



#### 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.

Other charts use data from the Medicare actuaries that have historically appeared in the annual report of the Medicare trustees. This year's trustees' report will not be released until after the publication of this Data Book, so the charts that draw on the trustees' report have not been updated. Given the potential for changes in these data, the reader should use these charts cautiously.

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.

We produce a limited number of printed copies of this report. It is, however, available through the MedPAC website: www.medpac.gov.

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#### National health care and Medicare spending

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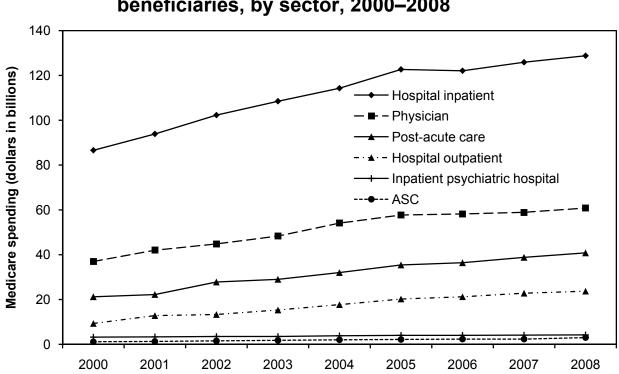


Chart 1-1. Aggregate Medicare spending among FFS beneficiaries, by sector, 2000–2008

 Medicare spending among fee-for-service (FFS) beneficiaries grew strongly in most sectors from 2000 through 2005. The rate of growth slowed in 2006 through 2008, reflecting a decline in FFS enrollment as many beneficiaries changed their enrollment to a Medicare Advantage plan. However, spending per beneficiary remained strong in most sectors from 2006 to 2008 (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 between 2006 and 2008 by large increases in the number of Medicare Advantage enrollees, whose spending is not included in these aggregate totals.

Source: CMS, Office of the Actuary and the 2009 annual report of the Boards of Trustees of the Medicare Trust Funds.

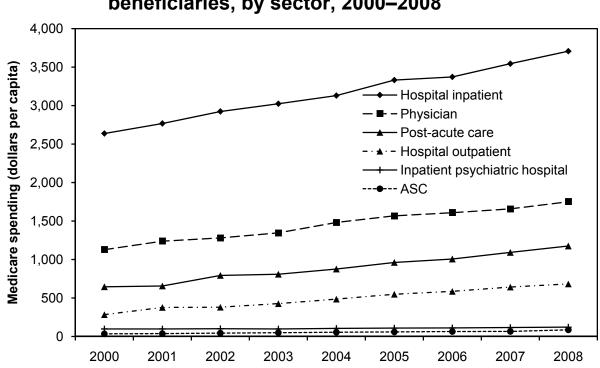


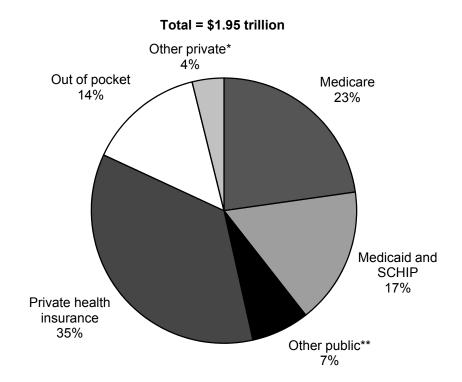
Chart 1-2. Per capita Medicare spending among FFS beneficiaries, by sector, 2000–2008

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

 Medicare spending per beneficiary in FFS Medicare increased steadily in most sectors from 2000 through 2008. This trend contrasts with a slowing in aggregate spending in FFS Medicare from 2006 to 2008 caused by a decline in the number of FFS beneficiaries.

Source: CMS, Office of the Actuary and the 2009 annual report of the Boards of Trustees of the Medicare Trust Funds.

## Chart 1-3. Medicare made up over one-fifth of spending on personal health care in 2008



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, 2010.

- Of the \$1.95 trillion spent on personal health care in the United States in 2008, Medicare accounted for 23 percent, or \$444 billion (as noted above, this amount includes direct patient care spending and excludes certain administrative and business costs). Spending by all public programs—including Medicare, Medicaid, State Children's Health Insurance Program, and other programs—accounted for 47 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 14 percent was from consumer out-of-pocket spending.
- Medicare and private health insurance spending include premium contributions from enrollees.

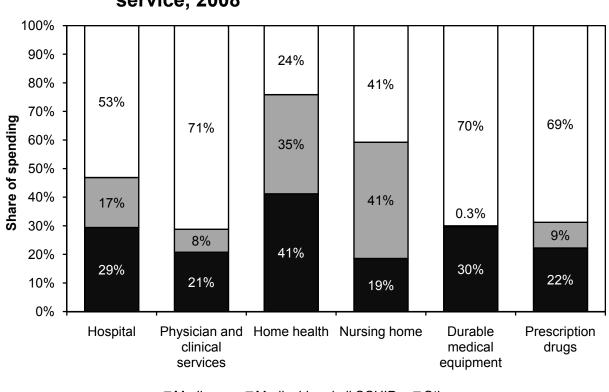


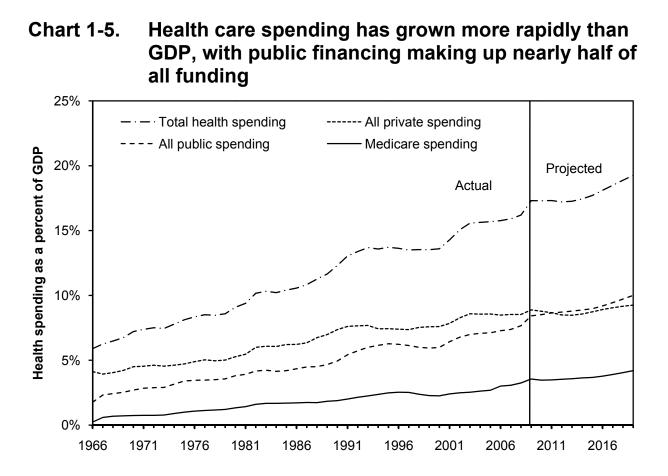
Chart 1-4. Medicare's share of total spending varies by type of service, 2008

■Medicare ■Medicaid and all SCHIP □Other

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, 2010.

- The level and distribution of spending differ between Medicare and other payers, largely because Medicare covers an older, sicker population and does not cover services such as long-term care.
- In 2008, Medicare accounted for 29 percent of spending on hospital care, 21 percent of physician and clinical services, 41 percent of home health services, 19 percent of nursing home care, 30 percent of durable medical equipment, and 22 percent of prescription drugs.

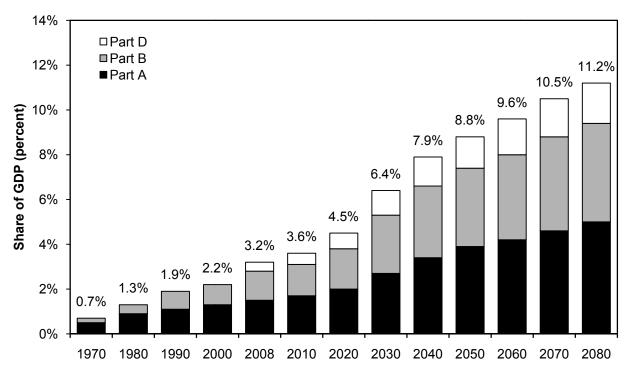


Note: GDP (gross domestic product). Total health spending is the sum of all private and public spending. Medicare spending is one component of all public spending.

Source: CMS, Office of the Actuary, National Health Expenditure Accounts, 2010.

- 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 2008. It is projected to reach almost 20 percent of GDP in 2019. 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 4 percent of GDP by 2019.
- In 2008, all public spending made up about 47 percent of total health care spending and private spending made up 53 percent. By 2019, those percentages are projected to be 52 percent and 48 percent, respectively.

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

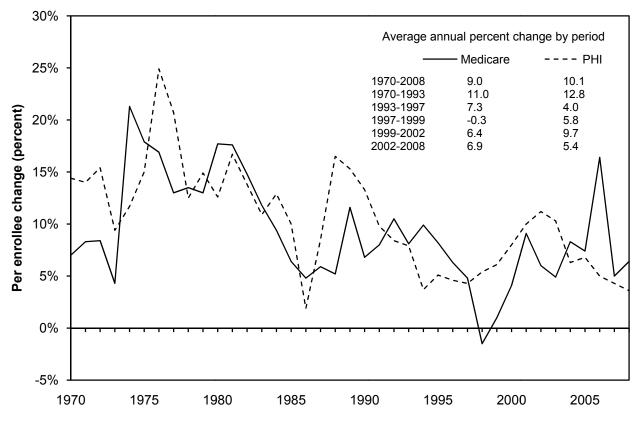


Note: GDP (gross domestic product). These projections are based on the trustees' intermediate set of assumptions.

Source: 2009 annual report of the Boards of Trustees of the Medicare Trust Funds.

- Over time, Medicare spending has accounted for an increasing share of GDP. From less than 1 percent in 1970, it is projected to reach over 11 percent of GDP in 2080.
- With a 9.6 percent annual average rate of growth, nominal Medicare spending grew considerably faster over the period from 1980 to 2007 than nominal growth in the economy, which averaged 6.1 percent per year. Future Medicare spending is projected to continue growing faster than GDP, averaging 6.4 percent per year between 2007 and 2080 compared with an annual average growth rate of 4.4 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.
- During the 1990s, Medicare's share of the economy grew more slowly than it did in other periods. This factor 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 private health insurance



Note: PHI (private health insurance). In most years in this period Medicare and PHI do not cover the same services. Medicare expenditures include both fee-for-service and private plans.

Source: CMS, Office of the Actuary, National Health Statistics Group, 2010.

- 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 quite similar. However, this comparison is sensitive to the end points 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 since the 1970s, benefits offered by private insurers have expanded and cost-sharing requirements declined. These factors make the comparison problematic, as Medicare's benefits changed little over the same period.

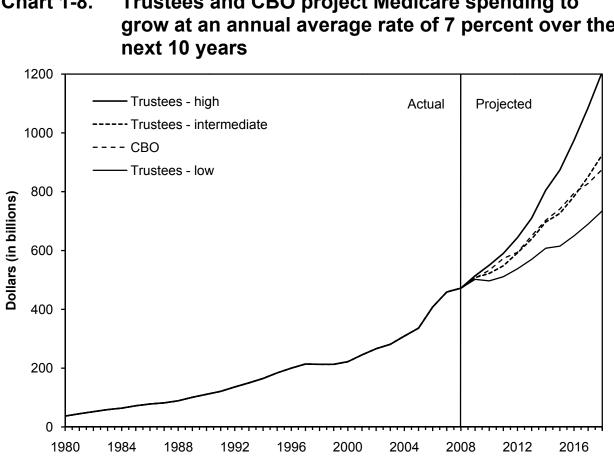


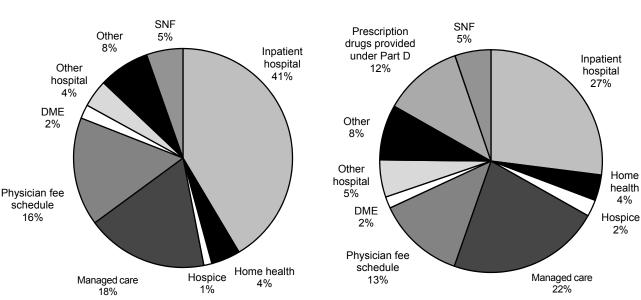
Chart 1-8. Trustees and CBO project Medicare spending to grow at an annual average rate of 7 percent over the

- Medicare spending has grown nearly 13-fold, from \$37 billion in 1980 to \$468 billion in 2008 (see Chart 1-3; these data include benefit payments and administrative expenses).
- Medicare spending increased significantly after 2006 with the introduction of Part D, Medicare's voluntary outpatient prescription drug benefit.
- The CBO projects that mandatory spending for Medicare will grow at an average annual rate of 6.4 percent between 2008 and 2018. The Medicare trustees' intermediate projections for 2008 to 2018 assume about 7.1 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.

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

Source: 2009 annual report of the Boards of Trustees of the Medicare Trust Funds. CBO March 2009 baseline.

## Chart 1-9. Medicare spending is concentrated in certain services and has shifted over time



Total spending 1999 = \$208 billion

Total spending 2009 = \$491 billion

- The distribution of Medicare spending among services has changed substantially over time.
- In 2009, Medicare spent about \$491 billion for benefit expenses. Inpatient hospital services were by far the largest spending category (27 percent), followed by managed care (22 percent), physicians (13 percent), outpatient prescription drugs provided under Part D (12 percent), and other fee-for-service settings (8 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 2009 than it was in 1999, falling from 41 percent to 27 percent. Spending on beneficiaries enrolled in managed care plans has grown from 18 percent to 22 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.

Note: SNF (skilled nursing facility), DME (durable medical equipment). Medicare's outpatient drug benefit began in 2006, and thus the distribution of spending for 2009 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. The other category includes carrier lab, other carrier, intermediary lab, and other intermediary. Totals may not sum to 100 percent due to rounding.

Source: CMS, Office of the Actuary, 2009; 2011 President's Budget.

100% Next 4% Most 14% Next 5% costly 1% 90% Next 15% 80% 25% 70% Second quartile 60% 83% Percent 18% 50% 40% 30% 25% Least costly half 20% 10% 13% 4% 0% Percent of beneficiaries Percent of program spending

Chart 1-10. FFS program spending is highly concentrated in a small group of beneficiaries, 2006

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

- Medicare FFS spending is concentrated among a small number of beneficiaries. In 2006, the costliest 5 percent of beneficiaries accounted for 39 percent of annual Medicare FFS spending and the costliest quartile accounted for 83 percent. By contrast, the least costly half of beneficiaries accounted for only 4 percent of FFS spending.
- Costly beneficiaries tend to include those who have multiple chronic conditions, those using inpatient hospital services, those who are dually eligible for Medicare and Medicaid, and those who are in the last year of life.

Note: FFS (fee-for-service). Excludes beneficiaries with any group health enrollment during the year. Numbers may not sum to 100 percent due to rounding. Spending data reflect revised 2006 Medicare Current Beneficiary Survey Cost and Use file from CMS. As such, spending figures may differ from those in the MedPAC 2009 data book.

## Chart 1-11. Medicare HI trust fund is projected to be insolvent in 2017

| Estimate     | Year costs exceed income | Year HI trust fund assets exhausted |
|--------------|--------------------------|-------------------------------------|
| High         | 2008                     | 2014                                |
| Intermediate | 2008                     | 2017                                |
| Low          | 2018                     | 2028                                |

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: 2009 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.
- In 2009 Medicare trustees reported that HI's expenses exceeded its income in 2008, and under the intermediate assumptions the HI trust fund will be exhausted in 2017. Under high cost assumptions, the HI trust fund could be exhausted as early as 2014. Under low cost assumptions, it would remain solvent until 2028.

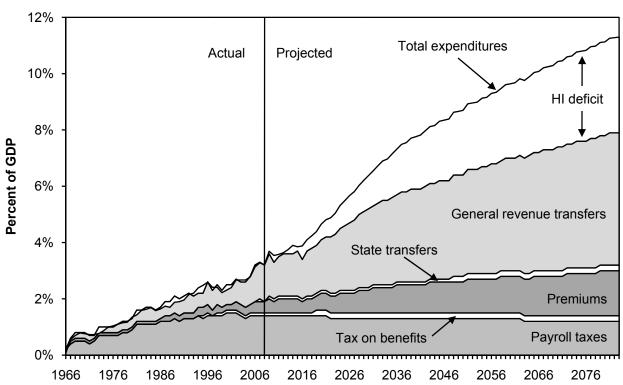


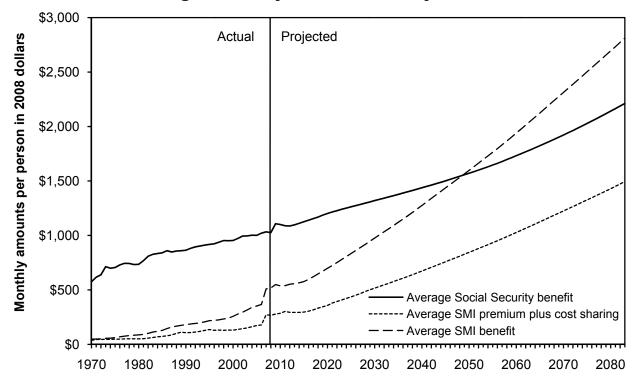
Chart 1-12. Medicare faces serious challenges with long-term financing

 Under an intermediate set of assumptions, trustees project that Medicare spending will grow rapidly, from about 3 percent of GDP today to 8 percent by 2040 and to about 11 percent by 2080.

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: 2009 annual report of the Boards of Trustees of the Medicare Trust Funds.

Chart 1-13. Average monthly SMI benefits, premiums, and cost sharing are projected to grow faster than the average monthly Social Security benefit



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

- Between 1970 and 2008, the average monthly Social Security benefit (adjusted for inflation) increased by an annual average rate of 1.6 percent. Over the same period, average SMI premiums plus cost sharing and average SMI benefits grew by annual averages of 5.4 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. In the 2003–2007 periods, 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.
- Growth over time in Medicare premiums and cost sharing will continue to outpace growth in Social Security income. Medicare trustees project that between 2008 and 2040 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.
- Most Medicare beneficiaries pay their Part B premium by having it withheld from their monthly Social Security benefit. In 2010, Social Security benefits are not expected to increase, and as a result about 75 percent of Medicare beneficiaries will be protected by the hold-harmless provision. This situation means that these beneficiaries will pay the same Medicare Part B premium as they did in 2009, even though Part B costs increased.
- Three categories make up the 25 percent of Medicare beneficiaries who will not be protected under the holdharmless provision. They include: new enrollees in Medicare who did not pay a premium in 2009, high-income enrollees who pay the income-related Part B premium, and Medicare beneficiaries who are also eligible for Medicaid. (For this last group, Medicaid pays for their Part B premiums.) These three groups will pay Part B premiums high enough to offset the costs of providing the hold-harmless protection to the other 75 percent of beneficiaries.

Source: 2009 annual report of the Boards of Trustees of the Medicare Trust Funds.

### Chart 1-14. Medicare benefits and cost sharing per enrollee in 2008

|        | Average benefit<br>(in dollars) | Average cost sharing amount<br>(in dollars) |
|--------|---------------------------------|---|
| Part A | \$5,179                         | \$442                                       |
| Part B | 4,322                           | 1,214                                       |
| Part D | <u>1,517</u>                    | <u>602</u>                                  |
| Total  | 11,018                          | 2,264                                       |

Note: Average benefit spending for Part D includes both Part D enrollees and beneficiaries with drug coverage through former employers who receive Medicare's Retiree Drug Subsidy. Part D average cost sharing does not include beneficiaries with drug coverage through former employers who receive Medicare's Retiree Drug Subsidy.

Source: CMS, Office of the Actuary.

- In calendar year 2008, the Medicare program spent an average of \$11,018 on Part A, Part B, and Part D benefits per enrollee. Part A benefits made up 47 percent of the total, followed by 39 percent for Part B benefits and 14 percent for Part D.
- In the same year, beneficiaries owed an average of \$2,264 in Medicare cost sharing. Fiftyfour percent was made up of coinsurance for Part B services and 20 percent was made up of Part A cost sharing, followed by 26 percent for Part D cost sharing.
- Most Medicare beneficiaries have supplemental coverage through former employers, medigap policies, Medicaid, or other sources that fill in much of Medicare's cost-sharing requirements.

#### 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.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://www.cms.gov/NationalHealthExpendData/

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

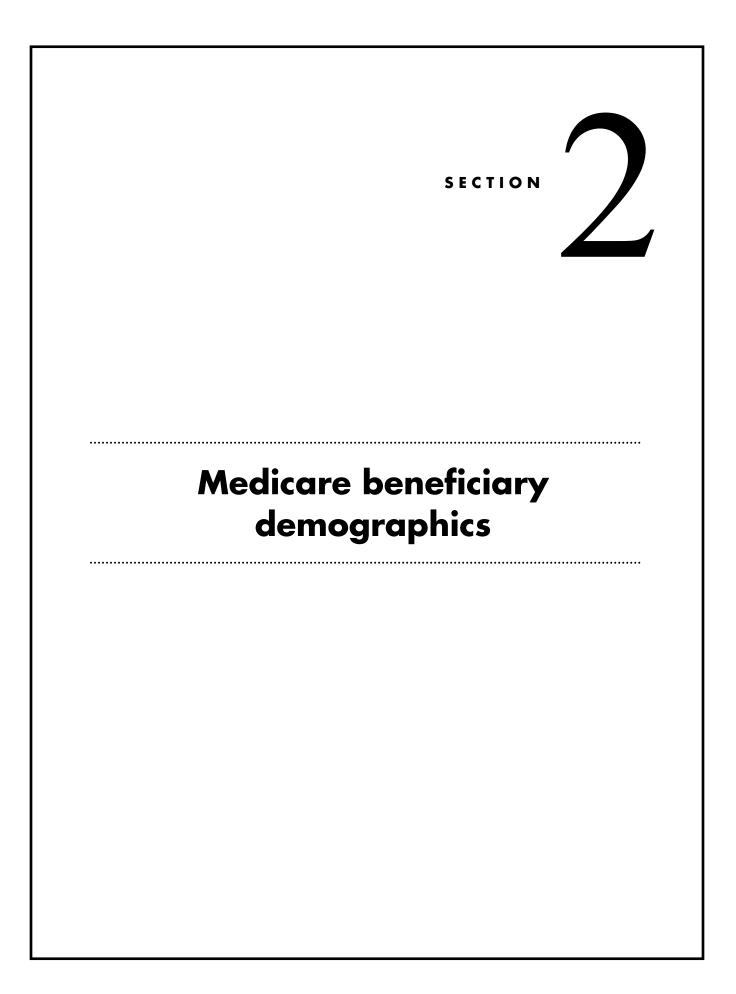
http://www.cms.gov/TheChartSeries/

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

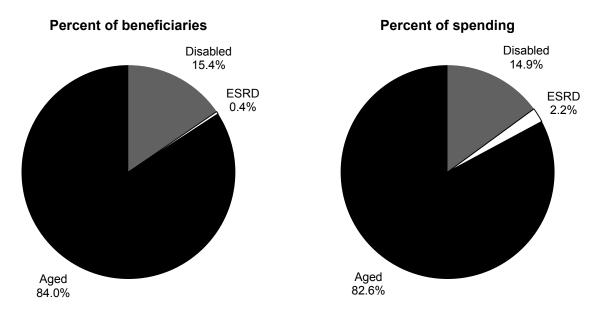
http://www.cms.gov/DataCompendium/

• MedPAC's March 2010 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/Mar10\_Ch01.pdf



# Chart 2-1. Aged beneficiaries account for the greatest share of the Medicare population and program spending, 2006



- Note: ESRD (end-stage renal disease). Spending data reflect revised 2006 Medicare Current Beneficiary Survey (MCBS) Cost and Use file from CMS. As such, spending figures may differ from those in the MedPAC 2009 data book. 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 or older. Totals may not sum to 100 percent due to rounding.
- Source: MedPAC analysis of the revised Medicare Current Beneficiary Survey, Cost and Use file, 2006. 2006 spending per ESRD beneficiary is from the United States Renal Data System.
- On average, Medicare spending per beneficiary in 2006 was \$8,865.
- A disproportionate share of Medicare expenditures is devoted to Medicare beneficiaries who are eligible due to end-stage renal disease (ESRD). On average, beneficiaries who are Medicare eligible due to ESRD cost more than five times as much as beneficiaries in other categories. In 2006, \$46,353 was spent per beneficiary enrolled due to ESRD versus \$8,716 per beneficiary enrolled due to age (including those with and without ESRD), and \$8,585 per (non-ESRD) beneficiary enrolled due to (non-ESRD) disability.
- Within the aged category, per capita spending for those with ESRD was \$59,509 versus \$8,406 for those without ESRD.

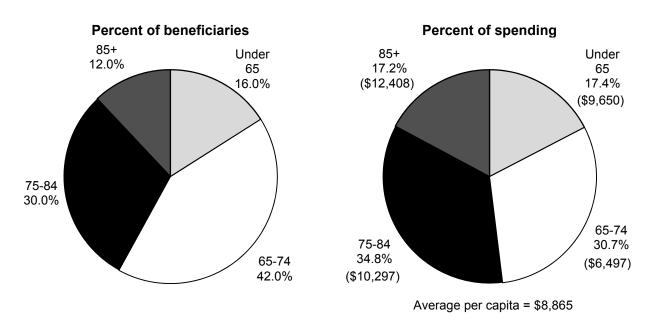


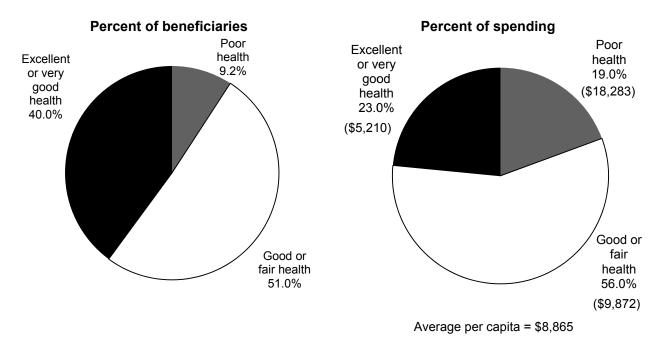
Chart 2-2. Medicare enrollment and spending by age group, 2006

Note: Spending data reflect revised 2006 Medicare Current Beneficiary Survey (MCBS) Cost and Use file from CMS. As such, spending figures may differ from those in the MedPAC 2009 data book. Totals may not sum to 100 percent due to rounding.

Source: MedPAC analysis of the revised Medicare Current Beneficiary Survey, Cost and Use file, 2006.

• For the aged population (65+), per capita expenditures increase with age. Per capita expenditures were \$6,497 for beneficiaries ages 65 to 74, \$10,297 for those 75 to 84, and \$12,408 for those 85 or older. Per capita expenditures for Medicare beneficiaries under age 65 enrolled due to ESRD or disability were \$9,650.

Chart 2-3. Beneficiaries who report being in poor health account for a disproportionate share of Medicare spending, 2006



Note: Spending data reflect revised 2006 Medicare Current Beneficiary Survey (MCBS) Cost and Use file from CMS. As such, spending figures may differ from those in the MedPAC 2009 data book. Totals may not sum to 100 percent due to rounding.

Source: MedPAC analysis of the revised Medicare Current Beneficiary Survey, Cost and Use file, 2006.

- In 2006, most beneficiaries reported relatively good health. Fewer than 10 percent reported poor health.
- Medicare spending is strongly associated with self-reported health status. In 2006, per capita expenditures were \$5,210 for those who reported excellent or very good health, \$9,872 for those who reported good or fair health, and \$18,283 for those who reported poor health. On average, Medicare spending per beneficiary was \$8,865.

Historical Projected Beneficiaries (in millions) 

Chart 2-4. Enrollment in the Medicare program is projected to grow faster than ever 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, 2009.

- The total number of people enrolled in the Medicare program will nearly double between 2000 and 2030, from about 40 million to 79 million beneficiaries.
- The rate of increase in Medicare enrollment will accelerate as more members of the babyboom generation become eligible and will slow around 2030 after the entire baby-boom generation has become eligible.

| Characteristic            | Percent of the<br>Medicare<br>population* | Characteristic            | Percent of the<br>Medicare<br>population* |
|---------------------------|---|---------------------------|---|
|                           |   |                           |   |
| <b>Total</b> (43,877,456) | 100%                                      |                           |   |
| Sex                       |   | Education                 |   |
| Male                      | 44  | No high school diploma    | 27%                                       |
| Female                    | 56  | High school diploma only  | 30  |
|                           |   | Some college or more      | 41  |
| Race/ethnicity            |   | -                         |   |
| White, non-Hispanic       | 78  | Income status             |   |
| African American,         |   | Below poverty             | 15  |
| non-Hispanic              | 9   | 100–125% of poverty       | 9   |
| Hispanic                  | 8   | 125–200% of poverty       | 20  |
| Other                     | 5   | 200–400% of poverty       | 31  |
|                           |   | Over 400% of poverty      | 25  |
| Age                       |   |                           |   |
| <65                       | 16  |                           |   |
| 65–74                     | 42  |                           |   |
| 75–84                     | 30  | Supplemental insurance st | atus                                      |
| 85+                       | 12  | Medicare only             | 10  |
| Health status             |   | Managed care              | 17  |
| Excellent or very good    | 40  | Employer                  | 32  |
| Good or fair              | 51  | Medigap                   | 19  |
| 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, 2006

Note: Urban indicates beneficiaries living in metropolitan statistical areas (MSAs). Rural indicates beneficiaries living outside MSAs. In 2006, poverty was defined as income of \$10,294 for people living alone and as \$13,167 for married couples. Totals may not sum to 100 percent due to rounding. Some beneficiaries may have more than one type of supplemental insurance.

\*Based on a representative sample of the Medicare population.

Source: MedPAC analysis of the Medicare Current Beneficiary Survey (MCBS), Cost and Use file, 2006.

- Close to one-quarter of beneficiaries live in rural areas.
- Twenty-eight percent of the Medicare population lives alone.
- Twenty-seven percent of beneficiaries have no high school diploma.
- Most Medicare beneficiaries have some source of supplemental insurance.

| Oberneteristic                 | Percent of urban    | Percent of rural    |
|--------------------------------|---------------------|---------------------|
| Characteristic                 | Medicare population | Medicare population |
| Sex                            |                     |                     |
| Male                           | 44%                 | 45%                 |
| Female                         | 56                  | 55                  |
| Race/ethnicity                 |                     |                     |
| White, non-Hispanic            | 76                  | 86                  |
| African American, non-Hispanic | 10                  | 7                   |
| Hispanic                       | 9                   | 3                   |
| Other                          | 5                   | 5                   |
| Age                            |                     |                     |
| <65                            | 15                  | 18                  |
| 65–74                          | 42                  | 42                  |
| 75–84                          | 31                  | 28                  |
| 85+                            | 13                  | 11                  |
| Health status                  |                     |                     |
| Excellent or very good         | 40                  | 37                  |
| Good or fair                   | 51                  | 52                  |
| Poor                           | 9                   | 11                  |
| Income status                  |                     |                     |
| Below poverty                  | 14                  | 16                  |
| 100–125% of poverty            | 9                   | 10                  |
| 125–200% of poverty            | 20                  | 23                  |
| 200–400% of poverty            | 31                  | 32                  |
| Over 400% of poverty           | 26                  | 19                  |

## Chart 2-6. Characteristics of the Medicare population, by rural and urban residence, 2006

Note: Urban indicates beneficiaries living in metropolitan statistical areas (MSAs). Rural indicates beneficiaries living outside MSAs. In 2006, poverty was defined as income of \$10,294 for people living alone and as \$13,167 for married couples. Totals may not sum to 100 percent due to rounding.

Source: MedPAC analysis of the Medicare Current Beneficiary Survey (MCBS), Cost and Use file, 2006.

• Rural Medicare beneficiaries are more likely to be white (86 percent vs. 76 percent), to report being in poor health (11 percent vs. 9 percent), and to have incomes below 125 percent of poverty (26 percent vs. 23 percent) compared with urban beneficiaries.

|      | gi cultori cital c ci total                         | -p                                      |                                     | -,  |
|------|---|---|-------------------------------------|---|
| Rank | Episode Treatment<br>Groups <sup>®</sup> base group | Number of<br>episodes<br>(in thousands) | Average<br>spending<br>per episode* | Share of total<br>spending<br>on episodes |
|      |   |   |                                     |   |
| 1    | Ischemic heart disease                              | 6,504                                   | \$4,296                             | 14.0%                                     |
| 2    | Congestive heart failure                            | 2,493                                   | 3,437                               | 4.3                                       |
| 3    | Hypertension  | 14,166                                  | 562                                 | 4.0                                       |
| 4    | Cerebral vascular accident                          | 2,685                                   | 2,658                               | 3.6                                       |
| 5    | Chronic obstructive pulmonary disease               | 2,308                                   | 2,955                               | 3.4                                       |
| 6    | Diabetes  | 5,823                                   | 1,108                               | 3.2                                       |
| 7    | Joint degeneration, localized-knee & lower leg      | 2,272                                   | 2,681                               | 3.1                                       |
| 8    | Joint degeneration, localized-back                  | 3,986                                   | 1,520                               | 3.0                                       |
| 9    | Chronic renal failure                               | 1,170                                   | 4,844                               | 2.8                                       |
| 10   | Closed fracture or dislocation-thigh, hip, & pel    | vis 347                                 | 13,229                              | 2.3                                       |
| 11   | Cataract  | 7,708                                   | 585                                 | 2.3                                       |
| 12   | Bacterial lung infections                           | 1,155                                   | 3,708                               | 2.1                                       |
| 13   | Malignant neoplasm of pulmonary system              | 284                                     | 10,895                              | 1.6                                       |
| 14   | Malignant neoplasm of prostate                      | 1,025                                   | 2,787                               | 1.4                                       |
| 15   | Malignant neoplasm of breast                        | 857                                     | 3,138                               | 1.4                                       |
| 16   | Psychotic & schizophrenic disorders                 | 559                                     | 4,725                               | 1.3                                       |
| 17   | Malignant neoplasm of skin, major                   | 2,688                                   | 882                                 | 1.2                                       |
| 18   | Joint degeneration, localized-thigh, hip, & pelv    | vis 781                                 | 2,991                               | 1.2                                       |
| 19   | Other metabolic disorders                           | 1,852                                   | 1,253                               | 1.2                                       |
| 20   | Atherosclerosis                                     | 1,036                                   | 2,056                               | 1.1                                       |

## Chart 2-7. The 20 clinical episode groups that account for the greatest share of total spending on episodes, 2005

Note: Symmetry Episode Treatment Groups<sup>®</sup> (ETGs<sup>®</sup>) is an Ingenix, Inc., product. The number of episodes column represents an estimate of the number of cases in the entire Medicare population based on the number of cases in the 5 percent sample. \*Spending is standardized to exclude variation in resource costs due to geographic differences in input costs or policy considerations (e.g., teaching hospital payments).

Source: MedPAC analysis of 5 percent sample of 2001–2006 Medicare claims using ETGs<sup>®</sup> version 7.5.1.

- The 20 clinical episode groups that accounted for the greatest share of total spending on episodes in 2005 together accounted for 58 percent of total spending on episodes.
- Of the 20 clinical episode groups, two are acute conditions—closed fracture or dislocation—thigh, hip, & pelvis and bacterial lung infections. The rest are chronic conditions. (Chronic ETG base groups cover health services for a full year and may include acute services. For example, cerebral vascular accident is a chronic condition base group that is split into six ETGs: with and without complication, with and without comorbidity, and with and without surgery.)
- ETG software groups claims into clinically distinct episodes of care. They include approximately 524 clinically related groups called ETG base classes.

# Chart 2-8. The 20 common clinical episode groups that grew the fastest in terms of total spending on episodes, 2002–2005 Share of total spending on episodes, 2002–2005 Average annual growth 2005 spending per episode, 2005 (in thousands) Share of total spending on episodes, 2005\*

| Denk | Episode Treatment   | growth    | 2005           | per episode, | episodes, |
|------|---|-----------|----------------|--------------|-----------|
| Rank | Groups <sup>®</sup> base group                                    | 2002–2005 | (in thousands) | 2005*        | 2005      |
| 1    | Joint degeneration, localized-neck                                | 19%       | 1,346          | \$1,213      | 0.8%      |
| 2    | Other metabolic disorders   | 18        | 1,852          | 1,253        | 1.2       |
| 3    | Lymphoma  | 16        | 138            | 9,005        | 0.6       |
| 4    | Joint degeneration, localized-back                                | 16        | 3,986          | 1,520        | 3.0       |
| 5    | Joint degeneration, localized–<br>knee & lower leg                | 14        | 2,272          | 2,681        | 3.1       |
| 6    | Chronic renal failure   | 14        | 1,170          | 4,844        | 2.8       |
| 7    | Chronic obstructive pulmonary disease                             | 12        | 2,308          | 2,955        | 3.4       |
| 8    | Malignant neoplasm of breast                                      | 11        | 857            | 3,138        | 1.4       |
| 9    | Adult rheumatoid arthritis  | 11        | 573            | 1,864        | 0.5       |
| 10   | Malignant neoplasm of large intestine                             | 11        | 215            | 5,186        | 0.6       |
| 11   | Atrial fibrillation & flutter                                     | 10        | 876            | 1,809        | 0.8       |
| 12   | Malignant neoplasm of skin, major                                 | 10        | 2,688          | 882          | 1.2       |
| 13   | Atherosclerosis   | 10        | 1,036          | 2,056        | 1.1       |
| 14   | Hypertension  | 10        | 14,166         | 562          | 4.0       |
| 15   | Spinal trauma   | 10        | 406            | 3,110        | 0.6       |
| 16   | Chronic skin ulcers   | 10        | 875            | 2,212        | 1.0       |
| 17   | Joint degeneration, localized–<br>thigh, hip, & pelvis            | 9         | 781            | 2,991        | 1.2       |
| 18   | Nonmalignant neoplasm of prostate                                 | 8         | 1,873          | 571          | 0.5       |
| 19   | Leukemia  | 8         | 130            | 8,256        | 0.5       |
| 20   | Infection of lower genitourinary system, not sexually transmitted | 7         | 2,605          | 646          | 0.8       |

Note: Symmetry Episode Treatment Groups<sup>®</sup> (ETGs<sup>®</sup>) is an Ingenix, Inc., product. Common episodes include those that accounted for at least 0.5 percent of total spending on episodes. The number of episodes column represents an estimate of the number of cases in the entire Medicare population based on the number of cases in the 5 percent sample. \*Spending is standardized to exclude variation in resource costs due to geographic differences in input costs or policy considerations (e.g., teaching hospital payments).

Source: MedPAC analysis of 5 percent sample of 2001–2006 Medicare claims using ETGs<sup>®</sup> version 7.5.1.

- The 20 clinical episode groups that grew the fastest in terms of total spending on episodes from 2002 to 2005 (among those that accounted for at least 0.5 percent of total spending on episodes) together accounted for 29 percent of total episode spending in 2005.
- Of the 20 fastest growing clinical episode groups, two are acute conditions—spinal trauma and infection of lower genitourinary system, not sexually transmitted. The rest are chronic conditions.

#### Web links. Medicare beneficiary demographics

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

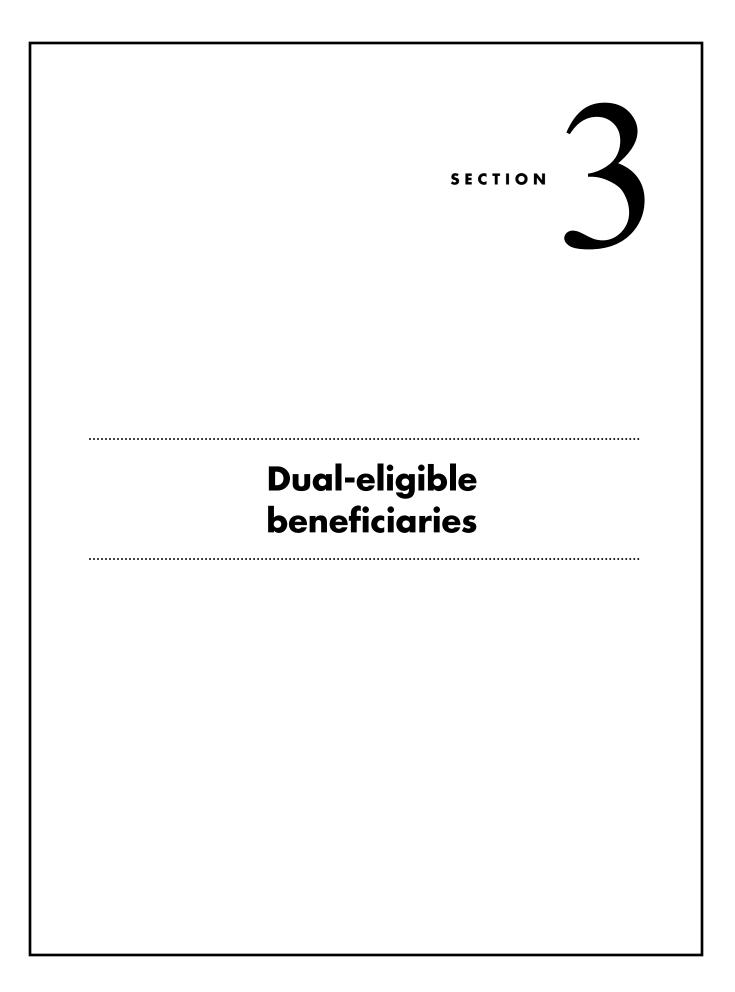
http://www.cms.gov/DataCompendium/

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

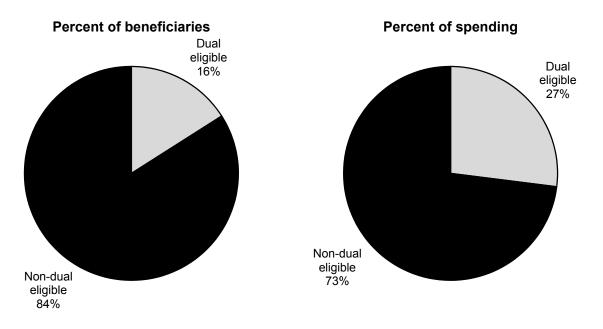
http://www.cms.gov/MedicareEnRpts

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

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



## Chart 3-1. Dual-eligible beneficiaries account for a disproportionate share of Medicare spending, 2006



Note: Dual eligibles are designated as such if the months they qualify for Medicaid exceed months they qualify for supplemental insurance. Spending data reflect revised 2006 Medicare Current Beneficiary Survey (MCBS) Cost and Use file from CMS. As such, spending figures may differ from those in the MedPAC 2009 data book.

