JUNE 2013

A DATA BOOK

Health Care Spending and the Medicare Program

MEDPAC
Medicare Payment Advisory Commission

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Introduction

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

MedPAC began producing its annual Data Book at the suggestion of congressional staff. Some of the information it contains is derived from MedPAC's March and June reports to the Congress; other information presented is unique to the Data Book. The information is presented through tables and figures with brief discussions. Website links to MedPAC publications and other websites are included on a "Web links" page at the end of each section.

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

Notes on data

Several charts in this Data Book use data from the Medicare Current Beneficiary Survey (MCBS). We use the MCBS to compare beneficiary groups with different characteristics. The MCBS is a survey, so expenditure amounts that we show may not match actual Medicare expenditure amounts from CMS's program offices or the Office of the Actuary.

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 in which Medicare 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.

Table of contents

Introduction iii

Sections

1 National health care and Medicare spending 1

1-1 Aggregate Medicare spending among FFS beneficiaries, by sector, 2002–2012 3
1-2 Per capita Medicare spending among FFS beneficiaries, by sector, 2002–2012 4
1-3 Medicare made up over one-fifth of spending on personal health care in 2011 5
1-4 Medicare's share of spending on personal health care varies by type of service, 2011 6
1-5 Health care spending has grown more rapidly than GDP, with public financing making up nearly half of all funding 7
1-6 Trustees project Medicare spending to increase as a share of GDP 8
1-7 Changes in spending per enrollee, Medicare and private health insurance 9
1-8 Trustees project Medicare spending to grow at an annual average rate of 7.1 percent over the next 10 years; CBO projects an annual rate of 6.5 percent 10
1-9 Medicare spending is concentrated in certain services and has shifted over time 11
1-10 FFS program spending is highly concentrated in a small group of beneficiaries, 2009 12
1-11 Medicare HI trust fund is projected to be insolvent in 2026 under trustees' intermediate assumptions 13
1-12 Medicare faces serious challenges with long-term financing 14
1-13 Average monthly SMI premiums and cost sharing are projected to grow faster than the average monthly Social Security benefit 15
1-14 Medicare HI and SMI benefits and cost sharing per FFS beneficiary in 2011 16

Web links 17

2 Medicare beneficiary demographics 19

2-1 Aged beneficiaries account for the greatest share of the Medicare population and program spending, 2009 21
2-2 Medicare enrollment and spending by age group, 2009 22
2-3 Beneficiaries who report being in poor health account for a disproportionate share of Medicare spending, 2009 23
2-4 Enrollment in the Medicare program is projected to grow rapidly in the next 20 years 24
2-5 Characteristics of the Medicare population, 2009 25

Web links 26

3 Dual-eligible beneficiaries 27

3-1 Dual-eligible beneficiaries account for a disproportionate share of Medicare spending, 2009 29
3-2 Dual-eligible beneficiaries are more likely than non-dual-eligible beneficiaries to be under age 65 and disabled, 2009 30

3-3 Dual-eligible beneficiaries are more likely than non-dual-eligible beneficiaries to report poorer health status, 2009 ..... **31**
3-4 Demographic differences between dual-eligible beneficiaries and non-dual-eligible beneficiaries, 2009 ..... **32**
3-5 Differences in Medicare spending and service use rate between dual-eligible beneficiaries and non-dual-eligible beneficiaries, 2009 ..... **33**
3-6 Both Medicare and total spending are concentrated among dual-eligible beneficiaries, 2009 ..... **34**

Web links **35**

4 Quality of care in the Medicare program **37**

4-1 In-hospital and 30-day postdischarge mortality rates improved from 2008 to 2011 ..... **39**
4-2 Most hospital inpatient patient safety indicators improved or were stable from 2008 to 2011 ..... **40**
4-3 Risk-adjusted SNF quality measures show little improvement over 10 years **41**
4-4 Risk-adjusted home health quality measures held steady or improved from 2004 through 2012 ..... **42**
4-5 Dialysis quality of care: Some measures show progress, others need improvement, 2004–2011 ..... **43**
4-6 Medicare Advantage quality measures show improvement between 2011 and 2012 for local PPOs **44**

Web links **46**

5 Medicare beneficiary and other payer financial liability **49**

5-1 Sources of supplemental coverage among noninstitutionalized Medicare beneficiaries, 2009 ..... **51**
5-2 Sources of supplemental coverage among noninstitutionalized Medicare beneficiaries, by beneficiaries' characteristics, 2009 ..... **52**
5-3 Total spending on health care services for noninstitutionalized FFS Medicare beneficiaries, by source of payment, 2009 ..... **53**
5-4 Per capita total spending on health care services among noninstitutionalized FFS beneficiaries, by source of payment, 2009 ..... **54**
5-5 Variation in and composition of total spending among noninstitutionalized FFS beneficiaries, by type of supplemental coverage, 2009 ..... **55**
5-6 Out-of-pocket spending for premiums and health services per beneficiary, by insurance and health status, 2009 ..... **56**

Web links **57**

6 Acute inpatient services **59**

Short–term hospitals

6-1 Annual changes in number of acute care hospitals participating in the Medicare program, 2000–2011 ..... **61**
6-2 Percent change in hospital employment, by occupation, 2008–2011 ..... **62**
6-3 Growth in Medicare's FFS payments for hospital inpatient and outpatient services, 1999–2011 ..... **63**
6-4 Proportion of Medicare acute care hospital inpatient discharges by hospital group, 2011 ..... **64**
6-5 Major diagnostic categories with highest volume, fiscal year 2011 ..... **65**
6-6 Cumulative change in total all-payer admissions and total outpatient visits, 1999–2011 ..... **66**

6-7 Cumulative change in Medicare outpatient services and inpatient discharges per FFS beneficiary, 2005–2011 ... **67**
6-8 Cumulative change in Medicare inpatient medical and surgical discharges per FFS beneficiary, 2005–2011 ... **68**
6-9 Trends in Medicare inpatient and non-Medicare inpatient length of stay, 2005–2011 ... **69**
6-10 Share of inpatient admissions preceded by emergency department visit by location, 2005–2011 ... **70**
6-11 Share of Medicare Part A beneficiaries with at least one hospitalization, 2005–2011 ... **71**
6-12 Number of Medicare outpatient observation visits and inpatient claims preceded by observation care per 1,000 beneficiaries increased from 2006 to 2011 ... **72**
6-13 Hospital occupancy rates, 2005–2011 ... **73**
6-14 Medicare inpatient payments, by source and hospital group, 2011 ... **74**
6-15 Medicare acute inpatient PPS margin, 2002–2011 ... **75**
6-16 Medicare acute inpatient PPS margin, by urban and rural location, 2002–2011 ... **76**
6-17 Overall Medicare margin, 2002–2011 ... **77**
6-18 Overall Medicare margin, by urban and rural location, 2002–2011 ... **78**
6-19 Medicare hospital outpatient, inpatient, and overall Medicare margins, 2002–2011 ... **79**
6-20 Hospital total all-payer margin, 2002–2011 ... **80**
6-21 Hospital total all-payer margin, by urban and rural location, 2002–2011 ... **81**
6-22 Hospital total all-payer margin, by teaching status, 2002–2011 ... **82**
6-23 Medicare margins by teaching and disproportionate share status, 2011 ... **83**
6-24 Financial pressure leads to lower costs ... **84**
6-25 Change in Medicare hospital inpatient costs per discharge and private payer payment-to-cost ratio, 1987–2011 ... **85**
6-26 Markup of hospital charges above costs for Medicare services, 2002–2011 ... **86**
6-27 Number of critical access hospitals, 1999–2013 ... **87**

Inpatient psychiatric facilities
6-28 Medicare payments to inpatient psychiatric facilities, 2002–2012 ... **88**
6-29 Number of inpatient psychiatric facility cases increased in 2010 ... **89**
6-30 Inpatient psychiatric facilities, 2004–2010 ... **90**
6-31 One diagnosis accounted for almost three-quarters of IPF cases in 2010 ... **91**
6-32 Characteristics of IPF users, 2010 ... **92**

Web links ... **93**

7 Ambulatory care ... **95**

Physicians
7-1 Medicare spending per FFS beneficiary on physician fee-schedule services, 2002–2012 ... **97**
7-2 Volume growth has raised physician spending more than input prices and payment updates, 2000–2012 ... **98**
7-3 Most beneficiaries report that they can always or usually get timely care, 2012 ... **99**
7-4 Medicare beneficiaries report better ability to get timely appointments with physicians, compared with privately insured individuals, 2009–2012 ... **100**
7-5 Medicare and privately insured patients who are looking for a new physician report more difficulty finding one in primary care, 2009–2012 ... **101**
7-6 Access to physician care is better for Medicare beneficiaries compared with privately insured individuals, but minorities in both groups report problems slightly more frequently, 2012 ... **102**

7-7 Differences in access to new physicians are most apparent among minority Medicare and privately insured patients who are looking for a new specialist, 2012 ..... **103**
7-8 Growth in volume of physician fee-schedule services per beneficiary, 2000–2011 ..... **104**
7-9 Changes in physicians' professional liability insurance premiums, 2005–2012 ..... **105**

Hospital outpatient services
7-10 Spending on hospital outpatient services covered under the outpatient PPS, 2002–2012 ..... **106**
7-11 Most hospitals provide outpatient services **107**
7-12 Payments and volume of services under the Medicare hospital outpatient PPS, by type of service, 2011 ..... **108**
7-13 Hospital outpatient services with the highest Medicare expenditures, 2011 ..... **109**
7-14 Medicare coinsurance rates, by type of hospital outpatient service, 2011 ..... **110**
7-15 Effects of hold-harmless and SCH transfer payments on hospitals' outpatient revenue, 2009–2011 ..... **111**
7-16 Number of observation hours has increased, 2006–2011 ..... **112**

Ambulatory surgical centers
7-17 Number of Medicare-certified ASCs increased by 25 percent, 2005–2012 ..... **113**

Imaging services
7-18 Medicare spending for imaging services under the fee schedule for physicians and other health professionals, by type of service, 2011 ..... **114**
7-19 Rapid growth in the number of CT and MRI scans per 1,000 beneficiaries, 2000–2010 ..... **115**

Web links **116**

8 Post-acute care **119**

8-1 Number of post-acute care providers increased or remained stable in 2012 ..... **121**
8-2 Home health care and skilled nursing facilities have fueled growth in Medicare's post-acute care expenditures **122**

Skilled nursing facilities
8-3 A growing share of fee-for-service Medicare stays and payments go to freestanding skilled nursing facilities and for-profit facilities **123**
8-4 SNF volume remained essentially unchanged between 2010 and 2011 ..... **124**
8-5 Freestanding SNF Medicare margins have increased steadily since 2005 ..... **125**
8-6 Comparison of beneficiaries who do and do not use skilled nursing facilities, 2010 ..... **126**
8-7 Comparison of users of skilled nursing facilities: Dual-eligible users and other users, 2011 ..... **127**

Home health services
8-8 Spending on home health care, 1997–2012 ..... **128**
8-9 Provision of home health care changed after the prospective payment system started **129**
8-10 Trends in provision of home health care **130**
8-11 Medicare margins for freestanding home health agencies **131**

Inpatient rehabilitation facilities
8-12 Most common types of inpatient rehabilitation facility cases, 2012 ..... **132**
8-13 Volume of IRF FFS patients increased in 2011 ..... **133**

8-14 Overall IRFs' payments per case have risen faster than costs since implementation of the PPS in 2002 ..... **134**
8-15 Inpatient rehabilitation facilities' Medicare margin by type, 2002–2011 ..... **135**

Long-term care hospitals
8-16 The top 25 MS–LTC–DRGs made up three-fifths of LTCH discharges in 2011 ..... **136**
8-17 LTCH spending per FFS beneficiary continues to rise **137**
8-18 LTCHs' per case payments continue to increase more than costs **138**
8-19 LTCHs' aggregate Medicare margin rose in 2011 ..... **139**
8-20 LTCHs in the top quartile of Medicare margins in 2011 had much lower costs **140**

Web links **141**

9 Medicare Advantage **143**

9-1 MA plans available to virtually all Medicare beneficiaries **145**
9-2 Access to zero-premium plans with MA drug coverage, 2007–2013 ..... **146**
9-3 Enrollment in MA plans, 1994–2013 ..... **147**
9-4 Changes in enrollment vary among major plan types **148**
9-5 MA and cost plan enrollment by state and type of plan, 2013 ..... **149**
9-6 MA plan benchmarks, bids, and Medicare program payments relative to FFS spending, 2013 ..... **150**
9-7 Enrollment in employer group MA plans, 2006–2013 ..... **151**
9-8 Number of special needs plan enrollees, 2007–2013 ..... **152**
9-9 Number of SNPs and SNP enrollment rose from 2012 to 2013 ..... **153**
9-10 Twenty most common condition categories among MA beneficiaries, defined in the CMS–HCC model, 2011 ..... **154**
9-11 Medicare private plan enrollment patterns by age and Medicare–Medicaid dual-eligible status, January 2011 ..... **155**
9-12 Distribution of MA plans and enrollment by CMS overall star ratings, February 2013 ..... **156**

Web links **158**

10 Prescription drugs **159**

10-1 Medicare spending for Part B drugs administered in physicians' offices or furnished by suppliers **161**
10-2 Top 10 Part B drugs administered in physicians' offices or furnished by suppliers, by share of expenditures, 2011 ..... **162**
10-3 In 2011, almost 90 percent of Medicare beneficiaries were enrolled in Part D plans or had other sources of creditable drug coverage **163**
10-4 Parameters of the defined standard benefit increase over time **165**
10-5 Characteristics of Medicare PDPs **166**
10-6 Characteristics of MA–PDs **167**
10-7 Average Part D premiums **168**
10-8 Number of PDPs qualifying as premium-free to LIS enrollees remained stable in 2013 ..... **169**
10-9 In 2013, most Part D enrollees are in plans that charge higher copayments for nonpreferred brand-name drugs **170**
10-10 In 2013, use of utilization management tools continues to increase for both PDPs and MA–PDs **171**
10-11 Characteristics of Part D enrollees, 2011 ..... **172**

10-12 Part D enrollment trends, 2006–2011 ..... **173**
10-13 Part D enrollment by region, 2011 ..... **174**
10-14 The majority of Part D spending is incurred by fewer than half of all Part D enrollees, 2011 ..... **176**
10-15 Characteristics of Part D enrollees, by spending levels, 2011 ..... **177**
10-16 Part D spending and utilization per enrollee, 2011 ..... **178**
10-17 Part D spending varies across regions even after controlling for prices and health status, 2011 ..... **179**
10-18 Top 15 therapeutic classes of drugs under Part D, by spending and volume, 2011 ..... **180**
10-19 Generic dispensing rate for the top 15 therapeutic classes, by plan type, 2011 ..... **181**
10-20 Generic dispensing rate for the top 15 therapeutic classes, by LIS status, 2011 ..... **182**

Web links **183**

11 Other services **185**

Dialysis
11-1 Number of dialysis facilities is growing and share of for-profit and freestanding dialysis providers is increasing **187**
11-2 Medicare spending for outpatient dialysis services furnished by freestanding and hospital-based dialysis facilities, 2006 and 2011 ..... **188**
11-3 The ESRD population is growing, and most ESRD patients undergo dialysis **189**
11-4 Asian Americans and Hispanics are among the fastest growing segments of the ESRD population **190**
11-5 Dialysis facilities' capacity increased between 2007 and 2012 ..... **191**
11-6 Characteristics of Medicare fee-for-service dialysis patients, 2011 ..... **192**
11-7 Aggregate margins vary by type of freestanding dialysis facility, 2010 ..... **193**

Hospice
11-8 Medicare hospice use and spending grew substantially from 2000 to 2011 ..... **194**
11-9 Hospice use increased across beneficiary groups from 2000 to 2011 ..... **195**
11-10 Number of Medicare-participating hospices has increased due to growth in for-profit hospices **196**
11-11 Hospice cases and length of stay, by diagnosis, 2011 ..... **197**
11-12 Growth in length of stay among hospice patients with the longest stays slowed in 2011 ..... **198**
11-13 Hospice length of stay among decedents, by beneficiary and hospice characteristics, 2011 ..... **199**
11-14 More than half of Medicare hospice spending in 2011 was for patients with stays exceeding 180 days **200**
11-15 Hospice aggregate Medicare margins, 2004–2010 ..... **201**
11-16 Medicare margins are higher among hospices with more long stays, 2010 ..... **202**
11-17 Hospices that exceeded Medicare's annual payment cap, selected years **203**
11-18 Length-of-stay and live discharge rates for above- and below-cap hospices, 2010 ..... **204**
11-19 Margins are higher among hospices with a greater share of their patients in nursing facilities, 2010 ..... **205**

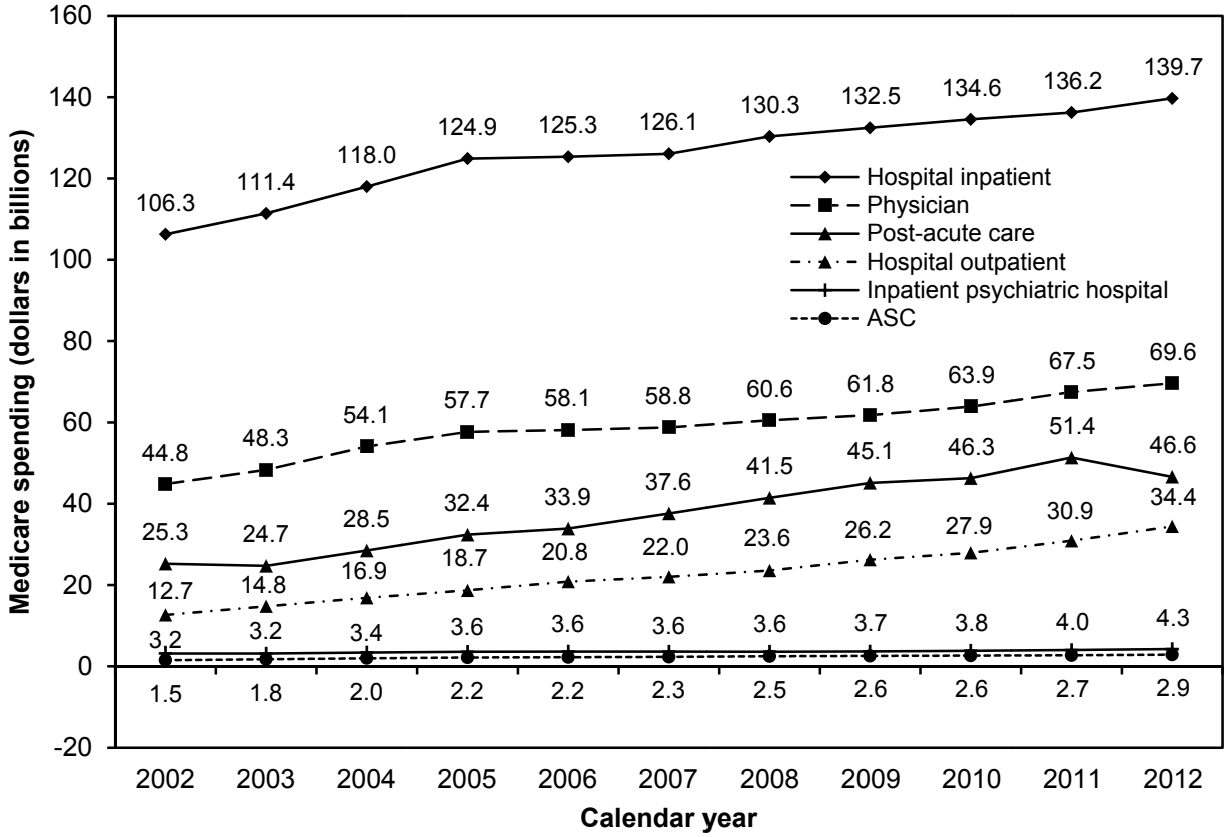
Clinical laboratory
11-20 Medicare spending for clinical laboratory services, 2003–2012 ..... **206**

Web links **207**

SECTION 1

National health care and Medicare spending

Chart 1-1. Aggregate Medicare spending among FFS beneficiaries, by sector, 2002–2012



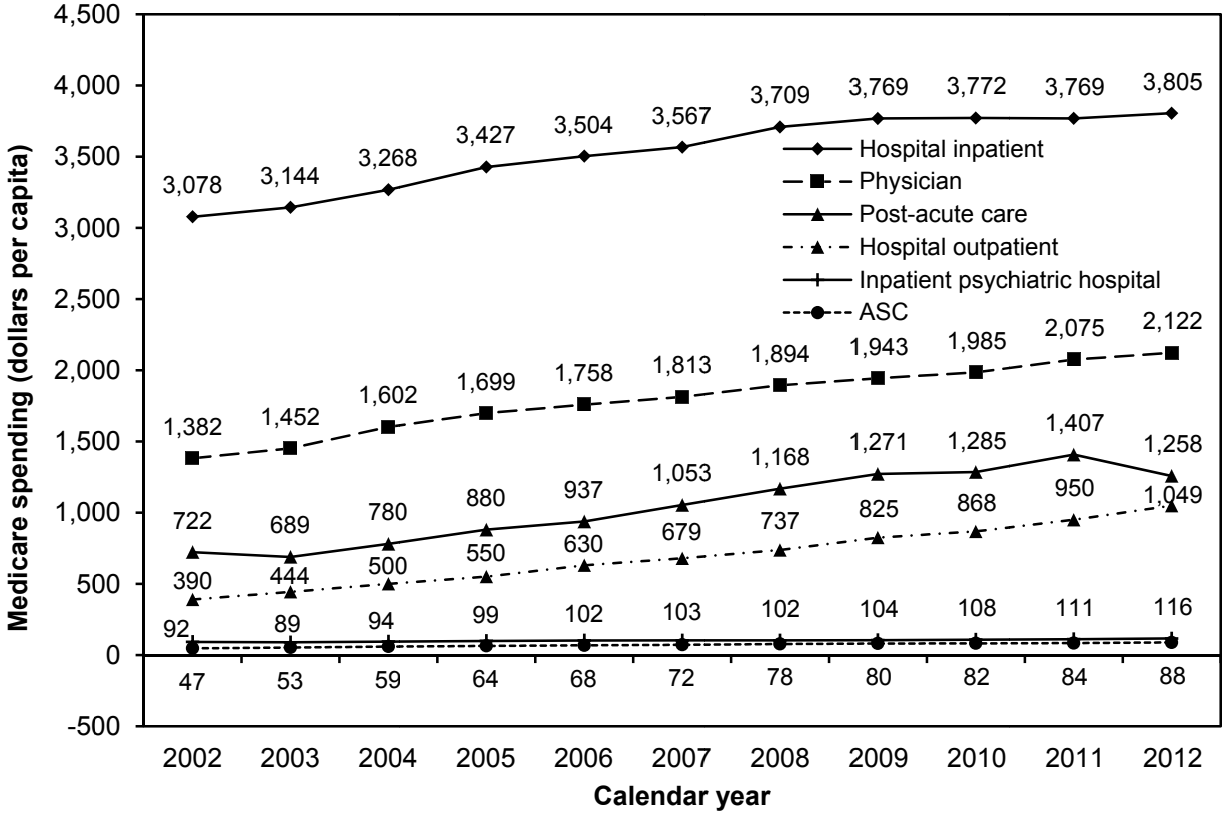
Note: FFS (fee-for-service), ASC (ambulatory surgical center). Post-acute care includes spending on home health services and skilled nursing facilities. Dollars are Medicare spending only and do not include beneficiary cost sharing. Spending for Medicare Advantage enrollees is also not included.

Source: CMS Office of the Actuary and the 2012 and 2013 annual reports of the Boards of Trustees of the Medicare Trust Funds.

- Medicare spending among FFS beneficiaries has increased significantly since 2002 across all sectors even though spending growth has slowed since 2006. The slowdown in spending growth is partially attributable to a decline in the growth of FFS enrollment as the number of Medicare Advantage enrollees increased.

- Spending growth for hospital inpatient services, the sector with the highest level of spending, was strong from 2002 through 2005, averaging 5.5 percent per year. Since 2006, spending growth has averaged 1.8 percent per year. That slowdown is partially attributable to a shift in service volume from the inpatient setting to the outpatient setting as well as to the decline in the growth of FFS enrollment (as more beneficiaries enrolled in Medicare Advantage), but it may also reflect broader economic conditions.

Chart 1-2. Per capita Medicare spending among FFS beneficiaries, by sector, 2002–2012

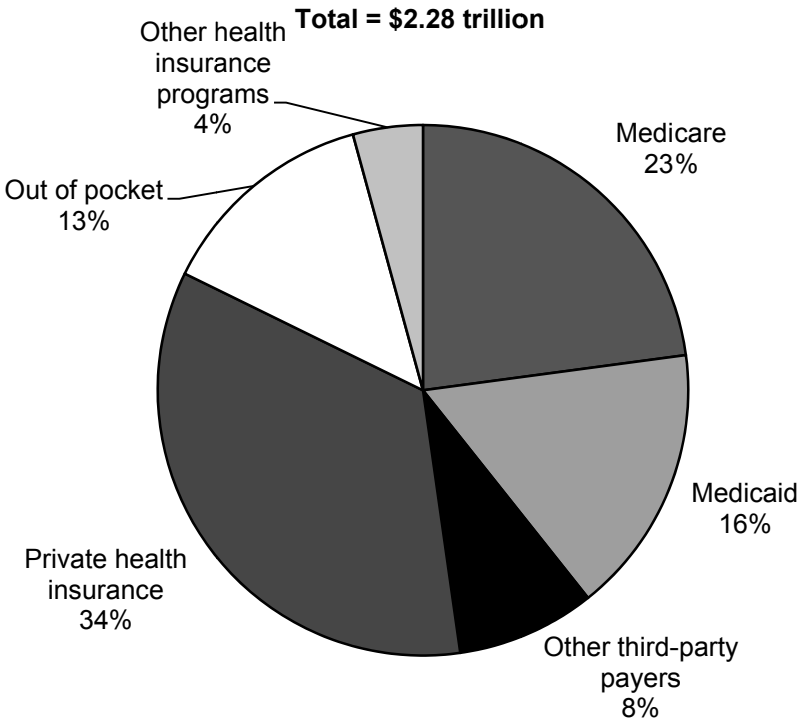


Note: FFS (fee-for-service), ASC (ambulatory surgical center). Post-acute care includes spending on home health services and skilled nursing facilities. Dollars are Medicare spending only and do not include beneficiary cost sharing. Spending for Medicare Advantage enrollees is also not included. Spending per beneficiary for hospital inpatient services and inpatient psychiatric hospital services equals spending for the sector (Chart 1-1) divided by FFS enrollment in Part A. Spending per beneficiary for physician services, hospital outpatient services, and ASC services equals spending for the sector (Chart 1-1) divided by FFS enrollment in Part B. Spending per beneficiary for post-acute care services equals spending for the sector (Chart 1-1) divided by total FFS enrollment.

Source: CMS Office of the Actuary and the 2011, 2012 and 2013 annual reports of the Boards of Trustees of the Medicare Trust Funds.

- Medicare spending per beneficiary in FFS Medicare has increased substantially since 2002 across all sectors even though the growth in spending per beneficiary has slowed since 2006.
- Spending per beneficiary for hospital inpatient services, the sector with the highest level of spending, grew 3.6 percent per year from 2002 through 2005. Since 2006 growth in spending per beneficiary for hospital inpatient services averaged 1.4 percent per year. Spending per beneficiary for hospital outpatient services has had robust growth in each year, averaging over 10 percent per year over the time period.

Chart 1-3. Medicare made up over one-fifth of spending on personal health care in 2011

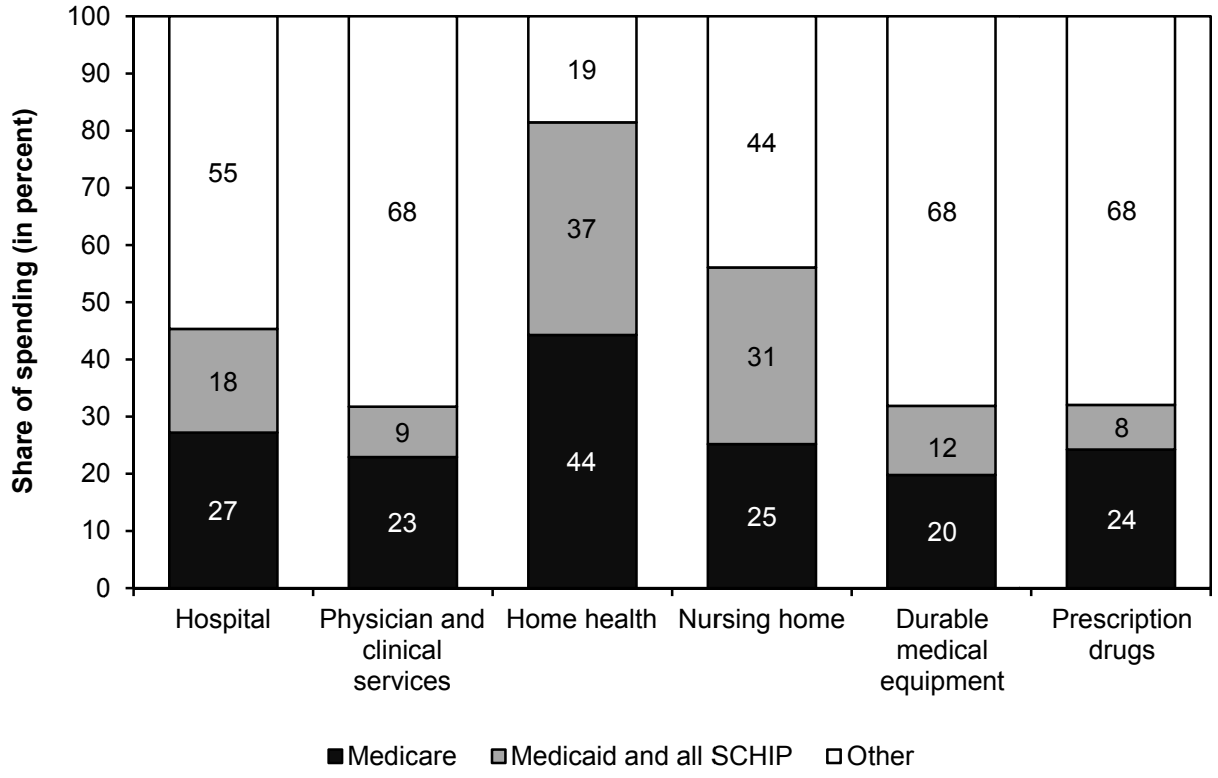


Note: All data are for calendar year 2011. Out-of-pocket spending includes cost sharing for both privately and publicly insured individuals. Personal health care is a subset of national health expenditures. It includes spending for all medical goods and services that are provided to treat or prevent a specific disease or condition in a specific person and excludes other spending, such as government administration, the net cost of health insurance, public health, and investment. Premiums are included with each program (e.g., Medicare, private insurance) rather than in the out-of-pocket category. Other health insurance programs include the Children's Health Insurance Program, Department of Defense, and Department of Veterans' Affairs. Other third-party payers include worksite health care, other private revenues, Indian Health Service, workers' compensation, general assistance, maternal and child health, vocational rehabilitation, other federal programs, Substance Abuse and Mental Health Services Administration, other state and local programs, and school health. Numbers do not add to 100 percent due to rounding.

Source: CMS Office of the Actuary, National Health Expenditure Accounts, 2013.

- Medicare is the largest single purchaser of health care in the United States. Of the $2.28 trillion spent on personal health care in 2011, Medicare accounted for 23 percent, or $522 billion (as noted above, this amount includes direct patient care spending and excludes certain administrative and business costs).
- Thirty-four percent of spending was financed through private health insurance payers and 13 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 spending on personal health care varies by type of service, 2011



Note: SCHIP (State Children's Health Insurance Program). All data are for calendar year 2011. Personal health care is a subset of national health expenditures. It includes spending for all medical goods and services that are provided to treat or prevent a specific disease or condition in a specific person and excludes other spending, such as government administration, the net cost of health insurance, public health, and investment. 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.

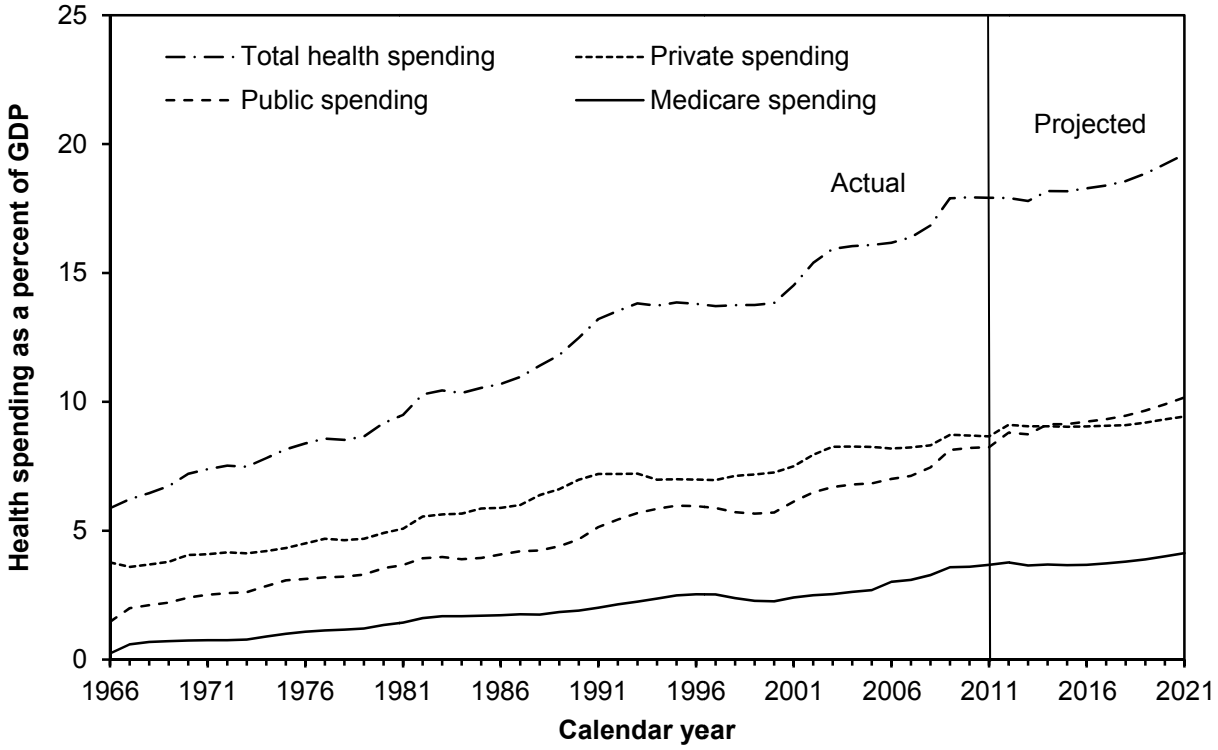
Source: CMS Office of the Actuary, National Health Expenditure Accounts, 2013.

- While Medicare's share of total spending on personal health care was 23 percent in 2011, its share of spending by type of service varied, with a slightly higher share of spending on hospital care and a much higher share of spending on home health services, partly because that category, in the chart above, includes hospice services.

- Medicare's share of spending on nursing homes was smaller than Medicaid's share because Medicare pays for nursing home services only for Medicare beneficiaries who require skilled nursing or rehabilitation services, whereas Medicaid pays for custodial care (assistance with activities of daily living) provided in nursing homes for people with limited income and assets.

- In 2011, Medicare accounted for 27 percent of spending on hospital care, 23 percent of physician and clinical services, 44 percent of home health services, 25 percent of nursing home care, 20 percent of durable medical equipment, and 24 percent of prescription drugs.

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

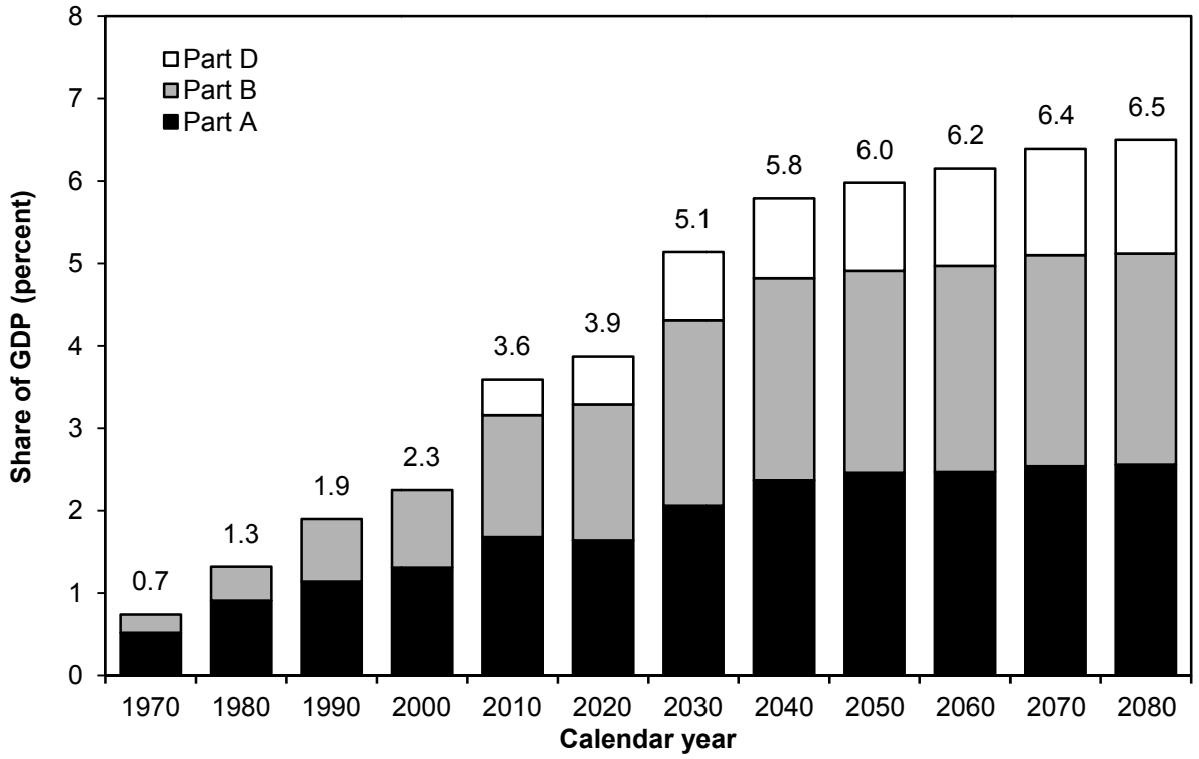


Note: GDP (gross domestic product). Total health spending is the sum of all private and public spending. Medicare spending is one component of all public spending.

Source: CMS Office of the Actuary, National Health Expenditure Accounts, 2013.

- Total health care spending consumes an increasing proportion of national resources, accounting for a double-digit share of GDP annually since 1982.
- As a share of GDP, total health care spending increased from about 6 percent in 1966 to about 18 percent in 2009 and remained at 18 percent in 2010 and 2011. Projections suggest that total health care spending will make up 19.6 percent of GDP by 2021.
- Medicare spending has also grown as a share of the economy from less than 1 percent at the introduction of the program in 1966 to 3.6 percent in 2012. Projections suggest that Medicare spending will make up 4.0 percent of GDP by 2021.
- In 2011, public spending made up 49 percent of total health care spending and private spending made up 51 percent. By 2014 public spending is projected to begin to exceed private spending. By 2021, public spending is projected to be 52 percent of total health care spending and private spending is projected to be 48 percent.

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

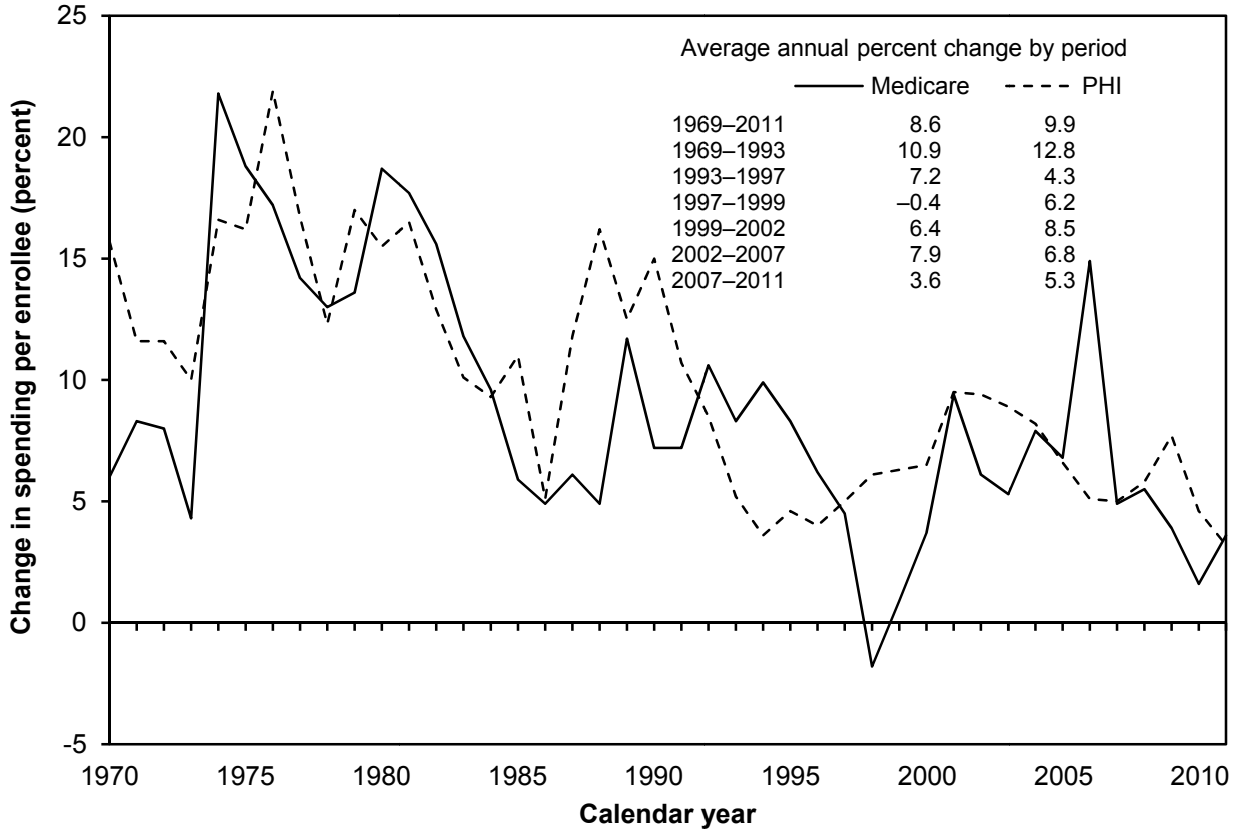


Note: GDP (gross domestic product). These projections are based on the trustees' intermediate set of assumptions.

Source: 2013 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 6.5 percent of GDP in 2080
- The Medicare trustees project that spending will rise from 3.6 percent of GDP in 2012 to 5.1 percent of GDP by 2030, largely due to the rapid growth in the number of beneficiaries, and then to 6.5 percent of GDP in 2080, with growth in spending per beneficiary becoming the larger factor in later years of the forecast. The rapid growth in the number of beneficiaries began in 2011 and will continue to 2030 as members of the baby-boom generation reach age 65 and become eligible to receive benefits.
- Nominal Medicare spending grew on average 9.1 percent per year over the period from 1980 to 2010, considerably faster than nominal growth in the economy, which averaged 5.7 percent per year over the same time frame. Future Medicare spending is projected to continue growing faster than GDP, averaging 5.5 percent per year between 2010 and 2080 compared with an annual average growth rate of 4.6 percent for the economy as a whole. In other words, Medicare spending is projected to continue rising as a share of GDP but at a slower pace.

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



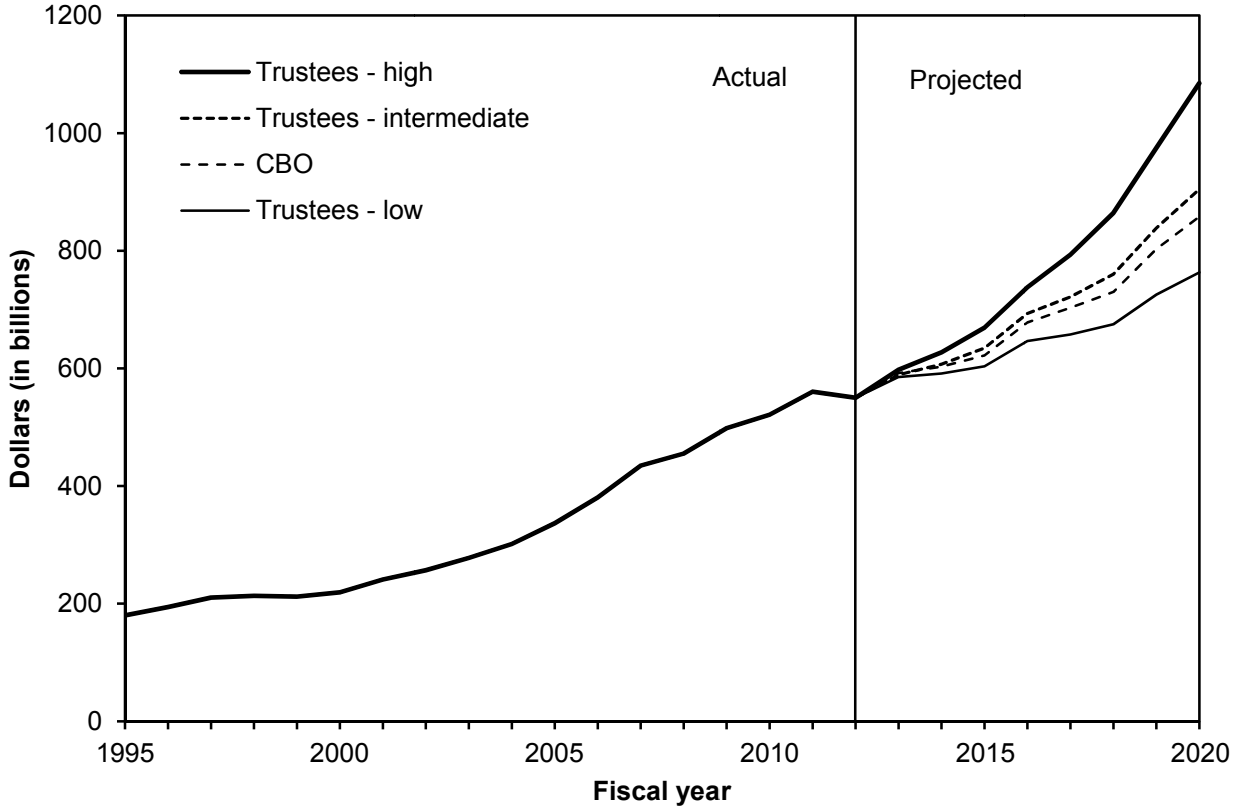
Note: PHI (private health insurance). Medicare expenditures include both fee-for-service and private plans.

Source: CMS Office of the Actuary, National Health Expenditure Accounts, 2013.

- 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 the 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, which 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, since with the exception of the introduction of Part D in 2006, Medicare's benefits changed little over the same period.

Chart 1-8. Trustees project Medicare spending to grow at an annual average rate of 7.1 percent over the next 10 years; CBO projects an annual rate of 6.5 percent



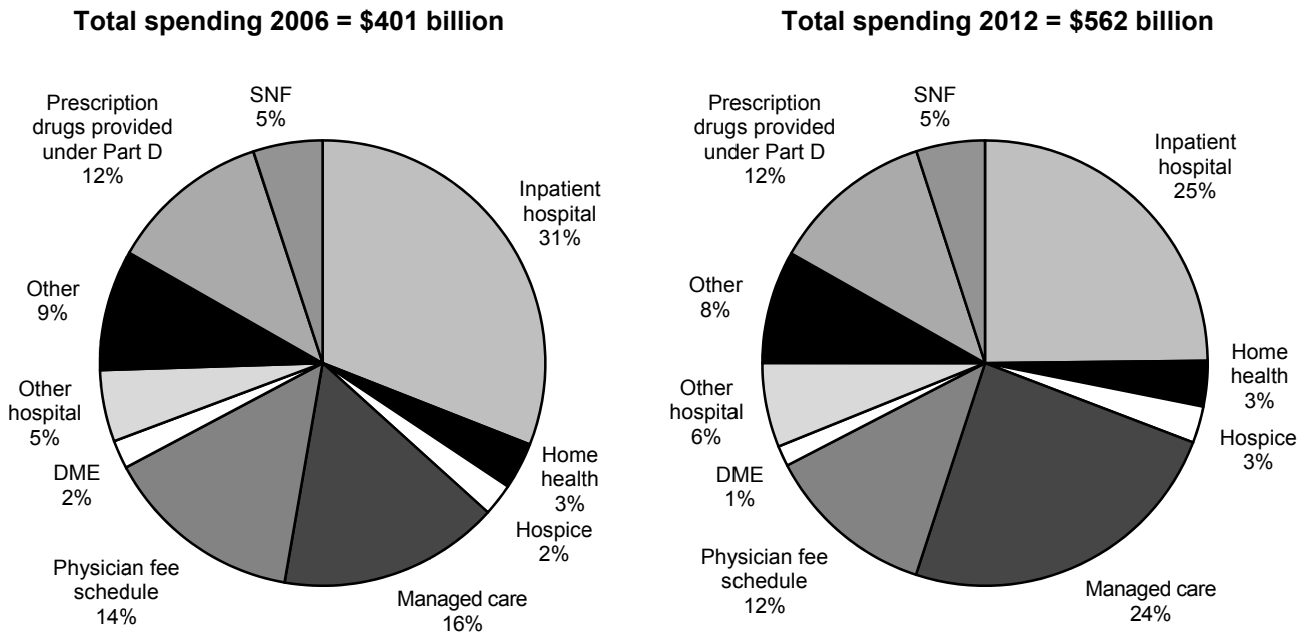
Note: CBO (Congressional Budget Office). All data are nominal, gross program outlays (benefit payments plus administrative expenses) by fiscal year.

Source: CMS Office of the Actuary and the 2006, 2011, and 2013 annual reports of the Boards of Trustees of the Medicare Trust Funds; CBO May 2013 baseline.

- Medicare spending has tripled since 1995, increasing from $180 billion to $550 billion by 2012 (these data are by fiscal year and include benefit payments and administrative expenses).

- CBO projects that spending for Medicare will grow at an average annual rate of 6.5 percent between 2012 and 2022. The Medicare trustees' intermediate projections for 2012 to 2022 assume 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 annual updates to provider payments) and about growth in the volume and intensity of services delivered to Medicare beneficiaries, among other factors.

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

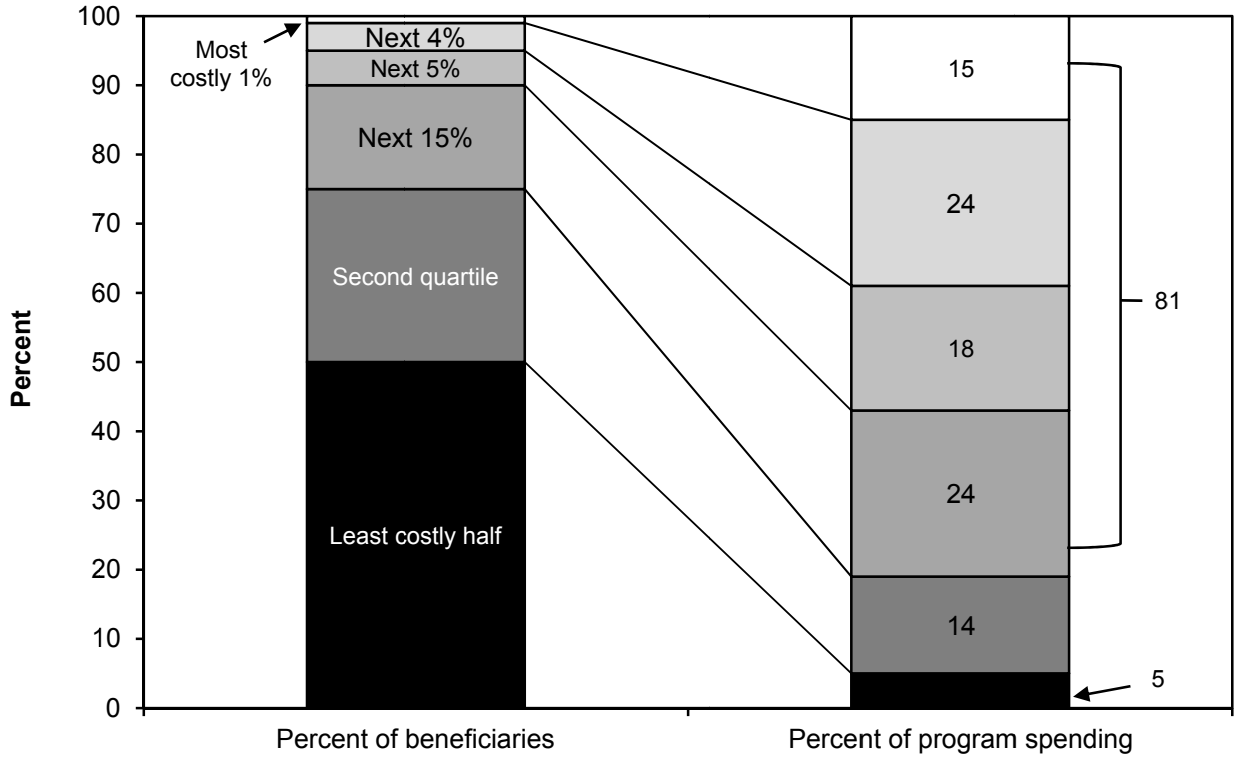


Note: SNF (skilled nursing facility), DME (durable medical equipment). All data are by calendar year. Dollars are Medicare spending only and do not include beneficiary cost sharing. "Other" includes carrier lab, other carrier, intermediary lab, and other intermediary. Totals may not sum to 100 percent due to rounding.

Source: CMS Office of the Actuary and the 2013 annual report of the Boards of Trustees of the Medicare Trust Funds.

- The distribution of Medicare spending among services has changed over time.
- In 2012, Medicare spent about $560 billion for benefit expenses. Inpatient hospital services were the largest spending category (25 percent), followed by managed care (24 percent), services reimbursed under the physician fee schedule (12 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 2012 than it was in 2006, falling from 31 percent to 25 percent. Spending on beneficiaries enrolled in managed care plans grew from 16 percent to 24 percent over the same period. Medicare managed care enrollment has increased 86 percent over the same period.

Chart 1-10. FFS program spending is highly concentrated in a small group of beneficiaries, 2009



Note: FFS (fee-for-service). All data are for calendar year 2009. Analysis excludes beneficiaries with any group health enrollment during the year.

Source: MedPAC analysis of 2009 Medicare Current Beneficiary Survey, Cost and Use files.

- Medicare FFS spending is concentrated among a small number of beneficiaries. In 2009, the costliest 5 percent of beneficiaries accounted for 39 percent of annual Medicare FFS spending and the costliest quartile accounted for 81 percent. By contrast, the least costly half of beneficiaries accounted for only 5 percent of FFS spending.

- Costly beneficiaries tend to include those who have multiple chronic conditions, are using inpatient hospital services, are dually eligible for Medicare and Medicaid, and are in the last year of life.

Chart 1-11. Medicare HI trust fund is projected to be insolvent in 2026 under trustees' intermediate assumptions

Estimate	Year costs exceed income	Year HI trust fund assets exhausted
High	2008	2019
Intermediate	2008	2026
Low	2008	Never*

Note: HI (Hospital Insurance). All years represent calendar years. The primary source of income for HI is the payroll tax on covered earnings. Other HI income sources include a portion of the federal income taxes that Social Security recipients with incomes above certain thresholds pay on their benefits as well as interest paid on the U.S. Treasury securities held in the HI trust fund.
*Under the low-cost assumption, trust fund assets would start to increase in 2014 and continue to increase throughout the projection period.

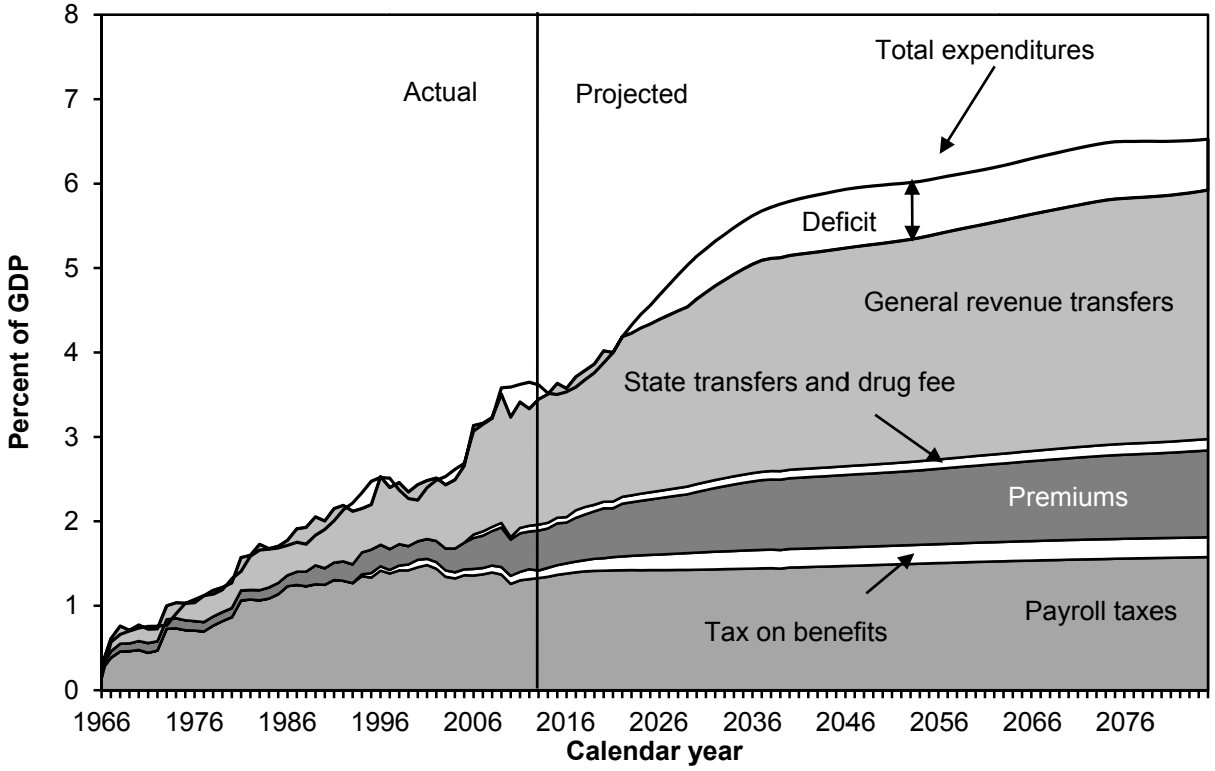
Source: 2013 annual report of the Boards of Trustees of the Medicare Trust Funds.

