

J U L Y 2 0 2 0

A DATA BOOK

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Health Care Spending  
and the  
Medicare Program



## **Introduction**

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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 is unique to the Data Book. The information is presented in tables and figures with brief discussions.

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

### **Notes on data**

Changes in aggregate spending for the fee-for-service sectors presented in this Data Book partly reflect the shift in Medicare enrollment from the traditional fee-for-service program to Medicare Advantage. Fee-for-service spending per capita may present a more complete picture of spending changes.



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SECTION

1

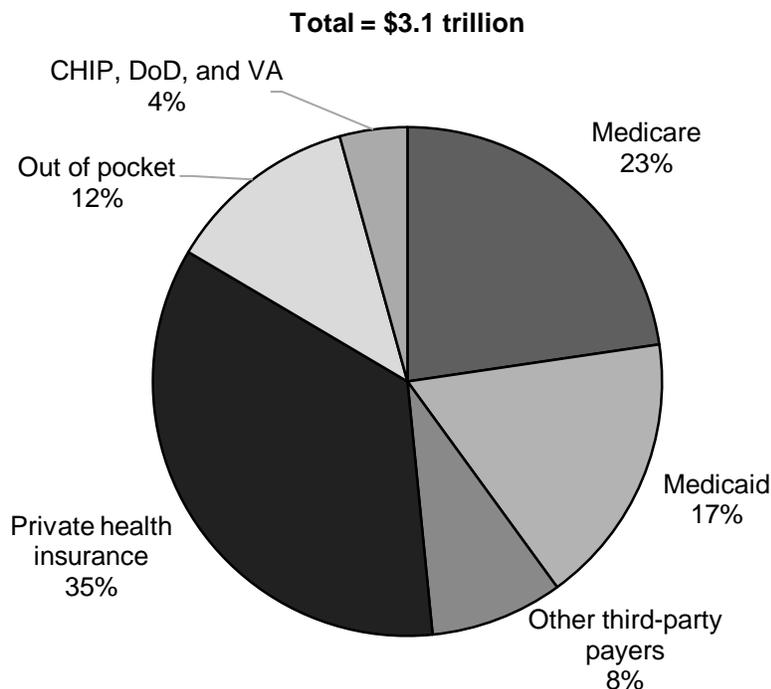
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**National health care and  
Medicare spending**

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**Chart 1-1. Medicare was the largest single purchaser of personal health care, 2018**

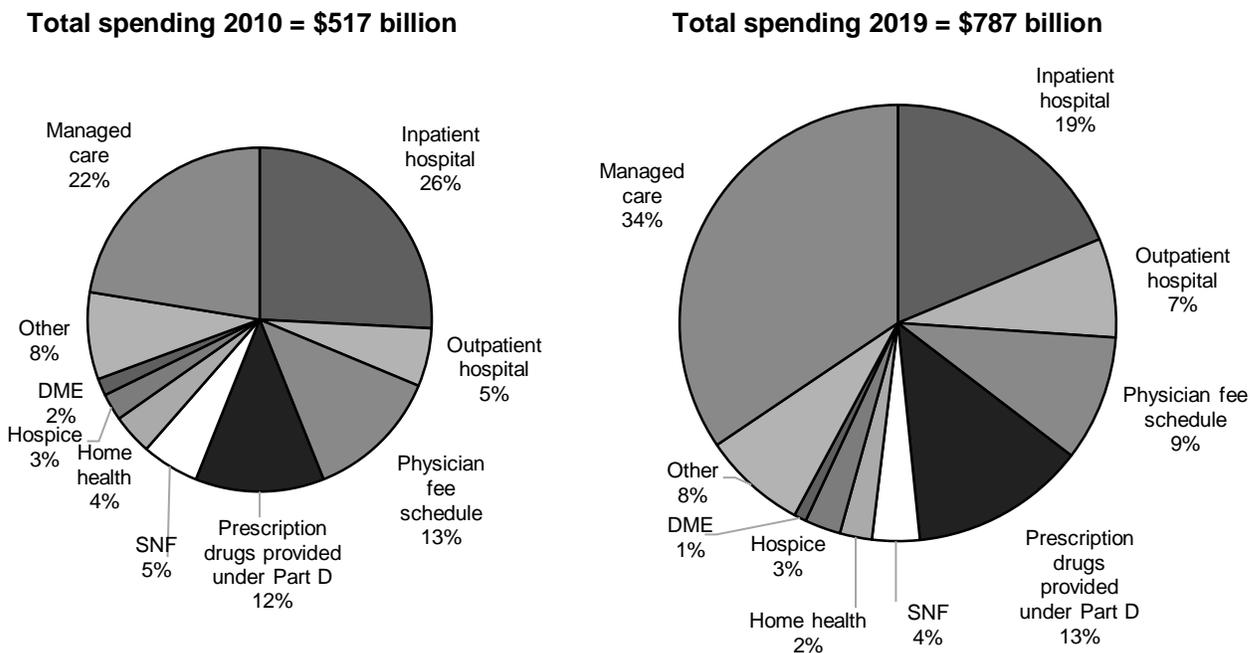


Note: CHIP (Children’s Health Insurance Program), DoD (Department of Defense), VA (Department of Veterans Affairs). “Personal health care” is a subset of national health expenditures. It includes spending for all medical goods and services that are provided for the treatment of an individual and excludes other spending, such as government administration, the net cost of health insurance, public health, and investment. “Out-of-pocket” spending includes cost sharing for both privately and publicly insured individuals. Premiums are included in the shares of each program (e.g., Medicare, private health insurance) rather than in the share of the out-of-pocket category. “Other third-party payers” includes worksite health care, other private revenues, Indian Health Service, workers’ compensation, general assistance, maternal and child health, vocational rehabilitation, other federal programs such as the Substance Abuse and Mental Health Services Administration, other state and local programs, and school health. Slices do not total 100 percent because of rounding.

Source: CMS Office of the Actuary, National Health Expenditure Accounts, “Table 6: Personal Health Care Expenditures; Levels, Percent Change, and Percent Distribution, by Source of Funds: Selected Calendar Years 1970–2018,” released December 2019.

- Medicare is the largest single purchaser of health care in the United States. (Though the share of spending accounted for by private health insurance is greater than Medicare’s share, private health insurance is not a single purchaser of health care; rather, it includes many private plans, including managed care, self-insured health plans, and indemnity plans.) Of the \$3.1 trillion spent on personal health care in 2018, Medicare accounted for 23 percent, or \$697 billion. This amount includes spending on direct patient care and excludes certain administrative and business costs.
- Thirty-five percent of personal health care spending was financed through private health insurance, and 12 percent was consumer out-of-pocket spending.
- In this chart, Medicare and private health insurance spending include premium contributions from enrollees.