Source: MedPAC analysis of the revised Medicare Current Beneficiary Survey, Cost and Use file, 2006.

- 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.
- Dual-eligible beneficiaries account for a disproportionate share of Medicare expenditures: as 16 percent of the Medicare population, they represent 27 percent of aggregate Medicare spending.
- On average, dual-eligible beneficiaries incur 2.2 times as much annual fee-for-service Medicare spending as non-dual-eligible beneficiaries: \$15,384 is spent per dual-eligible beneficiary, and \$6,992 is spent per non-dual-eligible beneficiary.
- In 2006, average total spending—which includes Medicare, Medicaid, supplemental insurance, and out-of-pocket spending across all payers—for dual eligibles was about \$26,800 per beneficiary, just under twice the amount for other Medicare beneficiaries.

**Dual eligibles Non-dual eligibles** Under 65 85+ 85+ (disabled) 12% 13% Under 65 11% (disabled) 41% 75-84 20% 75-84 32% 65-74 45% 65-74 26%

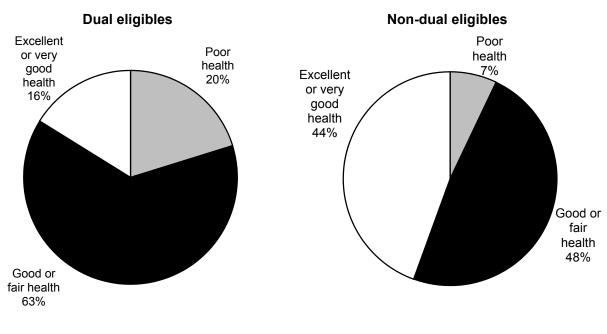
#### Chart 3-2. Dual-eligible beneficiaries are more likely than nondual eligibles to be disabled, 2006

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 revised Medicare Current Beneficiary Survey (MCBS), Cost and Use file, 2006.

 Dual-eligible beneficiaries are more likely than non-dual-eligible beneficiaries to be under-65 disabled. Forty-one percent of dual-eligible beneficiaries are under-65 disabled, compared with 11 percent of the non-dual-eligible population.

#### Chart 3-3. Dual-eligible beneficiaries are more likely than nondual eligibles to report poorer health status, 2006



Note: Totals may not sum to 100 percent due to missing responses. Dual eligibles are designated as such if the months they qualify for Medicaid exceed the months they qualify for supplemental insurance.

Source: MedPAC analysis of the revised Medicare Current Beneficiary Survey (MCBS), Cost and Use file, 2006.

- Dual-eligible beneficiaries are more likely than non-dual eligibles to report poorer health status. Most 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-eligible beneficiaries are more likely to suffer from cognitive impairment and mental disorders. They also have higher rates of diabetes, pulmonary disease, stroke, and Alzheimer's disease than do non-dual-eligible beneficiaries.

| Characteristic                     | Percent of dual-<br>eligible beneficiaries | Percent of non-dual-<br>eligible beneficiaries |
|------------------------------------|--|--|
| Sex                                |  |  |
| Male                               | 39%  | 45%  |
| Female                             | 61   | 55   |
| Race/ethnicity                     |  |  |
| White, non-Hispanic                | 58   | 82   |
| African American, non-Hispanic     | 18   | 7  |
| Hispanic                           | 15   | 6  |
| Other                              | 9  | 4  |
| Limitations in ADLs                |  |  |
| No ADLs                            | 49   | 71   |
| 1–2 ADLs                           | 23   | 19   |
| 3–6 ADLs                           | 29   | 10   |
| Residence                          |  |  |
| Urban                              | 70   | 77   |
| Rural                              | 30   | 23   |
| Living arrangement                 |  |  |
| Institution                        | 19   | 3  |
| Alone                              | 31   | 27   |
| Spouse                             | 17   | 55   |
| Children, nonrelatives, others     | 32   | 15   |
| Education                          |  |  |
| No high school diploma             | 54   | 22   |
| High school diploma only           | 24   | 31   |
| Some college or more               | 18   | 45   |
| Income status                      | - /  | <b>^</b>                                       |
| Below poverty                      | 51   | 8  |
| 100–125% of poverty                | 22   | 7  |
| 125–200% of poverty                | 19   | 21   |
| 200–400% of poverty                | 5  | 36   |
| Over 400% of poverty               | 2  | 29   |
| Supplemental insurance status      | 64   | 40   |
| Medicare or Medicare/Medicaid only | 91   | 12   |
| Medicare managed care              | 3  | 21   |
| Employer                           | 2  | 38   |
| Medigap<br>Medigap (employer       | 0  | 22   |
| Medigap/employer<br>Other*         | 0<br>4                                     | 6<br>1   |
|                                    | 4  | ļ  |

## Chart 3-4. Demographic differences between dual-eligible beneficiaries and non-dual eligibles, 2006

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 2006, poverty was defined as income of \$10,294 for people living alone and \$13,167 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 revised Medicare Current Beneficiary Survey (MCBS), Cost and Use file, 2006.

Dual eligibles qualify for Medicaid due to low incomes: Fifty-one percent live below the
poverty level, and 92 percent live below 200 percent of poverty. Compared with nonduals,
dual eligibles are more likely to be female; to be African American or Hispanic; to lack a high
school diploma; to have greater limitations in activities of daily living; to reside in a rural
area; and to live in an institution (19 percent vs. 3 percent), alone, or with persons other than
a spouse.

#### Chart 3-5. Differences in spending and service use rate between dual-eligible beneficiaries and non-dual eligibles, 2006

| Service  | Dual-eligible beneficiaries | Non-dual-eligible<br>beneficiaries |
|--|-----------------------------|------------------------------------|
| Average Medicare payment for all beneficiaries |                             |                                    |
| Total Medicare payments                        | \$15,384                    | \$6,992                            |
| Inpatient hospital                             | 5,269                       | 2,611                              |
| Physician*                                     | 3,075                       | 2,209                              |
| Outpatient hospital                            | 1,729                       | 808                                |
| Home health                                    | 709                         | 311                                |
| Skilled nursing facility**                     | 1,068                       | 401                                |
| Hospice  | 331                         | 173                                |
| Prescribed medication                          | 3,184                       | 465                                |
| Percent of beneficiaries using service         |                             |                                    |
| Percent using any type of service              | 95.7%                       | 85.7%                              |
| Inpatient hospital                             | 28.5                        | 18.5                               |
| Physician*                                     | 90.9                        | 84.3                               |
| Outpatient hospital                            | 75.7                        | 63                                 |
| Home health                                    | 12.4                        | 7.5                                |
| Skilled nursing facility**                     | 10.3                        | 3.9                                |
| Hospice  | 3.4                         | 1.7                                |

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 (MCBS) do not necessarily match official estimates from CMS, Office of the Actuary. Total payments may not equal the sum of line items as some minor items have been omitted. Spending data reflect revised 2006 Medicare Current Beneficiary Survey Cost and Use file from CMS. As such, spending figures may differ from those in the MedPAC 2009 data book.

\*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 revised Medicare Current Beneficiary Survey, Cost and Use file, 2006, which updates the previous analysis by Liu, K., S.K. Long, and C. Aragon. 1998. Does health status explain higher Medicare costs among Medicaid enrollees? *Health Care Financing Review* 20, no. 2 (Winter): 39–54.
- Average per capita Medicare spending for dual-eligible beneficiaries is more than twice that for non-dual-eligible beneficiaries—\$15,384 compared with \$6,992.
- For each type of service, average Medicare per capita spending is higher for dual-eligible beneficiaries than for non-dual-eligible beneficiaries.
- Higher average per capita spending for dual-eligible beneficiaries is a function of a higher service use rate and greater intensity of use than their non-dual-eligible counterparts.
- Dual-eligible beneficiaries are more likely to use each type of Medicare-covered service than non-dual-eligible beneficiaries.

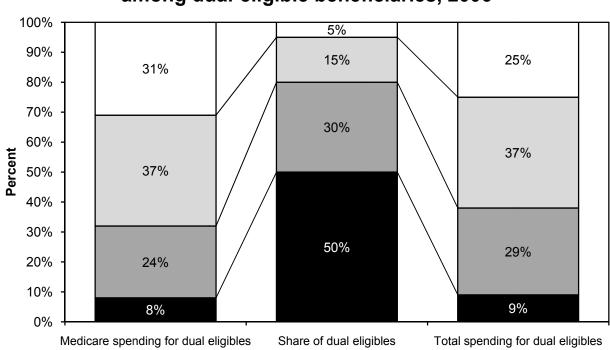


Chart 3-6. Both Medicare and total spending are concentrated among dual-eligible beneficiaries, 2006

- Annual Medicare spending is concentrated among a small number of dual-eligible beneficiaries. The costliest 20 percent of duals account for 68 percent of Medicare spending and 62 percent of total spending on dual-eligible beneficiaries. In contrast, the least costly 50 percent of dual-eligible beneficiaries account for only 8 percent of Medicare spending and 9 percent of total spending on dual-eligible beneficiaries.
- On average, total spending for dual-eligible beneficiaries is almost twice that for non-dualeligible beneficiaries—\$26,794 compared with \$13,535.

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. Spending data reflect revised 2006 Medicare Current Beneficiary Survey (MCBS) Cost and Use file from CMS. As such, spending figures may differ from those in the MedPAC 2009 data book.

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

#### Web links. Dual-eligible beneficiaries

- Chapter 5 of the MedPAC June 2010 Report to the Congress provides further information on dual-eligible beneficiaries.
- The Kaiser Family Foundation provides information on dual-eligible beneficiaries.

http://www.kff.org/medicaid/duals.cfm

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

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



#### Quality of care in the Medicare program

## Chart 4-1. Most hospital inpatient and 30-day mortality rates improved from 2005 to 2008

| Condition or procedure           | Risk-adjusted rate<br>per 100 eligible<br>discharges, 2005 | Risk-adjusted rate<br>per 100 eligible<br>discharges, 2008 | Directional<br>change in rate,<br>2005–2008 |
|----------------------------------|--|--|---|
| In-hospital mortality            |  |  |   |
| Acute myocardial infarction      | 9.51   | 7.36   | Better                                      |
| Congestive heart failure         | 4.21   | 3.10   | Better                                      |
| Stroke                           | 11.42  | 9.14   | Better                                      |
| Hip fracture                     | 3.22   | 2.31   | Better                                      |
| Pneumonia                        | 5.17   | 3.93   | Better                                      |
| Esophageal resection             | 8.21   | 3.73   | No difference                               |
| Pancreatic resection             | 6.36   | 5.15   | No difference                               |
| Abdominal aortic aneurysm repair | 7.45   | 6.07   | Better                                      |
| 30-day postdischarge mortality   |  |  |   |
| Acute myocardial infarction      | 15.37  | 12.83  | Better                                      |
| Congestive heart failure         | 9.95   | 8.26   | Better                                      |
| Stroke                           | 22.96  | 19.98  | Better                                      |
| Hip fracture                     | 8.71   | 6.81   | Better                                      |
| Pneumonia                        | 10.97  | 8.86   | Better                                      |
| Esophageal resection             | 10.13  | 7.42   | No difference                               |
| Pancreatic resection             | 8.49   | 6.73   | No difference                               |
| Abdominal aortic aneurysm repair | 8.93   | 8.22   | No difference                               |

Note: Rates are calculated based on the discharges eligible to be counted in each measure. Rates do not include deaths in non–inpatient prospective payment system hospitals or Medicare Advantage plans. "Better" indicates that the risk-adjusted rate decreased by a statistically significant amount from 2005 to 2008 using a  $p \le 0.01$  criterion. "No difference" indicates that the change in the rate was not statistically significant from 2005 to 2008 using a  $p \le 0.01$  criterion.

Source: MedPAC analysis of CMS Medicare Provider Analysis and Review data using Agency for Healthcare Research and Quality Inpatient Quality Indicators Version 3.2.

- From 2005 to 2008, risk-adjusted in-hospital and 30-day postdischarge mortality rates improved by a statistically significant amount for each of the five conditions we measured: acute myocardial infarction, congestive heart failure, stroke, hip fracture, and pneumonia.
- For the three inpatient surgical procedures for which we measured mortality rates esophageal resection, pancreatic resection, and repair of abdominal aortic aneurysm (AAA)—in-hospital and 30-day mortality rates declined from 2005 to 2008, but in only one instance (in-hospital mortality rate for AAA repair) was the decrease statistically significant.

## Chart 4-2. Trends in hospital patient safety indicators are mixed from 2005 to 2008

| Patient safety indicator  | Risk-adjusted rate<br>per 100 eligible<br>discharges, 2005 | Risk-adjusted rate<br>per 100 eligible<br>discharges, 2008 | Directional change<br>in rate,<br>2005–2008 |
|---|--|--|---|
| Postoperative PE or DVT   | 0.80   | 0.95   | Worse                                       |
| Accidental puncture or laceration                                       | 0.38   | 0.41   | No difference                               |
| Postoperative respiratory failure                                       | 1.12   | 1.29   | Worse                                       |
| latrogenic pneumothorax   | 0.05   | 0.05   | No difference                               |
| Death among surgical inpatients with<br>treatable serious complications | 13.15  | 10.75  | Better                                      |
| Postoperative wound dehiscence  | 0.24   | 0.29   | No difference                               |

Note: PE (pulmonary embolism), DVT (deep vein thrombosis). "Better" indicates that the risk-adjusted rate decreased by a statistically significant amount from 2005 to 2008 using a  $p \le 0.01$  criterion. "Worse" indicates that the risk-adjusted rate increased by a statistically significant amount from 2005 to 2008 using a  $p \le 0.01$  criterion. "No difference" indicates that the change in the rate from 2005 to 2008 was not statistically significant using a  $p \le 0.01$  criterion.

Source: MedPAC analysis of CMS Medicare Provider Analysis and Review data using Agency for Healthcare Research and Quality Patient Safety Indicators Version 3.2.

- The rates of these patient safety indicators, calculated using methods developed by the Agency for Healthcare Research and Quality, report on injuries to patients or complications from clinical procedures that often can be avoided with appropriate medical care.
- From 2005 to 2008, the rate improved for one of the six patient safety indicators we analyzed and worsened for two others, with another three indicators showing no statistically significant changes over the period.
- The most common patient safety event we measured using Medicare inpatient hospital discharge data between 2005 and 2008 was the occurrence of postoperative pulmonary embolism and deep vein thrombosis—rare but life-threatening complications of surgery—for which the risk-adjusted rate worsened slightly. The second most common event was accidental puncture or laceration during an inpatient stay, for which the rate did not change significantly over the period.

## Chart 4-3. Most ambulatory care quality indicators improved or were stable from 2006 to 2008

|              |          | Number of indicators |          |       |  |  |  |  |
|--------------|----------|----------------------|----------|-------|--|--|--|--|
| Indicators   | Improved | Stable               | Worsened | Total |  |  |  |  |
| All          | 19       | 14                   | 5        | 38    |  |  |  |  |
| Anemia       | 3        | 1                    | 0        | 4     |  |  |  |  |
| CAD          | 3        | 1                    | 0        | 4     |  |  |  |  |
| Cancer       | 0        | 3                    | 4        | 7     |  |  |  |  |
| CHF          | 7        | 1                    | 0        | 8     |  |  |  |  |
| COPD         | 1        | 0                    | 1        | 2     |  |  |  |  |
| Depression   | 0        | 1                    | 0        | 1     |  |  |  |  |
| Diabetes     | 4        | 3                    | 0        | 7     |  |  |  |  |
| Hypertension | 0        | 1                    | 0        | 1     |  |  |  |  |
| Stroke       | 1        | 3                    | 0        | 4     |  |  |  |  |

Note: 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 track the provision of necessary care and rates of potentially avoidable hospitalizations for beneficiaries age 65 and older with selected medical conditions.
- Of 38 indicators, 19 improved and 14 did not change statistically. This finding suggests that beneficiaries diagnosed with the conditions for which these 33 indicators track the quality of care were more likely or as likely in 2008 as in 2006 to receive necessary medical care and avoid hospitalizations.
- Five of the 38 quality indicators showed statistically significant declines. The decreases
  occurred in rates for certain breast cancer imaging services and the rate of colonoscopy for
  beneficiaries with a diagnosis of iron deficiency anemia, and there was a small increase in
  the rate of potentially preventable hospitalizations of beneficiaries diagnosed with COPD.
- For several conditions, declines in potentially avoidable hospitalizations occurred concurrently with the provision of necessary clinical care for that condition. For example, in 2008, beneficiaries diagnosed with diabetes were hospitalized at lower rates concurrent with higher rates of lipid and hemoglobin A1c testing and follow-up physician visits.

|   | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
|---|------|------|------|------|------|------|
| Functional/pain measures (higher is better) |      |      |      |      |      |      |
| Improvements in:                            |      |      |      |      |      |      |
| Walking                                     | 36%  | 37%  | 39%  | 41%  | 44%  | 45%  |
| Getting out of bed                          | 50   | 51   | 52   | 53   | 53   | 54   |
| Bathing                                     | 59   | 61   | 62   | 63   | 64   | 64   |
| Managing oral medications                   | 37   | 39   | 40   | 41   | 43   | 43   |
| Patients have less pain                     | 59   | 61   | 62   | 63   | 64   | 64   |
| Adverse event measures (lower is better)    |      |      |      |      |      |      |
| Any hospital admission                      | 28   | 28   | 28   | 28   | 29   | 29   |

## Chart 4-4. Share of home health patients with positive outcomes continues to increase, but more slowly

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 room use, have mostly remained unchanged over this period.

| Outcome measure                             | 2002 | 2004 | 2006 | 2007 |
|---|------|------|------|------|
| Percent of in-center hemodialysis patients: |      |      |      |      |
| Receiving adequate dialysis                 | 92%  | 95%  | 93%  | N/A  |
| With anemia under control                   | 78   | 80   | 82   | N/A  |
| Dialyzed with an AV fistula                 | 33   | 39   | 45   | N/A  |
| Percent of peritoneal dialysis patients:    |      |      |      |      |
| Receiving adequate CAPD                     | 71   | 73   | 75   | N/A  |
| Receiving adequate CCPD                     | 66   | 59   | 64   | N/A  |
| With anemia under control                   | 81   | 82   | 85   | N/A  |
| Percent of prevalent dialysis patients      |      |      |      |      |
| wait-listed for a kidney                    | 14   | 15   | 16   | 17   |
| Renal transplant rate per 100 dialysis      |      |      |      |      |
| patient years                               | 4.9  | 4.8  | 4.8  | 4.4  |
| Annual mortality rate per 100 patient years | 21.7 | 21.0 | 20.1 | 19.3 |
| Total admissions per patient year           | 2.0  | 2.0  | 2.0  | 1.9  |
| Hospital days per patient year              | 14.4 | 14.5 | 13.7 | 12.9 |

## Chart 4-5. Dialysis quality of care: Some measures show progress, others need improvement

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 2003–2007 Annual Reports for ESRD Clinical Performance Measures Project from CMS and USRDS 2009.

- The quality of dialysis care has improved for some measures. All hemodialysis patients require vascular access—the site on the patient's body where blood is removed and returned during dialysis. Between 2002 and 2006, use of arteriovenous fistulas, considered the best type of vascular access, increased from 33 percent to 45 percent of hemodialysis patients. Between 2002 and 2007, overall adjusted mortality rates decreased but remained high among dialysis patients.
- The quality of dialysis care has remained steady for some measures. Between 2002 and 2006, the proportion of hemodialysis patients receiving adequate dialysis and whose anemia was under control remained high. Overall rates of hospitalization remained steady at about two admissions per dialysis patient per year.
- Other measures suggest that improvements in dialysis quality are still needed. We looked at access to kidney transplantation because it is widely believed that it is the best treatment option for individuals with ESRD. The proportion of dialysis patients accepted on the kidney transplant waiting list has remained low. Between 2002 and 2006, the rate of kidney transplantation remained unchanged, while between 2006 and 2007, the rate decreased.

## Chart 4-6. Medicare Advantage HMO quality measures are mixed from 2004 to 2008, with little change recently

| Measure  | 2004                 | 2005                 | 2006                 | 2007                   | 2008                 |
|--|----------------------|----------------------|----------------------|------------------------|----------------------|
| Measures for which higher scores are better  |                      |                      |                      |                        |                      |
| Persistence of beta-blocker treatment after heart attack   | 61.3                 | 65.4                 | 69.6                 | 75.5*                  | 79.7*                |
| Colorectal cancer screening  | 52.6                 | 53.9                 | 53.3                 | 50.4*                  | 53.1*                |
| Glaucoma screening for older adults  | 62.3                 | 61.6                 | 62.2                 | 59.6                   | 59.8                 |
| Osteoporosis management in women with fracture   | 19.0                 | 20.1                 | 21.8                 | 20.4                   | 20.7                 |
| Comprehensive diabetes care<br>Eye exams<br>HbA1c testing<br>Lipid control (<100 mg/deciliter)       | 67.1<br>89.1<br>47.5 | 66.5<br>88.9<br>50.0 | 62.3<br>87.2<br>46.9 | 62.7<br>88.1<br>46.8   | 60.8<br>88.3<br>48.7 |
| Antidepressant medication management**<br>Acute phase<br>Continuation phase<br>Contacts              | 56.3<br>42.1<br>11.9 | 54.9<br>41.0<br>11.8 | 58.2<br>45.1<br>11.4 | 61.2*<br>48.7*<br>10.7 | 62.5<br>49.3<br>***  |
| Follow-up after hospitalization for mental illness<br>Less than 7 days<br>Less than 30 days          | 40.2<br>60.7         | 39.1<br>59.3         | 36.5<br>55.8         | 37.0<br>54.4           | 38.1<br>56.5         |
| Measures for which lower scores are better   |                      |                      |                      |                        |                      |
| Comprehensive diabetes care<br>Poor HbA1c control  | 22.5                 | 23.6                 | 27.3                 | 29.0                   | 29.4                 |
| Use of high-risk medications in the elderly<br>One high-risk medication<br>Two high-risk medications | N/R<br>N/R           | 23.9<br>6.6          | 23.1<br>5.9          | 23.2<br>6.0            | 23.4<br>6.0          |

Note: HbA1c (hemoglobin A1c), N/R (not reported because measure was not yet in use). Data show the simple average reported rate across all plans. Rates are percent of enrollees receiving the appropriate screening, for example, or percent with a given condition or risk factor receiving indicated care (e.g., diabetics who received an eye exam). Data are for HMOs only and do not include results for preferred provider organizations or private fee-for-service plans. Because measure definitions change over time, the table includes only selected measures for which there are several years of consistent measurement over time.

\*Statistically significant change in the rate from the preceding year.

\*\*Acute phase refers to the percent of patients receiving effective treatment after a new episode; continuation is remaining on antidepressant continuously for six months after initial diagnosis; contacts show the rate of receiving at least 3 followup office visits in a 12-week acute phase. The continuation phase figure for 2006 is taken from the 2007 National Committee for Quality Assurance (NCQA) report and is higher than the rate shown in earlier data books.

\*\*\*NCQA did not report results for this measure for 2008.

Source: National Committee for Quality Assurance. 2005, 2006, 2007 and 2008. The State of Health Care Quality. Washington, DC: NCQA. Additional information provided by NCQA.

- The National Committee for Quality Assurance, in its 2009 report, noted that "with a few key
  exceptions quality measures ... were flat" in each sector examined and "the flat performance
  by plans serving Medicare ... beneficiaries represents the third consecutive year of
  stagnation" for the program and the people it serves.
- Because many Medicare beneficiaries in many Medicare Advantage plans are still not receiving clinically indicated services, opportunities for further improvement exist.

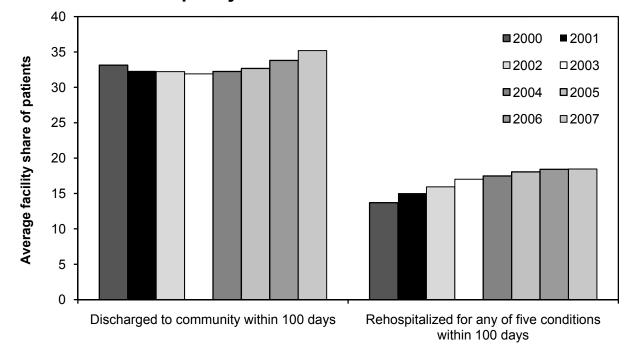


Chart 4-7. SNF quality results are mixed from 2000 to 2007

Source: Analysis of DataPro data conducted by University of Colorado Health Sciences Center for MedPAC.

- Changes in the risk-adjusted measures of quality show mixed results, with one indicator showing improved results and the other showing poorer quality.
- In 2007, the rate of community discharge within 100 days was the highest it had been since 2000 (35.2 percent), indicating improved performance. After declining between 2000 and 2003, the rate slowly increased through 2007.
- The risk-adjusted rates of potentially avoidable rehospitalization within 100 days for 5 conditions have increased throughout the period, indicating worse quality, though the increase between 2006 and 2007 was the smallest since 2000. In 2007, the mean risk-adjusted facility rehospitalization rate for the five conditions was 18.5 percent.
- Risk-adjusted quality measures differed by facility type. Hospital-based facilities had higher community discharge rates and lower potentially avoidable rehospitalization rates than freestanding facilities—indicating higher quality—after controlling for differences in case mix, ownership, and location.
- Risk-adjusted quality measures showed mixed results by ownership. For-profit facilities had slightly higher community discharge rates—indicating higher quality—but also had higher potentially avoidable rehospitalization rates—indicating poorer quality—compared with nonprofit skilled nursing facilities after risk adjustment.

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 and are risk-adjusted.

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

• Chapters 2 and 3 of the MedPAC March 2010 Report to the Congress include further information on the quality of care in inpatient hospitals, ambulatory care settings, dialysis facilities, skilled nursing facilities, home health agencies, and inpatient rehabilitation facilities.

http://www.medpac.gov/chapters/Mar10\_Ch02A.pdf http://www.medpac.gov/chapters/Mar10\_Ch02B.pdf http://www.medpac.gov/chapters/Mar10\_Ch02D.pdf http://www.medpac.gov/chapters/Mar10\_Ch03A.pdf http://www.medpac.gov/chapters/Mar10\_Ch03B.pdf http://www.medpac.gov/chapters/Mar10\_Ch03C.pdf

 Chapter 4 of the MedPAC March 2010 Report to the Congress includes further information on the quality of care in Medicare Advantage plans.

http://www.medpac.gov/chapters/Mar10\_Ch04.pdf

 Chapter 5 of the MedPAC March 2010 Report to the Congress includes information on performance metrics for Medicare Part D plans (prescription drug plans and Medicare Advantage–Prescription Drug plans).

http://www.medpac.gov/chapters/Mar10\_Ch05.pdf

 Chapter 6 of the MedPAC March 2010 Report to the Congress includes a set of recommendations on comparing the quality of care between Medicare fee-for-service and Medicare Advantage and among Medicare Advantage plans.

http://www.medpac.gov/chapters/Mar10\_Ch06.pdf

 Chapter 8 of the MedPAC June 2009 Report to the Congress discusses care coordination for Medicare beneficiaries and its implications for quality of care and discusses certain care coordination demonstration and pilot programs for Medicare beneficiaries with chronic illnesses, including their impacts on quality of care.

http://www.medpac.gov/chapters/Jun09\_Ch08.pdf

 Chapter 4 of the MedPAC June 2007 Report to the Congress discusses policy options to improve the quality of home health services, and Chapter 8 of the same report provides information on the quality of care provided by skilled nursing facilities.

http://www.medpac.gov/chapters/Jun07\_Ch04.pdf http://www.medpac.gov/chapters/Jun07\_Ch08.pdf

 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 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

 The CMS website provides information on all Medicare quality and value-based purchasing initiatives.

http://www.cms.gov/QualityInitiativesGenInfo/

• Medicare provides public comparative information on selected quality measures for hospital, nursing facility, home health agency, and dialysis facilities on its consumer website.

http://www.medicare.gov/Hospital/home.asp http://www.medicare.gov/NHCompare/Home.asp http://www.medicare.gov/HHCompare/Home.asp http://www.medicare.gov/Dialysis/Home.asp

• CMS makes available downloadable databases of the quality measures and other information underlying the four provider comparison databases cited above.

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

 Medicare Advantage plan quality measures are available through a Medicare consumer website (the Medicare Personal Plan Finder) that makes plan-to-plan comparisons within a specified geographic area.

http://www.medicare.gov/MPPF/home.asp

 CMS makes available a downloadable data base of the Medicare Advantage plan quality measures underlying the Medicare Personal Plan Finder.

http://www.medicare.gov/Download/DownloadDB.asp (select "Plans—Quality Data" from the drop-down menu)

 The current and past editions of the National Committee for Quality Assurance (NCQA) publication cited in Chart 4-6, *The State of Health Care Quality*, are available from the NCQA website.

http://www.ncqa.org/tabid/836/Default.aspx

• The Commonwealth Fund published a chart book in May 2005 with information on the quality of care for Medicare beneficiaries.

http://www.commonwealthfund.org/Content/Publications/Chartbooks/2005/May/Quality-of-Health-Care-for-Medicare-Beneficiaries--A-Chartbook.aspx



#### Access to care in the Medicare program

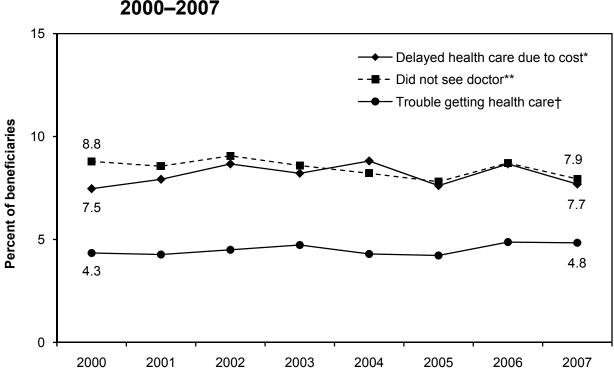


Chart 5-1. Beneficiaries' reports of difficulties accessing care, 2000–2007

\*\* 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.

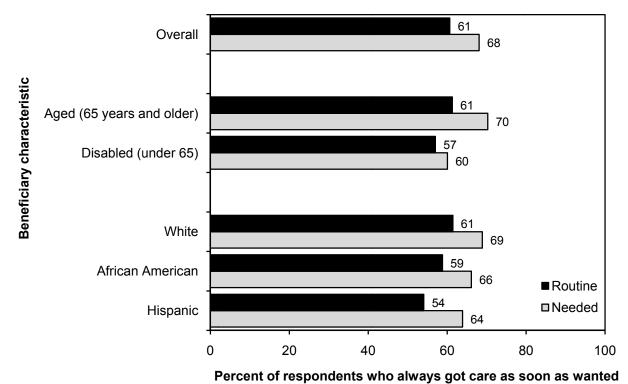
† Answered "yes" when asked if they had any trouble getting health care that they wanted or needed.

- In 2007—the most recent year for which we have data from the Medicare Current Beneficiary Survey—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 remained almost stable, from 4.9 percent in 2006 to 4.8 percent in 2007.
- When asked whether they delayed seeking medical care because of cost, 7.7 percent of beneficiaries answered yes in 2007, down from 8.7 percent in 2006.
- The percentage of beneficiaries reporting that they did not see a doctor despite having a serious health problem or condition decreased from 8.7 percent in 2006 to 7.9 percent in 2007.

Note: These data reflect the answers given by noninstitutionalized beneficiaries. These data are slightly different from analyses in past years because of a revised weighting procedure. \* Answered "yes" when asked if they delayed seeking medical care because they were worried about the cost. \*\* Answered "yes" when asked if they had a serious health problem or condition about which they should have seen a

Source: MedPAC analysis of Medicare Current Beneficiary Survey, Access to Care file, 2000-2007.

Chart 5-2. Beneficiaries differ in their reports of timeliness in getting needed or routine care, 2008



Source: MedPAC analysis of CAHPS<sup>®</sup> (Consumer Assessment of Healthcare Providers and Systems<sup>®</sup>) for fee-for-service Medicare, 2008.

- Overall, 68 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 or older, smaller percentages of beneficiaries under age 65 and eligible for Medicare on the basis of disability reported that they always got needed 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 needed or routine care as soon as they wanted.

## Chart 5-3. Medicare beneficiaries report as good or better ability to get timely appointments with physicians, compared with privately insured individuals, 2006–2009

|  | Med     | dicare (aç | ge 65 or c | older) | Private insurance (age 50–64) |          |           |           |
|--|---------|------------|------------|--------|-------------------------------|----------|-----------|-----------|
| Survey question                                  | 2006    | 2007       | 2008       | 2009   | 2006                          | 2007     | 2008      | 2009      |
| Unwanted delay in get<br>you have to wait longer | • • • • |            | 0          |        |                               | appointm | ent, "How | often did |

|                       | •    | -    |      |      |      |      |      |      |
|-----------------------|------|------|------|------|------|------|------|------|
| For routine care      |      |      |      |      |      |      |      |      |
| Never                 | 75%* | 75%* | 76%* | 77%* | 69%* | 67%* | 69%* | 71%* |
| Sometimes             | 18*  | 18*  | 17*  | 17*  | 21*  | 24*  | 24*  | 22*  |
| Usually               | 3*   | 3    | 3*   | 2*   | 5*   | 4    | 5*   | 3*   |
| Always                | 3    | 3    | 2    | 2    | 4    | 3    | 2    | 3    |
| For illness or injury |      |      |      |      |      |      |      |      |
| Never                 | 84*  | 82*  | 84*  | 85*  | 79*  | 76*  | 79*  | 79*  |
| Sometimes             | 11*  | 13*  | 12*  | 11*  | 15*  | 17*  | 16*  | 17*  |
| Usually               | 2    | 3    | 1    | 2    | 2    | 3    | 2    | 2    |
| Always                | 1*   | 2    | 1*   | 1    | 2*   | 3    | 2*   | 2    |

Note: Numbers may not sum to 100 percent due to rounding. Missing responses ("Don't Know" or "Refused") are not presented. Overall sample sizes for each group (Medicare and privately insured) were 2,000 in years 2006 and 2007, 3,000 in 2008, and 4,000 in 2009. Sample sizes for individual questions varied.

\* Indicates a statistically significant difference between the Medicare and privately insured samples in the given year at a 95 percent confidence level.

Source: MedPAC-sponsored telephone surveys, conducted August–September 2006, 2007, 2008, and 2009.

- Most Medicare beneficiaries have one or more doctor appointments in a given year. Therefore, one access indicator we examine is their ability to schedule timely appointments.
- Medicare beneficiaries report better access to physicians for appointments compared with privately insured individuals age 50 to 64. For example, in 2009, 77 percent of Medicare beneficiaries and 71 percent of privately insured individuals reported "never" having to wait longer than they wanted to get an appointment for routine care.
- Medicare beneficiaries also report more timely appointments for injury and illness compared with their privately insured counterparts.
- As expected, appointment scheduling for illness or injury is better than for routine care appointments for both Medicare beneficiaries and privately insured individuals.

#### Chart 5-4. Medicare and privately insured patients who are looking for a new physician report more difficulty finding one in primary care, 2006–2009

|   | Medicare (age 65 or older) |           |           |          | Priva        | Private insurance (age 50–64) |           |          |  |
|---|----------------------------|-----------|-----------|----------|--------------|-------------------------------|-----------|----------|--|
| Survey question   | 2006                       | 2007      | 2008      | 2009     | 2006         | 2007                          | 2008      | 2009     |  |
| Looking for a new physic                                | ian: "In th                | e past 12 | 2 months, | have you | tried to get | a new prii                    | mary care | doctor?" |  |
| Yes   | 10%                        | 9%        | 6%        | 6%       | 10%          | 10%                           | 7%        | 8%       |  |
| No  | 89                         | 91        | 93        | 93       | 90           | 90                            | 93        | 92       |  |
| Getting a new physician:<br>much of a problem was it fi |                            |           |           |          |              |                               |           |          |  |
| Primary care physician                                  |                            |           |           |          |              |                               |           |          |  |
| No problem  | 76                         | 70*       | 71        | 78       | 75           | 82*                           | 72        | 71       |  |
| Small problem   | 10                         | 12        | 10        | 10       | 15           | 7                             | 13        | 8        |  |
| Big problem   | 14                         | 17        | 18        | 12*      | 10           | 10                            | 13        | 21*      |  |
| Specialist  |                            |           |           |          |              |                               |           |          |  |
| No problem  | 80                         | 85        | 88        | 88       | 83           | 79                            | 83        | 84       |  |
| Small problem   | 7                          | 6         | 7         | 7        | 9            | 11                            | 9         | 9        |  |
| Big problem   | 11                         | 9         | 4         | 5        | 7            | 10                            | 7         | 7        |  |

Note: Numbers may not sum to 100 percent due to rounding. Missing responses ("Don't Know" or "Refused") are not presented. Overall sample sizes for each group (Medicare and privately insured) were 2,000 in years 2006 and 2007, 3,000 in 2008, and 4,000 in 2009. Sample sizes for individual questions varied.

\* Indicates a statistically significant difference between the Medicare and privately insured samples in the given year at a 95 percent confidence level.

Source: MedPAC-sponsored telephone surveys, conducted August-September 2006, 2007, 2008, and 2009.

- In 2009, only 6 percent of Medicare beneficiaries and 8 percent of privately insured individuals reported looking for a new primary care physician. This finding suggests that most people are either satisfied with their current physician or did not see a need to look for one.
- Of the 6 percent of Medicare beneficiaries who were looking for a new primary care physician in 2008, 22 percent reported problems finding one. Although this number amounts to less than 2 percent of the total Medicare population reporting problems, the Commission is concerned about the continuing trend of greater access problems for primary care. While 22 percent is down from the 28 percent of Medicare beneficiaries reporting problems finding a new primary care physician in 2008, this year-to-year difference is not statistically significant.
- Among the privately insured individuals who were looking for a new primary care physician, 29 percent reported problems finding one. The difference (in percentage experiencing a "big problem" finding a primary care physician) between the Medicare and privately insured groups is statistically significant.
- For 2008, Medicare beneficiaries and privately insured individuals were more likely to report problems accessing primary care physicians compared with specialists.

#### Chart 5-5. Access to physician care is similar or better for Medicare beneficiaries compared with privately insured individuals, but minorities in both groups report problems more frequently, 2009

|  | Medica         | re (age 65 c   | or older) | Private insurance (age 50–64) |               |              |  |
|--|----------------|----------------|-----------|-------------------------------|---------------|--------------|--|
| Survey question                                  | All            | White Minority |           | All                           | White         | Minority     |  |
| Unwanted delay in get<br>you have to wait longer | <b>•</b> • • • |                | •         |                               | ointment, "Ho | ow often die |  |
| For routine care                                 |                |                |           |                               |               |              |  |
| Never  | 77%*           | 78%*†          | 72%*†     | 71%*                          | 72%*†         | 67%*†        |  |
| Sometimes  | 17*            | 17*            | 18*       | 22*                           | 22*           | 23*          |  |
| Usually  | 2*             | 2              | 2         | 3*                            | 3             | 4            |  |
| Always   | 2              | 2†             | 4†        | 3                             | 2†            | 5†           |  |
| For illness or injury                            |                |                |           |                               |               |              |  |
| Never  | 85*            | 86*†           | 81*†      | 79*                           | 80*†          | 75*†         |  |
| Sometimes  | 11*            | 11*            | 11*       | 17*                           | 17*           | 19*          |  |
| Usually  | 2              | 1†             | 3†        | 2                             | 2             | 2            |  |
| Always   | 1              | 1†             | 2†        | 2                             | 1†            | 3†           |  |

Note: Numbers may not sum to 100 percent due to rounding. Missing responses ("Don't Know" or "Refused") are not presented. Overall sample sizes for each group (Medicare and privately insured) were 2,000 in years 2006 and 2007, 3,000 in 2008, and 4,000 in 2009. Sample sizes for individual questions varied.

\* Indicates a statistically significant difference between the Medicare and privately insured samples in the given year at a 95 percent confidence level.

† Indicates a statistically significant difference by race within the same insurance coverage category in the given year at a 95 percent confidence level.

Source: MedPAC-sponsored telephone surveys, conducted August-September 2009.

- In 2009, Medicare beneficiaries report better access to physicians for appointments compared with privately insured individuals age 50 to 64.
- Access varies by race, with minorities more likely than whites to report access problems in both insurance categories. For example, in 2009, 72 percent of minority Medicare beneficiaries and 78 percent of white Medicare beneficiaries reported "never" having to wait longer than they wanted to get an appointment for routine care.
- Although minorities experienced more access problems, those with Medicare experienced fewer problems compared with privately insured minorities.