- The Medicare program is financed through two trust funds: one for 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 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.

- HI's expenses exceeded its income in 2008. In 2013, Medicare trustees report that, under the intermediate assumptions, the HI trust fund will be exhausted in 2026. Under high-cost assumptions, the HI trust fund could be exhausted as early as 2019. Under low-cost assumptions, it would remain able to pay full benefits indefinitely.

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

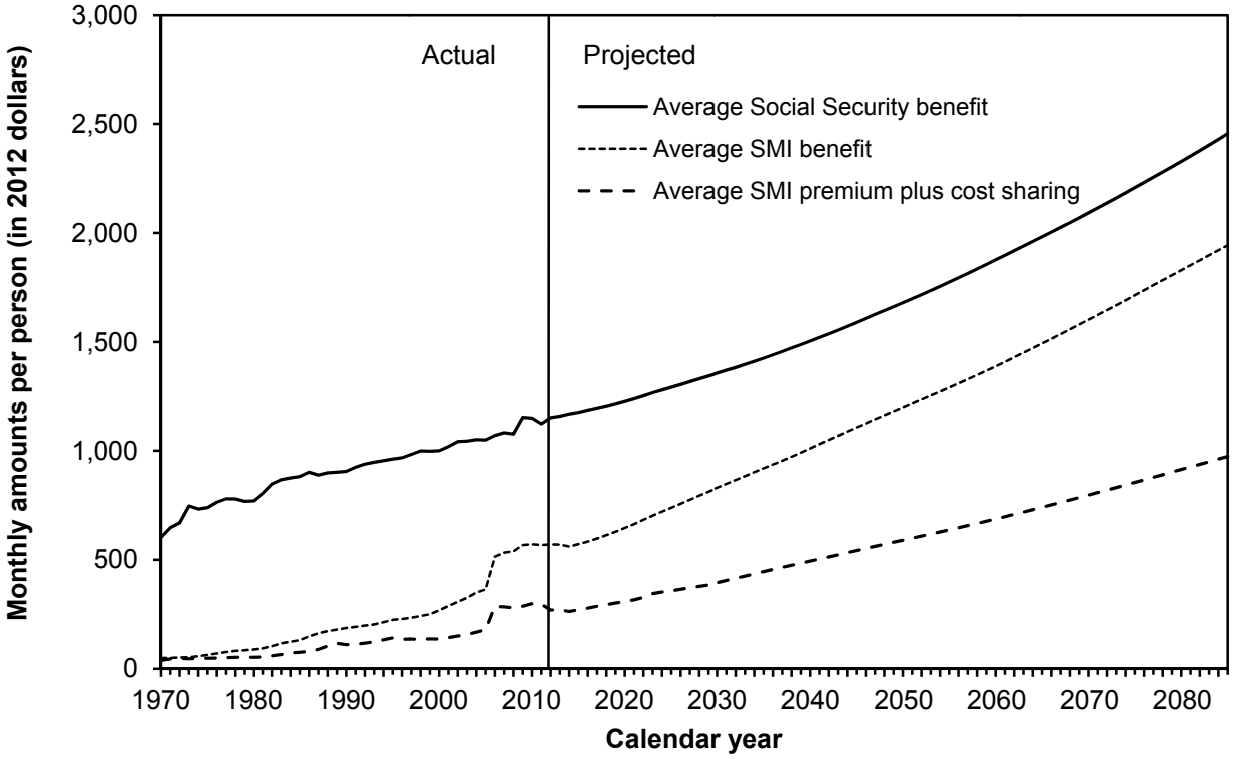


Note: GDP (gross domestic product). These projections are based on the trustees' intermediate set of assumptions. Tax on benefits refers to the portion of income taxes that higher income individuals pay on Social Security benefits that is designated for Medicare. State transfers (often called the Part 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. The drug fee refers to the fee imposed in the Patient Protection and Affordable Care Act of 2010 on manufacturers and importers of brand-name prescription drugs. These fees are deposited in the Part B account of the Supplementary Medical Insurance trust fund.

Source: 2013 annual report of the Boards of Trustees of the Medicare Trust Funds.

- In 2012, Medicare expenditures exceeded Medicare revenues due to decreased Hospital Insurance payroll tax income caused by the weak economy. The Medicare trustees project that expenditures will continue to exceed revenues in 2013 and 2014.
- From 2015 to 2022, Medicare revenues are expected to exceed Medicare expenditures in part because expenditures are reduced as a result of provisions of the Budget Control Act of 2011 that require a 2 percent sequester of Medicare payments during this period.
- After 2022, the Medicare trustees project that Medicare expenditures will exceed Medicare revenues, and general revenues will grow as a share of total Medicare financing, adding significantly to federal budget pressures.

Chart 1-13. Average monthly SMI 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.

Source: 2013 annual report of the Boards of Trustees of the Medicare Trust Funds.

- Most Medicare beneficiaries pay their Part B premium by having it withheld from their monthly Social Security benefits. Over time, growth in Medicare premiums and cost sharing has outpaced growth in Social Security benefits.

- Between 1970 and 2010, 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 grew by an annual average of 5.2 percent, and the value of the total SMI benefit grew by an annual average of 6.3 percent.

- The Medicare trustees project that growth in Medicare premiums and cost sharing will continue to outpace growth in Social Security income. Between 2010 and 2040 the average Social Security benefit is projected to grow by 1 percent annually (after adjusting for inflation), compared with about 1.7 percent annual growth in average SMI premiums plus cost sharing.

Chart 1-14. Medicare HI and SMI benefits and cost sharing per FFS beneficiary in 2011

	Average benefit (in dollars)	Average cost sharing (in dollars)
HI	$5,172	$435
SMI	4,992	1,272

Note: HI (Hospital Insurance), SMI (Supplementary Medical Insurance), FFS (fee-for-service). Dollars are for calendar year 2011 for FFS Medicare only and do not include Part D. Average benefits represent amounts paid for covered services per FFS beneficiary and exclude administrative expenses. Average cost sharing represents the sum of deductibles, coinsurance, and balance billing paid for covered services per FFS beneficiary.

Source: CMS Office of the Actuary; the 2013 annual report of the Boards of Trustees of the Medicare Trust Funds; and the Medicare and Medicaid Statistical Supplement 2012, CMS Office of Information Services.

- In calendar year 2011, the Medicare program made $5,172 in HI benefit payments and $4,992 in SMI benefit payments on average per beneficiary.
- In the same year, beneficiaries owed an average of $435 in cost sharing for HI; $1,272 in cost sharing for SMI; and a total of $1,567 in cost sharing for both.
- 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/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/ReportsTrustFunds/index.html?redirect=/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/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/index.html?redirect=/NationalHealthExpendData/

- The Medicare & Medicaid Statistical Supplement developed by CMS provides statistical information about Medicare, Medicaid, and other CMS programs.

  https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/MedicareMedicaidStatSupp/index.html?redirect=/MedicareMedicaidStatSupp/

- CMS statistics listed in its Data Compendium provide information about Medicare beneficiaries, providers, utilization, and spending.

  http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/DataCompendium/index.html?redirect=/DataCompendium/

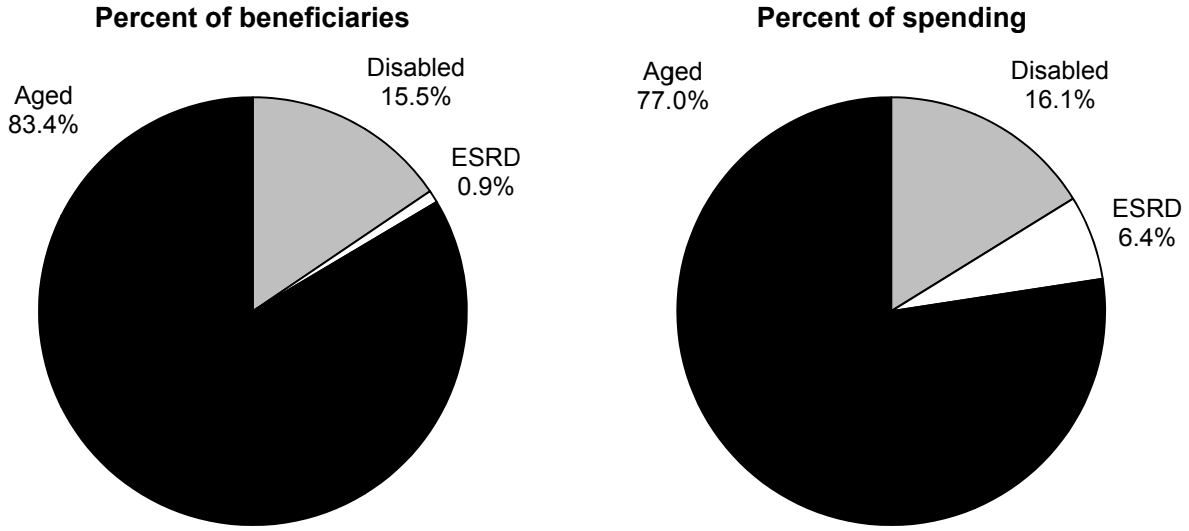
- MedPAC's March 2013 Report to the Congress provides an overview of Medicare and U.S. health care spending in Chapter 1, Context for Medicare Payment Policy.

  http://medpac.gov/chapters/Mar13_Ch01.pdf

SECTION 2

Medicare beneficiary demographics

Chart 2-1. Aged beneficiaries account for the greatest share of the Medicare population and program spending, 2009

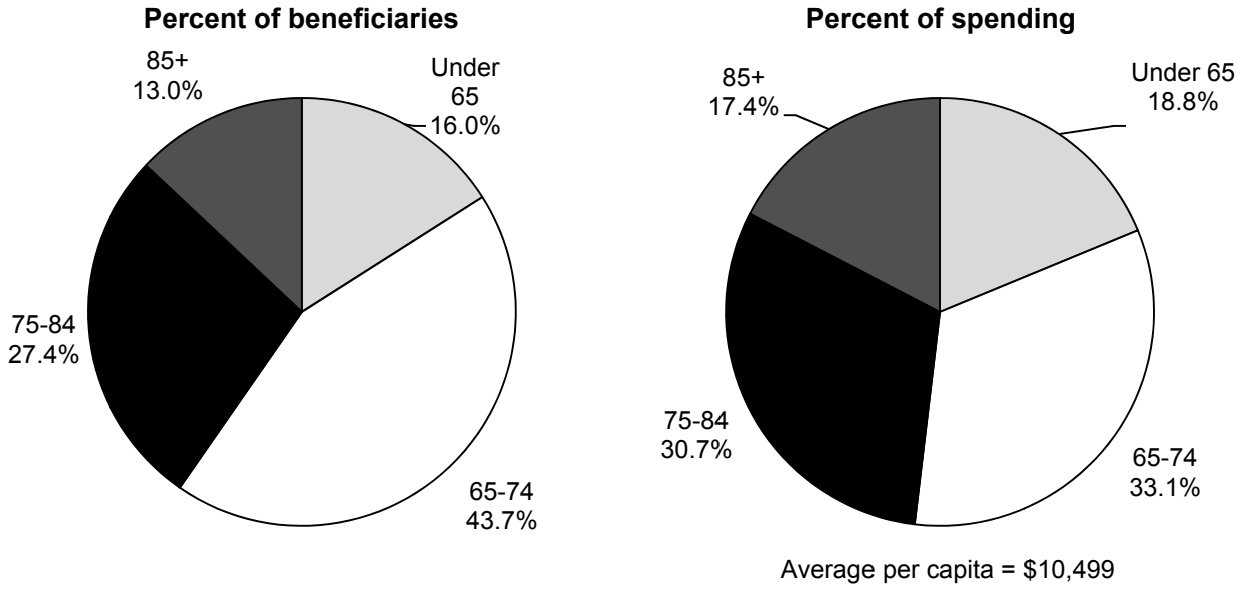


Note: ESRD (end-stage renal disease). The aged category refers to beneficiaries age 65 or older without ESRD. The disabled category refers to beneficiaries under age 65 without ESRD. The ESRD category refers to beneficiaries with ESRD, regardless of age. Results include fee-for-service, Medicare Advantage, community dwelling, and institutionalized beneficiaries. Totals may not sum to 100 percent due to missing data or to rounding.

Source: MedPAC analysis of the Medicare Current Beneficiary Survey, Cost and Use file, 2009.

- In 2009, Medicare beneficiaries age 65 or older without ESRD composed 83.4 percent of the beneficiary population and accounted for 77 percent of Medicare spending. Beneficiaries under 65 with a disability and beneficiaries with ESRD accounted for the remaining population and spending.
- In 2009, average Medicare spending per beneficiary was $10,499.
- A disproportionate share of Medicare expenditures is devoted to Medicare beneficiaries with ESRD. On average, these beneficiaries incur spending that is more than six times greater than spending for aged beneficiaries (65 years or older without ESRD) and for beneficiaries under age 65 with disability (non-ESRD). In 2009, $69,770 was spent per ESRD beneficiary versus $9,690 per aged beneficiary and $10,896 per beneficiary under age 65 enrolled due to disability.

Chart 2-2. Medicare enrollment and spending by age group, 2009

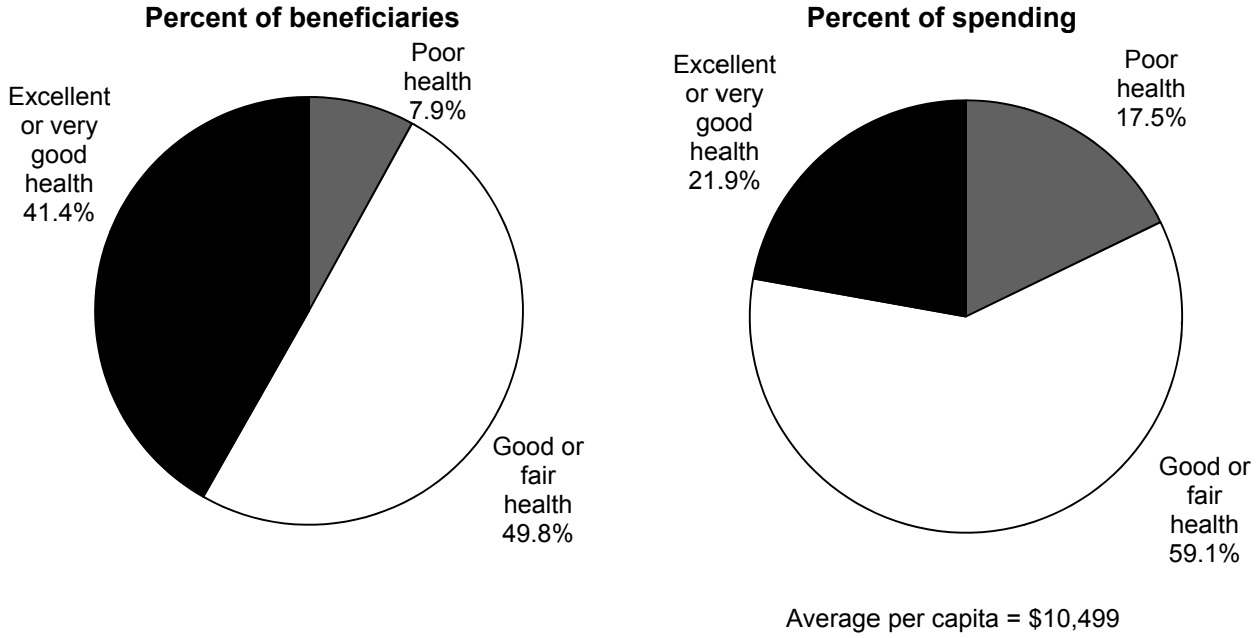


Note: Results include fee-for-service, Medicare Advantage, community dwelling, and institutionalized beneficiaries. Totals may not sum to 100 percent due to rounding.

Source: MedPAC analysis of the Medicare Current Beneficiary Survey, Cost and Use file, 2009.

- For the aged population (65 or older), per capita expenditures increase with age. In 2009, per capita expenditures were $7,949 for beneficiaries 65 to 74 years old, $11,798 for those 75 to 84, and $14,085 for those 85 or older.
- In 2009, per capita expenditures for Medicare beneficiaries under age 65 enrolled due to end-stage renal disease or disability were $12,333.
- The oldest beneficiaries (age 85 or older) and youngest beneficiaries (under age 65) account for a disproportionate share of Medicare spending relative to their representation in the Medicare population.

Chart 2-3. Beneficiaries who report being in poor health account for a disproportionate share of Medicare spending, 2009

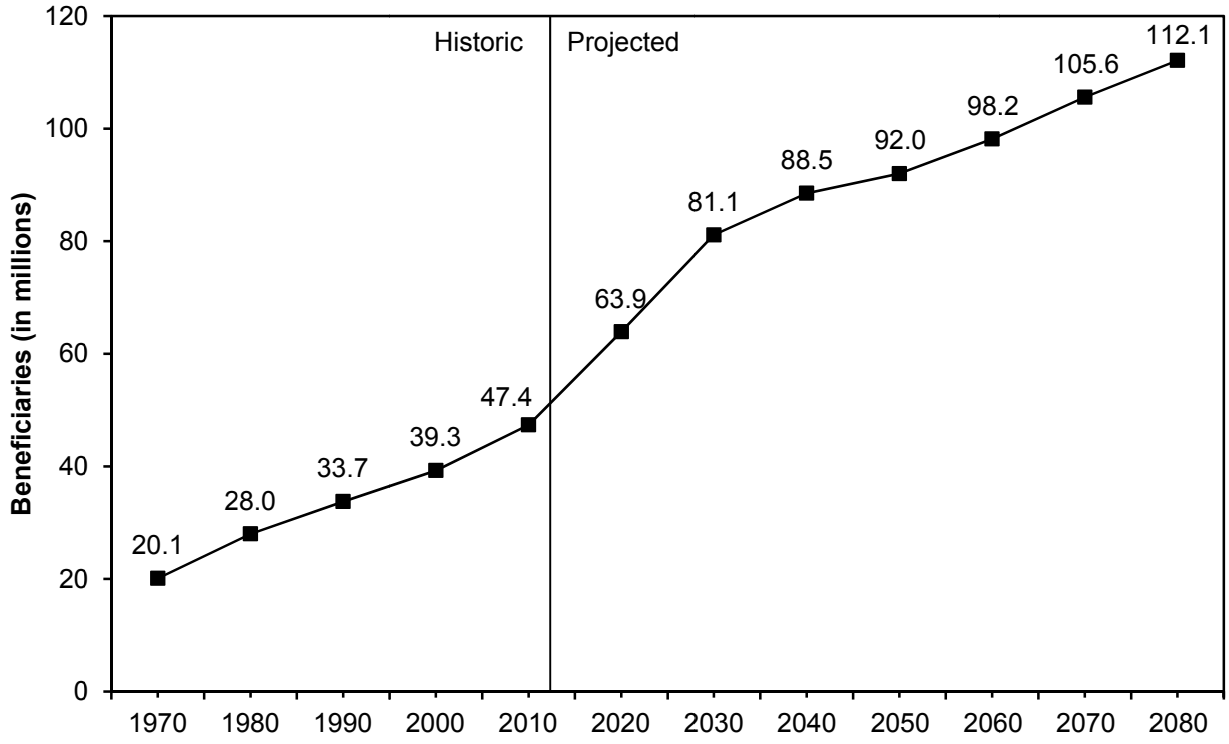


Note: Results include fee-for-service, Medicare Advantage, community dwelling, and institutionalized beneficiaries. Totals may not sum to 100 percent due to missing data or to rounding.

Source: MedPAC analysis of the Medicare Current Beneficiary Survey, Cost and Use file, 2009.

- In 2009, most Medicare beneficiaries reported fair to excellent health. Fewer than 10 percent reported poor health.
- Medicare spending is strongly associated with self-reported health status. In 2009, per capita expenditures were $5,544 for those who reported excellent or very good health, $12,466 for those who reported good or fair health, and $23,222 for those who reported poor health.

Chart 2-4. Enrollment in the Medicare program is projected to grow rapidly in the next 20 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, 2013.

- The total number of people enrolled in the Medicare program is expected to increase from about 50 million in 2012 to about 81 million in 2030.
- The rate of increase in Medicare enrollment will accelerate until 2030 as more members of the baby-boom generation become eligible, at which point it will increase more slowly after the entire baby-boom generation has become eligible.

Chart 2-5. Characteristics of the Medicare population, 2009

Characteristic	Percent of the Medicare population	Characteristic	Percent of the Medicare population
Total (47,176,547)	100%	**Living arrangement**	
		Institution	5%
Sex		Alone	29
Male	45	Spouse	49
Female	55	Other	18
Race/ethnicity		**Education**	
White, non-Hispanic	77	No high school diploma	24
African American, non-Hispanic	10	High school diploma only	30
Hispanic	8	Some college or more	45
Other	5	**Income status**	
		Below poverty	16
Age		100–125% of poverty	9
<65	16	125–200% of poverty	19
65–74	44	200–400% of poverty	31
75–84	27	Over 400% of poverty	24
85+	13		
		Supplemental insurance status	
Health status		Medicare only	9
Excellent or very good	42	Managed care	24
Good or fair	50	Employer	34
Poor	8	Medigap	15
		Medigap/employer	3
Residence		Medicaid	14
Urban	76	Other	1
Rural	24		

Note: Urban indicates beneficiaries living in metropolitan statistical areas (MSAs). Rural indicates beneficiaries living outside MSAs. In 2009, poverty was defined as income of $10,289 for people living alone and $12,982 for married couples. Totals may not sum to 100 percent due to missing data or to rounding. Some beneficiaries may have more than one type of supplemental insurance.

Source: MedPAC analysis of the Medicare Current Beneficiary Survey, Cost and Use file, 2009.

- Most Medicare beneficiaries are female and White.
- Close to one-quarter of beneficiaries live in rural areas.
- Twenty-nine percent of the Medicare population lives alone.
- One-quarter of beneficiaries have no high school diploma.
- Most Medicare beneficiaries have some source of supplemental insurance. Employer-sponsored plans are the most common source of supplemental coverage.

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

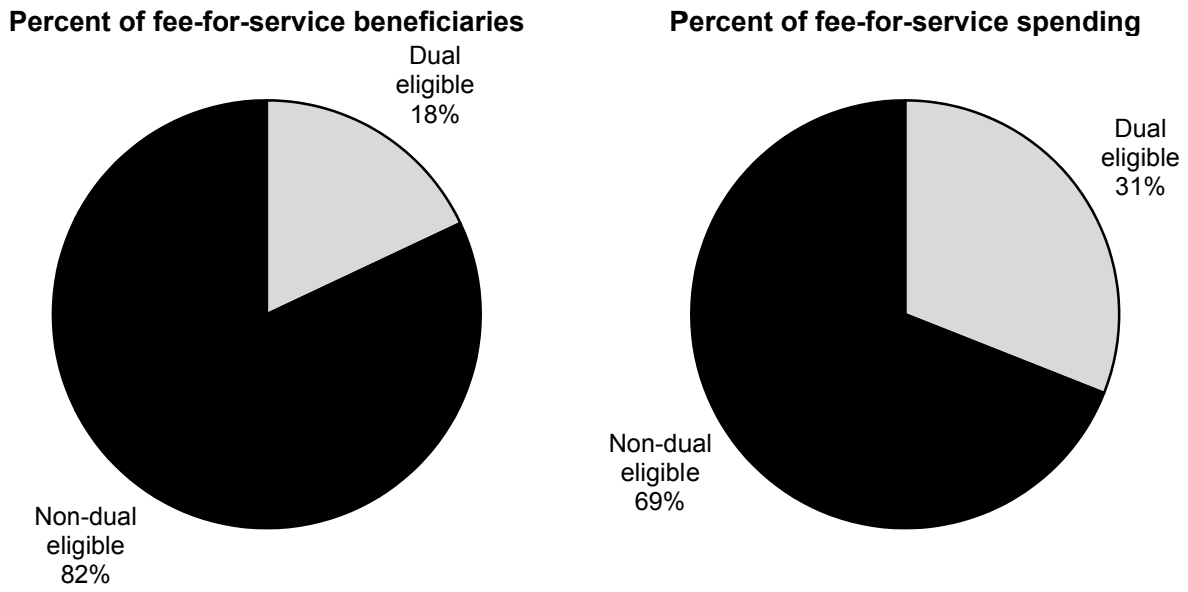
- The CMS website provides information about the Medicare Current Beneficiary Survey, a resource on the demographic characteristics of Medicare beneficiaries.

  http://www.cms.gov/mcbs

SECTION 3

Dual-eligible beneficiaries

Chart 3-1. Dual-eligible beneficiaries account for a disproportionate share of Medicare spending, 2009

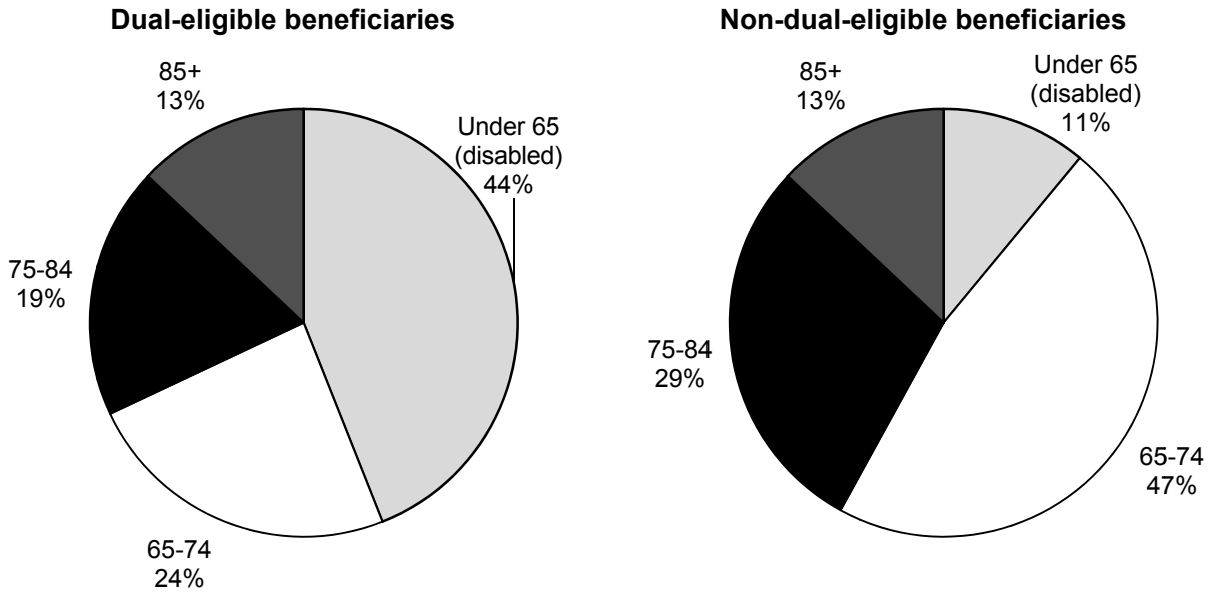


Note: Dual-eligible beneficiaries are designated as such if the months they qualify for Medicaid exceed the months they qualify for supplemental insurance. Spending data reflect 2009 Medicare Current Beneficiary Survey Cost and Use file from CMS.

Source: MedPAC analysis of the Medicare Current Beneficiary Survey, Cost and Use file, 2009.

- 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 18 percent of the Medicare fee-for-service population, they represented 31 percent of aggregate Medicare fee-for-service spending in 2009.
- On average, dual-eligible beneficiaries incur twice as much annual fee-for-service Medicare spending as non-dual-eligible beneficiaries: In 2009, $17,888 was spent per dual-eligible beneficiary, and $8,336 was spent per non-dual-eligible beneficiary.
- In 2009, average total spending—which includes Medicare, Medicaid, supplemental insurance, and out-of-pocket spending across all payers—for dual-eligible beneficiaries was about $29,100 per beneficiary, nearly twice the amount for other Medicare beneficiaries.

Chart 3-2. Dual-eligible beneficiaries are more likely than non-dual-eligible beneficiaries to be under age 65 and disabled, 2009

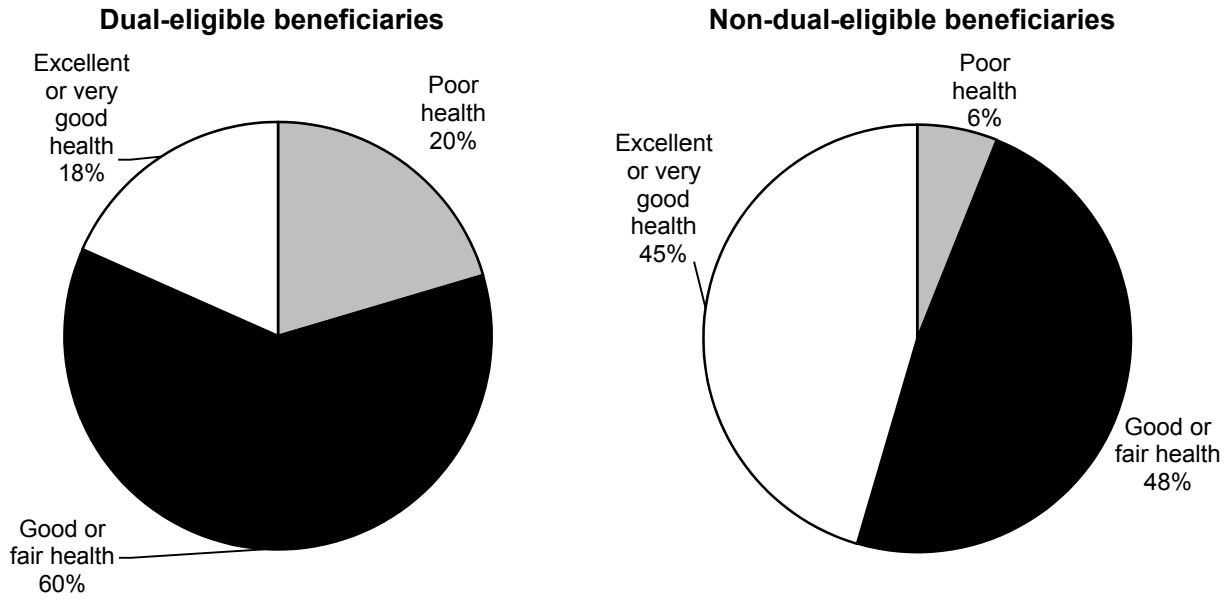


Note: Beneficiaries who are under age 65 qualify for Medicare because they are disabled. Once disabled beneficiaries reach age 65, they are counted as aged. Dual-eligible beneficiaries are designated as such if the months they qualify for Medicaid exceed the months they qualify for supplemental insurance.

Source: MedPAC analysis of Medicare Current Beneficiary Survey, Cost and Use file, 2009.

- Dual-eligible beneficiaries are more likely than non-dual-eligible beneficiaries to be under age 65 and disabled. In 2009, 44 percent of dual-eligible beneficiaries were under age 65 and disabled, compared with 11 percent of the non-dual-eligible population.

Chart 3-3. Dual-eligible beneficiaries are more likely than non-dual-eligible beneficiaries to report poorer health status, 2009



Note: Dual-eligible beneficiaries are designated as such if the months they qualify for Medicaid exceed the months they qualify for supplemental insurance. Numbers may not add to 100 percent due to rounding.

Source: MedPAC analysis of the Medicare Current Beneficiary Survey, Cost and Use file, 2009.

- Dual-eligible beneficiaries are more likely than non-dual-eligible beneficiaries to report poorer health status. Most report good or fair status, but 20 percent of the dual-eligible population reported being in poor health (compared with 6 percent of the non-dual-eligible population) in 2009.

Chart 3-4. Demographic differences between dual-eligible beneficiaries and non-dual-eligible beneficiaries, 2009

Characteristic	Percent of dual-eligible beneficiaries	Percent of non-dual-eligible beneficiaries
Sex		
Male	43%	46%
Female	57	54
Race/ethnicity		
White, non-Hispanic	56	81
African American, non-Hispanic	20	8
Hispanic	13	7
Other	10	4
Limitations in ADLs		
No ADLs	48	71
1–2 ADLs	23	19
3–6 ADLs	29	10
Residence		
Urban	69	78
Rural	30	22
Living arrangement		
Institution	19	2
Alone	31	28
Spouse	15	54
Children, nonrelatives, others	34	15
Education		
No high school diploma	51	20
High school diploma only	26	31
Some college or more	21	49
Income status		
Below poverty	56	10
100–125% of poverty	20	7
125–200% of poverty	18	19
200–400% of poverty	4	36
Over 400% of poverty	1	28
Supplemental insurance status		
Medicare or Medicare/Medicaid only	90	10
Medicare managed care	3	28
Employer	2	39
Medigap	0	18
Medigap/employer	0	4
Other*	4	1

Note: ADL (activity of daily living). Dual-eligible beneficiaries 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 2009, poverty was defined as income of $10,289 for people living alone and $12,982 for married couples. Totals may not sum to 100 percent due to rounding and exclusion of an "other" category. *Includes public programs such as the Department of Veterans Affairs and state-sponsored drug plans.

Source: MedPAC analysis of Medicare Current Beneficiary Survey, Cost and Use file, 2009.

- Dual-eligible beneficiaries qualify for Medicaid due to low incomes: In 2009, 56 percent lived below the poverty level, and 94 percent lived below 200 percent of poverty. Compared with non-dual-eligible beneficiaries, dual-eligible beneficiaries 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. They are less likely to have sources of supplemental coverage other than Medicaid.

Chart 3-5. Differences in Medicare spending and service use rate between dual-eligible beneficiaries and non-dual-eligible beneficiaries, 2009

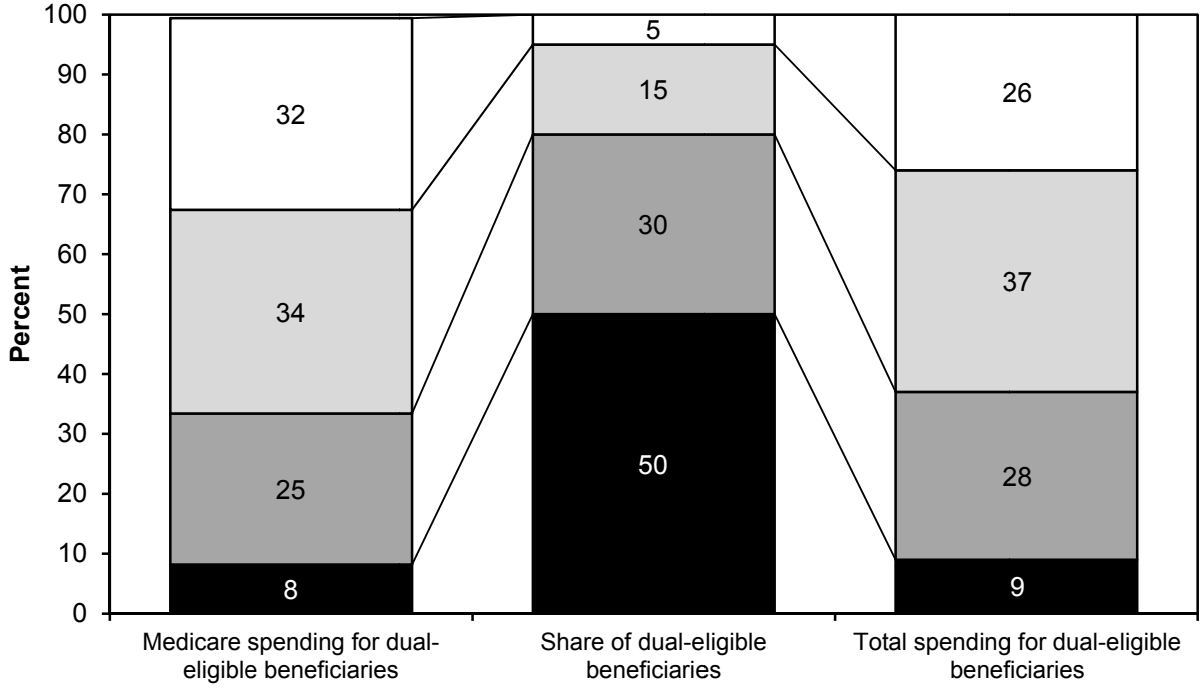
Service	Dual-eligible beneficiaries	Non-dual-eligible beneficiaries
Average Medicare payment for all beneficiaries		
Total Medicare payments	$17,888	$8,336
Inpatient hospital	5,541	2,730
Physician[a]	3,008	2,435
Outpatient hospital	2,374	1,009
Home health	819	400
Skilled nursing facility[b]	1,157	498
Hospice	513	187
Prescribed medication[c]	4,448	1,059
Percent of beneficiaries using service		
Percent using any type of service	95.9%	86.7%
Inpatient hospital	25.9	16.8
Physician[a]	90.0	83.5
Outpatient hospital	74.8	60.4
Home health	11.9	8.1
Skilled nursing facility[b]	8.9	3.9
Hospice	3.6	1.8
Prescribed medication[c]	74.7	41.2

Note: Restricted to beneficiaries in fee-for-service. Dual-eligible beneficiaries 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. Spending data reflect 2009 Medicare Current Beneficiary Survey Cost and Use file from CMS.
[a] Includes a variety of medical services, equipment, and supplies.
[b] Individual short-term facility (usually skilled nursing facility) stays for the MCBS population.
[c] CMS changed the methodology for collecting prescription drug data in the MCBS in 2007. Before 2007, all prescription drug data were based on information collected in the survey; however, starting in 2007, CMS began collecting prescription drug data for the MCBS from Medicare Advantage–Prescription Drug plans and prescription drug plans.

Source: MedPAC analysis of the Medicare Current Beneficiary Survey, Cost and Use file, 2009.

- Average per capita Medicare spending for dual-eligible beneficiaries is about twice that for non-dual-eligible beneficiaries—$17,888 compared with $8,336.
- 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 than their non-dual-eligible counterparts.
- Dual-eligible beneficiaries are more likely than non-dual-eligible beneficiaries to use each type of Medicare-covered service.

Chart 3-6. Both Medicare and total spending are concentrated among dual-eligible beneficiaries, 2009



Note: Total spending includes Medicare, Medicaid, supplemental insurance, and out-of-pocket spending. Dual-eligible beneficiaries 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 2009 Medicare Current Beneficiary Survey Cost and Use file from CMS.

Source: MedPAC analysis of the Medicare Current Beneficiary Survey, Cost and Use files, 2009.

- Annual Medicare spending is concentrated among a small number of dual-eligible beneficiaries. The costliest 20 percent of dual eligibles accounted for 66 percent of Medicare spending and 63 percent of total spending on dual-eligible beneficiaries in 2009. In contrast, the least costly 50 percent of dual-eligible beneficiaries accounted for only 8 percent of Medicare spending and 9 percent of total spending on dual-eligible beneficiaries.

- On average, total spending (including Medicaid, medigap, etc.) for dual-eligible beneficiaries in 2009 was nearly twice that for non-dual-eligible beneficiaries—$29,072 compared with $14,782.

Web links. Dual-eligible beneficiaries

- Chapter 6 of the MedPAC June 2013 Report to the Congress provides additional information on addressing care needs for dual-eligible beneficiaries.

  http://medpac.gov/chapters/Jun13_Ch06.pdf

- Chapter 14 of the MedPAC March 2013 Report to the Congress provides further information on Medicare Advantage dual-eligible special needs plans.

  http://medpac.gov/chapters/Mar13_Ch14.pdf

- Chapter 3 of the MedPAC June 2012 Report to the Congress provides information on dual-eligible special needs plans and presents recommendations to the Congress to improve the Program of All-Inclusive Care for the Elderly.

  http://www.medpac.gov/chapters/Jun12_Ch03.pdf

- Chapter 5 of the MedPAC June 2011 Report to the Congress provides information on dual-eligible beneficiaries.

  http://www.medpac.gov/chapters/Jun11_Ch05.pdf

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

  http://www.medpac.gov/chapters/Jun10_Ch05.pdf

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

  http://www.kff.org/tag/dual-eligible

- Further information on dual-eligible beneficiaries is available from the CMS Medicare–Medicaid Coordination Office.

  http://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/index.html

SECTION 4

Quality of care in the Medicare program

Chart 4-1. In-hospital and 30-day postdischarge mortality rates improved from 2008 to 2011

Condition or procedure	Risk-adjusted rate per 100 eligible discharges, 2008	Risk-adjusted rate per 100 eligible discharges, 2011	Directional change in rate, 2008–2011
In-hospital mortality			
Acute myocardial infarction	8.64	6.80	Better
Congestive heart failure	4.10	3.22	Better
Stroke	11.02	9.15	Better
Hip fracture	3.02	2.84	No difference
Pneumonia	4.40	3.54	Better
30-day postdischarge mortality			
Acute myocardial infarction	12.88	12.54	No difference
Congestive heart failure	10.55	9.72	Better
Stroke	23.51	23.61	No difference
Hip fracture	8.08	8.52	No difference
Pneumonia	10.04	9.02	Better

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 2008 to 2011 using a $p \leq 0.01$ criterion. "No difference" indicates that the change in the rate was not statistically significant from 2008 to 2011 using a $p \leq 0.01$ criterion.

Source: MedPAC analysis of CMS Medicare Provider Analysis and Review data using Agency for Healthcare Research and Quality Inpatient Quality Indicators version 4.1b (with modifications for 30-day mortality rate calculations).

- Our most recent analysis of several inpatient quality indicators shows generally positive trends. We analyzed five of the Inpatient Quality Indicators developed by the Agency for Healthcare Research and Quality (AHRQ) to measure in-hospital and 30-day postdischarge mortality rates. Trends in risk-adjusted in-hospital mortality rates are used to assess changes in the quality of care provided to Medicare beneficiaries during inpatient stays for certain medical conditions. Thirty-day postdischarge mortality rates reflect the quality of care transitions and posthospital care for beneficiaries in the critical period during and shortly after discharge from an inpatient stay.

- In-hospital and 30-day postdischarge mortality rates declined or remained at a similar level for acute myocardial infarction, congestive heart failure, stroke, and pneumonia as measured by the AHRQ methods.

Chart 4-2. Most hospital inpatient patient safety indicators improved or were stable from 2008 to 2011

Patient safety indicator	Risk-adjusted rate per 100 eligible discharges, 2008	Risk-adjusted rate per 100 eligible discharges, 2011	Directional change in rate, 2008–2011
Death among surgical inpatients with treatable serious complications	9.61	11.61	Worse
Iatrogenic pneumothorax	0.08	0.03	Better
Postoperative respiratory failure	1.84	0.88	Better
Postoperative PE or DVT	1.04	0.43	Better
Postoperative wound dehiscence	0.28	0.20	Better
Accidental puncture or laceration	0.28	0.15	Better

Note: PE (pulmonary embolism), DVT (deep vein thrombosis). "Better" indicates that the risk-adjusted rate decreased by a statistically significant amount from 2008 to 2011 using a $p \leq 0.01$ criterion.

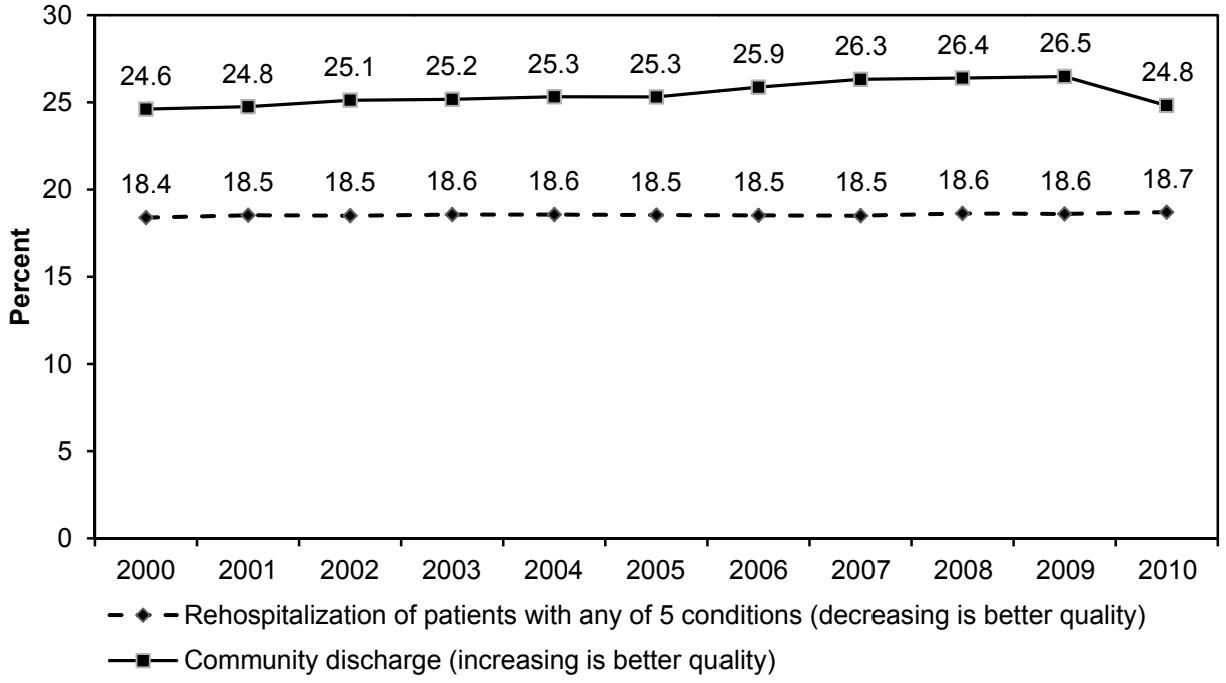
Source: MedPAC analysis of CMS Medicare Provider Analysis and Review data using Agency for Healthcare Research and Quality Patient Safety Indicators version 4.1b.

- We analyzed six of the Agency for Healthcare Research and Quality (AHRQ) Patient Safety Indicators (PSIs), which measure the frequency of potentially preventable adverse events that can occur during an inpatient stay, such as the development of postoperative PE or DVT (development of a blood clot that can suddenly obstruct an artery or vein) or a patient's death from treatable surgical complications. The rates are calculated using software from AHRQ and Medicare inpatient hospital discharge data.

- Rates improved from 2008 to 2011 for five of the six PSIs we analyzed, including iatrogenic pneumothorax (introduction of air into the pleural cavity during a medical procedure, which often causes the lung to collapse), postoperative respiratory failure, postoperative PE or DVT, postoperative wound dehiscence (parting of the sutures of a surgical wound), and accidental puncture or laceration. The PSI that did not improve from 2008 to 2011 was the rate of deaths among surgical inpatients with treatable serious complications.

- Caution should be used in interpreting all the reported PSI rates. PSIs measure rates of very rare events, and it is difficult, even when measuring across all inpatient prospective payment system hospitals, to detect statistically significant changes. The reliability of some of the PSIs also can be affected by variations in providers' coding practices. The Commission monitors trends in the selected PSIs as indicators—not definitive evidence—of changes in rates of treatment-related harm to patients that can be avoided with adherence to known clinical safety practices.

Chart 4-3. Risk-adjusted SNF quality measures show little improvement over 10 years



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

Source: Rates calculated by MedPAC based on a risk-adjustment model developed by the Division of Health Care Policy and Research, University of Colorado at Denver and Health Sciences Center.

- The Commission's quality measures for SNF care show almost no change from 2000 through 2010.
- The 2010 risk-adjusted rate at which Medicare-covered SNF patients were rehospitalized for potentially avoidable conditions was 18.7 percent, 0.3 percentage point higher than the rate in 2000. The level of readmissions is slightly higher than was previously reported by the Commission because a more recent base year was used. However, the trends are identical to those previously reported.
- The 2010 risk-adjusted rate of community discharge—a measure of SNFs' ability to return their patients to independent living—was 24.8 percent, up 0.2 percentage point from 2000.

Chart 4-4. Risk-adjusted home health quality measures held steady or improved from 2004 through 2012

Functional measures	2004	2006	2008	2010	2011	2012
Improvements in:						
Transferring	47%	50%	51%	54%	51%	52%
Bathing	56	60	62	65	62	63
Walking	N/A	N/A	N/A	N/A	53	55
Medication management	N/A	N/A	N/A	N/A	43	45
Pain management	N/A	N/A	N/A	N/A	65	65

Note: N/A (not applicable). The measures for walking, medication management, and pain management changed in 2011, and therefore the 2011 results shown are not comparable to data from prior years.

Source: MedPAC analysis of Outcome and Assessment Information Set, home health standard analytic file, and CMS Home Health Compare data.

- Medicare publishes risk-adjusted home health quality measures that track changes in the functional abilities for patients who receive home health care. These measures are reported for all home health episodes that do not terminate with a hospitalization.
- Since 2004, the rates of functional improvement have generally held steady or slightly improved each year. For example, the rate of home health patients demonstrating improvement in their ability to bathe has increased from 56 percent to 63 percent.

Chart 4-5. Dialysis quality of care: Some measures show progress, others need improvement, 2004–2011

Outcome measure	2004	2008	2010	2011
Percent of in-center hemodialysis patients:				
Receiving adequate dialysis	95%	95%	95%	97%
Anemia measures				
Mean hemoglobin 10–12 g/dL	42	57	68	74
Mean hemoglobin ≥ 12 g/dL*	52	37	25	12
Mean hemoglobin < 10 g/dL	6	6	7	14
Dialyzed with an AV fistula	39	50	56	59
Percent of peritoneal dialysis patients:				
Receiving adequate dialysis	90	88	89	91
Anemia measures				
Mean hemoglobin 10–12 g/dL	41	52	58	61
Mean hemoglobin ≥ 12 g/dL*	54	39	31	21
Mean hemoglobin < 10 g/dL	5	9	11	18
Percent of prevalent dialysis patients wait-listed for a kidney	16	17	17	N/A
Renal transplant rate per 100 dialysis patient years	4.8	4.2	3.9	N/A
Annual mortality rate per 100 patient years*	20.9	18.5	17.3	N/A
Total admissions per patient year*	2.0	1.9	1.9	N/A
Hospital days per patient year	13.9	13.0	12.1	N/A

Note: g/dL (grams per deciliter of blood), AV (arteriovenous), 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 adjusts data by age, gender, race, and primary diagnosis of end-stage renal disease.
*Lower values suggest higher quality.

Source: Compiled by MedPAC from the Elab Project Report, Fistula First, and the United States Renal Data System.

- 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 2004 and 2011, use of arteriovenous fistulas, considered the best type of vascular access, increased from 39 percent to 59 percent of hemodialysis patients. Between 2004 and 2010, overall adjusted mortality rates decreased but remained high among dialysis patients.

- The quality of dialysis care has remained steady for some measures. Between 2004 and 2011, the proportion of hemodialysis patients receiving adequate dialysis 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 to be the best treatment option for individuals with end-stage renal disease. The proportion of dialysis patients accepted on the kidney transplant waiting list remains low.

Chart 4-6. Medicare Advantage quality measures show improvement between 2011 and 2012 for local PPOs

Measures	HMO average rate 2011	HMO average rate 2012	Local PPO average rate 2011	Local PPO average rate 2012
HEDIS® administrative measures				
Breast cancer screening	68.5	68.9	66.1	65.9[a]
Glaucoma testing	63.8	65.8[b]	65.5	66.8
Osteoporosis management	20.7	22.5	18.7	19.3[a]
Rheumatoid arthritis management	72.8	72.6	78.3	77.7[a]
HEDIS® hybrid measures				
BMI documented	50.3	68.1[b]	36.7	63.2[ab]
Colorectal cancer screening	57.6	60.0[b]	41.3	55.5[ab]
Cholesterol screening for patients with heart disease	88.5	88.9	87.1	88.4[b]
Controlling blood pressure	61.9	64.0[b]	55.8	61.3[ab]
Cholesterol screening for patients with diabetes	87.9	88.3	86.3	86.7[a]
Eye exam to check for damage from diabetes	64.6	66.0	62.7	64.3
Kidney function testing for members with diabetes	89.2	89.8[b]	87.3	88.1[ab]
Diabetics with cholesterol under control	52.2	52.5	45.9	51.1[b]
Diabetics not controlling blood sugar (lower rate better)	25.9	26.5	34.3	28.4[b]
Measures from HOS[c]				
Advising physical activity	47.9	48.6	47.6	47.7
Improving bladder control	36.0	34.9[b]	36.6	35.8
Reducing the risk of falling	60.5	60.5	55.1	54.3[a]
Other measures based on HOS				
Improving or maintaining physical health	66.4	65.5[b]	66.1	65.6
Improving or maintaining mental health	77.5	76.5[b]	78.5	77.8
Measures from CAHPS®				
Annual flu vaccine	67.9	68.0	68.6	68.8
Ease of getting needed care and seeing specialists	84.7	84.4	85.9	85.9
Getting appointments and care quickly	75.1	75.5	76.7	76.5
Overall rating of health care quality	85.5	85.8	86.1	86.5[b]
Overall rating of plan	85.7	86.2	84.2	85.1[b]

Note: PPO (preferred provider organization), HMO (health maintenance organization), HEDIS® (Healthcare Effectiveness Data and Information Set®, a registered trademark of the National Committee for Quality Assurance), HOS (Health Outcomes Survey), BMI (body mass index), CAHPS® (Consumer Assessment of Healthcare Providers and Systems®, a registered trademark of the Agency for Healthcare Research and Quality). Rate is percent of applicable enrollees receiving the indicated test or treatment. Medicare Advantage plan types not included in the data are regional PPOs, private fee-for-service plans, continuing care retirement community plans, and employer-directed plans. Cost-reimbursed HMO plan results are included. HEDIS® administrative measures are calculated using administrative data, such as claims, encounter data, pharmacy data, and certain electronic records; hybrid measures involve sampling medical records to determine a rate. Averages are for all reporting plans in each year; therefore, results may differ from those shown in other MedPAC reporting of scores for plans that report measures for both years of a two-year time period.

[a] Statistically significant difference in performance in 2012 between HMO and PPO results ($p < 0.05$).

[b] Statistically significant difference in performance between 2011 and 2012 on this measure for this plan type ($p < 0.05$).

[c] Results shown for HEDIS measures taken from HOS (the three measures listed) include scores for plans not reporting other HEDIS data. Therefore, results may differ from those shown in other MedPAC reporting of these scores.

Source: MedPAC analysis of CMS HEDIS public use files for HEDIS measures and star ratings data for measures based on HOS and for CAHPS measures.

(Chart continued next page)

Chart 4-6. Medicare Advantage quality measures show improvement between 2011 and 2012 for local PPOs (continued)

- The chart displays simple averages across all plans in each category (HMOs and local PPOs) for each year.

- The measures listed are included in the measures that CMS uses to develop Medicare Advantage plan star ratings, which are the basis of quality bonus payments to plans. For star rating purposes, measures have different weights. Process measures, such as each of the HEDIS administrative measures, have a weight of 1. Patient experience measures, including the last four items in Chart 4-6, have a weight of 1.5. Outcome measures have a weight of 3. The following outcome measures in Chart 4-6 are used in the star ratings: controlling blood pressure (for all patients with hypertension), diabetics with their cholesterol under control, and diabetics not controlling their blood sugar.

- Between 2011 and 2012, HMOs had statistically significant improvement for 5 of the 23 measures shown in Chart 4-6, with 3 measures showing a statistically significant decline in the 2-year time period. Of the five improved measures, four are HEDIS hybrid measures, which involve documentation from a review of a sample of medical records. The three measures that declined are collected through a HOS member survey, including measures tracking members' improvement or decline in mental and physical health.

- For local PPOs, nine measures showed statistically significant improvement. Seven of them were HEDIS hybrid measures, which involve documentation from a review of a sample of medical records. PPOs were not allowed to use medical record documentation until 2010. Thus, the observed improvement in local PPOs' performance may reflect their improved ability to report on these types of measures (see discussion in March 2013 Report to the Congress, chapter 13). Local PPOs also improved in two patient experience measures: members' overall rating of health care quality in the plan and overall rating of the plan.

- For five of the nine HEDIS hybrid measures, HMOs continue to perform better than local PPOs. Differences between HMOs and local PPOs for the other four HEDIS hybrid measures are not statistically significant. HMOs also perform better than local PPOs on three other measures (breast cancer screening; osteoporosis management in women who have had a fracture; and reducing the risk of falling among members with a problem falling, walking, or maintaining balance). Local PPOs performed better on a measure of rheumatoid arthritis management (members receiving an ambulatory prescription for a disease-modifying anti-rheumatic drug).

- As of 2011, HEDIS includes a measure of hospital readmissions (all-cause readmissions within 30 days of a hospital admission). As a new measure in the star rating system in 2011, it had a weight of 1.0, and CMS increased the weight to 3.0 in the 2012 star ratings. For this measure, HMOs and local PPOs had readmission rates below expected rates, and there was little difference in results between 2011 and 2012 for either HMOs or local PPOs. (For details, see Table 13-8 of the March 2013 Report to the Congress.)

Web links. Quality of care in the Medicare program

- Chapters 3, 4, 6, and 8 through 11 of the Commission's March 2013 Report to the Congress include information on the quality of care provided under fee-for-service Medicare by inpatient hospitals, physicians and other ambulatory care providers, outpatient dialysis facilities, skilled nursing facilities, home health agencies, inpatient rehabilitation facilities, and long-term care hospitals.

  http://medpac.gov/chapters/Mar13_Ch03.pdf
  http://medpac.gov/chapters/Mar13_Ch04.pdf
  http://medpac.gov/chapters/Mar13_Ch06.pdf
  http://medpac.gov/chapters/Mar13_Ch08.pdf
  http://medpac.gov/chapters/Mar13_Ch09.pdf
  http://medpac.gov/chapters/Mar13_Ch10.pdf
  http://medpac.gov/chapters/Mar13_Ch11.pdf

- Chapter 13 of the Commission's March 2013 Report to the Congress includes information on the quality of care in Medicare Advantage plans.

  http://medpac.gov/chapters/Mar13_Ch13.pdf

- Chapter 15 of the Commission's March 2013 Report to the Congress includes information on quality and other performance measures for Medicare Part D plans (stand-alone Prescription Drug Plans and Medicare Advantage–Prescription Drug plans).

  http://medpac.gov/chapters/Mar13_Ch15.pdf

- Chapter 6 of the Commission's 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://medpac.gov/chapters/Mar10_Ch06.pdf

- Chapter 2D of the Commission's March 2008 Report to the Congress includes a recommendation on improving quality measurement for skilled nursing facilities.

  http://medpac.gov/chapters/Mar08_Ch02d.pdf

- Chapter 4 of the Commission's June 2007 Report to the Congress discusses policy options to improve the quality of home health services, and Chapter 8 of the same report discusses improvements in measuring the quality of care provided by skilled nursing facilities.

  http://medpac.gov/chapters/Jun07_Ch04.pdf
  http://medpac.gov/chapters/Jun07_Ch08.pdf

- The CMS website provides general information on several of the Medicare program's quality and value-based purchasing initiatives, with links to more detailed information.

  http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/QualityInitiativesGenInfo/index.html

- Medicare provides public comparative information on selected quality measures for hospital, nursing home, home health agency, and dialysis facilities on its consumer-oriented "Medicare.gov" website.

