Current Beneficiary Survey, Cost and Use file, 2005.

- Close to one-fourth of all beneficiaries reside in rural areas.
- Rural Medicare beneficiaries are more likely to be white (86 percent vs. 76 percent), to report being in poor health (12 percent vs. 8 percent), and to have incomes below 125 percent of poverty (28 percent vs. 24 percent) compared to urban beneficiaries.

#### Web links. Medicare beneficiary demographics

• The CMS Chart series provides a profile of Medicare beneficiaries.

http://www.cms.hhs.gov/TheChartSeries/02\_CMS\_Facts\_Figures.asp#TopOfPage

• The CMS Data Compendium contains historic, current, and projected data on Medicare enrollment.

http://www.cms.hhs.gov/DataCompendium/17\_2007\_Data\_Compendium.asp#TopOfPage

• The CMS website provides information on Medicare enrollment by state.

http://www.cms.hhs.gov/MedicareEnRpts

• The CMS website provides information about the Medicare Current Beneficiary Survey, a resource on the demographic characteristics of Medicare beneficiaries.

http://www.cms.hhs.gov/mcbs/



#### Chart 3-1. Dual-eligible beneficiaries account for a disproportionate share of Medicare spending, 2005



Note: Dual eligibles are designated as such if the months they qualify for Medicaid exceed months they qualify for supplemental insurance.

Source: MedPAC analysis of the Medicare Current Beneficiary Survey, Cost and Use file, 2005.

- Dual-eligible beneficiaries are those who qualify for both Medicare and Medicaid. Medicaid is a joint federal and state program designed to help low-income persons obtain needed health care.
- A disproportionate share of Medicare expenditures is spent on dual-eligible beneficiaries: Dual eligibles account for 16 percent of Medicare beneficiaries and 25 percent of Medicare spending.
- Dual eligibles cost Medicare about 1.8 times as much as nondual eligibles: \$10,994 is spent per dual-eligible beneficiary, and \$6,212 is spent per non-dual-eligible beneficiary.
- Total spending—which includes Medicare, Medicaid, supplemental insurance, and out-ofpocket spending across all payers—for dual eligibles averaged about \$23,554 per person in 2005, over twice the amount for other Medicare beneficiaries.



## Chart 3-2. Dual eligibles are more likely than nondual eligibles to be disabled, 2005

Note: Beneficiaries who are under age 65 qualify for Medicare because they are disabled. Once disabled beneficiaries reach age 65, they are counted as aged. Dual eligibles are designated as such if the months they qualify for Medicaid exceed the months they qualify for supplemental insurance. Totals may not sum to 100 percent due to rounding.

Source: MedPAC analysis of the Medicare Current Beneficiary Survey, Cost and Use file, 2005.

 Nearly 40 percent of dual eligibles are disabled, compared with only 11 percent of the non-dual-eligible population. Dual eligibles are also somewhat more likely than nondual eligibles to be age 85 or older.

#### Chart 3-3. Dual eligibles are more likely than nondual eligibles to report poorer health status, 2005





Source: MedPAC analysis of the Medicare Current Beneficiary Survey, Cost and Use file, 2005.

- Relative to nondual eligibles, dual eligibles report poorer health status. The majority report good or fair status, but 20 percent of the dual-eligible population reports being in poor health (compared with less than 10 percent of the non-dual-eligible population).
- Dual eligibles are more likely to suffer from cognitive impairment and mental disorders, and they have higher rates of diabetes, pulmonary disease, stroke, and Alzheimer's disease than do nondual eligibles.
- Nineteen percent of dual eligibles reside in institutions, compared with 2 percent of nondual eligibles.

	Percent of dual-	Percent of non-dual-
Characteristic	eligible beneficiaries	eligible beneficiaries
Sex		
Male	38%	45%
Female	62	55
Race/ethnicity		
White, non-Hispanic	57	83
African American, non-Hispanic	19	8
Hispanic	15	6
Other	9	4
Limitations in ADLs		
No ADLs	47	71
1–2 ADLs	25	19
3–6 ADLs	28	9
Residence		
Urban	71	77
Rural	28	23
Living arrangement		
Institution	19	2
Alone	30	28
Spouse	18	55
Children, nonrelatives, others	32	15
Education		
No high school diploma	54	23
High school diploma only	24	31
Some college or more	18	45
Income status		
Below poverty	53	9
100–125% of poverty	21	7
125–200% of poverty	19	21
200–400% of poverty	5	36
Over 400% of poverty	1	28
Supplemental insurance status		
Medicare or Medicare/Medicaid only	91	13
Medicare managed care	2	16
Employer	1	40
Medigap	1	24
Medigap/employer	0	6
Other*	5	2

### Chart 3-4. Demographic differences between dual eligibles and nondual eligibles, 2005

Note: ADL (activity of daily living). Dual eligibles are designated as such if the months they qualify for Medicaid exceed the months they qualify for other supplemental insurance. Urban indicates beneficiaries living in metropolitan statistical areas (MSAs). Rural indicates beneficiaries living outside MSAs. In 2005, poverty was defined as income of \$9,376 for people living alone and \$11,815 for married couples. Totals may not sum to 100 percent due to rounding and exclusion of an "other" category. \*Includes public programs such as the Department of Veterans Affairs and state-sponsored drug plans.

Source: MedPAC analysis of Medicare Current Beneficiary Survey, Cost and Use file, 2005.

Dual eligibles qualify for Medicaid due to low incomes: Fifty-three percent live below the
poverty level, and 93 percent live below 200 percent of poverty. Compared to nonduals, dual
eligibles are more likely to be female, African American, or Hispanic; lack a high school
diploma; have greater limitations in activities of daily living; reside in a rural area; and live in
an institution, alone, or with persons other than a spouse.

#### Chart 3-5. Differences in spending and service use between dual eligibles and nondual eligibles, 2005

Service	Dual-eligible beneficiaries	Non-dual-eligible beneficiaries
Average Medicare payment for all benefici	aries	
Total Medicare payments	\$10,994	\$6,212
Inpatient hospital Physician* Outpatient hospital Home health Skilled nursing facility** Hospice	4,586 2,880 1,641 500 1,078 273	2,618 2,058 749 311 317 136
Percent of beneficiaries using service		
Percent using any type of service Inpatient hospital Physician* Outpatient hospital Home health Skilled nursing facility** Hospice	91.8% 27.8 89.6 72.6 10.6 8.6 3.1	85.2% 18.3 83.7 61.3 7.8 7.3 1.8

Note: Includes only fee-for-service Medicare beneficiaries. Dual eligibles are designated as such if the months they qualify for Medicaid exceed the months they qualify for supplemental insurance. Spending totals derived from the Medicare Current Beneficiary Survey do not necessarily match official estimates from CMS, Office of the Actuary. \*Includes a variety of medical services, equipment, and supplies.

\*\*Individual short-term facility (usually skilled nursing facility) stays for the Medicare Current Beneficiary Survey population.

Source: MedPAC analysis of the Medicare Current Beneficiary Survey, Cost and Use file, 2005, which updates the previous analysis by Liu, K., S.K. Long, and C. Aragon. 1998. Does health status explain higher Medicare costs Medicaid enrollees? *Health Care Financing Review* 20, no. 2 (Winter):39-54.

- Average per capita spending for dual eligibles is over 75 percent higher than for nondual eligibles—\$10,994 compared to \$6,212.
- For each type of service, average Medicare per capita payments are higher for duals than for nonduals. The largest percentage difference between the two groups is in outpatient hospital, skilled nursing facility (SNF), and home health services, for which Medicare spends over three times as much on duals as on nonduals.
- Higher average per capita spending for duals is a function of a higher proportion of duals using services than nonduals as well as greater volume or intensity of use among those using services. A higher proportion of duals than nonduals use at least one Medicarecovered service—92 percent versus 85 percent.
- Duals are more likely to use each type of Medicare-covered service than nonduals.

100 5% 90 27% 15% 38% 80 70 · 30% 60 Percent 38% 50 · 39% 40· 30 50% 27% 20 20% 10 -8% 4% 0-Medicare spending for Share of Total spending for dual eligibles dual eligibles dual eligibles

Chart 3-6. Both Medicare and total spending are concentrated among dual-eligible beneficiaries, 2005

- Annual Medicare spending is concentrated among a small number of dual-eligible beneficiaries. The costliest 20 percent of duals account for 77 percent of Medicare spending on duals; in contrast, the least costly 50 percent of duals account for only 4 percent of Medicare spending on duals.
- The distribution of total spending for dual eligibles is similar but somewhat less concentrated than the distribution of Medicare spending. For example, the top 5 percent of duals account for 27 percent of total spending, which includes Medicare, Medicaid, supplemental insurance, and out-of-pocket spending (compared with 38 percent of Medicare spending).
- On average, total spending for duals is almost twice as high as that for nonduals—\$23,554 compared to \$13,048.

Note: Total spending includes Medicare, Medicaid, supplemental insurance, and out-of-pocket spending. Dual eligibles are designated as such if the months they qualify for Medicaid exceed the months they qualify for supplemental insurance. Totals may not sum to 100 percent due to rounding.

Source: MedPAC analysis of the Medicare Current Beneficiary Survey, Cost and Use files, 2005.

#### Chart 3-7. Dual-eligible beneficiaries report generally good access to care

Question	Dual-eligible beneficiaries	Non-dual-eligible beneficiaries
Do you have a personal doctor or nurse? Yes	93.9%	95.8%
In the last 6 months, when you needed care right away, how often did you get care as soon as you thought you needed? Always or usually	87.3	92.5
In the last 6 months, not counting the times you needed care right away, how often did you get an appointment for your health care at a doctor's office or clinic as soon as you thought you needed? Always or Usually	85.1	88.6

Source: MedPAC analysis of CAHPS (Consumer Assessment of Health Care Providers and Systems) for fee-for-service Medicare, 2006.

- Dual-eligible beneficiaries often possess characteristics associated with needing care limitations in activities of daily living and poor health status, for example—as well as having difficulty obtaining care—such as being poor and poorly educated.
- Survey results indicate that most duals report generally good access to care, although somewhat lower than beneficiaries with other sources of supplemental insurance.

#### Web links. Dual-eligible beneficiaries

• Chapter 3 of the MedPAC June 2004 Report to the Congress provides further information on dual-eligible beneficiaries.

http://www.medpac.gov/publications/congressional\_reports/June04\_ch3.pdf

• The Kaiser Family Foundation provides information on dual-eligible beneficiaries.

http://kff.org

• The CMS Medicaid At-A-Glance publication provides information on the Medicaid program.

http://www.cms.hhs.gov/MedicaidGenInfo/downloads/MedicaidAtAGlance2005.pdf



#### Quality of care in the Medicare program

	Risk-ad e	justed rates pe ligible discharg	er 10,000 Jes		
Diagnosis or procedure	2004	2005	2006	Percent change 2004–2006	Number of IPPS deaths in 2006
In-hospital mortality					
Pneumonia	789	689	618	-22%	45,593
Stroke	1,019	951	864	-15	29,720
AMI	1,110	1,017	968	-13	27,232
CHF	358	308	228	-36	27,659
GI hemorrhage	264	226	160	-39	8,563
CABG	355	300	246	-31	5,665
Craniotomy	814	737	670	–18	3,056
AAA repair	956	802	735	-23	1,539
30-day mortality					
Pneumonia	1,452	1,339	1,283	-12	90,790
Stroke	1,767	1,702	1,631	-8	52,189
AMI	1,570	1,489	1,444	-8	40,037
CHF	834	806	717	-14	63,940
GI hemorrhage	587	544	473	-19	18,076
CABG	366	312	269	-27	5,698
Craniotomy	1,094	1,007	986	-12	4,260
AAA repair	912	862	814	–11	1,630

#### Chart 4-1. Hospital mortality decreased, 2004–2006

Note: IPPS (inpatient prospective payment system), AMI (acute myocardial infarction), CHF (congestive heart failure), GI (gastrointestinal), CABG (coronary artery bypass graft), AAA (abdominal aortic aneurysm). Rate is for discharges eligible to be counted in the measure. IPPS deaths are those occurring in hospitals reimbursed under the inpatient prospective payment system (does not include deaths in non-IPPS hospitals or Medicare Advantage plans).

Source: MedPAC analysis of MedPAR discharges using Agency for Healthcare Research and Quality indicators and methods.

- Risk-adjusted in-hospital mortality rates decreased between 2004 and 2006 for all diagnoses and procedures measured. The most substantial improvements occurred for gastrointestinal hemorrhage, congestive heart failure, coronary artery bypass graft, and abdominal aortic aneurysm repair.
- Risk-adjusted 30-day mortality rates (as measured from admission date) also decreased, though not in most cases by as much as in-hospital mortality rates. The most substantial improvements occurred for coronary artery bypass graft, gastrointestinal hemorrhage, and congestive heart failure.

	Risk-adjusted rates per 10,000			Difference	Observed adverse	
	2004	2005	2006	2004–2006	events, 2006	
Decubitus ulcer	276	282	291	16	156,781	
Failure to rescue	1,114	1,058	984	-131	59,965	
Postoperative PE or DVT	98	100	113	15	46,220	
Accidental puncture/ laceration	34	35	36	2	38,576	
Selected infections due to medical care	25	15	13	-11	16,817	
Postoperative respiratory failure	53	59	63	10	12,221	
latrogenic pneumothorax	8	8	7	- 0.3	10,350	
Postoperative hemorrhage or hematoma	17	17	18	2	7,183	
Postoperative sepsis	131	121	133	2	6,643	
Postoperative physiologic and metabolic derangement	8	8	6	-2	2,494	
Postoperative wound dehiscence	12	15	15	3	1,904	
Postoperative hip fracture	3	3	2	-1	887	

## Chart 4-2. Safety of care: Adverse events affect many hospitalized beneficiaries, 2004–2006

Note: PE (pulmonary embolism), DVT (deep vein thrombosis). Rate is for discharges eligible to be counted in the measure. The difference in rates between 2004 and 2006 may be affected by rounding.

Source: MedPAC analysis of 100 percent of MedPAR discharges using Agency for Healthcare Research and Quality indicators and methods.

- From 2004 to 2006, 7 of 12 rates of adverse events experienced by Medicare beneficiaries increased, indicating a decline in the safety of hospital care.
- Five of the indicators have seen decreasing rates, indicating increases in safety; these improvements include failure to rescue, one of the most common and—because it results in death—most severe.

#### Chart 4-3. Most ambulatory care indicators show improvement or stability, 2004–2006

	Number of indicators					
Indicators	Improved	Stable	Worsened	Total		
All	21	11	6	38		
Anemia and GI bleed	2	2	0	4		
CAD	2	2	0	4		
Cancer	3	1	3	7		
CHF	5	2	1	8		
COPD	0	1	1	2		
Depression	0	1	0	1		
Diabetes	5	1	1	7		
Hypertension	1	0	0	1		
Stroke	3	1	0	4		

Note: GI (gastrointestinal), CAD (coronary artery disease), CHF (congestive heart failure), COPD (chronic obstructive pulmonary disease).

Source: MedPAC analysis of Medicare Ambulatory Care Indicators for the Elderly from the Medicare 5 percent Standard Analytic Files.

- The Medicare Ambulatory Care Indicators for the Elderly (MACIEs) track the provision of necessary care and rates of potentially avoidable hospitalizations for beneficiaries with selected medical conditions.
- Out of 38 indicators, 21 improved and 11 did not change statistically. This finding suggests that, for the most part, beneficiaries with these conditions were more likely in 2006 than 2004 to receive necessary care and avoid hospitalizations.
- Six of the 38 quality indicators showed a decline. These occurred in breast cancer imaging, iron deficiency anemia, diabetes, COPD, and heart failure.
- For several conditions, declines in potentially avoidable hospitalizations occur concurrently with the provision of necessary clinical care for that condition. For example, in 2006, smaller shares of beneficiaries with diabetes were hospitalized, concurrent with more beneficiaries having lipid and hemoglobin testing.

#### Chart 4-4. Share of home health patients achieving positive outcomes continues to increase

	2003	2004	2005	2006	2007
Functional/pain measures (higher is be	etter)				
Improvements in:					
Walking	34%	36%	38%	40%	42%
Getting out of bed	49	51	52	52	53
Bathing	57	60	61	63	64
Managing oral medications	35	38	39	41	42
Patients have less pain	57	59	61	62	63
Adverse event measures (lower is bette	er)				
Any hospital admission	28	28	28	28	29
Any unplanned emergency room use	21	21	21	21	21

Source: MedPAC analysis of CMS Home Health Compare data.

- Medicare publishes risk-adjusted home health quality measures that track changes in the functional abilities and rates of adverse events for patients who receive home health.
- Since 2003, the trend in these measures has been steady. Functional measures, such as walking and bathing, have shown small but steady improvement. (For these measures increasing values indicate improvement.)
- The adverse event rates, including hospitalizations and unplanned emergency room use, have mostly remained unchanged over this period. However, in the last year the rate of hospitalizations increased by 1 percentage point.

Outcome measure	2002	2003	2004	2005
Percent of in-center hemodialysis patients:				
Receiving adequate dialysis	92%	94%	95%	94%
With anemia under control	78	81	80	80
Dialyzed with an AV fistula	33	35	39	44
With low serum albumin (greater risk of				
being malnourished)	19	19	18	20
Percent of peritoneal dialysis patients:				
Receiving adequate CAPD	71	70	73	73
Receiving adequate CCPD	66	65	59	59
With anemia under control	81	83	82	83
With low serum albumin (greater risk of				
being malnourished)	40	37	38	38
Annual mortality rate per 1,000 patient years	211	208	204	200
First-year mortality rate per 1,000 patient years	238	235	232	N/A
Total admissions per patient year	2.04	2.04	2.05	2.01
Hospital days per patient per year	14.6	14.5	14.7	14.3

## Chart 4-5. The quality of dialysis care has improved for some measures

Note: AV (arteriovenous), CAPD (continuous ambulatory peritoneal dialysis), CCPD (continuous cycler-assisted peritoneal dialysis), N/A (not available). Data on dialysis adequacy, use of fistulas, and anemia management represent percent of patients meeting CMS's clinical performance measures. United States Renal Data System (USRDS) adjusts data by age, gender, race, and primary diagnosis of end-stage renal disease (ESRD).

Source: Compiled by MedPAC from 2002–2005 Annual Reports for ESRD Clinical Performance Measures Project from CMS and USRDS 2007.

- The quality of dialysis care has improved for some measures. Between 2002 and 2005, the proportion of hemodialysis patients receiving adequate dialysis and whose anemia was under control increased.
- Nutritional care is a clinical area in which substantial improvements in quality are needed. The proportion of hemodialysis and peritoneal dialysis patients who are malnourished has remained relatively constant during this time.
- All hemodialysis patients require vascular access—the site on the patient's body where blood is removed and returned during dialysis. Vascular access care is another clinical area in which substantial improvements in quality are needed. Use of arteriovenous (AV) fistulas, considered the best type of vascular access, increased from 33 percent to 44 percent of hemodialysis patients between 2002 and 2005. Clinical guidelines recommend that at least 40 percent of all hemodialysis patients have an AV fistula.

		•				
Patient safety indicator	Risk-a 1,000 e 2004	djusted ra eligible dis 2005	ites per charges 2006	Change in rate, 2005–2006	Observed adverse events 2006	Total number of patients 2006
Decubitus ulcer	98.49	137.56	152.30	10.7%	16,593	103,975
Infection due to medical care	21.41	24.98	25.57	2.4	2,444	91,934
Postoperative PE or DVT	35.61	38.89	34.79	-10.5	560	15,940
Postoperative sepsis	81.68	74.18	75.58	1.9	286	3,158

#### Chart 4-6. Changes in patient safety indicators for long-term care hospitals, 2004–2006

Note: PE (pulmonary embolism), DVT (deep vein thrombosis). To control for patient condition on admission to the long-term care hospital, eligible discharges include only those with a previous acute hospital stay. Due to a change in methodology, this chart cannot be compared with its counterparts in previous MedPAC data books.

Source: MedPAC analysis of MedPAR data from CMS.

- These rates suggest that safety for long-term care hospital (LTCH) patients has deteriorated. The rates for three of four patient safety indicators (PSIs) increased from 2005 to 2006, although the rate for one PSI, postoperative pulmonary embolism or deep vein thrombosis, declined.
- We used selected PSIs developed by the Agency for Healthcare Research and Quality to assess potentially avoidable adverse events resulting in acute hospital care for patients treated in LTCHs in 2004, 2005, and 2006. These PSIs had enough observations for the three years and were thought to be relevant to the type of care LTCHs deliver.
- To distinguish patients who developed a PSI diagnosis in the LTCH, we included in the analysis only patients who did not have the pertinent diagnosis in the acute care hospital. Therefore, changes in these rates should not be a result of LTCHs admitting more patients who had these conditions in the acute care hospital. The PSIs are risk adjusted so these indicators should not reflect a changing LTCH patient population over time.

## Chart 4-7. Medicare Advantage plan quality measures for 2002–2006 do not show improvement in the most recent time period

Measure	2002	2003	2004	2005	2006
Measures for which higher scores are better					
Beta-blocker treatment after heart attack <sup>a</sup>	a	92.9	94.0	93.8	93.7
Persistence of beta-blocker treatment after heart attack	N/R	N/R	61.3	65.4	69.6
Colorectal cancer screening	N/R	49.5	52.6	53.9	53.3
Glaucoma screening for older adults	N/R	N/R	62.3	61.6	62.2
Osteoporosis management in women with fracture	N/R	18.0	19.0	20.1	21.8
Comprehensive diabetes care					
Eye exams <sup>a</sup>	a	64.9	67.1	66.5	62.3
HbA1c testing	85.0	87.9	89.1	88.9	87.2
Lipid control (<100 mg/DL)	N/R	41.9	47.5	50.0	46.9
Antidepressant medication management <sup>b</sup>					
Acute phase	52.1	53.3	56.3	54.9	58.2
Continuation phase	37.7	39.2	42.1	41.0	41.0
Contacts	10.8	10.5	11.9	11.8	11.4
Follow-up after hospitalization for mental illness					
Less than 7 days	38.7	38.8	40.2	39.1	36.5
Less than 30 days	60.6	60.3	60.7	59.3	55.8
Measures for which lower scores are better					
Comprehensive diabetes care					
Poor HbA1c control	24.5	23.4	22.5	23.6	27.3
Use of high-risk medications in the elderly					
One high-risk medication	N/R	N/R	N/R	23.9	23.1
I wo high-risk medications	N/R	N/R	N/R	6.6	5.9

Note: N/R (not reported because measure was not yet in use), HbA1c (hemoglobin A1c). Rates shown are percent of enrollees receiving the appropriate screening, for example, or percent of enrollees with a given condition or risk factor receiving indicated care (e.g., percent of enrollees who had a heart attack who received beta blockers).

<sup>a</sup> The definition of these measures changed in 2003; therefore 2002 results are not shown.

<sup>b</sup> Acute phase refers to the percent of patients receiving effective treatment after a new episode. Continuation refers to the percent of patients remaining on antidepressant continuously for six months after initial diagnosis. Contacts refer to the percent of patients who received at least 3 follow-up office visits in a 12-week acute phase.