#### Chart 5-6. Differences in access to new physicians are most apparent among minority Medicare and privately insured patients who are looking for a new specialist, 2009

|  | Medica         | are (age 65 | or older)         | Private insurance (age 50–64) |              |              |  |
|--|----------------|-------------|-------------------|-------------------------------|--------------|--------------|--|
| Survey question                                  | All            | White       | Minority          | All                           | White        | Minority     |  |
| Looking for a new phys                           | ician: "In the | past 12 mor | iths, have you tr | ied to get a ne               | ew primary c | are doctor?' |  |
| Yes  | 6%             | 6%*         | 8%                | 8%                            | 8%*          | 8%           |  |
| No   | 93             | 94          | 92                | 92 92                         |              | 92           |  |
| Getting a new physicial much of a problem was it |                |             |                   |                               |              |              |  |
| Primary care physicia                            | n              |             |                   |                               |              |              |  |
| No problem                                       | 78             | 82*         | 69                | 71                            | 70*          | 69           |  |
| Small problem                                    | 10             | 7           | 17                | 8                             | 8            | 11           |  |
| Big problem                                      | 12*            | 11*         | 12                | 21*                           | 22*          | 19           |  |
| Specialist                                       |                |             |                   |                               |              |              |  |
| No problem                                       | 88             | 91†         | 75†               | 84                            | 86†          | 73†          |  |
| Small problem                                    | 7              | 5†          | 13†               | 9                             | 9            | 11           |  |
| Big problem                                      | 5              | 4†          | 11†               | 7 5†                          |              | 16†          |  |

Note: Numbers may not sum to 100 percent due to rounding. Missing responses ("Don't Know" or "Refused") are not presented. Overall sample sizes for each group (Medicare and privately insured) were 2,000 in years 2006 and 2007, 3,000 in 2008, and 4,000 in 2009. Sample sizes for individual questions varied.

\* Indicates a statistically significant difference between the Medicare and privately insured samples in the given year at a 95 percent confidence level.

† Indicates a statistically significant difference by race within the same insurance coverage category in the given year at a 95 percent confidence level.

Source: MedPAC-sponsored telephone surveys, conducted August-September 2009.

- In 2009, Medicare and privately insured minorities were not more likely to report looking for a new primary care physician, nor were they significantly more likely than white Medicare beneficiaries and privately insured individuals to report problems finding one.
- Among the small percentage of Medicare beneficiaries and privately insured individuals looking for a new specialist, minorities were more likely than whites to report problems finding one. For example, in 2009, 11 percent of minority Medicare beneficiaries and 4 percent of white Medicare beneficiaries reported a "big problem" finding a new specialist.
- Although minorities experienced more access problems, those with Medicare experienced fewer problems compared with privately insured minorities.

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

• Chapter 2B of the MedPAC March 2010 Report to the Congress provides more information on beneficiary access to physicians.

http://www.medpac.gov/chapters/Mar10\_Ch02B.pdf

• The Commonwealth Fund released results from their 2007 Biennial Health Insurance Survey, which have further information on access in the Medicare program.

http://www.commonwealthfund.org/Content/Publications/In-the-Literature/2009/May/Meeting-Enrollees-Needs.aspx

• The Government Accountability Office issued a report in August 2009 about access to physician services within Medicare.

http://www.gao.gov/new.items/d09559.pdf

• The Center for Studying Health System Change also conducts research on patient access to health care.

http://www.hschange.org



### Medicare beneficiary and other payer financial liability

#### No supplemental coverage 8.7% Medicare 19.4% Other public sector 1.1% Medicaid 13.5% Employer sponsored 30.9%

## Chart 6-1. Sources of supplemental coverage among noninstitutionalized Medicare beneficiaries, 2006

Note: Beneficiaries are assigned to the supplemental coverage category that applied for the most time in 2006. They could have had coverage in other categories throughout 2006. 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 2006 or who had Medicare as a second payer. This chart reflects data from the revised 2006 Medicare Current Beneficiary Survey Cost and Use file. As such, figures may differ from those in the MedPAC 2009 Data Book.

Source: MedPAC analysis of Medicare Current Beneficiary Survey, Cost and Use file, 2006.

- Most beneficiaries living in the community have coverage that supplements or replaces the Medicare benefit package. About 91 percent of beneficiaries have supplemental coverage or participate in Medicare managed care.
- About 57 percent have private-sector supplemental coverage such as medigap (about 26 percent) or employer-sponsored retiree coverage (about 31 percent).
- About 14 percent have public-sector supplemental coverage, primarily Medicaid.
- Nineteen percent participate in Medicare managed care. This care 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 19 percent) is much smaller than the proportion listed in Chapter 10 (24 percent), because this chart reflects 2006 data and Chapter 10 reflects 2010 data. Managed care enrollment grew substantially in the intervening years.

#### Chart 6-2. Sources of supplemental coverage among noninstitutionalized Medicare beneficiaries, by beneficiaries' characteristics, 2006

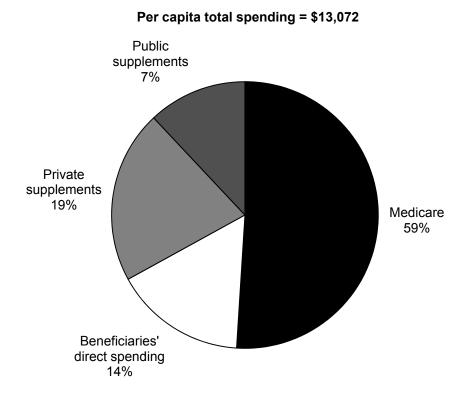
|                        | Number of<br>beneficiaries<br>(thousands) | Employer-<br>sponsored<br>insurance | Medigap<br>insurance | Medicaid | Medicare<br>managed<br>care | Other<br>public<br>sector | Medicare only |
|------------------------|---|-------------------------------------|----------------------|----------|-----------------------------|---------------------------|---------------|
|                        | 07.440                                    | 049/                                | 00%                  | 4 40/    | 40%                         | 40/                       | 0.0/          |
| All beneficiaries      | 37,148                                    | 31%                                 | 26%                  | 14%      | 19%                         | 1%                        | 9%            |
| Age<br>Under 65        | 5,472                                     | 17                                  | 5                    | 43       | 13                          | 1                         | 21            |
| 65–69                  | ,   | 36                                  | 26                   |          | 13                          | 1                         |               |
| 65–69<br>70–74         | 8,090                                     |                                     |                      | 9        |                             | 1                         | 9             |
|                        | 7,493                                     | 32                                  | 29                   | 9<br>8   | 22                          | 1                         | 6             |
| 75–79                  | 6,777                                     | 32                                  | 32                   | 8<br>7   | 22                          | 1                         | 5<br>5        |
| 80-84                  | 5,178                                     | 33                                  | 33                   |          | 21                          | 1                         | 5             |
| 85+                    | 4,134                                     | 32                                  | 35                   | 9        | 18                          | 1                         | 6             |
| Income status          | a <del>.</del> .                          |                                     |                      |          |                             |                           |               |
| Below poverty          | 6,147                                     | 10                                  | 11                   | 49       | 17                          | 1                         | 11            |
| 100% to 125% of povert |   | 15                                  | 23                   | 28       | 21                          | 2                         | 11            |
| 125% to 200% of povert |   | 25                                  | 27                   | 10       | 22                          | 2                         | 14            |
| 200% to 400% of povert |   | 41                                  | 29                   | 1        | 20                          | 1                         | 8             |
| Over 400% of poverty   | 8,874                                     | 44                                  | 35                   | 0        | 16                          | 0                         | 3             |
| Eligibility status     |   |                                     |                      |          |                             |                           |               |
| Aged                   | 31,476                                    | 33                                  | 30                   | 8        | 21                          | 1                         | 7             |
| Disabled               | 5,288                                     | 16                                  | 5                    | 43       | 13                          | 1                         | 21            |
| ESRD                   | 342                                       | 33                                  | 16                   | 27       | 17                          | 0                         | 7             |
| Residence              |   |                                     |                      |          |                             |                           |               |
| Urban                  | 28,153                                    | 31                                  | 25                   | 12       | 24                          | 1                         | 7             |
| Rural                  | 8,990                                     | 31                                  | 32                   | 17       | 5                           | 1                         | 14            |
| Sex                    | ,   |                                     |                      |          |                             |                           |               |
| Male                   | 16,338                                    | 32                                  | 24                   | 12       | 19                          | 1                         | 11            |
| Female                 | 20,808                                    | 30                                  | 28                   | 14       | 20                          | 1                         | 7             |
| Health status          |   |                                     |                      |          |                             |                           |               |
| Excellent/very good    | 15,382                                    | 34                                  | 31                   | 6        | 20                          | 1                         | 7             |
| Good/fair              | 18,522                                    | 29                                  | 24                   | 17       | 20                          | 1                         | 9             |
| Poor                   | 3,021                                     | 26                                  | 13                   | 31       | 13                          | 2                         | 14            |

Note: ESRD (end-stage renal disease). Beneficiaries are assigned to the supplemental coverage where they spent the most time in 2006. They could have had coverage in other categories throughout 2006. 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 2006, poverty was defined as \$9,669 for people living alone and \$12,186 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 differs among boldface categories because we exclude beneficiaries with missing values. This chart reflects data from the revised 2006 Medicare Current Beneficiary Survey Cost and Use file. As such, figures may differ from those in the MedPAC 2009 Data Book.

Source: MedPAC analysis of 2006 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 report better than good
  health.
- Medigap is most common among those who are "older" aged (age 70 or older), middle or high income (above 125 percent of poverty), eligible due to age, rural dwelling, female, and 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, and report poor health.
- Medicare managed care is most common among those who are age 65 or older, with income between 100 percent and 400 percent of poverty, eligible due to age, urban dwelling, and 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 report poor health.

#### Chart 6-3. Total spending on health care services for noninstitutionalized FFS Medicare beneficiaries, by source of payment, 2006



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, 2006.

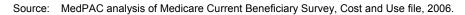
- Among fee-for-service (FFS) beneficiaries living in the community, the total cost of health care services (defined as beneficiaries' direct spending as well as expenditures by Medicare, other public-sector sources, and all private-sector sources on all health care goods and services) averages \$13,072. Medicare is the largest source of payment; it pays 59 percent of the health care costs for FFS beneficiaries living in the community, an average of \$7,691 per beneficiary.
- Private sources of supplemental coverage—primarily employer-sponsored retiree coverage and medigap—paid 19 percent of beneficiaries' costs, an average of \$2,540 per beneficiary.
- Beneficiaries paid 14 percent of their health care costs out of pocket, an average of \$1,871 per beneficiary.
- Public sources of supplemental coverage—primarily Medicaid—paid 7 percent of beneficiaries' health care costs, an average of \$962 per beneficiary.

70.000 Medicare 60.363 Supplemental payers 60,000 Out of pocket 50,000 40,000 Dollars 30,000 20,993 20,000 9,735 10,000 4,587 1,840 301 0 < 10 10-25 25-50 50-75 75-90 > 90

Chart 6-4. Per capita total spending on health care services among noninstitutionalized FFS beneficiaries, by source of payment, 2006

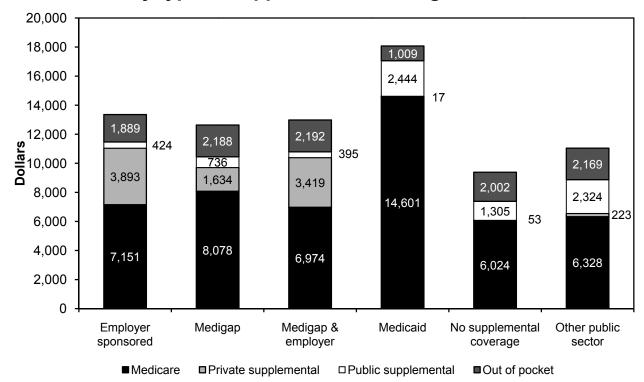
Groups of beneficiaries ranked by total spending (percentile ranges)

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



- 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 \$60,363. Per capita spending for the 10 percent of beneficiaries with the lowest total spending averages \$301.
- Among FFS beneficiaries living in the community, Medicare pays a larger percentage as total spending increases, and beneficiaries' out-of-pocket spending is a smaller percentage as total spending increases. For example, Medicare pays 59 percent of total spending for all beneficiaries but pays 70 percent of total spending for the 10 percent of beneficiaries with the highest total spending. Beneficiaries' out-of-pocket spending covers 14 percent of total spending for all beneficiaries but only 9 percent of total spending for the 10 percent of beneficiaries with the highest total spending.

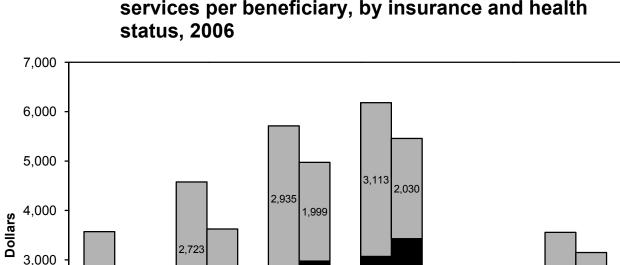
Chart 6-5. Variation in and composition of total spending among noninstitutionalized FFS beneficiaries, by type of supplemental coverage, 2006



Note: FFS (fee-for-service). Beneficiaries are assigned to the supplemental coverage category that applied for the most time in 2006. They could have had coverage in other categories throughout 2006. 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 2006 or had Medicare as a second payer. Out-of-pocket 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, 2006.

- 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, 93 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' out-of-pocket spending is the second largest source of payment.



2,778 2,975

+

Medigap

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

Premiums paid by beneficiaries Out-of-pocket spending by beneficiaries

1,023 1,047

+

Medicare only

2,549

1,722

2,000

1.000

0

- Beneficiaries who report they are in fair or poor health

+

Medigap

& employer

3,428

3.069

+ Beneficiaries who report they are in good, very good, or excellent health

1,189

Medicaid

828

+

118

2,388

2.088

1,168 1.061

+

Other

Note: ESI (employer-sponsored supplemental insurance).

Source: MedPAC analysis of Medicare Current Beneficiary Survey, Cost and Use file, 2006.

1,647

1,854 1,978

+

ESI

- 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 \$1,023 in out-of-pocket spending on premiums and \$2,549 on services. Those who have Medicare-only coverage and report good, very good, or excellent health had an average of \$1,047 in out-of-pocket spending on premiums and \$1,722 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 more 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 services not covered by Medicare. Beneficiaries with ESI usually pay less out of pocket for Medicare noncovered services than those with medicap but may pay more in Medicare deductibles and cost sharing.

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

• Chapter 1 of the MedPAC March 2010 Report to the Congress provides more information on Medicare program spending.

http://www.medpac.gov/chapters/Mar10\_ch01.pdf.

Chapter 1 of the MedPAC March 2009 Report to the Congress provides more information on Medicare program spending.

http://www.medpac.gov/chapters/Mar09\_ch01.pdf.

 Chapter 1 of the MedPAC March 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 2 of the MedPAC June 2010 Report to the Congress discusses the effect supplemental coverage has on beneficiaries' cost sharing, their health care use, and program spending.

http://www.medpac.gov/chapters/Jun10\_ch02.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.

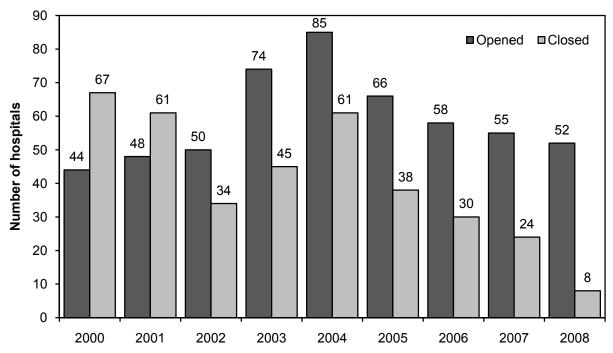
http://www.medpac.gov/publications/congressional\_reports/June04\_AppB.pdf.

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

SECTION

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

Chart 7-1. Annual changes in number of acute care hospitals participating in the Medicare program, 2000–2008



Note: Openings and closures exclude hospitals converting to long-term care hospitals and critical access hospitals. Closures include voluntary and involuntary terminations.

Source: MedPAC analysis of the Provider of Service file from CMS.

- Number of hospital openings exceeded the number of closures for the seventh consecutive year. In 2008, 52 acute care hospitals began participating in the Medicare program and 8 terminated.
- Overall, the number of acute care hospitals increased from 2007 to 2008. In 2008, 4,885 acute care hospitals (including critical access hospitals) participated in the Medicare program, up about 1 percent from 2007.

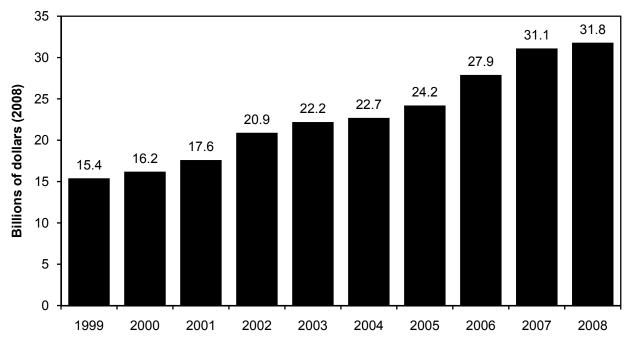


Chart 7-2. Nonfederal hospital construction spending, 1999–2008

Source: Census Bureau. http://www.census.gov/const/www/c30index.html. April 2010.

• Hospital construction increased substantially, expanding more than 31 percent (in real terms) from 2005 to 2008 to nearly \$32 billion and more than doubling since 1999.

Note: Spending is for nonfederal hospital construction. Data for 2008 were revised by the Census Bureau in May 2009. Data are inflated to 2008 dollars using the McGraw-Hill construction cost index.

|                            | Total U.S.<br>employment<br>(May 2006) | Total U.S.<br>employment<br>(May 2008) | Percent change in total employment (2006–2008) |
|----------------------------|--|--|--|
| All hospital occupations   | 4,887,130                              | 5,096,190                              | 4.3%   |
| Diagnostic sonographer     | 25,970                                 | 28,930                                 | 11.4   |
| Radiology technician       | 114,600                                | 125,640                                | 9.6  |
| Computer and math science  | 47,620                                 | 52,180                                 | 9.6  |
| Business and finance       | 84,330                                 | 92,160                                 | 9.3  |
| Nuclear medical technician | 12,810                                 | 13,830                                 | 8.0  |
| Pharmacist                 | 52,150                                 | 55,530                                 | 6.5  |
| Registered nurse           | 1,373,610                              | 1,458,520                              | 6.2  |
| Management                 | 165,770                                | 175,390                                | 5.8  |
| Support                    | 626,950                                | 643,640                                | 2.7  |
| Office or administrative   | 746,270                                | 758,040                                | 1.6  |
| LPN or LVN                 | 171,470                                | 163,360                                | -4.7   |

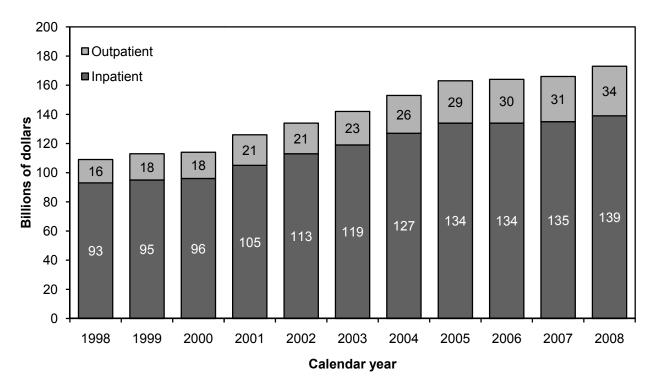
## Chart 7-3. Percent change in hospital industry employment from 2006 to 2008, by occupation

Note: LPN (licensed practical nurse), LVN (licensed vocational nurse).

Source: MedPAC analysis of Bureau of Labor Statistics, Occupational Employment Statistics data set as of December 2009.

- From May 2006 to May 2008, hospital employment increased 4.3 percent. By the end of this period the hospital industry employed more than 5 million individuals.
- The number of diagnostic sonographers employed by the hospital industry increased more rapidly than any other occupation from 2006 to 2008, at 11.4 percent. Growth was also rapid for radiology technicians (9.6 percent) and nuclear medical technicians (8.0 percent).
- LPNs and LVNs were among the few occupations to experience a decline in the number of individuals employed by hospitals from 2006 to 2008, declining by 4.7 percent (8,110 LPNs and LVNs). During the same time period, the number of registered nurses employed by hospitals increased 6.2 percent (84,910 registered nurses), suggesting a shift toward nurses with a higher level of training.

Chart 7-4. Growth in Medicare's FFS payments for hospital inpatient and outpatient services, 1998–2008



Note: FFS (fee-for-service). Analysis includes inpatient services covered by the acute inpatient prospective payment system (PPS); 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.

Source: CMS, Office of the Actuary.

- Aggregate Medicare FFS inpatient spending was \$139 billion and outpatient spending was \$34 billion in 2008. From 2007 to 2008, inpatient spending increased about 3 percent, while outpatient spending increased about 11 percent.
- A freeze in inpatient payment rates in the Balanced Budget Act of 1997 reduced inpatient spending growth from 1998 to 2000. Spending increased substantially between 2001 and 2004 but reverted to relatively slow growth from 2005 to 2007 because a large number of beneficiaries switched from traditional FFS Medicare to the Medicare Advantage program. More rapid payment growth resumed in 2008 for inpatient and outpatient services.
- Outpatient spending per FFS beneficiary was about \$1,090 in 2008, up from \$590 in 2000, an 85 percent increase.

| MDC<br>number | MDC name   | Share of all discharges | Share of<br>medical<br>discharges | Share of<br>surgical<br>discharges |
|---------------|--|-------------------------|-----------------------------------|------------------------------------|
| 5             | Circulatory system   | 25%                     | 24%                               | 28%                                |
| 4             | Respiratory system   | 15                      | 20                                | 3                                  |
| 8             | Musculoskeletal system<br>and connective tissue              | 12                      | 4                                 | 33                                 |
| 6             | Digestive system   | 11                      | 11                                | 10                                 |
| 1             | Nervous system   | 8                       | 9                                 | 5                                  |
| 11            | Kidney and urinary tract                                     | 7                       | 8                                 | 4                                  |
| 18            | Infectious and parasitic diseases                            | 4                       | 5                                 | 2                                  |
| 10            | Endocrine, nutritional, and metabolic diseases and disorders | 4                       | 5                                 | 2                                  |
| 7             | Hepatobiliary system and pancreas                            | 3                       | 2                                 | 4                                  |
| 9             | Skin, subcutaneous tissue, and breast                        | 3                       | 3                                 | 2                                  |
|               | Total  | 92                      | 91                                | 93                                 |

# Chart 7-5. Major diagnostic categories with highest volume, fiscal year 2008

Note: MDC (major diagnostic category).

Source: MedPAC analysis of MedPAR data from CMS.

- In fiscal year 2008, 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 about one-quarter of medical cases and almost 30
  percent of surgical cases.
- Respiratory system cases accounted for 20 percent of medical discharges.
- Musculoskeletal system cases accounted for 33 percent of surgical discharges.

|   | Но                                     | Hospitals Medicare dis                  |   |   |
|---|--|---|---|---|
| Hospital group  | Number                                 | Share of total                          | Number<br>(thousands)                   | Share of total                          |
| All PPS and critical access hospitals   | 4,678                                  | 100.0%                                  | 11,111                                  | 100.0%                                  |
| PPS hospitals   | 3,398                                  | 72.6                                    | 10,679                                  | 96.1                                    |
| Urban<br>Large urban<br>Other urban   | 2,424<br>1,323<br>1,101                | 51.8<br>28.3<br>23.5                    | 9,128<br>4,984<br>4,144                 | 81.2<br>44.9<br>37.3                    |
| Rural (excluding CAHs)<br>Rural referral<br>Sole community<br>Medicare dependent<br>Other rural <50 beds<br>Other rural <u>&gt;</u> 50 beds | 974<br>129<br>387<br>192<br>108<br>158 | 20.8<br>2.8<br>8.3<br>4.1<br>2.3<br>3.4 | 1,550<br>419<br>614<br>222<br>56<br>240 | 14.0<br>3.8<br>5.5<br>2.0<br>0.5<br>2.2 |
| Voluntary<br>Proprietary<br>Government  | 1,986<br>822<br>590                    | 42.5<br>17.6<br>12.6                    | 7,603<br>1,702<br>1,374                 | 68.4<br>15.3<br>12.4                    |
| Major teaching<br>Other teaching<br>Nonteaching   | 281<br>745<br>2,372                    | 6.0<br>15.9<br>50.7                     | 1,642<br>3,727<br>5,310                 | 14.8<br>33.6<br>47.8                    |
| Critical access hospitals   | 1,280                                  | 27.4                                    | 433                                     | 3.9                                     |

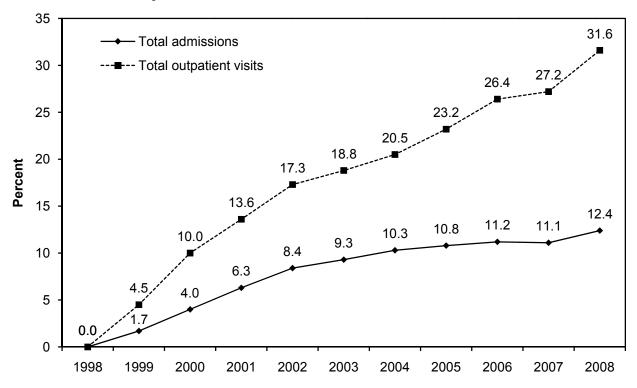
## Chart 7-6. Proportion of Medicare acute care hospital discharges by hospital group, 2008

Note: PPS (prospective payment system), CAH (critical access hospital). Analysis includes all hospitals covered by Medicare's inpatient PPS along with CAHs. 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. See Chart 7-23 for more information about CAHs. Numbers may not sum due to rounding.

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

- In 2008, 3,398 hospitals provided 10.7 million discharges under Medicare's acute inpatient
  prospective payment system (IPPS) and 1,280 CAHs provided more than 0.4 million discharges.
  The number of PPS discharges declined from 2007 primarily due to a shift in Medicare
  beneficiaries from fee-for-service Medicare to Medicare Advantage plans and a shift in services
  from the inpatient to the outpatient setting.
- About 15 percent of all hospitals are covered by three special payment provisions (rural referral, sole community (SCHs), and small rural Medicare-dependent hospitals (MDHs)) intended to help rural facilities that are not CAHs; these facilities account for more than 11 percent of all discharges. The number of these hospitals increased 2 percent from 2007 to 2008. The number of MDHs increased most rapidly, at 16 percent, from 2007 to 2008.
- About 88 percent of rural hospitals were CAHs, SCHs, MDHs, or rural referral centers in 2008. Collectively, these four types of hospitals provide 85 percent of all rural discharges.

Chart 7-7. Cumulative change in total admissions and total outpatient visits, 1998–2008



Note: Cumulative change is the total percent increase from 1998 through 2008. Data are admissions (all payers) to and outpatient visits at about 5,000 community hospitals.

- Hospital outpatient service use grew much more rapidly from 1998 to 2008 than inpatient service use. Total hospital outpatient visits increased about 32 percent from 1998 to 2008, while total admissions grew more than 12 percent.
- There were 624 million outpatient visits and nearly 36 million admissions to community hospitals in 2008.
- The cumulative percent change in total outpatient visits increased by 4.4 percentage points from 2007 to 2008, or nearly 21 million visits. This year was the largest single-year increase in the last 10 years.
- The cumulative percent change in inpatient admissions increased by 1.3 percentage points from 2007 to 2008, or more than 400,000 admissions. This increase comes after the slight decline in admissions observed from 2006 to 2007, the first of its kind in at least 15 years.

Source: American Hospital Association, AHA Hospital Statistics.

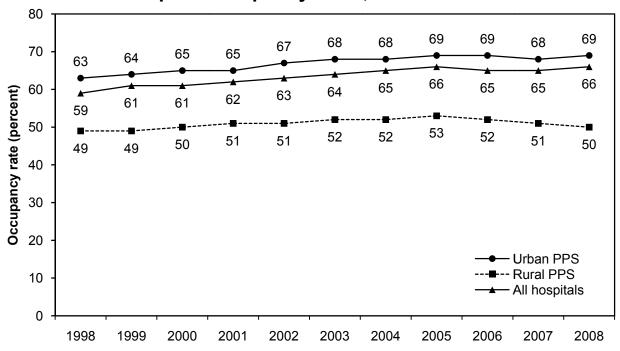
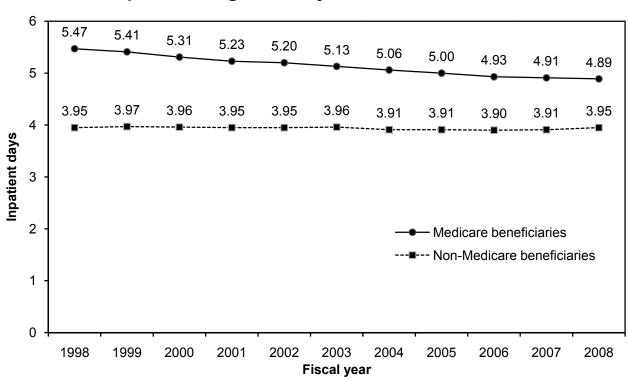


Chart 7-8. Hospital occupancy rates, 1998–2008

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 a given day. Hospitals' group designations for the entire 1998–2008 period are based on their status at the end of 2008.

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 1998 to 66 percent in 2008.
- Occupancy rates are higher in urban than in rural hospitals; in 2008, occupancy rates stood at 69 percent for urban hospitals and 50 percent for rural hospitals, a 19 percentage point difference.



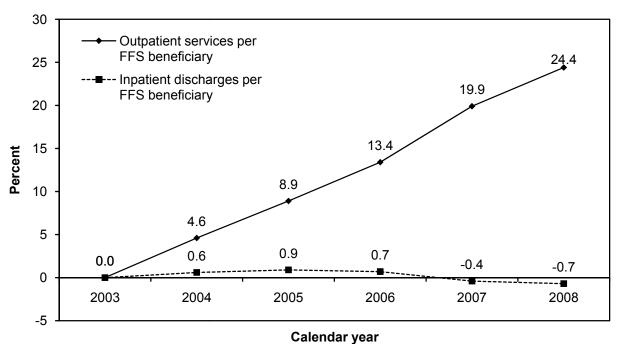
# Chart 7-9. Trends in Medicare inpatient and non-Medicare inpatient length of stay, 1998–2008

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

- Length of stay for Medicare inpatients was nearly 1 day longer than for non-Medicare inpatients in 2008.
- Length of stay for Medicare inpatients fell nearly 12 percent, from 5.47 days in 1998 to 4.89 days in 2008, dropping at an average annual rate of 1.3 percent from 1998 to 2006 and becoming flat from 2006 to 2008.
- Length of stay for all non-Medicare inpatients remained nearly unchanged at 3.95 days between 1998 and 2008. Following a flat period from 2004 to 2007, the average length of stay for non-Medicare inpatients increased slightly in 2008.

Note: Length of stay is calculated from discharges and patient days for more than 3,000 hospitals covered by the acute inpatient prospective payment system. Excludes critical access hospitals.

Chart 7-10. Cumulative change in Medicare outpatient services and inpatient discharges per FFS beneficiary, 2003– 2008



Note: FFS (fee-for-service). Data are for short-term general and surgical hospitals, including critical access and children's hospitals.

Source: MedPAC analysis of MedPAR and hospital outpatient claims data from CMS.

- From 2003 to 2008, Medicare inpatient discharge volume per FFS beneficiary has remained relatively flat, in part due to shifts of patients to the outpatient setting.
- From 2003 to 2008, the number of outpatient services per FFS beneficiary increased nearly 25 percent.

| Percent of total payments       |       |      |      |         |                            |                                 |
|---------------------------------|-------|------|------|---------|----------------------------|---------------------------------|
| -<br>Hospital group             | Base  | IME  | DSH  | Outlier | Additional rural hospital* | Total<br>payments<br>(millions) |
| All hospitals                   | 81.8% | 5.0% | 9.3% | 3.4%    | 0.6%                       | \$108,852                       |
| Urban                           | 81.1  | 5.5  | 9.7  | 3.7     | 0.2                        | 97,522                          |
| Rural                           | 87.9  | 0.7  | 6.2  | 1.4     | 3.7                        | 11,331                          |
| Large urban                     | 79.2  | 6.6  | 10.2 | 3.9     | 0.0                        | 56,091                          |
| Other urban                     | 83.6  | 3.9  | 8.9  | 3.3     | 0.4                        | 41,431                          |
| Rural referral                  | 89.4  | 1.0  | 7.7  | 1.9     | 0.0                        | 3,346                           |
| Sole community                  | 81.8  | 0.1  | 0.1  | 1.3     | 17.7                       | 2,848                           |
| Medicare dependent              | 82.8  | 0.3  | 3.8  | 0.2     | 11.8                       | 755                             |
| Other rural <50 beds            | 91.7  | 0.2  | 6.9  | 1.2     | 0.0                        | 314                             |
| Other rural <u>&gt;</u> 50 beds | 91.6  | 0.4  | 7.4  | 1.6     | 0.0                        | 1,514                           |
| Voluntary                       | 82.4  | 5.3  | 8.4  | 3.4     | 0.6                        | 78,677                          |
| Proprietary                     | 84.7  | 1.3  | 10.6 | 3.0     | 0.4                        | 15,531                          |
| Government                      | 75.5  | 7.0  | 12.8 | 4.1     | 0.6                        | 14,644                          |
| Major teaching                  | 66.5  | 16.0 | 12.5 | 4.9     | 0.1                        | 24,825                          |
| Other teaching                  | 83.8  | 3.6  | 8.9  | 3.3     | 0.3                        | 38,679                          |
| Nonteaching                     | 88.5  | 0.0  | 7.9  | 2.7     | 1.0                        | 45,349                          |

#### Chart 7-11. Medicare inpatient payments, by source and hospital group, 2008

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 direct graduate medical education payments. Simulated payments reflect 2008 payment rules applied to actual number of cases in 2008. Excludes critical access hospitals and their special payments. Sole community hospital and Medicare-dependent hospital categories include only those facilities paid the special nonfederal payment hospital specific rate. Rows may not sum to 100 percent due to rounding.

\*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.

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

- Medicare inpatient payments in 2008 to hospitals covered by the acute inpatient prospective payment system totaled almost \$109 billion. About \$98 billion (90 percent) was paid to hospitals located in urban areas and \$11.3 billion went to rural hospitals. This figure does not reflect more than \$2.6 billion in payments to critical access hospitals for inpatient care.
- Special payments—which include indirect medical education, disproportionate share, and outlier payments as well as additional payments to rural hospitals through the sole community and Medicare-dependent programs— account for 18.2 percent of all inpatient payments. This proportion is higher for urban (18.9 percent) than for rural hospitals (12.1 percent). This definition of special payments does not include wage index adjustments or critical access hospitals' benefits.
- From 2007 to 2008, disproportionate share payments and indirect medical education payments increased as a share of total inpatient payments across nearly all hospital groups. Both changes are the result of specific policy changes implemented for fiscal year 2008.
- Outlier payments accounted for 3.4 percent of total inpatient payments in 2008. The legislative mandate for the level of outlier payments uses a different calculation, displaying outlier payments as a ratio of outlier payments to base payments plus outlier payments. Measured in this way, CMS's outlier share ratio was 4.8 percent in 2008, close to the annual goal of 5.1 percent.

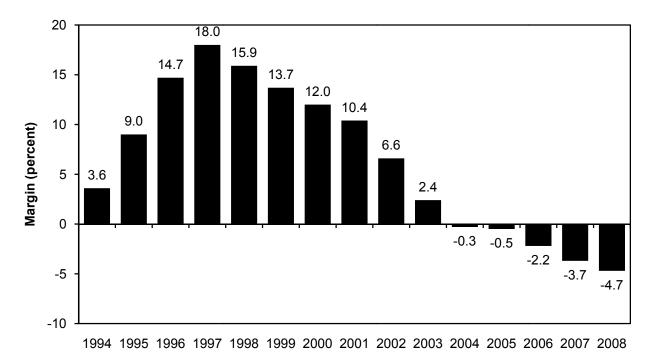
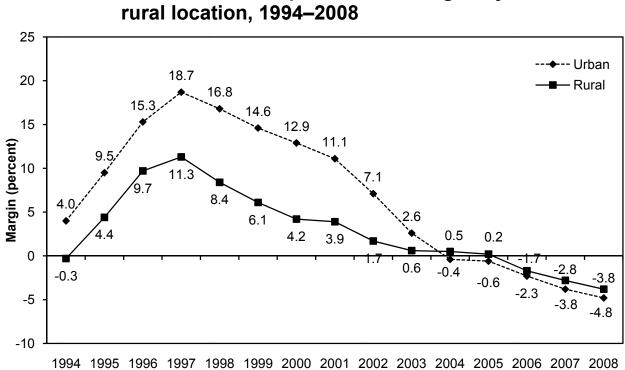


Chart 7-12. Medicare acute inpatient PPS margin, 1994–2008

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.

- Medicare's acute inpatient margin reflects payments and costs for services covered by Medicare's inpatient hospital 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 potential influence of how overhead costs are allocated (see Chart 7-14).
- The Medicare inpatient margin reached a record high of 18.0 percent in 1997. After implementation of the Balanced Budget Act of 1997, however, inpatient margins declined over the next 10 years as costs rose faster than the 3 percent average annual increase in Medicare payments. In 2008, the margin was –4.7 percent, the lowest level since the beginning of the inpatient PPS.
- Medicare inpatient margins vary widely. In 2008, one-quarter of hospitals had Medicare inpatient margins that were 6.5 percent or higher, and another quarter had inpatient margins that were –20.3 percent or lower. This range amounts to a 27 percentage point difference in performance between the top and bottom quartiles in 2008. Thirty-seven percent of hospitals had positive inpatient Medicare margins in 2008.



Medicare acute inpatient PPS margin, by urban and Chart 7-13.

- Urban hospitals historically had much higher Medicare inpatient margins than rural hospitals, but this difference narrowed earlier in this decade and today urban hospital margins are lower than those for rural hospitals.
- The gap between urban and rural hospitals' inpatient margins grew between 1994 and 2000. One factor in this divergence in this period is that urban hospitals had greater success in controlling cost growth, at least partly in response to pressures from managed care. From 2001 to 2004, the difference narrowed and from 2004 to 2008 rural hospitals' inpatient margins were slightly higher than those for 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.

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.

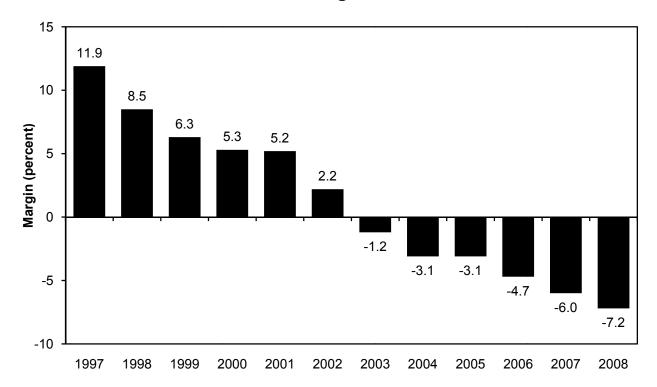


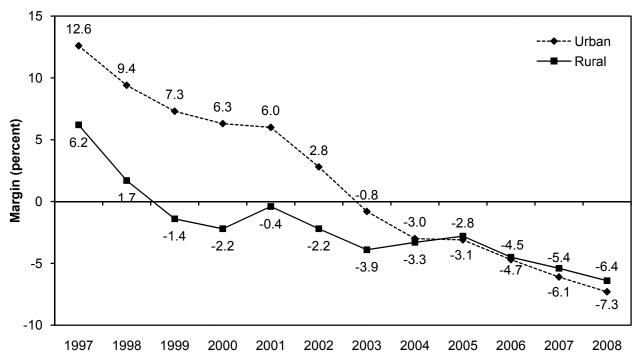
Chart 7-14. Overall Medicare margin, 1997–2008

- The overall Medicare margin incorporates payments and costs for acute inpatient, outpatient, skilled nursing, home health care, and inpatient psychiatric and rehabilitative services as well as direct 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 11.9 percent. In fiscal year 2008, it was -7.2 percent.
- In 2008, one-quarter of hospitals had overall Medicare margins of 2.5 percent or higher, and another quarter had margins of –19.5 percent or lower. Between 2000 and 2008, the difference in performance between the top and bottom quartile widened from 17 percentage points to 22 percentage points. About 31 percent of hospitals had positive overall Medicare margins in 2008.

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 2009) from CMS.

Chart 7-15. Overall Medicare margin, by urban and rural location, 1997–2008



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 direct graduate medical education and bad debts. Data on overall Medicare margins before 1997 are unavailable.

Source: MedPAC analysis of Medicare cost report data (August 2009) from CMS.