  Hospital Compare: http://www.medicare.gov/hospitalcompare/
  Nursing Home Compare: http://www.medicare.gov/NHCompare/Home.asp
  Home Health Compare: http://www.medicare.gov/homehealthcompare/
  Dialysis Facility Compare: http://www.medicare.gov/dialysisfacilitycompare/

- 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

- A list of the physicians and other health care professionals who participated in Medicare's Physician Quality Reporting System and reported quality measure information satisfactorily for the year 2010 is available on the Medicare.gov website.

  http://www.medicare.gov/find-a-doctor/staticpages/data/pqrs/physician-quality-reporting-system.aspx

- Results for Medicare Advantage plan quality measures are available through a Medicare Plan Finder tool on the Medicare consumer website. The tool allows users to make plan-to-plan comparisons within a specified geographic area as well as comparisons with Medicare fee-for-service results on certain measures.

  https://www.medicare.gov/find-a-plan/questions/home.aspx

- CMS makes available a downloadable database of the results for Medicare Advantage plan quality measures underlying the Medicare Plan Finder and star ratings.

  http://www.medicare.gov/download/downloaddb.asp (select "Plan Ratings Data" from the drop-down menu)

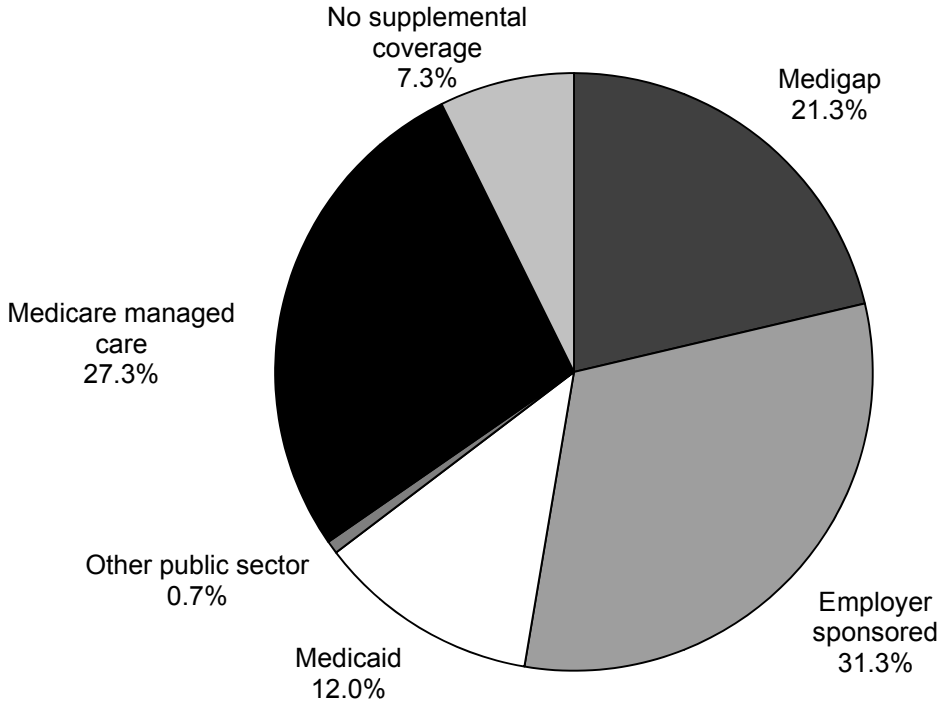
- Current and past editions of the National Committee for Quality Assurance (NCQA) publication *The State of Health Care Quality Report*, which presents trends in quality measures for health plans with Medicare, Medicaid, and commercial membership, are available from the NCQA website.

  http://www.ncqa.org/ReportCards/HealthPlans/StateofHealthCareQuality.aspx

SECTION 5

Medicare beneficiary and other payer financial liability

Chart 5-1. Sources of supplemental coverage among noninstitutionalized Medicare beneficiaries, 2009



Note: Beneficiaries are assigned to the supplemental coverage category that applied for the most time in 2009. They could have had coverage in other categories during 2009. "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 2009 or who had Medicare as a second payer.

Source: MedPAC analysis of Medicare Current Beneficiary Survey, Cost and Use file, 2009.

- Most beneficiaries living in the community have coverage that supplements or replaces the Medicare benefit package. In 2009, about 93 percent of beneficiaries had supplemental coverage or participated in Medicare managed care.
- About 53 percent of beneficiaries had private-sector supplemental coverage such as medigap (about 21 percent) or employer-sponsored retiree coverage (about 31 percent).
- About 13 percent of beneficiaries had public-sector supplemental coverage, primarily Medicaid.
- Twenty-seven percent of beneficiaries participated in Medicare managed care. This care includes Medicare Advantage, cost, and health care prepayment plans. These types of arrangements generally replace Medicare's fee-for-service coverage and often add to it.

Chart 5-2. Sources of supplemental coverage among noninstitutionalized Medicare beneficiaries, by beneficiaries' characteristics, 2009

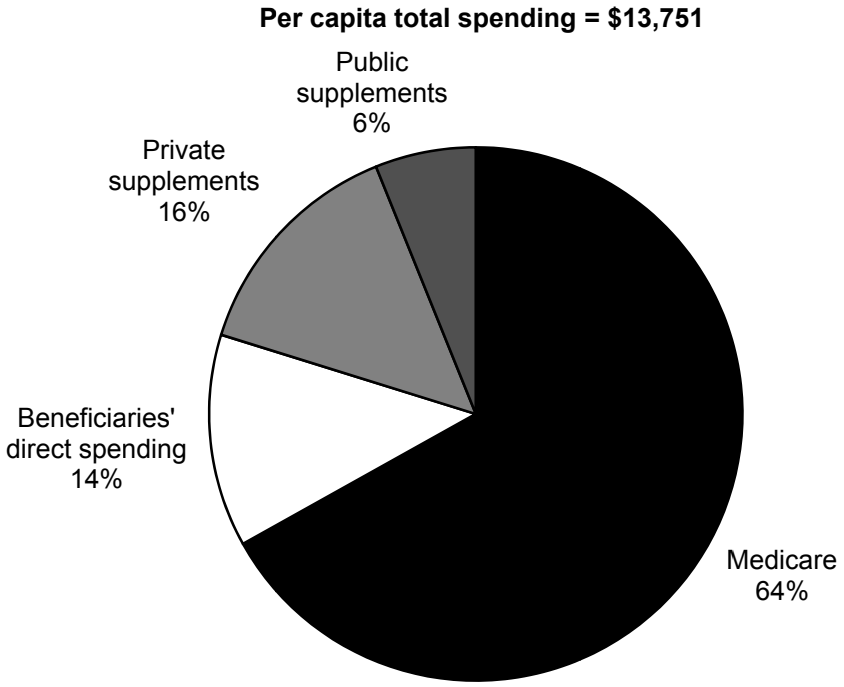
	Number of beneficiaries (thousands)	Employer-sponsored insurance	Medigap insurance	Medicaid	Medicare managed care	Other public sector	Medicare only
All beneficiaries	**40,197**	**31%**	**21%**	**12%**	**27%**	**1%**	**7%**
Age							
<65	6,047	15	4	41	21	2	17
65–69	9,260	37	20	8	27	0	8
70–74	8,142	32	24	7	31	1	5
75–79	6,512	32	25	7	31	1	4
80–84	5,281	34	26	6	29	1	4
85+	4,954	35	29	7	24	0	4
Income category							
<$10,000	5,760	11	12	43	27	1	7
$10,000–$19,999	12,455	20	19	17	31	1	11
$20,000–$29,999	8,329	37	24	2	30	1	7
$30,000–$39,999	6,000	46	24	1	24	0	5
$40,000–$59,999	4,210	47	27	0	22	0	4
$60,000–$79,999	2,095	52	25	0	21	0	2
≥$80,000	1,348	51	28	1	18	0	2
Eligibility status							
Aged	33,905	34	24	7	29	1	6
Disabled	5,848	15	4	40	21	2	17
ESRD	398	17	24	43	9	1	6
Residence							
Urban	30,639	31	20	11	31	1	6
Rural	9,546	31	27	16	14	1	11
Sex							
Male	17,970	33	19	12	26	1	9
Female	22,227	30	23	12	28	1	6
Health status							
Excellent/very good	17,118	36	25	5	27	0	5
Good/fair	19,896	29	19	15	29	1	8
Poor	2,859	19	14	32	22	2	12

Note: ESRD (end-stage renal disease). Beneficiaries are assigned to the supplemental coverage category that applied for the most time in 2009. They could have had coverage in other categories during 2009. 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. Married people have joint income reported on the data file. We divided their income by 1.26 to create an equal measure with unmarried people. "Urban" indicates beneficiaries living in metropolitan statistical areas (MSAs). "Rural" indicates beneficiaries living outside MSAs. Analysis includes beneficiaries living in the community. It excludes beneficiaries who were not in both Part A and Part B throughout their enrollment in 2009 or who had Medicare as a secondary payer. Number of beneficiaries differs among boldface categories because we excluded beneficiaries with missing values. Numbers may not sum due to rounding.

Source: MedPAC analysis of 2009 Medicare Current Beneficiary Survey, Cost and Use file.

- Beneficiaries most likely to have employer-sponsored supplemental coverage are those who are above age 64, have income over $20,000, are eligible due to age, and report better than poor health.
- Medigap is most common among those who are age 70 or older, have income over $20,000, are eligible due to age or ESRD, are rural dwelling, are female, and report excellent or very good health.
- Medicaid coverage is most common among those who are under age 65, have income below $20,000, are eligible due to disability or ESRD, are rural dwelling, and report poor health.
- Lack of supplemental coverage (Medicare coverage only) is most common among beneficiaries who are under age 65, have income below $30,000, are eligible due to disability, are rural dwelling, are male, and report poor health.

Chart 5-3. Total spending on health care services for noninstitutionalized FFS Medicare beneficiaries, by source of payment, 2009



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, 2009.

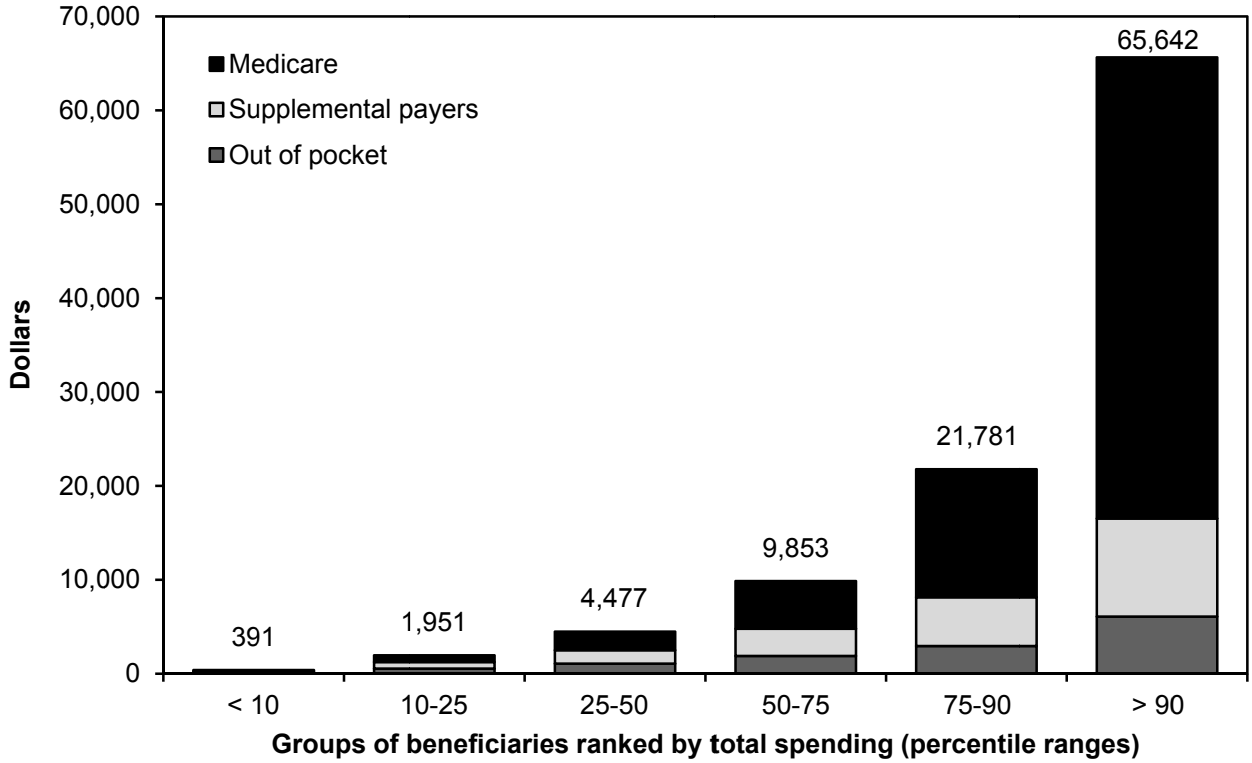
- Among FFS beneficiaries living in the community, the total cost of health care services (defined as beneficiaries' direct spending as well as expenditures by Medicare, other public-sector sources, and all private-sector sources on all health care goods and services) averaged $13,751 in 2009. Medicare is the largest source of payment; it pays 64 percent of the health care costs for FFS beneficiaries living in the community, an average of $8,845 per beneficiary. The level of Medicare spending in this chart differs from the level in Chart 2-1 because this chart excludes beneficiaries in Medicare Advantage and those living in institutions, while Chart 2-1 represents all Medicare beneficiaries.

- Private sources of supplemental coverage—primarily employer-sponsored retiree coverage and medigap—paid 16 percent of beneficiaries' costs, an average of $2,259 per beneficiary.

- Beneficiaries paid 14 percent of their health care costs out of pocket, an average of $1,877 per beneficiary.

- Public sources of supplemental coverage—primarily Medicaid—paid 6 percent of beneficiaries' health care costs, an average of $769 per beneficiary.

Chart 5-4. Per capita total spending on health care services among noninstitutionalized FFS beneficiaries, by source of payment, 2009



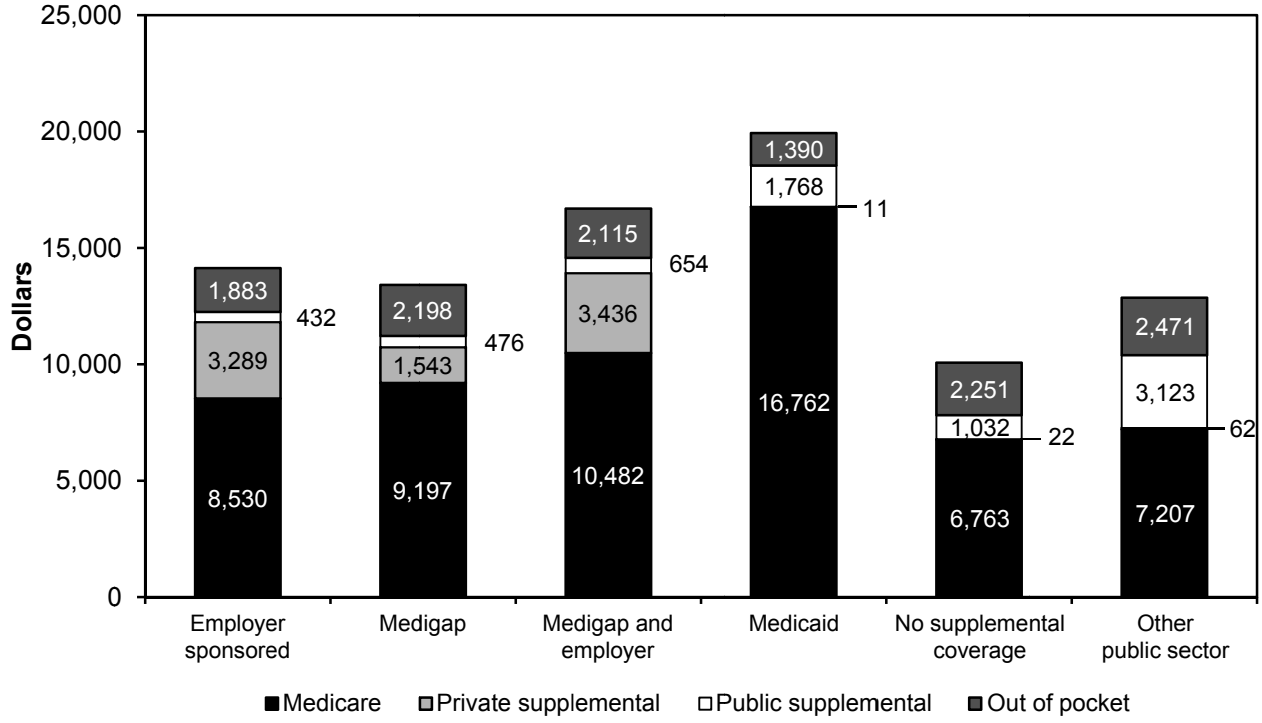
Note: FFS (fee-for-service). Analysis excludes those who are not in FFS Medicare and those living in institutions such as nursing homes. Out-of-pocket spending includes Medicare cost sharing and noncovered services.

Source: MedPAC analysis of Medicare Current Beneficiary Survey, Cost and Use file, 2009.

- Total spending on health care services varies dramatically among FFS beneficiaries living in the community. Per capita spending for the 10 percent of beneficiaries with the highest total spending averaged $65,642 in 2009. Per capita spending for the 10 percent of beneficiaries with the lowest total spending averaged $391.

- 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 64 percent of total spending for all beneficiaries but pays 75 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 5-5. Variation in and composition of total spending among noninstitutionalized FFS beneficiaries, by type of supplemental coverage, 2009



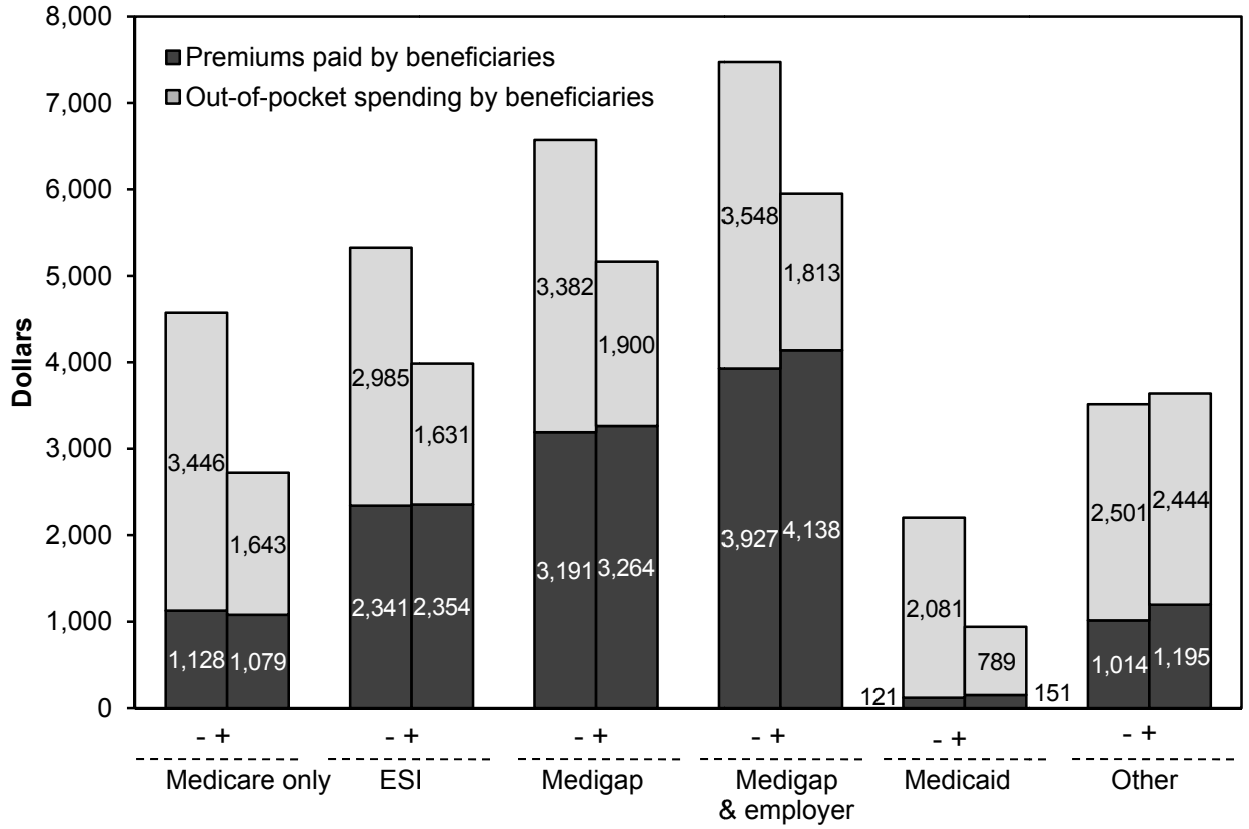
Note: FFS (fee-for-service). Beneficiaries are assigned to the supplemental coverage category that applied for the most time in 2009. They could have had coverage in other categories during 2009. "Other public sector" includes federal and state programs not included in the other categories. "Private supplemental" includes employer-sponsored plans and individually purchased coverage. "Public supplemental" includes Medicaid, Department of Veterans Affairs, and other public coverage. Analysis excludes beneficiaries who are not in FFS Medicare or live in institutions such as nursing homes. It excludes beneficiaries who were not in both Part A and Part B throughout their enrollment in 2009 or had Medicare as a second payer. Out-of-pocket spending includes Medicare cost sharing and noncovered services but not supplemental premiums.

Source: MedPAC analysis of Medicare Current Beneficiary Survey, Cost and Use file, 2009.

- 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 FFS 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—98 percent higher than those with no supplemental coverage in 2009.

- 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 employer-sponsored, medigap plus employer, Medicaid, and other public coverage, supplemental coverage—public and private combined—is the second largest source of payment. Among those who have only medigap, supplemental coverage and out of pocket are about equal. Among those who have Medicare-only coverage, beneficiaries' out-of-pocket spending is the second largest source of payment.

Chart 5-6. Out-of-pocket spending for premiums and health services per beneficiary, by insurance and health status, 2009



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

Note: ESI (employer-sponsored supplemental insurance).

Source: MedPAC analysis of Medicare Current Beneficiary Survey, Cost and Use file, 2009.

- 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 averaged $1,128 in out-of-pocket spending on premiums and $3,446 on services in 2009. Those who have Medicare-only coverage and report good, very good, or excellent health averaged $1,079 in out-of-pocket spending on premiums and $1,643 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 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 result 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 medigap but may pay more in Medicare deductibles and cost sharing.

Web links. Medicare beneficiary and other payer financial liability

- Chapter 1 of the MedPAC March 2013 Report to the Congress provides more information on Medicare program spending.

  http://www.medpac.gov/chapters/Mar13_ch01.pdf

- Chapter 1 of the MedPAC March 2012 Report to the Congress provides more information on Medicare program spending.

  http://www.medpac.gov/chapters/Mar12_ch01.pdf

- Chapter 1 of the MedPAC March 2011 Report to the Congress provides more information on Medicare program spending.

  http://www.medpac.gov/chapters/Mar11_ch01.pdf

- Chapter 1 of the MedPAC June 2012 Report to the Congress discusses benefit design in fee-for-service Medicare.

  http://www.medpac.gov/chapters/Jun12_ch01.pdf

- Chapter 3 of the MedPAC June 2011 Report to the Congress discusses beneficiaries' supplemental coverage, cost sharing, and health care use as well as program spending.

  http://www.medpac.gov/chapters/Jun11_ch03.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

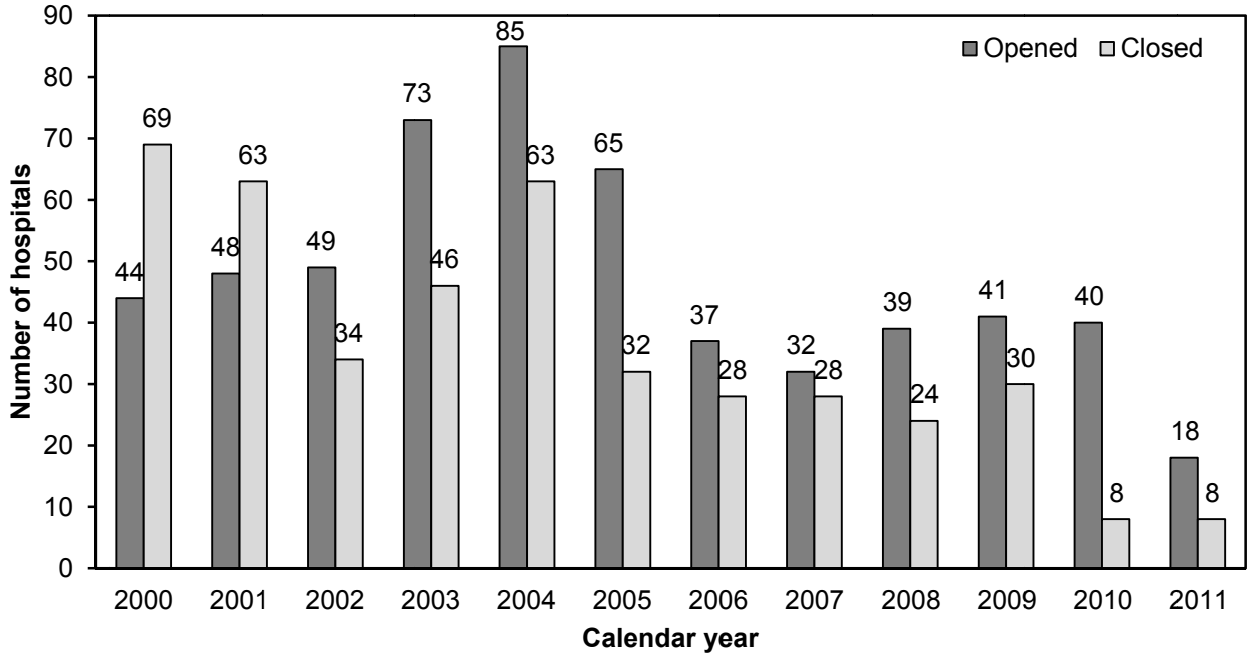
  http://www.medpac.gov/publications/congressional_reports/Jun2_Ch1.pdf

SECTION 6

Acute inpatient services

Short-term hospitals
Inpatient psychiatric facilities

Chart 6-1. Annual changes in number of acute care hospitals participating in the Medicare program, 2000–2011



Note: "Hospitals" refer to general short-term acute care hospitals. The Commission's reported number of open and closed hospitals can change from year to year based on hospitals that enter Medicare as an acute care facility and later convert to a more specialized type of facility, such as a long-term care hospital or critical access hospital.

Source: MedPAC analysis of CMS's Provider of Service file, inpatient prospective payment system final rule impact file, and hospital cost reports

- The number of hospital openings exceeded the number of closures for the 10th consecutive year. In 2011, 18 acute care hospitals began participating in the Medicare program and 8 terminated their participation.
- In 2011, 4,807 acute care hospitals (including critical access hospitals) participated in Medicare.

Chart 6-2. Percent change in hospital employment, by occupation, 2008–2011

	Total U.S. employment (May 2008)	Total U.S. employment (May 2011)	Percent change in total employment (2008–2011)
All hospital occupations	5,096,190	5,193,650	1.9%
Internists (direct employment only)	8,100	9,510	17.4
Life, physical, and social science (science)	25,550	29,110	13.9
Computer and math science	52,180	59,390	13.8
Diagnostic sonographers	28,930	32,900	13.7
Surgeons (direct employment only)	5,730	6,510	13.6
Physician assistants	16,820	18,780	11.7
Management	175,390	192,040	9.5
Business and finance	92,160	99,080	7.5
Pharmacists	55,530	59,640	7.4
Registered nurses	1,458,520	1,556,930	6.8
Radiation technologists	125,640	131,400	4.6
HC clinicians and technical	2,712,350	2,828,590	4.3
Community and social services (social work)	103,380	95,910	–7.2
LPNs/LVNs	163,360	136,190	–16.6

Note: LPN (licensed practical nurse), LVN (licensed vocational nurse), HC (Health care)

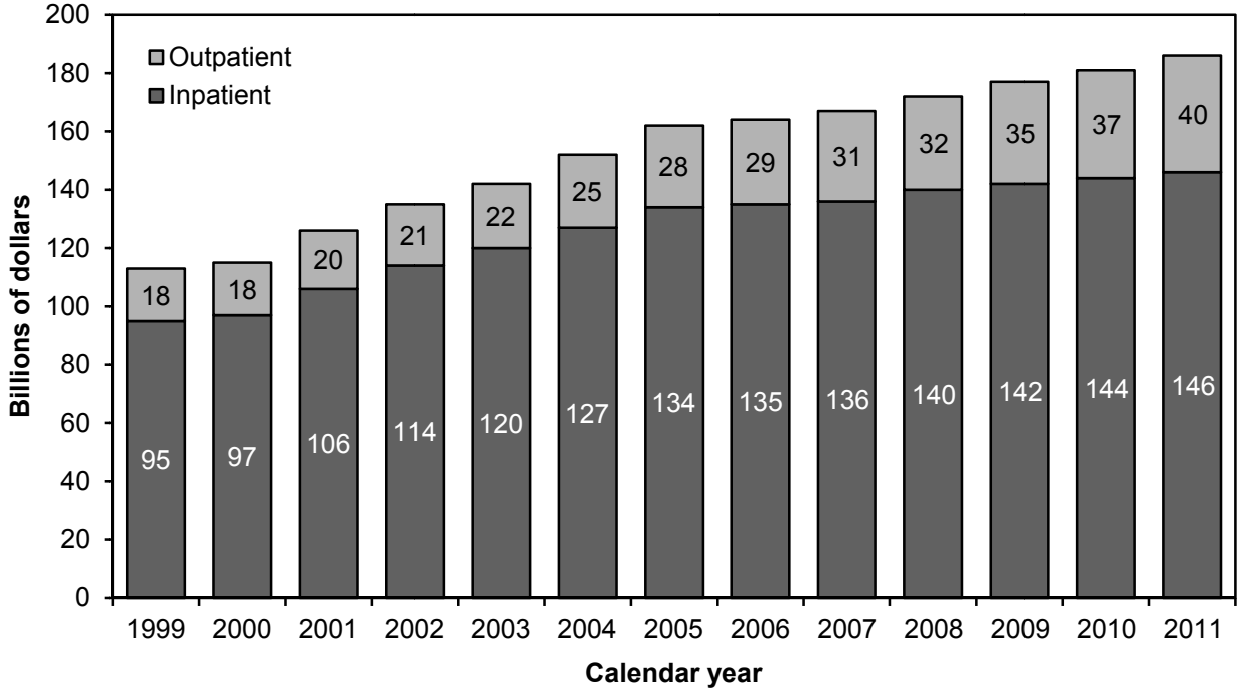
Source: MedPAC analysis of Bureau of Labor Statistics, Occupational Employment Statistics data set as of September 2012.

- From May 2008 to May 2011, hospital employment increased 1.9 percent. By the end of this period, the hospital sector employed nearly 5.2 million individuals.

- Six occupations with notable growth within the hospital sector from 2008 to 2011 include: internists directly employed by the hospitals (17.4 percent); life, physical, and social science positions (13.9 percent); computer and math science positions (13.8 percent); diagnostic sonographers (13.7 percent); surgeons employed directly by the hospital (13.6 percent); and physician assistants (11.7 percent). Growth in the two physician groups suggests that hospitals have been more active in recent years in hiring physicians directly. Growth in computer and math science positions, in particular, may reflect hospitals' efforts at implementing electronic health record systems.

  LPNs and LVNs, as well as community and social service positions (social workers), were among the few occupations to experience a decline in the number of individuals employed by hospitals from 2008 to 2011, declining by 16.6 percent and 7.2 percent, respectively. With regard to LPNs and LVNs, during the same time period, the number of registered nurses employed by hospitals increased 6.8 percent (98,410 registered nurses), suggesting a continued shift toward employing nurses with a higher level of training.

Chart 6-3. Growth in Medicare's FFS payments for hospital inpatient and outpatient services, 1999–2011



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 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 $146 billion and outpatient spending was $40 billion in 2011. From 2010 to 2011, inpatient spending increased about 1 percent, while outpatient spending increased about 9 percent.

- A freeze in inpatient payment rates in the Balanced Budget Act of 1997 reduced growth in inpatient spending from 1999 to 2000. Spending increased substantially between 2001 and 2005 but remained relatively unchanged from 2005 to 2007, in part because traditional FFS Medicare enrollment declined in each of these three years due to a large number of beneficiaries switching to the Medicare Advantage program. Payment growth began to increase in 2008 for inpatient and particularly outpatient services.

- Outpatient spending has increased as a share of total hospital-based spending in the past 12 years. In 1999, outpatient spending accounted for almost 16 percent of all hospital spending; in 2011, outpatient spending grew to approximately 22 percent of total hospital spending.

- Outpatient spending per FFS beneficiary was about $1,242 in 2011, up from approximately $590 in 1999, an increase of 110.5 percent.

Chart 6-4. Proportion of Medicare acute care hospital inpatient discharges by hospital group, 2011

Hospital group	Hospitals		Medicare discharges	
	Number	Share of total	Number (thousands)	Share of total
All PPS hospitals and CAHs	4,641	100.0%	10,685	100.0%
CAHs	1,307	28.2	386	3.6
PPS hospitals	3,334	71.8	10,300	96.4
Urban (PPS hospitals)	2,414	72.4	8,916	86.6
Large urban	1,321	39.6	4,908	47.6
Other urban	1,093	32.8	4,008	38.9
Rural (PPS hospitals)	920	27.6	1,384	13.4
Rural referral	123	3.7	378	3.7
Sole community	384	11.5	574	5.6
Medicare dependent	194	5.8	199	1.9
Other rural <50 beds	92	2.8	47	0.4
Other rural ≥50 beds	127	3.8	186	1.8
Tax status (PPS hospitals)				
Voluntary	1,941	58.2	7,331	71.1
Proprietary	825	24.7	1,645	16.0
Government	568	17.0	1,323	12.8
Teaching status (PPS hospitals)				
Major teaching	267	8.0	1,593	15.5
Other teaching	747	22.4	3,716	36.1
Nonteaching	2,320	69.6	4,991	48.5

Note: PPS (prospective payment system), CAH (critical access hospital). 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 below 0.25. Data are limited to providers with complete 2011 cost reports in the CMS database. See Chart 6-27 for more information about CAHs. Hospitals in urban, rural, tax status, and teaching status categories are all PPS hospitals. Numbers may not sum to totals due to rounding.

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

- In 2011, 3,334 hospitals provided 10.3 million discharges under Medicare's acute inpatient PPS and 1,307 CAHs provided about 400,000 discharges. The number of PPS discharges continued to decline from 2010 to 2011, primarily due to a shift in services from the inpatient to the outpatient setting.
- Approximately 21 percent of PPS hospitals are covered by three special payment provisions (rural referral centers (RRCs), sole community hospitals (SCHs), and small rural Medicare-dependent hospitals (MDHs)) intended to help rural facilities that are not CAHs; these facilities account for about 11 percent of all discharges (not shown in chart).
- About 90 percent of rural hospitals were CAHs, SCHs, MDHs, or RRCs in 2011. Collectively, these four types of hospitals provide 87 percent of all rural discharges (not shown in chart).

Chart 6-5. Major diagnostic categories with highest volume, fiscal year 2011

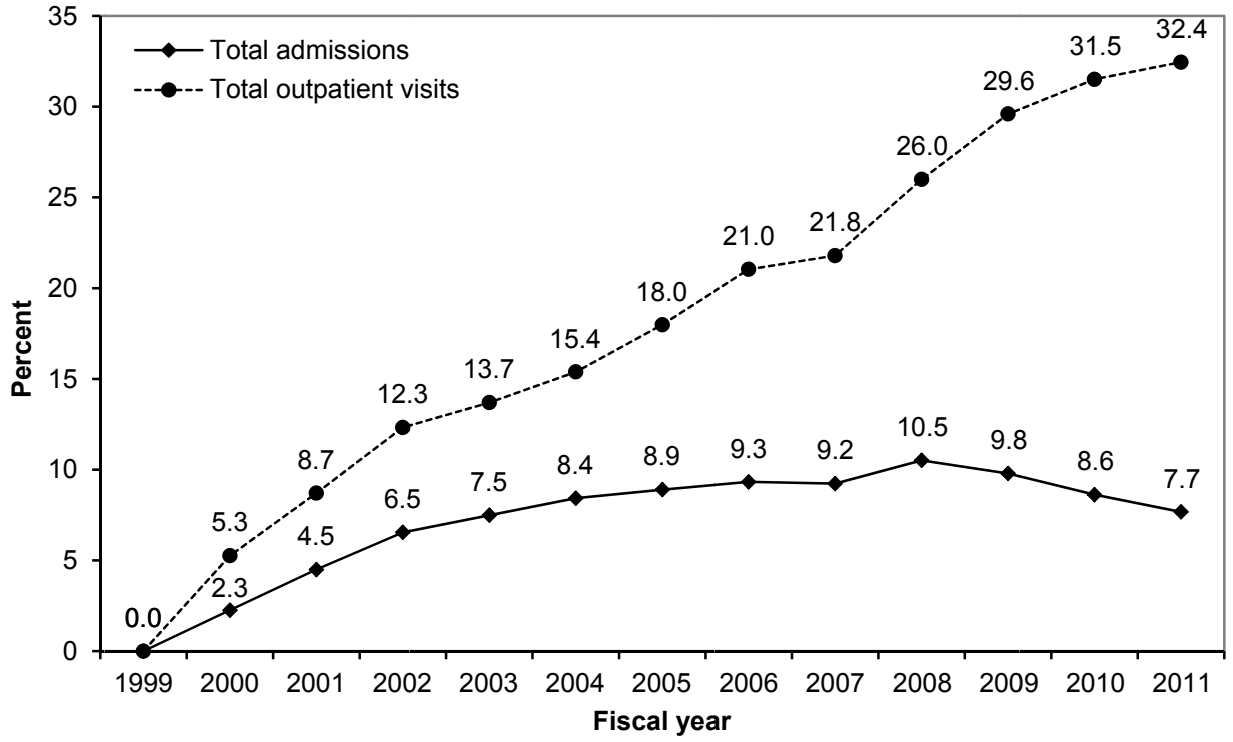
MDC number	MDC name	Share of all discharges	Share of medical discharges	Share of surgical discharges
5	Circulatory system	22%	21%	25%
4	Respiratory system	15	19	3
8	Musculoskeletal system and connective tissue	12	4	36
6	Digestive system	11	11	10
1	Nervous system	8	9	5
11	Kidney and urinary tract	7	9	4
18	Infectious and parasitic diseases	6	7	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	91	90	93

Note: MDC (major diagnostic category). Numbers may not sum to totals due to rounding.

Source: MedPAC analysis of MedPAR data from CMS.

- In fiscal year 2011, 10 major diagnostic categories accounted for 91 percent of all discharges at hospitals paid under the acute inpatient prospective payment system.
- Circulatory system cases accounted for about one-quarter of surgical cases.
- Respiratory system cases accounted for 19 percent of medical discharges.
- Musculoskeletal system cases accounted for 36 percent of surgical discharges.

Chart 6-6. Cumulative change in total all-payer admissions and total outpatient visits, 1999–2011

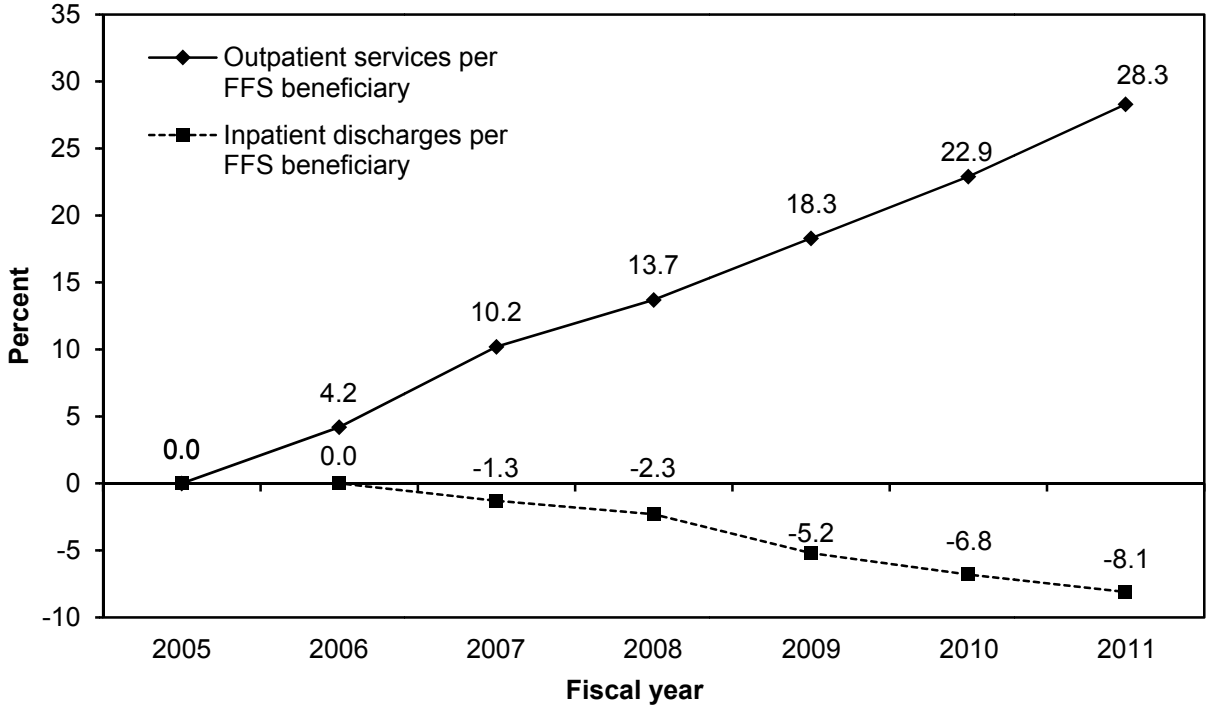


Note: Cumulative change is the total percent increase from 1999 through 2011. Data are admissions (all payers) to and outpatient visits at about 5,000 community hospitals.

Source: American Hospital Association, AHA Hospital Statistics.

- Hospital outpatient service use grew much more rapidly from 1999 to 2011 than inpatient service use. Total hospital outpatient visits increased about 32 percent from 1999 to 2011.
- Outpatient visits increased by nearly 1 percentage point from 2010 to 2011, or nearly 5 million visits.
- Total inpatient admissions grew by over 10 percent between 1999 and 2008 but have declined since 2008. Inpatient admissions decreased by nearly 1 percentage point from 2010 to 2011, or over 300,000 admissions.
- In 2011, community hospitals provided 656 million outpatient visits and slightly fewer than 35 million inpatient admissions.

Chart 6-7. Cumulative change in Medicare outpatient services and inpatient discharges per FFS beneficiary, 2005–2011

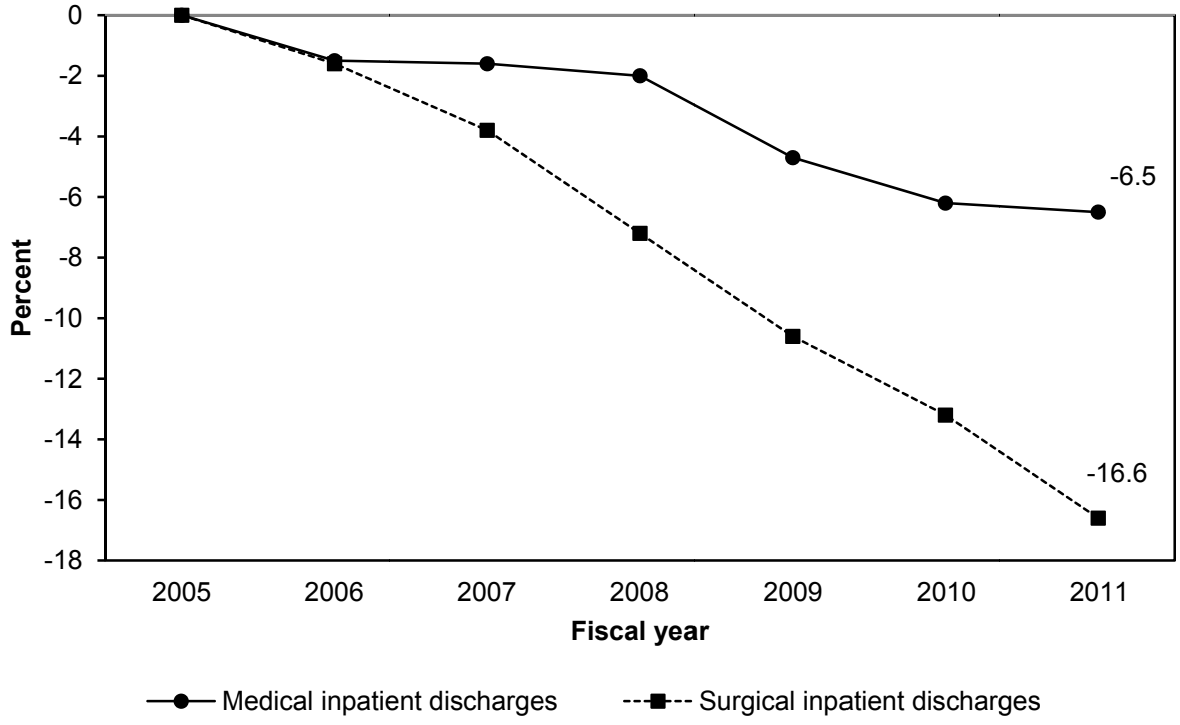


Note: FFS (fee-for-service). Data are for short-term general and surgical hospitals, including critical access and children's hospitals.

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

- From 2005 to 2011, the number of Medicare inpatient discharges per FFS beneficiary declined by 8.1 percent. From 2005 to 2006, inpatient volume per beneficiary was relatively flat, but, beginning in 2007, the volume of discharges began to decline.
- From 2005 to 2011, the number of outpatient services per FFS beneficiary increased 28 percent.
- Together these two trends suggest a shift in services from the inpatient to the outpatient setting.

Chart 6-8. Cumulative change in Medicare inpatient medical and surgical discharges per FFS beneficiary, 2005–2011

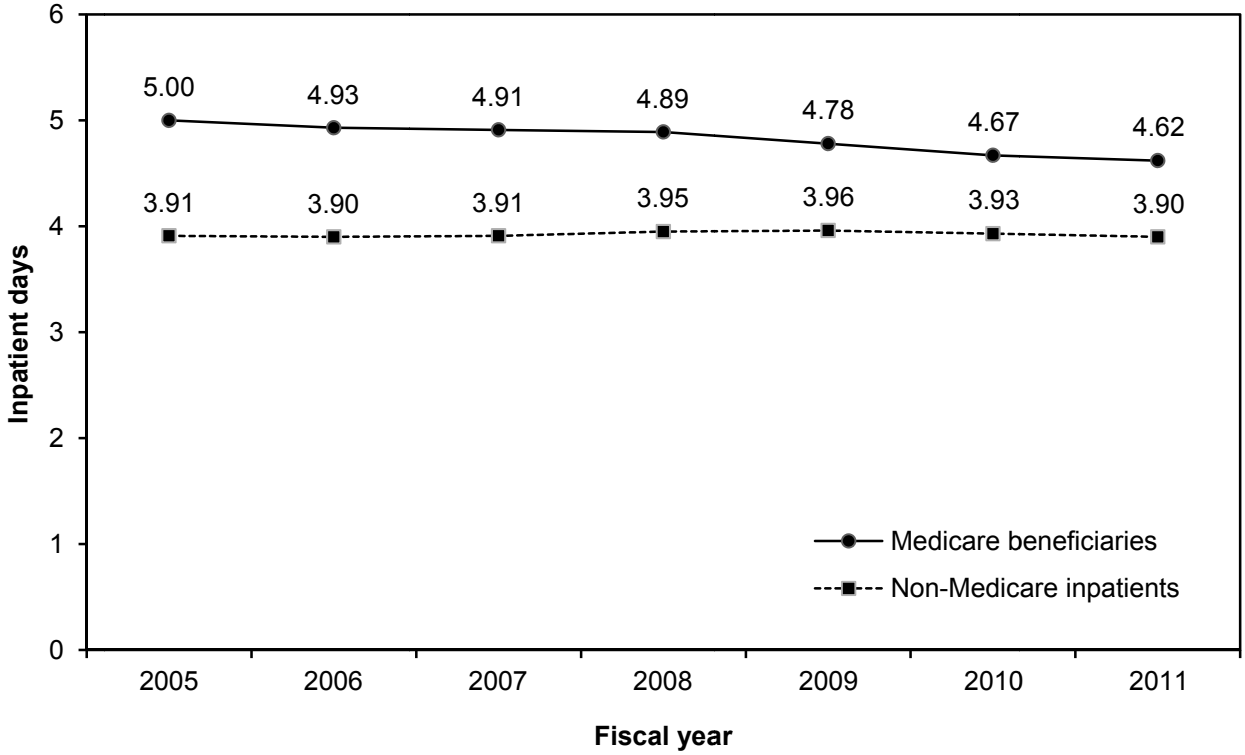


Note: FFS (fee-for-service). Data are for short-term general and surgical hospitals, including critical access and children's hospitals.

Source: MedPAC analysis of MedPAR data from CMS.

- In recent years, inpatient surgical discharges shifted away from the inpatient setting more rapidly than medical discharges. From 2010 to 2011, surgical discharges per beneficiary declined 3.8 percent, compared with a decline in medical discharges of less than 0.5 percent per beneficiary.
- From 2005 to 2011, inpatient surgical discharges per beneficiary declined approximately 17 percent, or an average of 3 percent per year. Over the same time period inpatient medical discharges per beneficiary declined approximately 7 percent, or an average of 1 percent per year.

Chart 6-9. Trends in Medicare inpatient and non-Medicare inpatient length of stay, 2005–2011

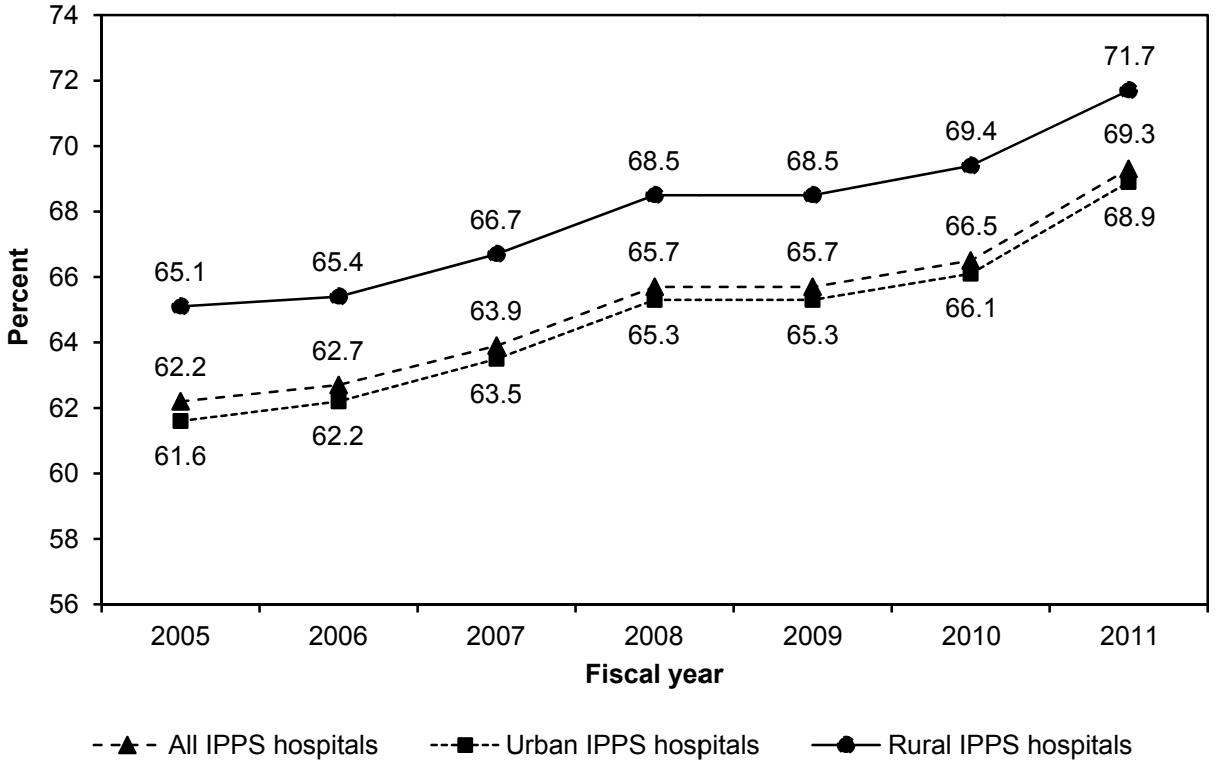


Note: Length of stay is calculated from discharges and patient days for more than 3,000 hospitals covered by the acute inpatient prospective payment system. Chart excludes critical access hospitals.

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

- Average length of inpatient stay for Medicare beneficiaries was nearly 1 day longer than for non-Medicare inpatients in 2011.
- Average length of inpatient stay for Medicare beneficiaries fell nearly 8 percent, from 5.00 days in 2005 to 4.62 days in 2011. Medicare length of stay declined at an average annual rate of approximately 1.1 percent during this period.
- Average length of stay for all non-Medicare inpatients remained nearly unchanged at 3.9 days between 2005 and 2011.

Chart 6-10. Share of inpatient admissions preceded by emergency department visit by location, 2005–2011



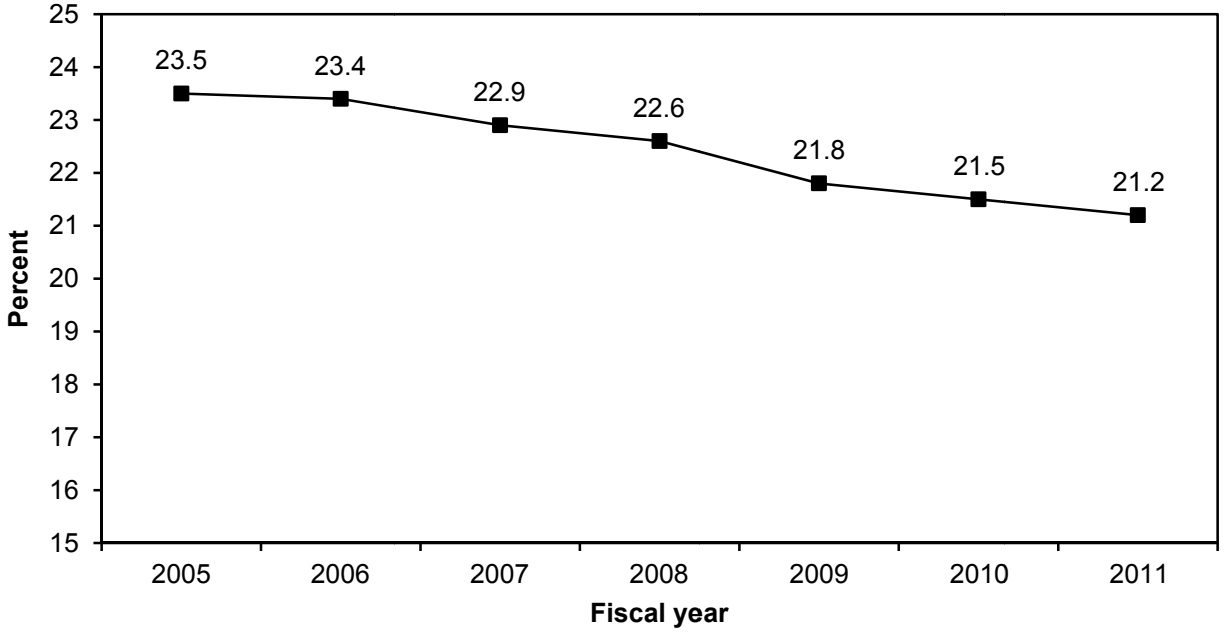
Note: IPPS (inpatient prospective payment system).

Source: MedPAC analysis of MedPAR data from CMS.

- Across all IPPS hospitals, the share of inpatient admissions preceded by an emergency department visit increased from 62 percent to 69 percent from 2005 to 2011, an increase of approximately 7 percentage points. The 3 percentage point increase in the share of inpatient admissions preceded by an emergency department visit between 2010 and 2011 was the result of an increase of 280,000 inpatient admissions preceded by an emergency department visit and a decrease of 40,000 inpatient admissions overall.

- The share of inpatient admissions preceded by an emergency department visit is consistently higher for rural hospitals than for urban hospitals. In 2011, approximately 72 percent of inpatient admissions provided at rural hospitals were preceded by an emergency department visit. By contrast, approximately 69 percent of inpatient admissions provided at urban hospitals were preceded by an emergency department visit. The share of inpatient admissions preceded by an emergency department visit increased 7 percentage points for both rural and urban hospitals.