Source: National Committee for Quality Assurance. 2005, 2006, and 2007. *The State of Health Care Quality*. Washington, DC: NCQA. Data for 2006 were taken from an April 8, 2008 download of the 2007 NCQA report. Earlier versions of the 2007 report show different scores in some of the measures.

- Of the 16 measures shown in the table, between 2005 and 2006 six measures remained about the same, four improved and six had not improved between 2005 and 2006. (The reports that are the basis of these data do not indicate whether changes across years are statistically significant.)
- Because many Medicare beneficiaries in Medicare Advantage plans are still not receiving clinically indicated services, opportunities for further improvement exist.

Chart 4-8. Mixed quality results for SNFs between 2000 and 2005



Note: SNF (skilled nursing facility). The five selected conditions include congestive heart failure, respiratory infection, urinary tract infection, sepsis, and electrolyte imbalance. Increases in rates of discharge to community indicate improved quality; declines in rehospitalization rates for the five conditions indicate improved quality. Rates are calculated for all facilities with more than 25 stays.

- Changes in the risk-adjusted measures of quality show mixed results.
- Rates of community discharge within 100 days are almost at the same level as five years ago, having declined through 2003 and then improved during the past two years.
- The risk-adjusted rates of potentially avoidable rehospitalization within 100 days for 5 conditions have steadily increased throughout the period, indicating worse quality. In 2005, the mean risk-adjusted facility rehospitalization rate for the five conditions was 17.8 percent, compared with 11.7 percent in 2000.
- Risk-adjusted quality measures differed by facility type. Hospital-based facilities had community discharge rates more than 14 percentage points higher (indicating higher quality) and potentially avoidable rehospitalization rates 4.5 percentage points lower (indicating higher quality) than freestanding SNFs.
- Risk-adjusted quality measures showed mixed results by ownership. For-profit facilities had higher community discharge rates (0.7 percentage point)—indicating higher quality—but also higher potentially avoidable rehospitalization rates (1.4 percentage points)—indicating poorer quality—compared with nonprofit skilled nursing facilities after risk adjustment.

Source: Kramer et al. 2008. Changes in SNF rates of community discharge and rehospitalization 2000–2005. Study prepared for MedPAC available at http://www.medpac.gov.

#### Web links. Quality of care in the Medicare program

• Chapter 2 of the MedPAC June 2006 Report to the Congress discusses care coordination for Medicare beneficiaries and its implications for quality of care.

http://www.medpac.gov/publications/congressional\_reports/Jun06\_Ch02.pdf

 Chapter 2 of the MedPAC March 2007 Report to the Congress includes further information on quality in hospitals and outpatient dialysis services.

http://www.medpac.gov/chapters/Mar07\_Ch02.pdf

 Chapter 2 of the MedPAC March 2008 Report to the Congress includes further information on quality in skilled nursing facilities, home health agencies, long-term care hospitals, and inpatient rehabilitation facilities. Chapter 4 of MedPAC's June 2007 Report to the Congress discusses initiatives to improve the quality of home health services, and Chapter 8 of this report provides information on the quality of care provided by skilled nursing facilities.

http://medpac.gov/document\_TOC.cfm?id=539 http://www.medpac.gov/chapters/Jun07\_Ch04.pdf http://www.medpac.gov/chapters/Jun07\_Ch08.pdf

• Chapter 4 of the MedPAC March 2005 Report to the Congress outlines strategies to improve care through pay-for-performance incentives and information technology.

http://www.medpac.gov/publications/congressional\_reports/Mar05\_Ch04.pdf

• Chapter 2 of the MedPAC March 2004 Report to the Congress includes and discusses in further detail information similar to that included in many of these charts.

http://www.medpac.gov/publications/congressional\_reports/Mar04\_Ch2.pdf

 The CMS website provides further information on CMS quality initiatives, including those for dialysis care.

http://cms.hhs.gov/QualityInitiativesGenInfo/

• More information about Medicare's quality initiatives for dialysis care can be found on the CMS website.

http://www.cms.hhs.gov/ESRDqualityImproveInit/

• Medicare provides information about home health agency outcomes on its consumer website.

http://www.medicare.gov/HHCompare/Home.asp

• Chapter 3 of the MedPAC June 2007 Report to the Congress contains additional information on reported quality indicators for Medicare Advantage (MA) plans.

http://medpac.gov/chapters/Jun07\_Ch03.pdf

• The National Committee for Quality Assurance (NCQA) publication cited in Chart 4-7, showing results for the kinds of measures shown in the table, is available from NCQA.

http://web.ncqa.org/Default.aspx?tabid=447

• Medicare Advantage plan-level results on quality measures can be obtained by using the Centers for Medicare & Medicaid Services (CMS) Medicare Personal Plan Finder.

http://www.medicare.gov/MPPF/Include/DataSection/Questions/SearchOptions.asp

• CMS makes available a downloadable data base of MA plan performance on quality measures, the MPPF–Medicare Advantage data set.

http://www.medicare.gov/Download/DownloadDB.asp

• The Commonwealth Fund published a chart book with information on Medicare quality in the spring of 2005.

http://www.cmwf.org



SECTION

#### Access to care in the Medicare program

15 Delayed health care due to cost <sup>a</sup> Did not see doctor b Trouble getting health care<sup>C</sup> Percent of beneficiaries 10 8.8 8.8 8.4 7.7 5 4.9 4.6 0 2000 2001 2002 2003 2004 2005 2006

#### Chart 5-1. Beneficiaries' reports of difficulties accessing care, 2000–2006

- In 2006, more than 90 percent of beneficiaries reported good access to care, regardless of the question asked.
- The percentage of beneficiaries who reported trouble getting health care increased from 4.3 percent in 2005 to 4.9 percent in 2006.
- When asked whether they delayed seeking medical care due to cost, 8.4 percent of beneficiaries answered yes in 2006, up from 7.4 percent in 2005.
- The percentage of beneficiaries reporting that they did not see a doctor despite having a serious health problem or condition also increased in 2006 to 8.8 percent from 8.0 percent in 2005.

Note: These data reflect the answers given by noninstitutionalized beneficiaries. <sup>a</sup> Answered "yes" when asked if they delayed seeking medical care because they were worried about the cost. <sup>b</sup> Answered "yes" when asked if they had a serious health problem or condition about which they should have seen a doctor or other medical person, but did not. <sup>c</sup> Answered "yes" when asked if they had any trouble getting health care that they wanted or needed.

Source: MedPAC analysis of Medicare Current Beneficiary Survey, Access to Care file, 2006.

bene	ficiaries and	privately in:	sured people	
	Med Age 65 a	licare and older	Private i Age t	nsurance 50–64
Survey question	2006	2007	2006	2007
Unwanted delay in getting a have to wait longer than you w	n appointment: Amo vanted to get a doctor	ng those who had a 's appointment?"	n appointment, "How c	ften did you
Never	75%*	75%	69%*	67%
Sometimes	18*	18*	21*	24*
Usually	3*	3	5*	4
Always	3	3	4	3
For illness or injury				
Never	84*	82*	79*	76*
Sometimes	11*	13*	15*	17*
Usually	2	3	2	3
Always	1*	2	2*	3
<b>Getting a new physician:</b> Am specialist, "How much of a prol Primary care physician	long those who tried to blem was it finding a pl	get an appointment rimary care doctor/sp	with a primary care phy becialist who would trea	vsician or a t you? Was it…'
No problem	76	70*	75	82*
Small problem	10	12	16	7
Big problem	14	17	9	10
Specialist				

#### Chart 5-2. Access to physicians is similar for Medicare beneficiaries and privately insured people

Not accessing a doctor for medical problems: "In the past year, do you think you should have seen a						
doctor for a medical problem, but	did not?"					
Yes	8*	10*	11*	12*		

85

6

9

Note: Numbers may not sum to 100 percent due to rounding. Missing responses are not presented. \*Indicates a statistically significant difference between the Medicare and privately insured populations, at a 95 percent confidence level.

Source: MedPAC-sponsored telephone surveys conducted August-September 2006 and 2007.

80

7

11

- Medicare beneficiaries and privately insured people age 50 to 64 reported very similar experiences accessing physicians. For some indicators, Medicare beneficiaries enjoyed slightly better access than their privately insured counterparts.
- Most Medicare beneficiaries and people age 50 to 64 did not have a delay getting an appointment due to scheduling issues. For both groups, appointment scheduling was easier for illness or injury appointments than for routine care. Both reported more difficulty finding a primary care physician than a specialist, but most were able to access either type with little or no problem.
- In 2007, 10 percent of Medicare beneficiaries and 12 percent of privately insured individuals said they think they should have seen a doctor for a medical problem in the past year, but did not. Physician availability issues (e.g., appointment time, finding a doctor) were not as common a reason for not seeing a doctor than other reasons, such as cost.

No problem

Big problem

Small problem

79

11

10

83

9

7

#### Chart 5-3. Physicians' acceptance of new patients is highest for private PPO and Medicare patients, 2006

_	Type of patient insurance			
	Private PPO	FFS Medicare	HMO (Non-Medicaid)	Medicaid
Percent of physicians who are accepting at least some new patients				
Overall*	98.3%	96.7%	86.3%	70.4%
Urban	98.5	97.2	86.4	68.4**
Rural	96.8	93.1	85.8	84.8**
Proceduralists	99.0	97.9	91.9**	75.4
Surgeons	99.1	99.1**	88.2	74.2**
Nonproceduralists	97.5	94.8**	83.6**	66.4**

Note: HMO (health maintenance organization), FFS (fee-for-service), PPO (preferred provider organization). Proceduralists include physicians in medical specialties that are procedurally oriented (cardiology, dermatology, gastroenterology, and radiation oncology). Nonproceduralists include physicians in all other nonsurgical specialties. Private PPO category includes patients with private non-HMO coverage.

\*The distribution of responses in this row is significantly different from FFS Medicare patients (p<0.0001), chi-square test. \*\*Responses by type of physician are statistically significant within insurance group, at a 95% confidence level.

Source: MedPAC-sponsored survey of physicians conducted by the NORC at the University of Chicago and The Gallup Organization.

- Most physicians (almost 97 percent) accept at least some new Medicare FFS patients, with 80 percent accepting all or most (data not shown). Acceptance of new Medicare FFS patients compares favorably with Medicaid and HMO patients but is a little lower than for private PPO patients.
- If private PPO patients and (non-Medicaid) HMO patients were combined into one "private" category, then physicians are more likely to accept Medicare FFS (97%) than this private category (76%, not shown).
- For almost all payers, rural physicians were less likely to accept new patients than their urban counterparts, except in the case of Medicaid.
- In our sample, nonproceduralists (e.g., primary care physicians) were less likely than other types of physicians to accept new patients by each given insurance type. Statistically, this difference is not significant across all payers.

## Chart 5-4. Ethnic and racial disparities in delaying or failing to receive care, 2006



Delayed medical care due to cost





Source: National Center for Health Statistics, Centers for Disease Control and Prevention: National Health Interview Survey, 2006.

 Rates of delaying medical care due to cost in 2006 were slightly higher for Hispanic than for non-Hispanic beneficiaries; rates of failing to get care due to cost were higher for both black and Hispanic beneficiaries than for white non-Hispanic beneficiaries. These differences among groups may be related to differences in insurance status and availability of a regular source of care.

#### Chart 5-5. Beneficiaries differ in their reports of timeliness in obtaining urgent or routine care, 2006

	Always got care as soon as wanted			
Beneficiary characteristic	Urgent	Routine		
Overall	70%	61%		
Aged (65 years and older)	72	62		
Disabled (Under 65)	63	59		
White	71	62		
African American	68	61		
Hispanic	67	57		
Medicare only	61	57		
Dually eligible	64	59		
Supplemental Insurance	72	63		

Source: MedPAC analysis of CAHPS (Consumer Assessment of Healthcare Providers and Systems) for fee-for-service Medicare, 2006.

- Overall, 70 percent of Medicare beneficiaries who reported needing urgent care in a clinic, emergency room, or doctor's office said that they always got care as soon as they wanted. For beneficiaries who reported making an appointment for routine care at a doctor's office or clinic, 61 percent reported that they always got care as soon as they wanted.
- Compared with beneficiaries age 65 and over, smaller percentages of beneficiaries under age 65 and eligible for Medicare on the basis of disability reported that they always got urgent or routine care as soon as they wanted.
- Compared with white beneficiaries, somewhat smaller percentages of African American and Hispanic beneficiaries reported that they always got urgent or routine care as soon as they wanted.
- The presence and type of supplemental insurance affected beneficiaries' ability to always obtain care as soon as wanted. Beneficiaries with no supplemental insurance reported the lowest percentages of always getting urgent (61 percent) or routine (57 percent) care as soon as they wanted. Beneficiaries who also had Medicaid coverage reported the next highest percentages (64 percent for urgent care and 59 percent for routine appointments). Beneficiaries with private (e.g., medigap or employer-based retiree) or other public (veteran or active-duty military) supplemental coverage reported the highest rates of always getting care as soon as they wanted, with 72 percent for urgent care and 63 percent for routine appointments.

#### Web links. Access to care in the Medicare program

• Chapter 2B of the MedPAC March 2008 Report to the Congress provides more information on beneficiary access to physicians.

http://www.medpac.gov/chapters/Mar08\_Ch02b.pdf

• Chapter 3 of the MedPAC March 2003 Report to the Congress provides a broad overview about beneficiary access to health care.

http://www.medpac.gov/publications/congressional\_reports/Mar03\_Ch3.pdf

• The Commonwealth Fund released a chart book in May 2005 which has further information on access in the Medicare program.

http://www.commonwealthfund.org/publications/publications\_show.htm?doc\_id=275195

• Additional information about physician acceptance of new Medicare patients can be found at:

http://www.hschange.org

# SECTION 6

#### Medicare beneficiary and other payer financial liability



#### Chart 6-1. Sources of supplemental coverage among noninstitutionalized Medicare beneficiaries, 2005

Note: Beneficiaries are assigned to the supplemental coverage category that applied for the most time in 2005. They could have had coverage in other categories throughout 2005. Other public sector includes federal and state programs not included in other categories. Analysis includes only beneficiaries not living in institutions such as nursing homes. It excludes beneficiaries who were not in both Part A and Part B throughout their enrollment in 2005 or who had Medicare as a second payer.

Source: MedPAC analysis of Medicare Current Beneficiary Survey, Cost and Use file, 2005.

- Most beneficiaries living in the community have coverage that supplements or replaces the Medicare benefit package. About 90 percent of beneficiaries have supplemental coverage or participate in Medicare managed care.
- About 60 percent have private-sector supplemental coverage such as medigap (about 28 percent) or employer-sponsored retiree coverage (about 32 percent).
- About 16 percent have public-sector supplemental coverage, primarily Medicaid.
- Fifteen percent participate in Medicare managed care. This includes Medicare Advantage, cost, and health care prepayment plans. These types of arrangements generally replace Medicare coverage and often add to it.
- The proportion of beneficiaries who have managed care enrollment on this diagram (about 15 percent) is much smaller than the proportion listed in Chapter 10 (22 percent). The difference is due the fact that the results in this chart reflect 2005 data, and the results in Chapter 10 reflect 2008 data. Managed care enrollment grew substantially in the intervening years.
#### Chart 6-2. Sources of supplemental coverage among noninstitutionalized Medicare beneficiaries, by beneficiaries' characteristics, 2005

	Number of beneficiaries (thousands)	Employer- sponsored insurance	Medigap insurance	Medicaid	Medicare managed care	Other public sector	Medicare only
All beneficiaries	36,978	32%	28%	14%	15%	1%	10%
Age							
Under 65	5,323	19	5	44	7	2	22
65–69	8,012	38	29	10	12	1	10
70–74	7,631	33	31	9	19	1	7
75–79	6,815	33	34	9	16	1	6
80–84	5,261	32	35	9	17	1	6
85+	3,936	32	36	9	16	1	6
Income status							
Below poverty	6,092	11	14	50	10	2	13
100 to 125% of poverty	y 3,712	16	25	28	15	3	13
125 to 200% of poverty	7,426	27	28	12	18	2	14
200 to 400% of poverty	10,803	40	31	2	17	1	9
Over 400% of poverty	8,880	47	38	0	12	0	3
Eligibility status							
Aged	31,511	34	32	9	16	1	7
Disabled	5,090	18	5	44	8	2	23
ESRD	314	43	16	23	8	0	9
Residence							
Urban	28,078	32	27	13	19	1	8
Rural	8,889	32	34	17	2	2	14
Sex							
Male	16,244	34	26	13	13	1	13
Female	20,733	30	30	15	16	1	7
Health status							
Excellent/very good	15,628	35	34	6	16	1	8
Good/fair	18,327	30	26	18	15	1	10
Poor	2,871	25	14	34	8	3	16

Note: ESRD (end-stage renal disease). Beneficiaries are assigned to the supplemental coverage where they spent the most time in 2005. They could have had coverage in other categories throughout 2005. Medicare managed care includes Medicare Advantage, cost, and health care prepayment plans. Other public sector includes federal and state programs not included in other categories. In 2005, poverty was defined as \$9,367 for people living alone and \$11,815 for married couples. Urban indicates beneficiaries living in metropolitan statistical areas (MSAs). Rural indicates beneficiaries living outside MSAs. Analysis includes beneficiaries living in the community. Number of beneficiaries will differ between boldface categories because we exclude beneficiaries with missing values.

Source: MedPAC analysis of 2005 Medicare Current Beneficiary Survey, Cost and Use file.

- Beneficiaries most likely to have employer-sponsored supplemental coverage are those who are above age 64, higher income (above 200 percent of poverty), eligible due to age or end-stage renal disease (ESRD), and male, and who report better than poor health.
- Medigap is most common among those who are "older" aged (age 75 or older), middle or high income (above 125 percent of poverty), eligible due to age, rural dwelling, female, and who report excellent or very good health.
- Medicaid coverage is most common among those who are under 65, low income (below 125 percent of poverty), eligible due to disability or ESRD, rural dwelling, female, and who report poor health.
- Medicare managed care is most common among those who are age 65 or older, with income between 125 and 400 percent of poverty, eligible due to age, urban dwelling, female, and who report better than poor health.
- Lack of supplemental coverage (Medicare coverage only) is most common among beneficiaries who are under age 65, with income below 200 percent of poverty, eligible due to disability, rural dwelling, male, and who report poor health.

#### Chart 6-3. Total spending on health care services for noninstitutionalized FFS Medicare beneficiaries, by source of payment, 2005



Note: FFS (fee-for-service). Private supplements include employer-sponsored plans and individually purchased coverage. Public supplements include Medicaid, Department of Veterans Affairs, and other public coverage. Direct spending is on Medicare cost sharing and noncovered services but not supplemental premiums. Analysis includes only FFS beneficiaries not living in institutions such as nursing homes.

Source: MedPAC analysis of Medicare Current Beneficiary Survey, Cost and Use file, 2005.

- Among fee-for-service (FFS) beneficiaries living in the community, the total cost of health care services (defined as beneficiaries' direct spending as well as expenditures by Medicare, other publicsector sources, and all private-sector sources on all health care goods and services) averages \$12,157. Medicare is the largest source of payment; it pays 51 percent of the health care costs for FFS beneficiaries living in the community, or an average of \$6,180 per beneficiary.
- Private sources of supplemental coverage—primarily employer-sponsored retiree coverage and medigap—paid 21 percent of beneficiaries' costs, or an average of \$2,603 per beneficiary.
- Beneficiaries paid 16 percent of their health care costs out of pocket, or an average of \$1,910 of spending per beneficiary.
- Public sources of supplemental coverage—primarily Medicaid—paid 12 percent of beneficiaries' health care costs, or an average of \$1,463 per beneficiary.
- The effects of the prescription drug benefit established under the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 are not reflected in these results or in Charts 6-4, 6-5, and 6-6.

#### Chart 6-4. Per capita total spending on health care services among noninstitutionalized FFS beneficiaries, by source of payment, 2005



Groups of beneficiaries ranked by total spending (percentile ranges)

- Total spending on health care services varies dramatically among fee-for-service (FFS) beneficiaries living in the community. Per capita spending for the 10 percent of beneficiaries with the highest total spending averages \$56,449. Per capita spending for the 10 percent of beneficiaries with the lowest total spending averages \$242.
- Among FFS beneficiaries living in the community, Medicare pays a larger percentage as total spending increases, and beneficiaries' direct spending is a smaller percentage as total spending increases. For example, Medicare pays 51 percent of total spending for all beneficiaries but pays 65 percent of total spending for the 10 percent of beneficiaries with the highest total spending. Beneficiaries' direct spending covers 16 percent of total spending for all beneficiaries but only 10 percent of total spending for the 10 percent of beneficiaries with the highest total spending.

Note: FFS (fee-for-service). Analysis includes FFS beneficiaries not living in institutions such as nursing homes. Direct spending is on Medicare cost sharing and noncovered services.

Source: MedPAC analysis of Medicare Current Beneficiary Survey, Cost and Use file, 2005.

Chart 6-5. Variation in and composition of total spending among noninstitutionalized FFS beneficiaries, by type of supplemental coverage, 2005



Note: FFS (fee-for-service). Beneficiaries are assigned to the supplemental coverage category that applied for the most time in 2005. They could have had coverage in other categories throughout 2005. Other public sector includes federal and state programs not included in the other categories. Private supplements include employer-sponsored plans and individually purchased coverage. Public supplements include Medicaid, Department of Veterans Affairs, and other public coverage. Analysis includes only FFS beneficiaries not living in institutions such as nursing homes. It excludes beneficiaries who were not in both Part A and Part B throughout their enrollment in 2005 or had Medicare as a second payer. Direct spending is on Medicare cost sharing and noncovered services but not supplemental premiums.

Source: MedPAC analysis of Medicare Current Beneficiary Survey, Cost and Use file, 2005.

- The level of total spending (defined as beneficiaries' out-of-pocket spending as well as
  expenditures by Medicare, other public-sector sources, and all private-sector sources on all
  health care goods and services) among fee-for-service beneficiaries living in the community
  varies by the type of supplemental coverage they have. Total spending is much lower for
  those beneficiaries with no supplemental coverage than for those beneficiaries who have
  supplemental coverage. Beneficiaries with Medicaid coverage have the highest level of total
  spending, 69 percent higher than those with no supplemental coverage.
- Medicare is the largest source of payment for beneficiaries in each supplemental insurance category, but the second largest source of payment differs. Among those with supplemental coverage, that coverage—public and private combined—is the second largest source of payment. However, among those with Medicare only, beneficiaries' direct spending is the second largest source of payment.

Chart 6-6. Out-of-pocket spending for premiums and health services per beneficiary, by insurance and health status, 2005



Note: ESI (employer-sponsored supplemental insurance).

Source: MedPAC analysis of Medicare Current Beneficiary Survey, Cost and Use file, 2005.