- As with inpatient margins, overall Medicare margins historically were higher for urban hospitals than for rural hospitals, but since 2005 overall Medicare margins for rural hospitals have gradually begun to slightly exceed those for urban hospitals.
- The difference in overall Medicare margins between urban and rural hospitals grew between 1997 and 2000 but has since narrowed. In 1997, the overall margin for urban hospitals was 12.6 percent, compared with 6.2 percent for rural hospitals. In 2008, the overall Medicare margin for urban hospitals was –7.3 percent, compared with –6.4 percent for rural hospitals. Policy changes made in the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 targeted to rural hospitals helped to improve the relative financial position of rural hospitals. Further legislation to assist rural hospitals was implemented after 2008.

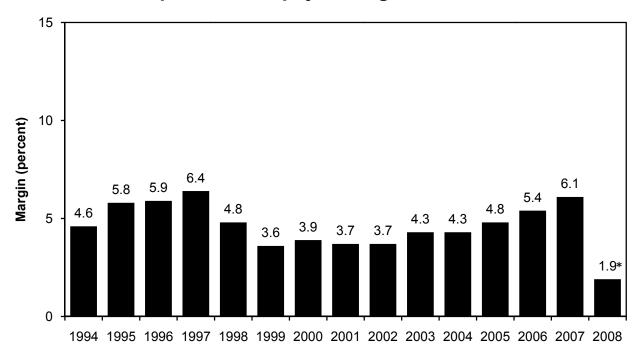


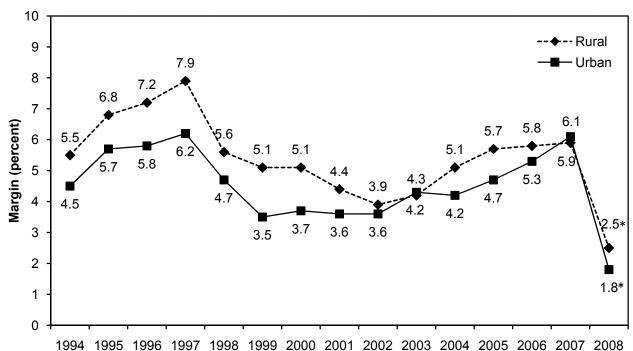
Chart 7-16. Hospital total all payer margin, 1994–2008

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.

\*The significant drop in total margin includes investment losses stemming from the decline of the U.S. stock market in 2008.

- 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 margin also includes non-patient revenue such as investment revenues. The 2008 decline of the U.S. stock market resulted in significant investment losses for hospitals, which resulted in a corresponding decline in total margin. Other types of margins we track, Medicare inpatient margin and overall Medicare margin, are operating margins that do not include investment revenue.
- The total hospital margin peaked in 1997 at 6.4 percent, before declining to less than 4 percent in the 1999–2002 period. From 2002 to 2007, total margins increased to the highest level in a decade. In 2008, the total margin declined to 1.9 percent, its lowest level since the inpatient prospective payment system was implemented. 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 2008, 61 percent of hospitals had positive total margins. However, the total margin varied much less than the Medicare inpatient or overall Medicare margin. In 2008, one-quarter of prospective payment system hospitals had total margins that were 7.6 percent or higher, while another quarter had margins that were –1.6 percent or lower, a spread of roughly 9 percentage points compared with a 27 percentage point spread for Medicare inpatient margins and a 22 percentage point spread for overall Medicare margins.

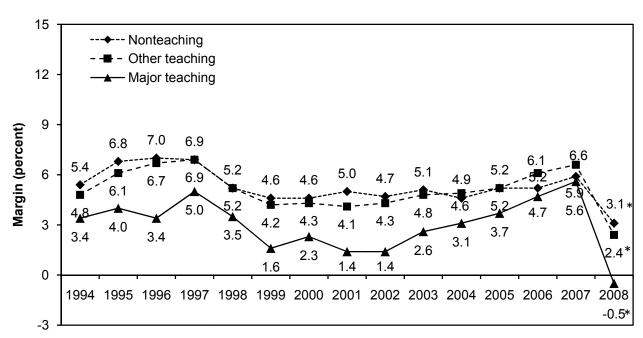
Chart 7-17. Hospital total all payer margin, by urban and rural location, 1994–2008



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 such as investment revenues. Analysis excludes critical access hospitals. \*Significant drop in total margin includes investment losses resulting from the stock market decline of 2008.

- In 2008, rural hospitals had higher total (all payer) margins than urban hospitals. Total margins were 2.5 percent for rural hospitals and 1.8 percent for urban hospitals. Historically, rural hospitals have usually had higher total margins in aggregate than urban hospitals.
- In 2008, both rural and urban hospitals experienced their lowest level of total (all payer) margin in the last 15 years.
- Hospitals' total margin includes all patient care services funded by all payers, plus nonpatient revenue such as investment revenues. The 2008 decline of the U.S. stock market resulted in significant investment losses for hospitals, which in turn resulted in a corresponding decline in total margin. Other types of margins we track, Medicare inpatient margin and overall Medicare margin, are operating margins that do not include investment revenue.

#### Chart 7-18. Hospital total all payer margin, by teaching status, 1994–2008



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 non-patient revenue. Analysis excludes critical access hospitals.

\*Significant drop in total margin includes investment losses resulting from the stock market decline of 2008.

- 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 for major teaching hospitals have consistently been lower than those for other teaching and nonteaching hospitals. In 2008, the total margin of major teaching hospitals stood at –0.5 percent compared with other teaching hospitals at 2.4 percent and nonteaching hospitals at 3.1 percent.
- In 2007, major teaching hospitals' total (all payer) margins reached their highest level in more than two decades and increased for the fifth consecutive year. However, in 2008, this trend was interrupted by a steep decline in their investment revenues.
- The decline of the U.S. stock market in 2008 resulted in significant investment losses for hospitals, which in turn resulted in a decline in hospitals' total margin. Other types of margins we track, Medicare inpatient margin and overall Medicare margin, are operating margins and do not include investment revenue.

| Sna   | are status, 20        | 800   |                                 |                                |
|---|-----------------------|---|---------------------------------|--------------------------------|
| Hospital group  | Share of<br>hospitals | Share of<br>Medicare<br>inpatient<br>payments | Medicare<br>inpatient<br>margin | Overall<br>Medicare<br>margin  |
| All hospitals   | 100%                  | 100%  | -4.7%                           | -7.2%                          |
| Major teaching<br>Other teaching                        | 8<br>22               | 23<br>35                                      | 5.3<br>-5.8                     | -1.5<br>-7.4                   |
| Nonteaching<br>Both IME and DSH<br>IME only<br>DSH only | 69<br>25<br>5<br>52   | 41<br>51<br>7<br>31                           | -9.4<br>0.1<br>-12.3<br>-6.2    | -10.0<br>-4.0<br>-12.6<br>-7.6 |
| Neither IME nor DSH                                     | 17                    | 10  | -19.1                           | -17.0                          |

#### Chart 7-19. Medicare margins by teaching and disproportionate share status, 2008

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

Source: MedPAC analysis of 2008 Medicare cost report data from CMS.

- Major teaching hospitals have the highest Medicare inpatient and overall Medicare margins. Their better financial performance is largely due to the additional payments they receive from the IME and DSH adjustments.
- Hospitals that receive neither IME nor DSH payments have the lowest Medicare margins. In 2008, the Medicare inpatient margins of these hospitals were more than 24 percentage points below those of major teaching hospitals and overall Medicare margins were more than 15 percentage points lower.

|   | Level of financial pressure, 2003–2007         |                    |   |  |
|---|--|--------------------|---|--|
|   | High pressure<br>(non-Medicare<br>margin < 1%) | Medium<br>pressure | Low pressure<br>(non-Medicare<br>margin > 5%) |  |
| Number of hospitals   | 740  | 391                | 1,742   |  |
| Financial characteristics, 2008   |  |                    |   |  |
| Non-Medicare margin<br>(private, Medicaid, uninsured)<br>Standardized cost per discharge<br>(as a share of the national median) | -5.1%  | 1.9%               | 9.1%  |  |
| Median of for-profit and nonprofit<br>Nonprofit hospital<br>For-profit hospital   | 91*<br>90*<br>92*                              | 96<br>95<br>98     | 104<br>105<br>99                              |  |
| Annual growth in cost per discharge, 2005–2008  | 5.2%   | 4.9%               | 5.5%  |  |
| Overall 2008 Medicare margin  | 3.7%*  | -2.5%              | -12.1%  |  |
| Patient characteristics (medians)   |  |                    |   |  |
| Total hospital discharges in 2008   | 4,812*   | 8,236              | 7,318   |  |
| Medicare share of inpatient days  | 44%  | 43%                | 45%   |  |
| Medicaid share of inpatient days  | 12.5%*   | 10.9%              | 10.5%   |  |
| Medicare case mix index   | 1.28*  | 1.41               | 1.41  |  |

#### Chart 7-20. Financial pressure leads to lower costs

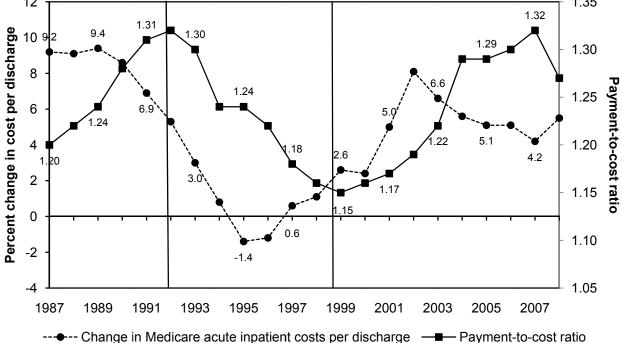
Note: Standardized costs are adjusted for hospital case mix, wage index, outliers, transfer cases, interest expense, and the effect of teaching and low-income Medicare patients on hospital costs. The sample includes all hospitals that had complete cost reports on file with CMS by August 2009.

\*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.

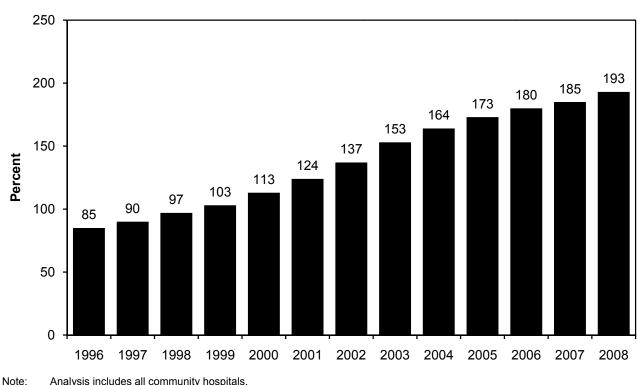
Chart 7-21. Change in Medicare hospital inpatient costs per discharge and private payer payment-to-cost ratio, 1987–2008



Note: Data are for community hospitals and cover all hospital services. Imputed values were used for missing data (about onethird of observations). Data for 2006–2008 exclude Medicare, and Medicaid managed care patients are included in this private insurer category.

- 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, 1987–1992, 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 result 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– 1999, the private payer payment-to-cost ratio dropped substantially. The rate of cost growth plummeted to an average of 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 rose sharply, and hospital cost growth exceeded growth in the market basket by 2 percentage points a year. In 2005–2007 the growth in private payer profit margins slowed, and in 2007 cost growth more closely matches the market basket.
- In 2008, the private payer payment-to-cost ratio declined as cost growth exceeded payment rate increases.

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.



#### Markup of charges over costs for Medicare services, Chart 7-22. 1996-2008

- The markup of charges over costs rose from about 85 percent in 1996 to 193 percent in 2008. Charges now exceed costs by more than a factor of 3.
- Since few patients pay full charges, rapid growth in charges may have little impact on hospital financial performance. However, this growth may significantly affect uninsured patients, who may pay full charges. More rapid growth in charges (relative to growth in 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. Toward the end of fiscal year 2003, Medicare revised its outlier policy in an attempt to curb hospitals' opportunity to increase their outlier payments through excessive increases in charges.
- The markup of charges over costs is generally higher for urban hospitals (209 percent) than • for rural hospitals (157 percent).

Analysis includes all community hospitals.

Source: American Hospital Association Annual Survey of Hospitals.

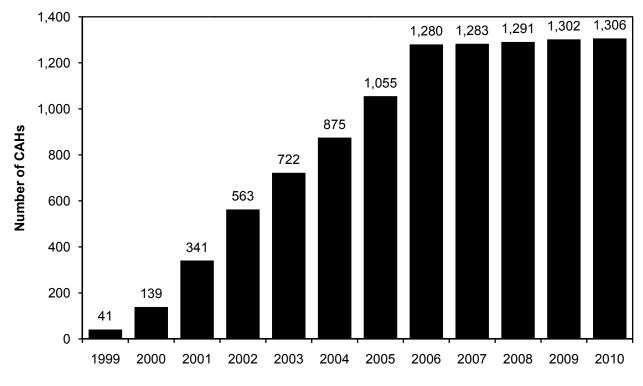


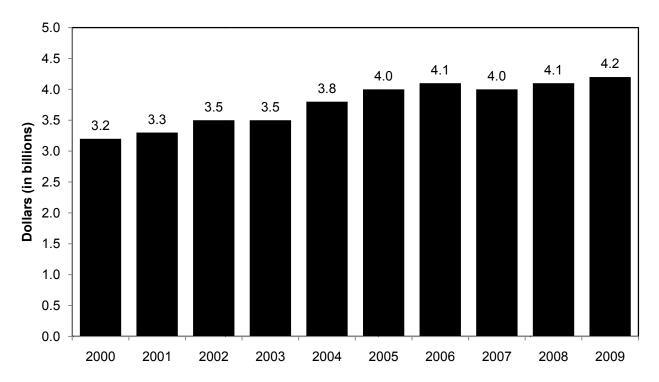
Chart 7-23. Number of critical access hospitals, 1999–2010

Source: The Medicare Rural Hospital Flexibility Program and CMS.

- The number of CAHs grew steadily from 1999 to 2006 but has since leveled off.
- 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.
- Before 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) the 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.

Note: CAH (critical access hospital).

Chart 7-24. Medicare payments to inpatient psychiatric facilities (in billions), 2000–2009



Source: CMS, Office of the Actuary.

- The inpatient psychiatric facility prospective payment system started January 1, 2005.
- Medicare program spending for beneficiaries' care in inpatient psychiatric facilities grew an estimated 2.9 percent per year between 2000 and 2009.
- Inpatient psychiatric care furnished in scatter beds in acute care hospitals and paid under the acute care inpatient prospective payment system is not included in this chart.

# Chart 7-25. Number of inpatient psychiatric facility cases has fallen under the prospective payment system, 2002–2008

|                                   | т       | EFRA    |         | PPS     |         | Average<br>annual   | Average<br>annual   |
|-----------------------------------|---------|---------|---------|---------|---------|---------------------|---------------------|
|                                   | 2002    | 2004    | 2006    | 2007    | 2008    | change<br>2002–2004 | change<br>2004–2008 |
| Cases                             | 464,780 | 483,271 | 474,417 | 456,045 | 442,759 | 2.0%                | -2.2%               |
| Cases per 1,000 FFS beneficiaries | 13.3    | 13.2    | 13.1    | 12.8    | 12.7    | -0.2                | -0.9                |
| Spending per FFS beneficiary      | \$90.6  | \$97.0  | \$104.7 | \$106.7 | \$111.4 | 3.4                 | 3.5                 |
| Payment per case                  | \$6,822 | \$7,328 | \$7,989 | \$8,315 | \$8,742 | 3.6                 | 4.5                 |
| Payment per day                   | \$570   | \$627   | \$677   | \$698   | \$728   | 4.9                 | 3.8                 |
| Length of stay (in days)          | 13.0    | 12.7    | 13.0    | 13.0    | 13.1    | -1.2                | 0.7                 |

Note: TEFRA (Tax Equity and Fiscal Responsibility Act of 1982), PPS (prospective payment system), fee-for-service (FFS). Numbers of cases and patients reflect Medicare fee-for-service utilization of services furnished in inpatient psychiatric facilities. Scatter bed cases and spending are excluded, as are cases and spending for beneficiaries enrolled in Medicare Advantage plans.

Source: MedPAC analysis of MedPAR data from CMS.

• Since a prospective payment system for inpatient psychiatric facilities (IPFs) was implemented in January 2005, the number of cases in IPFs has fallen, on average, about 2 percent per year. Controlling for the number of beneficiaries enrolled in fee-for-service Medicare, IPF cases fell about 1 percent per year between 2004 and 2008.

|                      |       | TEFRA |       |       | Р     | PS    |       | Average<br>annual   | Average<br>annual   |
|----------------------|-------|-------|-------|-------|-------|-------|-------|---------------------|---------------------|
| Type of IPF          | 2002  | 2003  | 2004  | 2005  | 2006  | 2007  | 2008  | change<br>2002–2004 | change<br>2004–2008 |
|                      |       |       |       |       |       |       |       |                     |                     |
| All                  | 1,724 | 1,704 | 1,657 | 1,622 | 1,591 | 1,584 | 1,535 | -2.0%               | -1.9%               |
| Urban                | 1,318 | 1,298 | 1,277 | 1,283 | 1,268 | 1,263 | 1,226 | -1.6                | -1.0                |
| Rural                | 406   | 406   | 378   | 339   | 323   | 321   | 309   | -3.5                | -4.9                |
| Freestanding         | 347   | 353   | 352   | 366   | 396   | 413   | 408   | 0.7                 | 3.8                 |
| Hospital-based units | 1,377 | 1,351 | 1,305 | 1,256 | 1,195 | 1,171 | 1,127 | -2.7                | -3.6                |
| Nonprofit            | 993   | 974   | 949   | 909   | 877   | 848   | 818   | -2.2                | -3.6                |
| For profit           | 363   | 349   | 327   | 344   | 344   | 358   | 346   | -5.1                | 1.4                 |
| Government           | 368   | 381   | 381   | 369   | 370   | 378   | 371   | 1.8                 | -0.7                |

#### Chart 7-26. Inpatient psychiatric facilities, 2000–2008

Note: IPF (inpatient psychiatric facility), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982), PPS (prospective payment system). Numbers are facilities that submitted valid Medicare cost reports in the given fiscal year.

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

- Between 2002 and 2004, the number of freestanding IPFs remained fairly steady. Beginning in 2005, when the IPF PPS began to be implemented, the number of freestanding IPFs grew an average of 3.8 percent per year. By comparison, the number of distinct-part psychiatric units in acute care hospitals fell at an average annual rate of 2.7 percent between 2002 and 2004, a decline that accelerated beginning in 2005. Much of the decline in psychiatric units occurred among nonprofit and rural facilities.
- The drop in the number of psychiatric units likely has several causes. Psychiatric units may not be as profitable as they once were, particularly when compared with other acute care hospital services. Other factors, such as the availability of psychiatrists to provide on-call services in hospital emergency departments, may also affect acute care hospitals' decisions to close their psychiatric units.

## Chart 7-27. One diagnosis accounted for almost three-quarters of IPF cases in 2008

| MS-DRG | Diagnoses   | Percentage |
|--------|---|------------|
| 885    | Psychosis   | 72.8%      |
| 057    | Degenerative nervous system disorders without MCC                 | 7.6        |
| 884    | Organic disturbances & mental retardation                         | 5.7        |
| 897    | Alcohol/drug abuse or dependency, no rehabilitation, without MCC  | 4.3        |
| 881    | Depressive neurosis   | 3.3        |
| 882    | Neurosis except depressive  | 1.1        |
| 895    | Alcohol/drug abuse or dependency with rehabilitation, without MCC | 0.9        |
| 056    | Degenerative nervous system disorders with MCC                    | 0.8        |
| 880    | Acute adjustment reaction & psychosocial dysfunction              | 0.7        |
| 883    | Disorders of personality & impulse control                        | 0.5        |
| 886    | Behavioral and developmental disorders                            | 0.5        |
| 894    | Alcohol/drug use—left AMA   | 0.2        |
| 896    | Alcohol/drug abuse or dependency without rehabilitation, with MCC | 0.2        |
| 876    | OR procedure with principal diagnosis of mental illness           | 0.1        |
| 887    | Other mental disorders  | 0.1        |
| 081    | Nontraumatic stupor & coma without MCC                            | 0.1        |
| 080    | Nontraumatic stupor & coma with MCC                               | 0.0        |
|        | Nonpsychiatric MS–DRGs  | 1.0        |
|        | Total   | 100.0      |

Note: IPF (inpatient psychiatric facility), MS–DRG (Medicare severity–diagnosis related group), MCC (major comorbidity or complication), AMA (against medical advice), OR (operating room).

Source: MedPAC analysis of MedPAR data from CMS.

 Medicare patients in IPFs are generally assigned to 1 of 17 psychiatric MS–DRGs. In 2008, the most frequently occurring IPF diagnosis—accounting for 73 percent of IPF discharges was psychoses. The next most common discharge, accounting for almost 8 percent of IPF cases, was degenerative nervous system disorders.

| Characteristic                                 | Share of total IPF discharges |  |  |  |  |
|--|-------------------------------|--|--|--|--|
| Current eligibility status*                    |                               |  |  |  |  |
| Aged   | 35.1%                         |  |  |  |  |
| Disabled                                       | 64.8                          |  |  |  |  |
| ESRD only                                      | 0.1                           |  |  |  |  |
| Age  |                               |  |  |  |  |
| <45<br>45–64<br>65–79<br>80+                   | 28.8<br>35.6<br>20.9<br>14.6  |  |  |  |  |
| Race   |                               |  |  |  |  |
| White<br>African American<br>Hispanic<br>Other | 77.0<br>17.4<br>2.6<br>3.0    |  |  |  |  |

#### Chart 7-28. IPF discharges by beneficiary characteristics, 2008

Note: IPF (inpatient psychiatric facility), ESRD (end-stage renal disease). \*Some aged beneficiaries are also disabled.

Source: MedPAC analysis of MedPAR data from CMS.

- Most Medicare beneficiaries treated in IPFs qualify for Medicare because of a disability. As a
  result, IPF patients tend to be younger and poorer than the typical fee-for-service
  beneficiary.
- Overall, 2.6 percent of disabled beneficiaries had at least one IPF stay in 2008, compared with only 0.4 percent of aged beneficiaries.
- Diagnosis patterns differed by age and race. Among the top Medicare severity–diagnosis related groups in 2008, degenerative nervous system disorders, such as dementia, were much more common in older patients, while psychoses were more common in younger patients.
- A majority of beneficiaries are dually eligible for Medicare and Medicaid. In 2008, 56 percent of Medicare beneficiaries with at least one IPF discharge were dually eligible for at least one month of the year.

#### Web links. Acute inpatient services

#### Short-term hospitals

 Chapter 2A of the MedPAC March 2010 Report to the Congress provides additional detailed information on hospital margins.

http://www.medpac.gov/chapters/Mar10\_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\_09\_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.gov/MedicareProgramRatesStats/downloads/info.pdf

• CMS published the proposed acute inpatient prospective payment system rule in the May 4, 2010, *Federal Register*.

http://www.cms.gov/AcuteInpatientPPS/IPPS2010/list.asp#TopOfPage

#### Inpatient psychiatric facilities

• Chapter 6 of the MedPAC June 2010 Report to the Congress provides information on inpatient psychiatric facilities.

http://medpac.gov/chapters/Jun10\_Ch06.pdf

• 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\_09\_psych.pdf

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

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

• CMS describes updates to the inpatient psychiatric facility prospective payment system for the rate year beginning July 1, 2010, in the April 30, 2010, *Federal Register*.

http://edocket.access.gpo.gov/2010/pdf/2010-9870.pdf

# SECTION R

## Ambulatory care

Physicians Hospital outpatient services Ambulatory surgical centers Imaging services

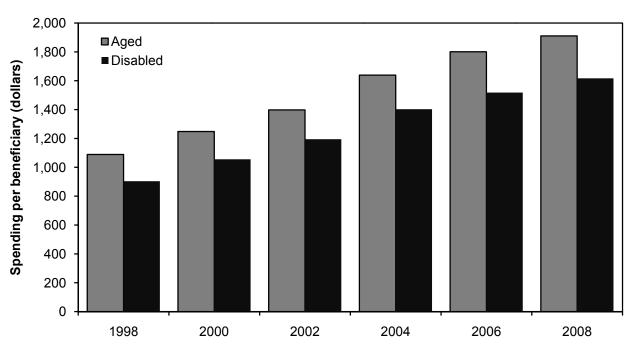


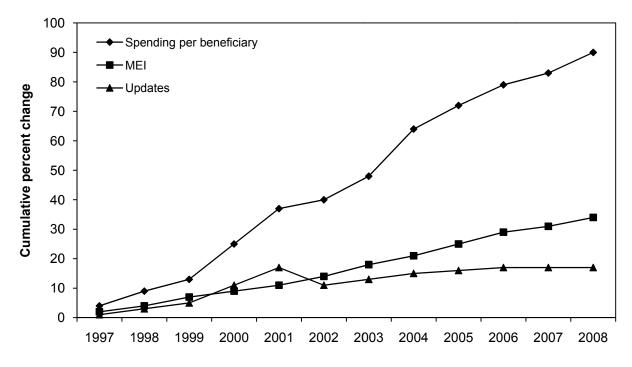
Chart 8-1. Medicare spending per FFS beneficiary on physician services, 1998–2008

Note: FFS (fee-for-service). Dollars are Medicare spending only and do not include beneficiary coinsurance. The category "disabled" excludes beneficiaries who qualify for Medicare because they have end-stage renal disease. All beneficiaries age 65 or over are included in the aged category.

Source: 2008 and 2009 annual reports of the Boards of Trustees of the Medicare trust funds.

- FFS spending per beneficiary for physician services has increased annually. In the decade between 1998 and 2008, Medicare spending per FFS beneficiary on physician services grew more than 75 percent.
- Growth in spending on physician services is one of several contributions to Part B premium increases over this time period.
- Per capita spending for disabled beneficiaries (under age 65) is lower than per capita spending for aged beneficiaries. In 2008, for example, per capita spending for disabled beneficiaries was \$1,617 compared with \$1,911 for aged beneficiaries.
- Spending data for 2009 are not yet available.

Chart 8-2. Volume growth has raised physician spending more than input prices and payment updates, 1997–2008



Note: MEI (Medicare Economic Index).

Source: 2005 and 2009 annual report of the Boards of Trustees of the Medicare trust funds and data from the Office of the Actuary.

- Over the first 12 years of the sustainable growth rate policy (1997–2008), Medicare spending for physician services—per beneficiary—increased by 90 percent.
- Medicare spending on physician services grew much more rapidly over this 12-year period than both the payment rate updates and the MEI. Physician fee schedule payment updates totaled 17 percent, and the MEI increased 34 percent.
- Growth in the volume of services provided contributed significantly more to the rapid increase in Medicare spending than payment rate updates. Both factors—updates and volume growth—combine to increase physician revenues.

|                                |         | Number of M | edicare patients | in caseload |         |
|--------------------------------|---------|-------------|------------------|-------------|---------|
|                                | ≥1      | ≥15         | ≥50              | ≥100        | ≥200    |
| Number of physicians           |         |             |                  |             |         |
| 2001                           | 535,834 | 457,292     | 411,424          | 364,023     | 286,862 |
| 2002                           | 544,615 | 466,299     | 419,269          | 370,144     | 291,593 |
| 2003                           | 544,922 | 470,213     | 424,684          | 374,721     | 292,183 |
| 2004                           | 561,514 | 483,945     | 440,462          | 393,730     | 315,398 |
| 2005                           | 566,629 | 492,131     | 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     |

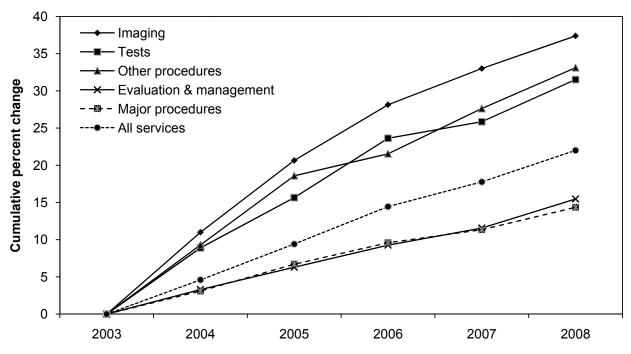
### Chart 8-3. Number of physicians billing Medicare increased steadily, 2001–2006

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, with the assumption that physicians provide services to both types of beneficiaries. Physicians are identified by their Unique Physician Identification Number (UPIN). UPINs with extraordinarily large caseloads size (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 more than 14.
- Growth rates are faster among physicians with larger Medicare caseloads. 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.
- Information on the number of physicians billing Medicare after 2006 is unavailable because of data complications stemming from the conversion to new provider identifier numbers in accordance with the Health Insurance Portability and Accountability Act.

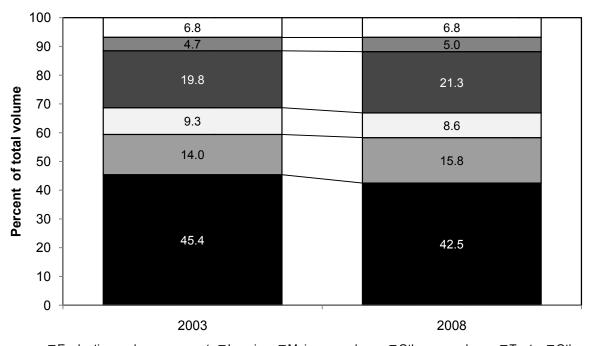
Chart 8-4. Continued growth in volume of physician services per beneficiary, 2003–2008



Note: Volume is units of service multiplied by relative value units from the physician fee schedule. Volume for all years is measured on a common scale, with relative value units for 2008.

Source: MedPAC analysis of claims data for 100 percent of Medicare beneficiaries.

- The volume of physician services per beneficiary has continued to grow from year to year, with some services growing much more than others.
- From 2003 to 2008, the volume of physician services grew by 22.0 percent. By specific types of services, imaging, tests, and "other procedures" (procedures other than major procedures) each grew at a rate higher than 30 percent. The comparable growth rates for major procedures and evaluation and management services were only 14.3 percent and 15.5 percent, respectively.
- Volume growth has slowed in recent years but remains positive. From 2007 to 2008, services in the tests category grew the most: they increased 4.5 percent. "Other procedures" was next, at 4.3 percent, followed by evaluation and management (3.5 percent), imaging (3.3 percent), and major procedures (2.7 percent).
- Volume growth increases Medicare spending, squeezing other priorities in the federal budget and requiring taxpayers and beneficiaries to contribute more to the Medicare program. 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 sustainable growth rate formula. Rapid volume growth may be a sign that some services in the physician fee schedule are mispriced.



## Chart 8-5. Shifts in the volume of physician services, by type of service, 2003–2008

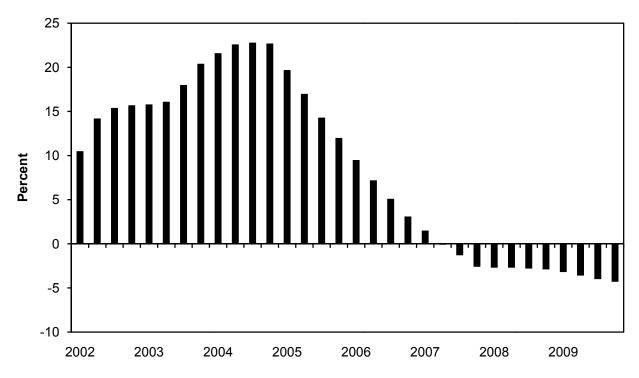
■Evaluation and management ■Imaging □Major procedures ■Other procedures ■Tests □Other

Note: Volume is units of service multiplied by relative value units from the physician fee schedule. Volume for both years is measured on a common scale, with relative value units for 2008.

Source: MedPAC analysis of claims data for 100 percent of Medicare beneficiaries.

- Among broad categories of services, evaluation and management (E&M) services including office visits and visits to hospital inpatients—account for the largest share of volume. In 2008, E&M was 42.5 percent of the total, followed by other procedures (21.3 percent), imaging (15.8 percent), major procedures (8.6 percent), and tests (5.0 percent). Services in other categories—such as chiropractic—accounted for the remaining 6.8 percent.
- With higher growth rates for some services and lower growth rates for others, the distribution of volume across the service categories has shifted. For instance, as a proportion of total volume, E&M services fell between 2003 and 2008 from 45.4 percent to 42.5 percent. By contrast, imaging's share of total volume for those years rose from 14.0 percent to 15.8 percent.

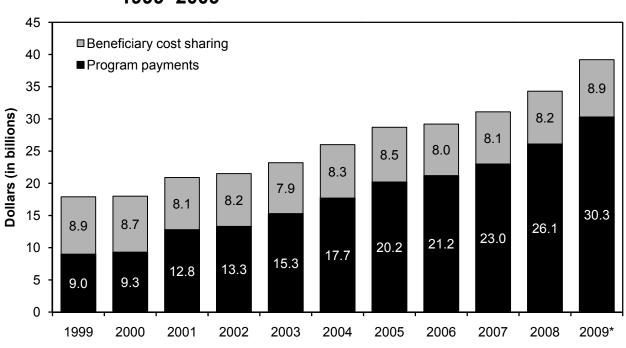
Chart 8-6. Changes in physicians' professional liability insurance premiums, 2002–2009



Note: The bars represent a four-quarter moving average percent change.

Source: CMS, Office of the Actuary. The data are from CMS's Professional Liability Physician Premium Survey.

- Professional liability insurance (PLI) accounts for 3.9 percent of total payments under the
  physician fee schedule. PLI premiums generally follow a cyclical pattern, alternating
  between periods of low premiums—characterized by high investment returns for insurers
  and vigorous competition—and high premiums—characterized by declining investment
  returns and market exit.
- After rapid increases in PLI premiums between 2002 and 2004, premium growth slowed in 2005 and 2006, becoming negative in 2007.



## Chart 8-7. Spending on all hospital outpatient services, 1999–2009

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 on a cost basis (e.g., organ acquisition or flu vaccine). They do not include payments for clinical laboratory services. \*Estimate.

- Overall spending by Medicare and beneficiaries on hospital outpatient services (excluding clinical laboratory services) from calendar year 1999 to 2009 increased by 119 percent, reaching \$39.2 billion. The Office of the Actuary projects continued growth in total spending, averaging 9.8 percent per year from 2006 to 2011.
- 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 2009, spending under the outpatient PPS is expected to rise to \$35.7 billion (\$27.6 billion program spending; \$8.2 billion beneficiary copayments). The outpatient PPS accounted for about 5 percent of total Medicare program spending in 2009.
- Beneficiary cost sharing under the outpatient PPS is generally higher than for other sectors, about 25 percent in 2008. Chart 8-11 provides more detail on coinsurance.

Source: CMS, Office of the Actuary.

| Year |           |                     | Percent offering      |                    |
|------|-----------|---------------------|-----------------------|--------------------|
|      | Hospitals | Outpatient services | Outpatient<br>surgery | Emergency services |
| 2002 | 4,210     | 94                  | 84                    | 93                 |
| 2004 | 3,882     | 94                  | 86                    | 92                 |
| 2006 | 3,651     | 94                  | 86                    | 91                 |
| 2008 | 3,607     | 94                  | 87                    | 91                 |
| 2009 | 3,557     | 94                  | 89                    | 89                 |

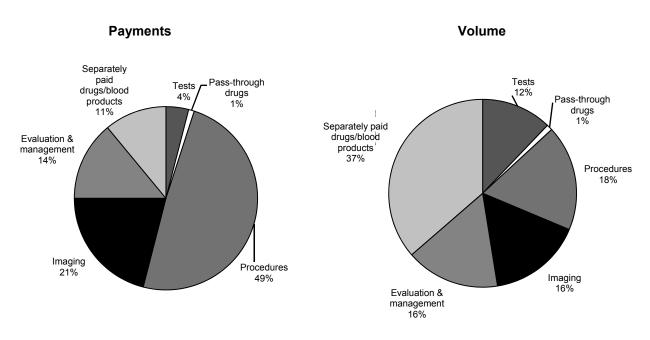
#### Chart 8-8. Most hospitals provide outpatient services

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 (PPS) declined from 2001 through 2006, largely due to growth in the number of hospitals converting to critical access hospital status, which allows payment on a cost basis. Since 2006, the number of outpatient PPS hospitals has been stable. In addition, the percent of hospitals providing outpatient services has remained stable; the percent offering outpatient surgery has increased slightly; and the percent offering emergency services has decreased slightly.
- Almost all hospitals in 2009 provide outpatient services (94 percent). The vast majority (89 percent) provide outpatient surgery and emergency services.

Chart 8-9. Payments and volume of services under the Medicare hospital outpatient PPS, by type of service, 2008



Note: PPS (prospective payment system). Payments include both program spending and beneficiary cost sharing but do not include hold-harmless payments to rural hospitals. 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, separately paid drugs and blood products, pass-through devices, brachytherapy, and radiopharmaceuticals are classified by their payment status indicator. Percentages may not sum to 100 percent due to rounding.

- 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 49 percent of payments but 18 percent of volume.
- Procedures (e.g., endoscopies, surgeries, skin and musculoskeletal procedures) account for the greatest share of payments for services (49 percent), followed by imaging services (21 percent) and evaluation and management services (14 percent).
- In 2008, separately paid drugs and blood products accounted for 11 percent of payments.

Source: MedPAC analysis of the 100 percent standard analytic file of outpatient PPS claims for 2008 from CMS.

| APC title   | Share of payments | Volume<br>(thousands) | Payment<br>rate |
|---|-------------------|-----------------------|-----------------|
| Total   | 49%               |                       |                 |
| All emergency visits  | 6                 | 10,702                | \$169           |
| All clinic visits   | 4                 | 16,439                | 68              |
| Diagnostic cardiac catheterization  | 3                 | 401                   | 2,479           |
| Computed tomography with contrast material  | 3                 | 3,133                 | 277             |
| Computed tomography without contrast material   | 3                 | 4,356                 | 192             |
| Cataract procedures with IOL insert   | 3                 | 538                   | 1,502           |
| Level I plain film except teeth   | 2                 | 15,207                | 44              |
| Lower gastrointestinal endoscopy  | 2                 | 1,086                 | 564             |
| MRI and magnetic resonance angiography without contrast materia                                   | al 2              | 1,342                 | 344             |
| Level II cardiac imaging*   | 2                 | 572                   | 755             |
| MRI and magnetic resonance angiography without<br>contrast material followed by contrast material | 2                 | 817                   | 525             |
| IMRT treatment delivery   | 1                 | 1,164                 | 348             |
| Level II extended assessment & management composite*  | 1                 | 632                   | 639             |
| Level II echocardiogram with contrast except transesophageal*                                     | 1                 | 971                   | 406             |
| Insertion of cardioverter defibrillator*  | 1                 | 18                    | 21,262          |
| Insertion/replacement/repair of cardioverter-defibrillator leads*                                 | 1                 | 14                    | 25,787          |
| Level I upper gastrointestinal procedures   | 1                 | 777                   | 542             |
| Level II radiation therapy  | 1                 | 2,220                 | 141             |
| Level III drug administration   | 1                 | 6,128                 | 51              |
| Level II laparoscopy  | 1                 | 114                   | 2,900           |
| Coronary or noncoronary angioplasty and percutaneous<br>valvuloplasty*                            | 1                 | 128                   | 2,891           |
| Transcatheter placement of intracoronary drug-eluting stents*                                     | 1                 | 44                    | 7,543           |
| Rituximab cancer treatment  | 1                 | 572                   | 504             |
| Level III nerve injections  | 1                 | 725                   | 449             |
| Level V drug administration   | 1                 | 2,482                 | 115             |
| Average APC   |                   | 311                   | 126             |

## Chart 8-10. Hospital outpatient services with the highest Medicare expenditures, 2008

Note: APC (ambulatory payment classification), IOL (intraocular lens), MRI (magnetic resonance imaging), IMRT (intensitymodulated radiation therapy). The payment rates for "All emergency visits" and "All clinic visits" are weighted averages of payment rates from five APCs. \*Did not appear on the list for 2007.

Source: MedPAC analysis of 100 percent analytic file of outpatient prospective payment system claims for calendar year 2008.

 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.

35 32 30 30 25 23 25 25 20 20 Coinsurance rate 20 15 10 5 0 Evaluation and Imaging Procedures Tests Pass-through Separately management drugs paid drugs/blood products Type of service

Chart 8-11. Medicare coinsurance rates, by type of hospital outpatient service, 2008

- 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 payments 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 differs for each service. Some services, such as imaging, have very high rates of coinsurance—32 percent. Other services, such as evaluation and management services, have coinsurance rates of 23 percent.
- In 2008, the average coinsurance rate was about 25 percent.

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.

Source: MedPAC analysis of 2008 outpatient prospective payment system claims that CMS used to set payment rates for 2010.