Chart 6-11. Share of Medicare Part A beneficiaries with at least one hospitalization, 2005–2011



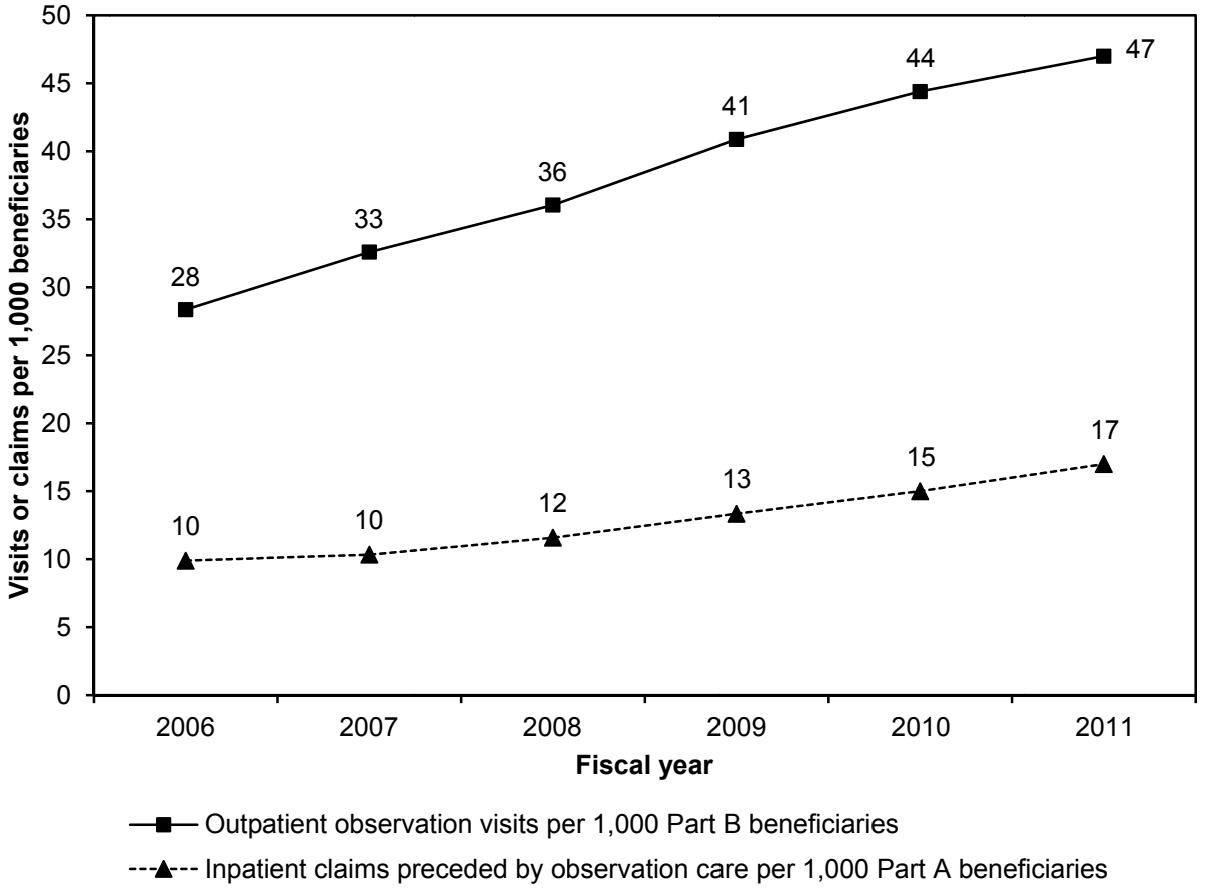
Note: Analysis excludes Medicare Advantage claims and claims for non–inpatient prospective payment system hospitals, such as critical access hospitals and hospitals located in Maryland.

Source: MedPAC analysis of MedPAR data from CMS.

- The share of Medicare beneficiaries with Part A coverage who had at least one inpatient hospitalization in a given year declined by over 2 percentage points from 2005 to 2011. In 2011, 21.2 percent of Medicare beneficiaries had at least one inpatient stay covered under Part A.

- A portion of the decline in beneficiaries' utilization of inpatient services could reflect the increase in the number of cases in which beneficiaries are served in outpatient observation status.

Chart 6-12. Number of Medicare outpatient observation visits and inpatient claims preceded by observation care per 1,000 beneficiaries increased from 2006 to 2011

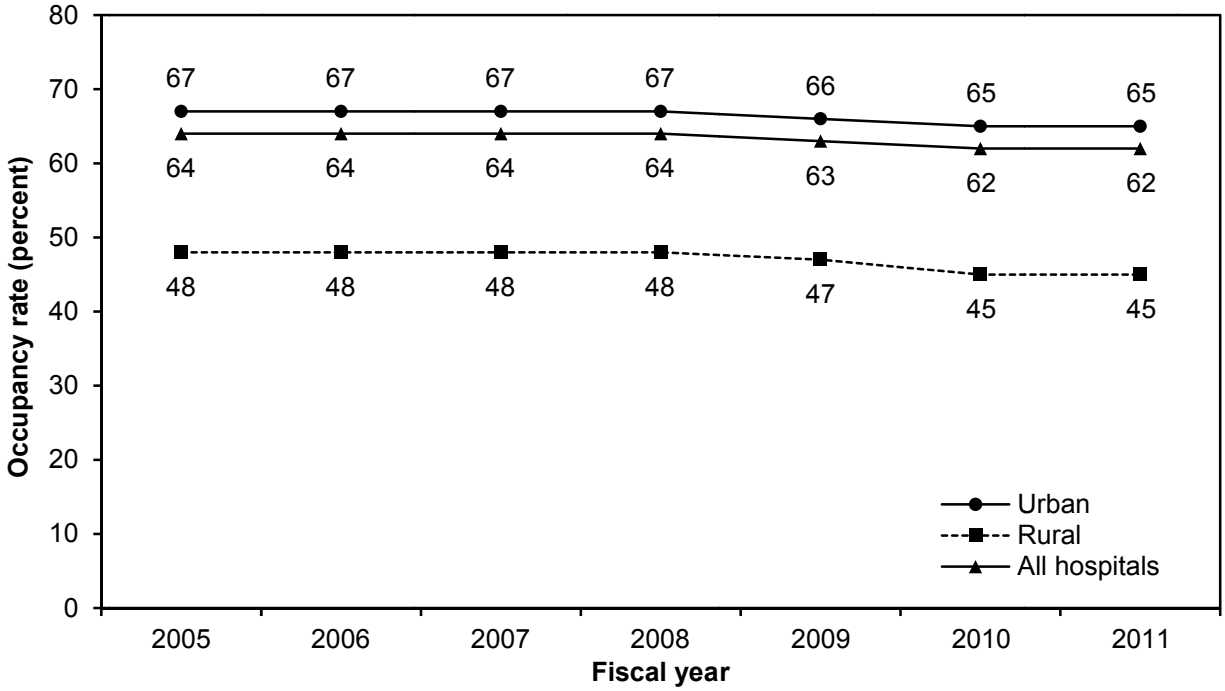


Source: Medicare hospital cost reports and Medicare outpatient claims data.

- The number of Medicare outpatient observation visits increased nearly 68 percent from 2006 to 2011. During this time period, the rate of outpatient observation visits per Part B beneficiary increased from approximately 28 visits per 1,000 beneficiaries to 47 visits per 1,000 beneficiaries.

- The number of Medicare inpatient admissions preceded by observation care increased nearly 70 percent from 2006 to 2011, jumping from 10 inpatient observation cases per 1,000 Part A beneficiaries to 17 inpatient observation cases per beneficiary.

Chart 6-13. Hospital occupancy rates, 2005–2011



Note: Hospital occupancy rates were defined as total bed days used (including swing bed days used) and observation bed days used, minus nursery bed days used, over total bed days available. A consistent cohort of approximately 3,300 prospective payment system and critical access hospitals was used in this analysis.

Source: MedPAC analysis of Medicare's Hospital Cost Reports.

- In the aggregate, hospital occupancy rates have been relatively stable over the past decade but have edged down slightly in more recent years. In 2011, occupancy rates were 62 percent across all hospitals, their lowest level in the past 7 years.
- Occupancy rates are generally higher for urban than for rural hospitals. In 2011, occupancy rates stood at 65 percent for urban hospitals and 45 percent for rural hospitals.
- Occupancy rates vary across markets and within markets. For example, the average occupancy rate for hospitals in Seattle, WA, was 69 percent in 2011, compared with an average occupancy rate of 50 percent for hospitals in Charleston, WV. In addition, individual hospital occupancy rates vary from 30 percent to 80 percent in Denver, CO, and from 30 percent to over 90 percent in Boston, MA.

Chart 6-14. Medicare inpatient payments, by source and hospital group, 2011

Hospital group	Percent of total payments					Total payments (millions)
	Base	IME	DSH	Outlier	Additional rural hospital*	
All hospitals	80.1%	4.9%	9.5%	3.9%	1.7%	$112,052
Urban	79.9	5.4	10.0	4.1	0.7	100,635
Rural	82.5	0.7	4.8	1.3	11.2	11,417
Large urban	78.5	6.5	10.5	4.5	0.1	58,112
Other urban	81.8	3.8	9.4	3.7	1.3	42,523
Rural referral	88.5	1.1	8.0	2.2	0.3	3,194
SCH (federal rate)	83.5	3.4	7.8	2.5	2.8	1,209
SCH (HSP rate)	74.0	0.1	0.0	0.2	25.7	4,010
Medicare dependent	81.8	0.0	6.1	1.1	10.9	1,396
Other rural <50 beds	83.6	0.1	6.6	0.8	8.8	312
Other rural ≥50 beds	88.8	0.5	7.1	1.5	2.2	1,297
Voluntary	80.8	5.2	8.6	3.8	1.7	80,607
Proprietary	83.2	1.4	11.2	3.2	1.0	16,178
Government	73.4	7.1	12.1	4.7	2.8	15,267
Major teaching	65.8	15.9	12.3	5.8	0.2	25,212
Other teaching	82.2	3.6	9.6	3.6	1.1	40,651
Nonteaching	86.2	0.0	7.8	3.0	3.1	46,189

Note: IME (indirect medical education), DSH (disproportionate share), SCH (sole community hospital), HSP (hospital specific payment [rate]). Chart includes all hospitals covered by Medicare's acute inpatient prospective payment system and excludes direct graduate medical education payments. Simulated payments reflect 2011 payment rules applied to actual number of cases in 2011. Chart excludes critical access hospitals. Medicare-dependent hospital category includes facilities paid at either the HSP or the federal rate. Rows may not sum due to rounding.
*Additional rural hospital payments are the total payments made to hospitals beyond the federal base rate. This category includes rural add-on payments such as the SCH add-on, the Medicare-dependent hospital add-on, the expanded low-volume add-on, and the low-spending county add-on mandated by the Patient Protection and Affordable Care Act of 2010. For SCHs paid the HSP, this category also includes the payments they received indirectly attributable to the costs associated with residency programs, low-income patients, and outlier cases.

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

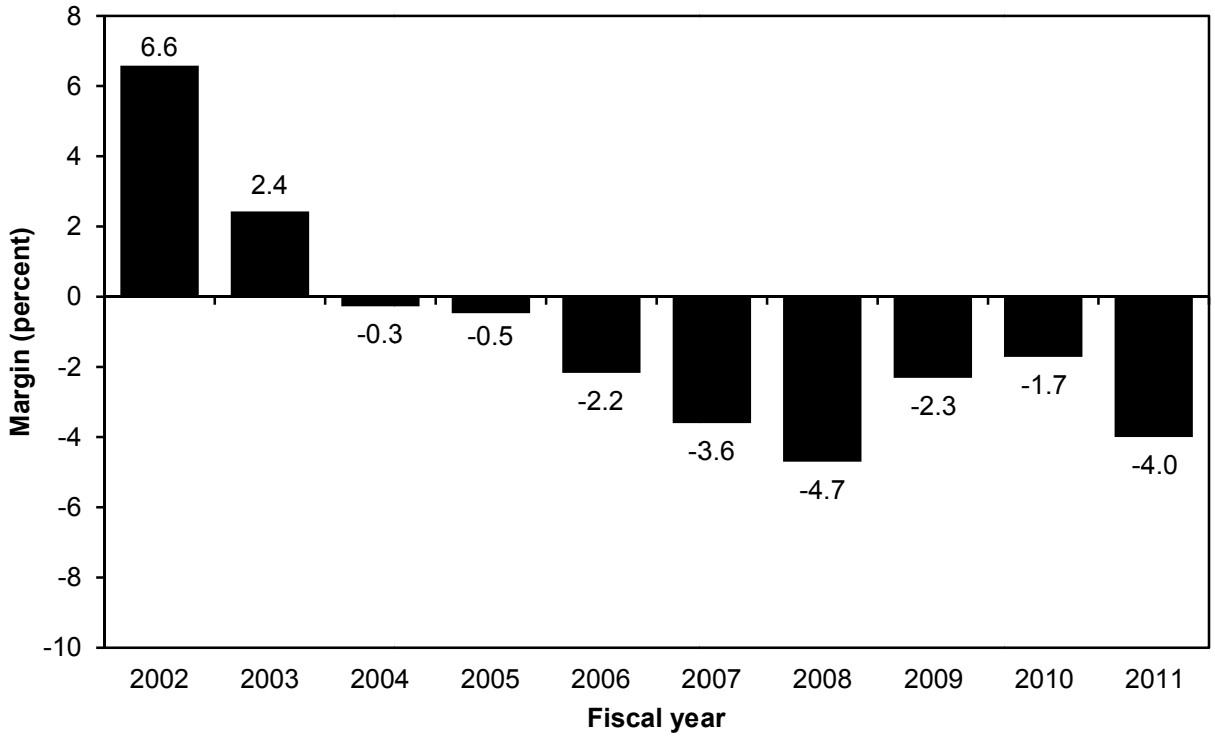
- Medicare inpatient payments in 2011 to hospitals covered by the acute inpatient prospective payment system (IPPS) exceeded $112 billion. About $101 billion (90 percent) went to urban hospitals and $11 billion went to rural hospitals. This figure does not reflect the $2.9 billion in payments to critical access hospitals (CAHs) for inpatient care. Cost-based reimbursement for CAHs amounts to an increase of about $300 million above the IPPS rate.

- Special payments—which include IME, DSH, and outlier payments as well as additional payments to rural hospitals through the SCH and Medicare-dependent hospital programs—account for 20 percent of all inpatient payments. This proportion is similar for urban (20.6 percent) and rural hospitals (18.0 percent).

- Additional rural hospital payments increased in 2011 due to two temporary provisions contained within the Patient Protection and Affordable Care Act of 2010. These provisions expanded the existing low-volume hospital add-on policy and created a new add-on policy for hospitals in counties with low levels of spending. In 2011, the expanded low-volume add-on amounted to approximately $330 million in payments to hospitals.

- Outlier payments accounted for 3.9 percent of total inpatient payments in 2011. The legislatively specified calculation (outlier payments as a ratio of outlier payments to base payments plus outlier payments) produces an outlier share of 4.8 percent of IPPS payments in fiscal year 2011, slightly lower than the annual goal of 5.1 percent.

Chart 6-15. Medicare acute inpatient PPS margin, 2002–2011



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. Maryland hospitals are excluded from this analysis.

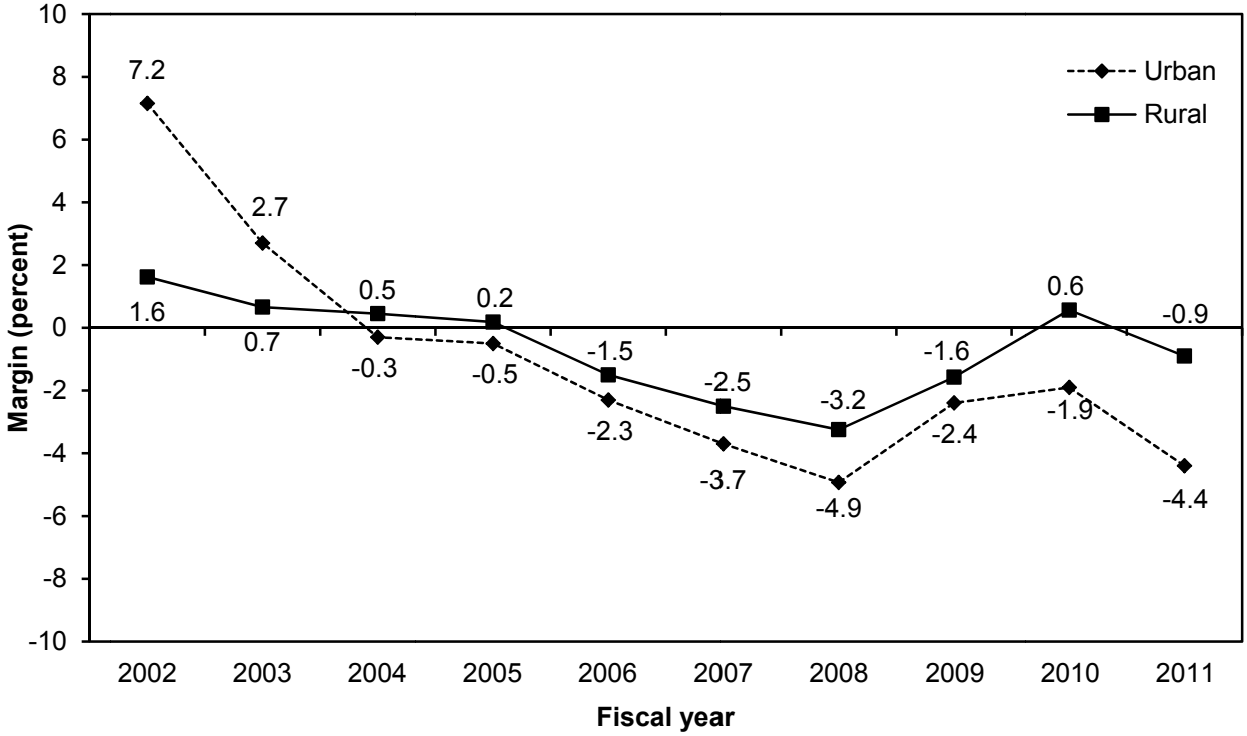
Source: MedPAC analysis of Medicare cost report data from CMS.

- 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 6-17).

- Following implementation of the Balanced Budget Act of 1997, inpatient margins declined over the next 10 years as costs rose faster than the 3 percent average annual increase in Medicare payments. In 2011, the margin was –4.0 percent, down from –1.7 percent in 2010.

- Medicare inpatient margins vary widely. In 2011, one-quarter of hospitals had Medicare inpatient margins that were 7.2 percent or higher, and another one-quarter had inpatient margins that were –18.2 percent or lower. Thirty-nine percent of hospitals had positive inpatient Medicare margins in 2011.

Chart 6-16. Medicare acute inpatient PPS margin, by urban and rural location, 2002–2011



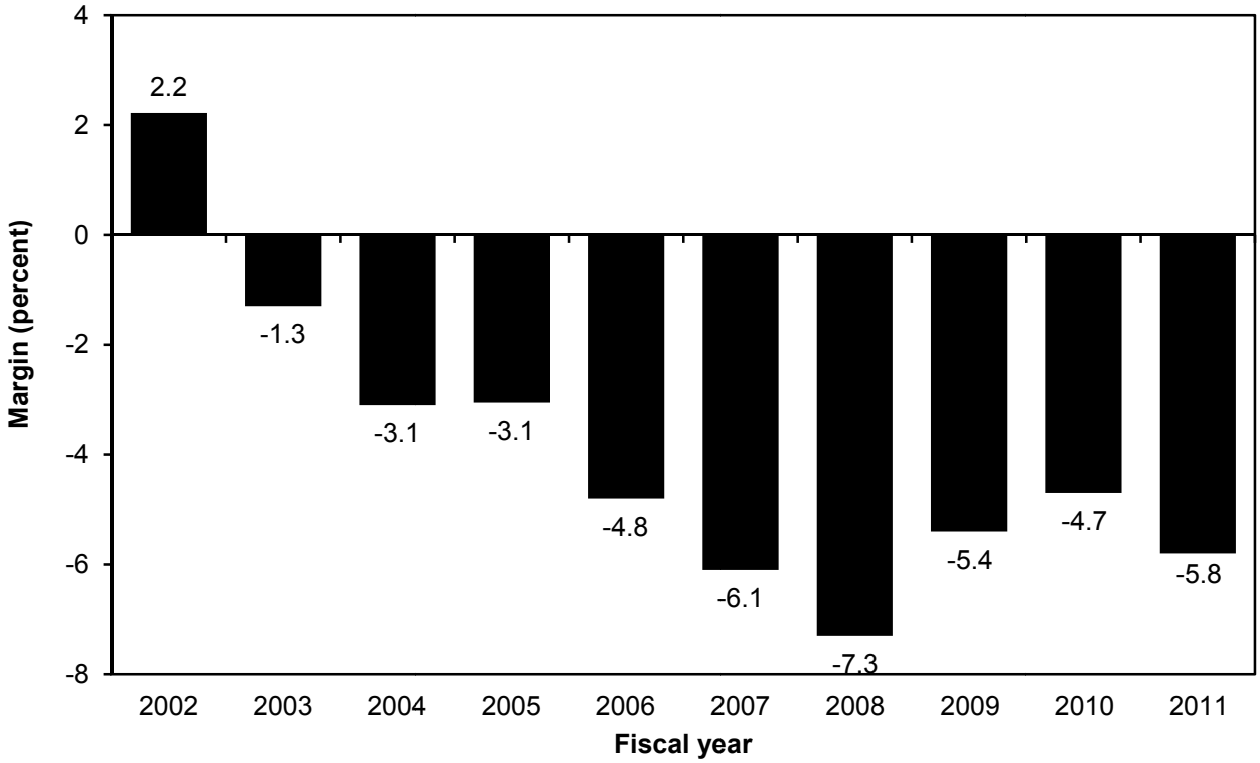
Note: PPS (prospective payment system). A margin is calculated as revenue minus costs, divided by revenue. Data are based on Medicare-allowable costs and exclude critical access hospitals. Medicare acute inpatient margin includes services covered by the acute care inpatient PPS. Maryland hospitals are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

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

- Urban hospitals historically had higher Medicare inpatient margins than rural hospitals (not shown in chart), but the gap narrowed in 2002 and 2003. One factor in this gap was that urban hospitals had greater success in controlling cost growth, at least partly in response to pressures from managed care. From 2004 to 2011, rural hospitals' inpatient margins were slightly higher than those for urban hospitals.

- In 2011, the margins of rural and urban hospitals were –0.9 percent and –4.4 percent, respectively. The narrowing and subsequent reversal between these two groups of hospitals since 2002 were the result of payment policies targeted at raising rural hospital payments as well as growth in the number of critical access hospitals, which removed many rural hospitals with low margins from the PPS.

Chart 6-17. Overall Medicare margin, 2002–2011

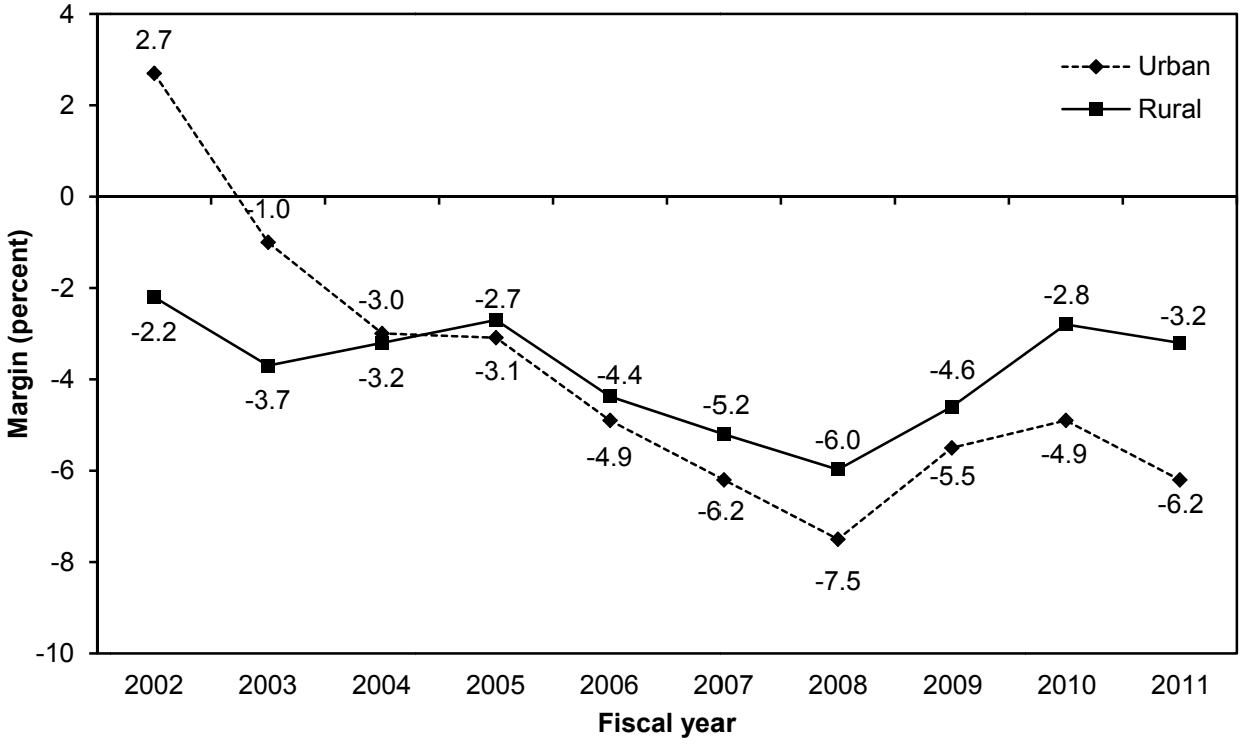


Note: A margin is calculated as revenue minus costs, divided by revenue. Data are based on Medicare-allowable costs and exclude critical access hospitals. Overall Medicare margins cover the costs and payments of acute inpatient, outpatient, inpatient psychiatric and rehabilitation unit, skilled nursing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

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

- 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 follows a trend similar to that for the Medicare inpatient margin.
- The overall Medicare margin in 2002 was 2.2 percent. In fiscal year 2011, it was –5.8 percent.
- In 2011, one-quarter of hospitals had overall Medicare margins of 3.6 percent or higher, and another one-quarter had margins of –16.9 percent or lower. About 34 percent of hospitals had positive overall Medicare margins in 2011.

Chart 6-18. Overall Medicare margin, by urban and rural location, 2002–2011



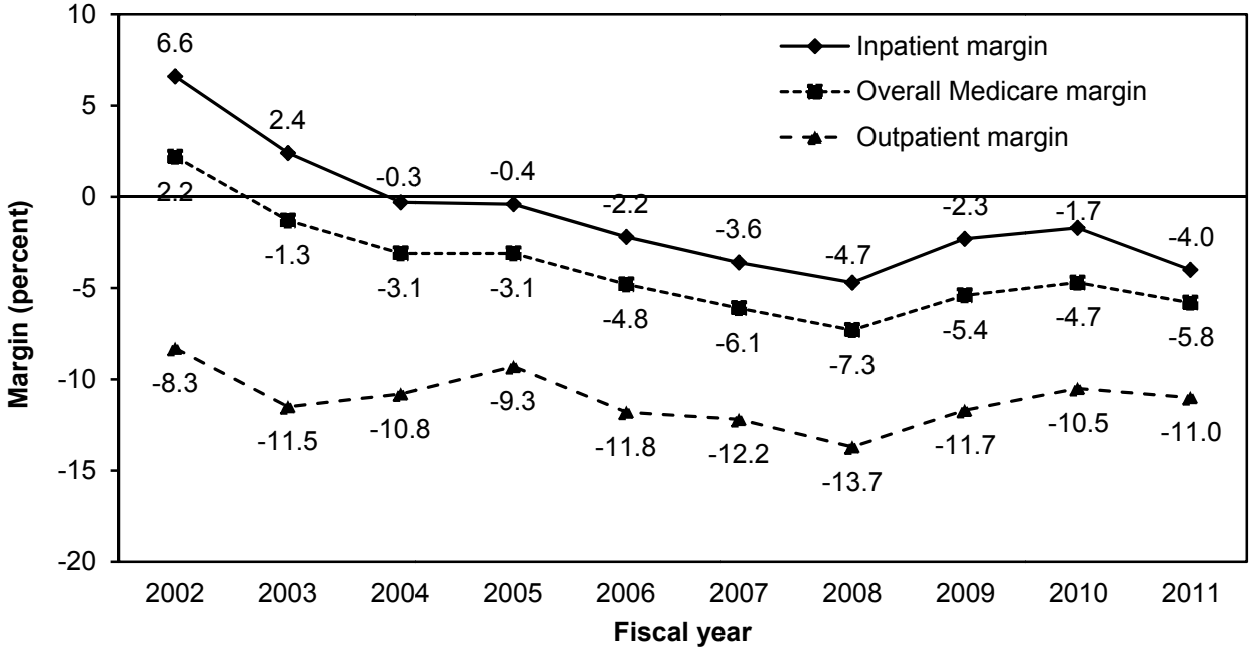
Note: A margin is calculated as revenue minus costs, divided by revenue. Data are based on Medicare-allowable costs and exclude critical access hospitals. Overall Medicare margins cover the costs and payments of acute hospital inpatient, outpatient, inpatient psychiatric and rehabilitation unit, skilled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

Source: MedPAC analysis of Medicare cost report data 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 exceed those for urban hospitals.

- The difference in overall Medicare margins between urban and rural hospitals narrowed throughout the middle of the past decade. In 2002, the overall margin for urban hospitals was 2.7 percent, compared with –2.2 percent for rural hospitals. In 2004, the overall Medicare margin for urban hospitals was –3.0 percent, compared with –3.2 percent for rural hospitals. However, since then the overall Medicare margin for rural hospitals has been higher than for urban hospitals. Most recently, in 2011, the overall Medicare margin for urban hospitals was –6.2 percent, compared with –3.2 percent for rural hospitals. Policy changes made in the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 helped to improve the relative financial position of rural hospitals. Further legislation to assist rural hospitals was implemented after 2008.

Chart 6-19. Medicare hospital outpatient, inpatient, and overall Medicare margins, 2002–2011



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 services (not paid under the prospective payment system); hospital-based skilled nursing facilities and home health services; and graduate medical education. Maryland hospitals are excluded from this analysis.

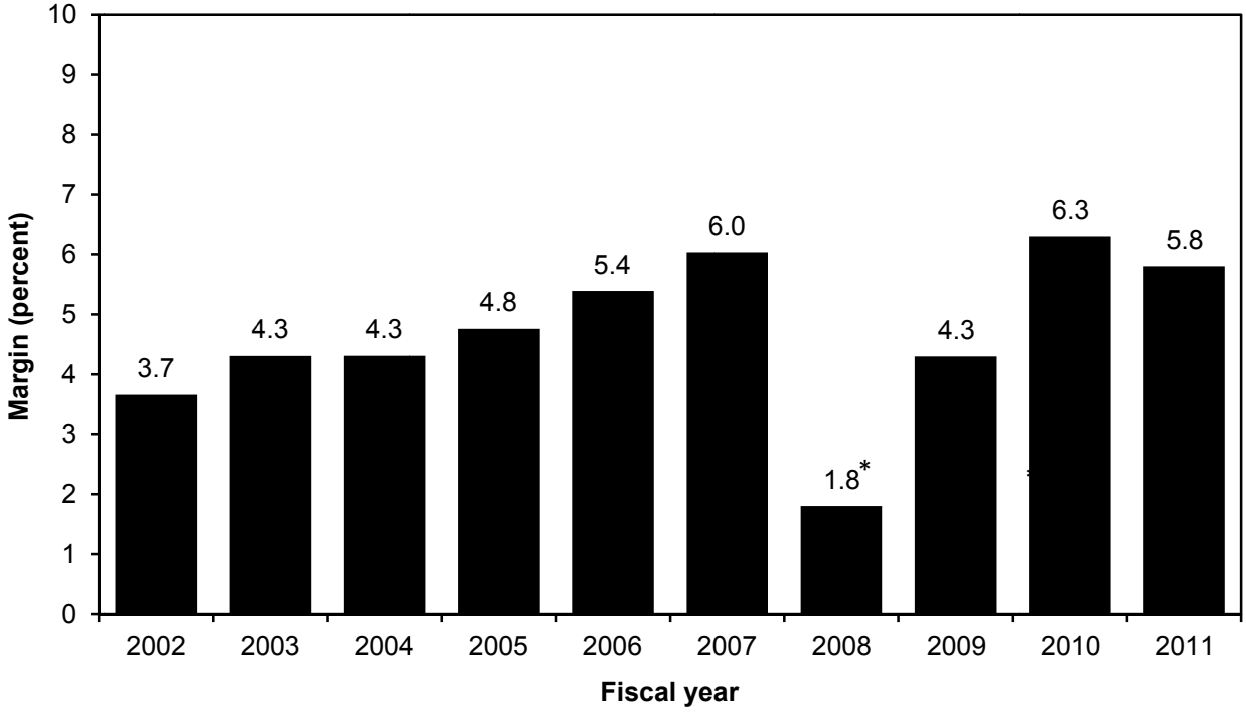
Source: MedPAC analysis of Medicare cost report data from CMS.

- Hospital outpatient margins vary. In 2011, while the aggregate outpatient margin was –11.0 percent, 25 percent of hospitals had margins of –21.3 percent or lower, and 25 percent had margins of 2.4 percent or higher. Outpatient margins also differed widely across hospital categories.

- 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.

- Inpatient margins exceed outpatient margins due to indirect medical education and disproportionate share add-on payments, which increased inpatient payments by roughly 15 percent.

Chart 6-20. Hospital total all-payer margin, 2002–2011



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. Maryland hospitals are excluded from this analysis.
*The significant drop in total margin includes investment losses stemming from the decline of the U.S. stock market in 2008.

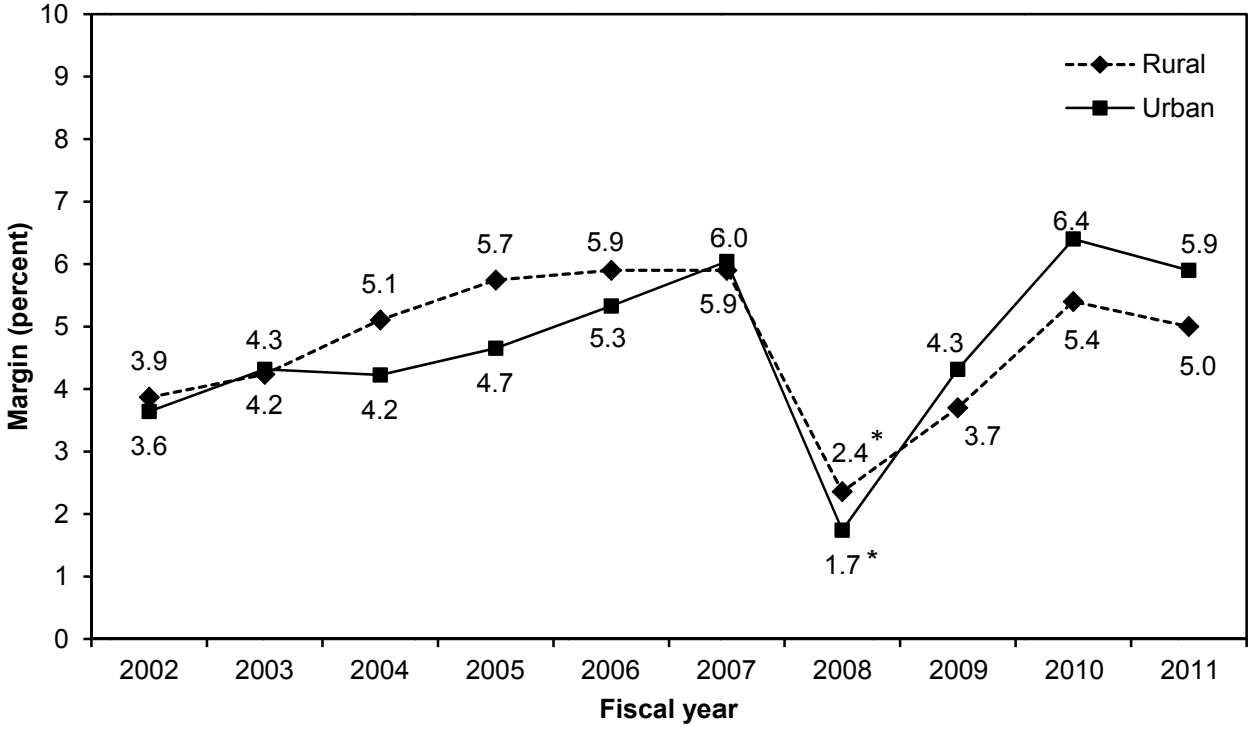
Source: MedPAC analysis of Medicare cost report data from CMS.

- The total hospital margin for all payers—Medicare, Medicaid, other government, and private payers—reflects the relationship of all hospital revenues to all hospital costs, including inpatient, outpatient, post-acute, and nonpatient services. The total margin also includes nonpatient revenue, such as investment revenue. Other types of margins we track—Medicare inpatient margin and overall Medicare margin—are operating margins that do not include investment revenue.

- From 2002 to 2007, total margins increased to the highest level in a decade. In 2008, the total margin declined to 1.8 percent, its lowest level since the inpatient prospective payment system was implemented. 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. In 2011, total margins decreased slightly to 5.8 percent, down from the 13-year high of 6.3 percent in 2010.

- In 2011, 72 percent of hospitals had positive total margins. The total margin varied much less than the Medicare inpatient or overall Medicare margin. In 2011, one-quarter of prospective payment system hospitals had total margins that were 9.3 percent or higher, while another one-quarter had margins that were –0.7 percent or lower, a spread of 10 percentage points compared with a 25 percentage point interquartile spread for Medicare inpatient margins and a 21 percentage point interquartile spread for overall Medicare margins.

Chart 6-21. Hospital total all-payer margin, by urban and rural location, 2002–2011



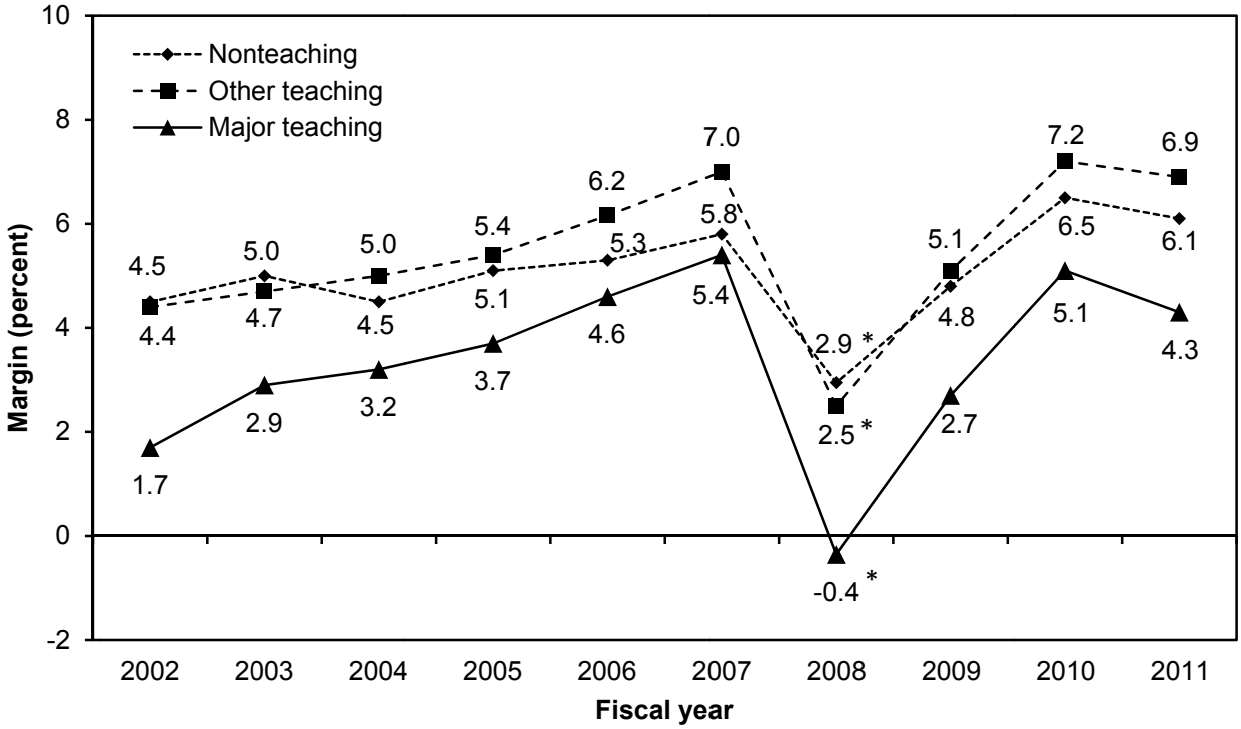
Note: A margin is calculated as revenue minus costs, divided by revenue. Total margin includes all patient care services funded by all payers, plus nonpatient revenue such as investment revenues. Analysis excludes critical access hospitals. Maryland hospitals are excluded from this analysis.
* Significant drop in total margin includes investment losses resulting from the U.S. stock market decline of 2008.

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

- In 2010 and 2011, urban hospitals had higher total (all-payer) margins than rural hospitals. In 2011, total margins were 5.9 percent for urban hospitals and 5.0 percent for rural hospitals. The growth in margins in 2009 and 2010 reflects low cost growth and increasing private payer reimbursement rates. The decline in all-payer margins in 2011 reflects an increase in cost growth relative to the prior two years.

- In 2008, both rural and urban hospitals experienced their lowest level of total (all-payer) margins in the past 15 years. Hospitals' total margins include all patient care services funded by all payers, plus nonpatient revenue, such as investment revenue. 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 margins. Other types of margins we track—Medicare inpatient margin and overall Medicare margin—are operating margins that do not include investment revenue.

Chart 6-22. Hospital total all-payer margin, by teaching status, 2002–2011



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 0 and less than 0.25. A margin is calculated as revenue minus costs, divided by revenue. Total margin includes all patient care services funded by all payers, plus nonpatient revenue. Analysis excludes critical access hospitals. Maryland hospitals are excluded from this analysis.
*Significant drop in total margin includes investment losses resulting from the U.S. stock market decline of 2008.

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

- The total margins for major teaching hospitals have consistently been lower than those for other teaching and nonteaching hospitals. In 2011, the total margin for major teaching hospitals stood at 4.3 percent compared with other teaching hospitals and nonteaching hospitals at 6.9 percent and 6.1 percent, respectively.

- Beginning in 2002, major teaching hospitals' total (all-payer) margins steadily increased, reaching a more than two-decade high in 2007, at 5.4 percent. However, in 2008, this trend was interrupted by a steep decline in their investment revenues, resulting in a negative total margin. Since then, total margins have recovered and remain above their historic average.

Chart 6-23. Medicare margins by teaching and disproportionate share status, 2011

Hospital group	Share of hospitals	Share of Medicare inpatient payments	Medicare inpatient margin	Overall Medicare margin
All hospitals	100%	100%	–4.0%	–5.8%
Major teaching	10	27	4.3	–2.4
Other teaching	21	31	–4.8	–5.4
Nonteaching	70	42	–8.8	–8.3
Both IME and DSH	26	53	0.7	–3.2
IME only	4	5	–13.6	–12.3
DSH only	54	34	–5.9	–6.3
Neither IME nor DSH	16	8	–20.5	–16.0

Note: IME (indirect medical education), DSH (disproportionate share). Numbers may not sum to totals due to rounding. Maryland hospitals are excluded from this analysis.

Source: MedPAC analysis of 2011 Medicare cost report data from CMS.

- Major teaching hospitals had the highest Medicare inpatient and overall Medicare margins in 2011. Their better financial performance was largely due to the additional payments they received from the IME and DSH adjustments on the inpatient payment rates.
- Hospitals that received neither IME nor DSH payments had the lowest Medicare margins. In 2011, the Medicare inpatient margins of these hospitals were about 25 percentage points below those of major teaching hospitals, and overall Medicare margins were nearly 14 percentage points lower.
- The pattern of Medicare inpatient and overall Medicare margins by teaching status—major teaching hospitals have higher Medicare margins than other hospitals—is the opposite of the pattern for total margins by teaching status—major teaching hospitals have lower total (all-payer) margins than other hospitals (see Chart 6-22).

Chart 6-24. Financial pressure leads to lower costs

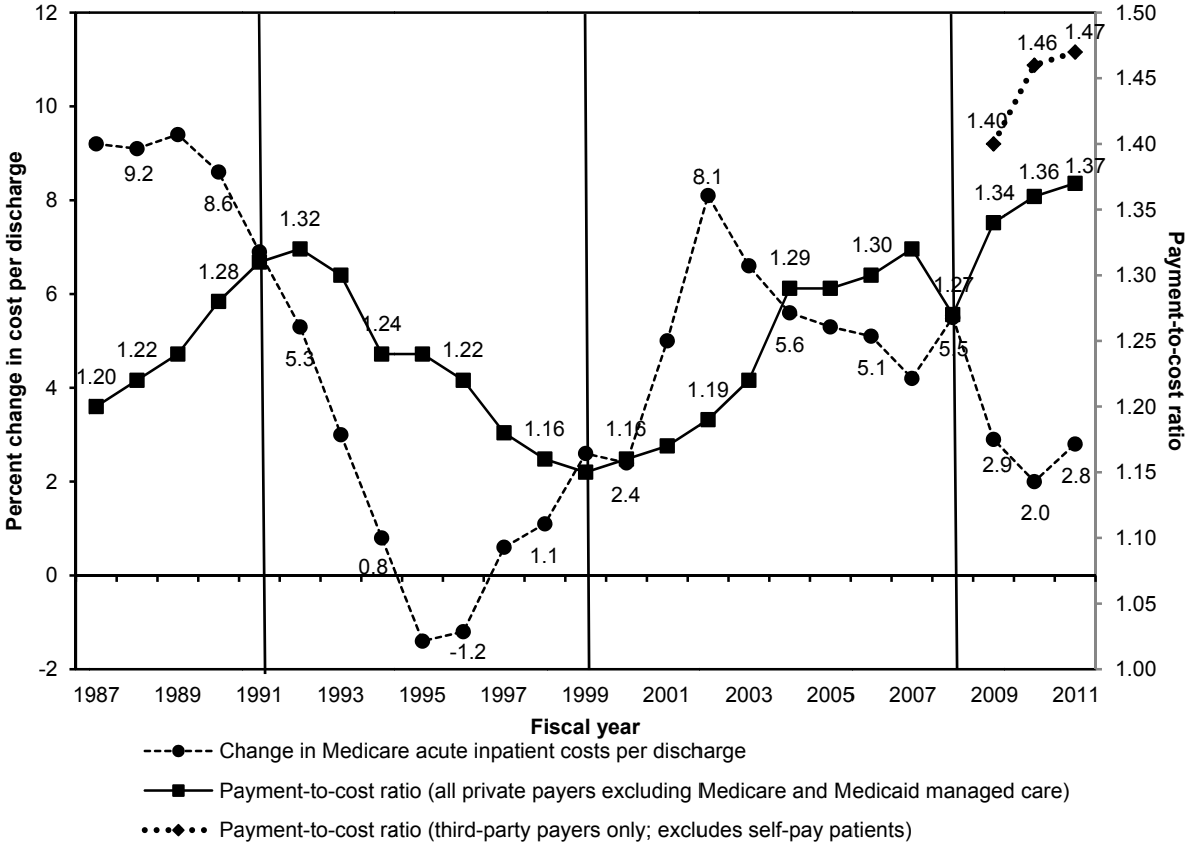
	Level of financial pressure, 2006–2010		
	High pressure (non-Medicare margin ≤ 1%)	Medium pressure	Low pressure (non-Medicare margin > 5%)
Number of hospitals	684	389	1,567
Financial characteristics, 2011 (medians)			
Non-Medicare margin (private, Medicaid, uninsured)	–2.8%	3.8%	12.4%
Standardized cost per discharge (as a share of the national median)			
For-profit and nonprofit hospitals	92	96	104
Nonprofit hospital	92	96	105
For-profit hospital	92	95	99
Annual growth in cost per discharge, 2008–2011	3%	2%	3%
Overall 2011 Medicare margin (medians)	4%	-3%	-10%
Patient characteristics (medians)			
Total hospital discharges in 2011	4,438	7,398	7,177
Medicare share of inpatient days	44%	41%	43%
Medicaid share of inpatient days	11	10	10
Medicare case-mix index	1.32	1.43	1.48

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 October 2012. High-pressure hospitals are defined as those with a median non-Medicare profit margin of 1 percent or less from 2006 to 2010 and with a net worth that grew by less than 1 percent per year from 2006 to 2010 if the hospital's Medicare profits had been zero. Low-pressure hospitals are defined as those with a median non-Medicare profit margin greater than 5 percent from 2006 to 2010 and a net worth that grew by more than 1 percent per year from 2006 to 2010 if the hospital's Medicare profits had been zero. Medium-pressure hospitals are those that fit into neither the high- nor the low-pressure categories.

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 6-25. Change in Medicare hospital inpatient costs per discharge and private payer payment-to-cost ratio, 1987–2011

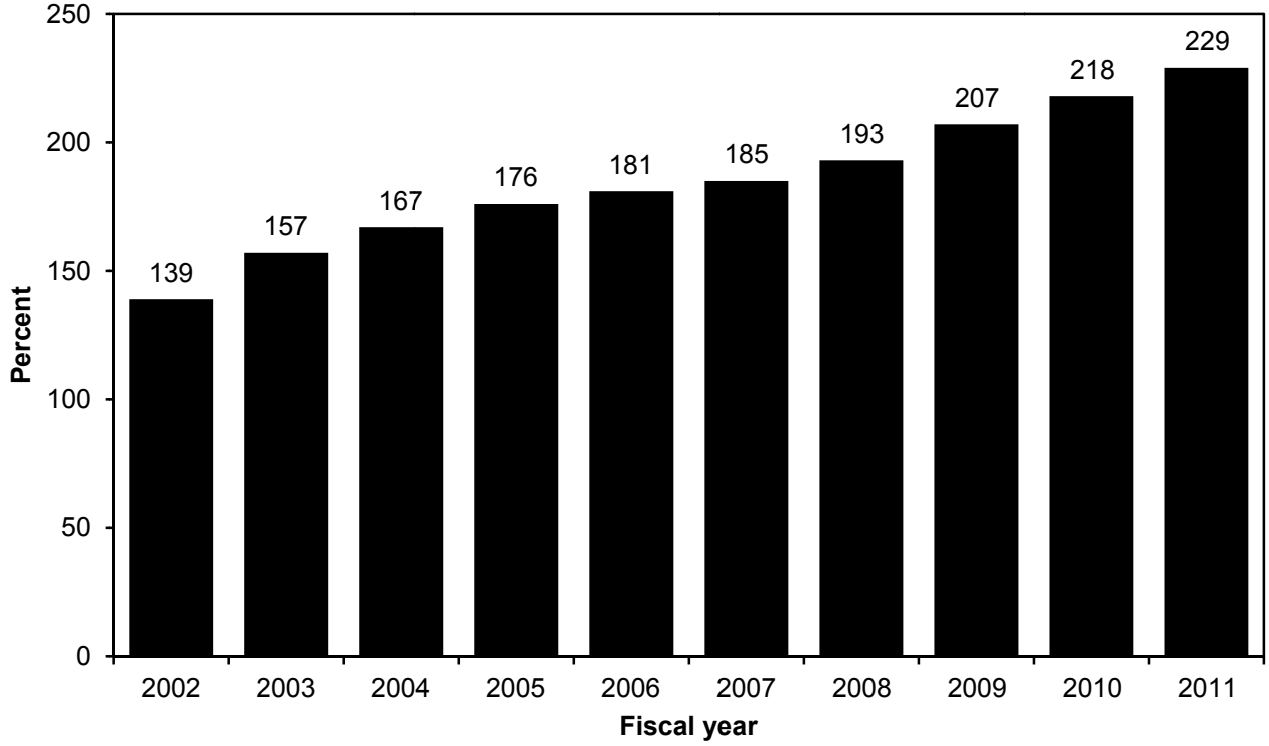


Note: Data are for community hospitals (including critical access hospitals and Maryland hospitals) and cover all hospital services. Imputed values were used for missing data (about one-third of observations). Data for 2006–2010 exclude Medicare and Medicaid managed care patients from the private payment-to-cost ratio. The private payment-to-cost ratio includes self-pay patients.

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.

- Changes in Medicare costs per discharge suggest that hospitals have responded to the incentives posed by the rise and fall of financial pressure from private payers over four distinct periods between 1987 and 2011.
- During the first period, 1987–1992, private payers' payments rose much faster than the cost of treating patients (seen in the chart as a steep increase in the payment-to-cost ratio). This result suggests minimal pressure from private payers. Medicare costs per discharge rose 8.3 percent per year during these years, more than 3 percentage points a year above the increase in Medicare's market basket index.
- As health maintenance organizations 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. Between 2005 and 2008, the growth in the private payer payment-to-cost ratio (profit margins) slowed, and in 2008 cost growth more closely matched the market basket.
- Since 2008, cost growth has slowed down to between 2 percent and 3 percent per year. This decline is partially due to the general slowing of the economy, which has reduced input price inflation. In addition, uncertainty about economic growth in future years and enactment of laws restraining Medicare and Medicaid prices may be inducing hospitals to restrain their cost growth down to the level of input price inflation. The combination of lower annual cost growth and continued increases in private insurers' prices has resulted in increases in the profit margins on privately insured patients.

Chart 6-26. Markup of hospital charges above costs for Medicare services, 2002–2011



Note: Analysis includes all community hospitals (including critical access hospitals and hospitals in Maryland). Markups are calculated as the amount of charges over the amount of costs, minus the amount that charges equal costs (charges/costs – 1).

Source: American Hospital Association Annual Survey of Hospitals.

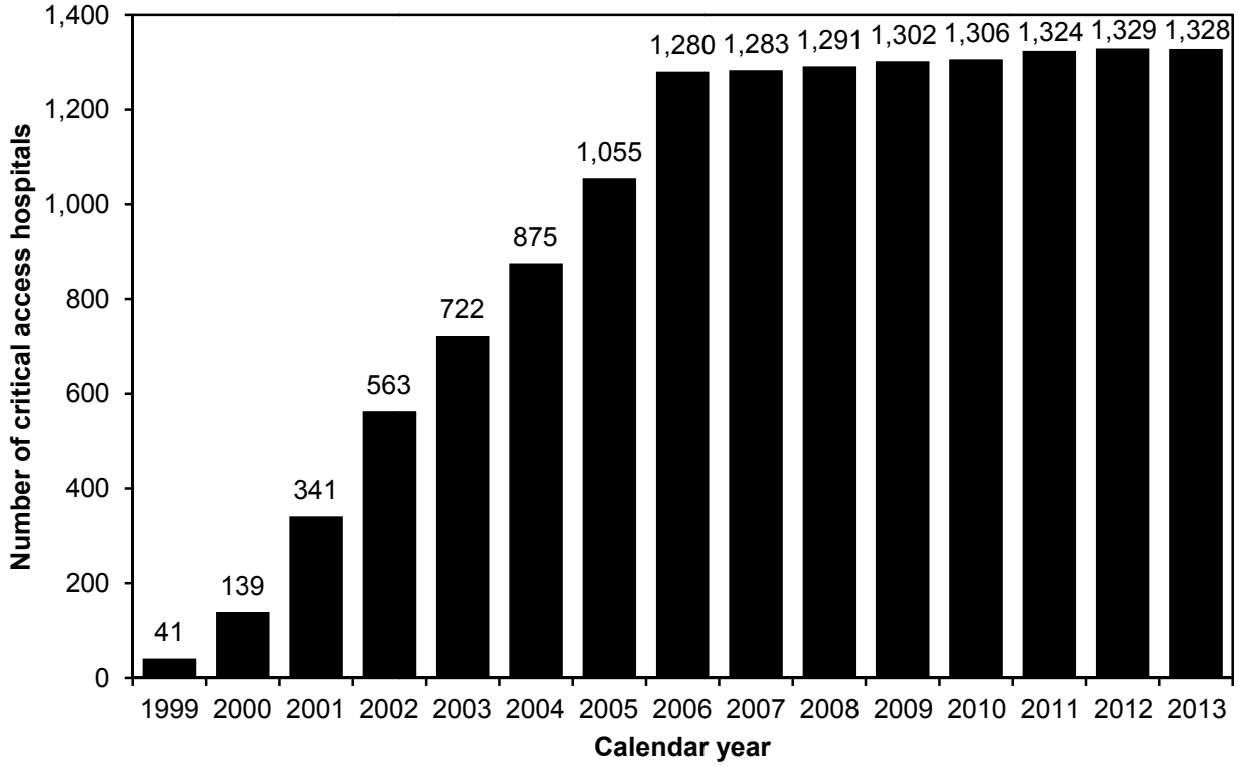
- The average markup of hospitals' charges above costs rose from about 139 percent in 2002 to 229 percent in 2011. Hospital charges ($579 billion) are now over three times costs ($176 billion).

- Rapid growth in charges may have little impact on hospital financial performance because few patients pay full charges. However, charge growth may significantly affect uninsured patients, who may pay full charges. More rapid growth in charges (relative to growth in costs) may reflect hospitals' 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 (239 percent in 2011) than for rural hospitals (165 percent in 2011).

- The markup of charges over costs is higher for for-profit hospitals (333 percent in 2011) than for either nonprofit hospitals (208 percent in 2011) or government hospitals (157 percent in 2011).

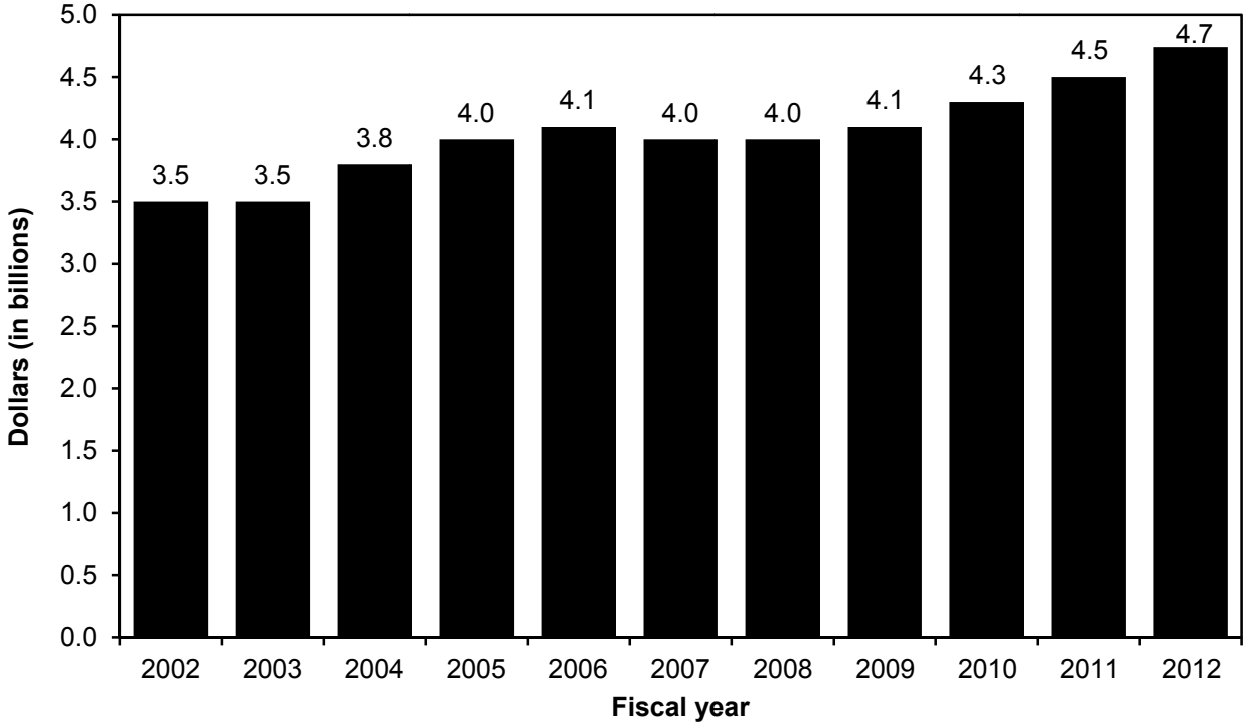
Chart 6-27. Number of critical access hospitals, 1999–2013



Source: The Medicare Rural Hospital Flexibility Program and CMS.