## Chart 1-2. Medicare spending is concentrated in certain services and has shifted over time

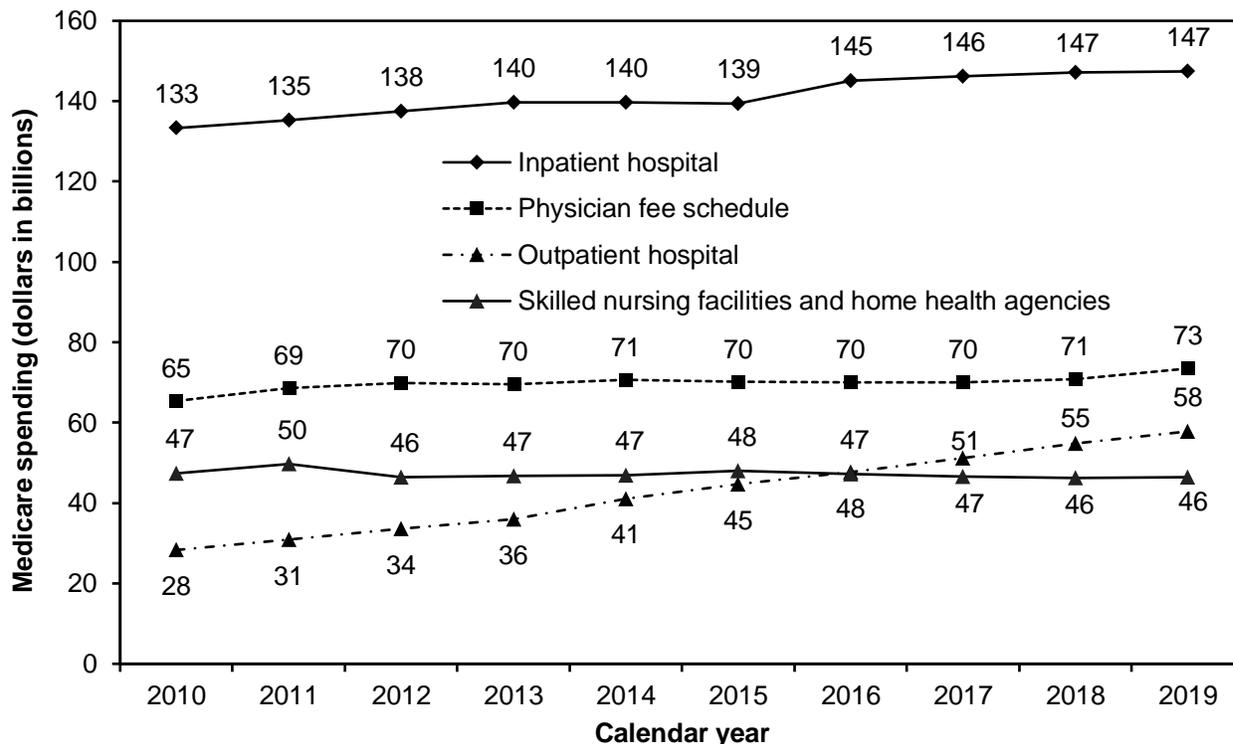


Note: DME (durable medical equipment), SNF (skilled nursing facility). All data are by calendar year. Dollar amounts are Medicare spending only and do not include beneficiary cost sharing. "Other" includes items such as laboratory services, physician-administered drugs, renal dialysis performed in freestanding dialysis facilities, services provided in freestanding ambulatory surgical center facilities, and ambulance. Components may not total 100 percent because of rounding.

Source: The annual report of the Boards of Trustees of the Medicare trust funds 2020.

- In 2019, Medicare spent \$787 billion on benefits. Managed care (Medicare Advantage) was the largest spending category (34 percent), followed by inpatient hospital services (19 percent), prescription drugs provided under Part D (13 percent), and services reimbursed under the physician fee schedule (9 percent).
- The distribution of Medicare spending among services has changed over time. Spending on Medicare Advantage plans has grown from 22 percent of Medicare spending in 2010 to 34 percent in 2019. This growth is largely due to a 96 percent increase in the number of beneficiaries enrolled in Medicare Advantage over this period (data not shown). Meanwhile, the number of beneficiaries in fee-for-service Medicare has stayed relatively flat (data not shown).
- Spending on fee-for-service (FFS) inpatient hospital services has declined as a share of total Medicare spending, falling from 26 percent in 2010 to 19 percent in 2019. Spending on physician fee schedule services has also declined as a share of Medicare spending, falling from 13 percent to 9 percent over this period. At the same time, spending on FFS outpatient services has grown (from 5 percent to 7 percent of Medicare spending), partly due to physician practices being acquired by hospitals and beginning to bill under the outpatient payment system.