- This diagram illustrates out-of-pocket spending on services and premiums, by beneficiaries' supplemental
  insurance and health status. For example, beneficiaries who have only traditional Medicare coverage (Medicare
  only) and report fair or poor health had an average of \$909 in out-of-pocket spending on premiums and \$3,530
  on services. Those who have Medicare-only coverage and report good, very good, or excellent health had an
  average of \$942 in out-of-pocket spending on premiums and \$1,721 on services.
- Insurance that supplements Medicare does not shield beneficiaries from all out-of-pocket costs. Beneficiaries who report being in fair or poor health spend more out of pocket for health services than those reporting good, very good, or excellent health, regardless of the type of coverage they have to supplement Medicare.
- Despite having supplemental coverage, beneficiaries who have employer-sponsored insurance (ESI) or medigap
  have out-of-pocket spending that is comparable to or larger than those who have only coverage under traditional
  Medicare (Medicare only). This likely reflects the fact that beneficiaries who have ESI or medigap have higher
  incomes and are likely to have stronger preferences for health care.
- What beneficiaries actually pay out of pocket varies by type of supplemental coverage. For those with medigap, out-of-pocket spending generally reflects the premiums and costs of prescription drugs and other services not covered by Medicare. Beneficiaries with ESI usually pay less out of pocket for prescription drugs than those with medigap, but may pay more in Medicare deductibles and cost sharing.

## Web links. Medicare beneficiary and other payer financial liability

• Chapter 1 of the MedPAC 2008 Report to the Congress provides more information on Medicare program spending.

http://www.medpac.gov/chapters/Mar08\_ch01.pdf

• Chapter 1 of the MedPAC March 2007 Report to the Congress provides more information on Medicare program spending.

http://www.medpac.gov/chapters/Mar07\_ch01.pdf

• Chapter 1 of the MedPAC March 2006 Report to the Congress provides more information on Medicare program spending.

http://www.medpac.gov/publications/congressional\_reports/Mar06\_Ch01.pdf

• Chapter 1 of the MedPAC March 2005 Report to the Congress provides more information on Medicare program spending.

http://www.medpac.gov/publications/congressional\_reports/Mar05\_Ch01.pdf

 Appendix B of the MedPAC June 2004 Report to the Congress and Chapter 1 of the MedPAC June 2002 Report to the Congress provide more information on Medicare beneficiary and other payer financial liability.

http://www.medpac.gov/publications/congressional\_reports/June04\_AppB.pdf

http://www.medpac.gov/publications/congressional\_reports/Jun2\_Ch1.pdf

 Chapter 1 of the MedPAC March 2004 Report to the Congress provides more information on beneficiary and Medicare program spending as well as information about supplemental insurance.

http://www.medpac.gov/publications/congressional\_reports/Mar04\_Ch1.pdf

 Chapter 1 of the MedPAC March 2003 Report to the Congress provides more information on beneficiary and program spending.

http://www.medpac.gov/publications/congressional\_reports/Mar03\_Ch1.pdf

SECTION

### Acute inpatient services Short-term hospitals Specialty psychiatric facilities

Chart 7-1. Growth in Medicare's payments for hospital inpatient and outpatient services, 1996–2006



Note: Analysis includes inpatient services covered by the acute inpatient prospective payment system (IPPS); psychiatric, rehabilitation, long-term care, cancer, and children's hospitals and units; outpatient services covered by the outpatient PPS; and other outpatient services. Payments include program outlays and beneficiary cost sharing. The growth in spending was slowed in 2006 by large increases in the number of Medicare Advantage enrollees, who are not included in these aggregate totals.

- Aggregate Medicare fee-for-service (FFS) inpatient spending was \$135 billion and outpatient spending was \$29 billion in 2006.
- Medicare hospital FFS inpatient spending increased 46 percent (3.9 percent per year) and outpatient spending increased 77 percent (6.0 percent per year) from 1996 to 2006.
- A freeze in inpatient payment rates in the Balanced Budget Act of 1997 (BBA) reduced inpatient spending growth in 1998. Spending increased substantially in 2001 through 2004. Payment growth was relatively slow from 2005 to 2006 because a large number of beneficiaries switched from traditional fee-for-service Medicare to the Medicare Advantage (MA) program.
- Outpatient spending fell in 1998, reflecting the BBA's elimination of inadvertent overpayments. Transitional corridor and new technology payments in the outpatient prospective payment system, along with volume increase, increased outpatient spending in 2001. Payment for certain outpatient drugs on an average wholesale price basis and extension of hold-harmless payments to small rural and sole community hospitals were the key factors in higher growth rates in 2004 and 2005.

Source: CMS, Office of the Actuary.

MDC number	MDC name	Share of all discharges	Share of medical discharges	Share of surgical discharges
5	Circulatory system	27%	25%	31%
5	Circulatory system	21 /0	2570	5170
4	Respiratory system	14	19	3
8	Musculoskeletal system and connective tissue	12	4	31
6	Digestive system	11	12	9
1	Nervous system	8	9	5
11	Kidney and urinary tract	6	7	4
10	Endocrine, nutritional, and metabolic diseases and disorders	4	5	2
18	Infectious and parasitic diseases	4	5	2
7	Hepatobiliary system and pancreas	3	3	4
9	Skin, subcutaneous tissue, and breast	3	3	2
Total		92	92	92

## Chart 7-2. Major diagnostic categories with highest volume, fiscal year 2006

Note: MDC (major diagnostic category).

Source: MedPAC analysis of MedPAR data from CMS.

- In fiscal year 2006, 10 major diagnostic categories accounted for 92 percent of all discharges at hospitals paid under the acute inpatient prospective payment system.
- Circulatory system cases accounted for almost one-third of surgical discharges and onequarter of medical discharges.
- Musculoskeletal system cases accounted for 31 percent of surgical discharges.
- Respiratory system cases accounted for 19 percent of medical discharges.

	Hos	pitals	Medicare discharges		
Hospital group	Number	Share of total	Number (thousands)	Share of total	
All PPS and critical access hospitals	4,643	100.0%	11,608	100.0%	
PPS hospitals	3,375	72.7	11,148	96.0	
Urban Rural	2,400 975	51.7 21.0	9,484 1,663	81.7 14.3	
Large urban Other urban	1,311 1,089	28.2 23.5	5,130 4,354	44.2 37.5	
Rural referral Sole community	141 410 142	3.0 8.8 3.1	481 655 164	4.1 5.6	
Other rural <50 beds Other rural ≥50 beds	95 187	2.0 4.0	60 303	0.5 2.6	
Voluntary Proprietary	2,008 781	43.2 16.8	8,048 1,743 1,257	69.3 15.0 11 7	
Major teaching Other teaching	281 761	6.1 16.4	1,681 3,964	14.5 34.1	
Nonteaching Critical access hospitals	2,333 1,268	50.2 27.3	5,503 461	47.4 4.0	

## Chart 7-3. Number of acute care hospitals and Medicare discharges, by hospital group, 2006

Note: PPS (prospective payment system). Analysis includes all hospitals covered by Medicare's inpatient PPS along with critical access hospitals. Maryland hospitals are excluded. Large urban areas have populations of more than 1 million. Major teaching hospitals are defined by a ratio of interns and residents to beds of at least 0.25. Other teaching hospitals have a ratio of below 0.25. Data are limited to providers with complete cost reports in the CMS database. \*The results for government-owned providers are not necessarily comparable to other providers because they operate in a different context.

Source: MedPAC analysis of PPS impact files and Medicare cost report data from CMS.

- In 2006, 3,375 hospitals provided 11.1 million discharges under Medicare's acute inpatient prospective payment system (PPS) and 1,268 critical access hospitals provided almost 0.5 million discharges. The number of PPS discharges declined primarily due to a shift in Medicare beneficiaries from fee-for-service Medicare to Medicare Advantage plans.
- About 15 percent of acute care hospitals (20 percent of PPS hospitals) are covered by three special payment provisions intended to help rural facilities that do not become critical access hospitals (rural referral, sole community, and small rural Medicare-dependent hospitals); these facilities provide about 11 percent of all discharges.
- See Chart 7-22 for more information about critical access hospitals.

## Chart 7-4. Cumulative change in total admissions and total outpatient visits, 1996–2006



Note: Cumulative change is the total percent increase from 1996 through 2006. Data are admissions (all payers) to and outpatient visits at approximately 5,000 community hospitals.

Source: American Hospital Association, AHA Hospital Statistics.

- Hospital outpatient service use has grown much more rapidly than inpatient service use. Total hospital outpatient visits increased approximately 32 percent from 1996 to 2006, while total admissions grew just 13 percent.
- There were nearly 600 million outpatient visits and over 35 million admissions to community hospitals in 2006.



Chart 7-5. Trends in Medicare and total hospital length of stay, 1996–2006

Note: Length of stay is calculated from discharges and patient days for approximately 3,300 hospitals covered by the acute inpatient prospective payment system. Excludes critical access hospitals.

Source: MedPAC analysis of Medicare cost report data from CMS.

- Length of stay for Medicare inpatients was nearly 1 day longer than for all hospital discharges in 2006.
- Length of stay for all hospital discharges fell 10 percent, from 4.7 days in 1996 to 4.2 days in 2006, dropping at an average annual rate of 1.1 percent from 1996 to 2001 and 0.3 percent from 2001 to 2006.
- Length of stay for Medicare inpatients fell 15 percent, from 6.0 days in 1996 to 5.1 days in 2006, dropping at an average annual rate of 2.3 percent from 1996 to 2001 and 0.9 percent from 2001 to 2006.



Chart 7-6. Hospital occupancy rates, 1997–2006

Note: PPS (prospective payment system). Hospital occupancy rate is measured as total inpatient days as a percent of total available bed days in the hospital over the reporting period. Bed days available are based on beds that are set up and staffed for inpatient service (i.e., the units are open and operating), but the beds may not be staffed for a full patient load in each unit on any given day. Hospitals' group designations for the entire 1997–2006 period are based on their status at the end of 2006.

Source: MedPAC analysis of data from the American Hospital Association Annual Survey of Hospitals.

- Hospitals' occupancy rates have been rising, with the aggregate occupancy rate climbing from 59 percent in 1997 to 65 percent in 2006.
- Occupancy rates are higher in urban than in rural hospitals; in 2006, occupancy rates stood at 69 percent for urban hospitals and 52 percent for rural hospitals, a 17 percentage point difference.



Chart 7-7. Nonfederal hospital construction spending, 1999–2007

Source: Census Bureau. http://www.census.gov/const/www/c30index.html. May 2008.

• Hospital construction has increased substantially since 1999, expanding almost 35 percent (in real terms) in the past two years alone to \$31 billion.

Note: Spending is for nonfederal hospital construction. Data for 2007 is revised by Census Bureau in May 2008. Data are inflated to 2007 dollars using the McGraw-Hill construction cost index. r = revised.

Chart 7-8. Cumulative change in Medicare discharges and days of care per beneficiary, 1996–2006



Note: Cumulative change is the total percent change from 1996 through 2006. Data are short-stay hospital Medicare patient days and discharges. Rate is per beneficiary enrolled in Part A. The statistics do not reflect managed care enrollment.

Source: MedPAC analysis of claims files and enrollment data from CMS.

- From 1996 to 2006 short-stay hospital discharges per beneficiary increased slightly and total days of care per beneficiary declined. Medicare discharge rates increased between 1996 and 2006, to a peak of approximately 6 percent more discharges per enrollee in 2001. However, by the end of the period discharges returned close to 1996 levels. In addition, declining length of stay led to 12.8 percent fewer days of inpatient care per enrollee in 2006, relative to 1996.
- There were 349 Medicare hospital discharges and 1,981 patient days per 1,000 beneficiaries enrolled in Part A in calendar year 2006.

Percent of total payments						
Hospital group	Base	IME	DSH	Outlier	Additional rural hospital*	l otal payments (millions)
All hospitals	82.5%	5.1%	7.8%	4.2%	0.5%	\$104,992
Urban	81.8	5.6	8.1	4.5	0.2	93,645
Rural	88.8	0.7	5.5	1.8	3.1	11,277
Large urban	79.9	6.8	8.6	4.7	0.0	53,150
Other urban	84.2	3.9	7.4	4.1	0.3	40,445
Rural referral	88.4	2.3	5.5	2.7	2.3	5,793
Sole community	87.3	0.0	4.0	0.9	7.8	2,436
Medicare dependent	90.2	0.0	5.7	0.8	3.2	830
Other rural <50 beds	91.6	0.0	7.7	0.7	0.0	315
Other rural <u>&gt;</u> 50 beds	91.0	0.3	6.6	1.8	0.4	1,953
Voluntary	83.1	5.4	6.9	4.1	0.5	77,289
Proprietary	85.1	1.5	9.5	3.6	0.3	14,231
Government**	76.2	6.7	11.4	4.9	0.7	13,106
Major teaching	67.0	16.4	10.7	5.8	0.1	23,634
Other teaching	84.6	3.7	7.4	4.0	0.3	37,915
Nonteaching	89.2	0.0	6.5	3.5	0.8	43,374

## Chart 7-9. Medicare inpatient payments, by source and hospital group, 2006

Note: IME (indirect medical education), DSH (disproportionate share). Analysis includes all hospitals covered by Medicare's acute inpatient prospective payment system (PPS). Includes both operating and capital payments but excludes graduate medical education payments. Excludes critical access hospitals. Simulated payments reflect 2006 payment rules applied to actual number of cases in 2006. Medicare fee-for-service inpatient payments did not grow from 2005 to 2006 due to enrollment shifting from fee-for-service to Medicare Advantage (MA). Due to changes in MA enrollment and in our reporting methodology, this year's table is not exactly comparable to last year's table.

\*Payments received by sole community and Medicare-dependent hospitals beyond what would have been received under PPS. A few sole community hospitals are located in urban areas.

\*\* The results for government-owned providers are not necessarily comparable to other providers because they operate in a different context.

Source: MedPAC analysis of claims and impact file data from CMS.

- Medicare payments in 2006 to hospitals covered by the acute inpatient prospective payment system totaled about \$105 billion. About \$94 billion (89 percent) was paid to hospitals located in urban areas. The other \$11 billion went to rural hospitals, although this figure does not reflect payments to critical access hospitals.
- Special payments—which include disproportionate share, indirect medical education, and outlier payments, as well as additional payments to rural hospitals through the sole community and Medicare-dependent programs—account for about 17 percent of all inpatient payments. This proportion is higher for urban than for rural hospitals.
- Outlier payments were 4.2 percent of total inpatient payments in 2006. The legislative mandate for the level of outlier payments uses a different measure—outlier payments as a percent of base plus outlier payments. Measured in this way, CMS's goal is 5.1 percent and the agency reports that outlier payments were 4.0 percent in 2005 and 4.7 percent in 2006.



Chart 7-10. Medicare acute inpatient PPS margin, 1995–2006

- Medicare's acute inpatient margin reflects payments and costs for services covered by Medicare's inpatient hospital prospective payment system (PPS). The inpatient margin may be influenced by how hospitals allocate overhead costs across service lines. Only by combining data for all major services can we estimate Medicare costs without the influence of how overhead costs are allocated (see Chart 7-12).
- The Medicare inpatient margin reached a record high of 17.9 percent in 1997. After implementation of the Balanced Budget Act of 1997, however, inpatient margins fell. In 2006, the margin was –2.6 percent, the lowest level since the beginning of the inpatient PPS.
- Medicare inpatient margins vary widely. In 2006, one-quarter of hospitals had Medicare inpatient margins that were 8.0 percent or higher, and another quarter had margins that were –16.8 percent or lower. About 42 percent of hospitals treating 42 percent of Medicare cases had positive inpatient Medicare margins in 2006.

Note: PPS (prospective payment system). A margin is calculated as revenue minus costs, divided by revenue. Data are based on Medicare-allowable costs and exclude critical access hospitals. Medicare acute inpatient margin includes services covered by the acute care inpatient PPS.

Source: MedPAC analysis of Medicare cost report data (August 2007) from CMS.

Chart 7-11. Medicare acute inpatient PPS margin, by urban and rural location, 1995–2006



Note: PPS (prospective payment system). A margin is calculated as revenue minus costs, divided by revenue. Data are based on Medicare-allowable costs and exclude critical access hospitals. Medicare acute inpatient margin includes services covered by the acute care inpatient PPS.

Source: MedPAC analysis of Medicare cost report data (August 2007) from CMS.

- Urban hospitals tend to have higher Medicare inpatient margins than rural hospitals.
- The gap between urban and rural hospitals' inpatient margins grew between 1995 and 2000. One factor in this divergence is that urban hospitals had greater success in controlling cost growth, at least partly in response to pressures from managed care. From 2001 through 2004, these differences narrowed and from 2004 to 2006 rural hospitals' inpatient margins were slightly higher than those of urban hospitals. This change is the result of payment policies targeted at raising rural hospital payments, and growth in the number of critical access hospitals, which removed many rural hospitals with low margins from the prospective payment system.



Chart 7-12. Overall Medicare margin, 1997–2006

- The overall Medicare margin incorporates payments and costs for acute inpatient, outpatient, skilled nursing, home health, and inpatient psychiatric and rehabilitative services, as well as graduate medical education and bad debts. The overall margin is available only since 1997, but it follows a trend similar to that of the inpatient margin.
- The overall Medicare margin in 1997 was 11.8 percent. In fiscal year 2006, it was –4.8 percent.
- In 2006, one-quarter of hospitals had overall Medicare margins of 3.6 percent or higher, and another quarter had margins of –16.3 percent or lower. Between 1997 and 2006, the difference in performance between the top and bottom quartile widened from 14 percent to 20 percent. About 35 percent of hospitals had positive overall Medicare margins in 2006, accounting for 36 percent of Medicare inpatient discharges.

Note: A margin is calculated as revenue minus costs, divided by revenue. Data are based on Medicare-allowable costs and exclude critical access hospitals. Overall Medicare margins cover the costs and payments of acute inpatient, outpatient, inpatient psychiatric and rehabilitation unit, skilled nursing facility, and home health services, as well as graduate medical education and bad debts. Data on overall Medicare margins before 1997 are unavailable.

Source: MedPAC analysis of Medicare cost report data (August 2007) from CMS.

Chart 7-13. Overall Medicare margin, by urban and rural location, 1997–2006



Note: A margin is calculated as revenue minus costs, divided by revenue. Data are based on Medicare-allowable costs and exclude critical access hospitals. Overall Medicare margins cover the costs and payments of acute hospital inpatient, outpatient, inpatient psychiatric and rehabilitation unit, skilled nursing facility, and home health services, as well as graduate medical education and bad debts. Data on overall Medicare margins before 1997 are unavailable.

Source: MedPAC analysis of Medicare cost report data (August 2007) from CMS.

- As with inpatient margins, overall Medicare margins have historically been higher for urban hospitals than for rural hospitals.
- The difference in margins between the two groups grew between 1997 and 2000 but has since narrowed, with rural hospital margins similar to those of urban hospitals in each of the past three years. In 1997, the overall margin for urban hospitals was 12.6 percent, compared with 6.2 percent for rural hospitals. In 2006, the overall margin for urban hospitals was –4.8 percent, compared with –5.1 percent for rural hospitals. Policy changes made in the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 targeted to rural hospitals helped to narrow the difference in overall Medicare margins between urban and rural hospitals.



Chart 7-14. Hospital total margin, 1995–2006

Note: A margin is calculated as revenue minus costs, divided by revenue. Total margin includes all patient care services funded by all payers, plus nonpatient revenue. Analysis excludes critical access hospitals.

Source: MedPAC analysis of Medicare cost report data (August 2007) from CMS.

- The total hospital margin for all payers—Medicare, Medicaid, other government and private payers—reflects the relationship of all hospital revenues to all hospital costs, including inpatient, outpatient, post-acute, and nonpatient services.
- The total hospital margin peaked in 1997 at 6.4 percent, before declining to under 4 percent in the 1999 to 2002 period. In 2005, the total margin climbed to 4.9 percent and again rose to 5.4 percent in 2006, its highest level in nine years. Total margins rose despite declines in Medicare overall margins over this same period.
- The decline in total margins from 1997 to 1999 reflected a drop in both Medicare and private payer margins. Medicare overall margins from 1997 through 2001 were higher than the corresponding total margins.
- In 2006, 75 percent of hospitals had positive total margins. These hospitals accounted for 82 percent of all hospital discharges and 83 percent of Medicare discharges.
- The total margin varies much less than the Medicare inpatient or overall Medicare margin. In 2006, one-quarter of prospective payment system hospitals had total margins that were 8.6 percent or higher, while another quarter had margins that were -0.1 percent or lower, a spread of just 9 percentage points compared to a 20 percentage point spread for overall Medicare margins and a 25 percentage point spread for Medicare inpatient margins.

Chart 7-15. Hospital total margin, by urban and rural location, 1995–2006



Note: A margin is calculated as revenue minus costs, divided by revenue. Total margin includes all patient care services funded by all payers, plus nonpatient revenue. Analysis excludes critical access hospitals.

Source: MedPAC analysis of Medicare cost report data (August 2007) from CMS.

- With the exception of 2002 and 2003, total (all payer) margins for rural hospitals have been about 1 percentage point higher than those of urban hospitals.
- In 2006, total margins were 6.0 percent for rural and 5.4 percent for urban hospitals, the highest they have been for either group since 1997.





Note: Major teaching hospitals are defined by a ratio of interns and residents to beds of 0.25 or greater, while other teaching hospitals have a ratio of greater than zero and less than 0.25. A margin is calculated as revenue minus costs, divided by revenue. Total margin includes all patient care services funded by all payers, plus nonpatient revenue. Analysis excludes critical access hospitals.

- The pattern of total margins by teaching status is the opposite of the pattern for the Medicare inpatient and overall Medicare margins. The total margins of major teaching hospitals have consistently been lower than those for other teaching and nonteaching hospitals. In 2006, the total margin of nonteaching hospitals stood at 5.3 percent compared with 5.0 percent for major teaching hospitals.
- The difference in margins between major teaching and nonteaching hospitals narrowed to only 0.3 percentage points in 2006, the smallest difference recorded since the start of the inpatient prospective payment system. In 2006, major teaching hospitals' total margins reached their highest level since 1997.

Source: MedPAC analysis of Medicare cost report data (August 2007) from CMS.

	Level of financial pressure 2002 to 2005				
	High pressure (non-Medicare margin <1%)	Medium pressure	Low pressure (non-Medicare margins >5%)		
Number of hospitals	911	427	1,529		
Financial characteristics, 2006					
Non-Medicare margin (private, Medicaid, uninsured) Standardized cost per discharge Median of for profit and nonprofit Nonprofit hospital For-profit hospital	-1.1% \$5,500* 5,500* 5,600*	6.3% \$5,800 5,800 5,600	13.6% \$6,200 6,200 5,800		
Annual growth in cost per discharge 2003 to 2006	4.6%*	5.4%	5.5%		
Overall 2006 Medicare margin	3.7*	-3.3	-10.8		
Patient characteristics (medians) Total hospital discharges in 2006 Medicare share of inpatient days Medicaid share of inpatient days Medicare case mix index	5,495* 47% 13%* 1.26*	7,350 45% 12% 1.35	7,130 49% 12% 1.36		

#### Chart 7-17. Financial pressure leads to lower costs

Note: Standardized costs are adjusted for hospital case mix, wage index, outliers, transfer cases, interest expense, and the effect of teaching and low-income Medicare patients on hospital costs. The sample includes all hospitals that had complete cost reports on file with CMS by August 31, 2007.