- The number of critical access hospitals (CAHs) grew rapidly from 1999 to 2006 but has since leveled off at approximately 1,300 facilities.
- The increase in CAHs between 1999 and 2006 is partly 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: (1) it was 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 going forward, absent any additional statutory changes.

Chart 6-28. Medicare payments to inpatient psychiatric facilities, 2002–2012



Source: CMS, Office of the Actuary.

- The inpatient psychiatric facility prospective payment system started January 1, 2005. The new payment system was phased in over a three-year period.
- Medicare program spending for beneficiaries' care in inpatient psychiatric facilities grew an estimated 3 percent per year between 2002 and 2012.
- 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 6-29. Number of inpatient psychiatric facility cases increased in 2010

	2006	2007	2008	2009	2010	Average annual change 2006–2009	Average annual change 2009–2010
Cases	474,417	456,045	442,759	431,276	447,897	–3.1%	3.9%
Cases per 1,000 FFS beneficiaries	13.1	12.8	12.5	12.1	12.4	–2.5	2.4
Spending per FFS beneficiary	$104.9	$106.2	$109.1	$110.3	$115.6	1.7	4.8
Payment per case	$7,989	$8,315	$8,742	$9,080	$9,288	4.4	2.3
Payment per day	$677	$698	$728	$763	$782	4.1	2.5
Length of stay (in days)	13.0	13.0	13.1	13.1	13.0	0.2	–0.7

Note: FFS (fee-for-service). Numbers of cases and patients reflect Medicare FFS utilization of services furnished in IPFs. Scatter bed cases and spending are excluded, as are cases and spending for beneficiaries enrolled in Medicare Advantage plans.

Source: MedPAC analysis of Medicare Provider Analysis and Review data from CMS.

- In the first years of the inpatient psychiatric facility (IPF) PPS, the number of IPF cases per FFS beneficiary fell, on average, 2.5 percent per year. Between 2009 and 2010, however, the number of cases per FFS beneficiary increased 2.4 percent.

Chart 6-30. Inpatient psychiatric facilities, 2004–2010

Type of IPF	TEFRA 2004	PPS 2005	2006	2007	2008	2009	2010	Average annual change 2004–2010
All	1,657	1,645	1,645	1,652	1,631	1,610	1,581	–0.8%
Urban	1,278	1,284	1,271	1,265	1,255	1,226	1,194	–1.1
Rural	378	360	373	386	373	383	385	0.3
Freestanding	352	366	395	412	419	432	441	3.8
Hospital-based units	1,305	1,279	1,250	1,240	1,212	1,178	1,140	–2.2
Nonprofit	949	917	903	879	862	836	801	–2.8
For profit	327	347	348	364	357	374	383	2.7
Government	381	381	394	409	412	400	397	0.7

Note: IPF (inpatient psychiatric facility), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982), PPS (prospective payment system). CMS began a three-year phase-in of the IPF PPS on January 1, 2005. Numbers are facilities that submitted valid Medicare cost reports in the given fiscal year.

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

- In 2010, 441 freestanding IPFs and 1,140 hospital-based psychiatric units provided inpatient-level care to Medicare beneficiaries. Since 2004, the number of psychiatric units filing Medicare cost reports has declined, on average, about 2 percent per year. At the same time, the number of freestanding IPFs has grown, on average, almost 4 percent per year.

- A growing share of Medicare IPF users receive care in for-profit facilities. Since 2004, the number of nonprofit IPFs has fallen 2.8 percent per year, on average, compared with a 2.7 percent increase for for-profit IPFs.

Chart 6-31. One diagnosis accounted for almost three-quarters of IPF cases in 2010

MS–DRG	Diagnoses	Percentage
885	Psychosis	73.0%
057	Degenerative nervous system disorders without MCC	7.3
884	Organic disturbances and mental retardation	6.2
897	Alcohol/drug abuse or dependency, no rehabilitation, without MCC	4.1
881	Depressive neurosis	3.4
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	0.7
880	Acute adjustment reaction and psychosocial dysfunction	0.7
886	Behavioral and developmental disorders	0.5
883	Disorders of personality and impulse control	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
081	Nontraumatic stupor and coma without MCC	0.1
887	Other mental disorders	0.1
080	Nontraumatic stupor and coma with MCC	0.0
	Nonpsychiatric MS–DRGs	0.9
	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 Medicare Provider Analysis and Review data from CMS.

- Medicare patients in IPFs are generally assigned to 1 of 17 psychiatric MS–DRGs.
- The most frequently occurring IPF diagnosis—accounting for 73 percent of IPF discharges in 2010—is psychosis. In 2010, the next most common discharge, accounting for about 7 percent of IPF cases, was degenerative nervous system disorders.

Chart 6-32. Characteristics of IPF users, 2010

Characteristic	Share of total IPF users	Share of users with more than one IPF stay
Current eligibility status*		
Aged	41.4%	19.6%
Disabled	58.5	34.2
ESRD only	0.1	20.2
Age (years)		
<45	23.8	37.0
45–64	34.4	32.2
65–79	23.8	22.4
80+	18.0	16.0
Race		
White	78.8	26.9
African American	15.8	33.1
Hispanic	2.5	32.8
Other	2.8	29.2
All	100.0	28.1

Note: IPF (inpatient psychiatric facility), ESRD (end-stage renal disease). Numbers may not sum to totals due to rounding.
*Some aged beneficiaries are also disabled.

Source: MedPAC analysis of Medicare Provider Analysis and Review data from CMS.

- About 28 percent of Medicare beneficiaries who used an IPF in 2010 had more than one IPF stay during the year. Beneficiaries under age 65 were more likely to have multiple IPF stays than elderly beneficiaries.
- About 58 percent of Medicare beneficiaries who had at least one IPF stay in 2010 qualified for Medicare because of a disability. These beneficiaries tend to be younger and poorer than the typical fee-for-service beneficiary.
- Diagnosis patterns differed by age and race. Among the top Medicare severity–diagnosis related groups in 2010, 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 admitted to IPFs are dually eligible for Medicare and Medicaid. In 2010, 56 percent of Medicare beneficiaries with at least one IPF stay were dually eligible for at least one month of the year.

Web links. Acute inpatient services

Short-term hospitals

- Chapter 3 of the MedPAC March 2013 Report to the Congress provides additional detailed information on hospital margins.

  http://www.medpac.gov/chapters/Mar13_Ch03.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_12_hospital.pdf

- CMS provides information on the hospital market basket.

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

- CMS published the acute inpatient prospective payment system rule for fiscal year 2013 in the *Federal Register*.

  http://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/AcuteInpatientPPS/FY-2013-IPPS-Final-Rule-Home-Page-Items/CMS-1588-F-Text-Version.html?DLPage=1&DLSort=0&DLSortDir=ascending

Inpatient psychiatric facilities

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

  http://www.medpac.gov/chapters/Jun10_Ch06.pdf

- MedPAC provides basic information about the inpatient psychiatric facility prospective payment system in its Payment Basics series.

  http://www.medpac.gov/documents/MedPAC_Payment_Basics_12_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 fiscal year 2013 in the August 7, 2012, *Federal Register.*

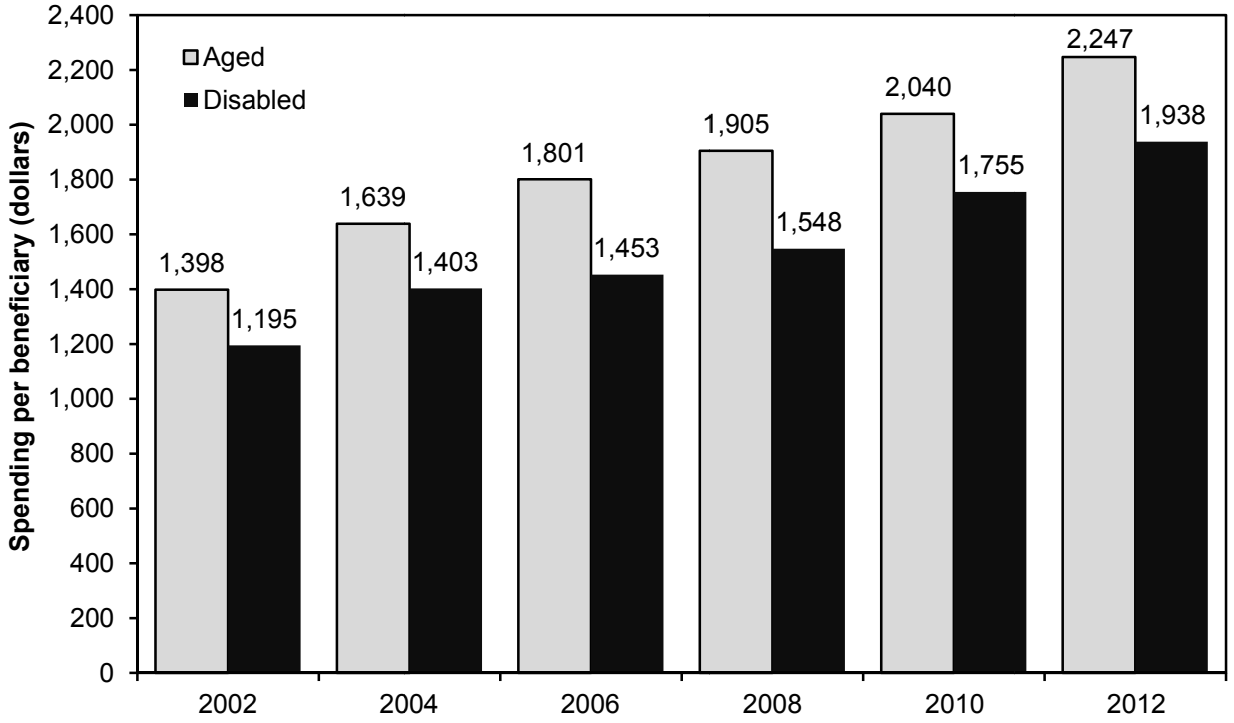
  http://www.gpo.gov/fdsys/pkg/FR-2012-08-07/pdf/2012-19118.pdf

SECTION 7

Ambulatory care

Physicians
Hospital outpatient services
Ambulatory surgical centers
Imaging services

Chart 7-1. Medicare spending per FFS beneficiary on physician fee-schedule services, 2002–2012



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: 2012 and 2013 annual reports of the Boards of Trustees of the Medicare trust funds.

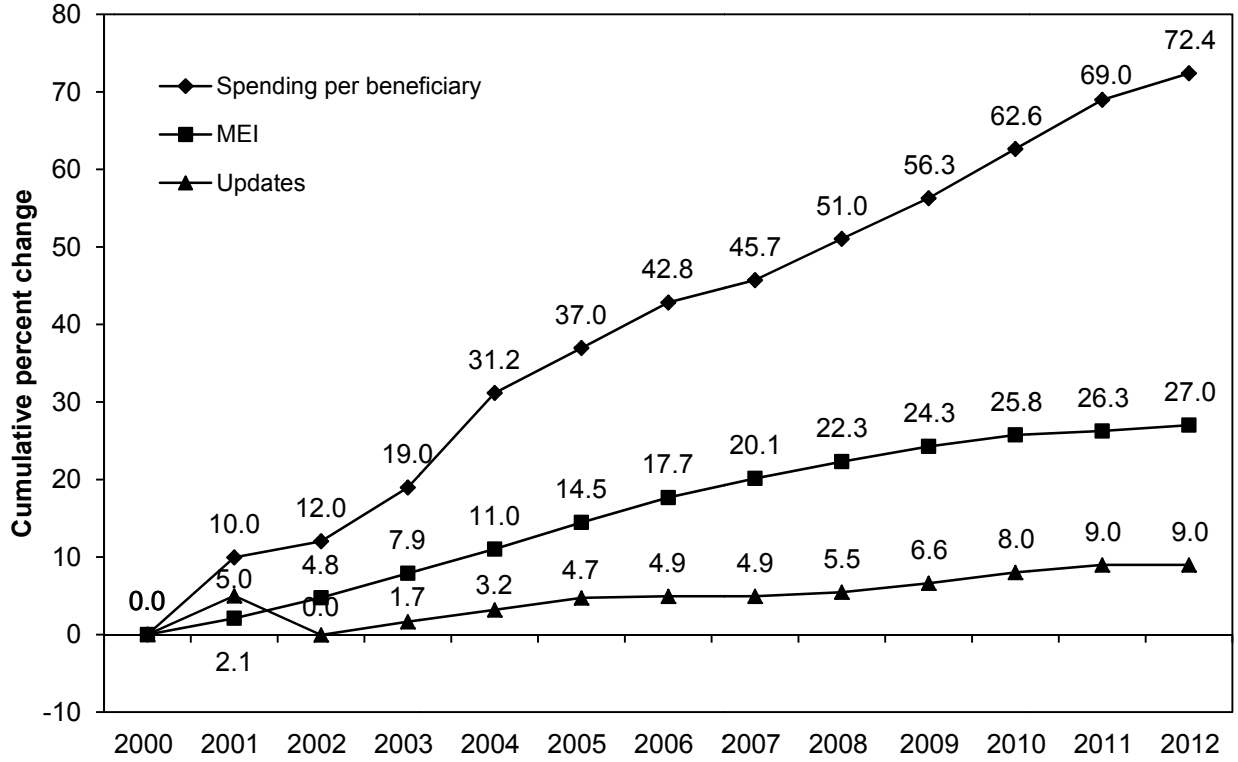
- Physicians and other health professionals perform a broad range of services in the Medicare physician fee schedule, including office visits, surgical procedures, and a variety of diagnostic and therapeutic services furnished in all health care settings. In addition to physicians, these services may be provided by other health professionals (e.g., nurse practitioners, chiropractors, and physical therapists).

- FFS spending per beneficiary for physician fee-schedule services has increased annually. From 2002 to 2012, Medicare spending per FFS beneficiary on these services grew 60 percent.

- Growth in spending on physician fee-schedule 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 2012, for example, per capita spending for disabled beneficiaries was $1,938 compared with $2,247 for aged beneficiaries.

Chart 7-2. Volume growth has raised physician spending more than input prices and payment updates, 2000–2012

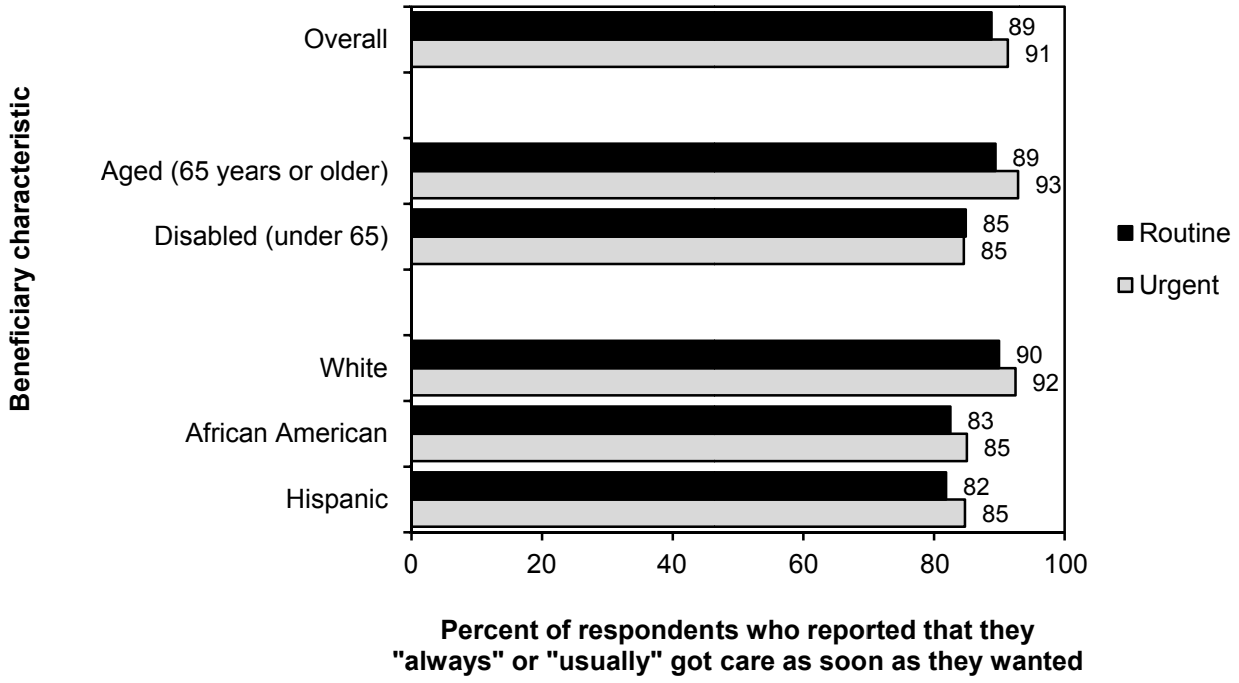


Note: MEI (Medicare Economic Index).

Source: 2013 Trustees' report and Office of the Actuary 2013.

- From 2000 to 2012, Medicare spending for physician services—per beneficiary—increased by 72 percent.
- This spending grew much more rapidly over the period than both the payment rate updates and the MEI. Physician fee-schedule payment updates totaled 9 percent, and the MEI increased 27 percent.
- Growth in the volume of services contributed much more to the rapid increase in Medicare spending than payment rate updates. Both factors—updates and volume growth—combine to increase physician revenues.

Chart 7-3. Most beneficiaries report that they can always or usually get timely care, 2012



Note: In the survey, routine care refers to appointments in doctors' offices or clinics that are not for care needed "right away." Urgent care refers to care needed "right away" for an illness, injury, or condition. Nonapplicable respondents (e.g., those who did not seek routine or urgent care in the past six months) were excluded.

Source: MedPAC analysis of Consumer Assessment of Healthcare Providers and Systems® for fee-for-service, Medicare, 2012 (unweighted).

- Overall, in 2012 89 percent of Medicare beneficiaries who reported making an appointment for routine care at a doctor's office or clinic said that they always or usually got care as soon as they wanted. For beneficiaries who reported needing urgent care in a clinic, emergency room, or doctor's office, 91 percent reported that they always or usually got care as soon as they wanted.

- Compared with beneficiaries age 65 or older, those under age 65 and eligible for Medicare on the basis of disability were less likely to report that they always or usually got routine or urgent care as soon as they wanted.

- Smaller percentages of African American and Hispanic beneficiaries reported that they always or usually got care as soon as they wanted, compared with White beneficiaries.

Chart 7-4. Medicare beneficiaries report better ability to get timely appointments with physicians, compared with privately insured individuals, 2009–2012

	Medicare (age 65 or older)				Private insurance (age 50–64)			
Survey question	2009	2010	2011	2012	2009	2010	2011	2012
Unwanted delay in getting an appointment: Among those who needed an appointment, "How often did you have to wait longer than you wanted to get a doctor's appointment?"								
For routine care								
Never	77%[a]	75%[a]	74%[ab]	77%[a]	71%[a]	72%[a]	71%[a]	72%[a]
Sometimes	17[a]	17[a]	18[a]	17[a]	22[a]	21[a]	21[a]	21[a]
Usually	2[a]	3[a]	3	3	3[a]	4[a]	4	3
Always	2	2	2[a]	2[a]	3	3	3[a]	3[a]
For illness or injury								
Never	85[a]	83[a]	82[b]	84[a]	79[a]	80[a]	79	80[a]
Sometimes	11[a]	13[a]	14[a]	12[a]	17[a]	15[a]	17[a]	16[a]
Usually	2	2	2	2	2	2	2	2
Always	1	1[a]	1	1[a]	2	2[a]	1	2[a]

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 4,000 in years 2009–2012. Sample sizes for individual questions varied.
[a] Statistically significant difference (at a 95 percent confidence level) between the Medicare and privately insured samples in the given year.
[b] Statistically significant difference (at a 95 percent confidence level) from 2012 within the same insurance coverage category.

Source: MedPAC-sponsored telephone surveys, conducted in 2009, 2010, 2011, and 2012.

- Most Medicare beneficiaries have one or more doctor appointments in a given year. Their ability to schedule timely appointments is one indicator of access we examine.
- Medicare beneficiaries report better access to physicians for appointments compared with privately insured individuals age 50 to 64. For example, in 2012, 77 percent of Medicare beneficiaries and 72 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.
- Appointment scheduling for illness and injury is better than for routine care appointments for both Medicare beneficiaries and privately insured individuals.

Chart 7-5. Medicare and privately insured patients who are looking for a new physician report more difficulty finding one in primary care, 2009–2012

	Medicare (age 65 or older)				Private insurance (age 50–64)			
Survey question	2009	2010	2011	2012	2009	2010	2011	2012
Looking for a new physician: "In the past 12 months, have you tried to get a new …?" (Percent answering "Yes")								
Primary care physician	6%	7%	6%	7%	8%	7%	7%	7%
Specialist	14[a]	13[a]	14[a]	13[a]	19[a]	15[ab]	16[a]	18[a]
Getting a new physician: Among those who tried to get an appointment with a new physician, "How much of a problem was it finding a primary care doctor/specialist who would treat you? Was it…"								
Primary care physician								
No problem	78	79[a]	65	72	71	69[a]	68	75
Small problem	10	8	12	14	8	12	16[b]	9
Big problem	12[a]	12	23[ab]	14	21[a]	19	14[a]	15
Specialist								
No problem	88	87[a]	84	87	84	82[ab]	86	86
Small problem	7	6[a]	8	6	9	11[ab]	8	7
Big problem	5	5	7	7	7	6	6	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 4,000 in 2009–2012. Sample sizes for individual questions varied.
[a] Statistically significant difference (at a 95 percent confidence level) between the Medicare and privately insured samples in the given year.
[b] Statistically significant difference (at a 95 percent confidence level) from 2012 within the same insurance coverage category.

Source: MedPAC-sponsored telephone surveys, conducted in 2009, 2010, 2011, and 2012.

- In 2012, only 7 percent of Medicare beneficiaries and 7 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 have a need to look for one.

- Of the 7 percent of Medicare beneficiaries who were looking for a new primary care physician in 2012, 28 percent reported problems finding one—14 percent reporting their problem as "big" plus 14 percent reporting their problem as "small." Although this number indicates that only about 2 percent of the total Medicare population report problems finding a primary care physician, the Commission is concerned about the continuing trend of greater access problems for primary care.

  Of the 7 percent of privately insured individuals who were looking for a new primary care physician in 2012, 24 percent reported problems finding one—15 percent reporting their problem as "big" plus 9 percent reporting their problem as "small."

- For 2012, Medicare beneficiaries and privately insured individuals were more likely to report problems accessing a new primary care physician compared with a new specialist.

Chart 7-6. Access to physician care is better for Medicare beneficiaries compared with privately insured individuals, but minorities in both groups report problems slightly more frequently, 2012

	Medicare (age 65 or older)			Private insurance (age 50–64)		
Survey question	All	White	Minority	All	White	Minority
Unwanted delay in getting an appointment: Among those who needed an appointment, "How often did you have to wait longer than you wanted to get a doctor's appointment?"						
For routine care						
Never	77%[a]	78%[a]	77%[a]	72%[a]	73%[a]	70%[a]
Sometimes	17[a]	17[a]	15[a]	21[a]	21[a]	22[a]
Usually	3	3	3	3	3	3
Always	2[a]	2[a]	2[a]	3[a]	3[a]	5[a]
For illness or injury						
Never	84[a]	84[a]	82	80[a]	80[a]	78
Sometimes	12[a]	12[a]	14	16[a]	17[a]	15
Usually	2	1	2	2	2	2
Always	1[a]	1	1[a]	2[a]	2[b]	4[ab]

Note: Numbers may not sum to 100 percent due to rounding. Missing responses ("Don't Know" or "Refused") are not presented. Overall sample size for each group (Medicare and privately insured) was 4,000 in 2012. Sample size for individual questions varied.
[a] Statistically significant difference (at a 95 percent confidence level) between the Medicare and privately insured populations in the given race category.
[b] Statistically significant difference (at a 95 percent confidence level) by race within the same insurance category.

Source: MedPAC-sponsored telephone surveys, conducted in 2012.

- In 2012, Medicare beneficiaries reported better access to physicians for appointments compared with privately insured individuals age 50 to 64.
- Access varied by race, with minorities more likely than Whites to report access problems in both insurance categories. For example, in 2012, 84 percent of White Medicare beneficiaries reported "never" having to wait longer than they wanted to get an appointment for an illness or injury compared with 82 percent of minority beneficiaries.
- Although minorities experienced slightly more access problems, minorities with Medicare were less likely to experience problems than minorities with private insurance.

Chart 7-7. Differences in access to new physicians are most apparent among minority Medicare and privately insured patients who are looking for a new specialist, 2012

	Medicare (age 65 or older)			Private insurance (age 50–64)		
Survey question	All	White	Minority	All	White	Minority
Looking for a new physician: "In the past 12 months, have you tried to get a new …?"						
Primary care physician	7%	7[b]%	5[b]%	7%	7%	7%
Specialist	13[a]	15[ab]	8[ab]	18[a]	19[ab]	13[ab]
Getting a new physician: Among those who tried to get an appointment with a new physician, "How much of a problem was it finding a primary care doctor/specialist who would treat you? Was it…"						
Primary care physician						
No problem	72	70	76	75	77	67
Small problem	14	13	16	9	8	13
Big problem	14	15	8	15	13	20
Specialist						
No problem	87	88	81	86	88[b]	77[b]
Small problem	6	6	4[a]	7	5[b]	14[ab]
Big problem	7	6[b]	15[b]	7	6	9

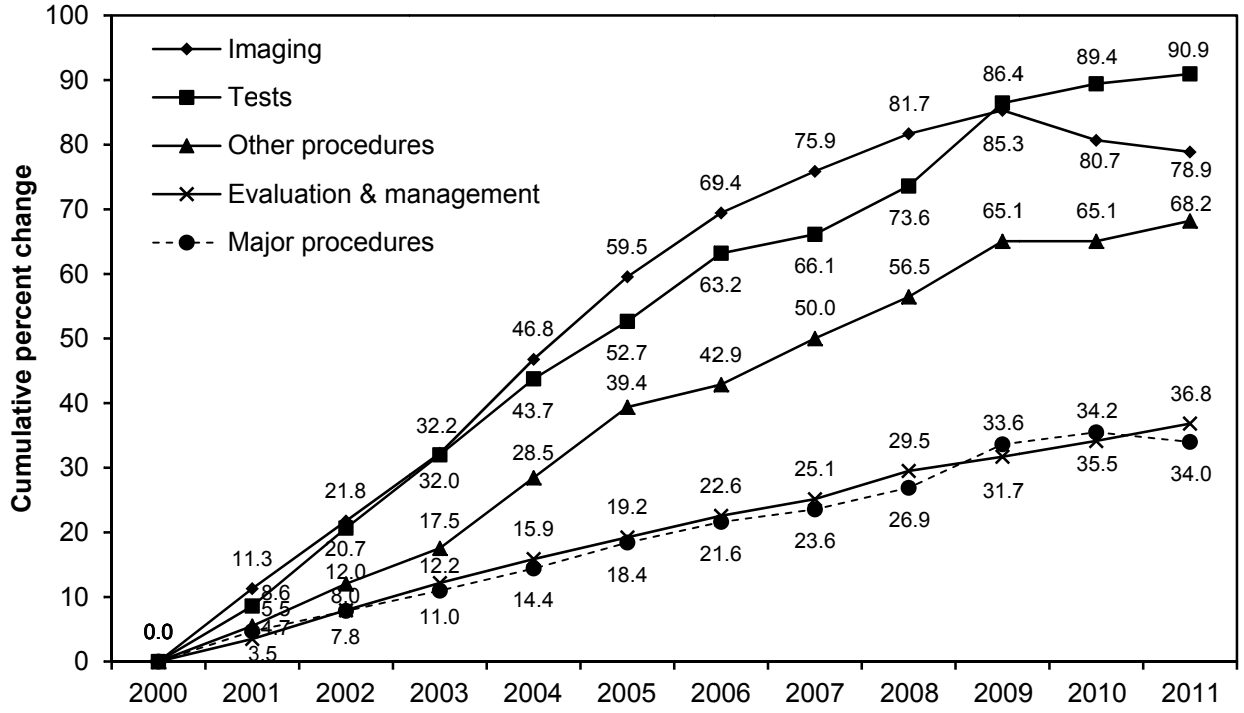
Note: Numbers may not sum to 100 percent due to rounding. Missing responses ("Don't Know" or "Refused") are not presented. Overall sample size for each group (Medicare and privately insured) was 4,000 in 2012. Sample size for individual questions varied.
[a] Statistically significant difference (at a 95 percent confidence level) between the Medicare and privately insured populations in the given race category.
[b] Statistically significant difference (at a 95 percent confidence level) by race within the same insurance category.

Source: MedPAC-sponsored telephone surveys, conducted in 2012.

- 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 2012, 88 percent of White Medicare beneficiaries reported "no problem" finding a new specialist, compared with 81 percent of minority beneficiaries.

- Although minorities experienced more access problems, minorities with Medicare were less likely to experience problems than minorities with private insurance.

Chart 7-8. Growth in volume of physician fee-schedule services per beneficiary, 2000–2011

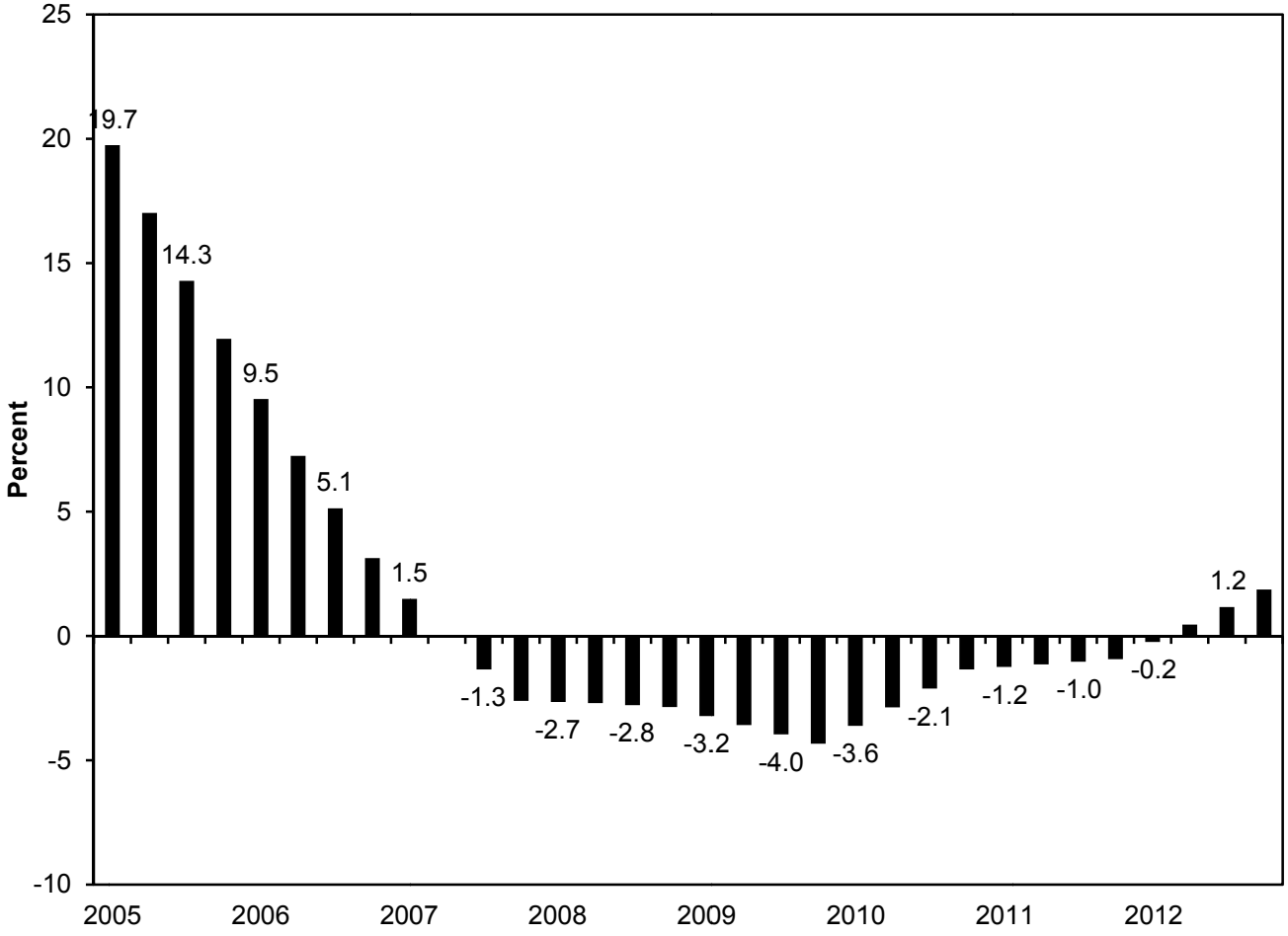


Note: Volume is units of service multiplied by relative value units from the physician fee schedule. Volume for all years is measured on a common scale, with relative value units for 2011. Volume growth for evaluation and management (E&M) from 2009 to 2010 is not directly observable due to a change in payment policy for consultations. To compute cumulative volume growth for E&M through 2011, we used a growth rate for 2009 to 2010 of 1.85 percent, which is the average of the 2008 to 2009 growth rate of 1.7 percent and the 2010 to 2011 growth rate of 2.0 percent.

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

- From 2000 to 2011, the volume of some services furnished by physicians and other professionals grew much more than others.
- The volume of tests grew by 91 percent, the volume of imaging grew by 79 percent, and the volume of "other procedures" (procedures other than major procedures) grew by 68 percent. The comparable growth rates for major procedures and E&M services were only 34 percent and 37 percent, respectively.
- While there was a cumulative decrease in imaging volume of 4 percent from 2009 to 2011, this decrease is small when compared with the increases that occurred previously. From 2000 to 2009, cumulative growth in the volume of imaging totaled 85 percent.
- Volume growth increases Medicare spending, limiting funds available for 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 7-9. Changes in physicians' professional liability insurance premiums, 2005–2012



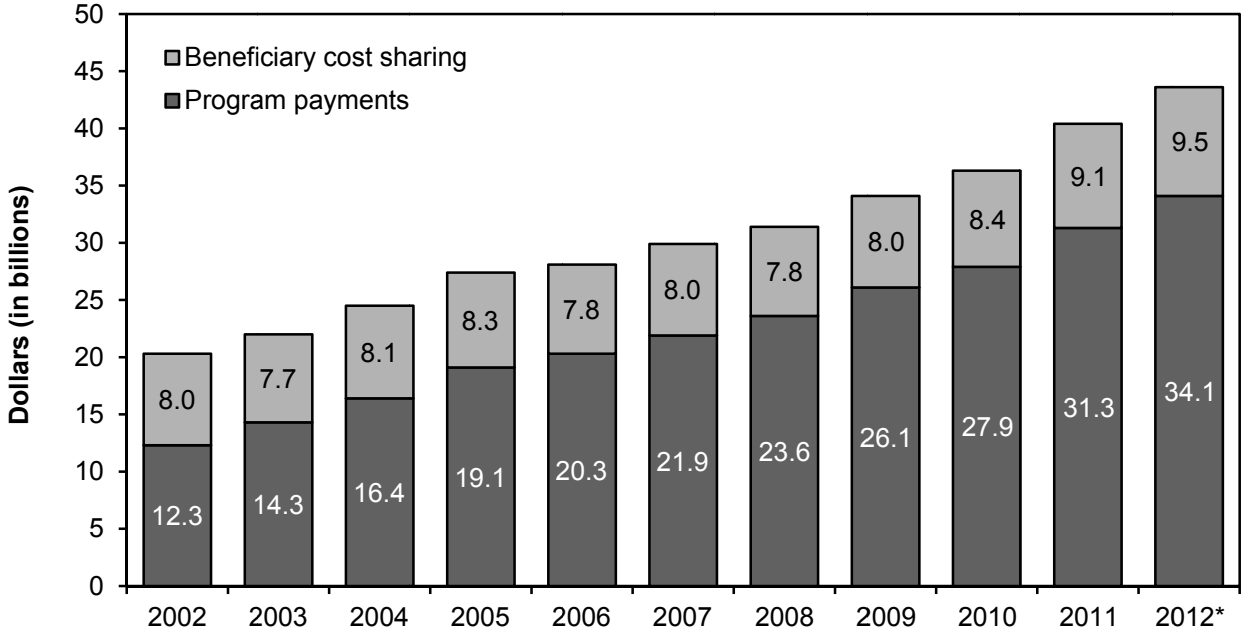
Note: Bars represent a four-quarter moving average percent change.

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

- Professional liability insurance (PLI) accounts for 4.3 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 (data not shown), premium growth slowed in 2005 and 2006, becoming negative in 2007 and remaining negative through the first quarter of 2012. Premiums began to rise slowly in the second quarter of 2012.

Chart 7-10. Spending on hospital outpatient services covered under the outpatient PPS, 2002–2012



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

Source: CMS, Office of the Actuary.

- Overall spending by Medicare and beneficiaries on hospital outpatient services covered under the outpatient PPS from calendar year 2002 to 2012 increased by 112 percent, reaching $43.5 billion. The Office of the Actuary projects continued growth in total spending, averaging 11.8 percent per year from 2012 to 2014.

- In 2001, the first full year of the outpatient PPS, spending under the PPS was $20.1 billion, including $12.1 billion by the program and $8.0 billion in beneficiary cost sharing. Spending under the outpatient PPS is expected to rise to $43.5 billion in 2012 ($34.1 billion program spending; $9.5 billion beneficiary copayments). The outpatient PPS accounted for about 6 percent of total Medicare spending by the program in 2012.

- Beneficiary cost sharing under the outpatient PPS is generally higher than for other sectors, about 23 percent in 2011. Chart 7-14 provides more detail on coinsurance.

Chart 7-11. Most hospitals provide outpatient services

Year	Hospitals	Percent offering		
		Outpatient services	Outpatient surgery	Emergency services
2002	4,210	94%	84%	N/A
2004	3,882	94	86	N/A
2006	3,651	94	86	N/A
2008	3,607	94	87	N/A
2010	3,518	95	90	N/A
2012	3,483	95	91	93

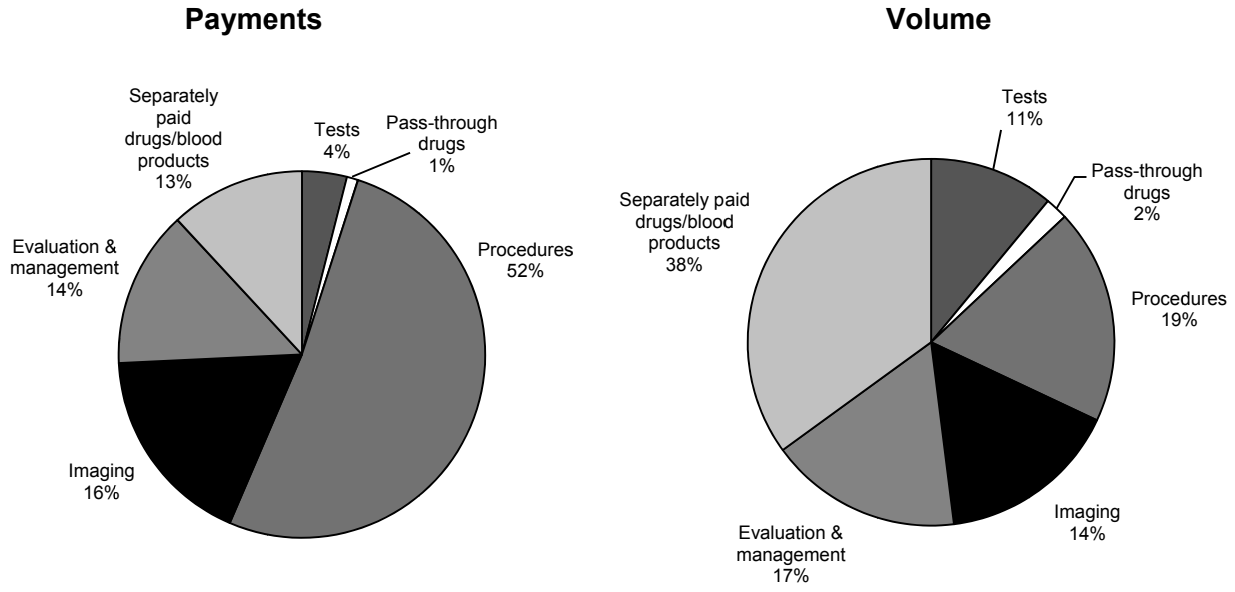
Note: N/A (not applicable). We list emergency services from 2002 through 2010 as N/A because the data source we used in this chart changed the variable for identifying hospitals' provision of emergency services. We believe this change in variable definition makes it appear that the percentage of hospitals providing emergency services increased sharply from 2010 to 2012 but question whether such a large increase actually occurred. This chart includes services provided or arranged by short-term hospitals and 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) sharply declined from 2002 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 decline in the number of outpatient PPS hospitals has slowed.

- The percent of hospitals providing outpatient services remained stable and the percent offering outpatient surgery steadily increased from 2002 through 2012. We also believe the percent offering emergency services has remained fairly stable, but we are not certain. In 2011, CMS changed the variable on the Provider of Services file we use to calculate the share of hospitals offering emergency services, so the 2012 number is not precisely comparable to prior years.

Chart 7-12. Payments and volume of services under the Medicare hospital outpatient PPS, by type of service, 2011



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 and separately paid drugs and blood products are classified by their payment status indicator. Percentages may not sum to 100 percent due to rounding.

Source: MedPAC analysis of the 5 percent standard analytic file of outpatient claims for 2011.

- 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, in 2011, procedures account for 52 percent of payments but only 19 percent of volume.
- Procedures (e.g., endoscopies, surgeries, skin and musculoskeletal procedures) account for the greatest share of payments for services (52 percent) in 2011, followed by imaging services (16 percent) and evaluation and management services (14 percent).
- In 2011, separately paid drugs and blood products accounted for 13 percent of payments.

Chart 7-13. Hospital outpatient services with the highest Medicare expenditures, 2011

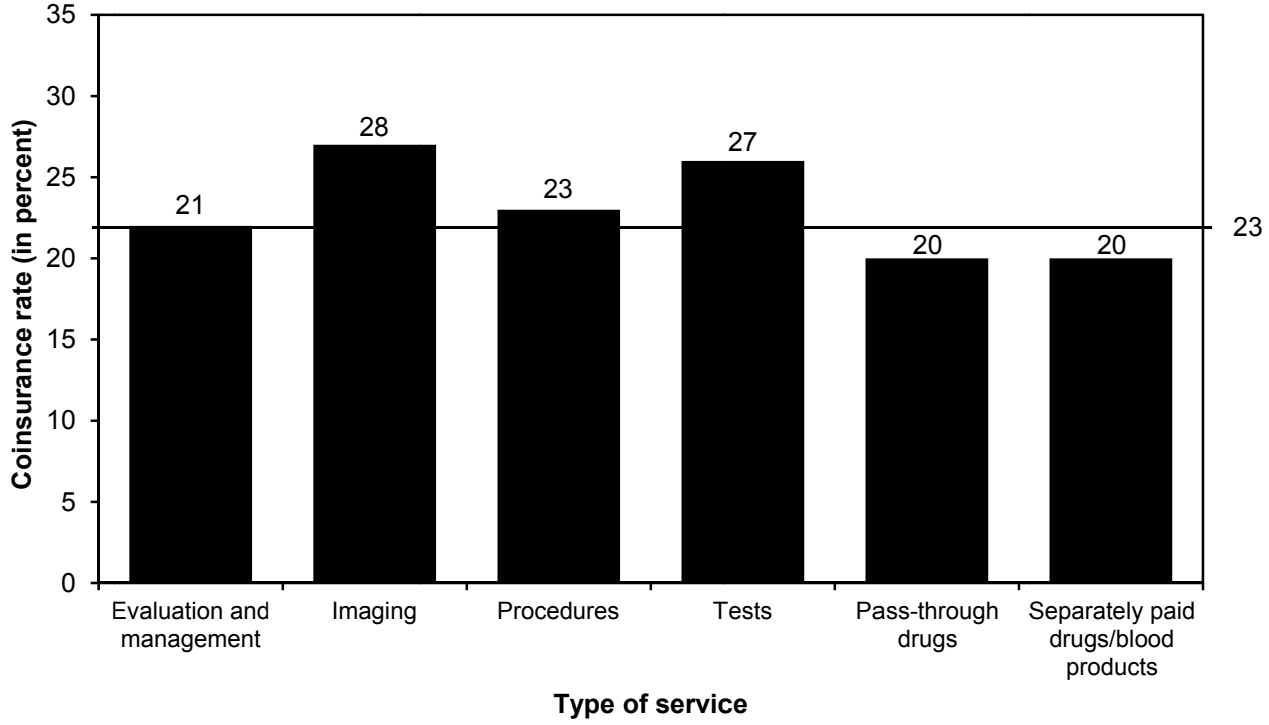
APC title	Share of payments	Volume (thousands)	Payment rate
Total	44%		
All emergency visits	6	11,589	$188
All clinic visits	5	20,110	73
Diagnostic cardiac catheterization	3	486	2,726
Cataract procedures with IOL insert	2	514	1,691
Level I plain film except teeth	2	16,323	45
Insertion of cardioverter–defibrillator	2	31	23,405
Level II extended assessment & management composite	2	1,022	714
Lower gastrointestinal endoscopy	2	1,116	643
Computed tomography without contrast	2	3,235	195
Transcatheter placement of intracoronary drug-eluting stents	2	87	7,279
IMRT treatment delivery	2	1,315	438
Coronary or noncoronary angioplasty and percutaneous valvuloplasty	1	179	3,780
Level II cardiac imaging	1	748	760
Insertion/replacement/repair of cardioverter–defibrillator leads	1	21	26,830
Level II echocardiogram without contrast	1	1,359	402
Transcatheter placement of intravascular shunts	1	64	8,025
Level I upper gastrointestinal procedures	1	946	612
Level II laparoscopy	1	139	3,295
CT and CTA with contrast composite	1	691	629
Level III nerve injections	1	952	523
Level III cystourethroscopy and other genitourinary procedures	1	275	1,814
Computed tomography with contrast*	1	645	300
MRI and magnetic resonance angiography without contrast material	1	1,116	343
MRI and magnetic resonance angiography without contrast followed by contrast	1	645	534
Insertion/replacement/conversion of permanent dual chamber pacemaker	1	37	9,484
Average APC		374	157

Note: APC (ambulatory payment classification), IOL (intraocular lens), IMRT (intensity-modulated radiation therapy), CT (computed tomography), CTA (computed tomography angiography), MRI (magnetic resonance imaging). The payment rate for "All emergency visits" is a weighted average of payment rates from 10 APCs, and the payment rate for "All clinic visits" is a weighted average of payment rates from 5 APCs.
*Did not appear on the list for 2010.

Source: MedPAC analysis of 5 percent analytic files of outpatient claims for calendar year 2011.

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

Chart 7-14. Medicare coinsurance rates, by type of hospital outpatient service, 2011



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 the 5 percent standard analytic files of outpatient claims for 2011.

- Before CMS began using the outpatient prospective payment system (PPS), 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 PPS, 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 relatively high rates of coinsurance—28 percent in 2011. Other services, such as evaluation and management services, have coinsurance rates of 21 percent.
- In 2011, the average coinsurance rate was about 23 percent.

Chart 7-15. Effects of hold-harmless and SCH transfer payments on hospitals' outpatient revenue, 2009–2011

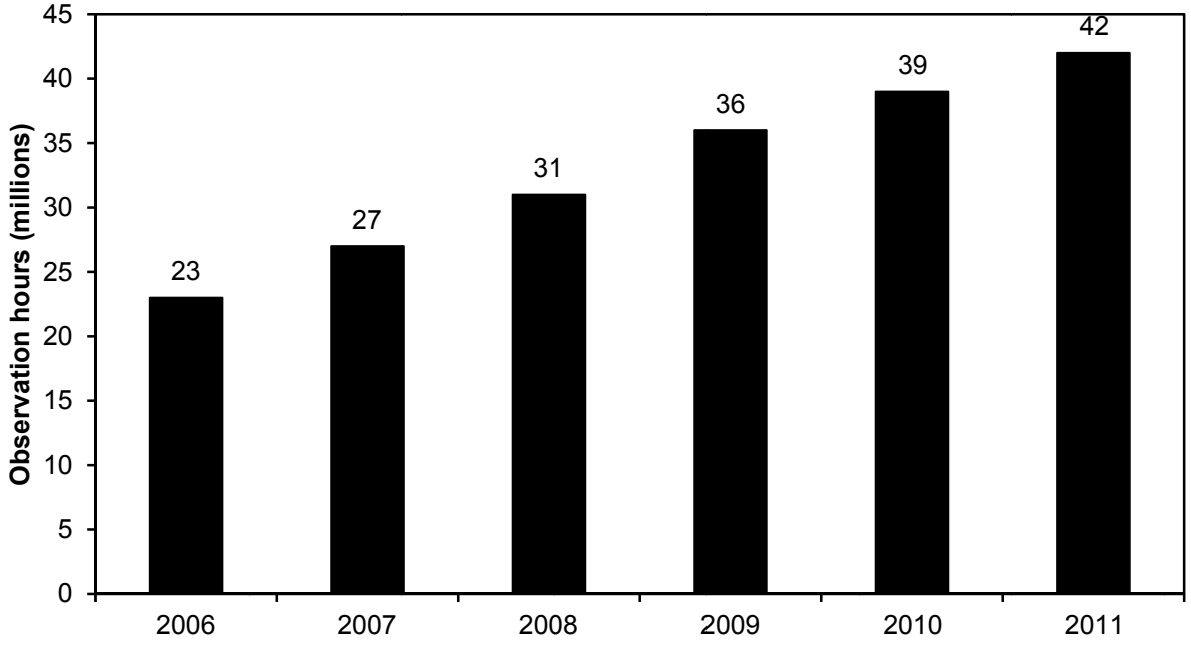
Hospital group	2009		2010		2011	
	Number of hospitals	Share of payments from hold harmless and SCH transfer	Number of hospitals	Share of payments from hold harmless and SCH transfer	Number of hospitals	Share of payments from hold harmless and SCH transfer
All hospitals	3,159	0.3%	3,126	0.4%	2,842	0.4%
Urban	2,243	–0.4	2,231	–0.3	2,042	–0.3
Rural SCHs	383	7.2	365	7.8	335	8.1
Rural ≤100 beds	388	2.8	385	3.1	337	3.1
Other rural	145	–0.4	144	–0.2	127	–0.4
Major teaching	270	–0.3	269	–0.3	234	–0.3
Other teaching	712	–0.2	720	0.0	659	0.0
Nonteaching	2,177	0.8	2,136	1.0	1,948	1.1

Note: SCH (sole community hospital). Numbers may not sum to totals due to rounding.

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 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. Finally, the Congress reestablished hold-harmless payments for SCHs that have 100 or fewer beds in 2009 and extended hold-harmless payments to all SCHs in 2010 and 2011.
- Hold-harmless payments and the SCH transfer represented 0.3 percent of total outpatient PPS payments for all hospitals in 2009. However, the percentage of total outpatient payments from these policies was 7.2 percent for rural SCHs and 2.8 percent for small rural hospitals. Data from 2010 and 2011 indicate transfer and hold-harmless payments to rural SCHs were 7.8 percent of their outpatient revenue in 2010 and 8.1 percent in 2011. Small rural hospitals continued to benefit from hold-harmless payments in 2010 and 2011. These payments were 3.1 percent of their total outpatient payments in both years.

Chart 7-16. Number of observation hours has increased, 2006–2011



Source: MedPAC analysis of Limited Data Set claims for the outpatient prospective payment system, 2006–2011.

- 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, the observation services were packaged into the payments for the emergency room or clinic visits that occur with observation care.
- The number of observation hours (both packaged and separately paid) has increased substantially from about 23 million in 2006 to 42 million in 2011. Before 2006, it was difficult to count the total number of observation hours because hospitals were not required to report packaged observation hours on Medicare claims.

Chart 7-17. Number of Medicare-certified ASCs increased by 25 percent, 2005–2012

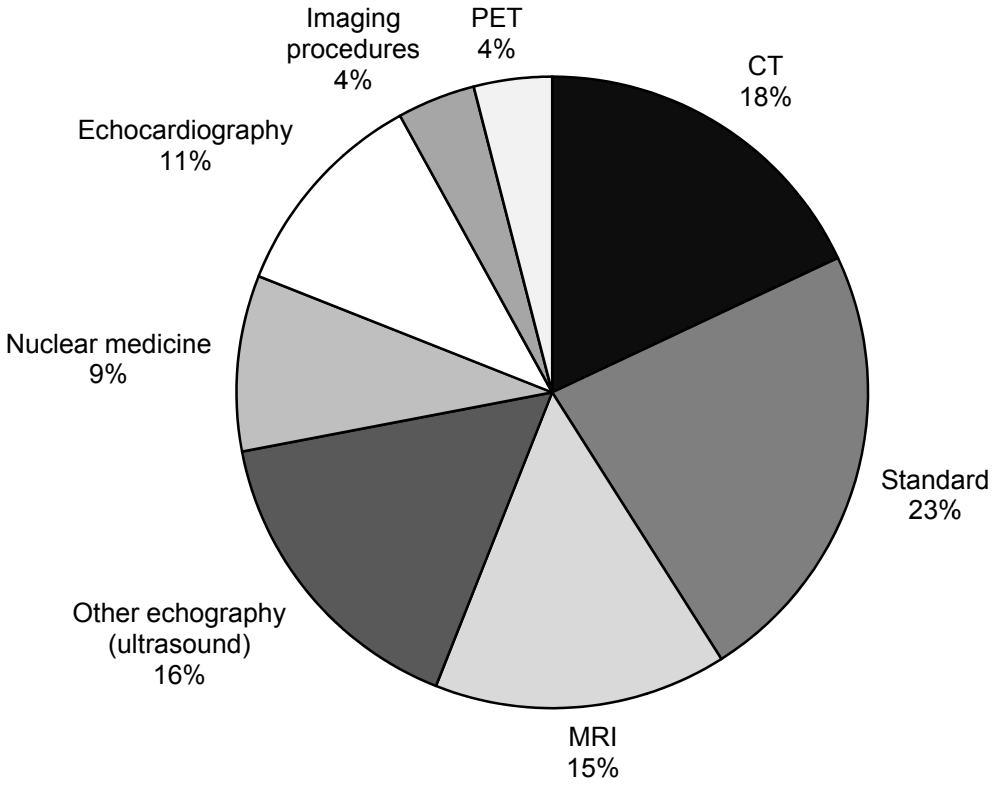
	2005	2006	2007	2008	2009	2010	2011	2012
Medicare payments (billions of dollars)	$2.7	$2.8	$2.9	$3.1	$3.2	$3.3	$3.4	$3.6
Number of centers	4,298	4,530	4,798	5,001	5,111	5,203	5,291	5,357
New centers	353	324	345	282	219	192	190	113
Exiting centers	60	92	77	79	109	100	102	47
Net percent growth in number of centers from previous year	6.6%	5.4%	5.9%	4.2%	2.2%	1.8%	1.7%	1.2%
Percent of all centers that are:								
For profit	96	96	96	96	96	97	97	97
Nonprofit	4	4	4	4	3	3	3	3
Urban	91	91	91	91	91	91	91	91
Rural	9	9	9	9	9	9	9	9

Note: ASC (ambulatory surgical center). Medicare payments include program spending and beneficiary cost sharing for ASC facility services. Payments for 2012 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, 2012. Payment data are from CMS, Office of the Actuary.

- 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.
- Total Medicare payments for ASC services increased by 4.4 percent per year, on average, from 2005 through 2012. Payments per fee-for-service beneficiary grew by 4.9 percent per year during this period. Between 2011 and 2012, total payments rose by 4.6 percent and payments per beneficiary grew by 3.6 percent.
- The number of Medicare-certified ASCs grew at an average annual rate of 3.2 percent from 2005 through 2012. Each year from 2005 through 2012, an average of 252 new Medicare-certified facilities entered the market, while an average of 83 closed or merged with other facilities.
- The relatively slow growth in the number of ASCs in 2010, 2011, and 2012 may reflect the substantial revision of the ASC payment system in 2008, the higher rates that Medicare pays for ambulatory surgical services in hospital outpatient departments than in ASCs, and the significant growth in hospital employment of physicians.