**Chart 1-3. Aggregate Medicare spending for FFS beneficiaries, by sector, 2010–2019**

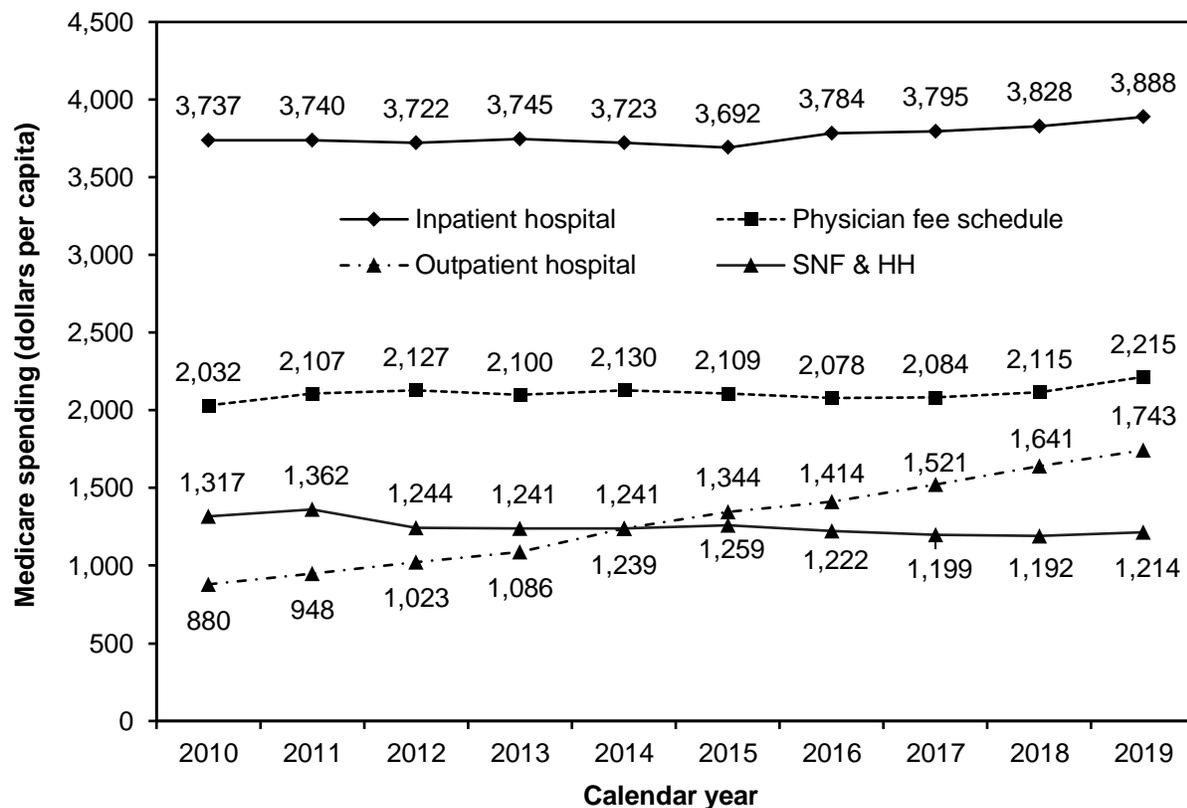


Note: FFS (fee-for-service). “Physician fee schedule” includes spending on services provided by physicians and other health professionals such as nurse practitioners, physician assistants, and physical therapists. Dollar amounts are Medicare spending for FFS beneficiaries only and do not include beneficiary cost sharing or spending for Medicare Advantage enrollees.

Source: The annual report of the Boards of Trustees of the Medicare trust funds 2020.

- Medicare fee-for-service spending on inpatient hospital services and physician fee schedule services increased modestly from 2010 to 2019, averaging 1.1 percent and 1.3 percent growth per year, respectively. Spending on skilled nursing facilities and home health services decreased over this period, contracting by –0.2 percent per year on average.
- In contrast, spending on outpatient hospital services doubled during this period (averaging growth of 8.3 percent per year from 2010 to 2019) as more physician practices were acquired by hospitals and began billing Medicare’s outpatient payment system.

**Chart 1-4. Per capita Medicare spending for FFS beneficiaries, by sector, 2010–2019**

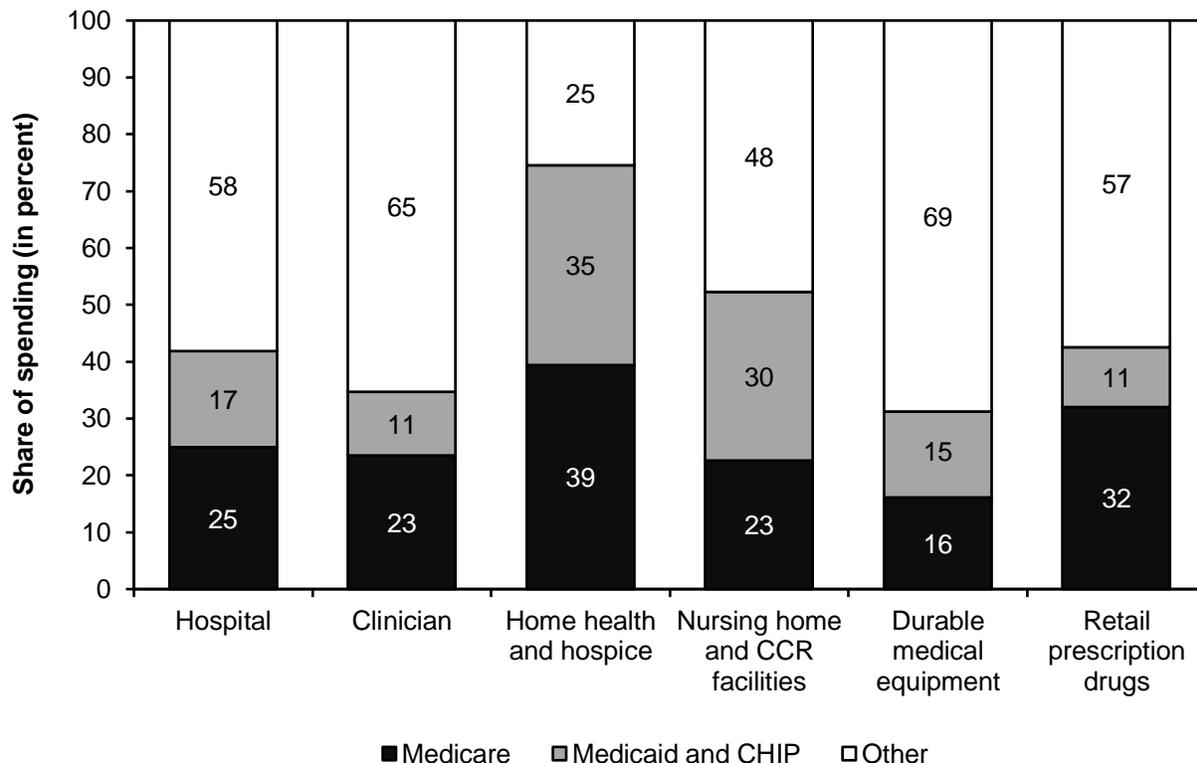


Note: FFS (fee-for-service), SNF (skilled nursing facility), HH (home health). “Physician fee schedule” includes spending on services provided by physicians and other health professionals such as nurse practitioners, physician assistants, and physical therapists. Dollar amounts are Medicare spending for FFS beneficiaries only and do not include beneficiary cost sharing or spending for Medicare Advantage enrollees. Spending per beneficiary for inpatient hospital services equals spending for the sector (see Chart 1-3) divided by FFS enrollment in Medicare Part A. Spending per beneficiary for physician fee schedule services and outpatient hospital services equals spending for the sector (see Chart 1-3) divided by FFS enrollment in Medicare Part B. Spending per beneficiary for skilled nursing facility services and home health services equals spending for those sectors (see Chart 1-3) divided by total FFS enrollment.

Source: The annual report of the Boards of Trustees of the Medicare trust funds 2020.