\* Indicates significantly different from low-pressure hospitals using p = 0.01 and a Wilcoxon rank test. A Wilcoxon rank test is used to limit the influence of the few hospitals that report very large costs per discharge.

Source: MedPAC analysis of Medicare cost report and claims files from CMS.

- Higher financial pressure tends to lead to lower cost growth and lower costs per discharge.
- Hospitals with lower volume, lower case mix, and higher Medicaid charges are more likely to be under financial pressure.

#### Share of Medicare Overall Share of inpatient inpatient Medicare Hospital group hospitals payments margin margin -2.6% All hospitals 100% 100% -4.8% Major teaching 8 23 9.2 2.8 Other teaching 23 35 -3.9 -5.4 Nonteaching 42 -8.5 69 -8.0 Both IME and DSH 25 49 3.3 0.7 -9.9 IME only 6 10 -9.7 51 DSH only 30 -4.9 -6.2 Neither IME nor DSH 18 11 -16.7 -15.1

## Chart 7-18. Medicare margins by teaching and disproportionate share status, 2006

Note: IME (indirect medical education), DSH (disproportionate share).

Source: MedPAC analysis of 2007 Medicare cost report data from CMS.

- Major teaching hospitals have the highest Medicare inpatient and overall Medicare margins. Their better financial performance is due largely to the additional payments they receive from the indirect medical education (IME) and disproportionate share (DSH) adjustments.
- Hospitals that receive neither IME nor DSH payments have the lowest Medicare margins. In 2006, the Medicare inpatient margins of these hospitals were more than 25 percentage points below those of major teaching hospitals and overall Medicare margins were about 18 percentage points lower.

Chart 7-19. Relationship between hospitals' uncompensated care costs and disproportionate share payments, 2003





Source: State-mandated reporting systems in California, Florida, Georgia, Indiana, and Texas (2002 and 2003 data, N=848) and Medicare cost report data from CMS. State-level data compiled by the Government Accountability Office.

- The original rationale for the Medicare disproportionate share (DSH) adjustment was that
  poor patients are more costly to treat, so that hospitals with substantial low-income patient
  loads would likely experience higher costs for their Medicare patients than otherwise similar
  institutions. Over the last decade, however, many observers have shifted to arguing that the
  adjustment subsidizes uncompensated care provided to the uninsured and underinsured.
- Uncompensated care is highly concentrated. The top 10 percent of hospitals in terms of the share of resources they devote to furnishing uncompensated care provided 41 percent of all unpaid care. But DSH payments are poorly targeted to hospitals' uncompensated care. This top group of uncompensated care providers receives only about 10 percent of DSH payments. The bottom 10 percent, in contrast, provides less than 2 percent of all uncompensated care but receives almost 8 percent of DSH payments.

Chart 7-20. Change in Medicare hospital inpatient costs per discharge and private payer payment-to-cost ratio, 1986–2006



Change in Medicare acute inpatient costs per discharge
Private payer payment-to-cost ratio

- The pattern of growth in Medicare costs per discharge makes it clear that hospitals have responded strongly to the incentives posed by the rise and fall of financial pressure from private payers over three periods.
- During the first period, 1986 through 1992, private payers' payments rose much faster than the cost of treating their patients (seen in the chart as a steep increase in the payment-to-cost ratio). This suggests an almost complete lack of pressure from private payers. Medicare costs per discharge rose 8.3 percent per year through these years, more than 3 percentage points a year above the increase in Medicare's market basket index.
- As HMOs and other private insurers exerted more pressure during the second period, 1993 through 1999, the private payer payment-to-cost ratio dropped substantially. The rate of cost growth plummeted to only 0.8 percent per year, which was more than 2 percentage points below the average increase in the market basket.
- As pressure from private payers waned after 1999, the private payer payment-to-cost ratio has again risen sharply, and hospital cost growth has once again exceeded growth in the market basket by 2 percentage points a year. In 2005 and 2006, the trend in private payer profit margins begins to level off, and cost growth more closely matches market basket.

Note: Data are for community hospitals and cover all hospital services. Imputed values were used for missing data (about onethird of observations). Most Medicare and Medicaid managed care patients are included in this private insurer category.

Source: MedPAC analysis of Medicare Cost Report files from CMS and CMS's rules for the acute inpatient prospective payment system and American Hospital Association Annual Survey of Hospitals.



Chart 7-21. Markup of charges over costs for all patient care services, 1996–2006

Note: Analysis includes all community hospitals.

Source: American Hospital Association Annual Survey of Hospitals.

- From 1996 through 2006, hospitals' patient care costs (covering all services and all payers) increased 6.5 percent per year but their charges went up by 11 percent per year. Consequently, the markup of charges over costs rose from about 85 percent in 1996 to about 180 percent in 2006. Charges are now almost three times costs.
- Since few patients pay full charges, rapid charge growth may have little impact on hospital financial performance. However, this growth may significantly impact uninsured patients, who may pay full charges. More rapid growth in charges than costs may reflect hospital attempts to maximize revenue from private payers (who often structure their payments as a discount off charges). The unusually large increases in charges in 2002 and 2003 may have resulted from some hospitals manipulating Medicare outlier payments. In 2003, Medicare revised its outlier policy in an attempt to curb hospitals' opportunity to increase their outlier payments through excessive increases in their charges.



Chart 7-22. Number of critical access hospitals, 1999–2008

Note: CAH (critical access hospital).

Source: The Medicare Rural Hospital Flexibility Program and CMS.

- The number of critical access hospitals (CAHs) has grown steadily over the last nine years, from 41 in 1999 to approximately 1,291 as of March 2008.
- The increase in CAHs is in part due to a series of legislative changes that made conversion to CAH status easier and expanded the services that qualify for cost-based reimbursement. Currently, CAHs are paid their Medicare costs plus 1 percent for inpatient services, outpatient services (including laboratory and therapy services), and post-acute services in swing beds.
- Prior to 2006, a hospital could convert to CAH status if it was (1) 35 miles by primary road or 15 miles by secondary road from the nearest hospital, or (2) their state waived the distance requirement by declaring the hospital a "necessary provider." Starting in 2006, states could no longer waive the distance requirement. While most existing CAHs fail the distance test, they are grandfathered into the program. Among small rural hospitals that have not converted, most would not meet the distance requirement. Therefore, we expect the number of CAHs to remain fairly constant.

Chart 7-23. Medicare payments to inpatient psychiatric facilities (in billions), 1998–2007



Note: \*Estimated spending. The rate of growth in spending was slowed somewhat in 2006 and 2007 by large increases in the number of Medicare Advantage enrollees, who are not included in these aggregate totals.

- The inpatient psychiatric facility prospective payment system started January 1, 2005.
- Medicare program spending for beneficiaries' care in inpatient psychiatric facilities grew an estimated 2.4 percent per year between 1998 and 2007.

Source: CMS, Office of the Actuary.

	2000	2001	2002	2003	2004	2005	2006	2007
Freestanding hospitals	491	477	473	466	463	477	481	490
Hospital-based units PPS hospital units CAH units	1,848 1	1,821 3	1,794 6	1,769 10	1,732 27	1,688 70	1,657 75	1,643 77
Total	2,340	2,301	2,273	2,245	2,222	2,235	2,213	2,210

#### Chart 7-24. Inpatient psychiatric facilities, 2000–2007

Note: PPS (prospective payment system), CAH (critical access hospital).

Source: CASPER reports from CMS, as of December each year.

- Inpatient psychiatric facilities—both freestanding and hospital-based facilities—provide acute hospital care to beneficiaries with mental illnesses and alcohol- or drug-related problems.
- In recent years, the number of critical access hospitals with Medicare-certified psychiatric units has grown substantially because of new authority granted in the Medicare Prescription Drug, Improvement, and Modernization Act of 2003. After declining from 2000 to 2004, the number of freestanding psychiatric hospitals has grown as well. The number of psychiatric units in hospitals covered by the acute inpatient prospective payment system has declined, however. Overall, the total number of certified psychiatric facilities has fallen 5.6 percent since 2000.

#### Web links. Acute inpatient services

#### Short-term hospitals

• Chapter 2A of the MedPAC March 2008 Report to the Congress provides additional detailed information on hospital margins.

http://www.medpac.gov/chapters/Mar08\_Ch02a.pdf

• MedPAC provides basic information about the acute inpatient prospective payment system in its Payment Basics series.

http://www.medpac.gov/documents/MedPAC\_Payment\_Basics\_07\_hospital.pdf

 MedPAC provides information on the outlier payment issue in Medicare Hospital Outlier Payment Policy.

http://www.medpac.gov/publications/other\_reports/outlier%20memo.pdf

• CMS provides information on the hospital market basket.

http://www.cms.hhs.gov/MedicareProgramRatesStats/downloads/info.pdf

• CMS published the proposed acute inpatient PPS rule in the May 3, 2007 Federal Register.

http://edocket.access.gpo.gov/2008/pdf/08-1135.pdf

#### Inpatient psychiatric facilities

• MedPAC provides basic information about the inpatient psychiatric facility (IPF) prospective payment system in its Payment Basics series.

http://www.medpac.gov/documents/MedPAC\_Payment\_Basics\_07\_psych.pdf

• CMS provides information on the inpatient psychiatric facility prospective payment system.

http://www.cms.hhs.gov/InpatientPsychFacilPPS/

• CMS describes updates to the inpatient psychiatric facility prospective payment system for the rate year beginning July 1, 2008 in the May 7, 2008 *Federal Register*.

http://www.access.gpo.gov/su\_docs/fedreg/a080507c.html

http://edocket.access.gpo.gov/2008/pdf/08-1213.pdf

# 8

SECTION

## Ambulatory care

Physicians Hospital outpatient services Ambulatory surgical centers Imaging services
70 1.6 Historical Projected Medicare spending Cumulative updates 1.4 60 Medicare spending (dollars in billions) 1.2 1.13 1.13 1.13 1.13 1.11 1.10 1.08 50 1.08 Cumulative updates (index) 1.02 .02 1.00 0.97 10 0.92 0.87 40 0.8 30 58.1 58.7 57.7 57.3 54.1 54.2 53.3 52.3 0.6 48.3 44.8 42.0 20 37.0 0.4 33.4 32.4 10 0.2 0 0.0 2004 2005 2001 2002 2003 2006 2007 2008 1998 1999 2000 2009 2010 2011

## Chart 8-1. FFS Medicare spending and payment updates for physician services, 1998–2011

- Rapid growth in total Medicare spending on physician fee schedule services occurred between 1999 and 2005—averaging almost 10 percent annually.
- The sustainable growth rate (SGR) system requires that future payment increases for physician services be adjusted for past actual physician spending relative to a target spending level. To avoid reductions in physician fee schedule rates due to the SGR, Congress has taken several actions. The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 established minimum payment updates for physician services of 1.5 percent for 2004 and 2005. For 2006, the Deficit Reduction Act froze the physician fee schedule conversion factor. This freeze, combined with refinements to the relative value units, resulted in an update of 0.2 percent for 2006. The Tax Relief and Health Care Act effectively held 2007 payments at 2006 levels through a conversion factor bonus. Most recently, the Medicare, Medicaid, and SCHIP Extension Act of 2007 updated physician services furnished January 1 through June 31, 2008, by 0.5 percent.
- As this publication goes to press, the SGR formula continues to call for payment rate cuts starting July 1, 2008, through 2016.

Note: FFS (fee-for-service). Dollars are Medicare spending only and do not include beneficiary coinsurance. The cumulative updates are presented as an index, starting from 1998 with an assigned value of 1.0. Estimates do not include the 0.5 percent payment update for physician services furnished January 1 through June 31, 2008, as established by the Medicare, Medicaid, and SCHIP Extension Act of 2007. The 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: 2008 annual report of the Boards of Trustees of the Medicare trust funds.



Chart 8-2. Medicare spending per FFS beneficiary on physician services. 1999–2011

Note: FFS (fee-for-service). Dollars are Medicare spending only and do not include beneficiary coinsurance. Estimates do not include the 0.5 percent payment increase for physician services furnished January 1 through June 31, 2008, as established by the Medicare, Medicaid, and SCHIP Extension Act of 2007. The category of "disabled" excludes beneficiaries who qualify for Medicare because they have end-stage renal disease. All beneficiaries age 65 and over are calculated within the aged category.

Source: 2008 annual report of the Boards of Trustees of the Medicare trust funds.

- Historical calculations show that fee-for-service (FFS) physician spending per beneficiary has increased annually.
- Under current law, FFS Medicare payments for physician services per beneficiary are projected to decline beginning July 1, 2008, because of scheduled negative payment updates. The volume of physician services per beneficiary, however, is expected to continue to grow.
- Per capita spending for disabled beneficiaries (under age 65) is lower than per capita spending for aged beneficiaries. In 2007, for example, per capita spending for disabled beneficiaries was \$1,492 compared with \$1,850 for aged beneficiaries.

### Chart 8-3. Number of physicians billing Medicare is increasing steadily, 2001–2006

	Number of Medicare patients in caseload						
	≥1	≥15	≥50	≥100	≥200		
Number of physicians							
2001	535 834	457 292	411 474	364 023	286 862		
2002	544 615	466 299	419 269	370 144	200,002		
2002	544 922	400,200	424 684	374 721	202 183		
2003	561 514	483 945	440 462	393 730	315 398		
2005	566 629	400,040	449 524	402 451	322 643		
2006	569,461	497,072	453,822	405,504	323,877		
Percent growth, 2001–2006	6.3%	8.7%	10.3%	11.4%	12.9%		
Physicians per 1,000 beneficia	ries						
2001	14.2	12.1	10.9	9.7	7.6		
2002	14.3	12.3	11.0	9.7	7.7		
2003	14.1	12.2	11.0	9.7	7.6		
2004	14.4	12.4	11.3	10.1	8.1		
2005	14.3	12.4	11.4	10.2	8.1		
2006	14.1	12.3	11.3	10.1	8.0		

Note: Calculations include physicians (allopathic and osteopathic). Nurse practitioners, physician assistants, psychologists, and other health care professionals are not included in these calculations. Medicare enrollment includes beneficiaries in feefor-service Medicare and Medicare Advantage, on the assumption that physicians are providing services to both types of beneficiaries. Physicians are identified by their Unique Physician Identification Number (UPIN). UPINs with extraordinarily large caseload sizes (in the top 1 percent) are excluded because they may represent multiple providers billing under the same UPIN.

Source: MedPAC analysis of Health Care Information System, CMS.

- The number of physicians providing services to beneficiaries has kept pace with growth in the beneficiary population. From 2001 to 2006, the number of physicians per 1,000 beneficiaries was relatively steady at a little over 14.
- Growth rates are faster among physicians with higher Medicare caseloads. In fact, the fastest growth is seen for physicians with caseloads of 200 or more Medicare patients. This subset of physicians grew 12.9 percent between 2001 and 2006.

## Chart 8-4. Continued growth in the use of physician services per beneficiary, 2000–2006



Note: Includes only services paid under the physician fee schedule.

Source: Analysis of physician claims data for 100 percent of Medicare beneficiaries.

- Between 2000 and 2006, cumulative volume in physician fee schedule services grew about 35 percent per beneficiary. Imaging and tests grew the most, at 67 and 52 percent respectively.
- Across all services, volume grew 3.6 percent per beneficiary between 2005 and 2006. This growth rate is slightly lower then that seen in recent years. Volume for tests and imaging grew the most. From 2005 to 2006, tests grew 6.9 percent and imaging grew 6.2 percent per capita. Growth in major procedures and evaluation and management services was slower.
- Overall volume increases translate directly to growth in both Part B spending and premiums. They are also largely responsible for the negative updates required by the SGR formula.

## Chart 8-5. Correlation between physicians' 2002 and 2003 efficiency scores, multilevel and Monte Carlo models

MSA	Multilevel	Monte Carlo
Boston	0.90	0.87
Greenville	0.91	0.89
Miami	0.88	0.86
Minneapolis	0.86	0.84
Orange County	0.89	0.84
Phoenix	0.90	0.88
Total	0.89	0.87

Note: MSA (metropolitan statistical area). Physicians with less than 20 episodes were excluded from the analysis. Efficiency scores are weighted by each physician's average number of episodes per year. A perfect correlation of 1.00 means that the items are at exactly the same rank in both lists. A coefficient of 0 means that there is no relationship between the rank of items on the two lists.

Source: Houchens, Robert L., Scott McCracken, William Marder, et al. Forthcoming. *The use of an episode grouper for physician profiling in Medicare*. Washington, DC: MedPAC.

- Medicare claims were analyzed using an episode grouper to identify physicians with lower, comparable, and higher than expected utilization in the treatment of Medicare patients. To test the stability of these results, each physician's efficiency score for 2002 was compared to his or her score for 2003, using two statistical methods: multilevel regression and Monte Carlo randomization.
- Using multilevel regression, physician-level residuals (variation from the mean) form the basis for each physician's estimated efficiency score. This takes into account the correlation of episodes treated by individual physicians, unlike standard regression methods that assume physicians' episodes are uncorrelated.
- Monte Carlo randomization compares specific episode/severity/disease-stage combinations
  with other episodes with the same characteristics. The idea is to test whether the observed
  average episode payment for each physician's sample is consistent with the complete
  distribution of average episode payments for similar samples drawn at random from the
  collection of all physicians' episodes. Using this approach, physician outliers are based on
  how unlikely the physician's observed average episode payment is, given the distribution of
  average episode payments for similar samples of randomly drawn episodes.
- These correlations are quite high, indicating good year-to-year stability in the efficiency scores based on both multilevel regressions and Monte Carlo randomization. Physicians with high efficiency scores in 2002 also tended to have high scores in 2003 and vice versa.



Spending on all hospital outpatient services, Chart 8-6.

Note: Spending amounts are for services covered by the Medicare outpatient prospective payment system and those paid on separate fee schedules (e.g., ambulance services or durable medical equipment) or those paid on a cost basis (e.g., organ acquisition or flu vaccines). They do not include payments for clinical laboratory services. 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. \* Estimate.

Source: CMS, Office of the Actuary.

- Overall spending by Medicare and beneficiaries on hospital outpatient services (excluding clinical laboratory services) from calendar year 1997 to 2007 increased by 68 percent, reaching \$28.8 billion. The Office of the Actuary projects continued growth in total spending, averaging 4.0 percent per year from 2004 to 2009. However, projected spending growth per beneficiary is even higher—4.7 percent—because increased enrollment in Medicare Advantage is expected to reduce the number of beneficiaries in traditional Medicare.
- A prospective payment system (PPS) for hospital outpatient services was implemented in August 2000. Services paid under the outpatient PPS represent about 91 percent of spending on all hospital outpatient services.
- In 2001, the first full year of the outpatient PPS, spending under the PPS was \$19.2 billion, including \$11.4 billion by the program and \$7.7 billion in beneficiary cost sharing. The spending in the outpatient PPS represented 92 percent of the \$20.9 billion in spending on hospital outpatient services in 2001. By 2007, spending under the outpatient PPS is expected to rise to \$26.2 billion (\$19.0 billion program spending; \$7.2 billion beneficiary copayments). The outpatient PPS accounted for about 4 percent of total Medicare spending by the program in 2007.
- Beneficiary cost sharing under the outpatient PPS is generally higher than for other sectors, about 28 percent in 2007. Chart 8-10 provides more detail on coinsurance.

		Percent offering					
Year	Hospitals	Outpatient services	Outpatient surgery	Emergency services			
1991	5.191	92%	79%	91%			
1997	4,976	93	81	92			
2001	4,347	94	84	93			
2004	3,882	94	86	92			
2007	3,638	94	87	91			

### Chart 8-7. Most hospitals provide outpatient services

Note: Includes services provided or arranged by short-term hospitals. Excludes long-term, Christian Science, psychiatric, rehabilitation, children's, critical access, and alcohol/drug hospitals.

Source: Medicare Provider of Services files from CMS.

- The number of hospitals that furnish services under Medicare's outpatient prospective
  payment system has declined, largely due to growth in the number of hospitals converting to
  critical access hospital status, which allows payment on a cost basis. However, the percent
  of hospitals providing outpatient services and emergency services has remained stable, and
  the percent providing outpatient surgery has increased.
- Almost all hospitals in 2007 provide outpatient (94 percent) and emergency (91 percent) services. The vast majority (87 percent) provide outpatient surgery.
- The share of hospitals providing outpatient services did not change after the introduction of the outpatient prospective payment system in 2000.

# Chart 8-8. Payments and volume of services under the Medicare hospital outpatient PPS, by type of service, 2006



Note: PPS (prospective payment system). Payments include both program spending and beneficiary cost sharing but do not include transitional corridor payments (see Chart 8-11 for further information regarding transitional corridor payments). Services are grouped into evaluation and management, procedures, imaging, and tests, according to the Berenson-Eggers Type of Service classification developed by CMS. Pass-through drugs and separately paid drugs and blood products are classified by their payment status indicator. Percentages may not sum to 100 percent due to rounding.

Source: MedPAC analysis of the 100 percent special analytic file of outpatient PPS claims for 2006 from CMS.

- Hospitals provide many different types of services in their outpatient departments, including emergency and clinic visits, imaging and other diagnostic services, laboratory tests, and ambulatory surgery.
- The payments for services are distributed differently than volume. For example, procedures account for 47 percent of the payments, but 12 percent of the volume.
- Procedures (e.g., endoscopies, surgeries, skin and musculoskeletal procedures) account for the greatest share of payments on services (47 percent), followed by imaging services (24 percent), and evaluation and management (13 percent).
- In 2006, separately paid drugs and blood products accounted for 10 percent of payments.
- The volume of separately paid drugs and blood products grew substantially from 2005 to 2006. This is due primarily to radiologic contrast materials being separately paid in 2006, while being packaged with the associated imaging service in 2005.

APC title	Share of payments	Volume (thousands)	Payment rate
Total	46%		
All emergency visits	7	11,290	\$153
All clinic visits	4	15,768	63
Cataract procedures with IOL insert	3	631	1,388
Computerized axial tomography with contrast material	3	3,416	255
Diagnostic cardiac catheterization	3	409	2,163
Level I plain film except teeth	3	16,307	43
Lower gastrointestinal endoscopy	3	1,327	509
Computerized axial tomography and computerized angiography without contrast material	3	3,839	188
MRI and magnetic resonance angiography without contrast material followed by contrast material	2	899	506
MRI and magnetic resonance angiography without contrast material	2	1,229	349
Level II radiation therapy	1	2,731	131
Level I upper gastrointestinal procedures	1	897	480
Level III angiography and venography except extremity	1	287	1,215
Infusion therapy except chemotherapy	1	3,057	121
Computerized axial tomography and computerized angiography without contrast material followed by contrast material	1	907	304
Level II laparoscopy	1	117	2,562
IMRT treatment delivery	1	936	319
Level III nerve injections	1	810	358
Level III cardiac imaging	1	616	397
Non-coronary angioplasty or atherectomy*	1	115	2,515
Rituximab cancer treatment*	1	493	463
Hernia/Hydrocele procedures*	1	149	1,705
Average APC		411	81

## Chart 8-9. Hospital outpatient services with the highest Medicare expenditures, 2006

Note: APC (ambulatory payment classification), IOL (intraocular lens), IMRT (intensity-modulated radiation therapy). The payment rates for "All emergency visits" and "All clinic visits" are weighted averages of payment rates from three APCs. \* Did not appear on the list for 2005.