## Chart 8-12. Effects of hold-harmless and SCH transfer payments on hospitals' outpatient revenue, 2006–2008

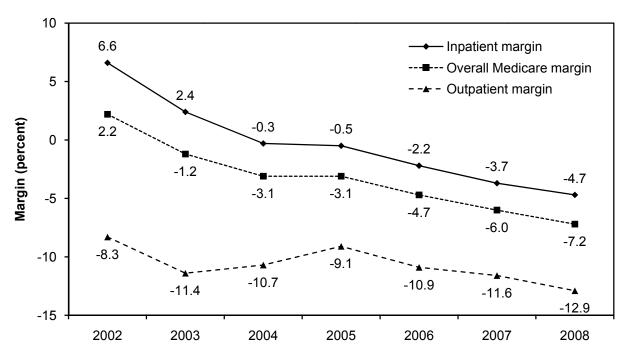
|                  | 2                   | 006   | :                         | 2007  | 2                         | 2008  |
|------------------|---------------------|---|---------------------------|---|---------------------------|---|
| Hospital group   | Number of hospitals | Share of<br>payments<br>from<br>hold harmless<br>and SCH transfer | Number<br>of<br>hospitals | Share of<br>payments<br>from<br>hold harmless<br>and SCH transfer | Number<br>of<br>hospitals | Share of<br>payments<br>from<br>hold harmless<br>and SCH transfer |
|                  |                     |   |                           |   |                           |   |
| All hospitals    | 3,329               | 0.3%  | 3,289                     | 0.2%  | 3,163                     | 0.2%  |
| Urban            | 2,370               | -0.3  | 2,349                     | -0.4  | 2,254                     | -0.4  |
| Rural SCHs       | 407                 | 5.3   | 393                       | 5.6   | 379                       | 5.6   |
| Rural < 100 beds | 396                 | 3.3   | 391                       | 3.3   | 379                       | 3.5   |
| Other rural      | 156                 | -0.3  | 156                       | -0.4  | 151                       | -0.4  |
| Major teaching   | 283                 | -0.2  | 280                       | -0.3  | 273                       | -0.3  |
| Other teaching   | 747                 | -0.1  | 739                       | -0.2  | 718                       | -0.2  |
| Nonteaching      | 2,299               | 0.7   | 2,270                     | 0.6   | 2,172                     | 0.6   |

Note: SCH (sole community hospital). SCH transfer payments began in 2006.

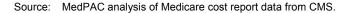
Source: MedPAC analysis of Medicare Cost Report files from CMS.

- Medicare implemented the hospital outpatient prospective payment system (PPS) in 2000. Previously, Medicare paid for hospital outpatient services on the basis of hospital costs.
- Recognizing that some hospitals might receive lower payments under the outpatient PPS than
  under the earlier system, the Congress established 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.
- Transitional corridor payments expired for most hospitals at the end of 2003. However, some rural hospitals continue to receive a special category of transitional corridor payments called "hold harmless." Qualifying hospitals receive the greater of the payments they would have received from the previous system or the actual outpatient PPS payments.
- Hospitals that qualified for hold-harmless payments in 2004 and 2005 included sole community hospitals (SCHs) located in rural areas and other small rural hospitals (100 or fewer beds). After 2005, small rural hospitals continued to be eligible for hold-harmless payments but SCHs no longer qualified. However, in 2006, CMS implemented a policy (the "SCH transfer") that increased outpatient payments to rural SCHs by 7.1 percent above the standard rates. This policy is budget neutral by reducing payments to all other hospitals by 0.4 percent.
- Hold-harmless payments and the SCH transfer represented 0.3 percent of total outpatient PPS payments for all hospitals in 2006. However, the percentage of total outpatient payments from these policies was 5.3 percent for rural SCHs and 3.3 percent for small rural hospitals. Data from 2007 and 2008 indicate transfer payments to rural SCHs were 5.6 percent of their outpatient revenue in 2007 and 2008. Small rural hospitals continued to benefit from hold-harmless payments in 2007 and 2008. These payments were 3.3 percent of their total outpatient payments in 2007 and 3.5 percent in 2008.

Chart 8-13. Medicare hospital outpatient, inpatient, and overall Medicare margins, 2002–2008

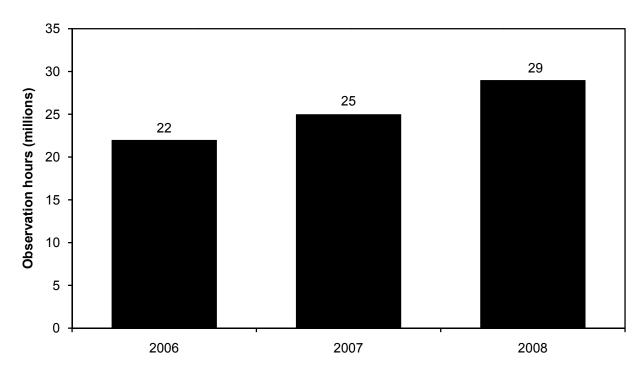


Note: A margin is calculated as revenue minus costs, divided by revenue. Data are based on Medicare-allowable costs. Analysis excludes critical access hospitals. Overall Medicare margins cover the costs and payments of hospital inpatient, outpatient, psychiatric and rehabilitation (not paid under the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



- Hospital outpatient margins vary. In 2008, while the aggregate margin was –12.9 percent, 25 percent of hospitals had margins of –23.3 percent or lower, and 25 percent had margins of –0.8 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 decline in outpatient margins from 2002 to 2003 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 and an end to hold-harmless payments to sole community hospitals. The margin declined again in 2007 and 2008, which may be partly due to lower hold-harmless payments for hospitals that still qualify for them.

Chart 8-14. Number of observation hours has increased, 2006–2008



Source: MedPAC analysis of outpatient prospective payment system claims that CMS uses to set payment rates, 2006–2008.

- Hospitals use observation care to determine whether a patient should be hospitalized for inpatient care or sent home.
- Medicare began providing separate payments to hospitals for some observation services on April 1, 2002. Previously, all observation services were packaged into the payments for the emergency room or clinic visits that occur with the observation care.
- The number of observation hours (both packaged and separately paid) has increased substantially from about 22 million in 2006 to 29 million in 2008. Prior to 2006, it was difficult to count the total number of observation hours because hospitals were not required to record on claims the number of hours for packaged observation hours.

## Chart 8-15. Number of Medicare-certified ASCs increased by 50 percent, 2002–2009

|   | 2002  | 2003  | 2004  | 2005  | 2006  | 2007  | 2008  | 2009  |
|---|-------|-------|-------|-------|-------|-------|-------|-------|
| Medicare payments (billions of dollars) | \$1.9 | \$2.2 | \$2.5 | \$2.7 | \$2.8 | \$2.9 | \$3.1 | \$3.2 |
| Number of centers                       | 3,512 | 3,814 | 4,106 | 4,404 | 4,654 | 4,932 | 5,151 | 5,260 |
| New centers                             | 305   | 367   | 369   | 355   | 332   | 347   | 273   | 164   |
| Exiting centers                         | 64    | 65    | 77    | 57    | 82    | 69    | 54    | 55    |
| Net percent growth in number            |       |       |       |       |       |       |       |       |
| of centers from previous year           | 7.4%  | 8.6%  | 7.7%  | 7.3%  | 5.7%  | 6.0%  | 4.4%  | 2.1%  |
| Percent of all centers that are:        |       |       |       |       |       |       |       |       |
| For profit                              | 95    | 95    | 96    | 96    | 96    | 96    | 96    | 96    |
| Nonprofit                               | 5     | 5     | 4     | 4     | 4     | 4     | 4     | 3     |
| Urban                                   | 87    | 87    | 87    | 87    | 88    | 88    | 88    | 88    |
| Rural                                   | 13    | 13    | 13    | 13    | 12    | 12    | 12    | 12    |

Note: ASC (ambulatory surgical center). Medicare payments include program spending and beneficiary cost sharing for ASC facility services. Payments for 2009 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, 2009. Payment data are from CMS, Office of the Actuary.

- Ambulatory surgical centers (ASCs) are entities that furnish only 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.
- In 2008, Medicare began using 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. In contrast to the old ASC system, which had only nine procedure groups, the new system has several hundred procedure groups. The new system is being phased in over four years.
- Total Medicare payments for ASC services increased by 7.9 percent per year, on average, from 2002 through 2009. Payments per fee-for-service beneficiary also grew by 7.9 percent per year during this period. Between 2008 and 2009, total payments rose by 5.1 percent and payments per beneficiary grew by 5.3 percent.
- The number of Medicare-certified ASCs grew at an average annual rate of 5.9 percent from 2002 through 2009. Each year from 2002 through 2009, an average of 314 new Medicare-certified facilities entered the market, while an average of 65 closed or merged with other facilities.

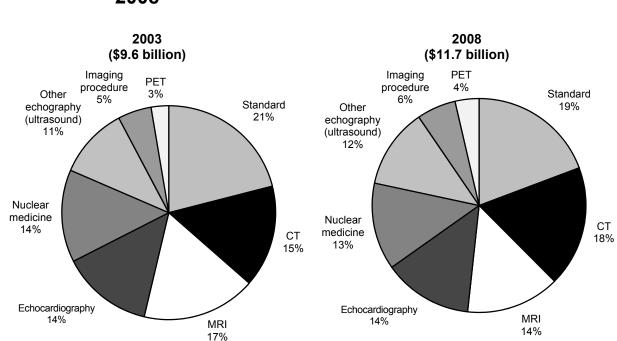


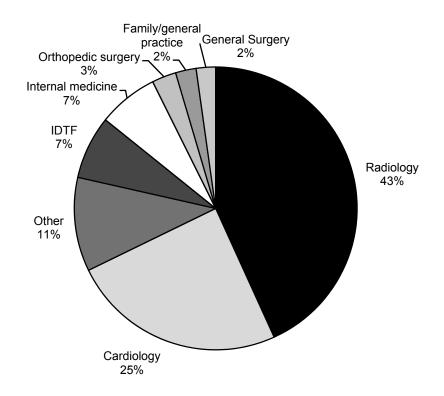
Chart 8-16. Medicare spending for imaging services under the physician fee schedule, by type of service, 2003 and 2008

- About one-third of Medicare spending for imaging under the physician fee schedule in 2008 was for computed tomography (CT) and magnetic resonance imaging (MRI) studies.
- Physician fee schedule spending for imaging services grew rapidly by 11.0 percent per year between 2003 and 2006, from \$9.6 billion to \$13.2 billion. Spending per fee-for-service (FFS) beneficiary grew by 10.7 percent per year during this period.
- Although the number of imaging studies continued to grow from 2006 to 2007, spending declined from \$13.2 billion to \$11.4 billion (13.9 percent), largely as a result of a provision in the Deficit Reduction Act of 2005 that capped physician fee schedule rates for the technical component of imaging services at the level of hospital outpatient rates. The number and intensity of imaging services per FFS beneficiary increased by 3.8 percent from 2006 to 2007.
- After a decline in 2007, imaging spending resumed its growth in 2008, increasing by 3.0 percent (4.3 percent per FFS beneficiary) to \$11.7 billion.

Note: CT (computed tomography), MRI (magnetic resonance imaging), PET (positron emission tomography). Imaging procedure includes cardiac catheterization and angiography. Medicare payments include program spending and beneficiary cost sharing for physician fee schedule imaging services. Payments include carrier-priced codes but exclude radiopharmaceuticals. Totals may not sum to 100 percent due to rounding.

Source: MedPAC analysis of 100 percent physician/supplier procedure summary file from CMS, 2003 and 2008.

## Chart 8-17. Radiologists received about 40 percent of physician fee schedule payments for imaging services, 2008



Note: IDTF (independent diagnostic testing facility). Medicare payments include program spending and beneficiary cost sharing for physician fee schedule imaging services. Payments include carrier-priced codes but exclude radiopharmaceuticals. Total fee schedule imaging spending was \$11.7 billion in 2008. IDTFs are independent of a hospital and physician's office and provide only outpatient diagnostic services. The other category includes other medical, urology, ophthalmology, other surgical, gastroenterology, anesthesiology, thoracic surgery, pathology, and dermatology.

- Imaging services paid under Medicare's 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 total physician fee schedule payments for professional component services in 2008, they accounted for much smaller shares of spending for global bills (32 percent) and technical component services (13 percent).
- Between 2003 and 2008, the share of total imaging payments for IDTFs, radiology, and family/general practice declined while the share for other providers (such as general surgery) increased.

Source: MedPAC analysis of 100 percent physician/supplier procedure summary file from CMS, 2008.

#### 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\_09\_Physician.pdf

• Chapter 2B of the MedPAC March 2010 Report to the Congress and Appendix A of the June 2010 Report to the Congress provide additional information on physician services.

http://www.medpac.gov/chapters/Mar10\_Ch02b.pdf http://www.medpac.gov/chapters/Jun10\_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 2009 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.gov/ReportsTrustFunds/downloads/tr2009.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\_09\_opd.pdf

• Section 2A of the MedPAC 2010 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/Mar10\_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\_09\_ASC.pdf

 Chapter 2C of the MedPAC March 2010 Report to the Congress provides additional information on ambulatory surgical centers.

http://medpac.gov/chapters/Mar10\_Ch02C.pdf

#### SECTION

Y

#### **Post-acute care**

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

|   | 2001   | 2002   | 2003   | 2004   | 2005   | 2006   | 2007   | 2008   | 2009   | Average<br>annual<br>percent<br>change<br>2001–<br>2009 | Percent<br>change<br>2008–2009 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|---|--------------------------------|
| Home health agencies                      | 7,061  | 7,056  | 7,342  | 7,803  | 8,313  | 8,954  | 9,403  | 10,026 | 10,422 | 3.4%  | 3.9%                           |
| Inpatient<br>rehabilitation<br>facilities | 1,144  | 1,181  | 1,207  | 1,221  | 1,235  | 1,225  | 1,202  | 1,202  | 1,196  | 0.6   | -0.5                           |
| Long-term care hospitals                  | 278    | 297    | 334    | 366    | 392    | 397    | 402    | 420    | 432    | 5.7   | 2.8                            |
| Skilled nursing facilities                | 14,715 | 14,794 | 14,879 | 14,939 | 15,001 | 15,007 | 15,038 | 15,043 | 15,053 | 0.3   | 0.0                            |

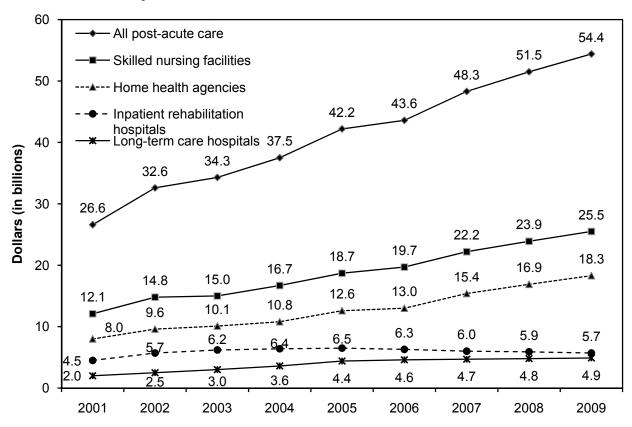
## Chart 9-1. The number of most post-acute care providers grew or remained stable in 2009

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 2001–2009 and CMS Provider of Service data.

- The number of home health agencies has increased substantially since 2002.
- The number of inpatient rehabilitation facilities (rehabilitation hospitals and rehabilitation units) declined slightly in 2009, after remaining stable in 2007 and 2008.
- In spite of a moratorium on new long-term care hospitals beginning in October 2007, the number of these facilities has continued to grow.
- The total number of skilled nursing facilities has remained about the same for four years, but the mix of facilities continues to shift from hospital-based to freestanding facilities. Hospital-based facilities make up 7 percent of all facilities, down from almost 11 percent in 2001.

# Chart 9-2. Medicare's spending on home health care and skilled nursing facilities fueled growth in post-acute care expenditures



Note: These numbers are program spending only and do not include beneficiary copayments. Spending amounts for 2009 were estimated before passage of the Affordable Care Act.

Source: CMS, Office of the Actuary.

- Increases in fee-for-service spending on post-acute care have slowed in part due to expanded enrollment in managed care, whose spending is not included in this spending.
- Despite the slower growth, spending on all post-acute care still grew close to 6 percent between 2008 and 2009, fueled by the increases in home health care and skilled nursing facility expenditures.
- Fee-for-service spending on inpatient rehabilitation hospitals has declined since 2005, reflecting policies intended to ensure that patients who do not need this intensity of services are treated in less intensive settings.

|                                      | admissions in 2007   |                         |
|--------------------------------------|--|-------------------------|
| Diagnosis code<br>from hospital stay | Diagnosis  | Share of SNF admissions |
| 544                                  | Major joint and limb reattachment of lower extremity                 | 5.5%                    |
| 127                                  | Heart failure and shock  | 3.6                     |
| 089                                  | Simple pneumonia and pleurisy, age >17, with CC                      | 3.4                     |
| 576                                  | Septicemia without mechanical ventilation 96+ hours, age > 17        | 2.9                     |
| 210                                  | Hip and femur procedures except major joint, age >17, with CC        | 2.9                     |
| 320                                  | Kidney and urinary tract infection, age > 17, with CC                | 2.5                     |
| 014                                  | Intracranial hemorrhage and stroke with infarction                   | 2.4                     |
| 316                                  | Renal failure  | 2.2                     |
| 462                                  | Rehabilitation   | 1.9                     |
| 296                                  | Nutritional and miscellaneous metabolic disorders, age > 17, with CC | 1.9                     |
|                                      | Total  | 29.2                    |

# Chart 9-3. Ten most common diagnoses among Medicare SNF patients account for less than a third of SNF admissions in 2007

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, 2007.

- The most common diagnosis for a SNF admission in 2007 was a major joint and limb reattachment procedure of the lower extremity, typically a hip or knee replacement.
- Ten conditions accounted for about 30 percent of all admissions to SNFs in 2007.
- The 10 most frequent conditions and their rank orderings did not vary by ownership (forprofit and nonprofit facilities) or type (hospital-based and freestanding facilities). Hospitalbased facilities had double the share of major joint procedures compared with freestanding facilities.

## Chart 9-4. A growing share of Medicare stays and payments go to freestanding SNFs and for-profit SNFs

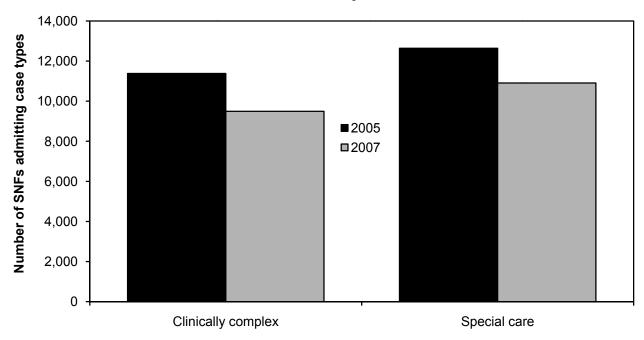
|                | Facili | ties | Medicare-co | overed stays | Medicare payments |      |  |
|----------------|--------|------|-------------|--------------|-------------------|------|--|
| Type of SNF    | 2005   | 2008 | 2005        | 2008         | 2005              | 2008 |  |
| All SNFs       | 100%   | 100% | 100%        | 100%         | 100%              | 100% |  |
| Freestanding   | 92     | 93   | 87          | 91           | 93                | 95   |  |
| Hospital based | 8      | 7    | 13          | 9            | 7                 | 5    |  |
| Urban          | 67     | 70   | 79          | 81           | 81                | 83   |  |
| Rural          | 33     | 30   | 21          | 19           | 19                | 17   |  |
| For profit     | 68     | 68   | 66          | 69           | 72                | 74   |  |
| Nonprofit      | 28     | 26   | 30          | 27           | 25                | 22   |  |
| Government     | 5      | 5    | 4           | 3            | 3                 | 3    |  |

Note: SNF (skilled nursing facility). Totals may not sum to 100 percent due to rounding or missing information about facility characteristics.

Source: MedPAC analysis of the Provider of Services and Medicare Provider Analysis and Review files 2005–2008.

- Freestanding SNFs made up 93 percent of facilities in 2008.
- Freestanding SNFs treated 91 percent of stays (up 4 percentage points from 2005) and accounted for 95 percent of Medicare payments.
- Between 2005 and 2008, for-profit SNFs' share of Medicare-covered stays increased 3 percentage points and payments increased 2 percentage points.
- Urban SNFs' share of facilities, Medicare-covered stays, and payments increased between 2005 and 2008.

## Chart 9-5. Fewer SNFs admitted clinically complex and special care cases in 2007 compared with 2005



Note: SNF (skilled nursing facility). Admission category based on admitting case-mix group assignment. 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 those who are aphasic or tube fed.

- The number of SNFs that admit medically complex patients continued to decline.
- Between 2005 and 2007, the number of facilities admitting clinically complex cases decreased 9 percent, while the number admitting special care patients decreased 7 percent.
- Between 2005 and 2007, the number of SNFs remained about the same. As a result, medically complex admissions were more concentrated in fewer SNFs.

Source: MedPAC analysis of 2006 DataPro data from CMS.

## Chart 9-6. Small increase in SNF days resulted in longer average stays

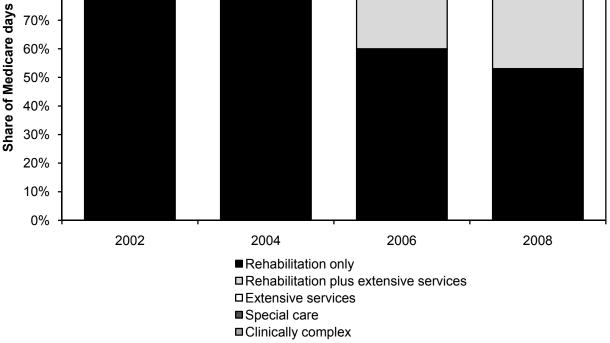
|  | 2006  | 2007  | 2008  | Change<br>2007–2008 |
|--|-------|-------|-------|---------------------|
| Volume per 1,000 fee-for-service enrolle | ees   |       |       |                     |
| Covered admissions                       | 71    | 72    | 74    | 2.8%                |
| Covered days                             | 1,874 | 1,925 | 1,991 | 3.4                 |
| Covered days per admission               | 26.4  | 26.7  | 27    | 1.1                 |

Note: SNF (skilled nursing facility). Data include 50 states and the District of Columbia. Data for 2008 are preliminary.

Source: Calendar year data from CMS, Office of Research, Development and Information.

- Between 2007 and 2008, covered days rose 3.4 percent and admissions rose 2.83 percent, resulting in a small increase in covered days per admission.
- Measures are reported on a per fee-for-service enrollee basis because the counts of days and admissions do not include the utilization of beneficiaries enrolled in Medicare Advantage (MA) plans. Because MA enrollment continued to increase, changes in utilization could reflect a smaller pool of users rather than changes in service use by the beneficiaries captured by the data.

Chart 9-7. Case mix in freestanding SNFs shifted toward rehabilitation plus extensive services RUGs and away from other broad RUG categories



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 those who 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.

- In 2008, rehabilitation RUGs accounted for 90 percent of all Medicare days in freestanding SNFs. Rehabilitation-only RUGs accounted for 53 percent of days.
- The nine rehabilitation plus extensive services RUGs accounted for 53 percent of all freestanding SNFs' RUG days in 2008. In 2007, these highest payment RUGs made up 34 percent of RUG days.
- Some of the growth in total rehabilitation days may be explained by a shift in the site of care from inpatient rehabilitation facilities to SNFs. Between 2004 and 2008, the share of beneficiaries who had a major joint replacement or revision and were discharged from a hospital to a SNF increased 3 percentage points, from 33 percent to 36 percent.

Rehabilitation case mix continues to shift toward Chart 9-8. higher paying rehabilitation RUGs 100% 90% Percent of rehabilitation days 80% 70% 60% 50% 40% 30% 20% 10% 0% 2002 2004 2006 2008 **Rehabilitation RUG categories** ■Ultra high ■Very high ■High ■Medium ■Low

Source: MedPAC analysis of freestanding skilled nursing facility cost reports.

- The distribution of rehabilitation days in freestanding skilled nursing facilities continued to shift toward the highest therapy groups. Between 2006 and 2008, the share of ultra high and very high rehabilitation days increased 35 percent, making up almost two-thirds of all rehabilitation days. During this period, the share of days in the high, medium, and low rehabilitation groups declined 10 percent.
- The shifts toward higher intensity 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
  get patients classified into higher paying rehabilitation RUGs.

Note: RUG (resource utilization group). Rehabilitation days include days in the rehabilitation case-mix groups and the rehabilitation plus extensive services case-mix groups. Days are for freestanding skilled nursing facilities with valid cost report data.

## Chart 9-9. Freestanding SNF Medicare margins have exceeded 10 percent for seven years

| Type of SNF | 2002  | 2003  | 2004  | 2005  | 2006  | 2007  | 2008  |
|-------------|-------|-------|-------|-------|-------|-------|-------|
| All         | 17.4% | 10.8% | 13.7% | 12.9% | 13.3% | 14.7% | 16.5% |
| Urban       | 16.8  | 10.2  | 13.1  | 12.4  | 13.1  | 14.5  | 16.1  |
| Rural       | 20.4  | 14.0  | 16.3  | 15.4  | 14.6  | 15.7  | 18.3  |
| For profit  | 19.6  | 13.4  | 16.2  | 15.2  | 15.8  | 17.4  | 19.0  |
| Nonprofit   | 8.7   | 1.3   | 3.5   | 4.2   | 3.3   | 4.0   | 7.0   |
| Government* | N/A   |

Note: SNF (skilled nursing facility).

\*Government-owned providers operate in a different context from other providers, so their margins are not necessarily comparable.

Source: MedPAC analysis of freestanding SNF cost reports.

- Although aggregate Medicare margins for freestanding SNFs have varied over the past 7 years, they have exceeded 10 percent every year since 2001 (2001 not shown).
- Aggregate Medicare margins increased from 2007 to 2008 due to costs per day growing more slowly than payments per day. The growth in payments reflected the increased share of days classified into the highest paying resource utilization groups.
- Examining the distribution of 2008 margins, one-half of freestanding SNFs had margins of 17.9 percent or more. One-quarter had Medicare margins at or below 7.4 percent and one quarter had margins of 26.2 percent or higher.

|                                    | •   | •          |
|------------------------------------|---|------------|
| Characteristic                     | SNFs with relatively low<br>costs and good<br>quality (6 percent) | Other SNFs |
| Performance in 2007                |   |            |
| Relative* community discharge rate | 1.39  | 1.0        |
| Relative* rehospitalization rate   | 0.79  | 1.0        |
| Relative* cost per day             | 0.83  | 1.0        |
| Median length of stay              | 35 days   | 41 days    |
| Medicare margin                    | 24.6%   | 16.0%      |
| Performance in 2008                |   |            |
| Relative* cost per day             | 0.85  | 1.0        |
| Median length of stay              | 37 days   | 40 days    |
| Medicare margin                    | 24.9%   | 17.7%      |
| Percent urban (2008)               | 64%   | 75%        |
| Percent nonprofit (2008)           | 24%   | 21%        |
| Median number of beds (2008)       | 99 beds   | 109 beds   |
| . ,                                |   |            |

## Chart 9-10. Freestanding SNFs with relatively low costs and high quality maintained high Medicare margins

Note: SNF (skilled nursing facility). SNFs with relatively low costs and good quality were those in the lowest third of the distribution of cost per day, in the top third for one quality measure, and not in the bottom third for the other quality measure. Costs per day were standardized for differences in case mix (using the nursing component relative weights) and wages. Quality measures were rates of risk-adjusted community discharge and rehospitalization for five conditions (congestive heart failure, respiratory infection, urinary tract infection, sepsis, and electrolyte imbalance) within 100 days of hospital discharge. Increases in rates of discharge to community indicate improved quality; increases in rehospitalization rates for the five conditions indicate worsening quality. Quality measures were calculated for all facilities with more than 25 stays.

\*Measures are relative to the national average.

Source: MedPAC analysis of quality measures for 2004–2007 and Medicare cost report data for 2004–2008.

- Freestanding SNFs can have relatively low costs and provide good quality of care while maintaining high margins.
- Compared with other SNFs, relatively efficient SNFs had community discharge rates that were 39 percent higher, rehospitalization rates that were 21 percent lower, and costs per day that were 17 percent lower. They also had shorter lengths of stay than other SNFs. Relatively efficient SNFs had Medicare margins in 2008 of 24.9 percent compared with a median margin for other SNFs of 17.7 percent.
- Relatively efficient SNFs were less likely to be located in an urban area and more likely to be nonprofit than other SNFs.

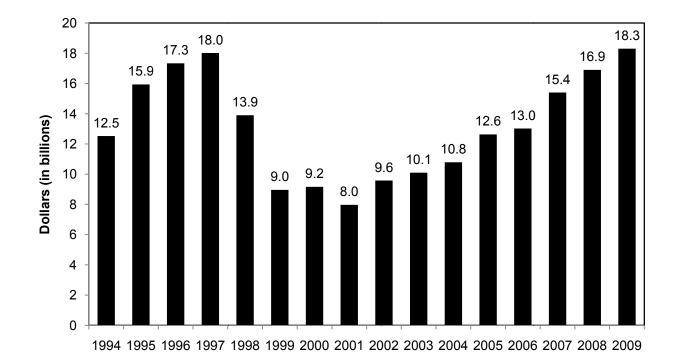


Chart 9-11. Spending for home health care, 1994–2009

- 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 after 1997, concurrent with the introduction of the interim payment system (IPS) based on costs with limits, tighter eligibility, and increased scrutiny from the Office of Inspector General.
- In October 2000, the prospective payment system (PPS) replaced the IPS. At the same time, eligibility for the benefit 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 9.9 percent a year between 2001 and 2008.

Source: CMS, Office of the Actuary, 2009.

|                                |      |      |      | Percent       | Percent change |  |  |
|--------------------------------|------|------|------|---------------|----------------|--|--|
|                                | 1997 | 2001 | 2008 | 1997–<br>2001 | 2001–<br>2008  |  |  |
| Number of visits (in millions) | 258  | 74   | 118  | -72%          | 60%            |  |  |
| Visit type (percent of total)  |      |      |      |               |                |  |  |
| Home health aide               | 48%  | 25%  | 18%  | -37           | -28            |  |  |
| Skilled nursing                | 41   | 50   | 55   | 20            | 10             |  |  |
| Therapy                        | 10   | 24   | 26   | 101           | 8              |  |  |
| Medical social services        | 1    | 1    | 1    | 1             | NA             |  |  |
| Visits per home health patient | 73   | 37   | 37   | -49           | -2             |  |  |

## Chart 9-12. The provision of home health care 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 1997 to stem the rise in spending for home health services and implemented a prospective payment system (PPS) in 2000 (see Chart 9-11). By 2001, total visits had dropped by 72 percent, total users had dropped by 30 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 threequarters of all services. Since PPS was implemented the number of users and episodes has risen rapidly (see Chart 9-13).

|                                  | 2002    | 2005    | 2008    | Average annual<br>percent change<br>2002–2008 |
|----------------------------------|---------|---------|---------|---|
|                                  |         |         |         |   |
| Number of users (in millions)    | 2.5     | 3.0     | 3.2     | 3.9%  |
| Percent of beneficiaries who     |         |         |         |   |
| used home health                 | 7.1%    | 8.0%    | 9.1%    | 4.0   |
| Episodes (in millions)           | 4.1     | 5.2     | 6.1     | 6.7   |
| Episodes per home health patient | 1.6     | 1.8     | 1.9     | 2.7   |
| Visits per home health patient   | 31      | 32      | 37      | 3.5   |
| Average payment per episode      | \$2,329 | \$2,470 | \$2,786 | 3.0   |

#### 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 2000, the number of users and the number of episodes have risen significantly. In 2008, more than 3 million beneficiaries used the home health benefit.
- The number of home health episodes increased rapidly from 2002 to 2008. The number of beneficiaries using it has also increased since 2002, but at a lower rate than the growth in episodes.
- The number of visits per home health patient increased in 2008 to 37. This increase is primarily due to an increase in the number of home health episodes per patient and a slight increase in the number of visits per episode. CMS is investigating operations in south Florida and other areas, where high levels of utilization may be driving some of the growth in volume.

|                 | 2007  | 2008  | Percent of agencies 2008 |
|-----------------|-------|-------|--------------------------|
|                 |       |       |                          |
| All             | 16.5% | 17.4% | 100%                     |
| Geography       |       |       |                          |
| Urban           | 16.7  | 17.8  | 81.5                     |
| Rural           | 15.4  | 15.7  | 18.5                     |
| Type of control |       |       |                          |
| For profit      | 18.3  | 18.5  | 86                       |
| Nonprofit       | 12.0  | 14.3  | 14                       |
| Volume quintile |       |       |                          |
| First           | 8.4   | 7.9   | 20                       |
| Second          | 11.7  | 9.2   | 20                       |
| Third           | 13.0  | 13.1  | 20                       |
| Fourth          | 16.8  | 16.1  | 20                       |
| Fifth           | 17.5  | 19.5  | 20                       |

#### Chart 9-14. Margins for freestanding home health agencies

Note: 4,706 agencies for 2007 and 5,069 agencies for 2008.

Source: MedPAC analysis of 2007-2008 Cost Report files.

- In 2008, about 78 percent of agencies had positive margins (not shown in chart). 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 2008. HHAs are also based in hospitals and other facilities.
- HHAs that served mostly urban patients in 2008 had a weighted average margin of 17.8 percent; those that served mostly rural patients had a weighted average margin of 15.7 percent. The 2008 margin is consistent with the historically high margins the home health industry has experienced under the prospective payment system. The weighted average margin from 2001 to 2007 was 17.4 percent, indicating that most agencies have been paid well in excess of cost under prospective payment.
- For-profit agencies in 2008 had a weighted average margin of 18.5 percent, and nonprofit agencies had a weighted average margin of 14.3 percent.
- Agencies that serve more patients have higher margins. The agencies in the lowest volume quintile in 2008 have a weighted average margin of 7.9 percent, while those in the highest have a weighted average margin of 19.5 percent.

## Chart 9-15. The top MS–LTC–DRGs made up more than half of LTCH discharges in 2008

| MS-L |   |            |            |
|------|---|------------|------------|
| DRG  | Description   | Discharges | Percentage |
|      |   |            |            |
| 207  | Respiratory system diagnosis with ventilator support 96+ hours      | 14,986     | 11.5%      |
| 189  | Pulmonary edema & respiratory failure                               | 8,745      | 6.7        |
| 871  | Septicemia or severe sepsis without ventilator support              |            |            |
|      | 96+ hours with MCC  | 6,482      | 5.0        |
| 177  | Respiratory infections & inflammations with MCC                     | 4,340      | 3.3        |
| 592  | Skin ulcers with MCC  | 4,004      | 3.1        |
| 949  | Aftercare with CC/MCC   | 3,752      | 2.9        |
| 193  | Simple pneumonia & pleurisy with MCC                                | 2,696      | 2.1        |
| 593  | Skin ulcers with CC   | 2,590      | 2.0        |
| 190  | Chronic obstructive pulmonary disease with MCC                      | 2,558      | 2.0        |
| 208  | Respiratory system diagnosis with ventilator support <96 hours      | 2,486      | 1.9        |
| 945  | Rehabilitation with CC/MCC  | 2,275      | 1.7        |
| 178  | Respiratory infections & inflammations with CC                      | 1,964      | 1.5        |
| 559  | Aftercare, musculoskeletal system & connective tissue with MCC      | 1,944      | 1.5        |
| 573  | Skin graft and/or debridement for skin ulcer or cellulitis with MCC | 1,912      | 1.5        |
| 539  | Osteomyelitis with MCC  | 1,903      | 1.5        |
| 682  | Renal failure with MCC  | 1,738      | 1.3        |
| 166  | Other respiratory system OR procedures with MCC                     | 1,693      | 1.3        |
| 291  | Heart failure & shock with MCC                                      | 1,688      | 1.3        |
| 862  | Postoperative & post-traumatic infections with MCC                  | 1,672      | 1.3        |
| 919  | Complications of treatment with MCC                                 | 1,659      | 1.3        |
|      | Top 20 MS-LTC-DRGs  | 71,087     | 54.3       |
|      | Total   | 130,869    | 100.0      |

Note: MS–LTC–DRG (Medicare severity–long-term care–diagnosis related group), LTCH (long-term care hospital), MCC (major complication or comorbidity), CC (complication or comorbidity), OR (operating room). MS–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.

- Cases in LTCHs are concentrated in a relatively small number of MS–LTC–DRGs. In 2008, the top 20 MS–LTC–DRGs accounted for more than half of all cases.
- The most frequent diagnosis in LTCHs in 2008 was respiratory diagnosis with ventilator support for more than 96 hours. Eight of the top 20 diagnoses, representing 30 percent of all cases, were respiratory conditions.

|                                       |           |          |          |          |          |          | Average       | Average annual chang |               |  |
|---------------------------------------|-----------|----------|----------|----------|----------|----------|---------------|----------------------|---------------|--|
|                                       | 2003      | 2004     | 2005     | 2006     | 2007     | 2008     | 2003–<br>2005 | 2005–<br>2007        | 2007–<br>2008 |  |
| Cases                                 | 110,396   | 121,955  | 134,003  | 130,164  | 129,202  | 130,869  | 10.2%         | -1.8%                | 1.3%          |  |
| Cases per 10,000<br>FFS beneficiaries | 30.8      | 33.4     | 36.4     | 36.0     | 36.4     | 37.7     | 8.8           | 0.0                  | 3.6           |  |
| Spending per<br>FFS beneficiary       | \$75.2    | \$101.3  | \$122.2  | \$124.3  | \$126.7  | \$132.6  | 27.5          | 1.8                  | 4.7           |  |
| Payment per case                      | \$24,758  | \$30,059 | \$33,658 | \$34,859 | \$34,769 | \$35,200 | 16.6          | 1.6                  | 1.2           |  |
| Length of stay (in da                 | ays) 28.8 | 28.5     | 28.2     | 27.9     | 26.9     | 26.7     | -1.0          | -2.3                 | -0.7          |  |

## Chart 9-16. Long-term care hospital spending per FFS beneficiary increased under PPS

Note: FFS (fee-for-service), PPS (prospective payment system). Growth in per FFS cases and spending was slowed in 2006 and 2007 by large increases in the number of Medicare Advantage enrollees, whose long-term care hospital use and spending are not included in these totals.

Source: MedPAC analysis of MedPAR data from CMS.

- Between 2007 and 2008, Medicare spending for long-term care hospitals (LTCHs) increased 2.4 percent. However, because of growth in the number of beneficiaries enrolling in Medicare Advantage plans, Medicare spending per FFS beneficiary rose 4.7 percent.
- Similarly, between 2007 and 2008, the number of LTCH cases grew 1.3 percent. But when we control for the number of beneficiaries enrolled in FFS, the number of cases grew 3.6 percent.

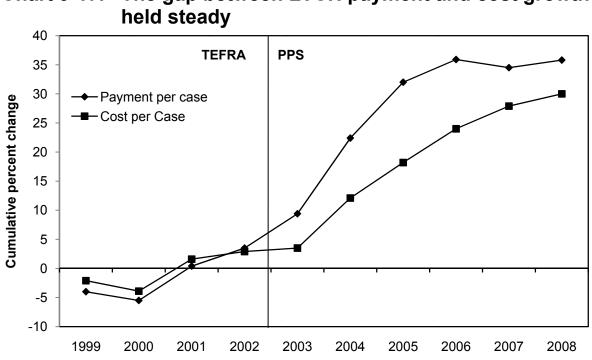


Chart 9-17. The gap between LTCH payment and cost growth

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

Under TEFRA and before the PPS system was implemented in fiscal year 2003, LTCHs' Medicare per case costs and payments changed at similar rates. Under PPS, LTCHs' Medicare per case payments increased much faster than their per case costs. Payment growth slowed in 2006 and declined in 2007, then climbed again in 2008.

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

|                          | Share of discharges | TEF   | RA    |       |       | PP     | S    |       |       |
|--------------------------|---------------------|-------|-------|-------|-------|--------|------|-------|-------|
| Type of LTCH             | (2008)              | 2001  | 2002  | 2003  | 2004  | 2005   | 2006 | 2007  | 2008  |
| A 11                     | 100%                | 4.00/ | 0.40/ | 5.00/ | 0.00/ | 44.00/ | 0.0% | 4.00/ | 0.40/ |
| All                      | 100%                | -1.6% | -0.1% | 5.2%  | 9.0%  | 11.9%  | 9.8% | 4.8%  | 3.4%  |
| Urban                    | 94                  | -1.6  | -0.1  | 5.2   | 9.2   | 11.9   | 10.0 | 4.9   | 3.6   |
| Rural                    | 4                   | -2.7  | -0.5  | 5.2   | 2.6   | 10.0   | 4.9  | -0.5  | -2.3  |
| Freestanding             | 71                  | -1.3  | 0.1   | 5.4   | 8.1   | 11.2   | 9.0  | 5.2   | 3.7   |
| Hospital within hospital | 29                  | -2.1  | -0.5  | 5.0   | 9.9   | 12.5   | 10.5 | 4.3   | 3.1   |
| Nonprofit                | 17                  | -1.8  | 0.1   | 2.0   | 6.7   | 9.0    | 6.5  | 1.8   | -2.0  |
| For profit               | 81                  | -1.4  | -0.1  | 6.3   | 10.0  | 13.0   | 11.0 | 5.7   | 4.9   |
| Government*              | 2                   | -4.9  | -2.6  | -1.1  | -0.7  | 0.3    | -1.1 | -4.4  | -10.1 |

## Chart 9-18. LTCHs' Medicare margins by type of facility

Note: LTCH (long-term care hospital), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982), PPS (prospective payment system). Columns may not sum to 100 percent due to rounding or missing data. \*Government-owned providers operate in a different context from other providers, so their margins are not necessarily comparable.