- Consistent with the trends shown in Chart 1-3, Medicare FFS spending per capita on inpatient hospital services and physician fee schedule services increased modestly from 2010 to 2019 (averaging 0.4 percent and 1.0 percent per year, respectively). Per capita spending on skilled nursing facilities and home health services decreased over this period (averaging –0.9 percent per year).
- Also consistent with trends in Chart 1-3, per capita spending on outpatient hospital services almost doubled during this period (averaging growth of 7.9 percent per year from 2010 to 2019).

**Chart 1-5. Medicare’s share of spending on personal health care varied by type of service, 2018**

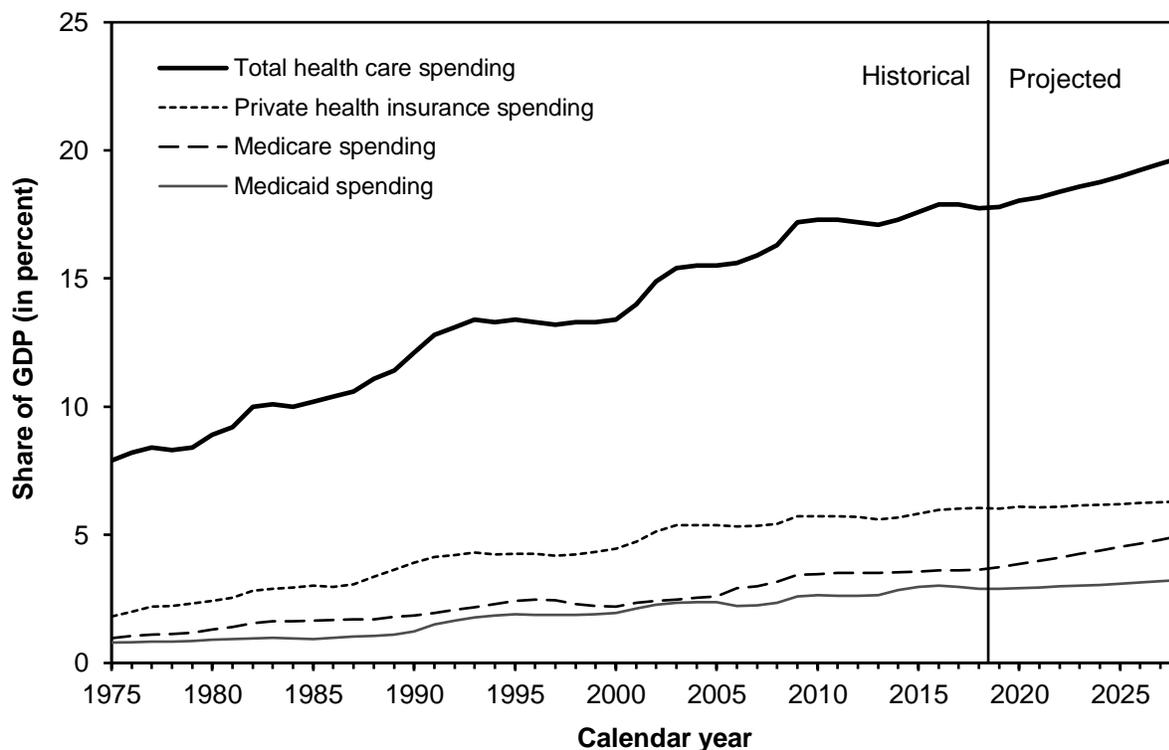


Note: CCR (continuing care retirement), CHIP (Children’s Health Insurance Program). “Personal health care” is a subset of national health expenditures. It includes spending for all medical goods and services that are provided for the treatment of an individual and excludes other spending such as government administration, the net cost of health insurance, public health, and investment. “Other” includes private health insurance, out-of-pocket spending, and other private and public spending. Other service categories included in personal health care that are not shown here are other professional services; dental services; other health, residential, and personal care; and other nondurable medical equipment. Bars may not total 100 percent because of rounding.

Source: CMS Office of the Actuary, National Health Expenditure Accounts, historical data released December 2019.

- While Medicare’s share of total personal health care spending was 23 percent in 2018 (see Chart 1-1), its share of spending by type of service varied, from 16 percent of spending on durable medical equipment to 39 percent of spending on home health and hospice services.
- Medicare’s share of spending on nursing homes and continuing care retirement facilities was smaller than Medicaid’s share. 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.

**Chart 1-6. Health care spending has consumed an increasing share of the country's GDP**

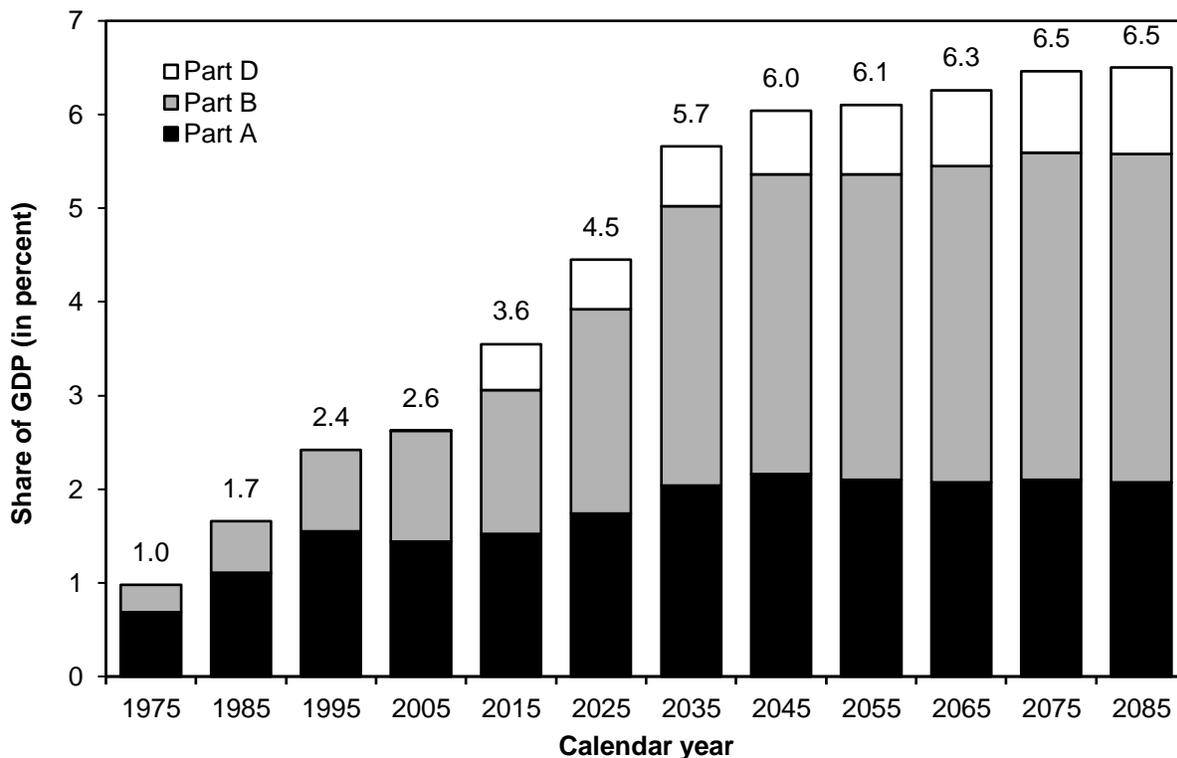


Note: GDP (gross domestic product). The potential effects of the COVID-19 pandemic are not reflected in these projections.