Source: MedPAC analysis of 100 percent analytic file of outpatient prospective payment system claims for calendar year 2006.

 Although the outpatient prospective payment system covers thousands of services, expenditures are concentrated in a handful of categories that have high volume, high payment rates, or both.

Chart 8-10. Medicare coinsurance rates, by type of hospital outpatient service, 2006



Note: Services were grouped into categories of evaluation and management, imaging, procedures, and tests according to the Berenson-Eggers Type of Service classification developed by CMS. Pass-through drugs and separately paid drugs and blood products are classified by their payment status indicators.

- Historically, beneficiary coinsurance payments for hospital outpatient services were based on hospital charges, while Medicare payments were based on hospital costs. As hospital charges grew faster than costs, coinsurance represented a large share of total payment over time.
- In adopting the outpatient prospective payment system, the Congress froze the dollar amounts for coinsurance. Consequently, beneficiaries' share of total payments will decline over time.
- The coinsurance rate is different for each service. Some services, such as imaging, have very high rates of coinsurance—35 percent. Other services, such as evaluation and management, have coinsurance rates of 23 percent.
- In 2006, the overall coinsurance rate was about 29 percent.
- The coinsurance rate for imaging dropped substantially from 2005 to 2006 because of a drop in the maximum allowed coinsurance rate from 45 percent to 40 percent and because many X-ray services had sharp declines in coinsurance.

Source: MedPAC analysis of 2006 outpatient prospective payment system claims that CMS used to set payment rates for 2008.

## Chart 8-11. Transitional corridor payments as a share of Medicare hospital outpatient payments, 2004–2006

2004		20	05	2006		
Hospital group	Number of hospitals	Share of payments from transitional corridors	Number of hospitals	Share of payments from transitional corridors	Number of hospitals	Share of payments from transitional corridors
All hospitals	3,495	0.8%	3,355	0.4%	3,260	0.3%
Urban Rural ≤ 100 beds Rural >100 beds	2,413 823 268	0.4 5.4 0.6	2,385 709 260	0.1 4.7 0.4	2,314 693 251	0.0 2.7 0.3
Major teaching Other teaching Nonteaching	283 770 2,441	0.8 0.3 1.3	279 753 2,323	0.0 0.1 0.9	272 723 2,264	0.0 0.0 0.5

Note: A small number of hospitals could not be classified due to missing data. Transitional corridor payments for most hospitals expired on December 31, 2003.

Source: MedPAC analysis of Medicare Cost Report files from CMS.

- When Medicare implemented the hospital outpatient prospective payment system (PPS) in 2000, Medicare moved from paying hospitals based on their costs to a fee schedule based on average (median) costs for all hospitals.
- Recognizing that some hospitals might receive lower payments under the outpatient PPS than they had under the earlier system, the Congress included a transition mechanism, called transitional corridor payments. The corridors were designed to make up part of the difference between payments that hospitals would have received under the old payment system and those under the new outpatient PPS. (To provide incentives for efficiency, Medicare did not compensate the full difference, except for rural hospitals with 100 or fewer beds, cancer hospitals, and children's hospitals.)
- Transitional corridor payments represented 0.8 percent of total outpatient PPS payments in 2004, declining to 0.4 percent in 2005, then to 0.3 percent in 2006. Transitional corridor payments expired for most hospitals on December 31, 2003. However, the payments continued for two more years—through December 31, 2005—for rural sole community hospitals and other rural hospitals with 100 or fewer beds. The Deficit Reduction Act of 2005 extended most of the transitional corridor payments for rural hospitals with 100 or fewer beds through December 31, 2008. In 2006, rural hospitals with 100 or fewer beds received 2.7 percent of their payments from transitional corridor payments.

Chart 8-12. Medicare hospital outpatient, inpatient, and overall Medicare margins, 2000–2006



Note: A margin is calculated as revenue minus costs, divided by revenue. Data are based on Medicare-allowable costs. Analysis excludes critical access hospitals. Overall Medicare margins cover the costs and payments of hospital inpatient, outpatient, psychiatric and rehabilitation (not paid under the prospective payment system), skilled nursing facilities, and home health services, as well as graduate medical education.

Source: MedPAC analysis of Medicare cost report data from CMS.

- Hospital outpatient margins vary. In 2006, while the aggregate margin was –11.0 percent, 25 percent of hospitals had margins of –21.6 percent or lower, and 25 percent had margins of –0.2 percent or higher.
- Given hospital accounting practices, margins for hospital outpatient services must be considered in the context of Medicare payments and hospital costs for the full range of services provided to Medicare beneficiaries. Hospitals allocate overhead to all services, so we generally consider costs and payments overall.
- The improvement in outpatient margins from 2000 to 2001 is consistent with policies implemented under the outpatient prospective payment system that increased payments. Margins declined from 2001 to 2003. This may reflect the decline in the number of drugs and devices eligible for pass-through payments. The margin improved in 2004 and 2005, which was fueled, at least in part, by many drugs becoming specified covered outpatient drugs. In 2004 and 2005, these drugs were paid on the basis of average wholesale price, which increased their payment rates. These additional payments were not budget neutral, so aggregate outpatient payments increased. The margin declined in 2006, reflecting a change that paid for these drugs on the basis of average sales price rather than average wholesale price.

### Chart 8-13. Number of Medicare-certified ASCs increased over 60 percent, 2000–2007

	2000	2001	2002	2003	2004	2005	2006	2007
Medicare payments (billions of dollars)	\$1.4	\$1.6	\$1.9	\$2.2	\$2.5	\$2.7	\$2.9	\$2.9
Number of centers	3,028	3,371	3,597	3,887	4,136	4,506	4,707	4,964
New centers	295	446	309	365	315	467	261	267
Exiting centers	53	103	83	75	66	97	60	10
Net percent growth in number								
of centers from previous year	8.7%	11.3%	6.7%	8.1%	6.4%	8.9%	4.5%	5.5%
Percent of all centers that are:								
For profit	94	94	95	95	96	96	96	96
Nonprofit	6	5	5	5	4	4	4	4
Urban	88	88	87	87	87	87	88	88
Rural	12	12	13	13	13	13	12	12

Note: ASC (ambulatory surgical center). Medicare payments include program spending and beneficiary cost sharing for ASC facility services. Payments for 2007 are preliminary and subject to change. Totals may not sum to 100 percent due to rounding.

Source: MedPAC analysis of provider of services files from CMS, 2000–2007. Payment data are from CMS, Office of the Actuary.

- Ambulatory surgical centers (ASCs) are entities that furnish outpatient surgical services not requiring an overnight stay. To receive payments from Medicare, ASCs must meet Medicare's conditions of coverage, which specify minimum facility standards.
- Most Medicare-certified ASCs are for-profit facilities and are located in urban areas.
- Medicare uses a new payment system for ASC services that is based on the hospital outpatient prospective payment system (PPS). ASC rates are less than hospital outpatient rates because of a budget neutrality requirement. In contrast to the old ASC system, which had only nine procedure groups, the new system has several hundred procedure groups. The new system will be phased in over four years.
- Total Medicare payments for ASC services increased by 11.4 percent per year, on average, from 2000 through 2007. Payments per beneficiary grew by 10.2 percent per year during this period. The 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. Spending growth was also slowed in 2007 by a provision in the Deficit Reduction Act of 2005, which capped the ASC rate for each service at the outpatient PPS rate.
- The number of Medicare-certified ASCs grew at an average annual rate of 7.3 percent from 2000 through 2007. Each year from 2000 through 2007, an average of 341 new Medicarecertified facilities entered the market, while an average of 68 closed or merged with other facilities.

## Chart 8-14. Medicare spending for imaging services, by type of service, 2006



Note: CT (computed tomography), MRI (magnetic resonance imaging). Imaging procedure includes cardiac catheterization and angiography. Medicare payments include program spending and beneficiary cost sharing for physician fee schedule imaging services. Totals may not sum to 100 percent due to rounding.

Source: MedPAC analysis of 100 percent physician/supplier procedure summary file from CMS, 2006.

- More than one-third of Medicare spending for imaging under the physician fee schedule is for computed tomography (CT) and magnetic resonance imaging (MRI) studies. Ultrasound services (echocardiography and other echography) account for one-quarter of imaging spending.
- Medicare spending for imaging services under the physician fee schedule nearly doubled between 2000 and 2006, from \$6.4 billion to \$12.3 billion. Spending for MRI, echocardiography, CT, and nuclear medicine has grown faster than for other imaging services. Thus, these categories account for a larger share of total imaging spending in 2006 than they did in 2000.

## Chart 8-15. Radiologists received about 40 percent of Medicare payments for imaging services, 2006



Note: IDTF (independent diagnostic testing facility). Medicare payments include program spending and beneficiary cost sharing for physician fee schedule imaging services. Total fee schedule imaging spending was \$12.3 billion in 2006. IDTFs are independent of a hospital and physician's office and provide only outpatient diagnostic services. Other medical includes family practice, general practice, neurology, rheumatology, pulmonary disease, hematology/oncology, and endocrinology. Other specialty includes otolaryngology, pain management, osteopathic, physical medicine, nephrology, podiatry, cardiac surgery, oncology, and portable X-ray suppliers.

Source: MedPAC analysis of 100 percent physician/supplier procedure summary file from CMS, 2006.

- Imaging services paid under the physician fee schedule involve two parts: the technical component, which covers the cost of the equipment, supplies, and nonphysician staff, and the professional component, which covers the physician's work in interpreting the study and writing a report. A physician who both performs and interprets the study submits a global bill, which includes the technical and professional components.
- Although radiologists received three-quarters of Medicare payments for professional component services in 2006, they accounted for much smaller shares of spending for global bills (32 percent) and technical component services (12 percent).
- Between 2002 and 2006, radiologists' share of total imaging payments declined by 2.2 percent per year while the shares for other providers increased. For example, other medical's share of payments grew by 3.2 percent per year, independent diagnostic testing facilities by 3.0 percent per year, and cardiology by 2.4 percent per year.

### Web links. Ambulatory care

### **Physicians**

• For more information on Medicare's payment system for physician services, see MedPAC's Payment Basics series.

http://medpac.gov/documents/MedPAC\_Payment\_Basics\_07\_Physician.pdf

• Chapter 2B of the MedPAC March 2008 Report to the Congress and Appendix A of the June 2008 Report to the Congress provide additional information on physician services.

http://www.medpac.gov/chapters/Mar08\_Ch02b.pdf http://www.medpac.gov/chapters/Jun08\_AppA.pdf

 MedPAC's congressionally mandated report, Assessing Alternatives to the Sustainable Growth Rate (SGR) System, examines the SGR and analyzes alternative mechanisms for controlling physician expenditures under Medicare.

http://www.medpac.gov/documents/Mar07\_SGR\_mandated\_report.pdf

 Congressional testimony by the Chairman and Executive Director of MedPAC discusses payment for physician services in the Medicare program. This includes:

Payments to selected fee-for-service providers (May 15, 2007) http://www.medpac.gov/documents/051507\_WandM\_Testimony\_MedPAC\_FFS.pdf

Options to improve Medicare's payments to physicians (May 10, 2007) http://www.medpac.gov/documents/051007\_Testimony\_MedPAC\_physician\_payment.pdf

Assessing alternatives to the Sustainable Growth Rate System (March 6, 2007) http://www.medpac.gov/documents/030607\_W\_M\_testimony\_SGR.pdf

Assessing alternatives to the Sustainable Growth Rate System (March 6, 2007) http://www.medpac.gov/documents/030607\_E\_C\_testimony\_SGR.pdf

Assessing alternatives to the Sustainable Growth Rate System (March 1, 2007) http://www.medpac.gov/documents/030107\_Finance\_testimony\_SGR.pdf

MedPAC recommendations on imaging services (July 18, 2006) http://medpac.gov/publications/congressional\_testimony/071806\_Testimony\_imaging.pdf

Medicare payment to physicians (July 25, 2006) http://www.medpac.gov/publications/congressional\_testimony/072506\_Testimony\_physician.pdf

 The 2008 Annual Report of the Boards of Trustees of the Hospital Insurance and Supplementary Medical Insurance Trust Funds provides details on historical and projected spending on physician services.

http://www.cms.hhs.gov/ReportsTrustFunds/downloads/tr2008.pdf

### **Hospital outpatient services**

• For more information on Medicare's payment system for hospital outpatient services, see MedPAC's Payment Basics series.

http://www.medpac.gov/documents/MEDPAC\_Payment\_Basics\_07\_opd.pdf

Section 2A of the MedPAC 2008 Report to the Congress provides information on the status of hospital
outpatient departments including supply, volume, profitability, and cost growth.

http://www.medpac.gov/chapters/Mar08\_Ch02a.pdf

• Section 2A of the MedPAC 2006 Report to the Congress provides information on the current status of "hold-harmless" payments and other special payments for rural hospitals.

http://www.medpac.gov/publications/congressional\_reports/Mar06\_Ch02a.pdf

• Chapter 3A of the MedPAC March 2004 Report to the Congress provides additional information on hospital outpatient services, including outlier and transitional corridor payments.

http://www.medpac.gov/publications/congressional\_reports/Mar04\_Ch3A.pdf

• More information on new technology and pass-through payments can be found in Chapter 4 of the MedPAC March 2003 Report to the Congress.

http://www.medpac.gov/publications/congressional\_reports/Mar03\_Ch4.pdf

### Ambulatory surgical centers

• For more information on Medicare's payment system for ambulatory surgical centers, see MedPAC's Payment Basics series.

http://medpac.gov/documents/MedPAC\_Payment\_Basics\_07\_ASC.pdf

Chapter 3F of the MedPAC March 2004 Report to the Congress provides additional information on ambulatory surgical centers.

http://www.medpac.gov/publications/congressional\_reports/Mar04\_Ch3F.pdf

# 9

### **Post-acute care**

SECTION

Skilled nursing facilities Home health agencies Long-term care hospitals Inpatient rehabilitation facilities

## Chart 9-1. Growth in post-acute care providers has moderated, but home health agencies continue to increase

	2000	2003	2006	2007	Average annual percent change 2000–2006	Percent change 2006–2007
Home health						
agencies	6,881	7,223	8,880	9,227	4.3%	3.9%
Long-term care hospitals	263	334	394	394	7.0	0.0
Inpatient rehabilitation facilities	1,117	1,211	1,224	1,202	1.5	-0.6
Skilled nursing facilities	14,777	14,876	15,008	15,060	0.3	0.3

Note: The skilled nursing facility count does not include swing beds.

Source: MedPAC analysis of data from Certification and Survey Provider Enhanced Reporting on CMS's Survey and Certification's Providing Data Quickly system for 1996–2007 and CMS Provider of Service data.

- Growth in the number of all post-acute care provider types moderated in 2006–2007. In all cases, the increase between 2006 and 2007 is lower than the recent average annual rate of growth.
- Since 2006, the number of home health agencies has grown 3.9 percent per year.
- The number of long-term care hospitals has increased, on average, 5.9 percent per year since 2000, although the number did not grow between 2006 and 2007.
- The number of inpatient rehabilitation facilities (both rehabilitation hospitals and rehabilitation units) grew 1.5 percent annually between 2000 and 2006 but declined slightly in the last year.
- The total supply of skilled nursing facilities has remained relatively constant since 2000, growing at an average of 0.3 percent per year. The number of hospital-based units declined nearly 6 percent per year on average, while freestanding facilities grew annually about 1 percent.

### Chart 9-2. Spending for post-acute care has risen in each setting between 2000 and 2007



Note: These numbers are program spending only and do not include beneficiary copayments. \*Estimated by CMS.

Source: Centers for Medicare & Medicaid Services, Office of the Actuary.

- Medicare has prospective payment systems (PPSs) for the four post-acute care settings. CMS implemented these PPSs at the following times: skilled nursing facilities, July 1998; home health agencies, October 2000; inpatient rehabilitation facilities, January 2002; and long-term care hospitals, October 2002. Although CMS intended to use these payment systems to control Medicare spending for post-acute care, spending has increased an average of 9 percent per year since 2000.
- From 2000 through 2007, Medicare spending for long-term care hospitals (LTCHs) increased the fastest—an average 14.7 percent per year. During the same period, spending for skilled nursing facilities increased an average 10.7 percent, spending for home health agencies increased an average 7.5 percent, and spending for inpatient rehabilitation facilities (IRFs) increased an average 4 percent per year. For 2007, CMS estimated that total spending for post-acute care was about \$45 billion.
- Post-acute care currently makes up about 15 percent of Medicare's fee-for-service spending. Spending during 2006–2007 moderated for all post-acute care services except home health care. During this same period, spending for IRFs and LTCHs declined.
- The 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.

	•	•			
PAC setting	Percent discharged from hospital to PAC setting	Percent rehospitalized after using PAC setting	Percent died in PAC setting	Percent discharged to a second PAC setting	Most common second PAC setting used
SNF	17.3%	22.0%	5.4%	29.3%	Home health
Home health	16.0	18.1	0.8	2.3	Hospice
Inpatient rehabilitation	on 3.2	9.4	0.4	56.8	Home health
Hospice	2.1	4.5	82.2	2.4	Home health
Long-term care hosp	bital 1.0	10.0	15.5	53.4	SNF
Inpatient psychiatric	0.5	8.7	0.4	25.4	SNF
Total	40.0	18.0	6.2	19.8	Home health

### Chart 9-3. Use of post-acute care after discharge from acute care hospitals, 2006

Note: PAC (post-acute care), SNF (skilled nursing facility). Use of home health care and hospice is based on care that starts within three days of discharge. Other PAC care starts within one day of discharge. Home health use includes episodes that overlap an inpatient stay.

Source: MedPAC analysis of 2006 claims files from CMS.

- Two out of five Medicare patients discharged alive from the hospital use post-acute care (PAC).
- Skilled nursing facilities are the most common PAC setting, used by 17 percent of beneficiaries after discharge, followed by home health care, which is used by 16 percent of beneficiaries. Close to half the beneficiaries that were using home health care after discharge (47 percent) were also using home health care before their admission to the hospital.
- A sizable share of SNF users (22 percent) and home health users (18 percent) are readmitted back to a hospital during their PAC episode. The rate of readmission back to the hospital is 10 percent or less for the other PAC settings.
- More than half of all inpatient rehabilitation facility (IRF) and long-term care hospital (LTCH) users go on to use a second PAC setting. The most common PAC setting used following IRF care is home health. The most common setting following LTCH care is the SNF. More than one-quarter of SNF patients are also discharged to a second PAC setting, the most common setting being home health care. The discharge destination of SNF patients can very greatly between hospital-based and freestanding facilities (see Chart 9-11).
- As would be expected, the vast majority of hospice patients die while in the hospice. A large share of long-term care hospital (LTCH) beneficiaries (15 percent) die while in a LTCH. The share of Medicare SNF patients that die in the SNF is 5 percent. Less than 1 percent of patients discharged to home health, inpatient rehabilitation, and inpatient psychiatric die during their PAC stay.

## Chart 9-4. Ten most common diagnoses among Medicare SNF patients accounted for more than a third of SNF admissions in 2005

Diagnosis code from hospital stay	Diagnosis	Share of SNF admissions
209	Maior ioint and limb reattachment of lower extremity	5.6%
089	Simple pneumonia and pleurisy age >17, with CC	5.3
127	Heart failure and shock	4.9
210	Hip and femur procedures except major joint age >17, with CC	3.8
014	Intracranial hemorrhage and stroke with infarction	3.6
416	Septicemia, age >17	3.6
320	Kidney and urinary tract infections age >17, with CC	3.2
296	Nutritional and miscellaneous metabolic disorders age >17, with CC	2.6
079	Respiratory infections and inflammations age >17, with CC	2.4
316	Renal failure	2.2
	Total	37.2

Note: SNF (skilled nursing facility), CC (complication or comorbidity). The diagnosis code from hospital stay is the discharge diagnosis related group.

Source: MedPAC analysis of DataPRO files from CMS, 2005.

- The most common diagnosis for a skilled nursing facility (SNF) admission in 2005 was a major joint and limb reattachment procedure of the lower extremity, typically a hip or knee replacement.
- Ten conditions accounted for about 37 percent of all admissions to SNFs in 2005.
- All SNFs (hospital-based and freestanding facilities, and nonprofit and for-profit facilities) had the same top 10 diagnoses, although the rank orderings of the top 4 conditions differed slightly by SNF type.

	2004	2005	2006	Change 2005–2006
SNF users (unique count)	1,580,288	1,670,411	1,673,284	0.2%
Total SNF volume				
Covered admissions	2,419,943	2,549,408	2,543,133	-0.2
Covered davs (in thousands)	62,364	66.002	67,143	1.7
Covered days per admission	25.8	25.9	26.4	1.9
Volume per 1,000 fee-for-service enr	ollees			
Covered admissions	67	70	72	2.9
Covered days	1,732	1,817	1,892	4.1

## Chart 9-5. SNF volume per fee-per-service enrollee continues to increase

Note: SNF (skilled nursing facility).

Source: Beneficiary counts from MedPAC analysis of MedPAR data. Days and admissions data from CMS, Office of Research, Development and Information.

- Between 2005 and 2006, admissions declined slightly and the number of days increased, resulting in longer average stays. However, during this period more beneficiaries participated in Medicare Advantage plans (whose volume is not included in the measures); therefore, admissions and days per fee-for-service enrollee increased.
- Some of the growth in fee-for-service admissions and days may reflect a shift in site of care from inpatient rehabilitation facilities (IRFs) to skilled nursing facilities (SNFs). Of the top 10 hospital diagnosis related groups (DRGs) with IRF destinations, the share of patients going to SNFs increased for 8 of the 10 DRGs between 2003 and 2006.

## Chart 9-6. A growing share of Medicare stays and payments go to freestanding and for-profit SNFs

	Facilities		Medicare-covered stays			Medicare payments			
Type of SNF	2004	2005	2006	2004	2005	2006	2004	2005	2006
Freestanding	91%	92%	92%	85%	87%	89%	92%	93%	94%
Hospital based	9	8	8	15	13	11	8	1	6
Urban	67	67	67	79	79	79	81	81	81
Rural	33	33	33	21	21	21	19	19	19
For profit	67	68	68	65	66	67	71	72	73
Nonprofit	28	28	28	31	30	29	25	25	24
Government	5	5	5	4	4	4	3	3	3

Note: SNF (skilled nursing facility). Totals may not sum to 100 due to rounding.

Source: MedPAC analysis of the Provider of Services and Medicare Provider Analysis and Review files from CMS.

- Freestanding skilled nursing facilities (SNFs) treated 89 percent of stays (up 4 percentage points from 2004) and accounted for 94 percent of Medicare payments (up 2 percentage points from 2004).
- For-profit SNFs' share of Medicare-covered stays and payments each increased 2 percentage points between 2004 and 2006.
- Urban SNFs' share of facilities, Medicare-covered stays, and payments each remained the same between 2004 and 2006.