Source: MedPAC analysis of cost report data from CMS.

- After implementation of the PPS, LTCHs' Medicare margins increased rapidly, from 5.2 percent in 2003 to 11.9 percent in 2005. Since 2005, aggregate margins have declined.
- Financial performance in 2008 varied across LTCHs. The aggregate Medicare margin for for-profit LTCHs (which account for 81 percent of all Medicare discharges from LTCHs) was 4.9 percent, compared with –2.0 percent for nonprofit facilities (which account for 17 percent of all Medicare LTCH discharges). Rural LTCHs' aggregate margin was –2.3 percent, compared with 3.6 percent for their urban counterparts. Rural providers account for about 6 percent of all LTCHs. They tend to be smaller than urban LTCHs, which may result in poorer economies of scale.

| Characteristics                           | High-margin<br>LTCHs | Low-margin<br>LTCHs |
|---|----------------------|---------------------|
| Mean total discharges (all payers)        | 577                  | 419                 |
| Medicare share                            | 66%                  | 61%                 |
| Average length of stay (in days)          | 27                   | 29                  |
| Mean per discharge:                       |                      |                     |
| Standardized costs                        | \$26,058             | \$38,314            |
| Medicare payment                          | \$38,297             | \$37,896            |
| High-cost outlier payments                | \$2,176              | \$4,984             |
| Share of:                                 |                      |                     |
| Cases that are SSOs                       | 28%                  | 35%                 |
| Medicare cases from primary-referring ACH | 35                   | 40                  |
| LTCHs that are for-profit                 | 88                   | 57                  |

## Chart 9-19. LTCHs in the top quartile of Medicare margins in 2008 had much lower costs

Note: LTCH (long-term care hospital), SSO (short-stay outlier), ACH (acute care hospital). High-margin LTCHs were in the top 25 percent of the distribution of Medicare margins. Low-margin LTCHs were in the bottom 25 percent of the distribution of Medicare margins. Standardized costs have been adjusted for differences in case mix and area wages. Average primary referring ACH referral share indicates the mean share of patients who are referred to LTCHs from each LTCH's primary referring ACH.

Source: MedPAC analysis of LTCH cost reports and MedPAR data from CMS.

- A quarter of all LTCHs had margins in excess of 11.8 percent, while another quarter had margins below –8.2 percent.
- Lower per discharge costs, rather than higher payments, drove the differences in financial performance between LTCHs with the lowest and highest Medicare margins. Low-margin LTCHs had standardized costs per discharge that were almost 50 percent higher than high-margin LTCHs (\$38,314 vs. \$26,058).
- High-cost outlier payments per discharge for low-margin LTCHs were more than double those of high-margin LTCHs (\$4,984 vs. \$2,176). At the same time, short-stay outliers made up a larger share of low-margin LTCHs' cases. Low-margin LTCHs thus cared for disproportionate shares of patients who are high-cost outliers and patients who have shorter stays. Both types of patients can have a negative effect on LTCHs' margins. LTCHs lose money on high-cost outlier cases since, by definition, they generate costs that exceed payments. Further, cases that are short-stay outliers may receive reduced payments.
- Low-margin LTCHs service fewer patients overall. Poorer economies of scale may therefore affect low-margin LTCHs' costs.
- Low-margin LTCHs were far less likely to be for profit than were their high-margin counterparts.

| Type of case            | Share of cases |
|-------------------------|----------------|
| Stroke                  | 20.6%          |
| Hip fracture            | 15.5           |
| Major joint replacement | 11.4           |
| Debility                | 9.2            |
| Neurological            | 9.0            |
| Brain injury            | 7.3            |
| Other orthopedic        | 6.3            |
| Cardiac conditions      | 4.9            |
| Spinal cord injury      | 4.3            |
| Other                   | 11.5           |

## Chart 9-20. Most common types of inpatient rehabilitation facility cases, 2009

Note: Other includes conditions such as amputations, major multiple trauma, and pain syndrome. Numbers may not sum to 100 percent due to rounding.

Source: MedPAC analysis of Inpatient Rehabilitation Facility–Patient Assessment Instrument data from CMS (January through June of 2009).

- In 2009, the most frequent diagnosis for Medicare patients in inpatient rehabilitation facilities (IRFs) was stroke, representing close to 21 percent of cases, up from 2004, when stroke represented fewer than 17 percent of cases.
- Major joint replacement cases represented just over 11 percent of IRF admissions in 2009, down from 24 percent of cases in 2004, when major joint replacement was the most common IRF Medicare case type.

# Chart 9-21. The volume of IRF FFS patients stabilized in 2008, after declining from 2004 to 2007

| Type of IRF                                  | 2004     | 2006     | 2007     | 2008     | Average<br>annual<br>change<br>2004–2007 | Average<br>annual<br>change<br>2007–2008 |
|--|----------|----------|----------|----------|--|--|
|  |          |          |          |          |  |  |
| IRF FFS patients                             | 451,000  | 369,000  | 338,000  | 332,000  | -9.2%                                    | -1.7%                                    |
| FFS patients per 10,000<br>FFS beneficiaries | 124.9    | 103.0    | 96.2     | 95.6     | -8.3                                     | -0.6                                     |
| Payment per case                             | \$13,275 | \$15,354 | \$16,143 | \$16,649 | 6.7                                      | 3.1                                      |
| Medicare spending (in billions)              | \$6.43   | \$6.29   | \$5.95   | \$5.84   | -2.6                                     | -1.8                                     |
| Average length of stay (in days)             | 12.7     | 13.0     | 13.2     | 13.3     | 1.3                                      | 0.8                                      |

Note: IRF (inpatient rehabilitation facility), fee-for-service (FFS). Numbers of patients reflect Medicare FFS utilization only. With respect to the number of IRF FFS patients in a particular year, each IRF FFS patient is counted only once during that year, regardless of whether the patient had multiple IRF admissions that year.

Source: MedPAC analysis of MedPAR data from CMS. Total Medicare spending for IRF services from CMS Office of the Actuary.

- After controlling for changes in FFS enrollment, the volume of IRF FFS patients declined from 125 IRF patients per 10,000 FFS beneficiaries to 96 patients. The volume decline was largely due to providers' adjustment to the CMS compliance threshold (the 60 percent rule).
- The volume of IRF FFS patients stabilized in 2008, declining by only 0.6 percent between 2007 and 2008, after declining 8.3 percent annually from 2004 to 2007.
- Medicare FFS spending on IRFs declined between 2004 and 2008 as more IRFs complied with the 60 percent rule and more Medicare beneficiaries enrolled in Medicare Advantage plans.
- IRF Medicare payments per case and average length of stay have increased since 2004, consistent with increasing average case mix of IRF patients.

50 TEFRA PPS - Payment per case - Cost per case 40 Cumulative percent change 30 20 10 0 -10 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008

Chart 9-22. Overall IRFs' payments per case 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.

- Before implementation of the prospective payment system (PPS) in 2002, Medicare per case costs and payments increased at similar rates, as IRFs received cost-based reimbursement under TEFRA.
- Since implementation of the PPS, overall Medicare payments per case have increased faster than costs. Costs per case grew rapidly between 2004 and 2006 as a result of enforcement of the compliance threshold.
- These trends in Medicare per case payments and costs are reflected in IRFs' Medicare margins, shown in Chart 9-23.

|                                | type, 2001–2008 |             |              |              |              |              |              |             |
|--------------------------------|-----------------|-------------|--------------|--------------|--------------|--------------|--------------|-------------|
|                                | TEFRA           |             |              |              | PPS          |              |              |             |
|                                | 2001            | 2002        | 2003         | 2004         | 2005         | 2006         | 2007         | 2008        |
| All IRFs                       | 1.5%            | 10.9%       | 17.8%        | 16.6%        | 13.2%        | 12.4%        | 11.9%        | 9.5%        |
| Hospital based<br>Freestanding | 1.5<br>1.5      | 6.2<br>18.5 | 14.8<br>22.9 | 12.1<br>24.7 | 9.3<br>20.4  | 9.6<br>17.4  | 8.1<br>18.5  | 4.2<br>18.0 |
| Urban<br>Rural                 | 1.5<br>1.1      | 11.4<br>5.8 | 18.3<br>12.4 | 16.9<br>13.7 | 13.4<br>11.8 | 12.5<br>10.6 | 12.1<br>10.0 | 9.7<br>7.4  |
| Nonprofit<br>For profit        | 1.6<br>1.2      | 6.6<br>18.6 | 14.6<br>23.8 | 12.7<br>24.4 | 10.3<br>19.3 | 10.7<br>16.2 | 9.7<br>16.8  | 5.3<br>16.8 |

## Chart 9-23. Inpatient rehabilitation facilities' Medicare margin by type, 2001–2008

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

Source: MedPAC analysis of cost report data from CMS.

- The aggregate Medicare margin increased rapidly during the first two years of the IRF PPS. Aggregate margins rose from just under 2 percent in 2001 to almost 18 percent in 2003.
- From 2003 to 2008, margins declined but remained high. This decline was largely due to reductions in patient volume over this time period that resulted in fewer patients among whom to distribute fixed costs. The 2007 to 2008 margin decrease was mainly a result of a midyear reduction in 2008 Medicare payment rates to 2007 levels, mandated by the Medicare, Medicaid, and SCHIP Extension Act of 2007.
- Freestanding and for-profit IRFs had substantially higher aggregate Medicare margins than hospital-based and nonprofit IRFs, continuing a trend that began with implementation of the IRF prospective payment system in 2002.

## Web links. Post-acute care

#### **Skilled nursing facilities**

 Chapter 3A of MedPAC's March 2010 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 skilled nursing facility 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/Mar10\_Ch03A.pdf

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

http://www.medpac.gov/documents/MedPAC\_Payment\_Basics\_09\_SNF.pdf

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

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

#### Home health services

• Chapter 3B of MedPAC's March 2010 Report to the Congress, Chapter 2E of MedPAC's March 2009 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. *Medicare payment basics: Home health care services payment system* provides a description of how Medicare pays for home health care.

http://www.medpac.gov/chapters/Mar10\_Ch03B.pdf

http://www.medpac.gov/chapters/Mar09\_Ch02e.pdf

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

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

http://www.medpac.gov/documents/MedPAC\_Payment\_Basics\_09\_HHA.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.gov/HomeHealthPPS/

#### Long-term care hospitals

• Chapter 3D of MedPAC's March 2010 Report to the Congress provides information on long-term care hospitals. *Medicare payment basics: Long-term care hospital services payment system* provides a description of how Medicare pays for long-term care hospital services.

http://www.medpac.gov/chapters/Mar10\_Ch03D.pdf

http://www.medpac.gov/documents/MedPAC\_Payment\_Basics\_09\_LTCH.pdf

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

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

#### Inpatient rehabilitation facilities

• Chapter 3C of MedPAC's March 2010 Report to the Congress provides information on inpatient rehabilitation facilities. *Medicare payment basics: Rehabilitation facilities (inpatient) payment system* provides a description of how Medicare pays for inpatient rehabilitation facility services.

http://www.medpac.gov/chapters/Mar10\_Ch03C.pdf

http://www.medpac.gov/documents/MedPAC\_Payment\_Basics\_09\_IRF.pdf

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

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

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

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

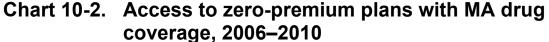
|      |                        | CCPs            |            |      |                   |   |  |
|------|------------------------|-----------------|------------|------|-------------------|---|--|
| _    | HMO<br>or local<br>PPO | Regional<br>PPO | Any<br>CCP | PFFS | Any<br>MA<br>plan | Average plan<br>offerings per<br>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                                      |  |
| 2009 | 88                     | 91              | 99         | 100  | 100               | 34                                      |  |
| 2010 | 91                     | 86              | 99         | 100  | 100               | 21                                      |  |

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

Source: MedPAC analysis of plan finder data from CMS.

- There are four types of plans, three of which are CCPs. Local CCPs include local PPOs and HMOs, which have comprehensive provider networks and limit or discourage use of out-ofnetwork 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 available beginning in 2006. PFFS plans, which are not CCPs, are not required to have networks and members may go to any willing Medicare provider.
- Local CCPs are available to 91 percent of Medicare beneficiaries in 2010—up from 67 percent in 2005. Regional PPOs are available to 86 percent of beneficiaries. Virtually all beneficiaries live in a county where MA PFFS plans are available in 2010—up from 45 percent in 2005. For the past five 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 in 2010 is about the same as in 2007. In 2010, beneficiaries can choose from an average of 21 plans operating in their counties. This number is a decrease from 2008 and 2009, reflecting CMS's 2010 effort to reduce the number of duplicative plans and plans with small enrollment.

coverage, 2006-2010 100 94 □2006 □2007 □2008 ■2009 □2010 86 <sup>88</sup> 90 85 80 73 72 <sup>70</sup> 68 Percent of beneficiaries 70 66 60 60 55 52 48 50 40 34 32 29 29 28 30 26 25 25 25



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

PFFS

15

**Regional PPO** 

Any MA plan

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

HMO

20

10

0

19

PPO

11

- Across most plan types, the availability of "zero-premium" plans—plans with no premium payments other than the Medicare Part B premium-declined in 2010. Fewer beneficiaries can obtain an MA–Prescription Drug plan (MA–PD plan), an MA plan that includes Part D drug coverage, for which the enrollee pays no premium for either the drug coverage or the coverage of Medicare Part A and Part B services. In 2010, 85 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 94 percent in 2009.
- Sixty-eight percent of beneficiaries have zero-premium MA-PD HMOs available, while MA-PD PPOs without premiums are much less widely available. However, zero-premium regional PPOs are more available than they have been in the past. PFFS plans offering zero premiums were available to 72 percent of beneficiaries in 2009, but to only 26 percent of beneficiaries in 2010.
- In most cases, MA plan enrollees 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.

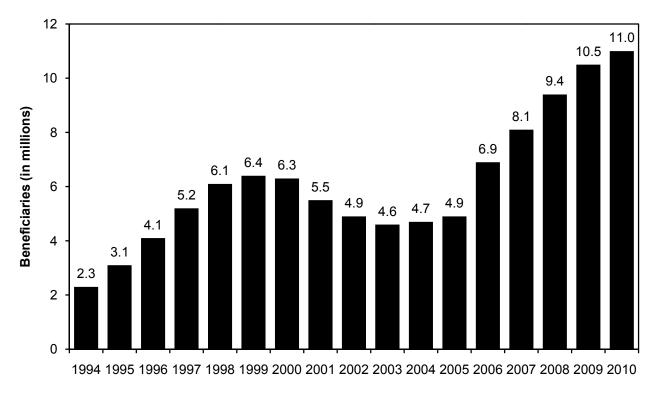


Chart 10-3. Enrollment in MA plans, 1994–2010

Note: MA (Medicare Advantage).

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

• Medicare enrollment in private health plans paid on an at-risk capitated basis is at an alltime high at 11.0 million enrollees (24 percent of all Medicare beneficiaries). Enrollment rose rapidly throughout the 1990s, peaking at 6.4 million enrollees in 1999, and then declined to a low of 4.6 million enrollees in 2003. MA enrollment has increased steadily since 2003.

| i             |                  |                  |                  |                  |                             |
|---------------|------------------|------------------|------------------|------------------|-----------------------------|
| Plan type     | February<br>2007 | February<br>2008 | February<br>2009 | February<br>2010 | Percentage change 2009–2010 |
| Local CCPs    | 6,065            | 6,830            | 7,625            | 8,354            | 10%                         |
| Regional PPOs | 121              | 257              | 377              | 760              | 102                         |
| PFFS          | 1,328            | 2,057            | 2,353            | 1,657            | -30                         |

## Chart 10-4. Changes in enrollment vary among major plan types

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.

- Enrollment in local CCPs grew slower than enrollment in regional PPOs over the past year, while enrollment in PFFS plans declined. Combined enrollment in the three types of plans grew by 4 percent from February 2009 to February 2010.
- While still the dominant form of enrollment, local CCP enrollment grew 10 percent over the past year, while enrollment in regional PPOs grew by 102 percent from a much lower base. It is likely that much of the enrollment growth in regional PPOs came from the 30 percent decline in PFFS enrollment over the same time period.

|                      | pian, 2010                             | Distribution (in percent) of enrollees by plan type |           |              |      |      |          |  |
|----------------------|--|---|-----------|--------------|------|------|----------|--|
| State                | Medicare eligibles _<br>(in thousands) | HMO   | Local PPO | Regional PPO | PFFS | Cost | Total    |  |
| Alabama              | 829                                    | 12%   | 7%        | 0%           | 2%   | 0%   | 21%      |  |
| Alaska               | 63                                     | 0   | 0         | 0            | 0    | 0    | 1        |  |
| Arizona              | 891                                    | 32  | 2         | 1            | 2    | 0    | 37       |  |
| Arkansas             | 522                                    | 4   | 1         | 2            | 7    | 0    | 14       |  |
| California           | 4,267                                  | 36  | O         | 1            | 1    | õ    | 39       |  |
| Colorado             | 604                                    | 24  | 2         | 0            | 4    | 4    | 34       |  |
| Connecticut          | 559                                    | 15  | 1         | 1            | 1    | 0    | 18       |  |
| Delaware             | 145                                    | 1   | 1         | 0            | 2    | õ    | 4        |  |
| District of Columbia | 77                                     | 2   | 1         | 0            | 0    | 6    | 10       |  |
| Florida              | 3,270                                  | 23  | 1         | 5            | 1    | Ő    | 30       |  |
|                      | 1,201                                  | 23  | 2         | 3            | 12   | 0    | 20       |  |
| Georgia<br>Hawaii    | 201                                    | 13  | 7         | 2            |      |      |          |  |
|                      |  |   |           |              | 1    | 18   | 41       |  |
| Idaho                | 222                                    | 11  | 6         | 0            | 12   | 1    | 29       |  |
| Illinois             | 1,812                                  | 5   | 2         | 1            | 2    | 0    | 10       |  |
| Indiana              | 987                                    | 1   | 4         | 4            | 5    | 0    | 16       |  |
| lowa                 | 513                                    | 3   | 2         | 1            | 6    | 1    | 13       |  |
| Kansas               | 427                                    | 3   | 4         | 1            | 3    | 1    | 11       |  |
| Kentucky             | 745                                    | 4   | 3         | 3            | 5    | 1    | 16       |  |
| Louisiana            | 674                                    | 19  | 0         | 1            | 4    | 0    | 24       |  |
| Maine                | 260                                    | 5   | 1         | 0            | 6    | 0    | 12       |  |
| Maryland             | 766                                    | 3   | 1         | 0            | 1    | 3    | 8        |  |
| Massachusetts        | 1,408                                  | 10  | 1         | 0            | 2    | 0    | 14       |  |
| Michigan             | 1,620                                  | 7   | 2         | 1            | 5    | 0    | 15       |  |
| Minnesota            | 771                                    | 14  | 1         | 2            | 7    | 17   | 41       |  |
| Mississippi          | 489                                    | 3   | 1         | 1            | 4    | 0    | 9        |  |
| Missouri             | 988                                    | 12  | 4         | 1            | 4    | 0    | 21       |  |
| Montana              | 165                                    | 0   | 3         | 0            | 15   | 0    | 18       |  |
| Nebraska             | 276                                    | 4   | 1         | 1            | 6    | 1    | 12       |  |
| Nevada               | 343                                    | 27  | 1         | 1            | 2    | 0    | 31       |  |
| New Hampshire        | 212                                    | 0   | 0         | 0            | 6    | 0    | 7        |  |
| New Jersey           | 1,308                                  | 10  | Õ         | Õ            | 2    | õ    | 12       |  |
| New Mexico           | 305                                    | 18  | 4         | Õ            | 3    | õ    | 25       |  |
| New York             | 2,941                                  | 23  | 4         | 1            | 2    | ŏ    | 30       |  |
| North Carolina       | 1,450                                  | 8   | 1         | 0            | 8    | 0    | 18       |  |
| North Dakota         | 108                                    | 0   | 0         | 0            | 6    | 2    | 8        |  |
| Ohio                 | 1,873                                  | 14  | 7         | 8            | 3    | 1    | 33       |  |
| Oklahoma             | 594                                    | 14  | 2         | 0            | 3    | 0    | 33<br>15 |  |
|                      | 603                                    | 22  |           |              | 4    | 0    |          |  |
| Oregon               |  | 22  | 16        | 0            |      |      | 42       |  |
| Pennsylvania         | 2,253                                  |   | 9         | 0            | 3    | 0    | 38       |  |
| Puerto Rico          | 632                                    | 59  | 8         | 0            | 0    | 0    | 67       |  |
| Rhode Island         | 181                                    | 29  | 1         | 4            | 0    | 0    | 35       |  |
| South Carolina       | 749                                    | 1   | 1         | 3            | 9    | 0    | 15       |  |
| South Dakota         | 135                                    | 0   | 1         | 1            | 5    | 0    | 8        |  |
| Tennessee            | 1,032                                  | 17  | 2         | 1            | 5    | 0    | 24       |  |
| Texas                | 2,907                                  | 13  | 1         | 2            | 2    | 1    | 19       |  |
| Utah                 | 274                                    | 12  | 13        | 0            | 7    | 1    | 33       |  |
| Vermont              | 108                                    | 0   | 0         | 1            | 3    | 0    | 4        |  |
| Virginia             | 1,109                                  | 1   | 2         | 0            | 9    | 1    | 14       |  |
| Washington           | 940                                    | 17  | 3         | 0            | 5    | 0    | 25       |  |
| West Virginia        | 378                                    | 1   | 4         | 9            | 4    | 3    | 22       |  |
| Wisconsin            | 895                                    | 11  | 5         | 2            | 8    | 2    | 29       |  |
| Wyoming              | 78                                     | 0   | 0         | 0            | 5    | 1    | 7        |  |
| U.S. Total           | 46,172                                 | 16  | 3         | 2            | 4    | 1    | 25       |  |

# Chart 10-5. MA and cost plan enrollment by state and type of plan, 2010

Note: MA (Medicare Advantage), HMO (health maintenance organization), PPO (preferred provider organization), PFS (private fee-forservice). Cost plans are not MA plans; they submit cost reports to CMS rather than bids. Totals may not sum due to rounding. Source: CMS enrollment and population data, 2010.

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 42
percent and 67 percent of beneficiaries, respectively, enrolled in plans.

The popularity of different types of plans varies as well. For example, some states have almost their entire plan enrollment in PFFS plans, while other states have little or none of their enrollment in PFFS plans.

## Chart 10-6. MA plan benchmarks, bids, and Medicare program payments relative to FFS spending, 2010

|                | All Plans | HMOs | Local PPOs | Regional PPOs | PFFS |
|----------------|-----------|------|------------|---------------|------|
| Benchmarks/FFS | 112%      | 112% | 115%       | 109%          | 114% |
| Bids/FFS       | 100       | 97   | 108        | 104           | 111  |
| Payments/FFS   | 109       | 108  | 113        | 108           | 113  |

Note: MA (Medicare Advantage), FFS (fee-for-service), HMO (health maintenance organization), PPO (preferred provider organization), PFFS (private fee-for-service). Table assumes that physician rates are not reduced by the sustainable growth rate formula between publication date and the end of 2010.

Source: MedPAC analysis of plan bid data from CMS, November 2009.

- 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 MA benchmarks average 112 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 100 percent of FFS spending. We estimate that HMOs bid an average of 97 percent of FFS spending, while bids from other plan types average at least 104 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 2010 MA payments will be 109 percent of FFS spending. It is likely this number will decline significantly over the next few years as benchmarks are gradually reduced relative to FFS levels to meet requirements under the Patient Protection and Affordable Care Act of 2010.
- The ratio of payments relative to FFS spending varies by the type of MA plan. HMOs and regional PPO payments are estimated to be 108 percent of FFS, while payments to PFFS and local PPOs will average 113 percent.

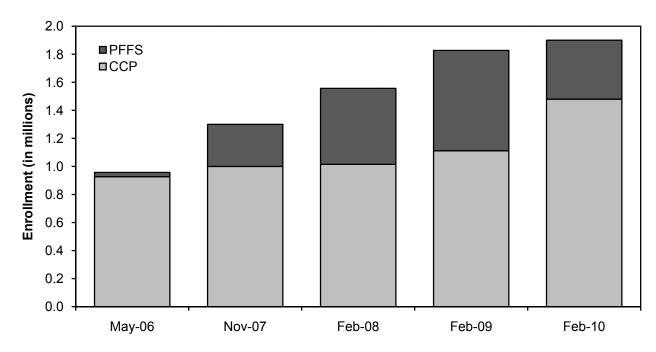
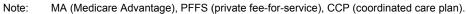


Chart 10-7. Enrollment in employer group MA plans, 2006–2010



Source: CMS enrollment data.

- While most MA plans are available to any Medicare beneficiary residing in a given area, 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 four years, enrollment in employer group plans has doubled, while overall MA enrollment grew by about 55 percent. As of February 2010, about 1.9 million enrollees were in employer group plans, or about 18 percent of all MA enrollees.
- 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 107 percent of FFS, compared with 99 percent of FFS for individual plans.

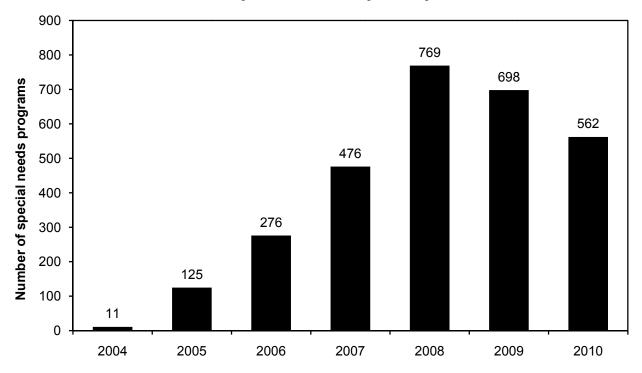
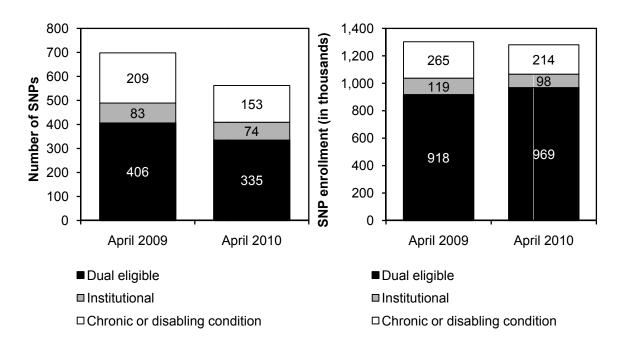


Chart 10-8. Number of special needs plans peaked in 2008

Source: CMS special needs plans fact sheet and data summary, February 14, 2006, and CMS special needs plans comprehensive reports, March 21, 2007, April 2008, April 2009, and April 2010.

- 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 2010, there are 562 SNPs. As is the case with all MA plans, this is a decrease from 2008 and 2009 as CMS made an effort in 2010 to reduce the number of duplicative plans and plans with small enrollment.
- SNPs were originally authorized for five years. SNP authority was extended, subject to new requirements, by the Medicare, Medicaid, and SCHIP Extension Act of 2007, the Medicare Improvements for Patients and Providers Act of 2008, and the Patient Protection and Affordable Care Act of 2010. Absent additional congressional action, SNP authority will expire at the end of 2014.



# Chart 10-9. The number of SNPs decreased while SNP enrollment was flat from 2009 to 2010

Note: SNP (special needs plan).

Source: CMS special needs plans comprehensive reports, April 2009 and 2010.

- Although the number of SNP plans decreased by 19 percent from April 2009 to April 2010, the number of SNP enrollees decreased by only 2 percent.
- In 2010, most SNPs (60 percent) are for dual-eligible beneficiaries, while 27 percent are for beneficiaries with chronic conditions, and 13 percent are for beneficiaries who reside in institutions (or reside in the community but have a similar level of need).
- Enrollment in SNPs has grown from 0.8 million in March 2007 (not shown) to 1.3 million in April 2010.
- The availability of SNPs has changed slightly and varies by type of special needs population served. In 2010, 79 percent of beneficiaries reside in areas where SNPs serve dual-eligible beneficiaries (up from 76 percent in 2009), 49 percent live where SNPs serve institutionalized beneficiaries (down from 53 percent), and 63 percent live where SNPs serve beneficiaries with chronic conditions (down from 72 percent).

## Web links. Medicare Advantage

 Chapter 7 of MedPAC's June 2009 Report to the Congress provides information on Medicare Advantage plans.

http://www.medpac.gov/chapters/Jun09\_Ch07.pdf

• Chapter 4 of MedPAC's March 2010 Report to the Congress provides information on Medicare Advantage plans.

http://www.medpac.gov/chapters/Mar10\_Ch04.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\_09\_MA.pdf

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

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

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

http://www.medicare.gov/

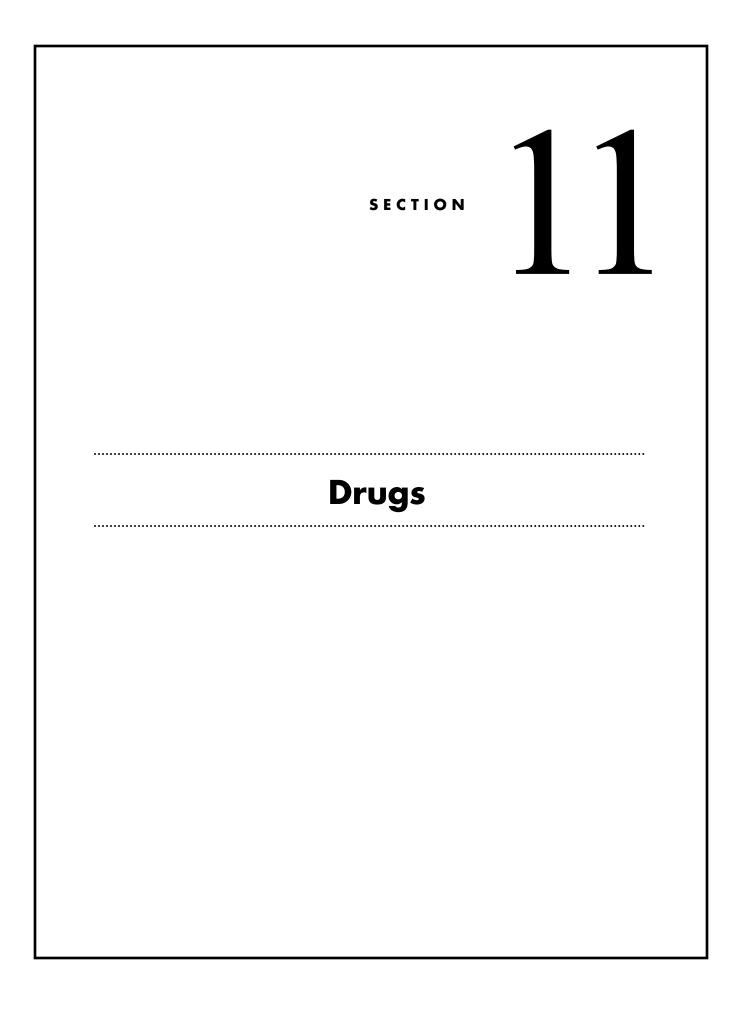
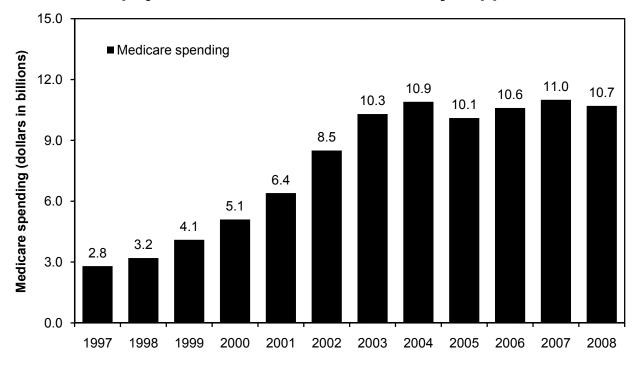


Chart 11-1. Medicare spending for Part B drugs administered in physicians' offices or furnished by suppliers



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

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

Source: MedPAC analysis of Medicare claims data.

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

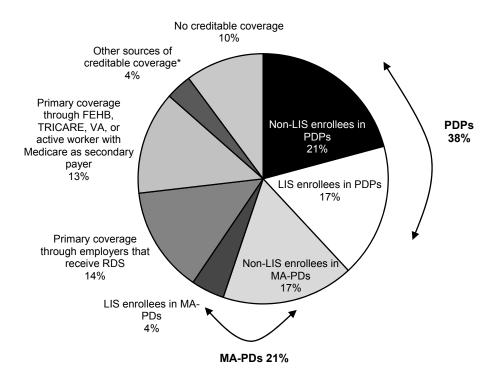
| Drug name        | Clinical indications                     | Competition               | Percent of spending | Rank in<br>2007 |
|------------------|--|---------------------------|---------------------|-----------------|
| Rituximab        | Non-Hodgkin's<br>lymphoma                | Sole source 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

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

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

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

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



- Note: LIS (low-income subsidy), PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]), RDS (retiree drug subsidy), FEHB (Federal Employees Health Benefits program), VA (Department of Veterans Affairs). TRICARE is the health program for military retirees and their dependents. \*Creditable coverage means drug benefits whose value is equal to or greater than that of the basic Part D benefit.
- Source: CMS Management Information Integrated Repository, February 16, 2010; Office of Personnel Management; Department of Defense; Department of Veterans Affairs; CMS Coordination of Benefits Database; CMS Creditable Coverage Database.
- As of February 2010, CMS estimated that 34 million of the 46 million Medicare beneficiaries (73 percent) were either signed up for Part D plans or had prescription drug coverage through employer-sponsored plans under Medicare's retiree drug subsidy (RDS). (If an employer agrees to provide primary drug coverage to its retirees with an average benefit value that is equal to or greater in value than that of Part D (called creditable coverage), Medicare provides the employer with a tax-free subsidy for 28 percent of each eligible individual's drug costs that fall within a specified range of spending.)
- About 10 million beneficiaries (nearly 22 percent) receive Part D's low-income subsidy (LIS). Of these individuals, 6.4 million are dually eligible to receive Medicare and all Medicaid benefits offered in their state. Another 3.5 million qualified for extra help either because they receive benefits through the Medicare Savings Program or Supplemental Security Income Program or because they applied directly to the Social Security Administration. Among all LIS beneficiaries, about 8 million (17 percent of all Medicare beneficiaries) are enrolled in stand-alone prescription drug plans (PDPs) and 2 million (4 percent) are in Medicare Advantage–Prescription Drug plans (MA–PDs).
- Other enrollees in stand-alone PDPs numbered 9.7 million, or 21 percent of all Medicare beneficiaries. Another 7.9 million enrollees (17 percent) are in MA–PDs or other private Medicare health plans. Individuals whose employers receive Medicare's RDS numbered 6.4 million, or 14 percent. Those groups of beneficiaries directly affect Medicare program spending.
- Other Medicare beneficiaries have creditable drug coverage, but that coverage does not affect Medicare program spending. For example, 6.2 million beneficiaries (13 percent) receive drug coverage through the Federal Employees Health Benefits program, TRICARE, the Department of Veterans Affairs, or current employers because the individual is still an active worker. CMS estimates that another 1.6 million individuals have other sources of creditable coverage.
- An estimated 4.7 million beneficiaries (10 percent) have no creditable drug coverage.

|                                       | 2006     | 2007     | 2008     | 2009     | 2010     |
|---------------------------------------|----------|----------|----------|----------|----------|
| Deductible                            | ¢250.00  | ¢265.00  | ¢275.00  | ¢205.00  | ¢210.00  |
|                                       | \$250.00 | \$265.00 | \$275.00 | \$295.00 | \$310.00 |
| Initial coverage limit                | 2,250.00 | 2,400.00 | 2,510.00 | 2,700.00 | 2,830.00 |
| Annual out-of-pocket threshold        | 3,600.00 | 3,850.00 | 4,050.00 | 4,350.00 | 4,550.00 |
| Total covered drug spending at annual | ,        | ,        | ,        |          | ,        |
| out-of-pocket threshold               | 5,100.00 | 5,451.25 | 5,726.25 | 6,153.75 | 6,440.00 |
| Maximum amount of cost sharing in the | -,       | -,       | -,       | -,       | -,       |
| coverage gap                          | 2,850.00 | 3,051.25 | 3,216.25 | 3.453.75 | 3.610.00 |
| Minimum cost sharing above the annual | 2,000.00 | 0,001.20 | 0,210.20 | 0,400.70 | 0,010.00 |
| out-of-pocket threshold               |          |          |          |          |          |
| Copay for generic/preferred           |          |          |          |          |          |
| multisource drug                      | 2.00     | 2.15     | 2.25     | 2.40     | 2.50     |
|                                       |          |          |          |          |          |
| Copay for other prescription drugs    | 5.00     | 5.35     | 5.60     | 6.00     | 6.30     |

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

Note: Under Part D's defined standard benefit, the enrollee pays the deductible and then 25 percent of covered drug spending (75 percent paid by the plan) until total covered drug spending reaches the initial coverage limit. The enrollee then reaches the coverage gap where she must pay 100 percent of covered drug spending until she reaches the annual out-of-pocket threshold. Cost sharing paid by most sources of supplemental coverage does not count toward this threshold. The enrollee pays nominal cost sharing above the limit.

Source: CMS, Office of the Actuary.

- The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 specified a
  defined standard benefit structure. In 2010 it has a \$310 deductible, 25 percent coinsurance
  on covered drugs until the enrollee reaches \$2,830 in total covered drug spending, and then
  a coverage gap in which the enrollee is responsible for the full discounted price of covered
  drugs until her annual out-of-pocket spending reaches \$4,550. Enrollees with drug spending
  even higher than that amount would pay the greater of \$2.50 to \$6.30 per prescription or 5
  percent coinsurance.
- The parameters of this defined standard benefit structure increase over time at the same rate as the annual increase in average total drug expenses of Medicare beneficiaries.
- Within certain limits, sponsoring organizations may offer Part D plans that have the same actuarial value as the defined standard benefit but a different benefit structure. For example, a plan may use tiered copayments rather than 25 percent coinsurance. Or a plan may have no deductible but use cost-sharing requirements that are equivalent to a rate higher than 25 percent. Both defined standard benefit plans and plans that are actuarially equivalent to the defined standard benefit are known as "basic benefits."
- Once a sponsoring organization offers at least one plan with basic benefits within a
  prescription drug plan region, it may also offer a plan with enhanced benefits—basic and
  supplemental coverage combined.

|   |        | 20      | 09                      | 1                                |        | 2010    |                                  |         |  |
|---|--------|---------|-------------------------|----------------------------------|--------|---------|----------------------------------|---------|--|
|   | Plans  |         |                         | Enrollees as of<br>February 2009 |        | ins     | Enrollees as of<br>February 2010 |         |  |
|   | Number | Percent | Number<br>(in millions) | Percent                          | Number | Percent | Number<br>(in millions)          | Percent |  |
| Total                                       | 1,689  | 100%    | 16.6                    | 100%                             | 1,576  | 100%    | 16.6                             | 100%    |  |
| Type of organization                        |        |         |                         |                                  |        |         |                                  |         |  |
| National*                                   | 1,496  | 89      | 14.3                    | 86                               | 1,268  | 80      | 14.0                             | 84      |  |
| Other                                       | 193    | 11      | 2.3                     | 14                               | 308    | 20      | 2.7                              | 16      |  |
| Type of benefit                             |        |         |                         |                                  |        |         |                                  |         |  |
| Defined standard                            | 170    | 10      | 1.6                     | 10                               | 172    | 11      | 1.6                              | 9       |  |
| Actuarially<br>equivalent**                 | 628    | 37      | 10.5                    | 64                               | 609    | 39      | 11.4                             | 68      |  |
| Enhanced                                    | 891    | 53      | 4.4                     | 27                               | 795    | 50      | 3.7                              | 22      |  |
| Type of deductible                          |        |         |                         |                                  |        |         |                                  |         |  |
| Zero  | 934    | 55      | 7.9                     | 48                               | 629    | 40      | 6.5                              | 39      |  |
| Reduced                                     | 189    | 11      | 0.7                     | 4                                | 374    | 24      | 2.1                              | 12      |  |
| Defined<br>standard†                        | 566    | 34      | 7.9                     | 48                               | 573    | 36      | 8.1                              | 49      |  |
| Drugs covered in the gap                    |        |         |                         |                                  |        |         |                                  |         |  |
| Some generics but<br>no brand-name<br>drugs | 413    | 24      | 1.1                     | 7                                | 273    | 17      | 1.0                              | 6       |  |
| Some generic<br>and some                    | 3      | <0.5    | -0.1                    | 0                                | 25     | 2       | -0.1                             | 0       |  |
| brand-name drugs                            | -      | <0.5    | <0.1                    | 0                                | 35     | 2       | <0.1                             | 0       |  |
| None  | 1,273  | 75      | 15.4                    | 93                               | 1,268  | 80      | 15.7                             | 94      |  |

#### 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. Excluded plans have 1.1 million enrollees in 2010 and had 0.9 million in 2009. Sums may not add to totals due to rounding.