Source: CMS Office of the Actuary, National Health Expenditure Accounts, historical data released December 2019 and projections released March 2020.

- In 2018, total health care spending made up 17.7 percent of the country's GDP. Private health insurance spending constituted 6.0 percent of GDP spending, Medicare constituted 3.6 percent, and Medicaid constituted 2.9 percent.
- Health care spending as a share of GDP more than doubled from 1975 to 2015, increasing from 7.9 percent to 17.6 percent. Private health insurance spending, Medicare spending, and Medicaid all more than tripled over that same time period, increasing from 1.8 percent to 5.8 percent, from 1.0 percent to 3.6 percent, and from 0.8 percent to 3.0 percent, respectively, as a share of GDP.

**Chart 1-7. Trustees project Medicare spending to continue to increase as a share of GDP**

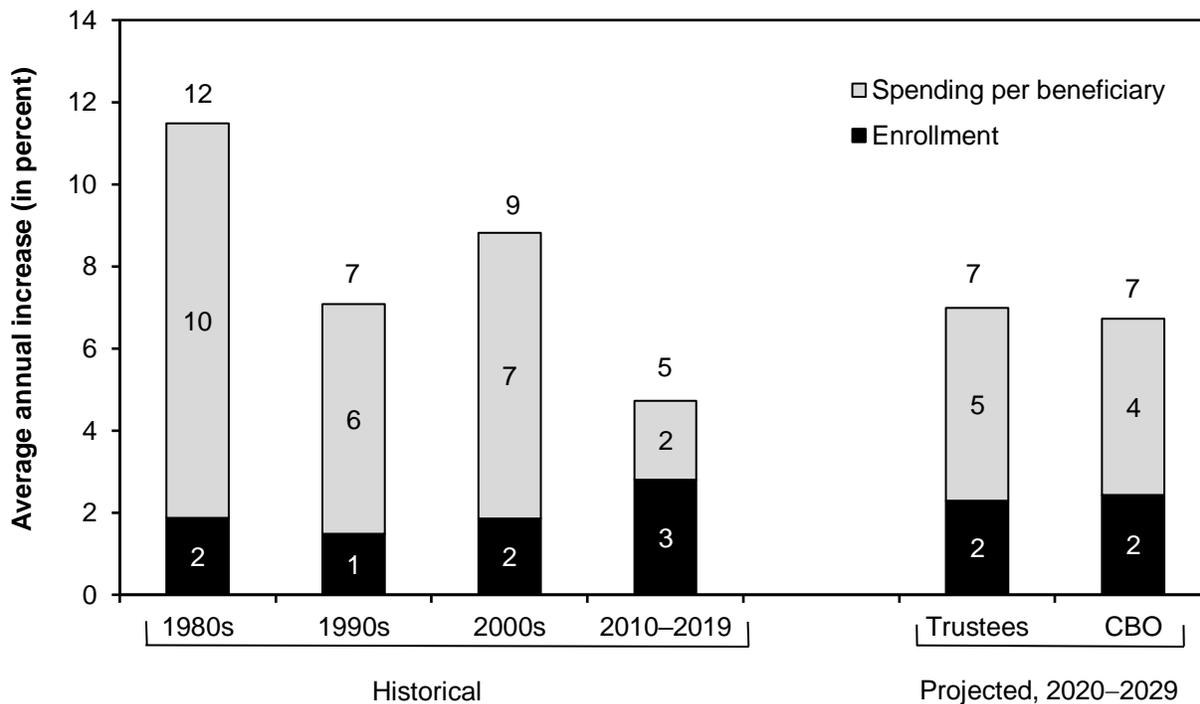


Note: GDP (gross domestic product). The Part D benefit began in 2006. Shares for 2025 and later are projections based on the Trustees' intermediate set of assumptions. The potential effects of the COVID-19 pandemic are not reflected in these projections.

Source: The annual report of the Boards of Trustees of the Medicare trust funds 2020.

- Over time, Medicare spending has accounted for an increasing share of GDP. From 1 percent in 1975, it is projected to reach 6 percent of GDP in 2045.
- The Medicare Trustees project that spending will rise from 3.6 percent of GDP in 2015 to 5.7 percent of GDP by 2035, largely because of rapid growth in the number of beneficiaries, and then to 6.5 percent of GDP by 2075, with growth in spending per beneficiary becoming the greater factor in the later years of the forecast. The rapid growth in the number of beneficiaries began in 2011 and will continue through 2030 as members of the baby-boom generation reach age 65 and become eligible to enroll in Medicare.
- In the later decades of the Trustees' forecast, Medicare spending is projected to continue rising as a share of GDP, but at a slower pace than in the past.
- Drug costs are projected to grow faster than Part A and Part B expenditures, and to account for 14 percent of Medicare expenditures by 2085.