Chart 7-18. Medicare spending for imaging services under the fee schedule for physicians and other health professionals, by type of service, 2011

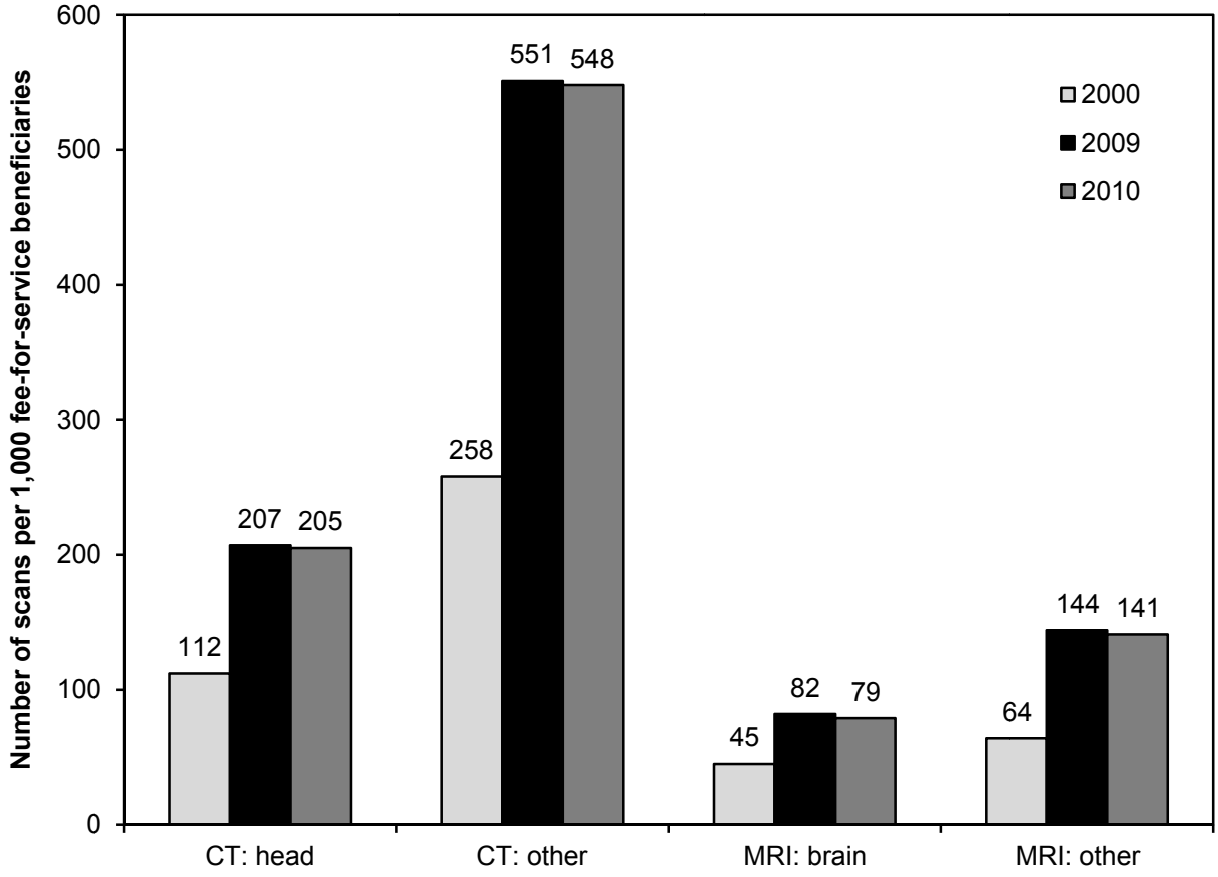


Note: CT (computed tomography), MRI (magnetic resonance imaging), PET (positron emission tomography). Standard imaging includes chest, musculoskeletal, and breast X-rays. Imaging procedures include stereoscopic X-ray guidance for delivery of radiation therapy, fluoroguide for spinal injection, and other interventional radiology procedures. Medicare payments include program spending and beneficiary cost sharing for physician fee-schedule imaging services. Payments include carrier-priced codes but exclude radiopharmaceuticals.

Source: MedPAC analysis of 100 percent physician/supplier procedure summary file from CMS, 2011.

- One-third of Medicare spending for imaging under the physician fee schedule in 2011 was for CT and MRI studies.
- Medicare and beneficiaries spent a total of $10.6 billion for imaging services under the physician fee schedule in 2011. Spending declined from $10.9 billion in 2010 (–3.4 percent). The decline in spending was largely due to CMS's adoption of more current practice expense data from a new survey of practitioners, the creation of new comprehensive codes for CT scans of the abdomen and pelvis, and an increase in the multiple procedure payment reduction for the technical component of imaging services that occurred in July 2010.
- Although spending for imaging services declined from 2010 to 2011, this decrease is small compared with the increase that occurred over the prior decade. From 2000 to 2010, cumulative growth in imaging spending totaled 70 percent (55 percent per fee-for-service beneficiary).

Chart 7-19. Rapid growth in the number of CT and MRI scans per 1,000 beneficiaries, 2000–2010



Note: CT (computed tomography), MRI (magnetic resonance imaging). Data include physician fee-schedule imaging services.

Source: MedPAC analysis of 100 percent physician/supplier procedure summary files from CMS, 2000, 2009, and 2010.

- The number of CT and MRI scans per 1,000 fee-for-service beneficiaries grew rapidly from 2000 to 2009. Despite a slight decline from 2009 to 2010, the number of studies in 2010 was still much higher than the level in 2000.
- For example, the number of CT scans of parts of the body other than the head more than doubled from 2000 to 2010 (from 258 per 1,000 beneficiaries to 548), despite a slight drop from 2009 to 2010.
- Similarly, the number of MRI studies of parts of the body other than the brain more than doubled from 2000 to 2010.

Web links. Ambulatory care

Physicians

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

  http://www.medpac.gov/documents/MedPAC_Payment_Basics_12_Physician.pdf

- Chapter 4 of the MedPAC March 2013 Report to the Congress, and Chapter 8 and Appendix A of the June 2013 Report to the Congress provide additional information on physician services.

  http://www.medpac.gov/chapters/Mar13_Ch04.pdf
  http://www.medpac.gov/chapters/Jun13_Ch08.pdf
  http://www.medpac.gov/chapters/Jun13_AppA.pdf

- MedPAC has recommended repealing the sustainable growth rate (SGR) and replacing it with legislatively specified updates.

  http://medpac.gov/documents/04102013_MedPAC_updated_SGR_letter.pdf
  http://medpac.gov/documents/10142011_MedPAC_SGR_letter.pdf

- MedPAC's congressionally mandated report, *Assessing Alternatives to the Sustainable Growth Rate 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:

  Moving forward from the sustainable growth rate system (May 14, 2013)
  http://www.medpac.gov/documents/05142013_MedPAC_SGR_Testimony_SFC.pdf

  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://www.medpac.gov/documents/071806_Testimony_imaging.pdf

  Medicare payment to physicians (July 25, 2006)
  http://www.medpac.gov/documents/072506_Testimony_physician.pdf

- The 2013 Annual Report of the Boards of Trustees of the Hospital Insurance and Supplementary Medical Insurance Trust Funds provides details on historic and projected spending on physician services.

  http://downloads.cms.gov/files/TR2013.pdf

- 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 patients' access to health care.

  http://www.hschange.org

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_12_opd.pdf

- Chapter 3 of the MedPAC March 2013 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/Mar13_Ch03.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://www.medpac.gov/documents/MedPAC_Payment_Basics_12_ASC.pdf

- Chapter 5 of the MedPAC March 2013 Report to the Congress provides additional information on ambulatory surgical centers.

  http://www.medpac.gov/chapters/Mar13_Ch05.pdf

SECTION 8

Post-acute care

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

Chart 8-1. Number of post-acute care providers increased or remained stable in 2012

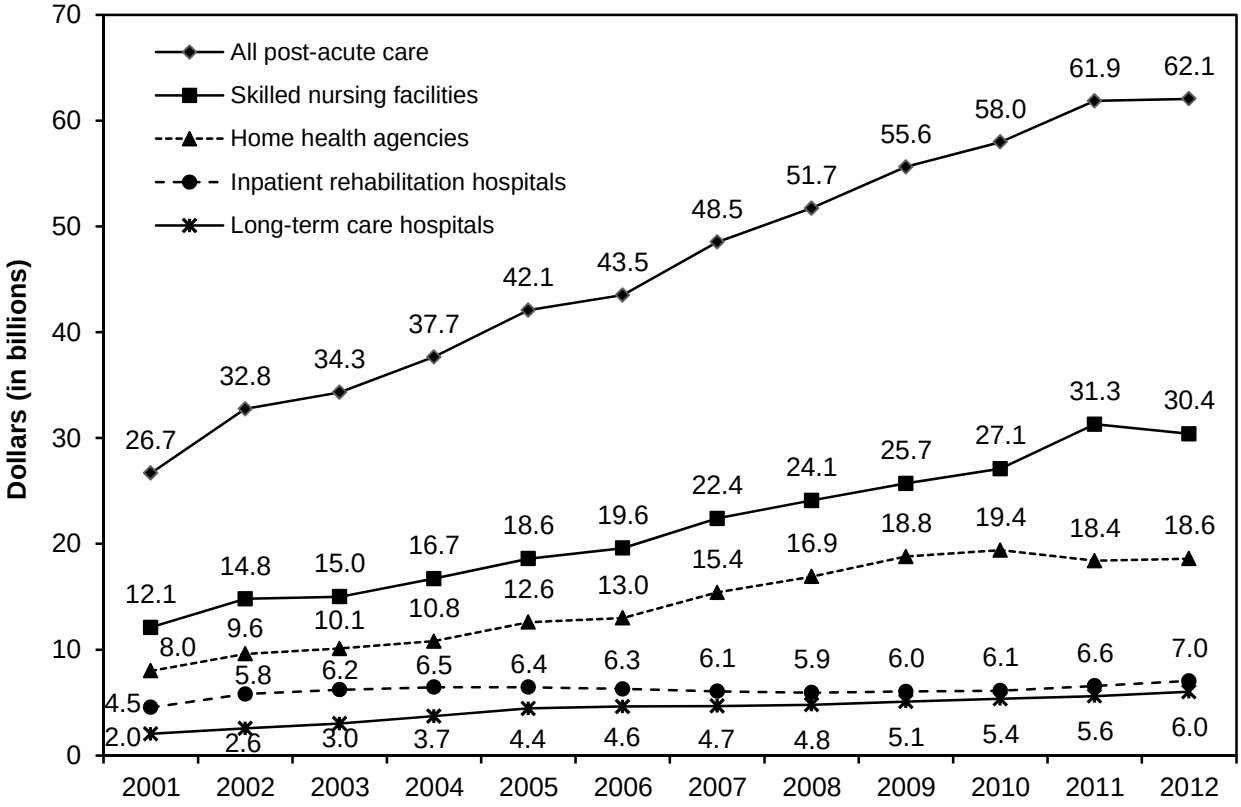
	2004	2005	2006	2007	2008	2009	2010	2011	2012	Average annual percent change 2004–2011	Percent change 2011–2012
Home health agencies	7,804	8,314	8,955	9,404	10,040	10,961	11,654	12,026	12,225	6.4%	1.7%
Inpatient rehabilitation facilities	1,221	1,235	1,225	1,202	1,202	1,196	1,179	1,165	1,166	–0.7	0.1
Long-term care hospitals	353	388	392	402	496	427	438	437	437	3.6	0.0
Skilled nursing facilities	14,981	15,026	15,017	15,047	15,024	15,062	15,076	15,120	15,139	0.1	0.1

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

Source: MedPAC analysis of data from the Provider of Services files from CMS.

- The number of home health agencies has increased substantially since 2004. The number of agencies increased by 199 in 2012. The growth in new agencies is concentrated in a few areas of the country.
- In spite of a moratorium on new long-term care hospitals (LTCHs) beginning in October 2007, the number of these facilities continued to grow through 2010. The number of LTCHs remained constant from 2011 to 2012.
- The total number of skilled nursing facilities has increased slightly since 2004, and the mix of facilities continues to shift from hospital-based to freestanding facilities. In 2012, hospital-based facilities made up 5 percent of all facilities, down from 10 percent in 2003.

Chart 8-2. Home health care and skilled nursing facilities have fueled growth in Medicare's post-acute care expenditures



Note: These numbers are program spending only and do not include beneficiary copayments.

Source: CMS Office of the Actuary.

- Increases in fee-for-service (FFS) spending on post-acute care have slowed in part due to expanded enrollment in managed care, whose spending is not included in this chart.

- FFS spending on inpatient rehabilitation hospitals declined from 2005 through 2008, reflecting policies intended to ensure that patients who do not need this intensity of services are treated in less intensive settings. However, spending on inpatient rehabilitation hospitals has increased since 2009.

- FFS spending on skilled nursing facilities increased sharply in 2011, reflecting CMS's adjustment for the implementation of the new case-mix groups (resource utilization groups, version IV) beginning October 2010. Once CMS established that the adjustment it made was too large, it lowered the adjustment and spending dropped in 2012.

Chart 8-3. A growing share of fee-for-service Medicare stays and payments go to freestanding skilled nursing facilities and for-profit facilities

	Facilities		Medicare-covered stays		Medicare payments	
Type of SNF	2006	2011	2006	2011	2006	2011
All SNFs	100%	100%	100%	100%	100%	100%
Freestanding	92	95	89	93	94	97
Hospital based	8	5	11	7	6	3
Urban	67	71	79	81	81	84
Rural	33	29	21	19	19	16
For profit	68	70	67	72	73	76
Nonprofit	26	25	29	25	24	21
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, 2006 and 2011.

- Freestanding SNFs made up 95 percent of facilities in 2011.
- Freestanding SNFs treated 93 percent of Medicare-covered stays and accounted for 97 percent of Medicare payments in 2011.
- For-profit facilities made up 70 percent of facilities in 2011. Between 2006 and 2011, their share of Medicare-covered stays increased 5 percentage points (from 67 percent to 72 percent) and their share of payments increased 3 percentage points.
- Urban SNFs' share of facilities, Medicare-covered stays, and payments increased between 2006 and 2011.

Chart 8-4. SNF volume remained essentially unchanged between 2010 and 2011

	2006	2008	2010	2011	Change 2010–2011
Volume per 1,000 fee-for-service beneficiaries					
Covered admissions	72	73	71.5	71.2	–0.3%
Covered days	1,892	1,977	1,938	1,935	–0.2
Covered days per admission	26.3	27.0	27.1	27.2	0.4

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

Source: Calendar year data from CMS, Office of Information Services

- Between 2010 and 2011, Medicare-covered admissions and days remained essentially unchanged, after declining slightly from 2008. Despite the modest declines, the covered days and covered days per admission were higher than in 2006.

Chart 8-5. Freestanding SNF Medicare margins have increased steadily since 2005

Type of SNF	2005	2006	2007	2008	2009	2010	2011[a]
All	13.1%	13.3%	14.7%	16.6%	18.0%	18.5%	22% to 24%
Urban	12.6	13.1	14.5	16.3	17.9	18.5	N/A
Rural	15.2	14.3	15.5	18.0	18.7	18.4	N/A
For profit	15.2	15.7	17.2	19.1	20.2	20.7	N/A
Nonprofit	4.5	3.5	4.1	6.9	9.6	9.5	N/A
Government[b]	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Note: SNF (skilled nursing facility), N/A (not applicable).
[a] Medicare margin for 2011 is estimated because Medicare cost reports were not available. The range is based on assumptions about days, revenues, and costs.
[b] 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.

- We estimate the 2011 Medicare margin to be between 22 percent and 24 percent. Medicare cost reports were not available to calculate Medicare margins for 2011.
- Although aggregate Medicare margins for freestanding SNFs have varied over the past 7 years, they have exceeded 10 percent every year since 2001 (early years not shown).
- Aggregate Medicare margins increased from 2009 to 2010 due to costs per day growing slower 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 2010 margins, one-half of freestanding SNFs had margins of 18.9 percent or more (not shown). One-quarter had Medicare margins at or below 9 percent and one-quarter had margins of 26.9 percent or higher.

Chart 8-6. Comparison of beneficiaries who do and do not use skilled nursing facilities, 2010

Characteristic	Percent of beneficiaries who: Use SNF services	Do not use SNF services
Sex		
Female	59%	54%
Male	41	46
Race/ethnicity		
White, non-Hispanic	85	79
African American	10	9
Hispanic	2	6
Other	2	5
Age (in years)		
<65	8	18
65–74	20	45
75–84	34	25
85+	39	12
Self-reported health status		
Excellent or very good	13	43
Good or fair	68	48
Poor	19	8
Limitations in ADLs		
No ADLs	26	69
1–2 ADLs	25	19
3–6 ADLs	49	12
Education		
No high school diploma	32	23
Completed high school	29	30
Beyond high school	36	46
Living arrangement		
In an institution	33	4
Alone	28	29
With a spouse	23	49
Other	15	18
Eligibility status		
Aged, no ESRD	82	89
Aged with ESRD	1	3
Disabled	17	7
Dual eligible	33	17

Note: SNF (skilled nursing facility), ADL (activity of daily living), ESRD (end-stage renal disease). Components may not sum to 100 percent due to rounding.

Source: MedPAC analysis of Medicare Current Beneficiary Survey 2010 cost and use files.

- Beneficiaries who use SNF services are older, more frail, and more likely to report poor health status compared with other beneficiaries.
- Beneficiaries who use SNF services are more likely to be disabled and dually eligible for Medicare and Medicaid.

Chart 8-7. Comparison of users of skilled nursing facilities: Dual-eligible users and other users, 2011

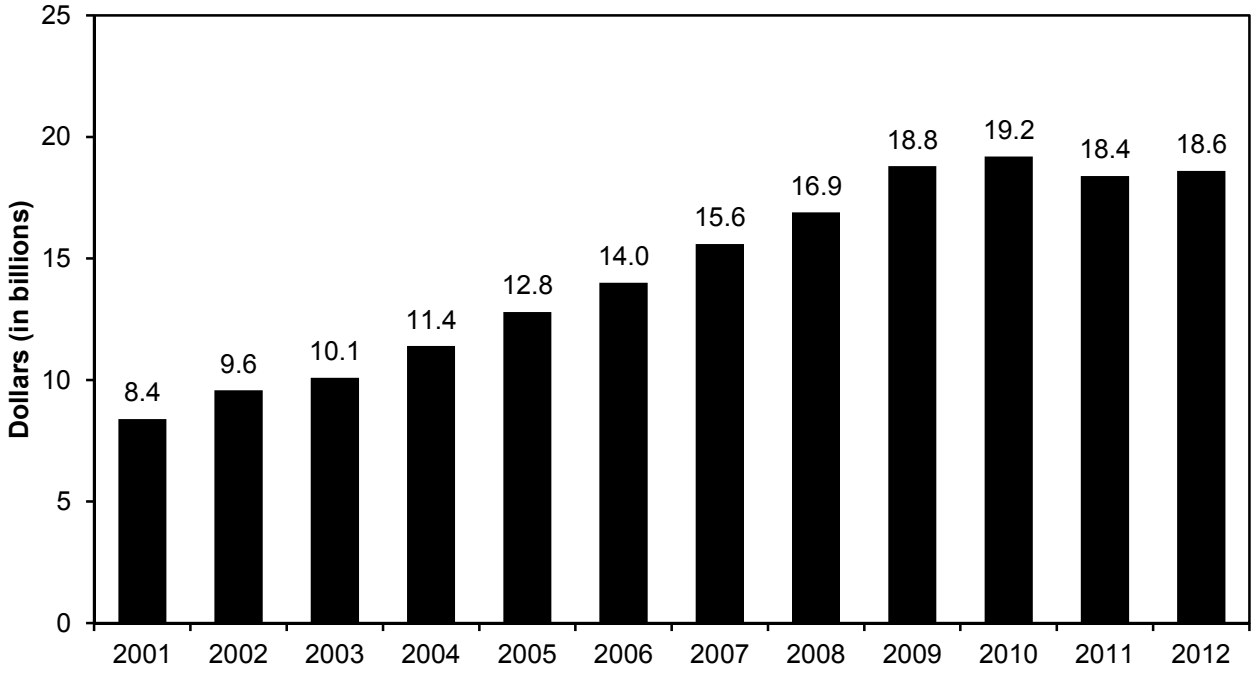
Characteristic	Percent of dual-eligible SNF users	Percent of other SNF users
Race/ethnicity		
White, non-Hispanic	72%	92%
African American	18	6
Hispanic	8	1
Other	3	1
Age (in years)		
<65	19	4
85+	28	39
Married	20	39
Falls since admission or prior assessment	23	16
Mental illness		
Alzheimer's disease	9	5
Dementia	33	21
Depression	46	33
Psychosis	9	3
Schizophrenia	5	1

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

Source: Analysis of patient assessment data for fiscal year 2011. Kramer, A., R. Fish, and M. Min. 2013. Risk-adjusted quality measures for skilled nursing facilities in 2011. Report prepared for the Medicare Payment Advisory Commission.

- Dual-eligible users of SNFs are younger, more likely to be minority, and less likely to be married compared with other SNF users.
- Dual-eligible users of SNFs are more likely to have a mental illness or cognitive impairment compared with other SNF users.

Chart 8-8. Spending on home health care, 1997–2012



Source: MedPAC analysis of CMS Standard Analytic File, 2012.

- In October 2000, the prospective payment system (PPS) replaced the previous Medicare payment system. At the same time, eligibility for the benefit broadened slightly.
- Home health care has risen rapidly under PPS. Spending rose by about 10 percent a year between 2001 and 2009, but growth slowed beginning in 2010.
- Spending dropped by about $800 million in 2011. This decline was attributable to two factors: The base rate for home health care declined and Medicare implemented fraud safeguards to reduce excessive spending for these services. These changes curbed total spending in 2011, even though the number of episodes provided did not change significantly. Spending increased slightly in 2012.

Chart 8-9. Provision of home health care changed after the prospective payment system started

	1997	2001	2011	Percent change 1997–2001	Percent change 2001–2011
Number of visits (in millions)	258	74	118	–71%	60%
Visit type (percent of total)					
Home health aide	48%	25%	15%		
Skilled nursing	41	50	51		
Therapy	10	24	33		
Medical social services	1	1	1		
Visits per home health patient	73	33	36	–55	9

Note: The prospective payment system began in October 2000. Totals may not sum to 100 percent due to rounding.

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 care received an average of 73 visits.
- By 2001, total visits dropped by 72 percent, and average visits per user had dropped to 33. The increase in visits per user between 2001 and 2011 reflects home health users receiving more episodes. The mix of services changed as well, with skilled nursing and therapy visits now accounting for over 80 percent of all services. Since the prospective payment system was implemented, the number of users and episodes has risen rapidly (see Chart 8-10).

Chart 8-10. Trends in provision of home health care

	2002	2006	2011	Average annual percent change 2002–2010
Number of users (in millions)	2.5	3.2	3.4	3.5%
Percent of beneficiaries who used home health care	7.2%	8.4%	9.5%	3.1
Episodes (in millions)	4.1	5.5	6.9	5.9
Episodes per home health patient	1.6	1.8	2.0	2.2
Visits per home health episode	18.4	18.4	17.2	-1.5
Visits per home health patient	31	34	34	1.2
Average payment per episode	$2,335	$2,538	$2,691	1.5

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

- Under the prospective payment system, in effect since 2000, the number of users and the number of episodes have risen significantly. In 2011, 3.4 million beneficiaries used the home health benefit.
- The number of home health episodes increased rapidly from 2002 to 2011, though growth has slowed in recent years. The number of beneficiaries using home health care has also increased since 2002 but at a lower rate than the growth in episodes.
- The number of visits per episode decreased in 2002 to 2011. However, this decline was offset by an increase in the average number of episodes per patient, which increased from 1.6 in 2002 to 2.0 in 2011. Beneficiaries received fewer visits in an episode but had more 60-day episodes of care. As a result, the average number of episodes per home health user increased from 31 visits per home health user in 2002 to 34 visits per home health user in 2011.

Chart 8-11. Medicare margins for freestanding home health agencies

	2010	2011	Percent of agencies 2011
All	19.1%	14.8%	100%
Geography			
Mostly urban	19.1	14.8	86
Mostly rural	19.4	15.3	14
Type of control			
For profit	20.3	15.7	87
Nonprofit	15.1	12.2	13
Volume quintile			
First	10.2	6.6	20
Second	11.2	8.3	20
Third	13.5	10.1	20
Fourth	17.7	13.4	20
Fifth	22.0	17.4	20

Note: Agencies are characterized as urban or rural based on the residence of the majority of their patients. Agencies with outlier payments that exceeded 10 percent of Medicare revenues are excluded from the reported statistics.

Source: MedPAC analysis of 2010–2011 Cost Report files.

- In 2011, freestanding home health agencies (HHAs) (about 85 percent of all HHAs) had an aggregate margin of 14.8 percent. HHAs that served mostly urban patients in 2011 had an aggregate margin of 14.8 percent; those that served mostly rural patients had an aggregate margin of 15.3 percent. The 2011 margin is consistent with the historically high margins the home health industry has experienced under the prospective payment system. The margin from 2001 to 2010 averaged 17.7 percent, indicating that most agencies have been paid well in excess of their costs under prospective payment.

- For-profit agencies in 2011 had an average margin of 15.7 percent, and nonprofit agencies had an average margin of 12.2 percent.

- Agencies that serve more patients have higher margins. The agencies in the lowest volume quintile in 2011 have an aggregate margin of 6.6 percent, while those in the highest quintile have an aggregate margin of 17.4 percent.

Chart 8-12. Most common types of inpatient rehabilitation facility cases, 2012

Type of case	Share of cases
Stroke	19.5%
Fracture of the lower extremity	13.2
Neurological disorders	11.3
Major joint replacement	10.1
Debility	9.9
Brain injury	7.7
Other orthopedic	7.5
Cardiac conditions	5.1
Spinal cord injury	4.5
Other	10.9

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 2012).

- In 2012, the most frequent diagnosis for Medicare patients in inpatient rehabilitation facilities (IRFs) was stroke, representing close to 20 percent of cases.
- Major joint replacement cases represented 10 percent of IRF admissions in 2012, down from 24 percent in 2004, when major joint replacement was the most common IRF Medicare case type.
- The share of cases represented by patients with neurological disorders has been steadily increasing since 2004, while the share of major joint replacement cases has been steadily decreasing. In 2012, the share of neurological disorders exceeded the share of major joint replacement for the first time.

Chart 8-13. Volume of IRF FFS patients increased in 2011

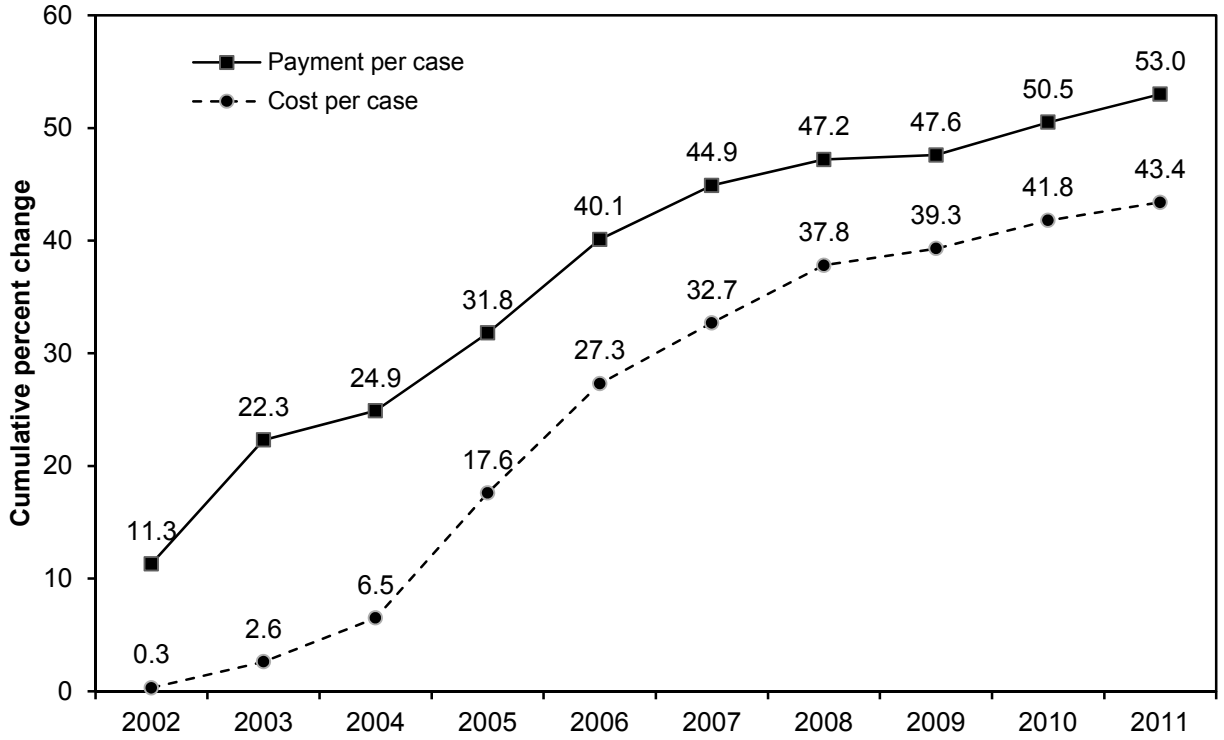
	2004	2009	2010	2011	Average annual percent change 2004–2010	Percent change 2010–2011
Number of IRF cases	495,000	364,000	359,000	371,288	–5.2%	3.3%
Unique patients per 10,000 FFS beneficiaries	123.0	93.0	91.1	92.7	–4.9	1.8
Payment per case	$13,290	$16,552	$17,085	$17,398	4.3	1.8
Medicare spending (in billions)	$6.58	$6.03	$6.14	$6.46	–1.1	5.2
Average length of stay (in days)	12.7	13.1	13.1	13.0	0.6	–0.8

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

Source: MedPAC analysis of MedPAR data from CMS.

- IRF volume is measured by the number of IRF cases and the number of unique patients per 10,000 beneficiaries, which controls for changes in FFS enrollment.
- IRF volume declined from 2004 through 2008, when enforcement of the compliance threshold was renewed. After 2008, the volume decline began to level off after the compliance threshold was permanently lowered to 60 percent.
- Between 2010 and 2011, the number of cases grew by 3.3 percent. This growth was due to an increase in both the number of unique beneficiaries receiving IRF care and an increase in the number of beneficiaries with more than one IRF stay in a year.
- While Medicare FFS spending on IRFs declined from 2004 through 2008, total Medicare spending rose 5.2 percent from 2010 to 2011.

Chart 8-14. Overall IRFs' payments per case have risen faster than costs since implementation of the PPS in 2002



Note: IRF (inpatient rehabilitation facility), PPS (prospective payment system). Costs are not adjusted for changes in case mix.

Source: MedPAC analysis of cost report data from CMS.

- Since implementation of the PPS in 2002, overall Medicare payments per case have cumulatively increased faster than costs per case, although in most years from 2004 through 2009 costs per case grew faster than payments.
- Between 2010 and 2011, payments per case increased more than costs per case (2.5 percent payment growth compared with 1.6 percent cost growth).
- These trends in Medicare per case payments and costs are reflected in IRFs' Medicare margins, shown in Chart 8-15.

Chart 8-15. Inpatient rehabilitation facilities' Medicare margin by type, 2002–2011

	2002	2004	2006	2008	2009	2010	2011
All IRFs	10.8%	16.7%	12.4%	9.5%	8.4%	8.7%	9.6%
Hospital based	6.1	12.2	9.6	4.1	0.3	–0.3	–0.8
Freestanding	18.5	24.7	17.5	18.2	20.3	21.4	22.9
Urban	11.3	17.0	12.6	9.7	8.6	9.1	10.3
Rural	5.9	13.9	10.6	7.6	6.3	5.4	5.7
Nonprofit	6.5	12.8	10.7	5.6	2.3	2.0	2.0
For profit	18.5	24.4	16.3	16.7	19.0	19.8	21.3

Note: IRF (inpatient rehabilitation facility).

Source: MedPAC analysis of cost report data from CMS.

- Medicare margins increased rapidly during the first two years (2002–2004) of the IRF prospective payment system (PPS) across all provider types. Aggregate margins rose from just under 2 percent in 2001 to almost 17 percent in 2004.
- From 2004 through 2009, margins declined each year, largely due to reductions in patient volume through 2008 (resulting in fewer patients among whom to distribute fixed costs) and a zero update to the base rates for half of 2008 and for all of 2009 that resulted in Medicare payment rates remaining at 2007 levels. Margins rose in 2010 and 2011.
- Between 2010 and 2011, aggregate margins increased from 8.7 percent to 9.6 percent.
- 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 PPS in 2002.

Chart 8-16. The top 25 MS–LTC–DRGs made up three-fifths of LTCH discharges in 2011

MS-LTC–DRG	Description	Discharges	Percentage	Change 2008–2011
207	Respiratory system diagnosis with ventilator support 96+ hours	16,101	11.5%	7.4%
189	Pulmonary edema and respiratory failure	13,042	9.3	49.1
871	Septicemia or severe sepsis without ventilator support 96+ hours with MCC	8,453	6.0	30.4
177	Respiratory infections & inflammations with MCC	4,997	3.6	15.1
592	Skin ulcers with MCC	3,425	2.5	–14.5
208	Respiratory system diagnosis with ventilator support <96 hours	3,029	2.2	21.8
949	Aftercare with CC/MCC	3,004	2.1	–19.9
190	Chronic obstructive pulmonary disease with MCC	2,769	2.0	8.2
193	Simple pneumonia and pleurisy with MCC	2,573	1.8	–4.6
539	Osteomyelitis with MCC	2,541	1.8	33.5
573	Skin graft and/or debridement for skin ulcer or cellulitis with MCC	2,101	1.5	9.9
314	Other circulatory system diagnosis with MCC	2,039	1.5	37.2
919	Complications of treatment with MCC	2,033	1.5	22.5
862	Postoperative and post-traumatic infections with MCC	2,008	1.4	20.1
166	Other respiratory system OR procedures with MCC	1,988	1.4	17.4
682	Renal failure with MCC	1,987	1.4	14.3
4	Tracheostomy with ventilator support 96+ hours or primary diagnosis except face, mouth, and neck without major OR	1,887	1.4	33.5
559	Aftercare, musculoskeletal system, and connective tissue with MCC	1,808	1.3	–7.0
870	Septicemia or severe sepsis with ventilator support 96+ hours	1,774	1.3	64.6
291	Heart failure and shock with MCC	1,713	1.2	1.5
593	Skin ulcers with CC	1,615	1.2	–37.6
178	Respiratory infections and inflammations with CC	1,591	1.1	–19.0
603	Cellulitis without MCC	1,539	1.1	9.9
602	Cellulitis with MCC	1,451	1.0	27.5
560	Aftercare, musculoskeletal system, and connective tissue with CC	1,369	1.0	–17.3
	Top 25 MS–LTC–DRGs	86,837	62.0	12.8
	Total	139,741	100.0	6.8

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 LTCHs. Columns may not sum due to rounding.

Source: MedPAC analysis of Medicare Provider Analysis and Review data from CMS.

- Cases in LTCHs are concentrated in a relatively small number of MS–LTC–DRGs. In 2011, the top 25 MS–LTC–DRGs accounted for more than 60 percent of all cases.
- The most frequent diagnosis in LTCHs in 2011 was respiratory system diagnosis with ventilator support for more than 96 hours. Nine of the top 25 diagnoses, representing 34 percent of all cases, were respiratory conditions.

Chart 8-17. LTCH spending per FFS beneficiary continues to rise

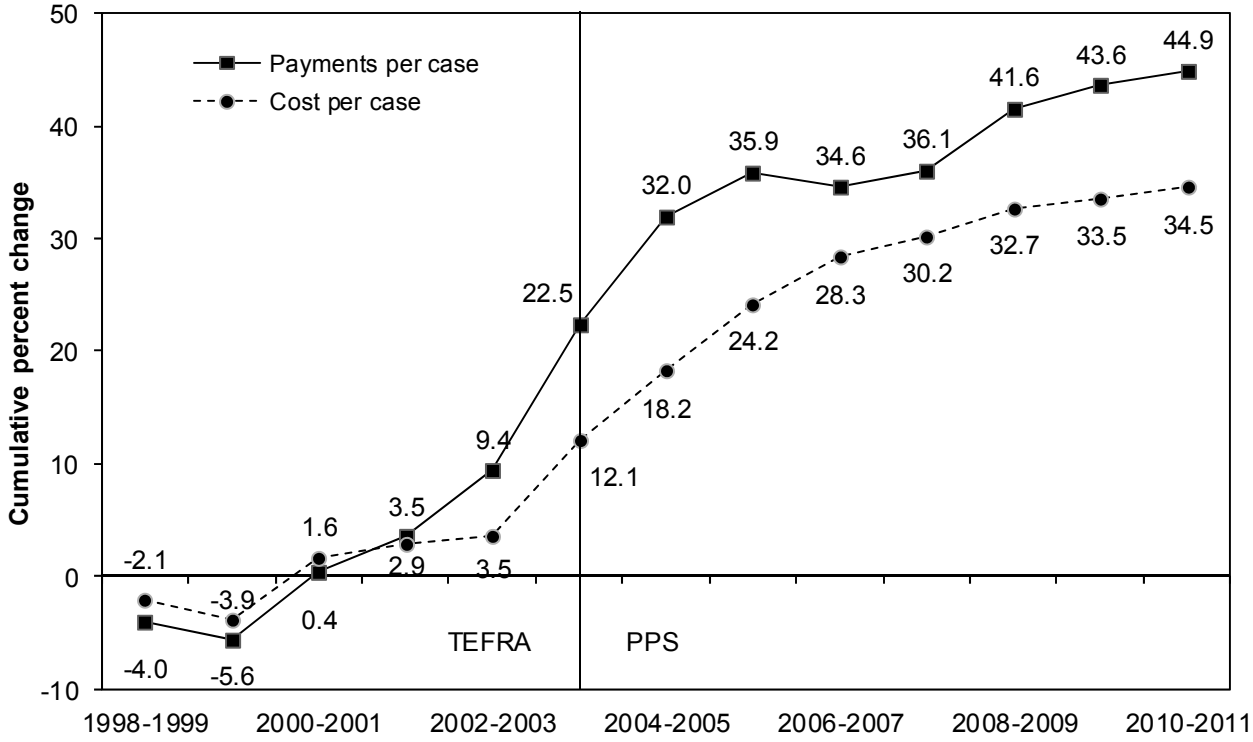
	2004	2005	2006	2007	2008	2009	2010	2011	Average annual change 2004–2005	2005–2010	2010–2011
Cases	121,955	134,003	130,164	129,202	130,869	131,446	134,683	139,715	9.9%	0.1%	3.7%
Cases per 10,000 FFS beneficiaries	33.4	36.4	36.0	36.2	36.9	37.0	37.4	38.5	9.0	0.6	2.8
Users	108,814	119,282	115,598	114,299	115,328	115,834	118,322	122,838	9.6	–0.2	3.8
Spending (in billions)	$3.7	$4.5	$4.5	$4.5	$4.6	$4.9	$5.2	$5.4	21.6	2.9	4.0
Spending per FFS beneficiary	$101.3	$122.2	$124.5	$126.1	$129.8	$138.0	$144.4	$148.8	20.7	3.4	3.1
Payment per case	$30,059	$33,658	$34,859	$34,769	$35,200	$37,465	$38,582	$38,664	12.0	2.8	0.2
Length of stay (in days)	28.5	28.2	27.9	26.9	26.7	26.4	26.6	26.3	–1.1	–1.2	–1.0

Note: LTCH (long-term care hospital), FFS (fee-for-service)

Source: MedPAC analysis of Medicare Provider Analysis and Review data from CMS.

- Between 2010 and 2011, the number of beneficiaries who had LTCH stays (users) increased by 3.8 percent.
- Controlling for the number of FFS beneficiaries, the number of LTCH cases rose 2.8 percent between 2010 and 2011.
- The average length of stay in LTCHs continues to decline at a rate of about 1 percent per year. Since 2001, average length of stay has fallen 16 percent (not shown).

Chart 8-18. LTCHs' per case payments continue to increase more than costs



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

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

- Payment per case increased rapidly after the PPS was implemented, climbing an average 16.6 percent per year between 2003 and 2005. Cost per case also increased rapidly during this period, albeit at a somewhat slower pace.
- Between 2005 and 2008, growth in cost per case outpaced that for payments, as regulatory changes to Medicare's payment policies for LTCHs slowed growth in payment per case to an average of 1.5 percent per year.
- Between 2008 and 2009, growth in payments per case accelerated to 5.5 percent, more than twice as much as the growth in costs. This surge was due in part to legislation that halted or rolled back the implementation of CMS regulations designed to address issues of overpayments to LTCHs.
- Between 2009 and 2011, growth in payments per case slowed to an average of 1.6 percent per year, while growth in costs per case increased less than 1 percent per year.

Chart 8-19. LTCHs' aggregate Medicare margin rose in 2011

Type of LTCH	Share of discharges	2004	2005	2006	2007	2008	2009	2010	2011
All	100%	9.1%	11.9%	9.7%	4.6%	3.5%	5.6%	6.6%	6.9%
Urban	95	9.3	12.0	9.9	4.9	3.8	5.9	6.9	7.1
Rural	4	2.6	10.2	4.7	–0.4	–3.3	–3.0	–0.3	1.1
Nonprofit	14	6.9	9.1	6.5	1.4	–2.5	–0.9	–0.2	–0.1
For profit	84	10.0	13.1	10.9	5.6	5.1	7.3	8.2	8.5
Government	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Note: LTCH (long-term care hospital), N/A (not available). Share of discharges column groupings may not sum to 100 percent due to rounding or missing data. Margins for government-owned providers are not shown. They 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 prospective payment system, LTCHs' Medicare margins increased rapidly for all LTCH provider types, climbing to 11.9 percent in 2005. Margins then fell as growth in payments per case leveled off. In 2009, however, LTCH margins began to increase again, reaching 6.9 percent in 2011.

- Margins increased between 2010 and 2011 for all types of LTCHs. Financial performance in 2011 varied across LTCHs. The aggregate Medicare margin for for-profit LTCHs (which accounted for 84 percent of all Medicare discharges from LTCHs) was 8.5 percent. Rural LTCHs' aggregate margin was 1.1 percent, compared with 7.1 percent for their urban counterparts. Rural providers account for about 4 percent of LTCH discharges, caring for a smaller volume of patients on average, which may result in poorer economies of scale.

Chart 8-20. LTCHs in the top quartile of Medicare margins in 2011 had much lower costs

Characteristics	Top-margin quartile	Bottom-margin quartile
Mean Medicare margin	20.6%	–9.2%
Mean total discharges (all payers)	553	428
Medicare patient share	61%	63%
Average length of stay (in days)	26	27
Mean adjusted CMI	1.0057	0.9454
Mean per discharge:		
Standardized costs	$27,160	$36,849
Medicare payment (excluding outlier payments)	$38,960	$35,027
High-cost outlier payment	$1,134	$4,434
Share of:		
Cases that are SSOs	27%	32%
Medicare cases from primary-referring ACH	39	44
LTCHs that are for profit	92	62

Note: LTCH (long-term care hospital), CMI (case-mix index), SSO (short-stay outlier), ACH (acute care hospital). Chart includes only established LTCHs—those that filed valid cost reports in both 2010 and 2011. Top-margin quartile LTCHs were in the top 25 percent of the distribution of Medicare margins. Bottom-margin quartile 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. CMIs have been adjusted for differences in SSOs across facilities. The primary referring ACH is the one from which the LTCH receives a plurality of its patients. Government providers were excluded.

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

- The top quartile of LTCHs had an aggregate Medicare margin of 20.6 percent, while the bottom quartile had an aggregate Medicare margin of –9.2 percent.
- Lower per discharge costs, rather than higher payments, drove the differences in financial performance between LTCHs with the lowest and highest Medicare margins. Bottom-margin LTCHs had standardized costs per discharge that were 36 percent higher than top-margin LTCHs ($36,849 vs. $27,160). Low-margin LTCHs served fewer patients overall and thus may have benefitted less from economies of scale.
- High-cost outlier payments per discharge for bottom-margin LTCHs were almost four times those of top-margin LTCHs ($4,434 vs. $1,134). At the same time, SSOs made up a larger share of bottom-margin LTCHs' cases. Bottom-margin LTCHs thus cared for disproportionate shares of patients who were high-cost outliers and patients who had shorter stays.
- Compared with their bottom-margin counterparts, top-margin LTCHs were much more likely to be for profit.

Web links. Post-acute care

Skilled nursing facilities

- Chapter 8 of MedPAC's March 2013 Report to the Congress provides information about the supply, quality, service use, and Medicare margins for skilled nursing facilities.

  http://www.medpac.gov/chapters/Mar13_Ch08.pdf

- 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.

  http://www.medpac.gov/chapters/Jun08_Ch07.pdf

- *Medicare payment basics: Skilled nursing facility payment system* provides a description of how Medicare pays for skilled nursing facility care.

  http://www.medpac.gov/documents/MedPAC_Payment_Basics_12_SNF.pdf

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

  http://www.cms.gov/medicare/medicare-fee-for-service-payment/SNFPPS/

Home health services

- Chapter 9 of MedPAC's March 2013 Report to the Congress provides information on home health services.

  http://www.medpac.gov/chapters/Mar13_Ch09.pdf

- *Medicare payment basics: Home health care services payment system* provides a description of how Medicare pays for home health care.

  http://www.medpac.gov/documents/MedPAC_Payment_Basics_12_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/Medicare/Medicare-Fee-for-Service-Payment/HomeHealthPPS/index.html

Inpatient rehabilitation facilities

- Chapter 10 of MedPAC's March 2013 Report to the Congress provides information on inpatient rehabilitation facilities.

  http://www.medpac.gov/chapters/Mar13_Ch10.pdf

- *Medicare payment basics: Rehabilitation facilities (inpatient) payment system* provides a description of how Medicare pays for inpatient rehabilitation facility services.

  http://www.medpac.gov/documents/MedPAC_Payment_Basics_12_IRF.pdf

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

  http://www.cms.gov/medicare/medicare-fee-for-service-payment/InpatientRehabFacPPS/

Long-term care hospitals

- Chapter 11 of MedPAC's March 2013 Report to the Congress provides information on long-term care hospitals.

  http://www.medpac.gov/chapters/Mar13_Ch11.pdf

- *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/documents/MedPAC_Payment_Basics_12_LTCH.pdf

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

  http://www.cms.gov//medicare/medicare-fee-for-service-payment/LongTermCareHospitalPPS/

SECTION 9

Medicare Advantage

Chart 9-1. MA plans available to virtually all Medicare beneficiaries

	CCPs					
	HMO or local PPO	Regional PPO	Any CCP	PFFS	Any MA plan	Average plan offerings per county
2005	67%	N/A	67%	45%	84%	5
2006	80	87	98	80	100	12
2007	82	87	99	100	100	20
2008	85	87	99	100	100	35
2009	88	91	99	100	100	34
2010	91	86	99	100	100	21
2011	92	86	99	63	100	12
2012	93	76	99	60	100	12
2013	95	71	99	59	100	12

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).

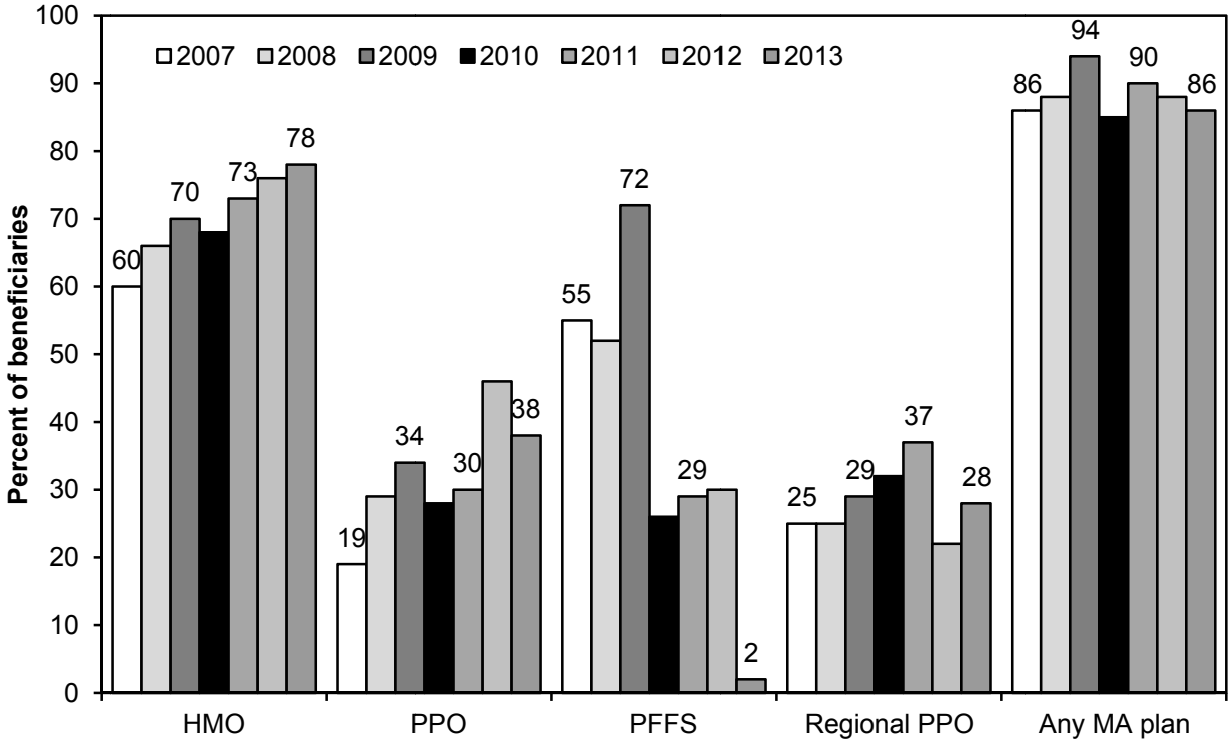
Source: MedPAC analysis of plan bid data from CMS.

- There are four types of MA 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-of-network providers. Local CCPs may choose which individual counties to serve. Regional PPOs cover entire state-based regions and have networks that may be looser than those required of local PPOs. Since 2011, PFFS plans (not CCPs) are required to have networks in areas with two or more CCPs. In areas where there are not two or more CCPs, PFFS plans are not required to have networks and enrollees are free to use any Medicare provider.

- Local CCPs are available to 95 percent of Medicare beneficiaries in 2013—up from 67 percent in 2005. Regional PPOs are available to 71 percent of beneficiaries, down from 76 percent in 2012. The availability of MA PFFS plans has declined from 100 percent of beneficiaries in 2010 to 59 percent of beneficiaries in 2013. The decline is due to recent provider network requirements in most of the country. For the past eight years, virtually 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 2013 is about the same as last year. In 2013, beneficiaries can choose from an average of 12 plans operating in their counties. This number has decreased after peaking in 2008 and 2009, reflecting CMS's 2010 effort to reduce the number of duplicative plans and plans with small enrollment as well as network requirements for PFFS plans.

Chart 9-2. Access to zero-premium plans with MA drug coverage, 2007–2013



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

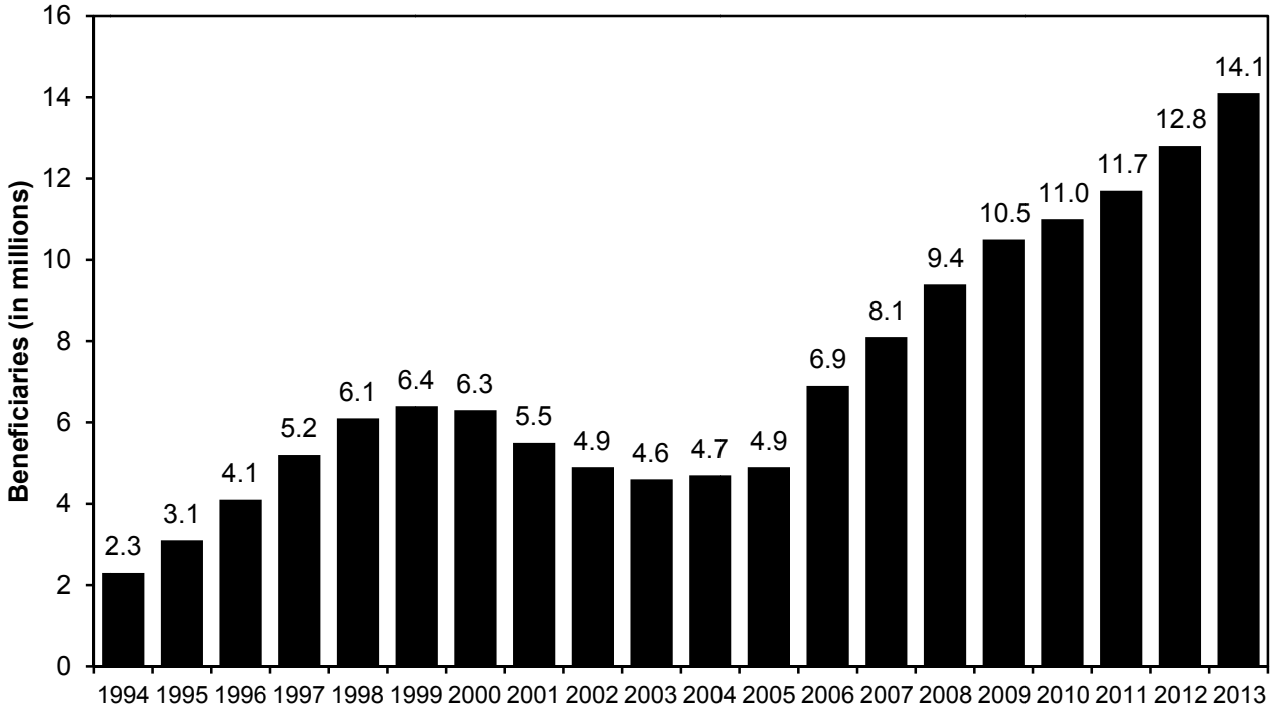
Source: MedPAC analysis of bid and plan finder data from CMS.

- Across all plan types, the availability of zero-premium plans—plans with no beneficiary premium other than the Medicare Part B premium—has ranged from 85 percent to 94 percent since 2007. Most beneficiaries can obtain a Medicare Advantage–Prescription Drug (MA–PD) plan, an MA plan that includes Part D drug coverage, for which the enrollee pays no premium. In 2013, 86 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 88 percent in 2012.

- Seventy-eight percent of beneficiaries have zero-premium MA–PD HMOs available. MA–PD PPOs without premiums are less widely available but are available to 38 percent of beneficiaries in 2013, while zero-premium regional PPOs are available to 28 percent of Medicare beneficiaries. PFFS plans offering zero premiums and Part D drug coverage are available to only 2 percent of beneficiaries in 2013, down from 30 percent of beneficiaries in 2012.

- 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 9-3. Enrollment in MA plans, 1994–2013



Note: MA (Medicare Advantage).

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

- Medicare enrollment in MA plans paid on an at-risk capitated basis is at an all-time high at 14.1 million enrollees (28 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.

Chart 9-4. Changes in enrollment vary among major plan types

Plan type	Total enrollees (in thousands) February 2010	February 2011	February 2012	February 2013	Percent change 2012–2013
Local CCPs	8,534	9,993	11,382	12,580	11%
Regional PPOs	760	1,132	930	1,060	14
PFFS	1,657	588	518	417	–19

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 by 11 percent over the past year. Enrollment in regional PPOs grew by 14 percent after having contracted the previous year, while enrollment in PFFS plans continued to decline. Combined enrollment in the three types of plans grew by 10 percent from February 2012 to February 2013.

Chart 9-5. MA and cost plan enrollment by state and type of plan, 2013

State	Medicare eligibles (in thousands)	Distribution (in percent) of enrollees by plan type					
		HMO	Local PPO	Regional PPO	PFFS	Cost	Total
U.S. total	50,674	19%	6%	2%	1%	1%	29%
Alabama	902	14	7	2	0	0	23
Alaska	72	0	0	0	0	0	0
Arizona	1,006	35	2	1	1	0	39
Arkansas	563	8	3	3	5	0	18
California	5,140	36	1	0	0	0	38
Colorado	693	28	3	0	1	4	36
Connecticut	599	19	3	1	0	0	23
Delaware	162	5	2	0	0	0	7
Florida	3,611	26	2	9	0	0	37
Georgia	1,364	7	12	5	2	0	26
Hawaii	223	17	14	14	0	2	46
Idaho	251	9	20	0	1	0	31
Illinois	1,949	6	4	0	0	0	11
Indiana	1,072	2	13	5	1	0	21
Iowa	541	6	6	0	0	2	14
Kansas	457	5	6	0	2	0	13
Kentucky	811	3	13	6	1	1	23
Louisiana	734	23	1	2	1	0	27
Maine	285	10	7	0	0	0	18
Maryland	851	3	2	0	0	3	9
Massachusetts	1,132	15	2	1	0	0	18
Michigan	1,770	12	14	2	1	0	27
Minnesota	841	16	5	0	0	28	50
Mississippi	527	6	3	2	1	0	13
Missouri	1,064	16	5	2	2	0	25
Montana	183	0	12	0	4	0	15
Nebraska	293	6	3	0	3	1	13
Nevada	394	29	3	0	1	0	33
New Hampshire	239	1	2	0	2	0	5
New Jersey	1,409	14	1	0	0	0	16
New Mexico	339	19	10	0	1	0	29
New York	3,159	25	6	2	1	0	34
North Carolina	1,613	12	4	2	2	0	21
North Dakota	112	0	2	0	1	10	13
Ohio	2,015	16	16	4	0	1	38
Oklahoma	638	11	4	0	1	0	17
Oregon	674	22	21	0	0	0	43
Pennsylvania	2,397	23	15	0	1	0	39
Puerto Rico	709	66	6	0	0	0	72
Rhode Island	192	33	1	1	0	0	36
South Carolina	846	5	7	6	2	0	20
South Dakota	144	0	6	0	1	7	14
Tennessee	1,139	23	6	1	0	0	30
Texas	3,282	16	7	3	1	1	28
Utah	309	23	10	0	0	1	34
Vermont	121	0	1	1	5	0	7
Virgin Islands	9	1	0	0	-	0	1
Virginia	1,237	5	4	2	3	2	15
Washington	1,062	23	6	0	0	0	29
Washington, D.C.	83	2	2	0	0	7	11
West Virginia	399	2	8	10	2	3	24
Wisconsin	972	17	10	1	2	4	34
Wyoming	87	0	1	0	2	1	4

Note: MA (Medicare Advantage), HMO (health maintenance organization), PPO (preferred provider organization), PFFS (private fee-for-service). Cost plans are not MA plans; they submit cost reports rather than bids to CMS. Totals may not sum due to rounding.

Source: CMS enrollment and population data, 2013.

Chart 9-6. MA plan benchmarks, bids, and Medicare program payments relative to FFS spending, 2013

	All plans	HMOs	Local PPOs	Regional PPOs	PFFS
Benchmarks/FFS	110%	110%	111%	106%	110%
Bids/FFS	96	92	107	97	105
Payments/FFS	104	103	108	102	107

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

Source: MedPAC analysis of plan bid data from CMS, October 2012.

- 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 bid 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 established the formula, being phased in by 2017, for calculating benchmarks in each county, based on percentages (ranging from 95% to 115%) of each county's per capita Medicare 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 a percentage of the difference between the plan's bid and its benchmark. The percentage is based on the plan's quality rating and is phased in so that in 2014 it will range from 50 percent to 70 percent. (In 2011, all plan rebates were set at 75 percent.) The plan must then return the rebate to its enrollees in the form of supplemental benefits, lower cost sharing, or lower premiums.