Chart 9-7. Case mix in freestanding SNFs shifted toward extensive services plus rehabilitation RUGs



Note: SNF (skilled nursing facility), RUG (resource utilization group). The clinically complex category includes patients who are comatose; have burns, septicemia, pneumonia, internal bleeding, or dehydration; or receive dialysis or chemotherapy. The special care category includes patients with multiple sclerosis or cerebral palsy, those who receive respiratory services seven days per week, or are aphasic or tube fed. The extensive services category includes patients who have received intravenous medications or suctioning in the past 14 days, have required a ventilator or respiratory or tracheostomy care, or have received intravenous feeding within the past 7 days. Days are for freestanding skilled nursing facilities with valid cost reports.

Source: MedPAC analysis of freestanding SNF cost reports.

- The nine new rehabilitation plus extensive services resource utilization groups (RUGs) established in 2006 accounted for 26 percent of all freestanding skilled nursing facilities' (SNFs') RUG days in 2006.
- In 2005, rehabilitation RUGs accounted for 83 percent of freestanding SNFs' RUG days; in 2006 their share had declined to 60 percent. Rehabilitation and rehabilitation plus extensive service RUGs together accounted for 86 percent of all Medicare days in freestanding SNFs.

Chart 9-8. Rehabilitation stays in freestanding SNFs continue to shift toward high-intensity RUGs



Rehabilitation RUG categories

Note: SNF (skilled nursing facility), RUG (resource utilization group). Days are for freestanding SNFs with valid cost reports.

Source: MedPAC analysis of freestanding SNF cost reports.

- The distribution of rehabilitation days in freestanding skilled nursing facilities (SNFs) continued to shift toward the highest therapy groups. The ultra high and very high groups made up 59 percent of the rehabilitation-only days in 2006, up 7 percentage points from the previous year.
- The shifts toward higher intensity resource utilization groups (RUGs) could be a function of shifts in site of service from other settings or could reflect the payment incentives to furnish the services necessary to classify patients into higher paying rehabilitation RUGs.

### 10 percent for six years Type of SNF 2001 2002 2003 2004 2005 2006 All 17.6% 17.4% 10.8% 13.7% 12.9% 13.1% Urban 17.4 16.8 10.0 13.0 12.4 12.7 Rural 18.4 20.0 14.1 16.5 15.3 14.5 For profit 19.9 20.0 13.9 16.6 15.7 16.0 Nonprofit 10.1 9.0 1.5 4.2 4.3 3.1 Government\* 4.9 3.1 -7.1 -3.0 -5.0 -5.9

Freestanding SNF Medicare margins have exceeded

Note: SNF (skilled nursing facility). Margins are calculated as payments minus costs, divided by payments for each group. \* The results for government-owned providers are not necessarily comparable to other providers because they operate in a different context.

Source: MedPAC analysis of freestanding SNF cost reports.

Chart 9-9.

- Aggregate Medicare margins for freestanding skilled nursing facilities (SNFs) have exceeded 10 percent every year since 2001.
- Aggregate Medicare margins increased from 2005 to 2006 due to slower cost growth and higher payments for the nine new resource utilization groups (RUGs) (rehabilitation plus extensive services).
- Examining the distribution of the 2006 margin, one-half of freestanding SNFs had margins of 14.7 percent or more, while one-quarter had Medicare margins at or below 4 percent.
- Freestanding SNFs in the top quartile of 2006 Medicare margins had costs per day that were one-third lower, a higher average daily census, and longer stays compared with SNFs in the bottom margin quartile. SNFs in the top quartile also treated a smaller share of patients in the clinical complex, special care, and extensive services RUGs than SNFs in the bottom margin quartile.



Chart 9-10. Costs per day are higher in hospital-based SNFs

Note: SNF (skilled nursing facility). Costs include associated overhead and capital expenses. Costs were not standardized for wages or case-mix differences.

Source: Analysis of 2004 Medicare Provider Analysis and Review file and cost report data from CMS.

- Costs per day differ substantially between hospital-based and freestanding skilled nursing facilities (SNFs). Routine costs—which include room, board, and nursing costs—are more than twice as high in hospital-based SNFs (\$395) than in freestanding SNFs (\$176). Part of the difference in routine costs may be due to the higher staffing ratios and greater use of registered nurses and licensed practical nurses in hospital-based facilities.
- The average daily costs of therapy services, which are the second biggest category of SNF costs, are similar between hospital-based and freestanding facilities.
- Per diem drug costs are 26 percent higher in hospital-based SNFs (\$48) than in freestanding SNFs (\$38). This difference may be attributable to differences in patient mix, particularly for patients that might require high-cost intravenous medications.
- The average daily costs for other nontherapy ancillary services (supplies, lab, respiratory therapy, and other ancillary services) in total are four times as high in hospital-based SNFs (\$53) as in freestanding SNFs (\$13). The higher costs for the other nontherapy ancillary services may be due to differences in the complexity of some patients but also are likely due to easier access to these services and practice pattern differences in the hospital-based setting.

### Chart 9-11. Percent of SNF cases discharged to different postacute care settings, 2006



Note: SNF (skilled nursing facility). Subsequent use of a second post-acute care provider is determined using matched claims files for the different post-acute care services. Use of home health care and hospice is based on care that starts within 3 days of discharge from the SNF. Other PAC care starts within one day of discharge from the SNF. Discharge to a nursing home is based on the discharge destination field on the claim and not on a matched claim, and includes patients that end their Medicare covered SNF stay with the discharge designation "still a patient" and have no other Medicare post-acute care settings was 52.7 percent; total percent of cases discharged from freestanding SNFs to other post-acute care settings was 26.5 percent. Patient-level averages are shown.

Source: MedPAC analysis of 2006 claims files from CMS.

- Patients using hospital-based skilled nursing facilities (SNFs) are more likely to use another postacute care provider after discharge from the SNF than patients using freestanding SNFs. Overall, 9 percent of patients discharged from a hospital-based SNF are discharged to another SNF compared with fewer than 2 percent of patients using freestanding SNFs. Forty-one percent of patients from hospital-based SNFs are discharged to home health care, compared with 22 percent of patients discharged from freestanding SNFs.
- Compared to hospital-based SNFs, freestanding SNFs discharge more patients back to the hospital. Twenty-four percent of patients discharged to a freestanding SNF are readmitted to the hospital within 30 days, compared with 19 percent of inpatients discharged to a hospital-based SNF (not shown).
- Almost one-quarter of freestanding SNF patients continue receiving nursing home services after they have finished their Medicare-covered SNF stay either in the same facility or a different facility. This compares with just 7 percent of patients discharged from hospital-based SNFs. Some of these differences may reflect differences in patient selection rather than differences in practice patterns.



Chart 9-12. Spending for home health care, 1994–2007

Source: CMS, Office of the Actuary, 2008.

- Medicare home health care spending grew at an average annual rate of 20 percent from 1992 to 1997. During that period, the payment system was cost based. Eligibility had been loosened just before this period, and enforcing the program's standards became more difficult.
- Spending began to fall in 1997, concurrent with the introduction of the interim payment system (IPS) based upon costs with limits, tighter eligibility, and increased scrutiny from the Office of Inspector General.
- In October of 2000, the prospective payment system replaced the IPS. At the same time, eligibility for the benefit was broadened slightly. Enforcement of the Medicare program's integrity standards continues at the regional home health intermediaries and state survey and certification agencies.
- Home health has risen steadily under PPS. Spending has risen by 8.5 percent a year in 2001–2007. In 2003, payments declined slightly because of a payment adjustment required by the Balanced Budget Act of 1997, but in every other year in this period spending increased.
- Payments in 2006 grew at a lower rate because of a one-year freeze in payments and more beneficiaries opting to receive benefits from Medicare Advantage instead of Medicare fee-forservice. Despite these factors, spending still increased and the share of fee-for-service beneficiaries using home health increased slightly (see Chart 9-14).

	2002	2004	2006	Average annual percent change 2002–2006
Number of users (in millions)	2.5	2.8	2.9	4.0%
Percent of beneficiaries who				
used home health (percent)	7.1%	7.6%	8.1%	3.5
Episodes by type (in thousands)				
Less than 10 therapy visits	3,065	3,426	3,697	4.8
10 or more	951	1,229	1,426	10.6
Total	4,016	4,655	5,123	6.3
Episodes per user	1.62	1.68	1.76	2.1
Visits per user	31	31	34	2.5
Average payment per episode	\$2,317	\$2,361	\$2,569	2.6

### Chart 9-13. Trends in the provision of home health care

Source: MedPAC analysis of the home health Standard Analytic File.

- Under the prospective payment system (PPS), in effect since 2001, the number of users and the number of episodes has risen significantly. In 2006, almost 3 million beneficiaries used the home health benefit.
- The number of home health episodes increased rapidly from 2002 to 2006. The growth in episodes that were therapy intensive—those with 10 or more therapy visits—was more than double the growth rate of episodes that were not therapy intensive. The home health PPS in effect prior to 2008 provided a significant payment increase for these episodes.
- The number of episodes per user has increased since 2002, and as a result the growth in episodes has been greater than the growth in users of home health.

			Percent change		
	1997	2000	2006	1997 –2000	2000 –2006
Users (in millions)	3.6	2.5	2.9	-31	18
Number of visits (in millions)	258	91	98	-65	8
Visit type (percent of total)					
Home health aide	48%	31%	20%	-37	-34
Skilled nursing	41	49	53	20	7
Therapy	10	19	26	101	37
Medical social services	1	1	1	1	-27
Visits per user	73	37	34	-49	-8
Percent of fee-for-service beneficiaries who used home health	10.5%	7.4%	8.1%	-30.1	10.7

### Chart 9-14. The home health product changed after the prospective payment system started

Note: The prospective payment system began in October 2000.

Source: Home health Standard Analytic File; Health Care Financing Review, Medicare and Medicaid Statistical Supplement, 2002.

- The types and amount of home health care services that beneficiaries receive have changed. In 1997 home health aide services were the most frequently provided visit type, and beneficiaries who used home health received an average of 73 visits.
- CMS began to phase in the interim payment system in October of 1997 to stem the rise in spending for home health services (see Chart 9-12). By 2000, total visits had dropped by 65 percent, total users had dropped by 31 percent, and average visits per user had dropped to 37. The mix of services changed as well, with skilled nursing and therapy visits now accounting for about two-thirds of all services.
- Medicare shifted to a prospective payment system (PPS) in October of 2000. The PPS makes a single payment for all services provided in a 60-day episode, ending the per visit payment systems in effect for previous years. The number of beneficiaries using home health and total visits has increased under PPS. The growth in users has been more rapid than the growth in visits, and the number of average visits per user in 2006 is slightly below 2000.
- Under PPS the mix of visits has continued to shift toward therapy (physical therapy, occupational therapy, and speech pathology) and away from home health aide services. During 2000–2007, the payment system made substantially higher payments for episodes with 10 or more therapy visits.
- Concerns about the growth in therapy have led CMS to revise the payments for these services in 2008. The new system increases payment for therapy services more gradually than the previous approach, but it will still base payments on the amount of services provided and not the patient characteristics.

	2005	2006	Percent of agencies 2006
All	17.3%	15.4%	100%
Geography			
Urban	16.5	14.6	62
Rural	18.7	17.2	21
Mixed	14.1	14.3	17
Type of control			
For profit	19.2	17.4	77
Non profit	13.8	11.6	15
Government*	8.5	3.6	8
Volume quintile			
First	12.7	9.2	20
Second	13.5	11.0	20
Third	13.3	10.6	20
Fourth	17.4	15.4	20
Fifth	18.6	16.7	20

### Chart 9-15. Margins for freestanding home health agencies

Note: Analysis includes 4,290 agencies for 2005 and 4,078 agencies for 2006. \* The results for government-owned providers are not necessarily comparable to other providers because they operate in a different context.

Source: MedPAC analysis of 2005–2006 Cost Report files.

- In 2006, about 80 percent of agencies had positive margins. These estimated margins indicate that Medicare's payments are above the costs of providing services to Medicare beneficiaries, for both rural and urban home health agencies (HHAs).
- These margins are for freestanding HHAs, which composed about 85 percent of all HHAs in 2006. HHAs are also based in hospitals and other facilities.
- These margins are consistent with the historically high margins the home health industry has experienced under the PPS. The average margin in 2001–2006 was 16 percent, indicating that most agencies have been paid well in excess of cost under prospective payment.
# Chart 9-16. The top 15 LTC–DRGs made up more than 60 percent of cases in LTCHs in 2006

LTC-DRG	Description	Discharges	Percentage
475	Respiratory system diagnosis with ventilator support	15,698	12.1%
271	Skin ulcers	7,056	5.4
416	Septicemia age >17	6,676	5.1
87	Pulmonary edema and respiratory failure	6,540	5.0
79	Respiratory infections and inflammation age >17 with CC	6,061	4.7
466	Aftercare, without history of malignancy	4,835	3.7
89	Simple pneumonia and pleurisy age >17 with CC	4,717	3.6
249	Aftercare, musculoskeletal system and connective tissue	4,613	3.5
88	Chronic obstructive pulmonary disease	4,594	3.5
12	Degenerative nervous system disorders	4,193	3.2
263	Skin graft and/or debridement for skin ulcer with CC	3,921	3.0
127	Heart failure and shock	3,531	2.7
462	Rehabilitation	2,977	2.3
418	Postoperative and post-traumatic infections	2,663	2.0
316	Renal failure	2,500	1.9
	Top 15 LTC–DRGs	80,575	61.9
	Total	130,164	100.0

Note: LTC–DRG (long-term care diagnosis related group), LTCH (long-term care hospital), CC (complication or comorbidity). LTC–DRGs are the case-mix system for these facilities. Columns may not sum due to rounding.

Source: MedPAC analysis of MedPAR data from CMS.

- Long-term care hospitals (LTCHs) treat beneficiaries with diverse diagnoses. Five of the top 15 diagnoses in LTCHs are related to respiratory conditions.
- The most frequent diagnosis for LTCHs is respiratory system diagnosis with ventilator support. These beneficiaries make up 12 percent of all Medicare LTCH patients.

	7	TEFRA	Change 2001– 2002	PPS				Average annual	Change
	2001	2002		2003	2004	2005	2006	2003–2005	2005– 2006
Spending (in billions)	\$1.9	\$2.2	15.8	\$2.7	\$3.7	\$4.5	\$4.5	29.1	0.0
Cases	85,229	98,896	16.0%	110,396	121,955	134,003	130,164	10.2%	-2.9%
Cases per 10,000 FFS beneficiaries	25.1	28.3	12.7	30.8	33.6	36.6	36.5	9.0	-0.4
Spending per FFS beneficiary	\$56.0	\$63.0	12.5	\$75.4	\$101.9	\$123.0	\$126.1	27.7	2.5
Payment per case	\$22,009	\$22,486	2.2	\$24,758	\$30,059	\$33,658	\$34,859	16.6	3.4
Length of stay (in days)	31.3	30.7	-1.9	28.8	28.5	28.2	27.9	-1.0	-1.1

# Chart 9-17. Spending for long-term care hospital services increased rapidly under PPS

Note: PPS (prospective payment system), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982), FFS (fee for service). The growth in spending was slowed in 2006 by large increases in the number of Medicare Advantage enrollees, who are not included in these aggregate totals.

Source: MedPAC analysis of MedPAR data from CMS.

- From 2003 to 2005, Medicare spending for long-term care hospitals (LTCHs) increased about 29 percent per year. In 2006 spending for LTCHs was virtually the same as in 2005 (\$4.5 billion). However, because of growth in the number of beneficiaries enrolling in Medicare Advantage plans, Medicare spending per fee-for-service (FFS) beneficiary continued to rise, growing 2.5 percent between 2005 and 2006.
- The number of LTCH cases increased about 10 percent annually between 2003, when the prospective payment system was implemented, and 2005. Between 2005 and 2006, cases declined almost 3 percent; most of this was due to a drop in the number of FFS beneficiaries.

Chart 9-18. LTCHs' payments have risen faster than their costs under the PPS



Note: LTCH (long-term care hospital), PPS (prospective payment system), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982). Data are from consistent two-year cohorts of LTCHs.

Source: MedPAC analysis of cost reports from CMS.

- Under the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA) and before the prospective payment system (PPS) was implemented in fiscal year 2003, long-term care hospitals' (LTCHs') Medicare per case costs and payments changed at similar rates. Since the PPS, LTCHs' Medicare per case payments have increased much faster than their per case costs.
- These similarities and differences are reflected in LTCHs' Medicare margins, shown in Chart 9-19.

### under PPS TEFRA PPS 2002 Type of LTCH 2001 2003 2004 2005 2006 All LTCHs -1.6% -0.2% 5.4% 9.0% 11.9% 9.4% Freestanding -1.2 0.1 5.6 8.1 11.0 8.3 HWH -2.2 -0.5 5.1 9.8 12.7 10.5 Urban -1.6 -0.1 5.5 9.1 11.9 9.6 Rural -3.2 -1.61.3 5.0 11.3 2.9 Nonprofit 0.1 2.3 9.9 -1.8 6.6 5.7 For profit -1.4 -0.1 6.5 10.1 13.0 10.8 Government\* -4.8 -2.0 -2.5 0.4 -3.1 -1.7

### Chart 9-19. All types of LTCHs' Medicare margins increased under PPS

Note: LTCH (long-term care hospital), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982), PPS (prospective payment system), HWH (hospital within hospital).

\*Government-owned LTCHs are relatively few in number, have few Medicare patients, and operate under different budget and economic constraints than other LTCHs.

Source: MedPAC analysis of cost report data from CMS.

- Under the Tax Equity and Fiscal Responsibility Act of 1982 and before the long-term care hospital (LTCH) prospective payment system (PPS) was implemented, these facilities' Medicare margins were generally negative. Under PPS, margins increased rapidly, from 5.4 percent in 2003 to 11.9 percent in 2005. In 2006, margins declined to 9.4 percent.
- In 2006, urban LTCHs had much higher margins than their rural counterparts. For-profit LTCHs and hospitals within hospitals were also more likely than other types of LTCHs to have higher margins.

Impairment group description	Share of cases
Stroke	20.5%
Hip fracture	16.4
Major joint replacement	15.5
Debility	7.9
Neurological	7.5
Brain injury	6.4
Other orthopedic	5.5
Spinal cord injury	4.3
Cardiac	4.3
Other	11.7

# Chart 9-20. Most common types of cases in inpatient rehabilitation facilities, 2007

Note: Other includes conditions such as major medical trauma, amputations, and pain syndrome.

Source: MedPAC analysis of Inpatient Rehabilitation Facility–Patient Assessment Instrument data from CMS (January 1 through June 30, 2007).

- In 2007, the most frequent diagnosis for Medicare patients in inpatient rehabilitation facilities (IRFs) was stroke, representing just over 20 percent of cases, a significant change from 2004, when stroke represented 11.5 percent of cases.
- Major joint replacement represented 15.5 percent of IRF admissions, down from over 30 percent of cases in 2004, when major joint replacement was the most common IRF Medicare case type.

# Chart 9-21. The number of IRFs has remained generally stable under the PPS, but has declined in recent years

	TEFRA		Prosp	ective pay	ment syst	em		Average annual change	Average annual change
Type of IRF	2001	2002	2003	2004	2005	2006	2007	2002–2005	2005–2007
All IRFs	1,157	1,188	1,211	1,227	1,231	1,224	1,202	1.2%	-1.2%
Urban	971	988	1,001	1,009	1,000	969	953	0.4	-2.4
Rural	186	200	210	218	231	255	249	4.9	3.8
Freestanding	214	215	215	217	217	217	219	0.3	0.5
Hospital-based	943	973	996	1,010	1,014	1,007	983	1.4	-1.5
Nonprofit	733	755	765	772	765	757	740	0.4	-1.6
For profit	271	277	290	294	305	299	288	3.3	-2.8
Government	153	156	156	161	161	168	174	1.1	4.0

Note: IRF (inpatient rehabilitation facility), PPS (prospective payment system), TEFRA (Tax Equity and Fiscal Responsibility Act of 1983).

Source: MedPAC analysis of Provider of Service files from CMS.

- The number of inpatient rehabilitation facilities (IRFs) in 2007 declined slightly from the prior year.
- The number of rural IRFs grew at a higher rate than other types, perhaps fueled by the 20 percent rural payment adjustment under the prospective payment system. Critical access hospitals (CAHs)—generally rural providers—were also allowed to operate IRF units beginning in 2004.
- Small increases in the number of rural IRFs and for-profit IRFs slightly more than offset small declines in urban and non-profit facilities through 2006, but the number of most types of IRFs declined in 2007.
- These changes may reflect changes in IRFs' capacity predicated by the 75 percent rule.

### Chart 9-22. Prior trend in volume of IRF cases reversed between 2004 and 2006

	2002	2003	2004	2005	2006	Average annual change 2002–2004	Average annual change 2004–2006
Number of cases	439,631	478,723	496,695	449,321	404,255	6.3%	-9.8%
Medicare spending (in billions)	\$5.7	\$6.2	\$6.4	\$6.4	\$6.0	6.0	-3.2
Payment per case	\$11,152	\$12,952	\$13,275	\$14,248	\$15,354	9.1	7.5
Average length of stay (in days)	13.3	12.8	12.7	13.1	13.0	-2.3	1.2

Note: IRF (inpatient rehabilitation facility). Numbers of cases reflect Medicare fee-for-service utilization only.

Source: MedPAC analysis of MedPAR data from CMS.

- The number of Medicare admissions to inpatient rehabilitation facilities (IRFs) increased rapidly under the prospective payment system, rising to nearly 500,000 cases in 2004.
- The number of Medicare IRF admissions decreased by nearly 10 percent annually between 2004 and 2006, reflecting CMS's renewed enforcement of the 75% rule.
- Medicare payments per discharge increased by over 7 percent annually over this period, following average annual increases of 9 percent between 2002 and 2004.
- Overall Medicare spending on IRF services declined by about 6 percent from 2004 to 2006.
- Theses trends are not inconsistent with expectations under the more rigorously enforced 75
  percent rule, but may also reflect declining enrollment in fee-for-service Medicare as
  enrollment in Medicare Advantage plans has increased.

Chart 9-23 Per case payments for IRFs have risen faster than costs, post-PPS



Note: IRF (inpatient rehabilitation facility), PPS (prospective payment system), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982). Data are from consistent two-year cohorts of IRFs.

Source: MedPAC analysis of cost report data from CMS.

- Under the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA) and before the prospective payment system (PPS) was implemented in 2002, inpatient rehabilitation facilities' Medicare per case costs and payments increased at similar rates. Under PPS, IRFs' Medicare per case payments have increased much faster than their per case costs.
- These similarities and differences are reflected in IRFs' Medicare margins, shown in Chart 9-24.