**Chart 1-8. Per beneficiary spending growth slowed in recent years but is projected to accelerate**

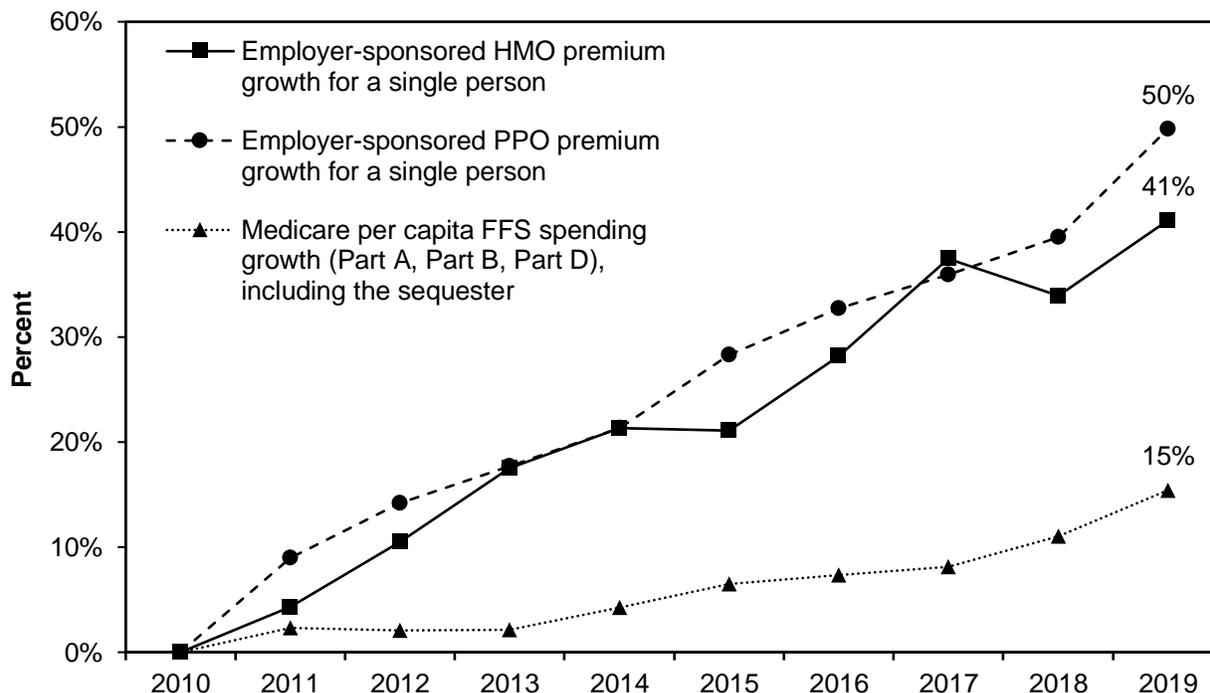


Note: CBO (Congressional Budget Office). The potential effects of the COVID-19 pandemic are not reflected in these projections. Bar totals reflect average annual increase in total Medicare spending (including both fee-for-service and Medicare Advantage enrollees) and may, because of rounding, differ from the sum of the average annual increase in spending per beneficiary and the average annual increase in Medicare enrollment. Trustees data are presented for calendar years. CBO data are presented for fiscal years.

Source: The annual report of the Boards of Trustees of the Medicare trust funds 2020 and the Congressional Budget Office's March 2020 Medicare Baseline.

- The growth in Medicare's per beneficiary spending slowed in the past decade. The average annual increase equaled or exceeded 6 percent in the 1980s, 1990s, and 2000s, but fell to 2 percent between 2010 and 2019. For 2020 to 2029, the Trustees and CBO project that growth in per beneficiary spending will accelerate but remain lower than historical highs, with the Trustees expecting average annual growth in spending per beneficiary of 5 percent, and the CBO expecting average annual growth of 4 percent.
- The aging of the baby-boom generation accelerated Medicare enrollment growth over the last decade. The average annual growth rate rose to 3 percent between 2010 and 2019. Medicare enrollment is expected to increase an average of 2 percent per year in the next decade.
- Total Medicare spending over the next decade is projected by the Trustees and CBO to increase by an average of 7 percent annually, which would outpace the projected average annual GDP growth of about 4 percent (data not shown).

**Chart 1-9. Employer-sponsored insurance premiums have risen more than twice as fast as Medicare FFS costs**

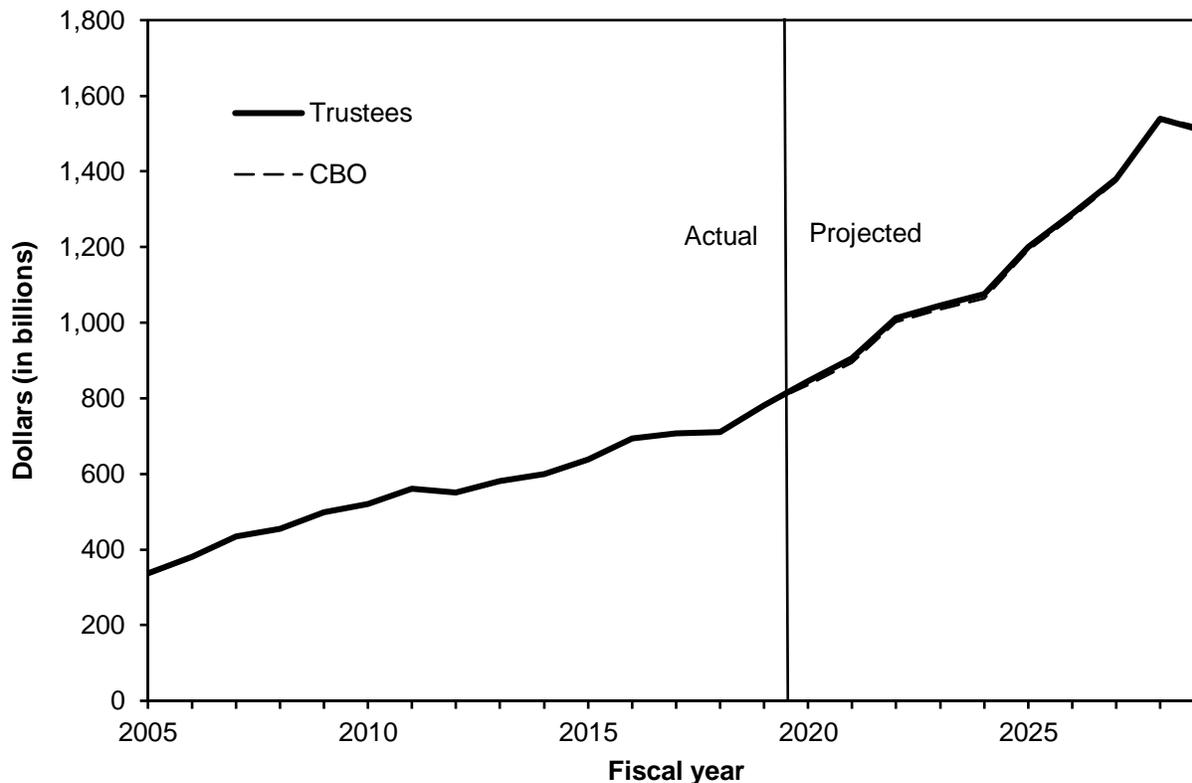


Note: FFS (fee-for-service), HMO (health maintenance organization), PPO (preferred provider organization). The chart shows cumulative growth since 2010. Medicare spending includes Part A and Part B benefits and Part D coverage. Part D spending does not include the portion of premiums paid by enrollees, but does include: (1) Part D spending on non-FFS beneficiaries enrolled in Medicare Advantage plans with prescription drug coverage, (2) premiums and cost sharing that Medicare pays on behalf of some low-income beneficiaries (who can enroll in either FFS or Medicare Advantage plans), and (3) subsidies Medicare pays employers and unions for drug coverage offered to retirees. Medicare spending includes the effects of the sequester that began in March 2013, which reduced program spending by 2 percent.