\*Reflects total numbers of plans for organizations with at least 1 PDP in each of the 34 PDP regions.

\*\*Includes "actuarially equivalent standard" and "basic alternative" benefits.

†\$295 in 2009 and \$310 in 2010.

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

|   |                              | 20                  | 009                      |                                  |                             | 20                  | 10                       |                                  |  |
|---|------------------------------|---------------------|--------------------------|----------------------------------|-----------------------------|---------------------|--------------------------|----------------------------------|--|
|   | Plans                        |                     |                          | Enrollees as of<br>February 2009 |                             | Plans               |                          | Enrollees as of<br>February 2010 |  |
|   | Number                       | Percent             | Number<br>(in millions)  | Percent                          | Number                      | Percent             | Number<br>(in millions)  | Percent                          |  |
| Totals  | 2,039                        | 100%                | 6.2                      | 100%                             | 1,834                       | 100%                | 7.0                      | 100%                             |  |
| Type of organization<br>Local HMO<br>Local PPO<br>PFFS<br>Regional PPO                                    | 1,127<br>430<br>449<br>33    | 55<br>21<br>22<br>2 | 4.3<br>0.6<br>1.0<br>0.3 | 69<br>10<br>17<br>4              | 1,038<br>452<br>304<br>40   | 57<br>25<br>17<br>2 | 4.7<br>0.9<br>0.9<br>0.4 | 68<br>13<br>13<br>6              |  |
| Type of benefit<br>Defined standard<br>Actuarially<br>equivalent*   | 92<br>161                    | 5                   | 0.1                      | 1                                | 78<br>105                   | 4                   | 0.1                      | 1                                |  |
| Enhanced<br>Type of deductible<br>Zero<br>Reduced<br>Defined standard**                                   | 1,786<br>1,797<br>104<br>138 | 88<br>88<br>5<br>7  | 5.8<br>5.9<br>0.2<br>0.2 | 94<br>94<br>3<br>3               | 1,651<br>1,657<br>66<br>111 | 90<br>90<br>4<br>6  | 6.6<br>0.2<br>0.2        | 94<br>94<br>3<br>2               |  |
| Drugs covered in the g<br>Some generics but r<br>brand-name drugs<br>Some generics and<br>some brand-name | no                           | 34                  | 2.5                      | 39                               | 532                         | 29                  | 2.3                      | 33                               |  |
| drugs<br>None   | 355<br>983                   | 17<br>48            | 1.5<br>2.2               | 25<br>36                         | 408<br>894                  | 22<br>49            | 1.7<br>2.9               | 25<br>42                         |  |

#### Chart 11-6. Characteristics of MA–PDs

Note: MA–PD (Medicare Advantage–Prescription Drug [plan]), HMO (health maintenance organization), PPO (preferred provider organization), PFFS (private fee-for-service). The MA–PDs and enrollment described here exclude employer-only plans, plans offered in U.S. territories, 1876 cost plans, special needs plans, demonstrations, and Part B-only plans. Sums may not add to totals due to rounding.

\*Benefits labeled actuarially equivalent to Part D's standard benefit include what CMS calls "actuarially equivalent standard" and "basic alternative" benefits.

\*\*\$295 in 2009 and \$310 in 2010.

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

|                                 |        | 20      | 009                     |                   | 2010   |         |                         |                                  |  |
|---------------------------------|--------|---------|-------------------------|-------------------|--------|---------|-------------------------|----------------------------------|--|
|                                 | Pl     | Plans   |                         | s as of<br>y 2009 | Pla    | Plans   |                         | Enrollees as of<br>February 2010 |  |
|                                 | Number | Percent | Number<br>(in millions) | Percent           | Number | Percent | Number<br>(in millions) | Percent                          |  |
| Total                           | 658    | 100%    | 1.1                     | 100%              | 539    | 100%    | 1.0                     | 100%                             |  |
| Type of SNP                     |        |         |                         |                   |        |         |                         |                                  |  |
| Chronic condition               | 195    | 30      | 0.2                     | 22                | 136    | 25      | 0.2                     | 19                               |  |
| Dual eligible                   | 383    | 58      | 0.7                     | 67                | 336    | 62      | 0.7                     | 71                               |  |
| Institutionalized               | 80     | 12      | 0.1                     | 11                | 67     | 12      | 0.1                     | 10                               |  |
| Type of MA organization         |        |         |                         |                   |        |         |                         |                                  |  |
| Local HMO                       | 555    | 84      | 0.9                     | 85                | 475    | 88      | 0.9                     | 85                               |  |
| Local PPO                       | 72     | 11      | 0.1                     | 9                 | 47     | 9       | 0.1                     | 7                                |  |
| Regional PPO                    | 31     | 5       | 0.1                     | 7                 | 17     | 3       | 0.1                     | 8                                |  |
| Type of benefit                 |        |         |                         |                   |        |         |                         |                                  |  |
| Defined standard<br>Actuarially | 230    | 35      | 0.4                     | 39                | 249    | 46      | 0.5                     | 45                               |  |
| equivalent*                     | 67     | 10      | 0.1                     | 13                | 52     | 10      | 0.1                     | 13                               |  |
| Enhanced                        | 361    | 55      | 0.5                     | 47                | 238    | 44      | 0.4                     | 42                               |  |
| Type of deductible              |        |         |                         |                   |        |         |                         |                                  |  |
| Zero                            | 277    | 42      | 0.5                     | 44                | 182    | 34      | 0.4                     | 39                               |  |
| Reduced                         | 22     | 3       | < 0.05                  | 2                 | 6      | 1       | < 0.05                  | 1                                |  |
| Defined standard**              | 359    | 55      | 0.6                     | 55                | 351    | 65      | 0.6                     | 60                               |  |
| Drugs covered in the gap        |        |         |                         |                   |        |         |                         |                                  |  |
| Some                            | 158    | 24      | 0.2                     | 22                | 99     | 18      | 0.1                     | 14                               |  |
| None                            | 500    | 76      | 0.8                     | 78                | 440    | 82      | 0.9                     | 86                               |  |

#### Chart 11-7. Characteristics of SNPs

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

- In 2010, just over a million beneficiaries are enrolled in special needs plans (SNPs). SNPs function like
  and are paid in the same way as other Medicare Advantage plans, but they can focus on enrolling
  certain types of enrollees—beneficiaries dually eligible for Medicare and Medicaid (dual eligibles),
  institutionalized beneficiaries, and beneficiaries with severe or disabling chronic conditions. In practice,
  however, some individuals other than those categories of beneficiaries are also enrolled in SNPs.
- In 2010, the Congress extended the authority of SNPs to focus enrollment on certain populations (with some restrictions) until December 31, 2013.
- In 2010, about 62 percent of SNPs target dual eligibles and these beneficiaries make up 71 percent of SNP enrollees. Chronic condition SNPs make up 25 percent of plans and have 19 percent of total SNP enrollment.
- The vast majority of SNPs are HMOs. Private fee-for-service plans are ineligible to operate as SNPs.

#### Chart 11-8. Average Part D premiums

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

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

\*Reflects the portion of Medicare Advantage plans' total monthly premium attributable to Part D benefits for plans that offer Part D coverage. MA–PD premiums reflect rebate dollars (75 percent of the difference between a plan's payment benchmark and its bid for providing Part A and Part B services) that were used to offset Part D premium costs.

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

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

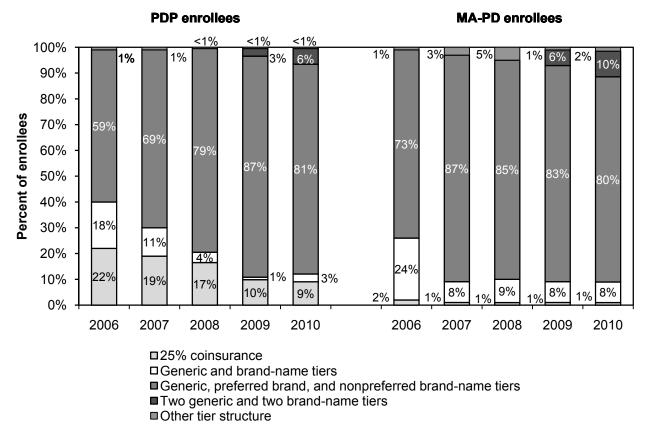
# Chart 11-9. Number of PDPs qualifying as premium-free to LIS enrollees remains level in 2010

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

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

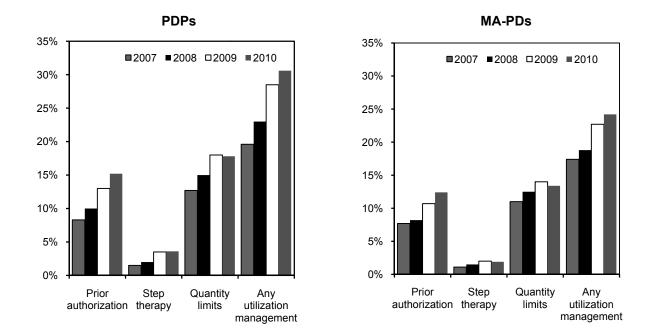
- The number of stand-alone PDPs declined by 7 percent around the country, from 1,689 in 2009 to 1,576 in 2010. The median number of plans offered in each region is 46 compared with 49 in 2009.
- Alaska and Hawaii had the fewest stand-alone plans with 41. The Pennsylvania–West Virginia region had the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

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



- Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]). Calculations are weighted by enrollment. All calculations exclude employer-only groups and plans offered in U.S. territories. In addition, MA–PDs exclude demonstration programs, special needs plans, and 1876 cost plans. Sums may not add to totals due to rounding.
- Source: MedPAC-sponsored analysis by NORC/Georgetown University/Social and Scientific Systems analysis of formularies submitted to CMS.
- In 2010, 81 percent of PDP enrollees are in plans that distinguish between preferred and nonpreferred brand-name drugs, and another 6 percent are in plans with two generic and two brand-name tiers. In 2006, only 59 percent of PDP enrollees were in plans with such distinctions. Similarly, 90 percent of MA–PD enrollees are in such plans in 2010, up from 73 percent in 2006.
- For enrollees in PDPs that distinguish between preferred and nonpreferred brand-name drugs, the median copay in 2010 is \$42 for a preferred brand and \$76.50 for a nonpreferred brand. The median copay for generic drugs is \$7. For MA–PD enrollees, in 2010, the median copay is \$39 for a preferred brand, \$79 for a nonpreferred brand, and \$6 for a generic drug.
- Most plans, except those that use the defined standard benefit's 25 percent coinsurance for all drugs, also use a specialty tier for drugs that have a negotiated price of \$600 per month or more. In 2010, median cost sharing for a specialty tier drug is 30 percent among PDPs and 33 percent among MA–PDs. Enrollees may not appeal cost sharing for drugs on specialty tiers.

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



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

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

- The number of drugs listed on a plan's formulary does not necessarily represent beneficiary access to medications. Plans' processes for nonformulary exceptions, prior authorization (preapproval from plan before coverage), quantity limits (plans limit the number of doses of a particular drug covered in a given time period), and step therapy requirements (enrollees must try specified drugs before moving to other drugs) can affect access to certain drugs. For example, unlisted drugs may be covered through the nonformulary exceptions process, which may be relatively easy for some plans and more burdensome for others. Alternatively, on-formulary drugs may not be covered in cases in which a plan does not approve a prior authorization request. Also, a formulary's size can be deceptively large if it includes drugs that are no longer used in common practice.
- In 2010, the average enrollee in a stand-alone prescription drug plan faces some form of utilization management for 28 percent of drugs listed on a plan's formulary, compared with 24 percent for the average MA–PD enrollee. The most commonly used utilization management tool is quantity limits, followed by prior authorization, and then step therapy.

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

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

Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]), LIS (low-income subsidy). Totals may not sum to 100 percent due to rounding.

\*Figures for Medicare and Part D include all beneficiaries with at least one month of enrollment in the respective program. A beneficiary is classified as LIS if that individual received Part D's LIS at some point during the year. For individuals who switch plan types during the year, classification into plan types is based on a greater number of months of enrollment. \*\*Urbanicity based on the Office of Management and Budget's core-based statistical area. A metropolitan area contains a core urban area of 50,000 or more population, and a micropolitan area contains an urban core of at least 10,000 (but less than 50,000) population. Fewer than 1 percent of Medicare beneficiaries were excluded due to an unidentifiable core-based statistical area designation.

†Part D risk scores are calculated by CMS using the prescription drug hierarchical condition category model developed before 2006. Risk scores shown here are not adjusted for LIS or institutionalized status (multipliers).

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

- In 2008, 27.5 million Medicare beneficiaries (58 percent) were enrolled in Part D at some point during the year. Most of them (18.6 million) were in stand-alone prescription drug plans (PDPs), with 8.9 million in MA–PDs. About 10.7 million enrollees received Part D's LIS.
- Compared with the overall Medicare population, Part D enrollees are more likely to be female and non-White. MA–PD enrollees are less likely to be disabled beneficiaries under age 65 and more likely to be Hispanic compared with PDP enrollees, and LIS enrollees are more likely to be female, non-White, and disabled beneficiaries under age 65 compared with non-LIS enrollees.
- Patterns of enrollment by urbanicity for Part D enrollees were similar to the overall Medicare population with 79 percent in metropolitan areas, 12 percent in micropolitan areas, and the remaining 9 percent in rural areas.
- The average risk score for PDP enrollees is higher (1.109) than the average for all Part D enrollees (1.085), while the average risk score for MA–PD enrollees is lower (1.036).

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

| Part D enrollment, in millions*<br>Total<br>By plan type<br>PDP<br>MA–PD<br>By subsidy status<br>LIS<br>Non-LIS | 24.5<br>17.7<br>6.8<br>10.2<br>14.3 | 26.1<br>18.3<br>7.8<br>10.4<br>15.7 | 27.5<br>18.6<br>8.9<br>10.7<br>16.9 |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| Total<br>By plan type<br>PDP<br>MA–PD<br>By subsidy status<br>LIS<br>Non-LIS                                    | 17.7<br>6.8<br>10.2                 | 18.3<br>7.8<br>10.4                 | 18.6<br>8.9<br>10.7                 |
| PDP<br>MA–PD<br>By subsidy status<br>LIS<br>Non-LIS   | 6.8<br>10.2                         | 7.8                                 | 8.9                                 |
| MA–PD<br>By subsidy status<br>LIS<br>Non-LIS  | 6.8<br>10.2                         | 7.8                                 | 8.9                                 |
| By subsidy status<br>LIS<br>Non-LIS   | 10.2                                | 10.4                                | 10.7                                |
| LIS<br>Non-LIS  |                                     |                                     |                                     |
| Non-LIS   |                                     |                                     |                                     |
|   | 14.3                                | 15.7                                | 16.9                                |
|   |                                     |                                     |                                     |
| By race/ethnicity   |                                     |                                     |                                     |
| White, non-Hispanic   | 17.2                                | 19.4                                | 20.5                                |
| African American, non-Hispanic  | 2.6                                 | 2.9                                 | 3.1                                 |
| Hispanic  | 2.2                                 | 2.5                                 | 2.7                                 |
| Other   | 2.5                                 | 1.3                                 | 1.3                                 |
| By age (years)  |                                     |                                     |                                     |
| <65   | 5.6                                 | 6.1                                 | 6.4                                 |
| 65–69   | 5.0                                 | 5.4                                 | 5.9                                 |
| 70-79   | 8.3                                 | 8.7                                 | 9.0                                 |
| 80+   | 5.6                                 | 6.0                                 | 6.3                                 |
| Enrollment growth, in percent   |                                     |                                     |                                     |
| Total   |                                     | 7%                                  | 5%                                  |
| By plan type  |                                     |                                     |                                     |
| PDP   |                                     | 4                                   | 2                                   |
| MA-PD   |                                     | 14                                  | 14                                  |
| By subsidy status   |                                     |                                     |                                     |
| LIS   |                                     | 2                                   | 2                                   |
| Non-LIS   |                                     | 10                                  | 8                                   |
| By race/ethnicity   |                                     |                                     |                                     |
| White, non-Hispanic   |                                     | 13                                  | 5                                   |
| African American, non-Hispanic  |                                     | 13                                  | 5                                   |
| Hispanic<br>Other   |                                     | 14<br>_49                           | 6<br>6                              |
| Oue   |                                     | -49                                 | Ö                                   |
| By age (years)  |                                     | 0                                   | 0                                   |
| <65   |                                     | 8                                   | 6                                   |
| 65–69<br>70–79  |                                     | 8<br>5                              | 8<br>4                              |
| 80+   |                                     | 5<br>7                              | 4 4                                 |

Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]), LIS (low-income subsidy). \*Figures include all beneficiaries with at least one month of enrollment. A beneficiary is classified as LIS if that individual received Part D's LIS at some point during the year. If a beneficiary was enrolled in both a PDP and an MA–PD plan during the year, that individual was classified into the type of plan with a greater number of months of enrollment.

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

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

|               |                 | Perce      | ent of     | Percent of Part D enrollment |      |        |           |  |  |
|---------------|-----------------|------------|------------|------------------------------|------|--------|-----------|--|--|
|               |                 | Medicare e | enrollment | Plar                         | type | Subsid | dy status |  |  |
| PDP<br>region | State(s)        | Part D     | RDS        | PDP                          | MAPD | LIS    | Non-LIS   |  |  |
| 1             | ME, NH          | 53%        | 14%        | 93%                          | 7%   | 51%    | 49%       |  |  |
| 2             | CT, MA, RI, VT  | 57         | 18         | 71                           | 29   | 42     | 58        |  |  |
| 3             | NY              | 58         | 19         | 60                           | 40   | 47     | 53        |  |  |
| 4             | NJ              | 52         | 22         | 83                           | 17   | 36     | 64        |  |  |
| 5             | DE, DC, MD      | 45         | 19         | 86                           | 14   | 42     | 58        |  |  |
| 6             | PA, WV          | 62         | 14         | 56                           | 44   | 33     | 67        |  |  |
| 7             | VA              | 51         | 11         | 84                           | 16   | 39     | 61        |  |  |
| 8             | NC              | 59         | 16         | 78                           | 22   | 44     | 56        |  |  |
| 9             | SC              | 54         | 16         | 82                           | 18   | 47     | 53        |  |  |
| 10            | GA              | 59         | 11         | 83                           | 17   | 45     | 55        |  |  |
| 11            | FL              | 58         | 14         | 56                           | 44   | 35     | 65        |  |  |
| 12            | AL, TN          | 61         | 12         | 71                           | 29   | 48     | 52        |  |  |
| 13            | MI              | 50         | 28         | 65                           | 35   | 37     | 63        |  |  |
| 14            | OH              | 50         | 28         | 66                           | 34   | 38     | 62        |  |  |
| 15            | IN, KY          | 54         | 19         | 87                           | 13   | 43     | 57        |  |  |
| 16            | WI              | 52         | 15         | 72                           | 28   | 34     | 66        |  |  |
| 17            | IL              | 55         | 19         | 88                           | 12   | 38     | 62        |  |  |
| 18            | MO              | 61         | 12         | 73                           | 27   | 36     | 64        |  |  |
| 19            | AR              | 60         | 10         | 85                           | 15   | 46     | 54        |  |  |
| 20            | MS              | 64         | 6          | 92                           | 8    | 55     | 45        |  |  |
| 21            | LA              | 61         | 13         | 71                           | 29   | 50     | 50        |  |  |
| 22            | TX              | 56         | 15         | 74                           | 26   | 46     | 54        |  |  |
| 23            | OK              | 59         | 9          | 81                           | 19   | 39     | 61        |  |  |
| 24            | KS              | 61         | 8          | 88                           | 12   | 29     | 71        |  |  |
| 25            | IA, MN, MT, NE, | •          | C C        |                              | .=   | _•     |           |  |  |
| 20            | ND, SD, WY      | 65         | 9          | 77                           | 23   | 27     | 73        |  |  |
| 26            | NM              | 61         | 8          | 66                           | 34   | 40     | 60        |  |  |
| 27            | CO              | 58         | 13         | 51                           | 49   | 30     | 70        |  |  |
| 28            | AZ              | 60         | 12         | 43                           | 57   | 32     | 68        |  |  |
| 29            | NV              | 55         | 13         | 47                           | 53   | 28     | 72        |  |  |
| 30            | OR, WA          | 57         | 11         | 64                           | 36   | 32     | 68        |  |  |
| 31            | ID, UT          | 55         | 11         | 67                           | 33   | 29     | 71        |  |  |
| 32            | CA              | 69         | 10         | 53                           | 47   | 40     | 60        |  |  |
| 33            | HI              | 65         | 4          | 51                           | 49   | 30     | 70        |  |  |
| 34            | AK              | 40         | 25         | 98                           | 2    | 63     | 37        |  |  |
|               | Mean            | 58         | 15         | 68                           | 32   | 39     | 61        |  |  |
|               | Minimum         | 40         | 4          | 43                           | 2    | 27     | 37        |  |  |
|               | Maximum         | 69         | 28         | 98                           | 57   | 63     | 73        |  |  |

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

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

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

- Among Part D regions, in 2008, between 40 percent and 69 percent of all Medicare beneficiaries enrolled in Part
  D. Beneficiaries were more likely to enroll in Part D in regions where a low take-up rate for the retiree drug
  subsidy (RDS) was observed. For example, in Region 32 (California) and Region 33 (Hawaii), the shares of
  Medicare beneficiaries enrolled in Part D were 69 percent and 65 percent, respectively. In these two regions, 10
  percent or fewer beneficiaries enrolled in employer-sponsored plans that received the RDS.
- A wide variation was seen in the shares of Part D enrollees who enrolled in PDPs and MA–PD plans across
  prescription drug plan regions. The pattern of MA–PD enrollment is generally consistent with enrollment in
  Medicare Advantage plans.
- The share of Part D enrollees receiving the low-income subsidy (LIS) ranged from 27 percent in Region 25 (lowa, Minnesota, Montana, North Dakota, Nebraska, South Dakota, and Wyoming) to 63 percent in Region 34 (Alaska). In 25 of the 34 prescription drug plan regions, LIS enrollees account for 30 percent to 50 percent of enrollment. In four regions (Region 1 (Maine and New Hampshire), Region 20 (Mississippi), Region 21 (Louisiana), and Region 34 (Alaska)), LIS enrollees account for more than half of Part D enrollment.

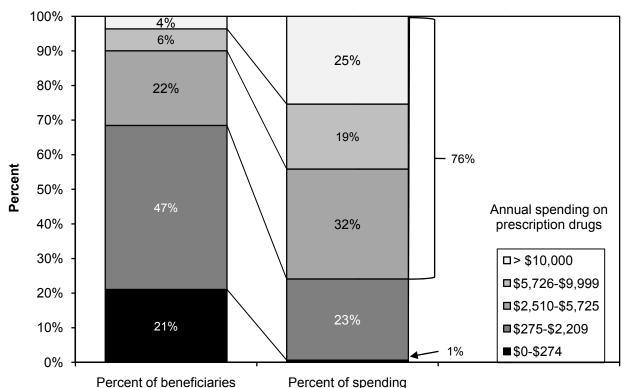


Chart 11-15. The majority of Part D spending is incurred by fewer than half of all Part D enrollees, 2008

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

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

- Medicare Part D spending is concentrated among a subset of beneficiaries. In 2008, 32 percent of Part D enrollees had annual spending of \$2,510 or more, at which point enrollees were responsible for 100 percent of the cost of the drug until their spending reached \$5,725 under the defined standard benefit. These beneficiaries accounted for 76 percent of total Part D spending.
- The costliest 10 percent of beneficiaries, those with drug spending above the catastrophic threshold under the defined standard benefit, accounted for 44 percent of total Part D spending. Spending on prescription drugs is less concentrated than Medicare Part A and Part B spending. In 2008, the costliest 5 percent of beneficiaries accounted for 46 percent of annual Medicare fee-for-service (FFS) spending and the costliest quartile accounted for 87 percent of Medicare FFS spending

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

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

Note: LIS (low-income subsidy), PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]). A small number of beneficiaries were excluded from the analysis because of missing data. Totals may not sum to 100 percent due to rounding.

\*A beneficiary is assigned LIS status if that individual received Part D's LIS at some point during the year.

\*\*If a beneficiary was enrolled in both PDP and MA–PD plans during the year, that individual was classified into the type of plan with a greater number of months of enrollment.

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

- In 2008, beneficiaries with annual drug spending of more than \$2,510 were more likely to be female compared with beneficiaries with annual spending below \$2,510 (63 percent and 61 percent compared with 58 percent).
- Beneficiaries with annual spending greater than \$5,726 are more likely to be disabled beneficiaries under age 65 and receive the LIS compared with those with annual spending below \$2,510.
- Most beneficiaries with spending greater than \$5,726 are enrolled in stand-alone PDPs (83 percent) compared with MA–PDs (17 percent). Beneficiaries with annual spending below \$2,510, on the other hand, are more likely to be in MA–PDs compared with those with higher annual spending (36 percent compared with 17 percent). This finding reflects the fact that most LIS enrollees are more costly on average and are in PDPs.

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

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

Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]), LIS (low-income subsidy), N/A (not applicable). Part D prescription drug event (PDE) records are classified into plan types based on the contract identification on each record. For purposes of classifying the PDE records by LIS status, monthly LIS eligibility information in Part D's denominator file was used. Estimates are sensitive to the method used to classify PDE records to each plan type and LIS status.

\*Number of prescriptions standardized to a 30-day supply.

\*\*Out-of-pocket (OOP) spending includes all payments that count toward the annual OOP spending threshold. †Plan liability includes plan payments for both covered and noncovered drugs.

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

- In 2008, gross spending on drugs for the Part D program totaled \$68.6 billion, with roughly threequarters (\$52.2 billion) accounted for by Medicare beneficiaries enrolled in PDPs. Part D enrollees receiving the LIS accounted for about 55 percent (\$37.8 million) of the total.
- The number of prescriptions taken by Part D enrollees totaled 1.26 billion, with slightly more than 70 percent (890 million) accounted for by PDP enrollees. The 39 percent of enrollees who received the LIS accounted for about 45 percent (566 million) of the total number of prescriptions filled.
- Medicare beneficiaries enrolled in Part D plans fill 4.1 prescriptions at \$221 per month on average. PDP enrollees have higher average monthly spending and more prescriptions filled compared with MA–PD enrollees.
- The average monthly plan liability for MA–PD enrollees (\$107) is considerably lower than that of PDP enrollees (\$145), while average monthly OOP spending is similar for enrollees in both types of plans (\$36 vs. \$40). The average monthly low-income cost sharing subsidy is much lower for MA–PD enrollees (\$19) compared with PDP enrollees (\$65). Most of that difference likely reflects the much smaller share of enrollment accounted for by LIS enrollees in MA–PDs compared with PDPs.
- Average monthly spending per enrollee for an LIS enrollee (\$324) is more than double that of a non-LIS enrollee (\$159), while the average number of prescriptions filled per month by an LIS enrollee is 4.9 compared with 3.6 for a non-LIS enrollee. LIS enrollees have much lower OOP spending, on average, compared with non-LIS enrollees (\$7 vs. \$57). Part D's LIS pays for most of the cost sharing for LIS enrollees, averaging \$133 per month.

|           |                 | Percent     | Percent of    |        | Average      | risk score (R) | (HCC)       |         |
|-----------|-----------------|-------------|---------------|--------|--------------|----------------|-------------|---------|
|           |                 | enrolled in | Part D        |        |              |                |             |         |
| PDP       |                 | PDPs vs.    | enrollees     |        |              |                |             |         |
| region    | State(s)        | MA-PDs      | receiving LIS | Part D | PDP          | MA-PD          | LIS         | Non-LIS |
|           |                 |             | -             |        | Average      | absolute risk  | score       |         |
| All regio | ns              |             |               | 1.085  | 1.109        | 1.036          | 1.181       | 1.025   |
|           |                 |             |               | Avera  | age normaliz | zed risk score | e (mean = 1 | .0)     |
| 1         | ME, NH          | 93%         | 51%           | 0.990  | 0.975        | 0.946          | 0.970       | 0.976   |
| 2         | CT, MA, RI, VT  | 71          | 42            | 1.013  | 1.011        | 1.010          | 1.017       | 1.001   |
| 3         | NY              | 60          | 47            | 1.035  | 1.054        | 1.017          | 1.016       | 1.028   |
| 4         | NJ              | 83          | 36            | 1.044  | 1.043        | 0.987          | 1.039       | 1.055   |
| 5         | DE, DC, MD      | 86          | 42            | 1.040  | 1.023        | 1.052          | 1.038       | 1.032   |
| 6         | PA, WV          | 56          | 33            | 1.014  | 1.021        | 1.023          | 1.012       | 1.027   |
| 7         | VA              | 84          | 39            | 1.008  | 0.997        | 0.995          | 1.007       | 1.008   |
| 8         | NC              | 78          | 44            | 1.013  | 1.011        | 0.987          | 1.015       | 0.997   |
| 9         | SC              | 82          | 47            | 1.025  | 1.008        | 1.050          | 1.002       | 1.024   |
| 10        | GA              | 83          | 45            | 1.031  | 1.018        | 1.033          | 1.016       | 1.027   |
| 11        | FL              | 56          | 35            | 1.050  | 1.063        | 1.053          | 1.059       | 1.055   |
| 12        | AL, TN          | 71          | 48            | 1.041  | 1.030        | 1.060          | 1.025       | 1.028   |
| 13        | MI              | 65          | 37            | 1.004  | 1.031        | 0.952          | 1.024       | 0.994   |
| 14        | OH              | 66          | 38            | 1.035  | 1.048        | 1.014          | 1.058       | 1.021   |
| 15        | IN, KY          | 87          | 43            | 1.024  | 1.013        | 0.999          | 1.020       | 1.018   |
| 16        | WI              | 72          | 34            | 0.958  | 0.959        | 0.942          | 0.990       | 0.950   |
| 17        | IL              | 88          | 38            | 0.990  | 0.979        | 0.958          | 0.988       | 0.994   |
| 18        | MO              | 73          | 36            | 1.003  | 1.008        | 0.974          | 1.027       | 0.995   |
| 19        | AR              | 85          | 46            | 0.998  | 0.985        | 0.999          | 0.973       | 1.001   |
| 20        | MS              | 92          | 55            | 1.004  | 0.986        | 0.998          | 0.966       | 1.002   |
| 21        | LA              | 71          | 50            | 1.017  | 1.019        | 1.005          | 0.988       | 1.015   |
| 22        | ТХ              | 74          | 46            | 1.030  | 1.025        | 1.029          | 1.019       | 1.019   |
| 23        | OK              | 81          | 39            | 0.989  | 0.982        | 0.971          | 0.984       | 0.992   |
| 24        | KS              | 88          | 29            | 0.963  | 0.951        | 0.942          | 0.981       | 0.974   |
| 25        | IA, MN, MT, NE, |             |               |        |              |                |             |         |
|           | ND, SD, WY      | 77          | 27            | 0.918  | 0.908        | 0.929          | 0.957       | 0.923   |
| 26        | NM              | 66          | 40            | 0.894  | 0.926        | 0.832          | 0.897       | 0.888   |
| 27        | CO              | 51          | 30            | 0.921  | 0.917        | 0.947          | 0.944       | 0.927   |
| 28        | AZ              | 43          | 32            | 0.953  | 0.929        | 1.001          | 0.951       | 0.968   |
| 29        | NV              | 47          | 28            | 0.952  | 0.958        | 0.972          | 0.960       | 0.969   |
| 30        | OR, WA          | 64          | 32            | 0.916  | 0.913        | 0.929          | 0.927       | 0.925   |
| 31        | ID, UT          | 67          | 29            | 0.909  | 0.908        | 0.912          | 0.925       | 0.921   |
| 32        | CA              | 53          | 40            | 0.957  | 0.971        | 0.960          | 0.946       | 0.963   |
| 33        | HI              | 51          | 30            | 0.939  | 0.930        | 0.972          | 0.910       | 0.971   |
| 34        | AK              | 98          | 63            | 0.944  | 0.924        | 0.959          | 0.910       | 0.917   |
|           | Mean            | 68          | 39            | 1.000  | 1.000        | 1.000          | 1.000       | 1.000   |
|           | Minimum         | 43          | 27            | 0.894  | 0.908        | 0.832          | 0.897       | 0.888   |
|           | Maximum         | 98          | 63            | 1.050  | 1.063        | 1.060          | 1.059       | 1.055   |

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

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

Source: MedPAC analysis of Medicare enrollment files from CMS.

(Chart continued next page)

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

- Under Part D, payments to stand-alone prescription drug plans (PDPs) and Medicare Advantage–Prescription Drug plans (MA–PDs) are adjusted to account for differences in enrollees' expected costs using the prescription drug hierarchical condition category (RxHCC) model developed before 2006. The RxHCC model uses age, gender, disability status, and medical diagnosis to predict Part D benefit spending. As is true for any riskadjustment model, the RxHCC model does not explain all variation in future payments. The model may also produce higher scores in areas with high service use because there are more opportunities to make diagnoses in those areas and the RxHCC model uses diagnoses among other factors in its score.
- In 2008, the normalized average risk scores for Part D enrollees varied from 0.894 in New Mexico (Region 26) to 1.05 in Florida (Region 11), meaning that costs per enrollee, on average, are expected to be about 11 percent below the national average in New Mexico and about 5 percent above the national average in Florida.
- The overall average risk score for PDP enrollees (1.109) is higher compared with that of MA–PD enrollees (1.036) and is consistently so across all regions, except in Arizona (Region 28), where the majority (57 percent) of Part D enrollees are enrolled in MA–PDs. In contrast, normalized risk scores for both PDP and MA–PD enrollees are similar in most regions, with the difference exceeding 0.05 (5 percentage points) in only four regions: New Jersey (Region 4), Michigan (Region 13), New Mexico (Region 26), and Arizona (Region 28).
- The overall average risk score for enrollees receiving the low-income subsidy (LIS) (1.181) is higher than that of non-LIS enrollees (1.025) and is consistently so across all regions. In contrast, normalized risk scores for both LIS and non-LIS enrollees are similar in most regions, with the difference exceeding 0.05 (5 percentage points) only in Hawaii (Region 33), where a relatively small share of enrollees receive the LIS (30 percent).

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

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

Note: PDP (prescription drug plan), LIS (low-income subsidy), N/A (not available).

\*Spending includes payments for ingredient costs and dispensing fees. Figures (per capita spending and index values) are for beneficiaries residing in a community setting only. Per capita based on full-year equivalent enrollment. \*\*Adjusted spending controls for regional differences in prices, demographic characteristics (such as age, gender, disability, and low-income subsidy status), and beneficiaries' health status as measured by medical diagnoses used for prescription drug hierarchical condition categories.

Source: Acumen, LLC, analysis for MedPAC.

- Average per capita drug spending for drugs under Part D varies widely across PDP regions. The national average per capita spending was \$2,545 in 2008. Relative to the national average, the unadjusted regional average per capita spending ranges from 78 percent (0.78) in New Mexico (Region 26) to 134 percent (1.34) in Alaska (Region 34).
- Adjusting per capita drug spending for regional differences in prices and beneficiaries' health status reduces the variation across PDP regions: After the adjustment, the difference between minimum and maximum decreases from 0.56 (1.34 minus 0.78) to 0.35 (1.23 minus 0.88). Relative to the national average, the adjusted average per capita spending ranges from 88 percent (0.88) in New Mexico (Region 26) to 123 percent (1.23) in Alaska (Region 34).

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

| Top 15 therapeutic clas    | sses by sp | ending  | Top 15 therapeutic cla    | asses by vo  | lume    |
|----------------------------|------------|---------|---------------------------|--------------|---------|
|                            | Do         | llars   |                           | Prescriptior |         |
|                            | Billions   | Percent |                           | Millions     | Percent |
| Antihyperlipidemics        | \$6.3      | 9.2%    | Antihypertensive therapy  |              |         |
| Antipsychotics             | 5.7        | 8.3     | agents                    | 130.5        | 10.4%   |
| Diabetic therapy           | 4.7        | 6.8     | Antihyperlipidemics       | 113.5        | 9.0     |
| Antihypertensive therapy   |            |         | Beta adrenergic blockers  | 80.2         | 6.4     |
| agents                     | 4.5        | 6.6     | 5                         |              |         |
| Peptic ulcer therapy       | 4.4        | 6.4     | Diabetic therapy          | 77.6         | 6.2     |
| Asthma therapy agents      | 3.6        | 5.3     | Diuretics                 | 73.6         | 5.9     |
| Anticonvulsants            | 3.3        | 4.8     | Antidepressants           | 66.9         | 5.3     |
| Antidepressants            | 2.9        | 4.2     | Analgesics (narcotic)     | 59.3         | 4.7     |
| Analgesics (narcotic)      | 2.6        | 3.8     | Peptic ulcer therapy      | 57.8         | 4.6     |
| Platelet aggregation       |            |         | Calcium channel blockers  | 51.7         | 4.1     |
| inhibitors                 | 2.5        | 3.7     | Thyroid therapy           | 43.5         | 3.5     |
| Cognitive disorder therapy |            |         | Antibacterial agents      | 36.4         | 2.9     |
| (antidementia)             | 2.3        | 3.4     | -                         |              |         |
| Calcium & bone             |            |         | Asthma therapy agents     | 34.9         | 2.8     |
| metabolism regulators      | 2.2        | 3.2     | Anticonvulsants           | 32.3         | 2.6     |
| Antivirals                 | 2.1        | 3.1     | Calcium & bone            |              |         |
|                            |            |         | metabolism regulators     | 27.7         | 2.2     |
| Analgesics (anti-          | 1.6        | 2.3     | Analgesics (anti-         |              |         |
| inflammatory/antipyretic,  |            |         | inflammatory/antipyretic, |              |         |
| non-narcotic)              |            |         | non-narcotic)             |              |         |
| Antibacterial agents       | 1.5        | 2.2     |                           | 24.3         | 1.9     |
| Subtotal, top 15 classes   | 50.1       | 73.1    | Subtotal, top 15 classes  | 910.4        | 72.5    |
| Total, all classes         | 68.6       | 100.0   | Total, all classes        | 1,255.4      | 100.0   |

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

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

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

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

|                                      | PDP share of all | Gen   | eric dispensir | ng rate |
|--------------------------------------|------------------|-------|----------------|---------|
| By order of aggregate spending       | prescriptions    | All   | PDPs           | MA-PDs  |
|                                      | 070/             | E 40/ | 400/           | 00%     |
| Antihyperlipidemics                  | 67%              | 54%   | 49%            | 63%     |
| Antipsychotics                       | 86               | 27    | 27             | 29      |
| Diabetic therapy                     | 68               | 60    | 58             | 66      |
| Antihypertensive therapy agents      | 67               | 70    | 68             | 75      |
| Peptic ulcer therapy                 | 72               | 65    | 62             | 75      |
| Asthma therapy agents                | 73               | 19    | 19             | 19      |
| Anticonvulsants                      | 79               | 58    | 55             | 67      |
| Antidepressants                      | 75               | 74    | 73             | 80      |
| Analgesics (narcotic)                | 76               | 93    | 93             | 95      |
| Platelet aggregation inhibitors      | 71               | 9     | 8              | 12      |
| Cognitive disorder therapy           |                  |       |                |         |
| (antidementia)                       | 77               | 1     | 1              | 1       |
| Calcium & bone metabolism regulators | 69               | 37    | 37             | 38      |
| Antivirals                           | 79               | 23    | 21             | 34      |
| Analgesics (anti-inflammatory/       |                  |       |                |         |
| antipyretic, non-narcotic)           | 71               | 79    | 78             | 84      |
| Antibacterial agents                 | 73               | 85    | 84             | 88      |
| All therapeutic classes              | 71               | 67    | 66             | 71      |

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

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

- In 2008, Part D enrollees in stand-alone PDPs accounted for 71 percent of prescriptions dispensed under Part D. PDP enrollees accounted for a disproportionately high share of prescriptions for classes such as antipsychotics, antivirals, and anticonvulsants. Most of the prescriptions in these classes were taken by low-income subsidy (LIS) beneficiaries, of whom more than 80 percent are enrolled in PDPs.
- Overall, analgesics (narcotic) have the highest generic dispensing rate (GDR) (93 percent), followed by antibacterial agents (85 percent) and non-narcotic analgesics (79 percent), compared with 67 percent across all therapeutic classes.
- The GDR for PDP enrollees averages 66 percent across all therapeutic classes, compared with 71 percent for MA–PD enrollees. Across the 15 therapeutic classes, GDRs for PDP enrollees were generally lower than for MA–PD enrollees with the exception of asthma therapy agents and cognitive disorder therapy, where there are few or no generic alternatives.
- There were large differences in GDRs for PDPs and MA–PDs. The largest difference was for antihyperlipidemics, with a 14 percentage point difference. Some of the difference in the GDRs reflects the fact that most beneficiaries receiving the LIS are in PDPs. On average, LIS enrollees are less likely to take a generic medication in a given therapeutic class (see Chart 11-22).