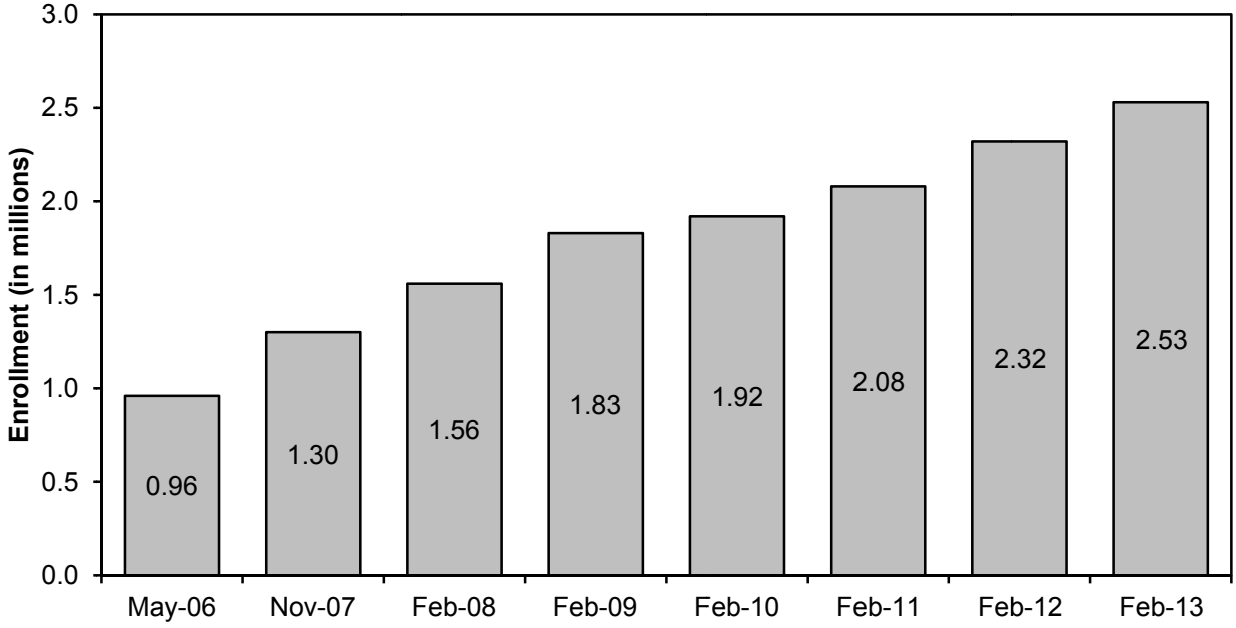
- We estimate that MA benchmarks average 110 percent of FFS spending when weighted by MA enrollment. The ratio varies by plan type, because different types of plans tend to draw enrollment from different types of areas.

- Plans' enrollment-weighted bids average 96 percent of FFS spending. We estimate that HMOs bid an average of 92 percent of FFS spending, while bids from other plan types average at least 97 percent of FFS spending. These numbers suggest that HMOs can provide the same services for less than FFS in the areas where they bid, while most other plan types tend to charge more.

- We project that 2013 MA payments will be 104 percent of FFS spending. It is likely this number will decline 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 103 percent and 102 percent of FFS, respectively, while payments to PFFS and local PPOs will average 107 percent and 108 percent of FFS, respectively.

Chart 9-7. Enrollment in employer group MA plans, 2006–2013



Note: MA (Medicare Advantage).

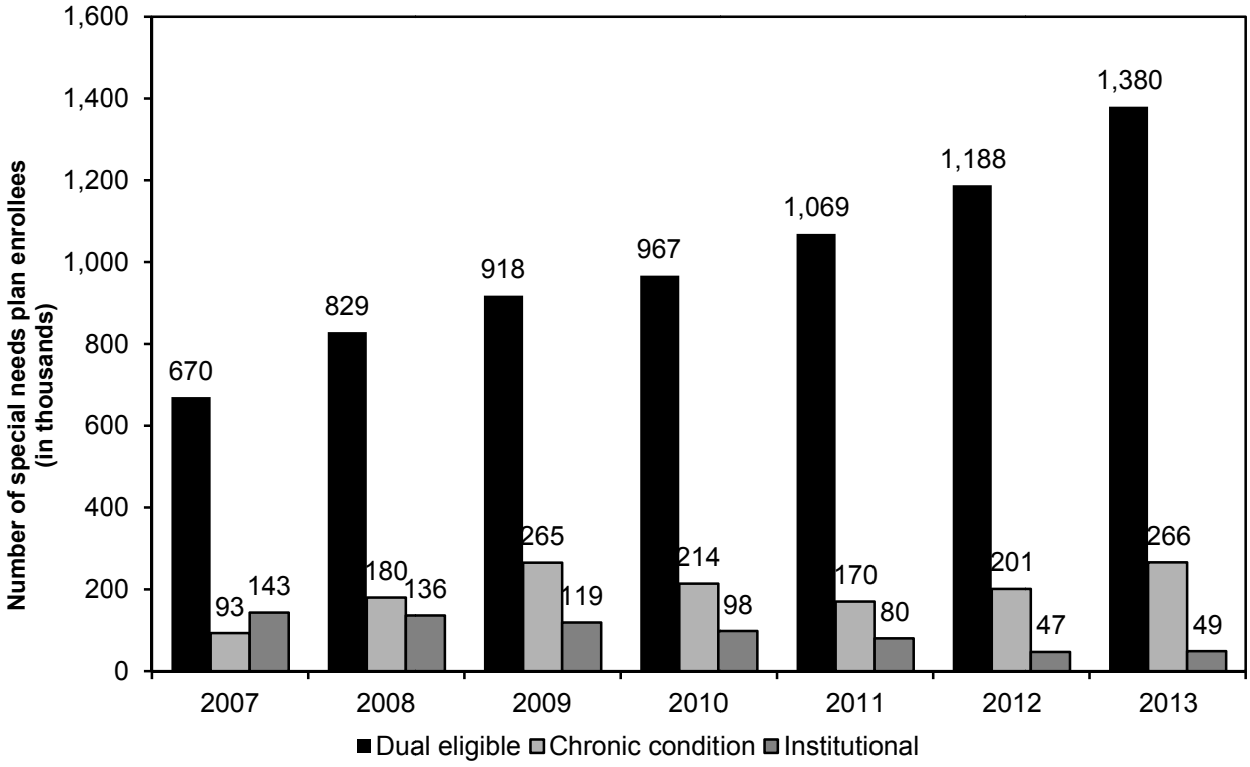
Source: CMS enrollment data.

- 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.

- As of February 2013, about 2.5 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 to be less efficient than individual market MA plans. Employer group plans bid an average of 106 percent of FFS, compared with 94 percent of FFS for individual plans (not shown in Chart 9-7).

Chart 9-8. Number of special needs plan enrollees, 2007–2013



Source: CMS special needs plans comprehensive reports, May 2007, April 2008–2013.

- The Congress created special needs plans (SNPs) as a new Medicare Advantage (MA) plan type in the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 to provide a common framework for the existing plans serving special needs beneficiaries and to expand beneficiaries' access to and choice among MA plans.

- 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; the Patient Protection and Affordable Care Act of 2010; and the Taxpayer Relief Act of 2012. Absent further congressional action, SNP authority will expire at the end of 2015.

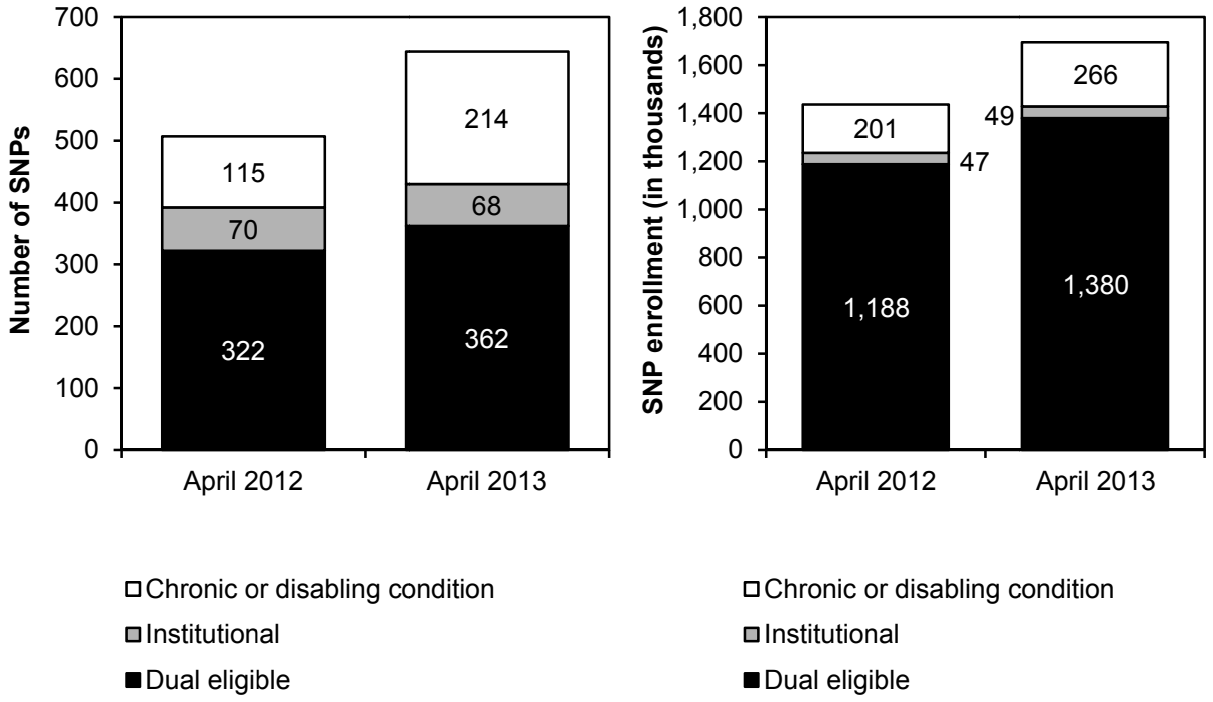
- CMS approves three types of SNPs: dual eligible SNPs enroll only beneficiaries dually entitled to Medicare and Medicaid, chronic condition SNPs enroll only beneficiaries who have certain chronic or disabling conditions, and institutional SNPs enroll only beneficiaries who reside in institutions or are nursing home certified.

- Enrollment in dual eligible SNPs has grown continuously and is about 1.4 million in 2013.

- Enrollment in chronic condition SNPs has fluctuated as plan requirements have changed.

- Enrollment in institutional SNPs has declined steadily, although enrollment in 2013 is about the same as in 2012.

Chart 9-9. Number of SNPs and SNP enrollment rose from 2012 to 2013



Note: SNP (special needs plan).

Source: CMS special needs plans comprehensive reports, April 2012 and 2013.

- The number of SNPs increased by 27 percent from April 2012 to April 2013, and the number of SNP enrollees increased by 18 percent.
- In 2013, most SNPs (56 percent) are for dual-eligible beneficiaries, while 33 percent are for beneficiaries with chronic conditions, and 11 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 0.9 million in May 2007 (not shown) to 1.7 million in April 2013.
- The availability of SNPs has increased and varies by type of special needs population served. In 2013, 82 percent of beneficiaries reside in areas where SNPs serve dual-eligible beneficiaries (up from 78 percent in 2012), 46 percent live where SNPs serve institutionalized beneficiaries (up from 41 percent), and 56 percent live where SNPs serve beneficiaries with chronic conditions (up from 45 percent).

Chart 9-10. Twenty most common condition categories among MA beneficiaries, defined in the CMS–HCC model, 2011

Conditions (defined by HCC)	Percent of beneficiaries
Diabetes without complications	12.8%
Breast, prostate, colorectal, and other cancers	6.7
Diabetes with renal or peripheral circulatory manifestation	5.1
Diabetes with neurologic or other specified manifestation	3.4
CHF	2.9
Major depressive, bipolar, and paranoid disorders	2.8
Rheumatoid arthritis	2.6
Vascular disease	2.4
COPD	2.4
Specified heart arrhythmias	2.3
Angina pectoris/old myocardial infarction	1.6
Polyneuropathy	1.5
Diabetes with ophthalmologic or unspecified manifestation	1.5
Renal failure	1.4
Diabetes with renal or peripheral circulatory manifestation plus polyneuropathy	1.3
Diabetes with neurologic or other specified manifestation plus polyneuropathy	1.3
Lymphatic, head and neck, brain, and other major cancers	1.2
Breast, prostate, colorectal, and other cancers plus diabetes without complication	1.1
Diabetes without complication plus CHF	1.1
Septicemia/shock	1.0

Note: MA (Medicare Advantage), HCC (hierarchical condition category), CHF (congestive heart failure), COPD (chronic obstructive pulmonary disease).

Source: MedPAC analysis of Medicare data files from Acumen, LLC.

- CMS uses the CMS–hierarchical condition categories (CMS–HCC) model to risk adjust capitated payments to MA plans, so that payments better reflect the clinical needs of MA enrollees given the number and severity of their clinical conditions. The CMS–HCC model uses beneficiaries' conditions that are collected into HCCs to adjust the capitated payments.
- The CMS–HCC model includes 70 HCCs, which represent a broad spectrum of conditions. Five of the 70 HCCs represent diabetes categories that vary by severity.
- The five diabetes HCCs are among 7 of the 20 most common HCC combinations. Other common conditions are CHF, mental disorders, and rheumatoid arthritis.

Chart 9-11. Medicare private plan enrollment patterns by age and Medicare–Medicaid dual-eligible status, January 2011

	As percent of Medicare population	Percent of category in FFS	Percent of category in plans
All beneficiaries	**100%**	**75%**	**25%**
Aged (65 or older)	83	73	27
Under 65	17	82	18
Non–dual eligible	**82**	**74**	**26**
Aged (65 or older)	72	73	27
Under 65	10	80	20
Dual eligible	**18**	**81**	**19**
Aged (65 or older)	11	77	23
Under 65	8	86	14
Dual-eligible beneficiaries by category (all ages)			
Full dual eligibility	14	84	16
Beneficiaries with partial dual eligibility			
QMB only	2	77	23
SLMB only	2	66	34
QI	1	61	39

Note: FFS (fee-for-service), QMB (qualified Medicare beneficiary), SLMB (specified low-income beneficiary), QI (qualified individual). Dual eligibles are beneficiaries eligible for Medicare and Medicaid. See accompanying text for an explanation of the categories of dual-eligible beneficiaries. Data exclude Puerto Rico because of the inability to determine specific dual-eligible categories. As of July 2011, dual-eligible special needs plans in Puerto Rico enrolled 239,000 beneficiaries. Plans include Medicare Advantage plans as well as cost-reimbursed plans. Percentages may not add to 100 due to rounding.

Source: MedPAC analysis of 2011 denominator file.

- Dual-eligible beneficiaries are more likely to receive their Medicare coverage through the traditional FFS program—81 percent of dual-eligible and 74 percent of non–dual-eligible beneficiaries are in FFS. However, recent levels of Medicare plan enrollment among the dually eligible represent a significant increase over earlier years. In 2004, only 1 percent of dual-eligible beneficiaries were enrolled in plans compared with 16 percent of non–dual-eligible beneficiaries.

- A substantial share of dual-eligible beneficiaries (42 percent) are under the age of 65 and therefore are entitled to Medicare on the basis of disability. Beneficiaries under age 65 are less likely than aged beneficiaries to enroll in Medicare plans (18 percent vs. 27 percent (not shown in chart)). Comparing dual-eligible beneficiaries under age 65 with non–dual eligibles under age 65 shows that the latter are more likely to be plan enrollees—14 percent and 20 percent, respectively.

- Dual-eligible beneficiaries who have full dual eligibility—that is, those who have coverage for their Medicare out-of-pocket costs (premiums and cost sharing) as well as coverage for services such as long-term care services and supports—are less likely to enroll in Medicare plans than beneficiaries with "partial" dual eligibility. Full dual-eligibility categories consist of beneficiaries with coverage through state Medicaid programs that include drug coverage as well as certain QMBs and SLMBs who also have Medicaid coverage for services. The latter two categories are referred to as QMB Plus and SLMB Plus beneficiaries. Beneficiaries with partial dual eligibility have coverage for Medicare premiums only (through the QI or SLMB program) or premiums and Medicare cost sharing, in the case of the QMB program. SLMB-only and QI beneficiaries have higher rates of plan enrollment (34 percent and 39 percent, respectively) than any other category shown in Chart 9-11, and it is higher than the average rate (25 percent) across all Medicare beneficiaries.

Chart 9-12. Distribution of MA plans and enrollment by CMS overall star ratings, February 2013

Plans and enrollment	Star rating: Number of stars							
	5	4.5	4	3.5	3	2.5	2	Any star rating
All plan types								
Number of plans	11	54	62	131	127	60	2	447
Enrollment (in thousands)	1,280	2,177	1,793	5,310	2,863	696	18	14,137
As percent in rated plans	9%	15%	13%	38%	20%	5%	0%	100%
HMOs								
Number of plans	11	39	40	80	79	48	1	298
Enrollment	1,280	1,586	1,271	3,123	1,804	542	4	9,610
As percent of HMO enrollees	13%	16%	13%	32%	19%	6%	0%	100%
Local PPOs								
Number of plans	0	14	22	45	35	8	N/A	124
Enrollment	0	568	522	1,529	346	87	N/A	3,051
As percent of local PPO enrollees	N/A	19%	17%	50%	11%	3%	N/A	100%
Regional PPOs								
Number of plans	0	1	0	2	8	0	0	11
Enrollment	N/A	24	N/A	439	598	N/A	N/A	1,060
As percent of regional PPO enrollees	N/A	2%	N/A	41%	56%	N/A	N/A	100%
PFFS								
Number of plans	0	0	0	4	5	4	1	14
Enrollment	0	0	0	219	115	68	14	416
As percent of PFFS enrollees	N/A	N/A		53%	28%	16%	3%	100%

Note: MA (Medicare Advantage), HMO (health maintenance organization). PPO (preferred provider organization), N/A (not available), PFFS (private fee-for-service). For purposes of this table, a plan is an MA contract, which can consist of several options with different benefit packages that are also referred to as "plans." Cost-reimbursed HMO plans are included in the data. Numbers may not add to 100 percent due to rounding; enrollment totals are rounded results of the sum of unrounded numbers.

Source: MedPAC analysis of CMS star ratings and enrollment data, 2013.

- The star rating system is a composite measure of clinical processes and outcomes, patient experience measures, and measures of a plan's administrative performance. The overall star rating measures performance on Part C measures and Part D measures.

- The average overall star rating across all plans is 3.44, or 3.70 on an enrollment-weighted basis. There are 126 plans, with 365,000 enrollees, that do not have a star rating because they are too new to be rated or there is insufficient information on which to base a rating.

(Chart continued next page)

Chart 9-12. Distribution of MA plans and enrollment by CMS overall star ratings, February 2013 (continued)

- Under a program-wide demonstration, beginning in 2012, plans with ratings of 3 stars or above receive bonus payments in the form of an increase in their benchmarks. Plan star ratings also determine the level of rebate dollars, although the demonstration does not change the statutory provisions specifying the rebate levels for different star ratings.

- Under the statutory provisions that introduced quality bonus payments, only plans at 4 stars or above would have received bonuses. Under the demonstration, only about 8 percent of enrollees are in plans not receiving quality bonuses (2.5- and 2-star plans), whereas under the statutory provisions 72 percent of enrollees would have been in plans not receiving a quality bonus. (The quality bonuses for 2013 are based on 2012 star ratings. The 2013 star ratings were the ratings displayed during the October–December 2012 enrollment period.)

- HMOs are the only plan type for which there are 5-star plans. Eight MA HMO plans and three cost-reimbursed HMO plans have 5-star ratings. The highest star rating attained by any local PPO is 4.5, whereas the highest rating for a PFFS plan is 3.5 (for one plan). One regional PPO plan has a 4.5-star rating, but most regional plan enrollees (56 percent) are in plans with a 3-star rating.

  Under the statutory bonus provisions, no PFFS plans would have received bonus payments, and only 2 percent of regional plan enrollment would be in bonus plans if 2013 stars were used to determine bonuses. For HMOs, 42 percent of enrollees would be in bonus plans and 36 percent of local PPO enrollment would be in such plans.

- The criteria for determining plan star ratings change from year to year. Therefore, plan ratings across years are not entirely comparable. Between 2011 and 2013, star rating criteria were changed and a weighting approach was used as of 2012. In 2013, 66 percent of the weight of measures reflects Part C and Part D clinical quality measures, compared with 62 percent in 2012 and 49 percent in 2011.

Web links. Medicare Advantage

- Chapter 13 of the Commission's March 2013 Report to the Congress provides information on Medicare Advantage plans.

  http://www.medpac.gov/chapters/Mar13_Ch13.pdf

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

  http://www.medpac.gov/documents/MedPAC_Payment_Basics_12_MA.pdf

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

  http://www.cms.gov/Medicare/Health-Plans/HealthPlansGenInfo/index.html

  http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/MCRAdvPartDEnrolData/index.html

- CMS star ratings for Medicare Advantage plans can be found at

  http://www.cms.gov/Medicare/Prescription-Drug-Coverage/PrescriptionDrugCovGenIn/PerformanceData.html

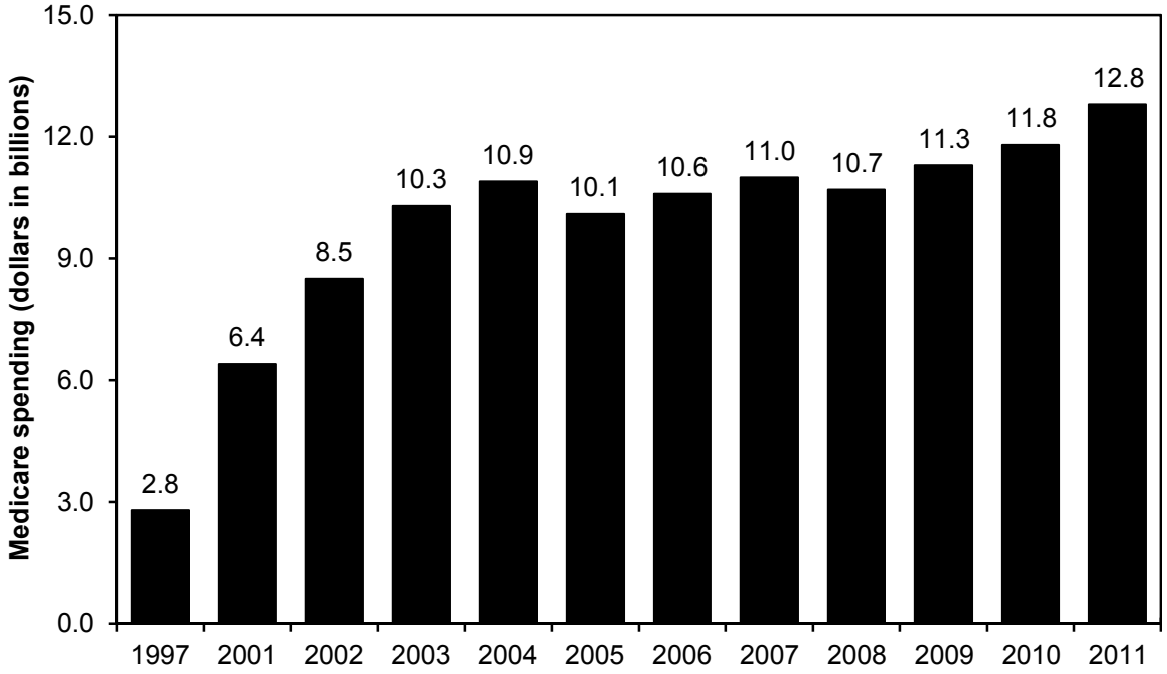
- The official Medicare website provides information on plans available in specific areas and the benefits they offer.

  http://www.medicare.gov/

SECTION 10

Prescription drugs

Chart 10-1. 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.

Source: MedPAC analysis of Medicare claims data.

- Spending for Part B drugs administered in physicians' offices or furnished by suppliers totaled about $12.8 billion in 2011, an increase of nearly 9 percent from the 2010 level.

- 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. With the move to the new payment system, spending declined 8 percent in 2005. Since 2005, spending has increased at an average annual rate of about 4 percent.

- Reduced use of darbepoetin alfa and epoetin alfa has also contributed to slower growth in Part B drug spending since 2005. Medicare Part B spending on these products in physicians' offices has declined by more than $1.1 billion since 2005 in response to changes in Food and Drug Administration labeling and CMS coverage policy.

- This total does not include drugs provided through hospital outpatient departments or to patients with end-stage renal disease in dialysis facilities. Medicare payments (including cost sharing) for separately billed drugs provided in hospital outpatient departments totaled about $5.1 billion in 2011. We no longer can estimate Medicare's expenditures for administered dialysis drugs because, for most facilities, 2011 is the first year that Medicare paid them using a modernized prospective payment system that includes these drugs in the payment bundle.

Chart 10-2. Top 10 Part B drugs administered in physicians' offices or furnished by suppliers, by share of expenditures, 2011

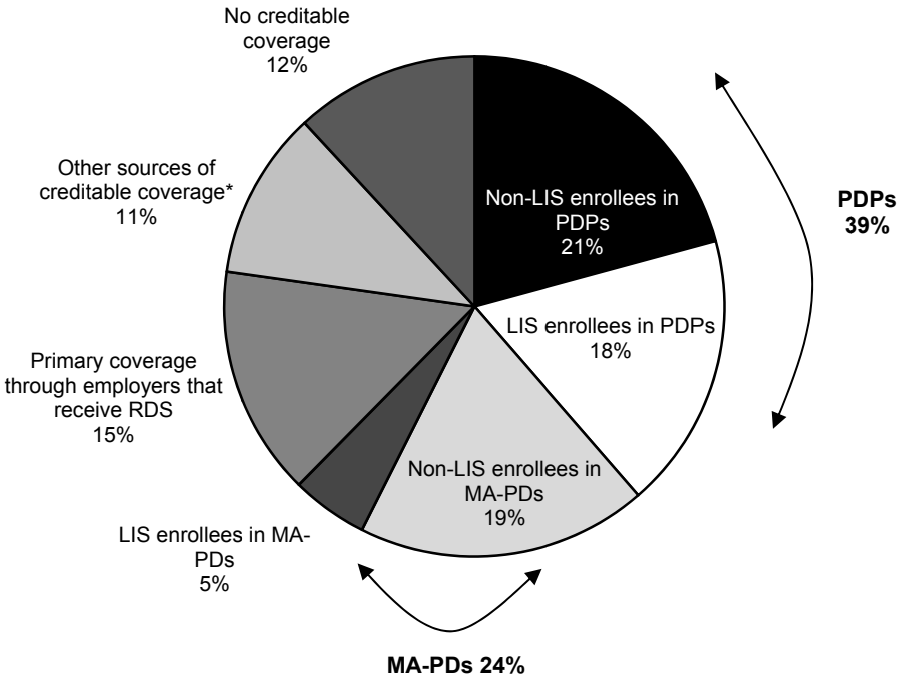
Drug name	Clinical indications	Allowed charges (in millions)	Competition	Percent of spending	Rank in 2010
Ranibizumab	Age-related macular degeneration	$1,366	Sole source	10.7%	1
Rituximab	Lymphoma, leukemia, rheumatoid arthritis	$885	Sole source	6.9	2
Infliximab	Rheumatoid arthritis, Crohn's disease	$669	Sole source	5.2	4
Bevacizumab	Cancer, age-related macular degeneration	$667	Sole source	5.2	3
Pegfilgrastim	Cancer	$624	Sole source	4.9	5
Immune globulin	Multiple (e.g., immuno-deficiency, neuropathy)	$326	Multisource biologic	2.5	Not listed
Oxaliplatin	Cancer	$310	Sole source	2.4	Not listed
Darbepoetin alfa	Anemia	$308	Sole source	2.4	6
Pemetrexed	Cancer	$281	Sole source	2.2	8
Epoetin alfa	Anemia	$273	Multisource biologic	2.1	7

Note: Data do not include Part B drugs furnished in hospital outpatient departments or dialysis facilities. Allowed charges include Medicare program payments and beneficiary cost sharing. Clinical indications may include on- and off-label use.

Source: MedPAC analysis of Medicare claims data from CMS and information on drug and biologic approval information from the Food and Drug Administration website (http://www.fda.gov).

- Medicare covers roughly 600 outpatient drugs under Part B, but spending is very concentrated. The top five highest expenditure products, all of which are biologics, account for about one-third of Medicare Part B spending on drugs. The top 10 products account for nearly 45 percent of all Part B spending on drugs.
- Ranibizumab, a biologic for age-related macular degeneration, had the highest Medicare Part B expenditures on drugs in 2011, exceeding $1.3 billion. Spending on this product increased about 20 percent between 2010 and 2011.
- Treatment for cancer dominates the list (7 of the top 10 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.
- Data reflect Part B drugs administered in physicians' offices or furnished by suppliers.

Chart 10-3. In 2011, almost 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). Percents may not add to 100 due to rounding.
*Creditable coverage means the value of drug benefits is equal to or greater than that of the basic Part D benefit.

Source: MedPAC analysis of the Medicare Current Beneficiary Survey, Access to Care file, 2011.

- Over three-quarters of Medicare beneficiaries were either signed up for Part D plans or had prescription drug coverage through employer-sponsored plans under Medicare's RDS in 2011. (If an employer agrees to provide primary drug coverage to its retirees with a benefit value that is equal to or greater 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 23 percent of Medicare beneficiaries received Part D's low-income subsidy (LIS). Among all LIS beneficiaries, four out of five (18 percent of all Medicare beneficiaries) are enrolled in stand-alone PDPs and the remainder (5 percent of all Medicare beneficiaries) are in MA–PD plans.

- Other enrollees in stand-alone PDPs accounted for 21 percent of all Medicare beneficiaries. Another 19 percent are in MA–PD plans or other private Medicare health plans. Individuals whose employers receive Medicare's RDS accounted for nearly 15 percent.

(Chart continued next page)

Chart 10-3. In 2011, almost 90 percent of Medicare beneficiaries were enrolled in Part D plans or had other sources of creditable drug coverage (continued)

- Other Medicare beneficiaries have creditable drug coverage, but that coverage does not affect Medicare program spending. Examples of other sources of creditable coverage include the Federal Employees Health Benefits program, TRICARE, Department of Veterans Affairs, and employers not receiving the RDS.

- About 12 percent of Medicare beneficiaries have no drug coverage or coverage that is less generous than Part D's defined standard benefit.

Chart 10-4. Parameters of the defined standard benefit increase over time

	2006	2010	2011	2012	2013
Deductible	$250.00	$310.00	$310.00	$320.00	$325.00
Initial coverage limit	2,250.00	2,830.00	2,840.00	2,930.00	2,970.00
Annual out-of-pocket threshold	3,600.00	4,550.00	4,550.00	4,700.00	4,750.00
Total covered drug spending at annual out-of-pocket threshold	5,100.00	6,440.75	6,447.50	6,657.50	6,954.52
Maximum amount of cost sharing in the coverage gap	2,850.00	3,610.00	3,607.50	3,727.50	3,763.75
Minimum cost sharing above the annual out-of-pocket threshold					
Copay for generic/preferred multisource drugs	2.00	2.50	2.50	2.60	2.65
Copay for other prescription drugs	5.00	6.30	6.30	6.50	6.60

Note: Under Part D's defined standard benefit, the enrollee pays the deductible and then 25 percent of covered drug spending (75 percent paid by the plan) until total covered drug spending reaches the initial coverage limit (ICL). Before 2011, enrollees exceeding the ICL were responsible for paying 100 percent of covered drug spending up to the annual out-of-pocket threshold. Beginning in 2011, enrollees face reduced cost sharing in the coverage gap. For 2011 and later years, the amount of total covered drug spending at the annual out-of-pocket threshold depends on the mix of brand and generic drugs filled during the coverage gap. The amounts shown are for individuals not receiving Part D's low-income subsidy who have no other source of supplemental coverage, assuming that expenses for brand-name drugs account for 85.6 percent of total drug spending in the coverage gap. 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 2013, it has a $325 deductible, 25 percent coinsurance on covered drugs until the enrollee reaches $2,970 in total covered drug spending, and then a coverage gap until out-of-pocket spending reaches the annual threshold. Before 2011, enrollees were responsible for paying the full discounted price of covered drugs filled during the coverage gap. Because of changes made by the Patient Protection and Affordable Care Act of 2010, enrollees face reduced cost sharing for drugs filled in the coverage gap. In 2013, the cost sharing for drugs filled during the gap phase is 47.5 percent for brand-name drugs and 79 percent for generic drugs. Enrollees with drug spending that exceeds the annual threshold pay the greater of $2.65 to $6.60 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, and most do offer such plans. For example, a plan may use tiered copayments rather than 25 percent coinsurance or 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 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.

Chart 10-5. Characteristics of Medicare PDPs

	2012				2013			
	Plans		Enrollees as of February 2012		Plans		Enrollees as of February 2013	
	Number	Percent	Number (in millions)	Percent	Number	Percent	Number (in millions)	Percent
Total	1,041	100%	17.5	100%	1,031	100%	18.0	100%
Type of organization								
National[a]	838	80	14.9	85	858	83	16.0	89
Other	203	20	2.6	15	173	17	2.1	11
Type of benefit								
Defined standard	95	9	1.0	5	36	3	0.5	3
Actuarially equivalent[b]	446	43	13.2	75	483	47	10.5	58
Enhanced	500	48	3.3	19	512	50	7.1	39
Type of deductible								
Zero	488	47	7.3	42	466	45	8.1	45
Reduced	108	10	1.8	11	98	9	0.6	3
Defined standard[c]	445	43	8.3	48	467	45	9.4	52
Drugs covered in the gap								
Some generics but no brand-name drugs	197	19	0.8	4	173	17	0.5	3
Some generics and some brand-name drugs	73	7	0.3	2	174	17	0.7	4
None	771	74	16.4	94	684	66	16.8	93

Note: PDP (prescription drug plan). The PDPs and enrollment described here exclude employer-only plans and plans offered in U.S. territories. Sums may not add to totals due to rounding.
[a] Reflects total number of plans for organizations with at least 1 PDP in each of the 34 PDP regions.
[b] Includes "actuarially equivalent standard" and "basic alternative" benefits.
[c] $320 in 2012 and $325 in 2013.

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

- Part D drew slightly fewer stand-alone PDPs into the field for 2013 than for 2012. Plan sponsors are offering 1,031 PDPs in 2013 compared with 1,041 in 2012.
- In 2013, 83 percent of all PDPs are offered by sponsoring organizations that have at least 1 PDP in each of the 34 PDP regions. Plans offered by those national sponsors account for 89 percent of all PDP enrollment.
- For 2013, sponsors are offering more PDPs with enhanced benefits (basic plus supplemental coverage) and with actuarially equivalent benefits (having the same average value as the defined standard benefit but with alternative benefit designs) than they did in 2012. Although most enrollees (61 percent) continue to enroll in actuarially equivalent plans, the share of PDP enrollees choosing to enroll in enhanced benefit plans doubled between 2012 and 2013.
- A larger proportion of PDPs include some benefits in the coverage gap for 2013 than in 2012. Half of all plans with some gap coverage offer generics and brand-name drugs, compared with about 27 percent in 2012.
- In 2013, 93 percent of PDP enrollees are in plans that offer no additional benefits in the coverage gap. However, because of the changes made by the Patient Protection and Affordable Care Act of 2010, beginning in 2011, beneficiaries no longer face 100 percent coinsurance in the coverage gap (see Chart 10-4). In addition, many PDP enrollees receive Part D's low-income subsidy, which effectively eliminates the coverage gap.

Chart 10-6. Characteristics of MA–PDs

	2012				2013			
	Plans		Enrollees as of February 2012		Plans		Enrollees as of February 2013	
	Number	Percent	Number (in millions)	Percent	Number	Percent	Number (in millions)	Percent
Totals	1,541	100%	8.5	100%	1,627	100%	9.3	100%
Type of organization								
Local HMO	951	62	5.9	69	1,011	62	6.5	70
Local PPO	430	28	1.5	18	472	29	1.7	18
PFFS	125	8	0.4	5	112	7	0.3	3
Regional PPO	35	2	0.7	8	32	2	0.8	8
Type of benefit								
Defined standard	37	2	0.1	1	31	2	0.1	1
Actuarially equivalent*	86	6	0.5	6	120	7	0.7	7
Enhanced	1,418	92	7.9	94	1,476	91	8.6	92
Type of deductible								
Zero	1,372	89	7.5	88	1,407	86	8.2	89
Reduced	98	6	0.8	9	136	8	0.8	9
Defined standard**	71	5	0.2	2	84	5	0.2	2
Drugs covered in the gap								
Some generics but no brand-name drugs	373	24	2.1	25	364	22	2.0	22
Some generics and some brand-name drugs	397	26	2.3	27	445	27	2.6	28
None	771	50	4.0	48	818	50	4.6	50

Note: MA–PD (Medicare Advantage–Prescription Drug [plan]), HMO (health maintenance organization), PPO (preferred provider organization), PFFS (private fee-for-service). The MA–PD plans 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. Numbers 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.
**$320 in 2012 and $325 in 2013.

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

- There are about 6 percent more MA–PD plans in 2013 than in 2012. Sponsors are offering 1,627 MA–PD plans compared with 1,541 the year before. HMOs remain the dominant kind of MA–PD plan, making up 62 percent of all (unweighted) offerings in 2013. The number of PFFS plans continues to decline, from 125 in 2012 to 112 in 2013. The number of drug plans offered by local PPOs increased by nearly 10 percent (42 plans) while the number of drug plans offered by regional PPOs decreased slightly between 2012 and 2013.
- A larger share of MA–PD plans than stand-alone prescription drug plans (PDPs) offer enhanced benefits (compare Chart 10-6 with Chart 10-5). In 2013, 50 percent of all PDPs have enhanced benefits compared with 91 percent of MA–PD plans. In 2013, enhanced MA–PD plans attracted 92 percent of total MA–PD enrollment.
- Eighty-six percent of MA–PD plans have no deductible in 2013. These plans attracted about 89 percent of total MA–PD enrollment in 2013.
- MA–PD plans are more likely than PDPs to provide some additional benefits in the coverage gap. In 2013, 50 percent of MA–PD plans include some gap coverage—22 percent with some generics but no brand-name drug coverage and 27 percent with some generics and some brand-name drug coverage. Those plans account for 50 percent of MA–PD enrollment.

Chart 10-7. Average Part D premiums

	2012 enrollment (in millions)	Average monthly 2012 premium weighted by 2012 enrollment	2013 enrollment (in millions)	Average monthly 2013 premium weighted by 2013 enrollment	Dollar change	Percentage change in weighted average premium
PDPs						
Basic coverage	14.1	$33	11.0	$32	–$1	–3 %
Enhanced coverage	3.3	58	7.1	49	–9.4	–16
Any coverage	17.5	38	18.0	39	0.8	2
MA–PDs, including SNPs*						
Basic coverage	1.3	27	1.6	29	1.7	6
Enhanced coverage	8.0	12	9.0	13	0.6	5
Any coverage	9.3	14	10.6	15	0.9	7
All plans						
Basic coverage	15.5	33	12.5	32	–0.9	–3
Enhanced coverage	11.3	26	16.0	28	3.0	12
Any coverage	26.8	30	28.6	30	0.3	1

Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]), SNPs (special needs plans). The PDPs and enrollment described here exclude employer-only plans and plans offered in U.S. territories. The MA–PD plans and 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 (between 58 percent and 72 percent of the difference between a plan's payment benchmark and its bid for providing Part A and Part B services in 2013) that were used to offset Part D premium costs. Lower average premiums for enhanced MA–PD plans reflect a different mix of sponsoring organizations and counties of operation than MA–PD plans with basic coverage.

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

- The average premium paid by Part D enrollees remained stable at around $30 per month in 2013.
- The average premiums for beneficiaries enrolled in PDP increased slightly to $39 from $38 per month in 2012.
- MA–PD plans can lower the part of their monthly premium attributable to Part D using rebate dollars—a portion (between 58 percent and 72 percent in 2013, depending on a plan's quality ratings) of the difference between the plan's payment benchmark and its bid for providing Part A and Part B services. MA–PD plans may also enhance their Part D benefit with rebate dollars. Many MA–PD plans use rebate dollars in these ways, resulting in more enhanced offerings and lower average premiums compared with PDPs.
- The portion of Medicare Advantage premiums attributable to prescription drug benefits increased by about $1 in 2013, with the average MA–PD enrollee paying $15 per month.

Chart 10-8. Number of PDPs qualifying as premium-free to LIS enrollees remained stable in 2013

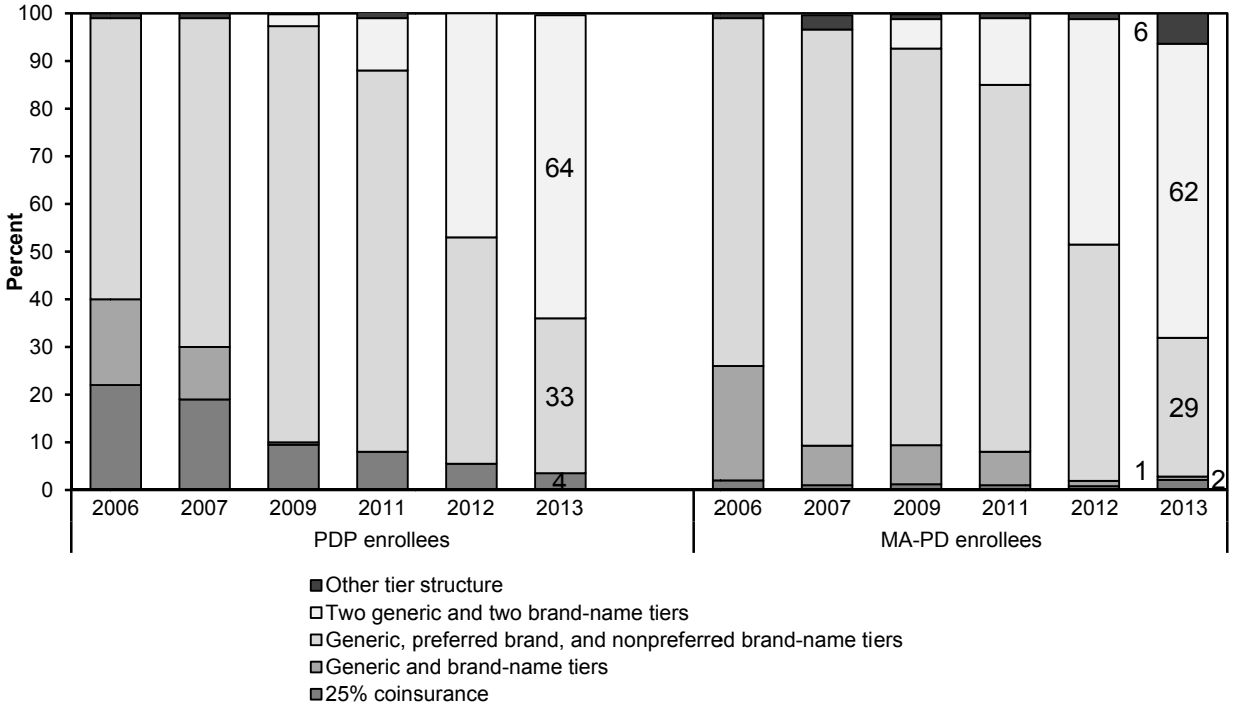
		Number of PDPs			Number of PDPs that have zero premium for LIS enrollees		
PDP region	State(s)	2012	2013	Difference	2012	2013	Difference
1	ME, NH	28	28	0	8	10	2
2	CT, MA, RI, VT	30	30	0	10	6	–4
3	NY	29	28	–1	12	12	0
4	NJ	30	29	–1	9	10	1
5	DC, DE, MD	31	29	–2	13	13	0
6	PA, WV	36	38	2	12	14	2
7	VA	30	31	1	10	10	0
8	NC	30	30	0	9	8	–1
9	SC	32	31	–1	12	14	2
10	GA	30	30	0	12	13	1
11	FL	33	34	1	3	2	–1
12	AL, TN	32	33	1	12	13	1
13	MI	34	33	–1	12	10	–2
14	OH	33	33	0	8	8	0
15	IN, KY	31	31	0	13	11	–2
16	WI	29	30	1	10	10	0
17	IL	33	32	–1	10	10	0
18	MO	30	31	1	8	8	0
19	AR	30	30	0	15	15	0
20	MS	30	29	–1	12	13	1
21	LA	30	30	0	12	14	2
22	TX	33	32	–1	13	12	–1
23	OK	30	30	0	9	11	2
24	KS	31	30	–1	10	10	0
25	IA, MN, MT, ND, NE, SD, WY	33	32	–1	9	8	–1
26	NM	30	30	0	6	7	1
27	CO	28	29	1	5	4	–1
28	AZ	30	29	–1	10	10	0
29	NV	29	29	0	2	2	0
30	OR, WA	30	30	0	9	10	1
31	ID, UT	33	32	–1	12	10	–2
32	CA	33	32	–1	6	6	0
33	HI	25	23	–2	10	10	0
34	AK	25	23	–2	4	7	3
	Total	1,041	1,031	–10	327	331	4

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

Source: MedPAC based on 2012 and 2013 PDP landscape file provided by CMS.

- The number of stand-alone PDPs decreased by about 1 percent around the country, from 1,041 in 2012 to 1,031 in 2013. The median number of plans offered in each region in 2013 remained stable at 30.
- HI and AK had the fewest stand-alone PDPs with 23; the PA–WV region had the most with 38.
- In 2013, enrollees who receive Part D's LIS have about the same number of options for PDPs in which they pay no premium. In 2013, 331 PDPs qualified to be premium-free to those enrollees, compared with 327 in 2012.
- Each region has at least two PDPs available to LIS enrollees at no premium; most regions have substantially more zero premium plans available.

Chart 10-9. In 2013, 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–PD plans exclude demonstration programs, special needs plans, and 1876 cost plans. Components may not add to totals due to rounding.

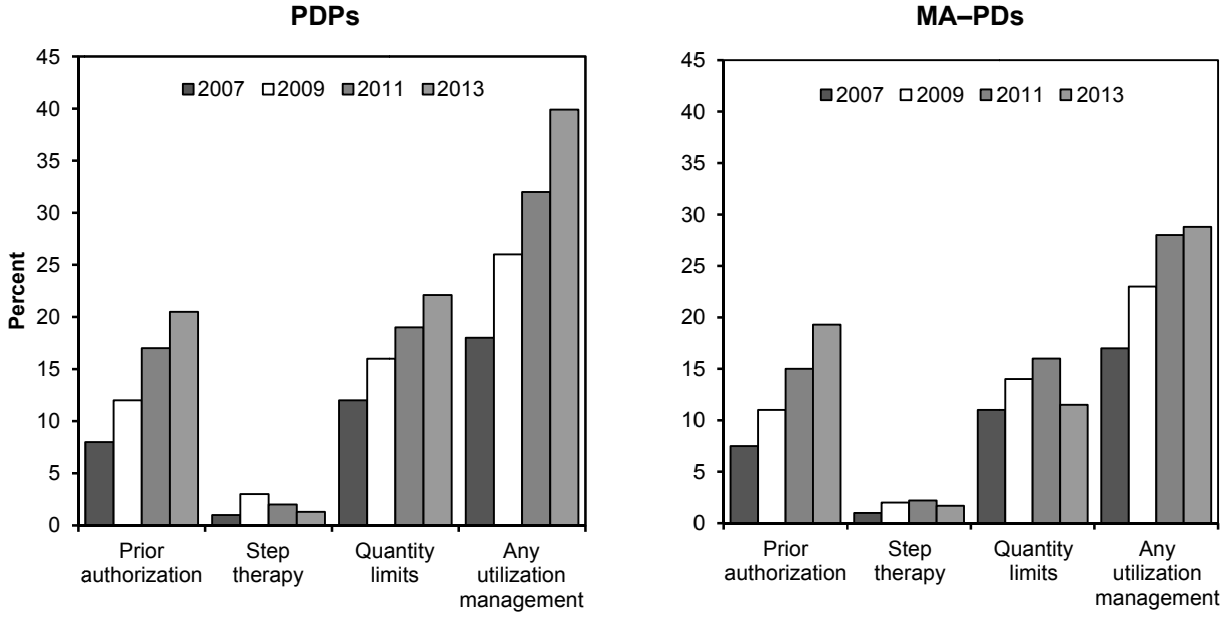
Source: MedPAC-sponsored analysis by NORC/Georgetown University/Social and Scientific Systems analysis of formularies submitted to CMS.

- In 2013, about 96 percent of PDP enrollees are in plans that distinguish between preferred and nonpreferred brand-name drugs. In 2006, only 59 percent of PDP enrollees were in plans with such distinctions. Slightly over 90 percent of MA–PD enrollees are in such plans in 2013, up from 73 percent in 2006. Plans with two generic and two brand-name tiers are the most common type of formulary tier structure in 2013, accounting for 64 percent of PDP enrollees and 62 percent of MA–PD enrollees.

- For enrollees in PDPs with two generic and two brand-name tiers, the median copay in 2013 is $40 for a preferred brand and $85 for a nonpreferred brand. The median copay for generic drugs is $2 for preferred tier drugs and $5 for nonpreferred tier drugs. For MA–PD enrollees, in 2013, the median copay is $45 for a preferred brand, $90 for a nonpreferred brand, and $3 and $10 for a generic drug on preferred and nonpreferred tiers, respectively.

- 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 2013, median cost sharing for a specialty tier drug is 26 percent among PDPs and 33 percent among MA–PD plans. Enrollees may not appeal cost sharing for drugs in specialty tiers.

Chart 10-10. In 2013, use of utilization management tools continues to increase for both PDPs and 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–PD plans 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 2013, the average enrollee in a stand-alone PDP faces some form of utilization management for 40 percent of drugs listed on a plan's formulary, compared with 29 percent for the average MA–PD plan enrollee. Part D plans typically use quantity limits or prior authorization to manage enrollees' prescription drug use.

Chart 10-11. Characteristics of Part D enrollees, 2011

	All Medicare	Part D	Plan type		Subsidy status	
			PDP	MA–PD	LIS	Non-LIS
Beneficiaries[a] (in millions)	51.6	31.5	20.1	11.4	11.8	19.7
Percent of all Medicare	100%	61%	39%	22%	23%	38%
Gender						
Male	45%	41%	41%	43%	39%	43%
Female	55	59	59	57	61	57
Race/ethnicity						
White, non-Hispanic	77	74	76	70	58	84
African American, non-Hispanic	10	11	11	11	20	6
Hispanic	8	10	8	14	15	7
Asian	3	3	3	3	5	2
Other	2	2	2	1	2	1
Age (years)						
<65	22	24	27	18	43	12
65–69	24	22	20	26	14	27
70–74	18	18	17	20	12	22
75–79	14	14	13	16	10	16
80+	22	22	23	21	19	23
Urbanicity[b]						
Metropolitan	79	79	74	88	77	80
Micropolitan	12	12	15	7	13	12
Rural	8	8	11	4	9	8

Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]), LIS (low-income subsidy). Percents may not sum to 100 due to rounding.
[a] 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.
[b] Urbanicity is 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. About 1 percent of Medicare beneficiaries were excluded due to an unidentifiable core-based statistical area designation.

Source: MedPAC analysis of Medicare Part D denominator and Risk Adjustment System files from CMS.

- In 2011, 31.5 million Medicare beneficiaries (61 percent) enrolled in Part D at some point in the year. Most of them (20.1 million) were in stand-alone PDPs, with 11.4 million in MA–PD plans. Nearly 12 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; 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 8 percent in rural areas.

Chart 10-12. Part D enrollment trends, 2006–2011

	2006	2007	2008	2009	2010	2011
Part D enrollment (in millions)*						
Total	24.5	26.1	27.5	28.7	29.7	31.5
By plan type						
PDP	17.7	18.3	18.6	18.7	18.9	20.1
MA–PD	6.8	7.8	8.9	10.0	10.6	11.4
By subsidy status						
LIS	10.2	10.4	10.7	10.9	11.3	11.8
Non-LIS	14.3	15.7	16.9	17.8	18.4	19.7
By race/ethnicity						
White, non-Hispanic	17.2	19.4	20.5	21.4	22.0	23.3
African American, non-Hispanic	2.6	2.9	3.1	3.2	3.3	3.5
Hispanic	2.2	2.5	2.7	2.8	3.0	3.2
Other	2.5	1.3	1.3	1.3	1.4	1.5
By age (years)						
<65	5.6	6.1	6.4	6.6	6.9	7.5
65–69	5.0	5.4	5.9	6.3	6.6	7.0
70–79	8.3	8.7	9.0	9.3	9.6	10.1
80+	5.6	6.0	6.3	6.4	6.6	6.9
Enrollment growth (in percent)						
Total	N/A	7%	5%	4%	4%	6%
By plan type						
PDP	N/A	4	2	<1	1	6
MA–PD	N/A	14	14	12	6	8
By subsidy status						
LIS	N/A	2	2	2	4	4
Non-LIS	N/A	10	8	6	3	7
By race/ethnicity						
White, non-Hispanic	N/A	13	5	4	3	6
African American, non-Hispanic	N/A	13	5	4	4	5
Hispanic	N/A	14	6	6	6	6
Other	N/A	–49	6	<1	6	9
By age (years)						
<65	N/A	8	6	4	4	8
65–69	N/A	8	8	7	5	6
70–79	N/A	5	4	4	3	5
80+	N/A	7	4	3	2	5

Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]), N/A (not applicable), 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. Numbers may not sum to totals due to rounding.

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

- Between 2006 and 2011, MA–PD plan enrollment grew faster (by over 10 percent per year, on average) compared with growth rates of less than 3 percent per year, on average, for PDPs. The number of enrollees receiving the LIS remained relatively flat between 2006 and 2009 at 2 percent per year. Higher growth rates (4 percent) were observed between 2009 and 2011. The growth in the number of non-LIS enrollees declined between 2007 and 2010 (from 10 percent in 2007 to 3 percent in 2010) but experienced an increase between 2010 and 2011 (7 percent).

Chart 10-13. Part D enrollment by region, 2011

PDP region	State(s)	Percent of Medicare enrollment: Part D	Percent of Medicare enrollment: RDS	Percent of Part D enrollment, Plan type: PDP	Percent of Part D enrollment, Plan type: MA–PD	Percent of Part D enrollment, Subsidy status: LIS	Percent of Part D enrollment, Subsidy status: Non-LIS
1	ME, NH	57%	11%	84%	16%	47%	53%
2	CT, MA, RI, VT	60	16	70	30	43	57
3	NY	62	18	54	46	45	55
4	NJ	54	21	80	20	35	65
5	DE, DC, MD	48	17	86	14	41	59
6	PA, WV	65	12	56	44	33	67
7	VA	54	9	78	22	36	64
8	NC	60	15	74	26	42	58
9	SC	56	16	73	27	44	56
10	GA	62	9	67	33	43	57
11	FL	63	12	52	48	35	65
12	AL, TN	62	12	65	35	45	55
13	MI	50	30	72	28	39	61
14	OH	66	13	68	32	30	70
15	IN, KY	63	12	79	21	38	62
16	WI	57	13	61	39	32	68
17	IL	57	19	87	13	38	62
18	MO	64	10	69	31	35	65
19	AR	62	7	79	21	45	55
20	MS	66	5	87	13	53	47
21	LA	63	13	64	36	49	51
22	TX	57	14	69	31	45	55
23	OK	60	7	79	21	38	62
24	KS	63	6	84	16	29	71
25	IA, MN, MT, NE, ND, SD, WY	67	8	74	26	27	73
26	NM	64	6	61	39	39	61
27	CO	59	12	50	50	29	71
28	AZ	62	10	45	55	32	68
29	NV	58	10	50	50	29	71
30	OR, WA	60	10	57	43	31	69
31	ID, UT	59	9	55	45	27	73
32	CA	70	9	50	50	39	61
33	HI	67	4	41	59	29	71
34	AK	39	26	99	1	62	38
	Mean	61	13	64	36	37	63
	Minimum	39	4	41	1	27	38
	Maximum	70	30	99	59	62	73

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 PDP regions used in Part D.

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

- Among Part D regions, in 2011, between 39 percent and 70 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 RDS was observed. For example, in Region 32 (CA) and Region 33 (HI), the shares of Medicare beneficiaries enrolled in Part D were 70 percent and 67 percent, respectively. In these two regions, fewer than 10 percent of beneficiaries enrolled in employer-sponsored plans that received the RDS.

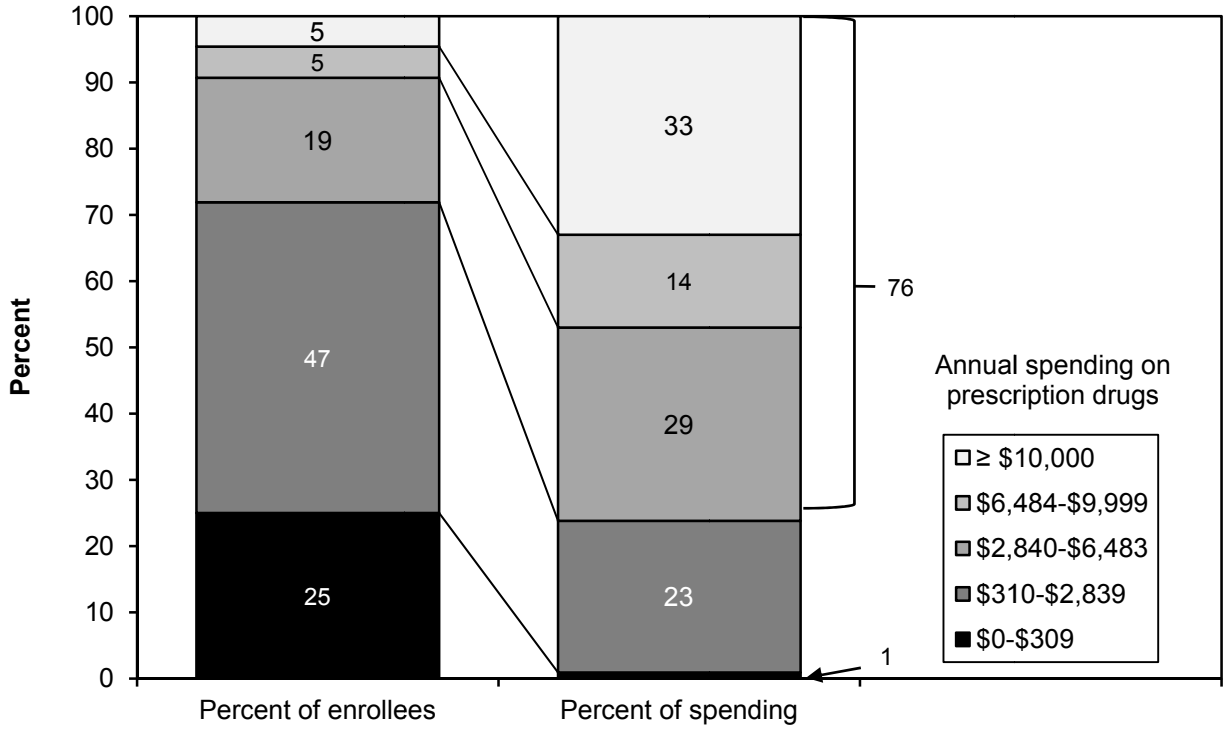
- A wide variation was seen in the shares of Part D enrollees who enrolled in PDPs and MA–PD plans across PDP regions. The pattern of MA–PD enrollment is generally consistent with enrollment in Medicare Advantage plans.