Source: Employer-sponsored premium data are from Kaiser Family Foundation surveys, 2010–2019. Medicare spending figures are from MedPAC analysis of data from the 2020 annual report of the Boards of Trustees of the Medicare trust funds.

- Employer-sponsored insurance premiums have risen faster than the cost of Medicare Part A, Part B, and Part D benefits, despite the richness of employer plans decreasing (due to higher deductibles over time) and the richness of the Medicare benefit increasing (due to changes to Part D). Changes in law have resulted in the phaseout of Part D’s coverage gap—the phase of drug benefit spending in which beneficiaries previously paid much higher cost sharing. Much of the increased generosity was financed by requiring manufacturers of brand-name drugs to discount their prices in the coverage gap.
- Increased prices were largely responsible for spending growth in the private sector. One key driver of the private sector’s higher prices has been provider market power. Hospitals and physician groups have increasingly consolidated, in part to gain leverage over insurers in negotiating higher payment rates. By 2017, 57 percent of hospital markets were so concentrated that one health system produced a majority of hospital discharges (data not shown). Studies have found that prices tend to increase as consolidation increases.

**Chart 1-10. Trustees and CBO project Medicare spending to exceed \$1 trillion by 2022**

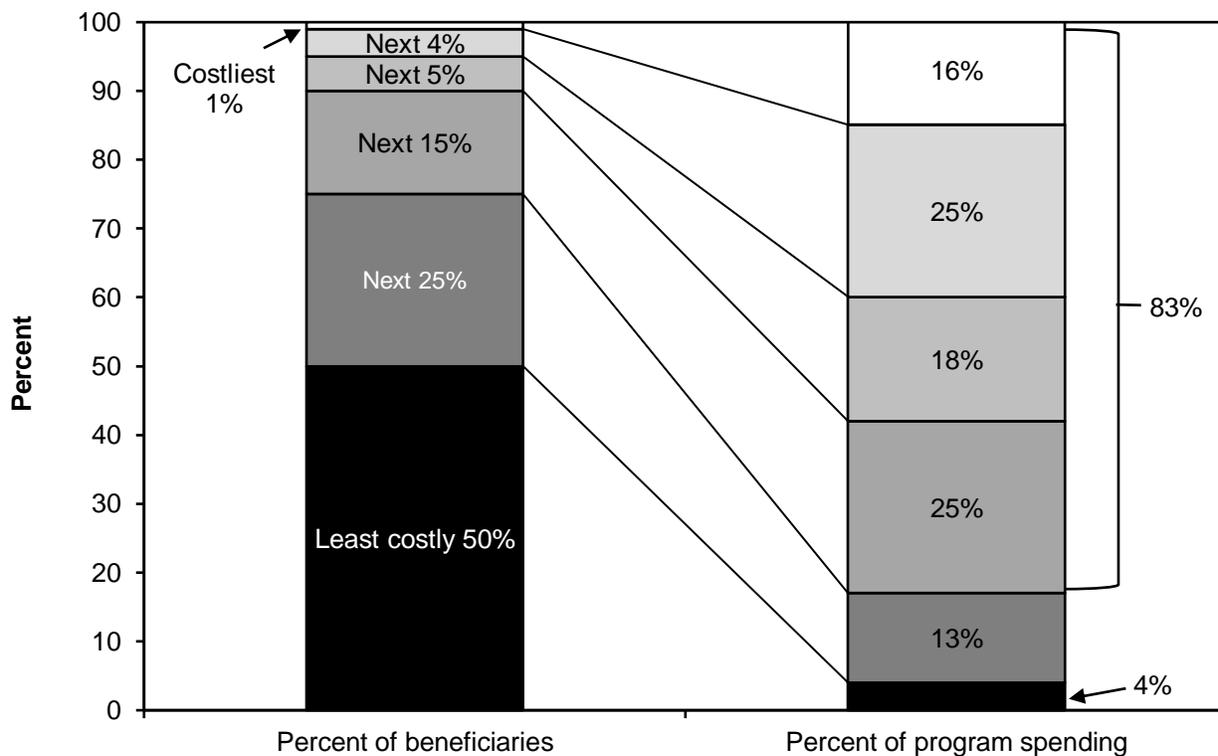


Note: CBO (Congressional Budget Office). The potential effects of the COVID-19 pandemic are not reflected in these projections. All data are nominal, mandatory outlays (benefit payments plus mandatory administrative expenses) by fiscal year.

Source: Congressional Budget Office's March 2020 Medicare Baseline; the annual report of the Boards of Trustees of the Medicare trust funds 2020.

- Medicare spending has more than doubled since 2005, increasing from \$337 billion to \$782 billion by 2019 (these data are by fiscal year and include benefit payments and mandatory administrative expenses).
- The Medicare Trustees and CBO both project that spending for Medicare between 2019 and 2029 will grow at an average annual rate of 6.8 percent. Medicare spending will reach \$1 trillion in 2022 under both sets of projections.
- Forecasts of future Medicare spending are inherently uncertain, and differences can stem from different assumptions about the economy that in turn affect annual updates to provider payments and the number of workers paying Medicare payroll taxes. In addition, forecasts can assume different amounts of growth in the volume and intensity of services delivered to Medicare beneficiaries, among other factors.