	<u> </u>						
	TEF	RA			PPS		
	2000	2001	2002	2003	2004	2005	2006
All IRFs	1.3%	1.5%	11.0%	17.8%	16.2%	13.2%	12.4%
Hospital based Freestanding	1.3 1.2	1.4 1.4	6.4 18.5	14.9 23.0	12.0 24.3	9.4 20.5	9.5 17.9
Urban Rural	1.3 0.9	1.5 1.1	11.6 5.0	18.5 10.4	16.8 10.5	13.7 9.2	13.0 7.8
Nonprofit For profit Government*	1.5 0.9 1.1	1.6 1.3 1.4	6.8 18.8 2.4	14.5 24.3 10.2	12.7 24.1 9.1	10.0 19.5 8.2	10.7 16.6 6.2

# Chart 9-24. Inpatient rehabilitation facilities' Medicare margin by type, 2000–2006

Note: IRF (inpatient rehabilitation facility), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982), PPS (prospective payment system).

\* Margins reported for government providers are not necessarily comparable to other providers because they operate in a different context.

Source: MedPAC analysis of cost report data from CMS.

- From 2002 to 2003, the aggregate Medicare margin increased rapidly, from 11 percent to almost 18 percent. From 2003 to 2006, margins declined for all inpatient rehabilitation facility (IRF) types.
- Freestanding and for-profit IRFs had substantially higher margins than hospital-based and nonprofit IRFs, continuing a trend that began with implementation of the IRF prospective payment system.

### Web links. Post-acute care

### Skilled nursing facilities

 Chapter 2D of MedPAC's March 2008 Report to the Congress provides information about the supply, quality, service use, and Medicare margins for skilled nursing facilities. Chapter 7 of MedPAC's June 2008 Report to the Congress provides information about alternative designs for Medicare's prospective payment system that would more accurately pay providers for their SNF services. Medicare payment basics: Skilled nursing facility payment system provides a description of how Medicare pays for skilled nursing facility care.

http://www.medpac.gov/chapters/Jun08\_Ch07.pdf

http://www.medpac.gov/chapters/Mar08\_Ch02d.pdf

http://www.medpac.gov/documents/MedPAC\_Payment\_Basics\_07\_SNF.pdf

 The official Medicare website provides information on SNFs, including the payment system and other related issues.

http://www.cms.hhs.gov/SNFPPS/

### Home health services

 Chapter 2E of MedPAC's March 2008 Report to the Congress, Chapter 4 of MedPAC's June 2007 Report to the Congress, and Chapter 5 of MedPAC's June 2006 Report to the Congress provide information on home health services.

http://www.medpac.gov/chapters/Mar08\_Ch02e.pdf

http://www.medpac.gov/chapters/Jun07\_Ch04.pdf

http://www.medpac.gov/publications/congressional\_reports/Jun06\_Ch05.pdf

• The official Medicare website provides information on the quality of home health care, and additional information on new policies, statistics, and research, as well as information on home health spending and use of services.

http://www.cms.hhs.gov/HomeHealthPPS/

### Long-term care hospitals

 Chapter 2G of MedPAC's March 2008 Report to the Congress provides information on long-term care hospitals.

http://www.medpac.gov/chapters/Mar08\_Ch02g.pdf

 CMS also provides information on long-term care hospitals, including the long-term care hospital prospective payment system.

http://www.cms.hhs.gov/LongTermCareHospitalPPS/

### Inpatient rehabilitation facilities

• Chapter 2F of MedPAC's March 2008 Report to the Congress provides information on inpatient rehabilitation facilities.

http://www.medpac.gov/chapters/Mar08\_Ch02F.pdf

• CMS provides information on the inpatient rehabilitation facility prospective payment system.

http://www.cms.hhs.gov/InpatientRehabFacPPS/

# **Medicare Advantage** .....

# Chart 10-1. Access to MA plans available to all Medicare beneficiaries

		CCPs				
	HMO or local PPO	Regional PPO	Any CCP	PFFS	Any MA plan	Average plan offerings per county
2005	67%	N/A	67%	45%	84%	5
2006	80	87	98	80	100	12
2007	82	87	99	100	100	20
2008	85	87	99	100	100	35

Note: MA (Medicare Advantage), CCP (coordinated care plan), HMO (health maintenance organization), PPO (preferred provider organization), PFFS (private fee-for-service). These data do not include plans that have restricted enrollment or are not paid based on the MA plan bidding process. That is, special needs plans, cost-based plans, employer-only plans, and certain demonstration plans are excluded.

Source: MedPAC analysis of plan finder data from CMS.

- Local coordinated care plans (CCPs) are local preferred provider organizations (PPOs) and health maintenance organizations (HMOs), which have comprehensive provider networks and limit or discourage use of out-of-network providers. Local CCPs may choose which individual counties to serve. Regional CCPs (regional plans are required by statute to be PPOs) cover entire state-based regions and have networks that may be looser than the ones required of local PPOs. Regional PPOs were only available beginning in 2006. Another type of Medicare Advantage (MA) plan is a private fee-for-service (PFFS) plan. PFFS plans are not required to have networks and members may go to any willing Medicare provider.
- Local CCPs are available to 85 percent of Medicare beneficiaries in 2008—up from 67 percent in 2005. Regional PPOs are available to 87 percent of beneficiaries. Virtually all beneficiaries live in a county where MA PFFS plans are available in 2008—up from 45 percent in 2005. For the past three years, 100 percent of Medicare beneficiaries have had MA plans available, up from 84 percent in 2005.
- The number of plans from which beneficiaries may choose has increased. In 2008, beneficiaries can choose from an average of 35 plans operating in their counties, up from a choice of 20 plans in 2007 and 5 plans in 2005.

Chart 10-2. Access to zero-premium plans with MA drug coverage, 2006, 2007, and 2008



Note: MA (Medicare Advantage), HMO (health maintenance organization), PPO (preferred provider organization), PFFS (private fee-for-service).

Source: MedPAC analysis of bid and plan finder data from CMS.

- Across all plan types, in 2008 there is increased availability of "zero-premium" plans—plans with no premium payments other than the Medicare Part B premium. More beneficiaries can obtain an MA plan with Part D drug coverage (an MA–PD plan) for which the enrollee pays no premium for either the drug coverage or the coverage of Medicare Part A and Part B services. In 2008, 88 percent of Medicare beneficiaries have access to at least one MA–PD plan with no premium (beyond the Medicare Part B premium) for the combined coverage (and no premium for any non-Medicare-covered benefits included in the benefit package), compared with 73 percent in 2006 and 86 percent in 2007.
- Sixty-six percent of beneficiaries have zero-premium MA–PD HMOs available, while MA–PD PPOs without premiums are much less widely available. Particularly noteworthy is the increased availability of private fee-for-service (PFFS) plans offering zero premiums. In 2006, 25 percent of beneficiaries had access to a PFFS plan with no plan premium for Part C and Part D coverage—a figure that grew to 52 percent in 2008.
- In most cases, enrollees of MA plans continue paying their Medicare Part B premium, but some MA–PD plans use rebate dollars to reduce or eliminate their enrollees' Part B premium obligation.



Chart 10-3. Enrollment in MA plans, 1994–2008

• Medicare enrollment in private health plans paid on an at-risk capitated basis is at an alltime high at 9.4 million enrollees (21 percent of all Medicare beneficiaries). Enrollment rose rapidly throughout the 1990s, peaking at 6.4 million enrollees in 1999, and declined steadily to a low of 4.6 million enrollees in 2003.

Note: MA (Medicare Advantage).

Source: Medicare managed care contract (MMCC) reports and monthly summary reports, CMS.

# Chart 10-4. Enrollment in local coordinated care plans grew slower than in other major plan types

		Total enrollee (in thousands		
Plan type	July 2006	February 2007	February 2008	Percentage change 2007–2008
Local CCPs	5,480	6,065	6,830	13%
Regional PPOs	82	121	257	112
PFFS	774	1,328	2,057	55

Note: CCP (coordinated care plan), PPO (preferred provider organization), PFFS (private fee-for-service). Local CCPs include health maintenance organizations and local PPOs.

Source: CMS health plan monthly summary reports.

- Growth in enrollment in local coordinated care plans (CCPs) was slower than growth in regional preferred provider organizations (PPOs) or private fee-for-service (PFFS) plans over the past year. Combined enrollment in the three types of plans grew by 22 percent from February 2007 to February 2008.
- While still the dominant form of enrollment, local CCP enrollment grew 13 percent over the past year, while enrollment in regional PPOs grew by 112 percent and PFFS enrollment grew by 55 percent.
- Almost half of the growth in regional PPOs from February 2007 to February 2008 can be attributed to regional special needs plans (SNPs). As of February 2008, 30 percent of regional PPO enrollees are enrolled in SNPs.

	Medicare eligibles		Distribution (in percent) of MA enrollees by plan type						
State	(in thousands)	HMO	Local PPO	Regional PPO	PFFS	Cost	Total		
Alabama	787	11%	3%	0%	3%	0%	16%		
Alaska	57	0	0	0	0	0	1		
Arizona	821	31	1	1	4	Ő	37		
Arkansas	495	2	0	2	7	0	11		
California	4 360	32	0	<u> </u>	1	0	34		
California	4,300	32	1	0	1	0	24		
Colorado	530	23	1	0	4	4	32		
Connecticut	530	11	1	0	1	0	13		
Delaware	135	1	0	0	2	0	3		
District of Columbia	74	1	0	0	1	6	9		
Florida	3,099	22	1	2	2	0	27		
Georgia	1,108	2	1	2	7	0	12		
Hawaii	189	12	2	1	1	20	37		
Idaho	206	9	3	0	11	1	24		
Illinois	1,739	4	1	0	3	0	9		
Indiana	939	0	1	1	8	2	12		
lowa	499	1	0	1	7	1	11		
Kansas	410	2	2	0	4	1	9		
Kentucky	709	3	1	1	8	1	13		
Louisiana	637	15	0	0	4	0	20		
Maine	246	1	1	0	3	0	5		
Maryland	723	3	1	0 0	1	2	7		
Massachusetts	996	14	1	Ő	3	0	18		
Michigan	1 536	14	0	0	16	0	20		
Minnosota	730	11	0	2	10	11	20		
Minnesota	100	1	0	2	9	0	55		
Mississippi	408	11	0	0	0	0	10		
Missouri	944	11	2		4	0	10		
Montana	150	0	1	0	12	0	14		
Nebraska	267	3	0	1	6	1	11		
Nevada	316	28	0	1	2	0	31		
New Hampshire	198	0	0	0	4	0	4		
New Jersey	1,257	9	1	0	0	0	10		
New Mexico	284	16	3	0	3	0	23		
New York	2,832	22	2	0	1	0	26		
North Carolina	1,351	7	0	0	9	0	16		
North Dakota	105	0	0	0	6	1	7		
Ohio	1,800	12	1	1	10	1	25		
Oklahoma	561	9	1	0	3	0	13		
Oregon	565	23	13	0	4	1	40		
Pennsylvania	2 176	26	4	0	3	0	34		
Puerto Rico	605	54	6	0 0	0	Ő	60		
Rhode Island	175	34	1	0	1	0	36		
South Carolina	602	1	0	3	9	0	12		
South Dakota	120	3	0	1	1	0	0		
	129	14	0	0	4	0	30		
Termessee	970	14	0	0	5	0	20		
Texas	2,692	11	1	1	3	1	17		
Utan	253	3	9	0	13	1	26		
Vermont	102	0	0	0	2	0	3		
Virginia	1,042	1	0	0	9	1	11		
Washington	870	14	2	0	5	0	22		
West Virginia	366	1	2	0	14	4	22		
Wisconsin	854	6	1	0	14	1	23		
Wyoming	74	0	0	0	3	1	5		
U.S. Total	43,688	14	1	1	5	1	22		

### Chart 10-5. MA enrollment by state and type of plan, 2008

Note: MA (Medicare Advantage), HMO (health maintenance organization), PPO (preferred provider organization), PFFS (private fee-forservice). Totals may not sum due to rounding.

Source: CMS enrollment and population data, 2008.

Medicare private plans attract more beneficiaries in some areas than in others. At the state level, private plans
attract only 1 percent of beneficiaries in Alaska. The highest penetrations of Medicare private plans are in Oregon
and Puerto Rico, with 40 percent and 60 percent of beneficiaries, respectively, enrolled in plans.

• The popularity of different types of plans varies as well. For example, some states have all their plan enrollment in private fee-for-service (PFFS) plans, while other states have none of their enrollment in PFFS plans.

# Chart 10-6. Different requirements and provisions apply to different types of MA plans

	PFFS	MSA	HMO/Local PPO	Regional PPO	SNP
Must build networks of providers			$\checkmark$	$\checkmark$	$\checkmark$
Must report quality measures			$\checkmark$	$\checkmark$	$\checkmark$
Must have CMS review and approve bids and premiums			$\checkmark$	$\checkmark$	$\checkmark$
Must return to the Trust Funds 25 percent of the difference between bid and benchmark	√		$\checkmark$	✓	V
Must offer individual MA plan if offering employer group plan*			$\checkmark$	$\checkmark$	✓
Must offer Part D coverage			$\checkmark$	$\checkmark$	$\checkmark$
Must have an out-of-pocket limit on enrollee expenditures		✓		$\checkmark$	
Can limit enrollment to targeted beneficiaries					$\checkmark$

Note: MA (Medicare Advantage), PFFS (private fee-for-service), MSA (medical savings account), HMO (health maintenance organization), PPO (preferred provider organization), SNP (special needs plan). \*Effective as of 2008 contract year; requirement does not apply to PFFS and MSA plans.

Source: MedPAC analysis of MA statutory and regulatory requirements.

- Different requirements apply to different plan types in Medicare Advantage (MA). Private fee-forservice (PFFS) plans and medical savings account (MSA) plans are exempt from many requirements that apply to coordinated care plans (CCPs). PFFS and MSA plans are not required to build networks, report on all CCP-required quality measures, offer the Part D drug benefit, or have the level of their premiums approved by CMS. Also, beginning in 2008, nonnetwork PFFS plans and MSA plans will not be subject to the requirement that they offer nongroup MA plans if they offer employer group MA plans.
- MSA plans have a payment advantage over other types of MA plans (though currently only three MSA plans are in operation). When an MSA plan bids below the benchmark, its enrollees retain the full difference in their accounts, while non-MSA plans receive only 75 percent of the difference between the bid and benchmark to provide extra benefits to their enrollees. In non-MSA plans, the Medicare program retains the other 25 percent of the difference.
- Only regional preferred provider organizations and MSA plans are required to have benefit structures that include an out-of-pocket limit on enrollee expenditures. The plans are allowed to determine their own level of the out-of-pocket limits. Special needs plans are allowed to limit their enrollment to one of three special populations: Medicare/Medicaid dual eligibles, institutionalized beneficiaries, and beneficiaries with chronic or disabling conditions.

# Chart 10-7. MA plan benchmarks, bids, and Medicare program payments relative to FFS spending, 2008

	All Plans	HMOs	Local PPOs	Regional PPOs	PFFS
Benchmarks/FFS	118%	117%	122%	115%	120%
Bids/FFS	101	99	108	103	108
Payments/FFS	113	112	119	112	117

Note: MA (Medicare Advantage), FFS (fee-for-service), HMO (health maintenance organization), PPO (preferred provider organization), PFFS (private fee-for-service).

Source: MedPAC analysis of plan bid data from CMS, November 2007.

- Since 2006, plan bids have partially determined the Medicare payments they receive. Plans bid to offer Part A and Part B coverage to Medicare beneficiaries (Part D coverage is handled separately). The bid includes plan administrative cost and profit. CMS bases the Medicare payment for a private plan on the relationship between its bid and its applicable benchmark.
- The benchmark is an administratively determined bidding target. Legislation in 1997 established benchmarks in each county, which included a floor—a minimum amount below which no county benchmarks could go. By design, the floor rate exceeded fee-for-service (FFS) spending in many counties. Benchmarks are updated yearly by the national growth in FFS spending.
- If a plan's bid is above the benchmark, then the plan receives the benchmark as payment from Medicare and enrollees have to pay an additional premium that equals the difference. If a plan's bid is below the benchmark, the plan receives its bid, plus a "rebate," defined by law as 75 percent of the difference between the plan's bid and its benchmark. The plan must then return the rebate to its enrollees in the form of supplemental benefits, lower cost sharing, or lower premiums.
- We estimate that Medicare Advantage (MA) benchmarks average 118 percent of FFS spending when weighted by MA enrollment. The ratio varies by plan type, because different types of plans tend to draw enrollment from different types of areas.
- Plans' enrollment-weighted bids average 101 percent of FFS spending. We estimate that HMOs bid an average of 99 percent of FFS spending, while bids from other plan types average at least 103 percent of FFS spending. These numbers suggest that HMOs can provide the same services for less than FFS, while other plan types tend to charge more.
- We project that 2008 MA payments will be 113 percent of FFS spending. That means that in 2008 the Medicare program is paying about \$10 billion more for the 21 percent of beneficiaries enrolled in MA plans than if they remained in FFS Medicare.
- The ratio of payments relative to FFS spending varies by the type of MA plan. HMOs and regional preferred provider organization (PPO) payments are estimated to be 112 percent of FFS, while payments to PFFS and local PPOs will average at least 117 percent.



Chart 10-8. Enrollment in employer group MA plans, 2006–2008

Note: MA (Medicare Advantage), CCP (coordinated care plans), PFFS (private fee-for-service).

Source: CMS enrollment data.

- While most Medicare Advantage (MA) plans are available to any Medicare beneficiary, some MA plans are available only to retirees whose Medicare coverage is supplemented by their former employer or union. These plans are called employer group plans. Such plans are usually offered through insurers and are marketed to groups formed by employers or unions rather than to individual beneficiaries.
- In the last 2 years, enrollment in employer group plans has grown by more than 60 percent, while overall MA enrollment grew by about 20 percent. As of February 2008, there were about 1.55 million enrollees in employer group plans compared with about 7.5 million enrollees in individual MA plans. Thus, about 17 percent of all enrollees in MA plans were employer group enrollees.
- As in the individual MA market, the growth has been concentrated in private fee-for-service (PFFS) plans. Over 80 percent of the growth in employer group enrollment over the past two years, and virtually all of the growth over the past year, has come from private fee-for-service enrollment. There are now more than half-a-million enrollees in employer group PFFS plans. PFFS plans now have about one-third of the enrollment in the MA employer group market, and employer group enrollment is now about a quarter of all PFFS enrollment.
- Our analysis of MA bid data shows that employer group plans on average have bids that are higher relative to fee-for-service (FFS) spending than individual plans, meaning that group plans appear less efficient than individual market MA plans. Employer group plans bid an average of 109 percent of FFS, compared with 99 percent of FFS for individual plans.
- We estimate that Medicare pays employer group plans 116 percent of average FFS Medicare spending, compared with 113 percent of FFS for individual market MA plans.



Chart 10-9. Special needs plans have grown quickly

Source: CMS special needs plans fact sheet and data summary, February 14, 2006 and CMS special needs plans comprehensive reports, March 21, 2007, and April 2008.

- The Congress created special needs plans (SNPs) as a new Medicare Advantage (MA) plan type in the 2003 Medicare Prescription Drug, Improvement, and Modernization Act to provide a common framework for the existing plans serving special needs beneficiaries and to expand beneficiaries' access to and choice among MA plans.
- In 2008, there are 769 SNPs, a 62 percent increase over 2007 and a 179 percent increase over 2006.
- SNPs were originally authorized for five years. The Medicare, Medicaid, and SCHIP Extension Act of 2007 extended SNP authority for an additional year while placing a moratorium on new plans and service area expansions for existing plans. Absent additional congressional action, SNP authority will expire at the end of 2009.

# Chart 10-10. The number of SNPs and SNP enrollment increased from 2007 to 2008



Note: SNP (special needs plan).

Source: CMS special needs plans comprehensive reports, March 21, 2007, and April 2008.

- In 2008, most special needs plans (SNPs) (57 percent) are for dual-eligible beneficiaries, while 31 percent are for beneficiaries with chronic conditions, and 12 percent are for beneficiaries who reside in institutions (or reside in the community but have a similar level of need).
- This is a change from 2007 when 67 percent of SNPs were for dual eligibles.
- Enrollment in SNPs has grown quickly from 843,000 in March 2007 to 1,147,000 in April 2008, a 36 percent increase.
- The rate of enrollment growth was especially rapid for chronic condition SNPs (55 percent). (For more information, see Chapter 3 of MedPAC's March 2008 Report to the Congress at http://medpac.gov/chapters/Mar08\_Ch03.pdf.)
- Most beneficiaries (95 percent) live in an area served by a SNP. Eighty-nine percent of beneficiaries live in an area served by a chronic condition SNP, 77 percent in areas with dual-eligible SNPs, and 54 percent in areas with institutional SNPs.

### Web links. Medicare Advantage

 Chapter 3 of MedPAC's March 2008 Report to the Congress provides information on Medicare Advantage plans.

http://medpac.gov/chapters/Mar08\_Ch03.pdf

• Chapter 3 of MedPAC's June 2007 Report to the Congress provides information on Medicare Advantage plans.

http://medpac.gov/chapters/Jun07\_Ch03.pdf

 More information on the Medicare Advantage program payment system can be found in MedPAC's Medicare Payment Basics series.

http://www.medpac.gov/documents/MedPAC\_Payment\_Basics\_07\_MA.pdf

• CMS provides information on Medicare Advantage and other Medicare managed care plans.

http://www.cms.hhs.gov/HealthPlansGenInfo/

• The official Medicare website provides information on plans available in specific areas and the benefits they offer.

http://www.medicare.gov/Default.asp





### Chart 11-1. Medicare spending for Part B drugs

Source: MedPAC analysis of unpublished CMS data.

- MedPAC estimates that spending for Part B drugs totaled \$10.6 billion in 2006.
- Medicare spending on Part B drugs increased at an average rate of 25 percent per year from 1997 to 2003. Since then the rate has moderated. In 2005, spending declined by 7.8 percent compared with 2004. Spending increased 4.7 percent in 2006 but remained below 2004 levels.
- 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 and pass-through drugs provided in hospital outpatient departments equaled about \$3 billion in 2006. We estimate that freestanding and hospital-based dialysis facilities billed Medicare an additional \$2.8 billion for drugs.
- In 2005, the Medicare payment rate changed from one based on the average wholesale price to 106 percent of the average sales price.

# Chart 11-2. Top 10 drugs covered by Medicare Part B, by share of expenditures, 2006

Drug name	Clinical indications	Competition	Percent of spending	Rank in 2005
Darbepoetin alfa	Anemia	Sole source	10.6%	1
Rituximab	Non-Hodgkin's lymphoma	Sole source	6.9	3
Non-ESRD erythropoietin	Anemia	Multisource biological	6.4	2
Infliximab	Rheumatoid arthritis, Crohn's disease	Sole source	5.6	4
Pegfilgrastim	Cancer	Sole source	5.1	5
Bevacizumab	Cancer	Sole source	4.3	6
Levalbuterol	Asthma and other lung conditions	Sole source	3.5	not on list
Unclassified drugs	N/A		3.1	N/A
Oxaliplatin	Cancer	Sole source	2.9	9
Docetaxel	Cancer	Sole source	2.6	not on list

Note: ESRD (end-stage renal disease), N/A (not applicable). This chart has been updated since the printed version of this data book was published.