(Chart continued next page)

Chart 10-13. Part D enrollment by region, 2011 (continued)

- The share of Part D enrollees receiving the LIS ranged from 27 percent in Region 25 (IA, MN, MT, NE, ND, SD, and WY) and in Region 31 (ID and UT) to 62 percent in Region 34 (AK). In 26 of the 34 PDP regions, LIS enrollees account for 30 percent to 50 percent of enrollment. In two regions, Region 20 (MS) and Region 34 (AK), LIS enrollees account for more than half of Part D enrollment.

Chart 10-14. The majority of Part D spending is incurred by fewer than half of all Part D enrollees, 2011



Note: Annual spending cuts used for this analysis generally correspond to the parameters of the defined standard benefit. In 2011, an individual not receiving Part D's low-income subsidy and without other sources of supplemental coverage would have reached the catastrophic phase of the benefit at $6,483.72 in total drug spending, assuming that expenses for brand-name drugs accounted for 86.3 percent of total drug spending in the coverage gap. Components may not sum to totals 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 2011, 28 percent of Part D enrollees had annual spending of $2,840 or more, at which point enrollees were responsible for a higher proportion of the cost of the drug until their spending reached $6,484 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 47 percent of total Part D spending. Nearly three-quarters of beneficiaries with the highest spending receive Part D's low-income subsidy (see Chart 10-15). Spending on prescription drugs is less concentrated than Medicare Part A and Part B spending. In 2009, the costliest 5 percent of beneficiaries accounted for 39 percent of annual Medicare fee-for-service (FFS) spending, and the costliest quartile accounted for 81 percent of Medicare FFS spending

Chart 10-15. Characteristics of Part D enrollees, by spending levels, 2011

	Annual drug spending		
	<$2,840	$2,840–$6,483	≥$6,484
Sex			
Male	42%	39%	40%
Female	58	61	60
Race/ethnicity			
White, non-Hispanic	74	75	71
African American, non-Hispanic	11	11	14
Hispanic	10	10	10
Other	5	5	5
Age (years)			
<65	22	22	44
65–69	24	19	15
70–74	19	18	13
75–80	14	15	11
80+	22	26	17
LIS status*			
LIS	31	45	74
Non-LIS	69	55	26
Plan type**			
PDP	60	70	79
MA–PD	40	30	21

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. Percents may not sum to 100 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 a PDP and an MA–PD plan during the year, that individual was classified in the type of plan with a greater number of months of enrollment.

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

- In 2011, Part D enrollees with annual drug spending between $2,840 and $6,483 and with spending at or above $6,484 were more likely to be female than enrollees with annual spending below $2,840 (61 percent and 60 percent compared with 58 percent).

- Part D enrollees with annual spending at or above $6,484 are more likely to be disabled enrollees under age 65 and receive the LIS compared with those with annual spending below $2,840.

- Most Part D enrollees with spending greater than $6,484 are enrolled in stand-alone PDPs (79 percent) compared with MA–PD plans (21 percent). On the other hand, beneficiaries with annual spending below $2,840 are more likely to be in MA–PDs compared with those with higher annual spending (40 percent compared with 21 percent). This finding reflects the fact that most LIS enrollees are more costly on average and are in PDPs.

Chart 10-16. Part D spending and utilization per enrollee, 2011

	Part D	Plan type		LIS status	
		PDP	MA–PD	LIS	Non-LIS
Total gross spending (billions)	$84.9	$61.7	$23.2	$47.0	$37.9
Total number of prescriptions[a] (millions)	1,512	1,004	508	659	853
Average spending per prescription	$56	$61	$46	$71	$44
Per enrollee per month					
Total spending	$239	$274	$178	$364	$167
Out-of-pocket spending[b]	35	36	33	8	50
Plan liability[c]	144	162	114	211	106
Low-income cost-sharing subsidy	53	69	25	145	N/A
Number of prescriptions[a]	4.3	4.5	3.9	5.1	3.8

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. Numbers may not sum to totals due to rounding.
[a] Number of prescriptions standardized to a 30-day supply.
[b] Out-of-pocket (OOP) spending includes all payments that count toward the annual OOP spending threshold.
[c] Plan liability includes plan payments for drugs covered by both basic and supplemental (enhanced) benefits.

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

- In 2011, gross spending on drugs for the Part D program totaled $84.9 billion, with about 73 percent ($61.7 billion) accounted for by Medicare beneficiaries enrolled in PDPs. Part D enrollees receiving the LIS accounted for about 55 percent ($47 billion) of the total.
- The number of prescriptions filled by Part D enrollees totaled 1.51 billion, with about two-thirds (1,004 million) accounted for by PDP enrollees. The 37 percent of enrollees who received the LIS accounted for about 44 percent (659 million) of the total number of prescriptions filled.
- Medicare beneficiaries enrolled in Part D plans fill 4.3 prescriptions at $239 per month on average. PDP enrollees have higher average monthly spending and more prescriptions filled compared with MA–PD plan enrollees.
- The average monthly plan liability for MA–PD enrollees ($114) is considerably lower than that of PDP enrollees ($162), while average monthly OOP spending is similar for enrollees in both types of plans ($33 vs. $36). The average monthly low-income cost-sharing subsidy is much lower for MA–PD enrollees ($25) compared with PDP enrollees ($69).
- Average monthly spending per enrollee for an LIS enrollee ($364) is more than double that of a non-LIS enrollee ($167), while the average number of prescriptions filled per month by an LIS enrollee is 5.1 compared with 3.8 for a non-LIS enrollee. LIS enrollees have much lower OOP spending, on average, than non-LIS enrollees ($8 vs. $50). Part D's LIS pays for most of the cost sharing for LIS enrollees, averaging $145 per month.

Chart 10-17. Part D spending varies across regions even after controlling for prices and health status, 2011

PDP region	State(s)	Percent enrolled in PDPs	Percent of Part D enrollees receiving LIS	Relative average Part D spending per capita*	
				Unadjusted	Adjusted**
1	ME, NH	84%	47%	0.99	0.93
2	CT, MA, RI, VT	70	43	1.03	0.96
3	NY	54	45	1.26	1.18
4	NJ	80	35	1.21	1.15
5	DE, DC, MD	86	41	1.11	0.99
6	PA, WV	56	33	1.04	1.08
7	VA	78	36	0.98	0.98
8	NC	74	42	1.10	1.04
9	SC	73	44	1.07	0.99
10	GA	67	43	1.06	1.00
11	FL	52	35	0.98	0.92
12	AL, TN	65	45	1.04	0.98
13	MI	72	39	1.02	0.94
14	OH	68	30	1.01	1.06
15	IN, KY	79	38	1.10	1.09
16	WI	61	32	0.95	1.03
17	IL	87	38	0.98	0.95
18	MO	69	35	1.03	1.03
19	AR	79	45	0.93	0.90
20	MS	87	53	1.03	0.95
21	LA	64	49	1.10	1.05
22	TX	69	45	1.03	0.95
23	OK	79	38	1.04	1.04
24	KS	84	29	0.94	1.02
25	IA, MN, MT, NE, ND, SD, WY	74	27	0.83	1.00
26	NM	61	39	0.75	0.83
27	CO	50	29	0.83	0.99
28	AZ	45	32	0.80	0.89
29	NV	50	29	0.79	0.89
30	OR, WA	57	31	0.84	0.97
31	ID, UT	55	27	0.88	1.04
32	CA	50	39	0.93	0.98
33	HI	41	29	0.92	1.12
34	AK	99	62	1.30	1.16
	Mean	64	37	1.00	1.00
	Minimum	41	27	0.75	0.83
	Maximum	99	62	1.30	1.18
National average spending				$2,768	N/A

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 spending is 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 spending for drugs under Part D varies widely across PDP regions. The national average per capita spending was $2,768 in 2011. Relative to the national average, the unadjusted regional average per capita spending ranges from 75 percent (0.75) in NM (Region 26) to 130 percent (1.30) in AK (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 0.54 (1.30 minus 0.75) to 0.35 (1.18 minus 0.83). Relative to the national average, the adjusted average per capita spending ranges from 83 percent (0.83) in NM (Region 26) to 118 percent (1.18) in NY (Region 3).

Chart 10-18. Top 15 therapeutic classes of drugs under Part D, by spending and volume, 2011

Top 15 therapeutic classes by spending	Dollars		Top 15 therapeutic classes by volume	Prescriptions	
	Billions	Percent		Millions	Percent
Antihyperlipidemics	$7.7	8.6%	Antihypertensive therapy agents	157.1	10.4%
Antipsychotics	7.6	8.4	Antihyperlipidemics	149.0	9.7
Diabetic therapy	7.3	8.0	Beta-adrenergic blockers	95.9	6.3
Asthma/COPD therapy agents	5.8	6.5	Diabetic therapy	95.1	6.3
Antihypertensive therapy agents	5.0	6.3	Antidepressants	84.4	5.5
Platelet aggregation inhibitors	4.1	5.2	Diuretics	81.2	5.5
Peptic ulcer therapy	3.6	4.4	Peptic ulcer therapy	74.2	4.8
Antivirals	3.3	4.2	Analgesics (narcotic)	70.8	4.8
Antidepressants	3.2	4.0	Calcium channel blockers	65.2	4.3
Analgesics (narcotic)	3.1	3.9	Thyroid therapy	54.3	3.5
Cognitive disorder therapy (antidementia)	2.6	3.5	Anticonvulsants	43.0	2.8
Anticonvulsants	2.3	2.9	Antibacterial agents	42.0	2.7
Analgesics (anti-inflammatory/ antipyretic, non-narcotic)	2.1	2.3	Asthma/COPD therapy agents	40.6	2.7
Calcium and bone metabolism regulators	1.7	2.2	Analgesics (anti-inflammatory/ antipyretic, non-narcotic)	28.3	1.9
Antibacterial agents	1.5	1.9	Calcium and bone metabolism regulators	24.7	1.8
Subtotal, top 15 classes	60.8	72.4	Subtotal, top 15 classes	1,105.9	73.0
Total, all classes	84.9	100.0	Total, all classes	1,511.9	100.0

Note: COPD (chronic obstructive pulmonary disease). Volume is the number of prescriptions standardized to a 30-day supply. Therapeutic classification is based on the First DataBank Enhanced Therapeutic Classification System 1.0. Numbers may not sum to totals due to rounding.

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

- In 2011, gross spending on prescription drugs covered by Part D plans totaled $84.9 billion. The top 15 therapeutic classes by spending accounted for about 72 percent of the total.
- About 1.5 billion prescriptions were dispensed in 2011, with the top 15 therapeutic classes by volume accounting for 73 percent of the total.
- Eleven therapeutic classes are among the top 15 based on both spending and volume. Central nervous system agents (antipsychotics, anticonvulsants, and antidepressants) and cardiovascular agents (antihyperlipidemics, antihypertensive therapy agents) dominate the list by spending, each accounting for about one-fifth 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 about 50 percent of the prescriptions in the top 15 therapeutic classes.

Chart 10-19. Generic dispensing rate for the top 15 therapeutic classes, by plan type, 2011

Therapeutic class, by order of aggregate spending	PDP share of all prescriptions	Generic dispensing rate		
		All	PDPs	MA–PDs
Antihyperlipidemics	63%	67%	62%	75%
Antipsychotics (neuroleptics)	82	39	39	41
Diabetic therapy	63	61	58	67
Asthma/COPD therapy agents	70	8	9	6
Antihypertensive therapy agents	62	83	81	87
Platelet aggregation inhibitors and combinations	67	9	7	13
Peptic ulcer therapy	67	83	80	89
Antivirals	75	41	37	52
Antidepressants	70	83	82	87
Analgesics—narcotic	71	94	94	95
Cognitive disorder therapy—antidementia	73	54	52	58
Anticonvulsant	73	86	85	89
Analgesic, anti-inflammatory or antipyretic—non-narcotic	66	83	81	86
Calcium and bone metabolism regulators	64	64	60	71
Antibacterial agents	69	94	93	95
All therapeutic classes	66	77	75	80

Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]), COPD (chronic obstructive pulmonary disease). 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 2011, Part D enrollees in stand-alone PDPs accounted for 66 percent of prescriptions dispensed under Part D. PDP enrollees accounted for a disproportionately high share of prescriptions for classes such as antipsychotics, cognitive disorder therapy (antidementia), anticonvulsants, and antivirals. Low-income subsidy (LIS) beneficiaries, of whom about 80 percent are enrolled in PDPs, tend to be heavy users of drugs in these classes.

- Overall, analgesics (narcotic) and antibacterial agents have the highest generic dispensing rate (GDR) (94 percent), followed by anticonvulsants (86 percent) compared with 77 percent across all therapeutic classes.

- The GDR for PDP enrollees averages 75 percent across all therapeutic classes, compared with 80 percent for MA–PD plan enrollees. Across the 15 therapeutic classes, GDRs for PDP enrollees were generally lower than for MA–PD enrollees with the exception of agents for asthma/chronic obstructive pulmonary disease therapy.

- There were large differences in GDRs for PDPs and MA–PDs. The largest differences were for antihyperlipidemics, antivirals, and calcium and bone metabolism regulators, with between 11 and 15 percentage point differences. 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 10-20).

Chart 10-20. Generic dispensing rate for the top 15 therapeutic classes, by LIS status, 2011

Therapeutic class, by order of aggregate spending	LIS share of prescriptions	Generic dispensing rate		
		All	LIS	Non-LIS
Antihyperlipidemics	34%	67%	62%	69%
Antipsychotics (neuroleptics)	83	39	39	43
Diabetic therapy	47	61	54	68
Asthma/COPD therapy agents	58	8	10	6
Antihypertensive therapy agents	35	83	81	85
Platelet aggregation inhibitors and combinations	42	9	8	10
Peptic ulcer therapy	49	83	78	88
Antivirals	65	41	26	68
Antidepressants	51	83	81	86
Analgesics—narcotic	58	94	93	95
Cognitive disorder therapy—antidementia	49	54	52	56
Anticonvulsant	62	86	85	88
Analgesic, anti-inflammatory or antipyretic—non-narcotic	47	83	83	82
Calcium and bone metabolism regulators	37	64	61	66
Antibacterial agents	43	94	93	95
All therapeutic classes	44	77	74	79

Note: LIS (low-income subsidy), COPD (chronic obstructive pulmonary disease). 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 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 2011, Part D enrollees receiving the LIS accounted for 44 percent of prescriptions dispensed under Part D. In 10 of 15 therapeutic classes ranked by spending, the share of prescriptions dispensed to LIS beneficiaries was greater than 44 percent, and in two classes the share was greater than 60 percent.

- The generic dispensing rate (GDR) for non-LIS beneficiaries averages 79 percent across all therapeutic classes, compared with 74 percent for LIS beneficiaries. Across the top 15 therapeutic classes, GDRs for non-LIS beneficiaries are higher than those for LIS beneficiaries in all but two classes (asthma/chronic obstructive pulmonary disease 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 (42 percentage points). Some of the difference in the GDRs for this therapeutic class likely reflects differences in the mix of drugs taken between the two groups.

Web links. Prescription drugs

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

  http://www.medpac.gov/chapters/Mar13_Ch15.pdf
  http://www.medpac.gov/chapters/Mar12_Ch13.pdf
  http://www.medpac.gov/chapters/Mar11_Ch13.pdf
  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/June05_ch1.pdf
  http://www.medpac.gov/publications/congressional_reports/June04_ch1.pdf
  http://www.medpac.gov/documents/MedPAC_Payment_Basics_12_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/documents/Jan06_Oncology_mandated_report.pdf

- A series of Kaiser Family Foundation fact sheet 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

SECTION

11

Other services

Dialysis
Hospice
Clinical laboratory

Chart 11-1. Number of dialysis facilities is growing and share of for-profit and freestanding dialysis providers is increasing

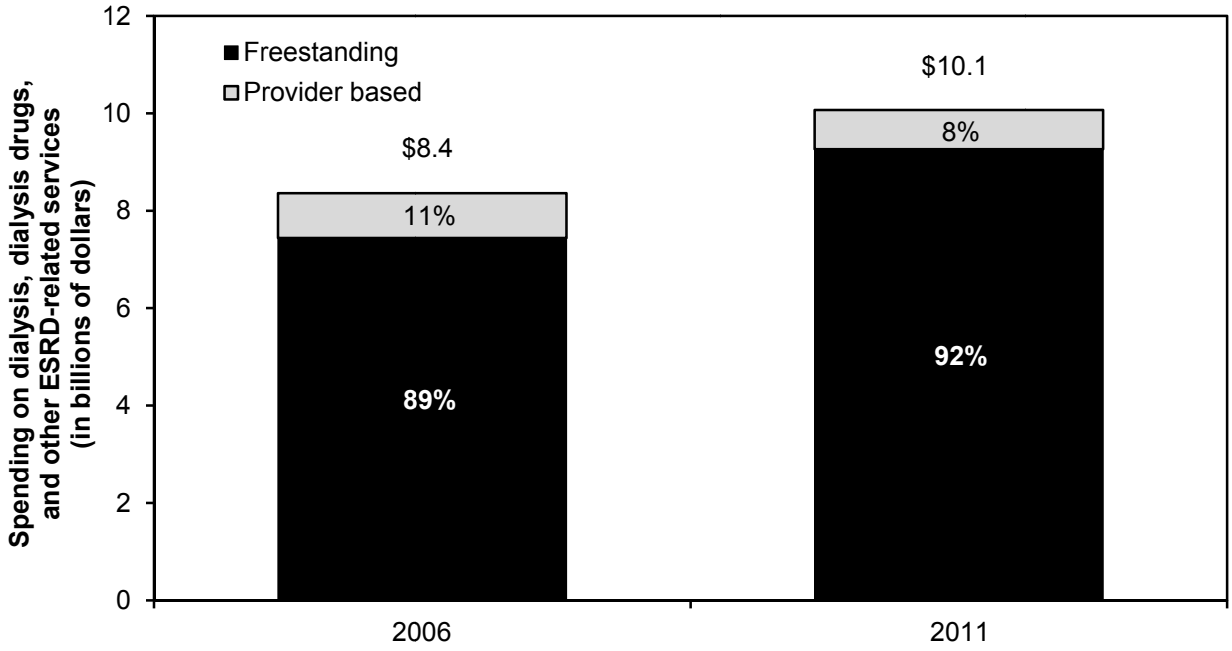
	2012	Average annual percent change 2007–2012	Average annual percent change 2011–2012
Total number of:			
Dialysis facilities	5,811	3%	2%
Hemodialysis stations	103,092	4	3
Mean number of hemodialysis stations per facility	18	0.4	0.3
	Percent of total		
Hospital based	9%	–4	–9
Freestanding	91	4	4
Urban	79	4	3
Rural, micropolitan	13	2	1
Rural, adjacent to urban	5	3	2
Rural, not adjacent to urban	3	3	2
Frontier	1	–1	0
For profit	85	5	4
Nonprofit	15	–2	–7

Note: Nonprofit includes facilities designated as either nonprofit or government. Average annual percent change based on comparing 2007, 2011, and 2012 end-of-year files.

Source: Compiled by MedPAC from the 2007, 2011, and 2012 CMS Dialysis Compare end-of-year files.

- Between 2007 and 2012, the number of freestanding and for-profit facilities increased, while hospital-based and nonprofit facilities decreased. Freestanding facilities increased from 88 percent to 91 percent of all facilities, and for-profit facilities increased from 81 percent to 85 percent of all facilities.
- Between 2007 and 2012, the proportion of facilities located in rural areas has remained relatively constant.
- Since 2007, the number of facilities has increased 3 percent per year. The average size of a facility has remained relatively constant, averaging about 18 dialysis treatment stations per facility.

Chart 11-2. Medicare spending for outpatient dialysis services furnished by freestanding and hospital-based dialysis facilities, 2006 and 2011



Note: ESRD (end-stage renal disease).

Source: Compiled by MedPAC from the 2006 and 2011 institutional outpatient files from CMS.

- In 2011, total spending for dialysis, dialysis drugs, and ESRD-related clinical laboratory tests was $10.1 billion. For most facilities, 2011 is the first year that Medicare paid them using a modernized prospective payment that includes in the payment bundle certain dialysis drugs and ESRD-related clinical laboratory tests for which facilities and clinical laboratories previously received separate payments.

- Between 2006 and 2011, total ESRD expenditures increased by about 4 percent per year. Excluding items and services (such as clinical laboratory services) that Medicare paid other providers (not dialysis facilities) to furnish before 2011, we estimate that annual growth in spending was roughly 3 percent per year.

- Freestanding dialysis facilities treat most dialysis beneficiaries and accounted for 89 percent of expenditures in 2006 and 92 percent of expenditures in 2011.

Chart 11-3. The ESRD population is growing, and most ESRD patients undergo dialysis

	2000		2006		2010	
	Patients (thousands)	Percent	Patients (thousands)	Percent	Patients (thousands)	Percent
Total	393.0	100%	508.9	100%	594.4	100%
Dialysis	284.2	72	357.4	70	415.0	70
In-center hemodialysis	255.5	65	327.7	64	378.5	64
Home hemodialysis*	2.2	1	2.6	1	5.5	1
Peritoneal dialysis*	25.3	6	26.2	5	29.8	5
Unknown	1.1	0.3	1.0	0.2	1.3	0.2
Functioning graft and kidney transplants	108.8	28	151.5	30	179.4	30

Note: ESRD (end-stage renal disease). Totals may not equal sum of components due to rounding. Data include both Medicare and non-Medicare patients.
* Home dialysis methods.

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 4 percent annually between 2000 and 2010.
- 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 the most common form of home dialysis.
- Most ESRD patients undergo hemodialysis administered in a dialysis facility three times a week. Between 2000 and 2010, the total number of in-center hemodialysis patients increased by 4 percent annually while the number of peritoneal dialysis patients increased 2 percent annually. Although only a small proportion of all dialysis patients undergo home hemodialysis, the number of these patients grew 10 percent per year 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 kidney or a cadaveric kidney donation. In 2010, about 35 percent of transplanted kidneys were from living donors and the remainder were from cadaver donors.

Chart 11-4. Asian Americans and Hispanics are among the fastest growing segments of the ESRD population

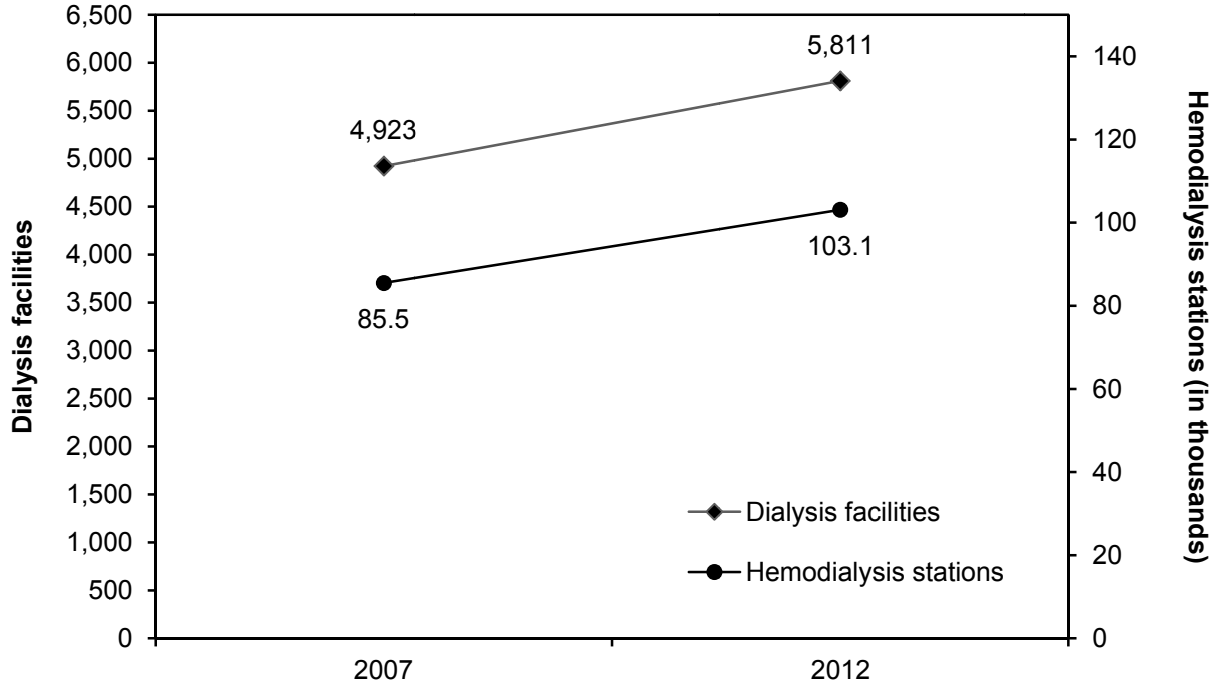
	Percent of total in 2010	Average annual percent change 2005–2010
Total (*n* = 594,374)	100%	4%
Age (years)		
0–19	1	1
20–44	17	1
45–64	45	5
65–79	28	5
80+	9	5
Sex		
Male	57	4
Female	43	4
Race/ethnicity		
White	61	4
African American	32	4
Native American	1	4
Asian American	6	8
Hispanic	16	7
Non-Hispanic	84	4
Underlying cause of ESRD		
Diabetes	38	4
Hypertension	25	4
Glomerulonephritis	15	2
Other causes	23	4

Note: ESRD (end-stage renal disease). Totals may not equal sum of the components due to rounding. ESRD patients include those who undergo maintenance dialysis and those who have a functioning kidney transplant.

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

- Among ESRD patients, 37 percent are over age 65. About 61 percent are White.
- Diabetes is the most common cause of renal failure.
- The number of ESRD patients increased by 4 percent annually between 2005 and 2010. Among the fastest growing groups of patients are Asian Americans and Hispanics.

Chart 11-5. Dialysis facilities' capacity increased between 2007 and 2012



Source: Compiled by MedPAC from the Dialysis Compare database from CMS.

- As the number of dialysis patients has grown, dialysis providers have met the demand by opening new facilities. In 2012, an average facility had about 18 hemodialysis stations.
- Between 2007 and 2012, the total number of dialysis facilities grew by about 3 percent annually, and the number of hemodialysis stations grew by 4 percent annually.

Chart 11-6. Characteristics of Medicare fee-for-service dialysis patients, 2011

	Percent of all FFS dialysis patients
Age (years)	
Under 45	12%
45–64	38
65–74	25
75–84	19
85+	7
Sex	
Male	54
Female	46
Race	
White	50
African American	36
All other	14
Residence	
Urban county	81
Rural county, micropolitan	11
Rural county, adjacent to urban	5
Rural county, not adjacent to urban	3
Frontier county	1
Prescription drug coverage status	
Enrolled in Part D plan	72
Coverage through employers that receive RDS	9
Coverage through other creditable sources	8
No creditable coverage	11
LIS	58
Medicare as the secondary payer	9
Dually eligible for Medicaid	47

Note: FFS (fee-for-service). RDS (retiree drug subsidy), LIS (low-income subsidy). Urban counties contain a core area with 50,000 or more population, rural micropolitan counties contain at least one cluster of at least 10,000 and less than 50,000 population, rural counties adjacent to urban areas do not have a city of 10,000 people in the county, and rural counties not adjacent to urban areas do not have a city of 10,000 people. Frontier counties are counties with six or fewer people per square mile. Totals may not sum to 100 percent due to rounding.

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

- Compared with all Medicare patients, FFS dialysis patients are disproportionately younger and African American.
- In 2011, about 20 percent of FFS dialysis patients resided in a rural county.
- Nearly half of all dialysis patients were dually eligible for Medicare and Medicaid services.
- Medicare was the secondary payer (for Part A and Part B) for 9 percent of FFS dialysis patients who were insured by an employer group health plan at the time they were diagnosed with end-stage renal disease.
- About 90 percent of FFS dialysis patients were enrolled in Part D plans or had other sources of creditable drug coverage.

Chart 11-7. Aggregate margins vary by type of freestanding dialysis facility, 2010

Type of facility	Percentage of Medicare payments going to freestanding facilities	Aggregate margin
All facilities	100%	2.3%
Urban	85	3.4
Rural	15	–3.7
LDOs	69	3.4
Non-LDOs	31	0.1

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

Source: Compiled by MedPAC from 2010 cost reports and the 2010 institutional outpatient file from CMS.

- For 2010, the aggregate Medicare margin for composite rate services and injectable drugs was 2.3 percent.
- Because 2011 dialysis cost reports are not yet available, we estimate a range for the 2011 Medicare margin of 2 percent to 3 percent. This estimate is based on 2010 cost reports and 2011 Medicare claims data for freestanding dialysis facilities. The lower end of the range reflects a more conservative assumption about the efficiencies anticipated under the modernized payment bundle. We did not stratify the 2011 Medicare margin by type of dialysis facility because 2011 cost report data were not available.
- In 2010 and in earlier years, we see higher margins for facilities affiliated with the two largest dialysis organizations. This finding stems from differences in the composite rate cost per treatment and drug payment per treatment. Compared with their counterparts, the composite rate cost per treatment was lower and the drug payment per treatment was higher for the two largest chains.

Chart 11-8. Medicare hospice use and spending grew substantially from 2000 to 2011

	2000	2010	2011	Change, 2000–2010	Change, 2010–2011
Beneficiaries in hospice (in millions)	0.534	1.159	1.219	8.1%*	5.2%
Medicare payments (in billions)	$2.9	$13.0	$13.8	16.2%*	6.8%
Average length of stay among decedents (in days)	54	86	86	4.8%*	0.0%
Median length of stay among decedents (in days)	17	18	17	+1 day	–1 day

Note: Average length of stay is calculated for decedents who used hospice at the time of death or before death and reflects the total number of days the decedent was enrolled in the Medicare hospice benefit during his/her lifetime. The percent change in the number of hospice users and total spending displayed in the chart may not equal the percent change calculated using the yearly data displayed in the chart due to rounding.
*Average annual percent change.

Source: 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 more than doubled between 2000 and 2010 and continued to grow in 2011, suggesting that access to hospice care has increased.
- After growing from 54 days in 2000 to 86 days in 2010, average length of stay held steady between 2010 and 2011.
- Total Medicare payments to hospices more than quadrupled from 2000 to 2011 due to increased hospice enrollment and longer lengths of stay.

Chart 11-9. Hospice use increased across beneficiary groups from 2000 to 2011

	Percent of decedents using hospice			Average annual percentage point change	Percentage point change
	2000	2010	2011	2000–2010	2010–2011
All	22.9%	44.0%	45.2%	2.1%	1.2%
FFS beneficiaries	21.5	43.0	44.2	2.2	1.2
MA beneficiaries	30.9	47.8	48.9	1.7	1.1
Dual eligibles	17.5	39.2	40.3	2.2	1.1
Non–dual eligibles	24.5	45.5	46.8	2.1	1.3
Age (years)					
<65	17.0	27.2	27.8	1.0	0.6
65–84	24.7	42.6	43.7	1.8	1.1
85+	21.4	50.4	52.0	2.9	1.6
Race/ethnicity					
White	23.8	45.8	47.0	2.2	1.2
Minority	17.3	33.6	35.1	1.6	1.5
Gender					
Male	22.4	40.4	41.3	1.8	0.9
Female	23.3	47.2	48.6	2.4	1.4
Beneficiary location					
Urban	24.3	45.5	46.6	2.1	1.1
Micropolitan	18.5	39.8	41.4	2.1	1.6
Rural, adjacent to urban	17.6	38.7	40.2	2.1	1.5
Rural, nonadjacent to urban	15.8	34.5	35.9	1.9	1.4
Frontier	13.2	30.1	30.7	1.7	0.6

Note: FFS (fee-for-service), MA (Medicare Advantage). Beneficiary location reflects the beneficiary's county of residence. Urban, micropolitan, and rural designations are based on the urban influence codes. The frontier category is defined as population density equal to or less than six persons per square mile.

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

- Hospice use grew in all beneficiary groups in 2011, continuing the trend of a growing proportion of beneficiaries using hospice at the end of life.
- Despite this growth, hospice use continued to vary by demographic and beneficiary characteristics. Medicare decedents who were older, White, female, MA enrollees, not dual eligible, or lived in an urban area were more likely to use hospice than their counterparts.

Chart 11-10. Number of Medicare-participating hospices has increased due to growth in for-profit hospices

	2000	2009	2010	2011
All hospices	2,255	3,385	3,498	3,585
For profit	672	1,834	1,954	2,052
Nonprofit	1,323	1,324	1,319	1,308
Government	258	227	225	225
Freestanding	1,069	2,282	2,397	2,485
Hospital based	785	634	612	597
Home health based	379	447	466	480
SNF based	21	22	23	23
Urban	1,424	2,323	2,430	2,534
Rural	788	1,005	1,002	985

Note: The hospice provider counts shown in this chart differ from the counts show in prior years' chart books because this year we used different data sources, which we believe more accurately capture the number and type of hospices serving Medicare beneficiaries. Numbers may not sum to totals because of missing data for a small number of providers.

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

- There were nearly 3,600 Medicare-participating hospices in 2011. Most of them were for-profit hospices.
- Between 2000 and 2011, the number of Medicare-participating hospices grew by more than 1,300 providers. For-profit hospices accounted almost entirely for that growth.
- Growth in the number of providers has occurred predominantly among freestanding and home-health-based providers. The number of hospital-based providers has declined.
- The number of hospices in rural and urban areas was substantially higher in 2011 than in 2000, although the number of hospices in rural areas declined modestly in the past few years. The share of hospices located in rural areas (28 percent) and urban areas (72 percent) is similar to the share of Medicare beneficiaries residing in these two types of areas.

Chart 11-11. Hospice cases and length of stay, by diagnosis, 2011

	Diagnosis share of total cases	Percent of cases with length of stay greater than 180 days
Cancer (except lung cancer)	20%	9%
Debility, NOS	11	24
Circulatory, except heart failure	10	18
Lung cancer	8	8
Heart failure	7	20
Unspecific symptoms/signs	6	23
Alzheimer's and similar diseases	6	35
Chronic airway obstruction, NOS	6	26
Dementia	5	30
Organic psychoses	4	28
Respiratory disease	3	10
Genitourinary disease	3	5
Nervous system, except Alzheimer's	3	31
Digestive disease	2	7
Other	1	9
All	100	20

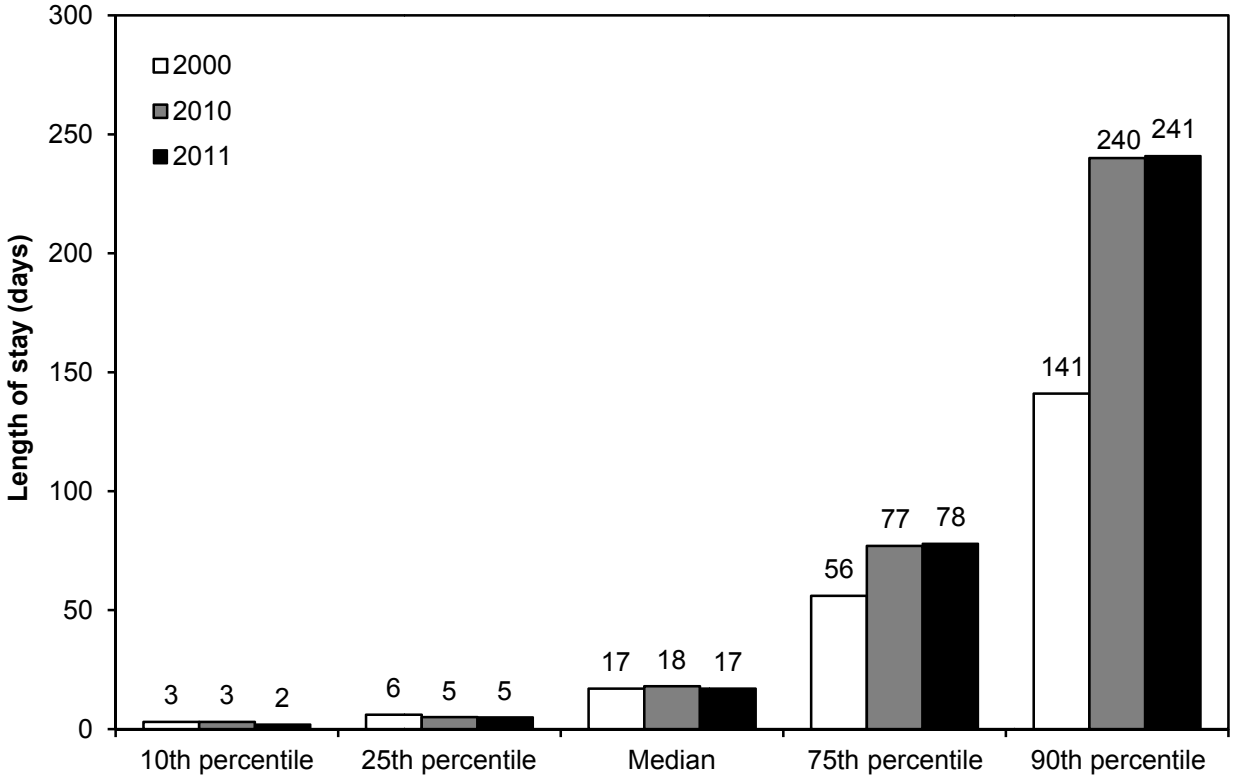
Note: NOS (not otherwise specified). Cases include all patients who received hospice care in 2011, not just decedents. Percent of cases by diagnosis does not sum to 100 due to the exclusion of patients with multiple diagnoses. Share of cases may not sum to figures cited in the text below due to rounding.

Source: MedPAC analysis of 100 percent hospice claims Standard Analytic File from CMS and the Medicare Beneficiary Database.

- In 2011, the most common terminal diagnosis among Medicare hospice patients was cancer, accounting for about 28 percent of cases. The next most common diagnoses were Alzheimer's disease, dementia, organic psychoses, and other neurological conditions (18 percent of cases); debility and unspecific signs and symptoms (17 percent); and heart failure and other circulatory conditions (17 percent of cases).

- Length of stay varies by diagnosis. Nearly one-quarter or more of hospice patients with Alzheimer's disease, dementia, organic psychoses, chronic airway obstruction, debility, and unspecific signs and symptoms had lengths of stay exceeding 180 days. Long hospice stays were least common among beneficiaries with genitourinary disease, digestive disease, and cancer.

Chart 11-12. Growth in length of stay among hospice patients with the longest stays slowed in 2011



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 or her lifetime.

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

- Since 2000, long hospice stays have grown longer. For example, hospice length of stay among decedents at the 90th percentile was 241 days in 2011 compared with 141 days in 2000, an increase of 100 days. Growth in length of stay at the 90th percentile has been slower in recent years than earlier in the period. The 90th percentile of length of stay increased 1 day between 2010 (240 days) and 2011 (241 days).

- Short stays in hospice have changed little since 2000. The median length of stay in hospice held steady at 17 or 18 days from 2000 to 2011. Hospice length of stay at the 25th percentile has remained at 5 or 6 days since 2000.

Chart 11-13. Hospice length of stay among decedents, by beneficiary and hospice characteristics, 2011

	Average length of stay (in days)	Length of stay percentiles (in days)		
		10th	50th	90th
Beneficiary				
Diagnosis				
Cancer	52	3	17	126
Neurological	137	3	25	423
Heart/circulatory	74	2	11	210
Debility	97	3	23	280
COPD	107	2	20	316
Other	86	2	13	251
Site of service				
Home	88	4	26	231
Nursing facility	111	3	21	332
Assisted living facility	149	5	50	423
Hospice facility or hospital	15	2	4	19
Hospice				
For profit	102	3	21	295
Nonprofit	69	2	14	184
Freestanding	89	2	17	251
Home health based	68	2	15	183
Hospital based	61	2	14	160

Note: COPD (chronic obstructive pulmonary disease). Average length of stay is calculated for Medicare beneficiaries who died in 2010 and used hospice that year and reflects the total number of days the decedent was enrolled in the Medicare hospice benefit during his or her lifetime.

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

- Hospice average length of stay varies by both beneficiary and provider characteristics. Most of this variation reflects differences in length of stay among patients with the longest stays (e.g., at the 90th percentile). Length of stay varies much less for patients with shorter stays (e.g. at the 10th or 50th percentile).
- Beneficiaries with neurological conditions, COPD, and debility have the longest stays, while beneficiaries with cancer have the shortest stays on average.
- Beneficiaries who receive hospice services in assisted living facilities and nursing facilities have longer stays on average than beneficiaries who receive care at home or in a hospice facility or hospital.
- For-profit and freestanding hospices have longer average lengths of stay than nonprofit and provider-based hospices.

Chart 11-14. More than half of Medicare hospice spending in 2011 was for patients with stays exceeding 180 days

	Medicare hospice spending, 2011 (in billions)
All hospice users in 2011	$13.8
Beneficiaries with LOS > 180 days	7.9
Days 1–180	2.6
Days 181–365	2.5
Days 366+	2.7
Beneficiaries with LOS ≤ 180 days	5.9

Note: LOS (length of stay). LOS reflects the beneficiary's lifetime LOS as of the end of 2011 (or at the time of discharge in 2011 if the beneficiary is not enrolled in hospice at the end of 2011). All spending reflected in the chart occurred only in calendar year 2011. Numbers do not sum to total due to rounding.

Source: MedPAC analysis of 100 percent hospice claims Standard Analytic File data and the common Medicare enrollment file from CMS.

- In 2011, Medicare hospice spending on patients with stays exceeding 180 days was nearly $8 billion, more than half of all Medicare hospice spending that year.
- About $2.7 billion, or nearly 20 percent, of Medicare hospice spending in 2011 was on additional hospice care for patients who had already received at least 1 year of hospice.

Chart 11-15. Hospice aggregate Medicare margins, 2004–2010

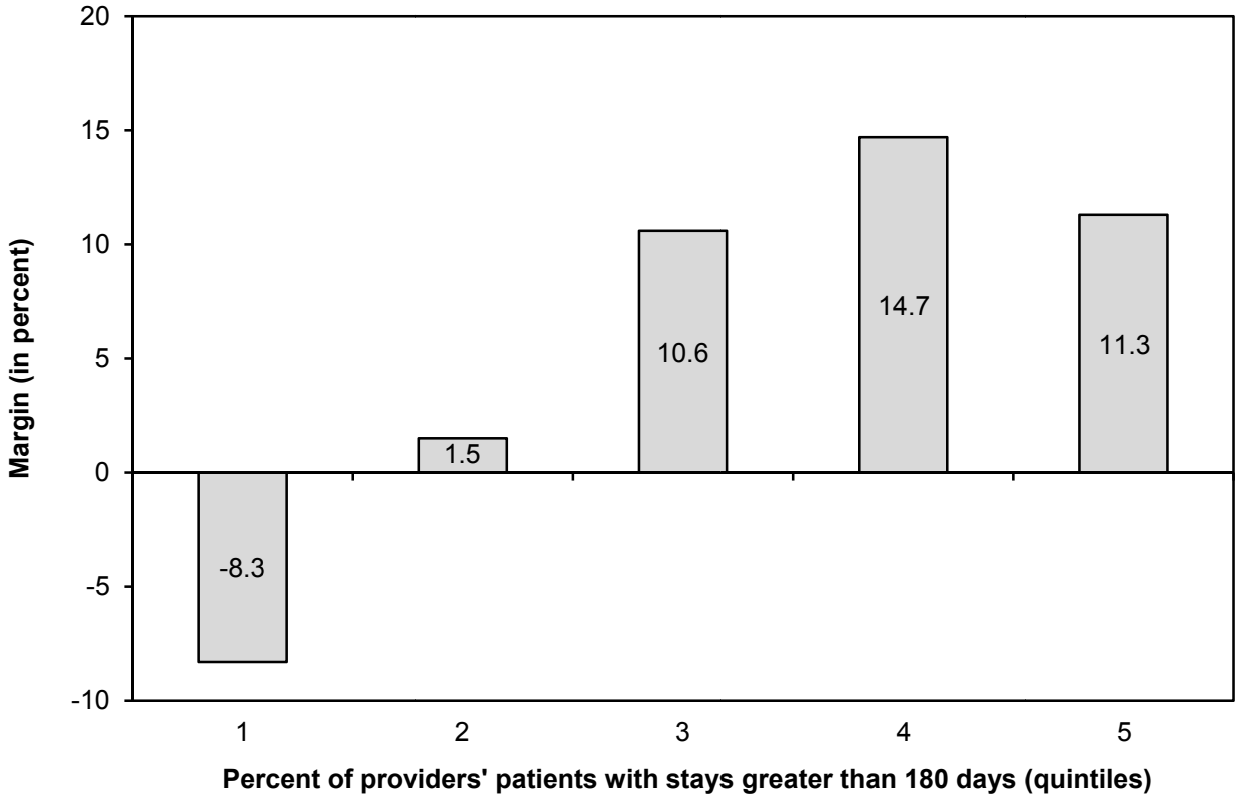
	Percent of hospices (2010)	2004	2007	2008	2009	2010
All	100%	5.0%	5.8%	5.5%	7.4%	7.5%
Freestanding	69	8.3	8.7	8.3	10.2	10.7
Home health based	13	3.1	2.3	3.4	5.9	3.2
Hospital based	17	–11.6	–10.9	–11.3	–12.2	–16.0
For profit	56	11.8	10.4	10.3	11.7	12.4
Nonprofit	38	0.3	1.6	0.7	3.8	3.2
Government	14	N/A	N/A	N/A	N/A	N/A
Urban	71	5.9	6.3	5.9	7.9	7.8
Rural	29	–2.3	1.4	2.1	3.7	5.3
Below cap	89.9	5.6	6.1	5.9	7.9	7.8
Above cap	10.1	–3.4	2.5	1.2	1.4	3.2
Above cap (including cap overpayments)	10.1	18.9	20.5	19.0	18.3	17.3

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 because skilled nursing facility–based hospices are not broken out separately. Percent of hospices may not sum to 100 percent for other categories due to rounding.

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 was 7.5 percent in 2010, up from 7.4 percent in 2009.
- Margin estimates do not include nonreimbursable costs associated with bereavement services and volunteers (which, if included, would reduce margins by at most 1.4 and 0.3 percentage points, respectively). Margins also do not include the costs and revenues associated with fundraising.
- Freestanding hospices had higher margins than provider-based (home-health- and hospital-based) 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 2010, for-profit hospice margins were strongly positive at 12.4 percent. The aggregate margin for nonprofit hospices was 3.2 percent. The subset of nonprofit hospices that were freestanding had a higher margin of 7.6 percent (not shown in chart).
- Hospices that exceeded the cap (Medicare's aggregate average per beneficiary payment limit) had a margin of more than 17 percent before the return of the cap overpayments.

Chart 11-16. Medicare margins are higher among hospices with more long stays, 2010



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.

- Medicare's per diem–based payment system for hospice provides an incentive for longer lengths of stay.
- Hospices with more patients with stays greater than 180 days generally have higher margins. Hospices in the lowest length-of-stay quintile have a margin of –8.3 percent compared with a 14.7 percent margin for hospices in the second highest length-of-stay quintile.
- Margins are somewhat lower in the highest length-of-stay quintile (11.3 percent) compared with the second highest quintile (14.7 percent) because some hospices in the highest quintile exceeded Medicare's aggregate payment cap and were required to repay the overage. Hospices exceeding the cap had a margin of more than 17 percent before the return of overpayments (Chart 11-15).

Chart 11-17. Hospices that exceeded Medicare's annual payment cap, selected years

	2002	2006	2008*	2009*	2010*
Percent of hospices exceeding the cap	2.6%	9.4%	10.2%	12.5%	10.1%
Average payments over the cap per hospice exceeding the cap (in thousands)	$470	$731	$571	$485	$426
Payments over the cap as a percent of overall Medicare hospice spending	0.6%	2.4%	1.7%	1.7%	1.2%

Note: The cap year is defined as the period beginning November 1 and ending October 31 of the following year. These estimates of hospices that exceed the aggregate cap are based on the Commission's analyses. While the estimates are intended to approximate those of the Medicare claims-processing contractors, they are not necessarily identical to the contractors' estimates due to differences in available data and methodology.
*The estimates for 2008, 2009, and 2010 are not entirely comparable to the estimates for 2002 and 2006.

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 are from the CMS Office of the Actuary.

- Fewer hospices exceeded Medicare's aggregate average per beneficiary payment limit, or "cap," in 2010 than in 2009. About 10.1 percent of hospices exceeded the cap in 2010, down from 12.5 percent in 2009. This decline may signal the beginning of a reversal to the trend observed over the past decade of an increasing share of hospices exceeding the aggregate cap.
- Medicare payments over the cap represented 1.2 percent of total Medicare hospice spending in 2010.
- On average, above-cap hospices exceeded the cap by about $426,000 per provider in 2010. Since 2006, the amount by which above-cap hospices have exceeded the cap on average has declined each year.

Chart 11-18. Length-of-stay and live discharge rates for above- and below-cap hospices, 2010

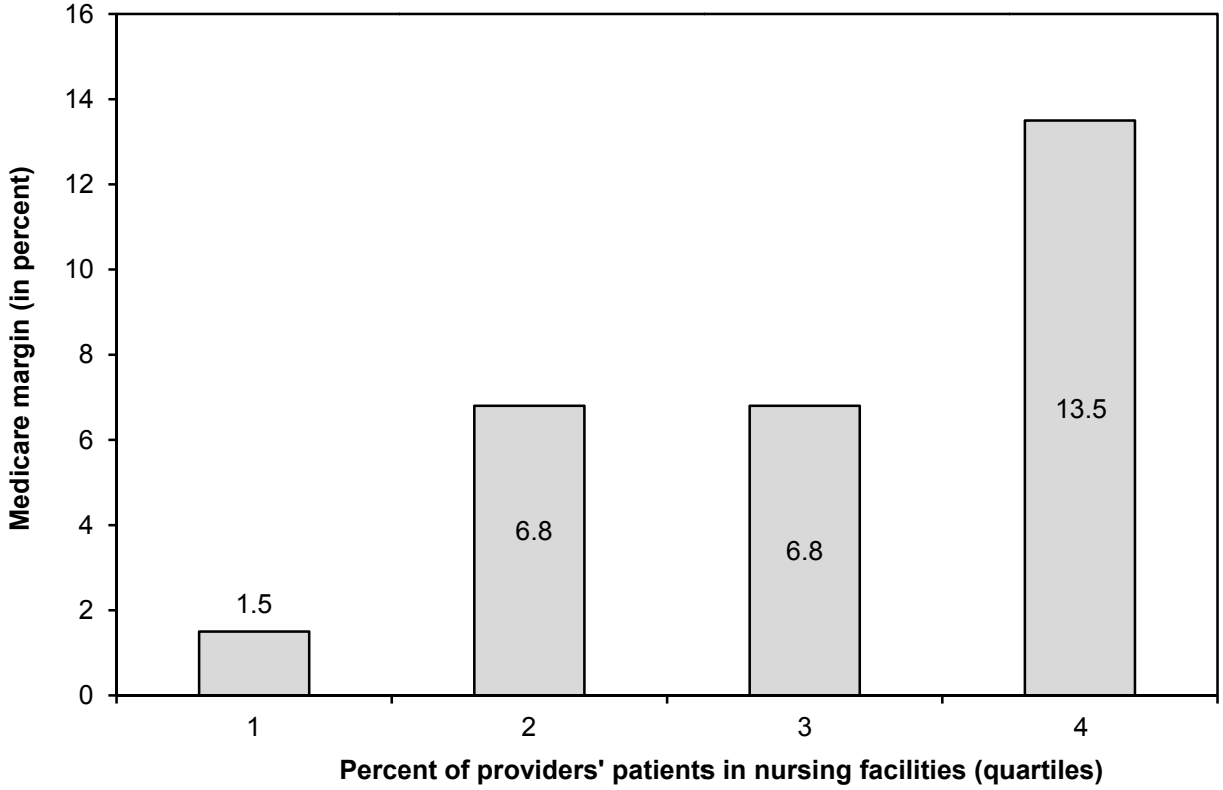
Diagnosis	Percent of hospice users with stays exceeding 180 days		Live discharges as a percent of all discharges	
	Above-cap hospices	Below-cap hospices	Above-cap hospices	Below-cap hospices
All	39%	19%	40%	16%
Cancer	16	9	19	10
Neurological conditions	46	30	31	16
Heart/circulatory	41	18	41	14
Debility	39	23	46	21
COPD	44	25	45	20
Other	47	23	51	26

Note: COPD (chronic obstructive pulmonary disease). Length-of-stay data reflect the percent of hospice users in 2009 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 39 percent and 46 percent of above-cap hospices' patients with neurological conditions, heart or circulatory conditions, COPD, or debility had stays exceeding 180 days compared with 18 percent to 30 percent at below-cap hospices.
- For all diagnoses, the live discharge rates at above-cap hospices were at least roughly double, and in some cases almost triple, the rates at below-cap hospices. For example, among patients with heart or circulatory conditions, 41 percent of discharges at above-cap hospices were live discharges compared with 14 percent at below-cap hospices.

Chart 11-19. Margins are higher among hospices with a greater share of their patients in nursing facilities, 2010

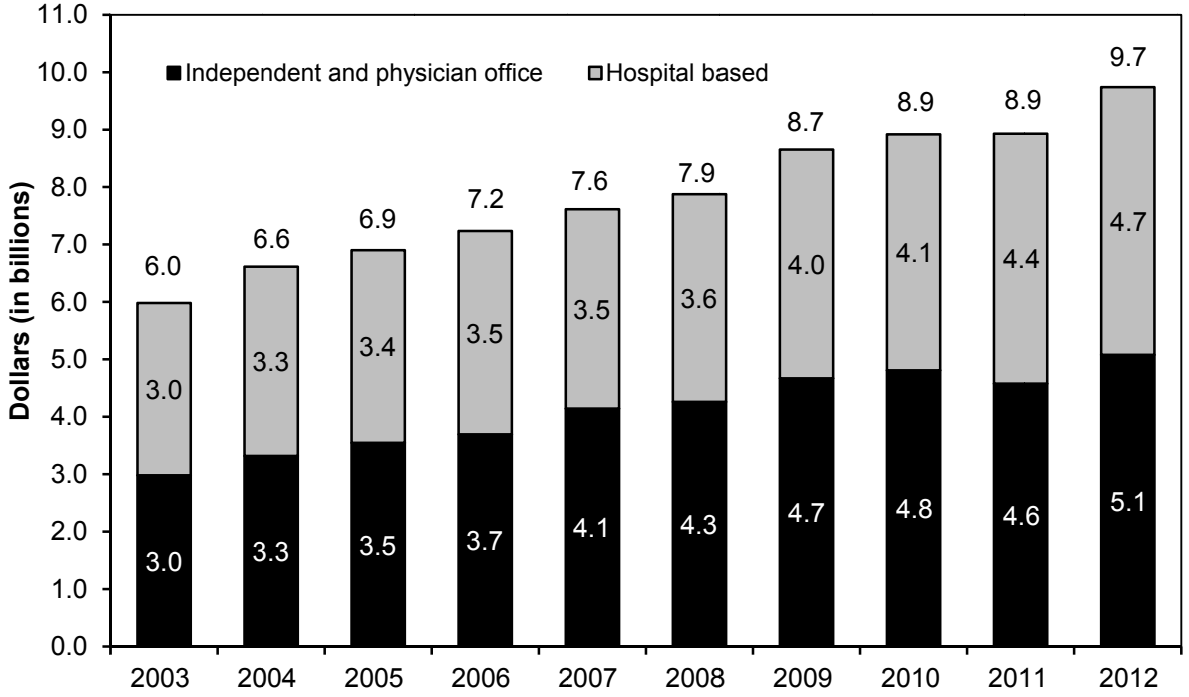


Note: Margins exclude overpayments to hospices that exceed the cap on the average annual Medicare payment per beneficiary. Margins are calculated based on Medicare-allowable, reimbursable costs.

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

- Hospices with a large share of their patients in nursing facilities have higher margins than other hospices.
- The higher profitability of hospices serving many nursing facility patients may be due to a combination of factors, such as longer lengths of stay, possible efficiencies in treating patients in a centralized location (e.g., less mileage costs and staff time for travel), and overlap in responsibilities between the hospice and the nursing facility.

Chart 11-20. Medicare spending for clinical laboratory services, 2003–2012



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. The spending data are calendar year figures from the 2013 annual report of the Medicare Trustees. The spending data include only program payments; there is no beneficiary cost sharing for clinical lab services.

Source: 2013 annual report of the Boards of Trustees of the Medicare Trust Funds.

- Medicare spending for clinical laboratory services grew by an average of 5.6 percent per year between 2003 and 2012. This growth was primarily driven by rising volume, as there were only three increases in lab payment rates during those years (1.1 percent in 2003, 4.5 percent in 2009, and 0.65 percent in 2012).
- Spending for services in all clinical lab settings increased by 9.1 percent in 2012. Spending for services in independent and physician office labs grew by 10.9 percent, compared with 7.1 percent for hospital-based labs.
- Clinical lab services accounted for 1.7 percent of total program spending in 2012.

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_12_dialysis.pdf

- The United States 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 provides health information about kidney disease for consumers.

  http://www2.niddk.nih.gov/

- CMS provides specific information about each dialysis facility.

  http://www.medicare.gov/dialysisfacilitycompare/

- Chapter 6 of the MedPAC March 2013 Report to the Congress provides information about the financial performance of dialysis facilities.

  http://www.medpac.gov/chapters/Mar13_Ch06.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/documents/100603_RevPhysFeeSched_CB_comment.pdf

- MedPAC commented 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://www.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_12_hospice.pdf

- Additional information and analysis related to the Medicare hospice benefit and the financial performance of hospice providers can be found in Chapter 12 of MedPAC's March 2013 Report to the Congress.

  http://www.medpac.gov/chapters/Mar13_Ch12.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

- Additional analyses to support the Commission's recommendations for payment reforms and enhanced accountability, as well as analyses of other issues (i.e., hospice care in nursing facilities and hospice providers with unusually high live discharge rates), can be found in Chapter 5 of MedPAC's June 2013 Report to the Congress.

  http://www.medpac.gov/chapters/Jun13_Ch05.pdf

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

  http://www.cms.gov/Center/Provider-Type/Hospice-Center.html

- 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://www.medpac.gov/documents/MedPAC_briefs_Payment_Basics_12_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/Regulations-and-Guidance/Legislation/CLIA/index.html

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