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

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

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

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

- In 2008, Part D enrollees receiving the LIS accounted for 45 percent of prescriptions dispensed under Part D. In 11 of 15 therapeutic classes ranked by spending, the share of prescriptions dispensed to LIS beneficiaries was greater than 45 percent, and in 3 classes the share was greater than 60 percent.
- The generic dispensing rate (GDR) for non-LIS beneficiaries averages 69 percent across all therapeutic classes, compared with 65 percent for LIS beneficiaries. Across the top 15 therapeutic classes, GDRs for non-LIS beneficiaries are higher than those of LIS beneficiaries in 10 classes, roughly the same in 3 classes (antipsychotics, platelet aggregation inhibitors, and cognitive disorder therapy), and lower in 2 classes (asthma therapy agents and non-narcotic analgesics).
- There are large differences in GDRs across classes between LIS and non-LIS beneficiaries. The largest difference is for antivirals (26 percentage points). Some of the difference in the GDRs for this therapeutic class likely reflects the differences in the mix of drugs taken between the two groups.

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

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

Note: MCO (managed care organization), N/A (not available). Some pharmacies could not be classified because of missing and other data issues. Prescription size is standardized to a 30-day supply. Pharmacy class and type are based on 2008 National Council for Prescription Drug Programs classification.

\*Alternate dispensing site includes physician offices, emergency departments, urgent care centers, and rural health facilities.

\*\*Number of prescriptions and spending for other class include institutions and pharmacies that could not be classified because of missing and other data issues.

†Retail includes all community pharmacies, grocery pharmacies, and department store pharmacies.

†Other type includes the Indian Health Service, Department of Veterans Affairs hospitals, nuclear pharmacies, military/U.S. Coast Guard pharmacies, compounding pharmacies, and facilities specializing in intravenous infusion. Number of prescriptions and spending for other type include pharmacies that could not be classified because of missing and other data issues.

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

- In 2008, more than 64,000 pharmacies dispensed prescription drugs to Medicare beneficiaries enrolled in Part D. Most pharmacies (61.7 percent) are chain pharmacies, followed by independent pharmacies (32.7 percent).
- Chain pharmacies account for about 60 percent of prescriptions and spending, while independent pharmacies account for 34 percent of prescriptions and about 37 percent of spending.
- Retail pharmacies account for more than 90 percent of the pharmacies and about 80
  percent of prescriptions and spending. Long-term care pharmacies account for 2.6 percent
  of the pharmacies, but close to 10 percent of prescriptions and slightly more than 11 percent
  of spending. Mail-order pharmacies account for less than 1 percent of the pharmacies but
  account for 8 percent of prescriptions and about 7 percent of spending.

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

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

Note: CBSA (core-based statistical area). A metropolitan area contains a core urban area of 50,000 or more population, and a micropolitan area contains an urban core of at least 10,000 (but less than 50,000) population. Fewer than 1 percent of prescription drug event records could not be classified because the CBSA designation could not be identified. Pharmacy class and type are based on the 2008 National Council for Prescription Drug Programs classification. Number of prescriptions is standardized to a 30-day supply. Totals may not sum to 100 percent due to rounding. \*Alternate dispensing site includes physicians' offices, emergency departments, urgent care centers, and rural health facilities. \*\*Retail includes all community pharmacies, grocery pharmacies, and department store pharmacies.

\*Other type includes all community pharmacles, grocery pharmacles, and department store pharmacles. †Other type includes physicians' offices, institutions, managed care organization pharmacles, clinics, specialty pharmacles, the Indian Health Service, Department of Veterans Affairs hospitals, nuclear pharmacles, military/U.S. Coast Guard pharmacles, compounding pharmacles, and facilities specializing in intravenous infusion.

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

(Chart continued next page)

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

- In 2008, of the pharmacies that participated in Part D, 81 percent (52,235) were in metropolitan areas, about 11 percent (7,140) were in micropolitan areas, and the remaining 8 percent (5,130) were in rural areas. This distribution is similar to that of Part D enrollees (see Chart 11-12). Distributions of prescriptions dispensed followed similar patterns regardless of whether they were classified according to pharmacy locations or beneficiary locations.
- In metropolitan areas, chain pharmacies account for about 64 percent of all prescriptions dispensed under Part D, while independent pharmacies account for slightly more than 30 percent of the prescriptions dispensed. In micropolitan areas, independent pharmacies account for a larger share of prescriptions dispensed (40.4 percent), but chain pharmacies still account for a majority of the prescriptions dispensed (55.7 percent). In rural areas, most prescriptions dispensed (55 percent) are accounted for by independent pharmacies.
- Retail pharmacies account for the largest share of prescriptions dispensed under Part D in all areas, but there are some differences. For example, in metropolitan areas, retail pharmacies account for 76.5 percent of the prescriptions and roughly the same share of beneficiaries (78.4 percent) obtain their prescriptions at retail pharmacies. On the other hand, in micropolitan and rural areas more than 90 percent of prescriptions are accounted for by retail pharmacies, but beneficiaries residing in those areas fill fewer than 90 percent (81.8 percent and 85.1 percent) of their medications at retail pharmacies.
- Long-term care pharmacies located in metropolitan areas account for a larger share of prescriptions (10.6 percent) compared with micropolitan areas (6.1 percent) and rural areas (2.6 percent). The prescriptions filled by beneficiaries residing in different areas do not vary as much; 9.7 percent are filled by beneficiaries in metropolitan areas compared with 9.5 percent and 7.4 percent filled by those in micropolitan and rural areas, respectively.
- Most mail-order pharmacies are located in metropolitan areas, and beneficiaries residing in metropolitan areas fill more prescriptions through mail-order pharmacies (8.5 percent) compared with those in micropolitan and rural areas (6.6 percent and 5.3 percent).

#### Web links. Drugs

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

http://www.medpac.gov/chapters/Mar10\_Ch05.pdf http://www.medpac.gov/documents/Mar10\_PartDDataBook.pdf http://www.medpac.gov/chapters/Mar09\_Ch04.pdf http://www.medpac.gov/chapters/Mar08\_Ch04.pdf http://www.medpac.gov/chapters/Mar08\_Ch05.pdf http://www.medpac.gov/chapters/Jun07\_Ch07.pdf http://www.medpac.gov/chapters/Mar07\_Ch04.pdf http://www.medpac.gov/publications/congressional\_reports/Jun06\_Ch07.pdf http://www.medpac.gov/publications/congressional\_reports/Jun06\_Ch08.pdf http://www.medpac.gov/publications/congressional\_reports/Jun06\_Ch08.pdf http://www.medpac.gov/publications/congressional\_reports/Jun06\_Ch08.pdf http://www.medpac.gov/publications/congressional\_reports/June05\_ch1.pdf http://www.medpac.gov/publications/congressional\_reports/June04\_ch1.pdf http://www.medpac.gov/documents/MedPAC\_Payment\_Basics\_09\_PartD.pdf

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

http://www.medpac.gov/chapters/Jun09\_Ch05.pdf

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

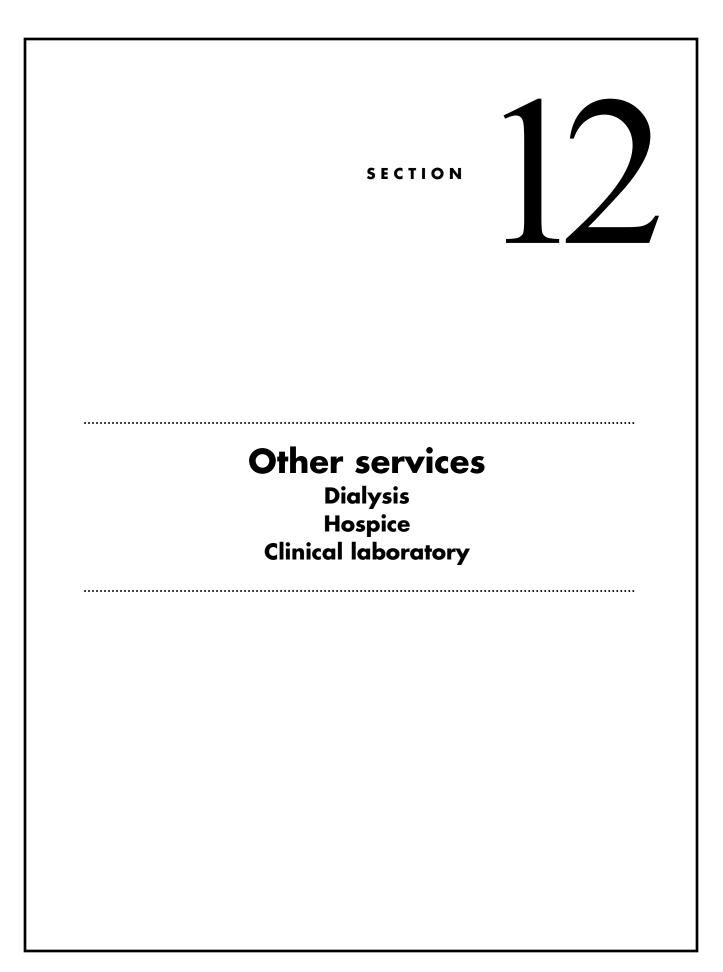
http://www.medpac.gov/documents/Jan07\_PartB\_mandated\_report.pdf http://www.medpac.gov/publications/congressional\_reports/Jan06\_Oncology\_mandated\_report.pdf

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

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

• CMS information on Part D.

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



|                                    | •      |        |        |           |                    |  |
|------------------------------------|--------|--------|--------|-----------|--------------------|--|
|                                    |        |        |        |           | e annual<br>change |  |
|                                    | 1999   | 2004   | 2009   | 1999–2009 | 2004–2009          |  |
| Total number of:                   |        |        |        |           |                    |  |
| Dialysis facilities                | 3,619  | 4,357  | 5,211  | 4%        | 4%                 |  |
| Hemodialysis stations              | 56,951 | 74,902 | 91,465 | 5         | 4                  |  |
| Mean number of                     |        |        |        |           |                    |  |
| hemodialysis stations              | 16     | 17     | 18     | 1         | 0.4                |  |
| Percent of all facilities:         |        |        |        |           |                    |  |
| Nonchain                           | N/A    | 27%    | 21%    | N/A       | -1                 |  |
| Affiliated with any chain          | N/A    | 73     | 79     | N/A       | 5                  |  |
| Affiliated with largest two chains | N/A    | 58     | 60     | N/A       | 4                  |  |
| Hospital based                     | 19%    | 15     | 11     | -2        | -3                 |  |
| Freestanding                       | 81     | 85     | 89     | 5         | 4                  |  |
| Rural                              | 25     | 25     | 25     | 3         | 3                  |  |
| Urban                              | 75     | 75     | 75     | 4         | 4                  |  |
| For profit                         | 77     | 77     | 81     | 4         | 5                  |  |
| Nonprofit                          | 23     | 23     | 19     | 2         | -0.2               |  |

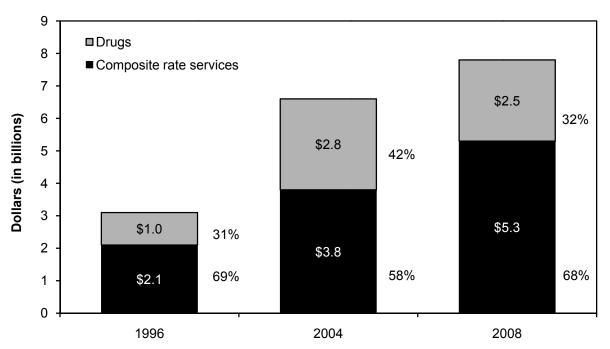
# Chart 12-1. Number of dialysis facilities is growing and share of for-profit and freestanding dialysis providers is increasing

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 1999 and 2009, the number of freestanding and for-profit facilities increased, while hospital-based and nonprofit facilities decreased. Freestanding facilities increased from 81 percent to 89 percent of all facilities, and for-profit facilities increased from 77 percent to 81 percent of all facilities.
- Two national for-profit chains own about 60 percent of all facilities and 70 percent of all freestanding facilities.
- Between 1999 and 2009, the proportion of facilities located in rural areas has remained relatively constant.
- The number of facilities has increased 4 percent per year since 1999. The average size of a facility has increased slightly, as evidenced by the mean number of hemodialysis stations per facility, which increased from 16 in 1999 to 18 in 2009.

#### Chart 12-2. Medicare spending for outpatient dialysis services furnished by freestanding dialysis facilities, 1996, 2004, and 2008



Source: Compiled by MedPAC from the 1996, 2004, and 2008 institutional outpatient files from CMS.

- Between 1996 and 2004, expenditures for composite rate services and dialysis drugs increased by about 10 percent per year but then slowed between 2004 and 2008 to a 4 percent average annual increase.
- The slowdown in the growth in total spending is due to a decline in spending on dialysis drugs. Statutory and regulatory changes that CMS implemented beginning in 2005 reversed spending trends for dialysis drugs. In addition, the slowdown is linked to a Food and Drug Administration warning in 2007 about the use of a dialysis drug class prescribed to treat anemia resulting from the loss of kidney function. By contrast, before and after 2004, spending on composite rate services increased at about the same annual rate—8 percent.

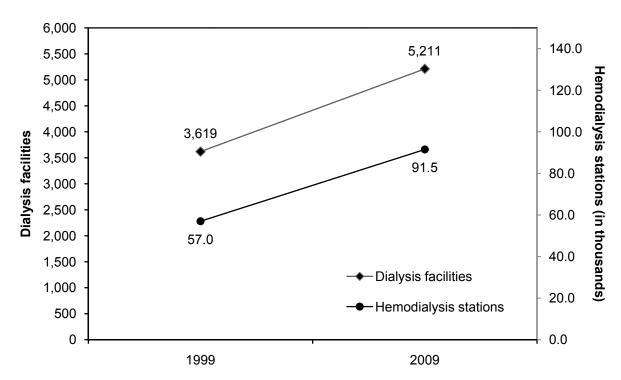


Chart 12-3. Dialysis facilities' capacity increased between 1999 and 2009

Source: Compiled by MedPAC from the 1999 Facility Survey file from CMS and the 2009 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 2009, a facility had an average of about 18 hemodialysis stations.
- Between 1999 and 2009, the total number of dialysis facilities grew by about 4 percent annually, and the number of hemodialysis stations grew by 5 percent annually.

60% 50% 40% Percent of patients 30% 20% 10% 0% Elderly (age Female African Hispanic Medicaid Diabetes Hypertension 75+ years) American **Patient characteristic** Primary cause of ESRD

Chart 12-4. Characteristics of dialysis patients, by type of facility, 2008

■LDOs ■Not LDOs □Freestanding ■Hospital-based

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

Source: MedPAC analysis of dialysis claims files, denominator files, Renal Management Information System files, and Dialysis Compare files from CMS.

- Across the different provider types, the proportion of patients who are elderly, female, African American, Hispanic, and dually eligible for Medicaid does not differ by more than 1 percentage point between 2007 and 2008 (data not shown for 2007).
- This analysis suggests that providers have not changed the mix of patients they care for between 2007 and 2008, including the large dialysis organizations, which account for about 60 percent of all facilities.
- In 2007 and 2008, freestanding facilities were more likely than hospital-based facilities to treat African Americans and dual eligibles. Freestanding facilities account for about 89 percent of all dialysis facilities.

|  | 1997                    | 7       | 2002                    | 2       | 2007                    |         |
|--|-------------------------|---------|-------------------------|---------|-------------------------|---------|
|  | Patients<br>(thousands) | Percent | Patients<br>(thousands) | Percent | Patients<br>(thousands) | Percent |
| Total                                    | 329.1                   | 100%    | 430.7                   | 100%    | 527.3                   | 100%    |
| Dialysis                                 | 239.3                   | 73      | 308.7                   | 72      | 368.5                   | 70      |
| In-center hemodialysis                   | 207.4                   | 63      | 280.6                   | 65      | 338.3                   | 64      |
| Home hemodialysis                        | 2.5                     | 1       | 1.8                     | <1      | 3.0                     | 1       |
| Peritoneal dialysis                      | 28.4                    | 9       | 25.4                    | 6       | 26.4                    | 5       |
| Unknown                                  | 1.0                     | <1      | 0.9                     | <1      | 0.9                     | <1      |
| Functioning graft and kidney transplants | 89.8                    | 27      | 122.0                   | 28      | 158.7                   | 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 ESRD require either dialysis or a kidney transplant to maintain life. The total number of ESRD patients increased by 5 percent annually between 1997 and 2007.
- 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 1997 and 2007, the total number of in-center hemodialysis patients increased by 5 percent annually while the number of patients using the predominant home modality—peritoneal dialysis—decreased 2 percent annually. Although only a small proportion of all dialysis patients undergo home hemodialysis, the number of these patients grew 2 percent annually during this time period.
- 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 2007, 35 percent of the kidneys were from living donors and 65 percent were from cadaver donors.

|                             | Percent<br>of total<br>in 2007 | Average annual<br>percent change<br>2002–2007 |
|-----------------------------|--------------------------------|---|
| Total ( <i>n</i> = 527,283) | 100%                           | 4%  |
| Age                         |                                |   |
| 0–19                        | 1                              | 2   |
| 20–44                       | 19                             | 1   |
| 45–64                       | 44                             | 5   |
| 65–74                       | 20                             | 4   |
| 75+                         | 16                             | 5   |
| Sex                         |                                |   |
| Male                        | 56                             | 5   |
| Female                      | 44                             | 4   |
| Race/ethnicity              |                                |   |
| White                       | 61                             | 4   |
| African American            | 32                             | 4   |
| Native American             | 1                              | 4   |
| Asian American              | 5                              | 7   |
| Hispanic                    | 15                             | 7   |
| Non-Hispanic                | 85                             | 4   |
| Underlying cause of ESRD    |                                |   |
| Diabetes                    | 37                             | 5   |
| Hypertension                | 24                             | 4   |
| Glomerulonephritis          | 15                             | 2   |
| Other causes                | 23                             | 5   |

#### Chart 12-6. Diabetics, the elderly, Asian Americans, 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 ESRD patients, 36 percent are over age 65. About 60 percent are white.
- Diabetes is the most common cause of renal failure.
- The number of ESRD patients increased by 4 percent annually between 2002 and 2007. Among the fastest growing groups of patients are those who are over age 75, Asian Americans, Hispanics, and with diabetes as the cause of kidney failure.

## Chart 12-7. Aggregate margins vary by type of freestanding dialysis facility, 2008

| Type of facility | Percentage of Medicare payments going to freestanding facilities | Aggregate margin |
|------------------|--|------------------|
| All facilities   | 100%   | 3.2%             |
| Urban            | 83   | 3.9              |
| Rural            | 17   | 0.3              |
| LDOs             | 68   | 4.0              |
| Non-LDOs         | 32   | 1.6              |

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

Source: Compiled by MedPAC from 2008 cost reports and the 2008 institutional outpatient file from CMS.

- For 2008, the aggregate Medicare margin for composite rate services and injectable drugs was 3.2 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.
- In 2008, the gap in the Medicare margin widened between urban and rural facilities because of changes in the wage index and differences in the volume of drugs furnished across providers. The Commission will continue to monitor the adequacy of Medicare's payments for rural and urban facilities in the upcoming years. Some rural facilities may benefit from the low-volume adjustment that will be included in the new end-stage renal disease payment method scheduled to begin in 2011.

## Chart 12-8. Medicare hospice use and spending grew substantially from 2000 to 2008

|  | 2000    | 2007      | 2008      | Average annual<br>percent change 2000–2007 | Percent<br>change<br>2007–2008 |
|--|---------|-----------|-----------|--|--------------------------------|
| Beneficiaries in hospice                         | 513,000 | 1,000,000 | 1,055,000 | 10.0%                                      | 5.5%                           |
| Average length of stay among decedents (in days) | 54      | 80        | 83        | 5.8  | 3.8                            |
| Medicare payments (in billions)                  | \$2.9   | \$10.3    | \$11.2    | 19.8                                       | 8.7                            |

Note: Average length of stay reflects the average number of days a Medicare decedent who used hospice was enrolled in the Medicare hospice benefit during his/her lifetime.

Source: 2000 data on number of beneficiaries and payments from CMS analysis of 100 percent hospice claims Standard Analytic File: http://www.cms.gov/ProspMedicareFeeSvcPmtGen/downloads/FY05update\_hospice\_expenditures\_and\_units\_of\_care.pdf. All other numbers are based on MedPAC analysis of the denominator file, the Medicare Beneficiary Database, and the 100 percent hospice claims Standard Analytic File from CMS.

- The number of Medicare beneficiaries receiving hospice services doubled between 2000 and 2008, suggesting that access to hospice care has grown.
- The average length of stay among Medicare decedents who used hospice grew substantially over the decade, from 54 days in 2000 to 83 days in 2008 (reflecting an increase in length of stay among hospice users with the longest stays (see Chart 12-13)).
- Total Medicare payments to hospices nearly quadrupled from 2000 to 2008 due to increased enrollment and longer lengths of stay.

|                   | Percent of | decedents usir | ng hospice | Average annual percentage | Percentage                |
|-------------------|------------|----------------|------------|---------------------------|---------------------------|
|                   | 2000       | 2007           | 2008       | point change<br>2000–2007 | point change<br>2007–2008 |
| All               | 22.9%      | 38.9%          | 40.1%      | 2.3                       | 1.2                       |
| FFS beneficiaries | 21.5       | 38.0           | 39.2       | 2.4                       | 1.2                       |
| MA beneficiaries  | 30.9       | 42.9           | 43.9       | 1.7                       | 1.0                       |
| Dual eligibles    | 17.5       | 34.5           | 35.8       | 2.4                       | 1.3                       |
| Nondual eligibles | 24.5       | 40.3           | 41.5       | 2.3                       | 1.2                       |
| Age               |            |                |            |                           |                           |
| <65               | 17.0       | 24.5           | 25.0       | 1.1                       | 0.5                       |
| 65–84             | 24.7       | 38.5           | 39.3       | 2.0                       | 0.8                       |
| 85+               | 21.4       | 43.5           | 45.3       | 3.2                       | 1.8                       |
| Race/ethnicity    |            |                |            |                           |                           |
| White             | 23.8       | 40.5           | 41.8       | 2.4                       | 1.3                       |
| Minority          | 17.2       | 29.3           | 30.2       | 1.7                       | 0.9                       |
| Gender            |            |                |            |                           |                           |
| Male              | 22.4       | 35.9           | 36.7       | 1.9                       | 0.8                       |
| Female            | 23.3       | 41.5           | 43.0       | 2.6                       | 1.5                       |

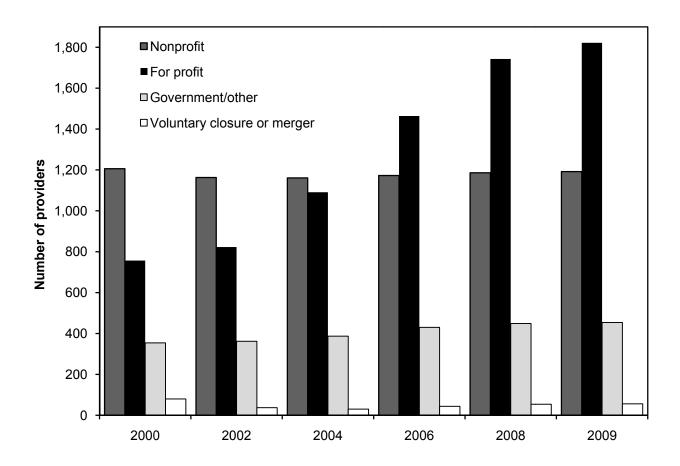
### Chart 12-9. Hospice use increased across all beneficiary groups from 2000 to 2008

Note: FFS (fee-for-service), MA (Medicare Advantage).

Source: MedPAC analysis of data from the denominator file and the Medicare Beneficiary Database from CMS.

- Hospice use grew substantially in all beneficiary groups from 2000 to 2007 and continued to grow in 2008.
- Despite this growth, hospice use continued to vary by demographic and beneficiary characteristics. Medicare decedents who were older, white, female, Medicare Advantage enrollees, or non-dual eligibles were more likely to use hospice than their counterparts.

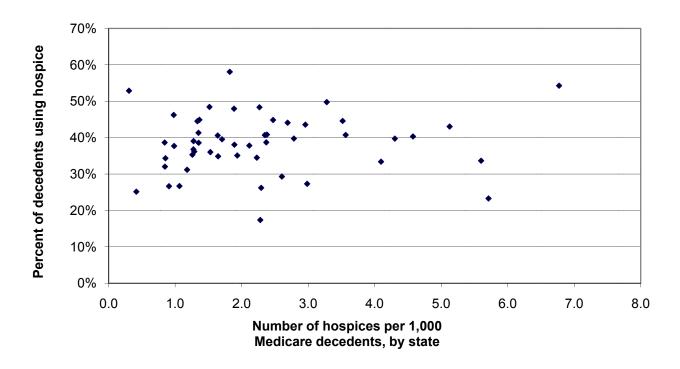
Chart 12-10. Number of Medicare-participating hospices has increased, largely driven by for-profit hospices



Source: CMS Providing Data Quickly Query, May 10, 2010, https://pdq.cms.hhs.gov/index.jsp.

- There were more than 3,400 Medicare-participating hospices in 2009. A majority of them were for-profit hospices.
- Between 2000 and 2009, the number Medicare-participating hospices grew by more than 1,000. For-profit hospices accounted for more than 90 percent of that growth.
- From 2007 to 2009, fewer than 60 hospices per year voluntarily exited the Medicare program due to a closure or merger.

Chart 12-11. Medicare hospice enrollment rates are unrelated to the number of hospices in a state, 2008



Note: Each data point represents one state or the District of Columbia.

Source: MedPAC analysis of the denominator file and the Medicare Beneficiary Database from CMS and data from CMS Providing Data Quickly system, https://pdq.cms.hhs.gov/index.jsp.

• The supply of hospices (number of hospices per 1,000 Medicare decedents) is unrelated to hospice enrollment rates among Medicare decedents across states. This fact suggests that greater numbers of hospice providers do not necessarily result in more access to care.

|                                    | Diagnosis share<br>of total cases | Percent of cases with<br>length of stay<br>greater than 180 days |
|------------------------------------|-----------------------------------|--|
| Cancer (except lung cancer)        | 23%                               | 10%  |
| Circulatory, except heart failure  | 11                                | 19   |
| Lung cancer                        | 9                                 | 8  |
| Debility, NOS                      | 9                                 | 23   |
| Heart failure                      | 8                                 | 22   |
| Alzheimer's and similar disease    | 6                                 | 33   |
| Unspecific symptoms/signs          | 6                                 | 23   |
| Chronic airway obstruction, NOS    | 6                                 | 26   |
| Dementia                           | 5                                 | 29   |
| Organic psychoses                  | 4                                 | 29   |
| Genitourinary disease              | 3                                 | 5  |
| Nervous system, except Alzheimer's | 3                                 | 31   |
| Respiratory disease                | 3                                 | 12   |
| Other                              | 2                                 | 12   |
| Digestive disease                  | 1                                 | 9  |
| All                                | 100                               | 19   |

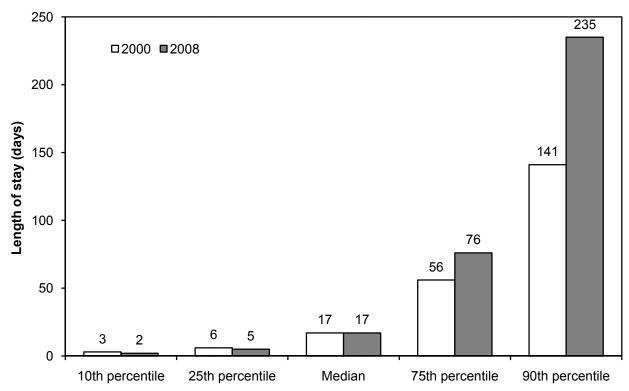
### Chart 12-12. Hospice length of stay by diagnosis, 2007

Note: NOS (not otherwise specified). Percent of cases by diagnosis does not sum to 100 due to the exclusion of patients with multiple diagnoses.

Source: MedPAC analysis of 100 percent hospice claims Standard Analytical File from CMS.

- In 2007, the most common terminal diagnosis among Medicare hospice patients was cancer, accounting for nearly one-third of cases. The next most common diagnoses were heart failure and other circulatory conditions (19 percent of cases) and Alzheimer's disease, dementia, organic psychoses, and other neurological conditions (17 percent of cases).
- Length of stay varies by diagnosis. At least one-quarter of hospice patients with Alzheimer's disease, chronic airway obstruction, dementia, organic psychoses, and other neurological conditions had lengths of stay exceeding 180 days. Long hospice stays were least common among beneficiaries with cancer, genitourinary disease, and digestive disease.

## Chart 12-13. Long hospice stays are getting longer, while short stays remain virtually unchanged



Note: Data reflect hospice length of stay for Medicare decedents who used hospice at the time of death or before death. Length of stay reflects the total number of days the decedent was enrolled in the Medicare hospice benefit during his/her lifetime.

- Long hospice stays have grown longer. For example, hospice length of stay at the 90th percentile grew from 141 days in 2000 to 235 days in 2008, an increase of more than 50 percent.
- Short stays in hospice have changed little since 2000. The median length of stay in hospice held steady at 17 days from 2000 to 2008. Hospice length of stay at the 25th percentile was 5 days in 2008, down slightly from 6 days in 2000.

Source: MedPAC analysis of the denominator file and the Medicare Beneficiary Database from CMS.

|   | Percent of<br>hospices<br>(2007) | 2001                | 2003                 | 2005               | 2006                | 2007                |  |
|---|----------------------------------|---------------------|----------------------|--------------------|---------------------|---------------------|--|
| All   | 100%                             | 4.4%                | 6.6%                 | 4.5%               | 6.4%                | 5.9%                |  |
| Freestanding<br>Home health based<br>Hospital based | 64<br>18<br>17                   | 9.1<br>0.2<br>–11.6 | 11.0<br>3.9<br>–13.7 | 7.2<br>3.0<br>–9.1 | 9.7<br>3.8<br>–12.7 | 8.8<br>2.3<br>–10.0 |  |
| For profit<br>Nonprofit                             | 50<br>36                         | 13.7<br>0.1         | 15.8<br>1.1          | 9.8<br>0.9         | 12.0<br>1.5         | 10.5<br>1.8         |  |
| Urban<br>Rural                                      | 69<br>31                         | 4.7<br>2.7          | 7.5<br>0.3           | 5.1<br>0.0         | 7.1<br>0.6          | 6.5<br>1.2          |  |
| Below cap<br>Above cap<br>Above cap (including      | 90<br>10                         | N/A<br>N/A          | 6.8<br>3.5           | 5.0<br>-0.8        | 7.1<br>0.4          | 6.2<br>2.6          |  |
| cap overpayments)                                   | 10                               | N/A                 | 23.9                 | 20.7               | 20.8                | 20.4                |  |

#### Chart 12-14. Hospice aggregate Medicare margins, 2001–2007

Note: N/A (not available). Margins for all provider categories exclude overpayments to above-cap hospices, except where specifically indicated. Margins are calculated based on Medicare-allowable, reimbursable costs. Percent of hospices does not sum to 100 by freestanding/provider-based categories and ownership categories because skilled nursing facility–based hospices and government hospices are not broken out separately.

Source: MedPAC analysis of Medicare hospice cost reports, 100 percent hospice claims Standard Analytic File, and Medicare Provider of Services data from CMS.

- The aggregate Medicare margin remained relatively steady from 2001 to 2007, ranging from 4.4 percent to 6.6 percent during the period. In 2007, the margin was 5.9 percent.
- Margin estimates do not include Medicare nonreimbursable costs, such as bereavement and volunteer costs (about 1.5 percent and 0.3 percent of total costs, respectively). Margins also do not include the costs and revenues associated with fundraising.
- Freestanding hospices had higher margins than provider-based (home health- and hospitalbased) hospices, in part due to differences in their indirect costs. Provider-based hospices' indirect costs are higher than those of freestanding providers and are likely inflated due to the allocation of overhead from the parent provider.
- In 2007, for-profit hospice margins were strongly positive at 10.5 percent. The aggregate margin for nonprofit hospices was 1.8 percent. The subset of nonprofit hospices that were freestanding had a higher margin of 5.6 percent (not shown in table).
- Hospices that exceeded the cap (Medicare's aggregate average per beneficiary payment limit) had a 20 percent margin before the return of the cap overpayments.

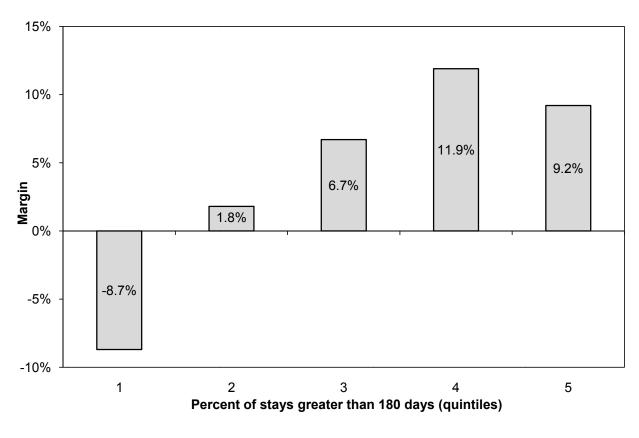


Chart 12-15. Medicare margins are higher among hospices with more long stays, 2007

- Medicare's per-diem-based payment system for hospice provides an incentive for longer lengths of stay.
- Hospices with more long-stay patients generally have higher margins.

Note: Margins exclude overpayments to hospices that exceed the cap on the average annual Medicare payment per beneficiary. Margins are calculated based on Medicare allowable, reimbursable costs.

Source: MedPAC analysis of Medicare hospice cost reports and 100 percent hospice claims Standard Analytic File from CMS.

# Chart 12-16. Hospices that exceeded Medicare's annual payment cap, 2002–2007

|   | 2002  | 2003  | 2004  | 2005  | 2006  | 2007  |
|---|-------|-------|-------|-------|-------|-------|
| Percent of hospices exceeding the cap   | 2.6%  | 4.1%  | 5.8%  | 7.8%  | 9.4%  | 10.4% |
| Average payments over<br>the cap per hospice<br>exceeding the cap<br>(in thousands) | \$470 | \$664 | \$749 | \$755 | \$731 | \$612 |
| Payments over the cap<br>as a percent of overall<br>Medicare hospice spending       | 0.6%  | 1.2%  | 1.7%  | 2.2%  | 2.4%  | 2.0%  |

Note: The cap year is defined as the period beginning November 1 and ending October 31 of the following year.

Source: MedPAC analysis of 100 percent hospice claims Standard Analytic File data, Medicare hospice cost reports, Provider of Services file data from CMS, and CMS Providing Data Quickly system. Data on total spending for each fiscal year from the CMS Office of the Actuary.

- The percent of hospices exceeding Medicare's aggregate average per beneficiary payment limit, or "cap," increased in recent years to 10.4 percent in 2007.
- The average cap overpayment per above-cap hospice declined from \$755,000 in 2005 to \$612,000 in 2007.
- Medicare payments over the cap represented 2.0 percent of total Medicare hospice spending in 2007, down from 2.4 percent in 2006. Total cap overpayments fell slightly from \$211 million in 2006 to \$208 million in 2007.

### Chart 12-17. Length of stay and live discharge rates for aboveand below-cap hospices, 2007

|                         | Percent of hosp<br>stays exceed |                       | Live discha<br>percent of al | •                     |
|-------------------------|---------------------------------|-----------------------|------------------------------|-----------------------|
| Diagnosis               | Above-cap<br>hospices           | Below-cap<br>hospices | Above-cap<br>hospices        | Below-cap<br>hospices |
| All                     | 41%                             | 18%                   | 46%                          | 16%                   |
| Cancer                  | 19                              | 9                     | 24                           | 10                    |
| Neurological conditions | 50                              | 29                    | 41                           | 18                    |
| Heart/circulatory       | 44                              | 18                    | 55                           | 15                    |
| Debility                | 38                              | 22                    | 47                           | 20                    |
| COPD                    | 47                              | 24                    | 54                           | 19                    |
| Other                   | 46                              | 20                    | 54                           | 21                    |

Note: COPD (chronic obstructive pulmonary disease). Length-of-stay data reflect the percent of hospice users in 2007 whose hospice length of stay was beyond 180 days.

Source: MedPAC analysis of 100 percent hospice claims Standard Analytic File and denominator file from CMS.

- Above-cap hospices have substantially more patients with very long stays and more live discharges than below-cap hospices for all diagnoses.
- Between 44 percent and 50 percent of above-cap hospices' patients with neurological conditions, heart or circulatory conditions, or chronic obstructive pulmonary disease had stays exceeding 180 days compared with 18 percent to 29 percent at below-cap hospices.
- For all diagnoses, the live discharge rates at above-cap hospices were at least double and in some cases more than triple the rates at below-cap hospices. For example, among patients with heart or circulatory conditions, 55 percent of discharges at above-cap hospices were live discharges compared with 15 percent at below-cap hospices.

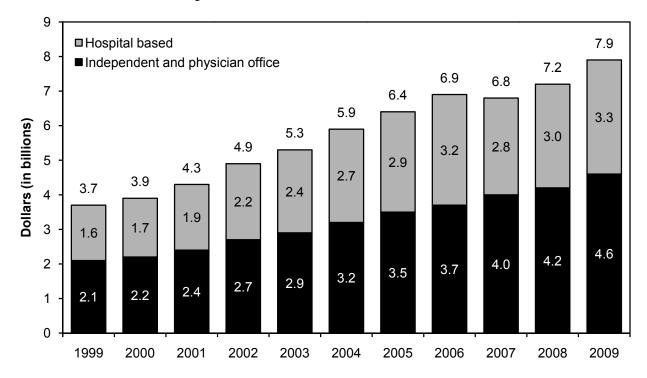
# Chart 12-18. The hospice cap is unrelated to the use of hospice services across states, 2007

|  | Percent of:                   |                                  |  |  |
|--|-------------------------------|----------------------------------|--|--|
| Top 10 states with highest hospice use rates | Decedents<br>using<br>hospice | Hospices<br>exceeding<br>the cap |  |  |
| Arizona                                      | 57%                           | 32%                              |  |  |
| Utah   | 52                            | 21                               |  |  |
| Florida                                      | 52                            | 5                                |  |  |
| Colorado                                     | 48                            | 2                                |  |  |
| lowa   | 48                            | 1                                |  |  |
| Oregon                                       | 47                            | 2                                |  |  |
| Delaware                                     | 46                            | 0                                |  |  |
| New Mexico                                   | 44                            | 9                                |  |  |
| Texas  | 44                            | 10                               |  |  |
| Michigan                                     | 44                            | 3                                |  |  |

Source: MedPAC analysis of the denominator file, the Medicare Beneficiary Database, 100 percent hospice claims Standard Analytic File data, Medicare hospice cost reports from CMS and CMS Providing Data Quickly system.

• Six of the 10 states with the highest use of hospice among Medicare decedents have a very small percentage (0 percent to 5 percent) of hospices exceeding the cap. This finding demonstrates that high rates of hospice use can be achieved without hospices exceeding the cap.

Chart 12-19. Medicare spending for clinical laboratory services, fiscal years 1999–2009



Note: Spending is for services paid under the clinical laboratory fee schedule. Hospital-based services are furnished in labs owned or operated by hospitals. Total spending appears on top of each bar. The segments of each bar may not sum to the totals on top of each bar due to rounding.

Source: CMS, Office of the Actuary.

- Medicare spending for clinical laboratory services grew by an average of 9.3 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 0.5 percent in 2007 due to a drop in hospital-based lab spending and increased by 4.4 percent in 2008 and by 11.2 percent in 2009.
- In 2009, Medicare spent \$7.9 billion (1.6 percent of total program spending) on clinical lab services.
- Hospital-based labs' share of total clinical lab spending increased from 43 percent in 1999 to 46 percent in 2006 but fell to 41 percent in 2009.

### 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\_09\_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 2D of the MedPAC March 2010 Report to the Congress provides information about the financial performance of dialysis facilities.

http://www.medpac.gov/chapters/Mar10\_Ch02D.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 CMS's proposed rule to implement provisions of the Medicare Improvements for Patients and Providers Act of 2008 that modernize the outpatient dialysis payment system by broadening the payment bundle in 2011 and implementing a quality incentive program in 2012.

http://medpac.gov/documents/End%20Stage%20Renal%20Disease.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\_09\_hospice.pdf

 Additional information and analysis related to the Medicare hospice benefit and the financial performance of hospice providers can be found in Chapter 2E of MedPAC's March 2010 Report to the Congress.

http://www.medpac.gov/chapters/Mar10\_Ch02E.pdf

• Additional analyses of Medicare hospice visit patterns can be found in the online appendix to Chapter 2E of MedPAC's March 2010 Report to the Congress.

http://www.medpac.gov/chapters/Mar10\_Ch02E\_APPENDIX.pdf

• Recommendations for reforms to the hospice payment system and steps to improve accountability and oversight of the benefit can be found in Chapter 6 of MedPAC's June 2009 Report to the Congress.

http://www.medpac.gov/chapters/Mar09\_ch06.pdf

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

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.

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

• CMS maintains a variety of information related to the hospice benefit.

http://www.cms.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\_09\_clinical\_lab.pdf

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

http://www.cms.gov/CLIA