Source: MedPAC analysis of 2005 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 51 percent of all Part B drug spending.
- Spending for new drugs dominates the list. Of the top nine listed drugs covered by Medicare in 2006, eight received Food and Drug Administration approval in 1997 or later. Drugs too new to have their own codes (unclassified drugs) accounted for 3 percent of all Part B drug spending.
- Treatment for cancer dominates the list—seven out of the top nine listed drugs treat cancer or the side effects associated with chemotherapy. This is because most cancer drugs must be administered by physicians, a requirement for coverage of most Part B drugs.

	Millions as of January 16, 2008	Percent of all eligible Medicare beneficiaries
Enrollment that leads to Medicare program spending: Beneficiaries receiving LIS*	0.0	4.40/
Full dual eligibles	6.2	14%
MSP and SSI recipients	1.7	4
Other individuals determined eligible by SSA	1.5	3
Other enrollees in stand-alone PDPs (excluding LIS)	9.5	21
Other enrollees in MA–PDs (excluding LIS)	6.6	15
Individuals covered by Medicare RDS	<u>6.7</u>	<u>15</u>
Subtotal	32.1	73
Enrollment that does not lead to Medicare program spendin	a:	
FEHB, TRICARE, VA, and active workers	<u>5.5</u>	<u>12</u>
Total	37.5	85
Additional sources of creditable coverage**	~2	5

# Chart 11-3. Part D enrollment and other sources of drug coverage

Note: LIS (low-income subsidy), MSP (Medicare Savings Program), SSI (Supplemental Security Income), SSA (Social Security Administration), 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. Columns may not sum due to rounding.

\* Includes approximately 7.9 million PDP enrollees and 1.5 million MA-PD enrollees.

\*\* Drug coverage of equal or greater value to Part D benefits through other sources such as state pharmaceutical assistance programs.

Source: CMS Management Information Integrated Repository.

- As of January 2008, CMS estimated that 32.1 million of the 44 million Medicare beneficiaries (73 percent) were either signed up for Part D plans or had prescription drug coverage through employer-sponsored coverage 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 or greater in value to 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 9.4 million beneficiaries (21 percent) receive extra help with premiums and cost sharing through Part D's low-income subsidies (LISs). Of these individuals, 6.2 million are dually eligible to receive Medicare and all Medicaid benefits offered in their state. Another 3.2 million qualified for extra help either because they receive benefits through the Medicare Savings Program or Supplemental Security Income Program, or they were determined eligible by the Social Security Administration after applying directly to that agency. Among all LIS beneficiaries, about 7.9 million (18 percent) are enrolled in stand-alone prescription drug plans (PDPs) and 1.5 million (3 percent) are in Medicare Advantage–Prescription Drug plans (MA–PDs).
- Other enrollees in stand-alone PDPs numbered 9.5 million, or 21 percent of all Medicare beneficiaries. Another 6.6 million enrollees (15 percent) are in MA–PDs. Individuals whose employers receive Medicare's RDS numbered 6.7 million, or 15 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, 5.5 million beneficiaries (12 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 2 million individuals
  have other sources of creditable coverage.

# Chart 11-4. Defined standard benefit parameters increase over time

	2006	2007	2008
Deductible	\$250.00	\$265.00	275.00
Initial coverage limit	2,250.00	2,400.00	2,510.00
True out-of-pocket spending limit	3,600.00	3,850.00	4,050.00
Total covered drug spending at true out-of-pocket limit	5,100.00	5,451.25	5,726.25
Minimum cost sharing above true out-of-pocket limit			
Copay for generic/preferred multisource drug prescription	2.00	2.15	2.25
Copay for other prescription drugs	5.00	5.35	5.60

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 true out-of-pocket limit. "True out of pocket" refers to the fact that cost sharing paid by most sources of supplemental coverage does not count toward this limit. The enrollee pays nominal cost sharing above the limit.

Source: CMS 2007. Notification of changes in Part D payment for calendar year 2008. CMS 2006. Medicare Part D benefits parameters for standard benefit: Annual adjustments for 2007.

- The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 specified a defined standard benefit structure for 2006 that included a \$250 deductible, 25 percent coinsurance on covered drugs until the enrollee reaches \$2,250 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 their true out-of-pocket spending reaches \$3,600. ("True out of pocket" refers to the fact that cost sharing paid by many sources of supplemental coverage does not count toward this \$3,600 out-of-pocket spending limit.) A person with no other source of drug coverage that supplements Part D would reach this \$3,600 true out-of-pocket limit at \$5,100 in total drug spending (i.e., the combination of the enrollee's spending plus spending that the Part D plan covered). Enrollees with drug spending even higher than that amount would pay just \$2 to \$5 per prescription.
- 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. Benefit parameters for 2006, 2007, and 2008 are shown in the chart above.
- 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.

	2007				2008	
	Plans		Enrollees <sup>a</sup>		Plans	
	Number	Percent	Number (in millions)	Percent	Number	Percent
Totals	1,866	100%	16.1	100%	1,824	100%
Type of organization National <sup>b</sup> Near-national <sup>c</sup> Other	1,507 149 210	80 8 11	13.9 0.6 1.7	86 4 10	1,589 0 235	87 0 13
Type of benefit Defined standard Actuarially equivalent <sup>o</sup> Enhanced	219 760 887	12 41 48	2.9 9.9 3.3	18 61 20	217 682 925	12 37 51
Type of deductible Zero Reduced Defined standard <sup>e</sup>	1,127 157 582	60 8 31	8.6 0.5 7.0	54 3 43	1,065 150 609	58 8 33
Drugs covered in the gap Some generics but no brand name drugs Some generics and so	511 me	27	1.3	8	528	29
brand name drugs None	27 1,328	1 71	0.1 14.7	1 91	1 1,295	<0.5 71

### Chart 11-5. Characteristics of Medicare PDPs

Note: PDP (prescription drug plan). The PDPs and enrollment described here exclude employer-only plans and plans offered in U.S. territories. Sums of percentage may not add to totals due to rounding.

<sup>a</sup> Number of enrollees as of July 2007.

<sup>b</sup> Reflects total numbers of plans for the 17 organizations with at least one PDP in all 34 PDP regions.

<sup>c</sup> Totals for organizations offering 30 or more PDPs across the country, but without one in each PDP region.

<sup>d</sup> Benefits labeled actuarially equivalent to Part D's standard benefit include what CMS calls "actuarially equivalent standard" and "basic alternative" benefits.

<sup>e</sup> \$265 in 2007 and \$275 in 2008.

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

- Part D drew about the same number of stand-alone prescription drug plans (PDPs) into the field for 2008 as in 2007. Plan sponsors are offering 1,824 PDPs in 2008 compared with 1,866 in 2007.
- In 2008, 87 percent of all PDPs were offered by sponsoring organizations that had at least one PDP in each of the 34 PDP regions across the country. In 2007, plans offered by those national sponsors accounted for 86 percent of all PDP enrollment.
- Sponsors are offering a slightly larger proportion of PDPs with enhanced benefits (basic plus supplemental coverage) for 2008 and a slightly smaller proportion of benefits with the same average value as the standard benefit but with alternative benefit designs (called actuarially equivalent benefits).
- About the same proportion of PDPs include some benefits in the coverage gap for 2008 as in 2007. Nearly all
  plans with some gap coverage limit that coverage to generic drugs; 29 percent offer generics only while 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 2007, 91 percent of PDP enrollees were in plans that offered no additional benefits in the coverage gap; just under half were 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 91 percent. In addition, many enrollees were unlikely to exceed the initial coverage limit for drug spending.

	2007 enrollment in millions	Average 2007 premium weighted by 2007 enrollment	Estimated average 2008 premium*	Difference between 2007 and 2008 average premium	Percentage change in weighted average premium
PDPs					
Basic coverage	12.8	\$24.05	\$28.32	\$4.27	18%
Enhanced coverage	3.3	40.42	45.43	5.01	12
Any coverage	16.1	27.39	31.81	4.42	16
MA–PDs**					
Basic coverage	1.0	16.86	20.72	3.86	23
Enhanced coverage	4.0	8.68	10.51	1.83	21
Any coverage	5.0	10.35	12.59	2.24	22
All plans					
Basic coverage	13.8	23.52	28.15	4.63	20
Enhanced coverage	7.3	23.09	25.61	2.52	11
Any coverage	21.1	23.37	27.28	3.91	17

### Chart 11-6. Average Part D premiums

Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]). The PDPs and enrollment described here exclude employer-only plans and plans offered in U.S. territories. The MA–PDs and enrollment described here exclude employer-only plans and plans offered in U.S. territories, 1876 cost plans, special needs plans, demonstrations, and Part B-only plans.

\*Premiums are the weighted average using July 2007 enrollment. New plans entrants are credited with no enrollment. Almost 99 percent of July 2007 PDP enrollees and about 96 percent of MA–PD enrollees that were in the scope of our analysis were in 2007 plans that could be matched to 2008 plans. Note that some beneficiaries chose to enroll in a different plan or were automatically reassigned to a different plan for 2008.

\*\*Reflects the portion of MA 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. Note that lower average premiums for enhanced MA–PD plans reflect a different mix of sponsoring organizations and counties of operation than MA–PDs with basic coverage.

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

- On average, Part D enrollees pay \$27 per month in 2008, up nearly \$4 or 17 percent from 2007.
- The average PDP enrollee pays about \$32 per month, compared with \$27 in 2007—a 16 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 increased for 2008, with the average MA–PD enrollee paying nearly \$13 per month compared with \$10 in 2007 (22 percent higher).

	2007				2008	
	Plans		Enrollees <sup>a</sup>		Plans	
	Number	Percent	Number (in millions)	Percent	Number	Percent
Totals	1,622	100%	5.0	100%	1,932	100%
Type of organization Local HMO Local PPO PFFS Regional PPO	947 274 367 34	58 17 23 2	3.7 0.3 0.8 0.1	75 7 16 2	1,025 353 520 34	53 18 27 2
Type of benefit Defined standard Actuarially equivalent <sup>b</sup> Enhanced	84 321 1,217	5 20 75	0.1 1.0 4.0	1 19 80	79 132 1,721	4 7 89
Type of deductible Zero Reduced Defined standard <sup>c</sup>	1,461 38 123	90 2 8	4.7 0.1 0.2	95 1 3	1,665 45 222	86 2 11
Drugs covered in the gap Some generics but no brand name drugs Some generics and som brand name drugs	450 ne 76	28 5	1.2 0.4	25 8	661 327	34 17
brand name drugs	76 1,096	5 68	0.4 3.3	8 67	327 944	

### Chart 11-7. Characteristics of MA–PDs

Note: MA–PD (Medicare Advantage–Prescription Drug [plan]), PPO (preferred provider organization), PFFS (private fee-forservice). 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 of percentages may not add to totals due to rounding.

<sup>a</sup> Numbers of enrollees as of July 2007.

<sup>b</sup> Benefits labeled actuarially equivalent to Part D's standard benefit include what CMS calls "actuarially equivalent standard" and "basic alternative" benefits.

<sup>°</sup> \$265 in 2007 and \$275 in 2008.

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

- There were more MA–PDs in 2008 than in 2007. Sponsors are offering 1,932 MA–PDs compared with 1,622 the year before (about 19 percent more). Although local HMOs offer the most MA–PD plans, there were sizable increases in the number of drug plans offered by preferred provider organizations and private fee-for-service (PFFS) plans. PFFS plans made up 27 percent of all (unweighted) offerings in 2008 compared with 23 percent in 2007.
- A larger share of MA–PDs than PDPs offer enhanced benefits (compare Chart 11-7 with Chart 11-5). In 2007, 48 percent of all PDPs had enhanced benefits compared with 75 percent of MA–PDs. In 2008, 51 percent of PDPs were enhanced compared with 89 percent of MA–PDs. In 2007, enhanced MA–PDs attracted 80 percent of total MA–PD enrollment.
- Most MA–PD plans have no deductible: 90 percent of MA–PD offerings in 2007 and 86 percent in 2008. MA– PDs with no deductible attracted about 95 percent of total MA–PD enrollment in 2007.
- MA–PDs are more likely than PDPs to provide some additional benefits in the coverage gap, although mostly for generics. In 2007, 32 percent of MA–PDs included some gap coverage—28 percent with some generics but no brand name drugs and 5 percent with some generics and some brand name drug coverage. Those plans accounted for 33 percent of MA–PD enrollment.
- For 2008, 51 percent of MA–PDs provide some gap coverage (34 percent with some generics but no brand name drugs, and 17 percent with some generics and some brands).



Chart 11-8. Geographic distribution of PDPs in 2008

Note: PDP (prescription drug plan). The PDPs shown here exclude employer-only plans and plans offered in U.S. territories.

Source: MedPAC analysis of CMS plan benefit package and landscape data.

- The number of stand-alone prescription drug plans (PDPs) stayed fairly steady around the country, with the median number of plans offered in each region at 53 compared with 55 in 2007.
- Alaska had the fewest stand-alone plans with 47. The Pennsylvania–West Virginia region had the most with 63 PDPs.



### Chart 11-9. Distribution of 2007 Part D enrollees by organization

Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]). Data are as of July 2007.

Source: MedPAC based on CMS enrollment data.

 As of July 2007, Part D enrollment was concentrated among plans offered by a small number of parent organizations. Several of those organizations offer both stand-alone prescription drug plans (PDPs) and Medicare Advantage–Prescription Drug plans (MA– PDs). For example, UnitedHealthcare and PacifiCare (which merged in 2006) had 27 percent of the 16.8 million enrollees in PDPs and 17 percent of the 7.4 million enrollees in MA–PDs. Similarly, Humana had a considerable portion of both markets: 21 percent of PDP enrollees and 15 percent of MA–PD enrollees.


#### Chart 11-10. In 2007, most Part D enrollees were in plans that charged higher copayments for nonpreferred brand name drugs

- Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]). Percentages are weighted by enrollment. PDPs exclude employer-only groups and plans offered in U.S. territories. MA–PDs exclude employer-only groups, demonstration programs, 1876 cost plans, and plans offered in U.S. territories. Plans with one generic and one brand name tier have lower cost sharing for generic drugs. Plans that distinguish between preferred and nonpreferred brands tend to have the lowest cost sharing for generic drugs, somewhat higher copays for preferred brand name drugs, and the highest cost sharing for nonpreferred brands. Many plans also include a specialty tier that applies to expensive products and unique drugs and biologicals for which enrollees may not appeal for lower cost sharing.
- Source: MedPAC sponsored NORC/Georgetown University analysis of formularies submitted to CMS for January 2006 and January 2007.
- The share of beneficiaries enrolled in plans that distinguish between preferred and nonpreferred brand name drugs grew between 2006 and 2007. Among PDPs, 69 percent of enrollees were in such a plan in 2007, compared with 59 percent in 2006. Similarly, 87 percent of MA–PD enrollees were in such a plan in 2007, up from 73 percent in 2006.
- For enrollees in either PDPs or MA–PDs that distinguished between preferred and nonpreferred brand name drugs, the median copay in 2007 was \$28 to \$29 for a preferred brand and \$60 for a nonpreferred brand. The median copay for generic drugs was \$5.
- In 2007, about 19 percent of PDP enrollees and 2 percent of MA–PD enrollees were in plans that charged 25 percent coinsurance for all covered drugs after the plan's deductible, up to its initial coverage limit. Enrollees in these PDPs who receive Part D's low-income subsidies paid nominal copays per prescription rather than 25 percent coinsurance.

## Chart 11-11. More enrollees were in Part D plans that used specialty tiers in 2007



Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]). Percentages are weighted by enrollment. PDPs exclude employer-only groups and plans offered in U.S. territories. MA–PDs exclude employer-only groups, demonstration programs, 1876 cost plans, and plans offered in U.S. territories. Specialty tiers apply to expensive products and unique drugs and biologicals for which enrollees may not appeal for lower cost sharing.

- Generally, plans use specialty tiers for expensive products, unique drugs, and biologicals. For 2007, CMS allowed plans to place drugs on a specialty tier if the drug's negotiated price exceeded \$500 per month. Cost-sharing requirements for specialty-tier drugs can be high (at least 25 percent of the plan's negotiated price) until the beneficiary reaches the catastrophic levels of spending in Part D's benefit that limit out-of-pocket spending. Under CMS regulations, enrollees may not appeal cost sharing for drugs on specialty tiers as they can for other drugs such as those on nonpreferred brand tiers.
- The share of enrollees in plans that use specialty tiers rose between 2006 and 2007. Among PDP enrollees, 74 percent were in such plans in 2007, and 84 percent of MA–PD enrollees were in plans with a specialty tier. The median PDP enrollee paid 30 percent coinsurance for specialty-tier drugs, while the median MA–PD enrollee paid 25 percent.

Source: MedPAC-sponsored NORC/Georgetown University analysis of formularies submitted to CMS for January 2006 and January 2007.



Chart 11-12. PDPs and MA–PDs listed similar numbers of drugs on their formularies in 2007

- In 2007, enrollees in stand-alone PDPs and MA–PDs had similar numbers of drugs listed on their plans' formularies. The average PDP enrollee was in a plan that listed 87 percent of all distinct chemical entities on which CMS requires plans to report, while the average MA–PD was in a plan listing 86 percent.
- The number of drugs listed on any given plan's formulary can vary considerably, from around 50 percent of reportable drugs for plans with the tightest formularies to 100 percent for some of the most popular plans.

Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]). PDPs exclude employer-only groups and plans offered in U.S. territories. MA–PDs exclude demonstration programs, 1876 cost plans, employer-only groups, and plans offered in U.S. territories. Values reflect the percent of distinct chemical entities listed within CMS's file of reference national drug codes.

Source: MedPAC-sponsored NORC/Georgetown University analysis of formularies submitted to CMS for January 2007.

### Chart 11-13. The average percent of drugs listed in each therapeutic category depends on therapeutic class size and regulation

	Total drugs	Average per	cent of drugs listed
	in class	PDPs	MA–PDs
Selected protected classes:*			
Anticonvulsants	19	95%	100%
Antidepressants	24	100	100
Antipsychotics	18	94	94
Selected other classes:			
Analgesics	69	77	81
Antibacterial	119	77	81
Antivirals**	43	93	93
Cardiovascular	141	84	86
Gastrointestinal	37	78	81
Glucose regulators	37	86	86
Respiratory	48	83	88
Combination drugs (multiclass)	95	56	64

Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]). PDPs exclude employer-only groups and plans offered in U.S. territories. MA–PDs exclude demonstration programs, 1876 cost plans, employer-only groups, and plans offered in U.S. territories. Values reflect the percent of distinct chemical entities listed within CMS's file of reference national drug codes.

\*Under CMS regulation, plans are required to list all or substantially all drugs in these classes.

\*\*This class includes some protected drugs (those to treat HIV/AIDS) as well as unprotected drugs.

Source: NORC/Georgetown University analysis for MedPAC of formularies submitted to CMS for January 2007.

- The percent of drugs listed within a therapeutic class of a plan's formulary can vary widely. That number depends on both regulatory coverage rules as well as the size of the class of drugs available within the marketplace.
- In classes with fewer drugs available, plans typically list a larger share of them. Conversely, when there are more drugs available within a given class, plans are able to negotiate better prices by listing only selected drugs on their formulary, particularly when there are overlapping products.
- In classes for which CMS requires that plans cover all or substantially all drugs, plans
  predictably list a larger share of drugs. For example, in the class of antidepressants, the
  average PDP and the average MA–PD typically list all of the available drugs.



# Chart 11-14. PDPs and MA–PDs applied utilization management tools similarly in 2007

For the average enrollee, the percent of plans' listed chemical entities that were subject to utilization management

Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]). PDPs exclude employer-only groups and plans offered in U.S. territories. MA–PDs exclude demonstration programs, 1876 cost plans, employer-only groups, and plans offered in U.S. territories. Values reflect the percent of listed chemical entities that are subject to utilization management, weighted by plan enrollment. Quantity limits mean that plans limit the number of doses of a drug available to the enrollee in a given time period. Step therapy refers to a requirement that the enrollee try specified drugs first before moving to other drugs. Prior authorization means that the enrollee must get preapproval from the plan before coverage.

Source: MedPAC-sponsored NORC/Georgetown University analysis of formularies submitted to CMS for January 2007.

- 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 have a strong influence on 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 2007, the average enrollee in either a stand-alone prescription drug plan or Medicare Advantage
  prescription drug plan would have had similar experiences with respect to utilization management.
  The average enrollee was in a plan that used quantity limits on 12 percent of listed chemical entities
  (referred to hereafter as drugs), used step therapy for 1 percent of listed drugs, and required prior
  authorization for about 8 percent of listed drugs. Altogether, about 18 percent of listed drugs were
  subject to some form of utilization management for the average enrollee.

### 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 Payment Basics series.

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/June05\_ch1.pdf http://www.medpac.gov/publications/congressional\_reports/June04\_ch1.pdf http://www.medpac.gov/documents/MedPAC\_Payment\_Basics\_07\_PartD.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/rxdrugbenefit.cfm

CMS information on Part D enrollment

http://www.cms.hhs.gov/MCRAdvPartDEnrolData/



				Average annual percent change		
	1997	2003	2007	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	

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

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.

60 LDOs Not LDOs Freestanding 50 Hospital based Percent of patients 40 30. 20 10. 0 Elderly (age 75+ Female African American Hispanic Medicaid years) Patient characteristics

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.

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

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

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.

	Percent	Average annual
	of total	percent change
	in 2005	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

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

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

2002	2003	2004	2005
2,286	2,401	2,580	2,809
\$4,517	\$5,682	\$6,897	\$8,155
60	98	150	220
2.6%	4.1%	5.8%	7.8%
\$28.2	\$65.1	\$112.3	\$166.0
0.6%	1.2%	1.6%	2.0%
	2002 2,286 \$4,517 60 2.6% \$28.2 0.6%	2002         2003           2,286         2,401           \$4,517         \$5,682           60         98           2.6%         4.1%           \$28.2         \$65.1           0.6%         1.2%	2002         2003         2004           2,286         2,401         2,580           \$4,517         \$5,682         \$6,897           60         98         150           2.6%         4.1%         5.8%           \$28.2         \$65.1         \$112.3           0.6%         1.2%         1.6%

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

- 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.

Source: Centers for Medicare & Medicaid Services, 2007. Data available at: http://www.cms.hhs.gov/ProspMedicareFeeSvcPmtGen/downloads/FY05update\_hospice\_expenditures\_and\_units\_of\_ care.pdf.





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

- 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.

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

	Bel	ow-cap hosp	bices	Above-cap hospices				
Disease category	Number of cases	Percent of total cases	ALOS	Number of cases	Percent of total cases	ALOS	in ALOS, cap vs. non-cap	
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 hea	irt							
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 obstruc	tion,							
NOS	39,796	5.6	67.4	2,495	7.5	118.9	76.4	
Alzheimer's and similar	r							
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	

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

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.

F	Percent of hospices (2005)	2001	2002	2003	2004	2005
	100	4.0	0.4	4.5		0.4
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 overpaymen	ts) 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

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

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. Providerbased 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

- 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.

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

### 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.

- 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.

Source: CMS, Office of the Actuary.

### 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

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