**Chart 1-11. FFS program spending was highly concentrated in a small group of beneficiaries, 2017**

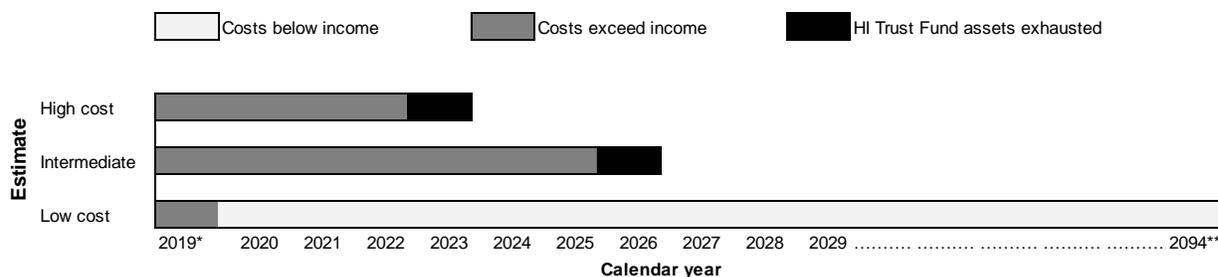


Note: FFS (fee-for-service). Analysis excludes beneficiaries with any enrollment in a Medicare Advantage plan or other health plan that covers Part A and Part B services (e.g., Medicare cost plans, Medicare–Medicaid Plans, and Medicare and Medicaid’s Program of All-Inclusive Care for the Elderly [PACE]). Components do not sum to totals due to rounding.

Source: Medicare Current Beneficiary Survey, 2017.

- Medicare FFS spending is concentrated among a small number of beneficiaries. In 2017, the costliest 5 percent of beneficiaries (i.e., adding the costliest 1 percent and the next-costliest 4 percent at the top of the bar at left) accounted for 41 percent of annual Medicare FFS spending. The costliest 25 percent of beneficiaries accounted for 83 percent of Medicare spending (calculated on unrounded numbers). The least costly 50 percent of beneficiaries accounted for only 4 percent of FFS spending.
- Costly beneficiaries tend to be 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 1-12. Medicare HI Trust Fund is projected to be depleted in 2026 under Trustees' intermediate assumptions

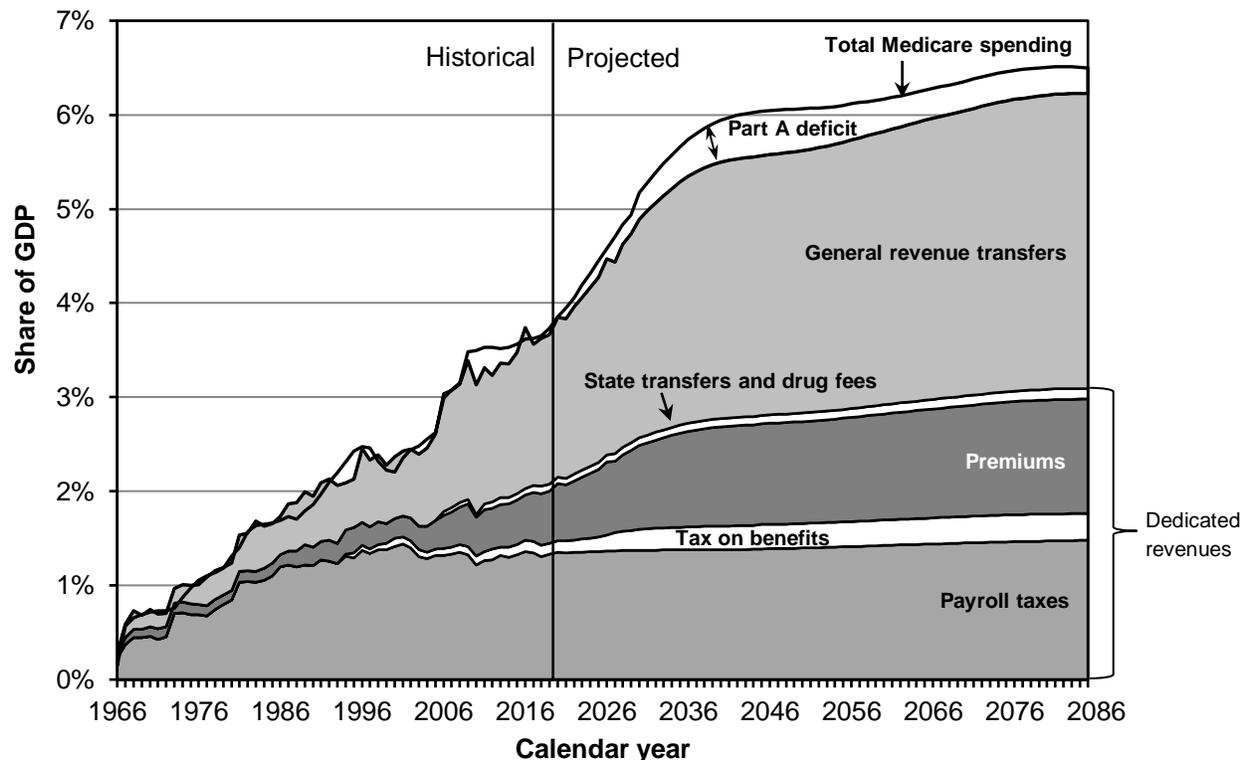


Note: HI (Hospital Insurance). The potential effects of the COVID-19 pandemic are not reflected in these projections. The primary source of income for HI is the payroll tax on covered earnings. Other HI income sources include (1) a portion of the federal income taxes that Social Security recipients with incomes above certain thresholds pay on their benefits and (2) interest paid on the U.S. Treasury securities held in the HI Trust Fund.  
 \*Costs and income for 2019 represent actual (not projected) experience.  
 \*\*Under the low-cost assumption, HI Trust Fund costs would be below income through the 75-year projection period ending in 2094.

Source: The annual report of the Boards of Trustees of the Medicare trust funds 2020.

- The HI Trust Fund, which helps pay for Part A services such as inpatient hospital stays and post-acute care provided by skilled nursing facilities and hospice, is mainly financed through a dedicated payroll tax (i.e., a tax on wage earnings).
- From 2008 to 2015, the HI Trust Fund ran an annual deficit (i.e., paid more in benefits than it collected in payroll taxes) (data not shown). In 2016 and 2017, the HI Trust Fund ran a surplus (data not shown). However, deficits returned in 2018 and 2019 and are projected to continue until trust fund assets are depleted in 2026 (under the Trustees' intermediate assumptions). Under high-cost assumptions, the HI Trust Fund could be depleted as early as 2023. Under low-cost assumptions, it would remain able to pay full benefits indefinitely.
- The Trustees estimate that the payroll tax would need to be immediately increased from its current rate of 2.90 percent to 3.66 percent to balance the HI Trust Fund over the next 75 years. Alternatively, Part A spending would need to be immediately reduced by 16 percent (data not shown).

**Chart 1-13. General revenues have overtaken Medicare payroll taxes as the largest source of Medicare funding**

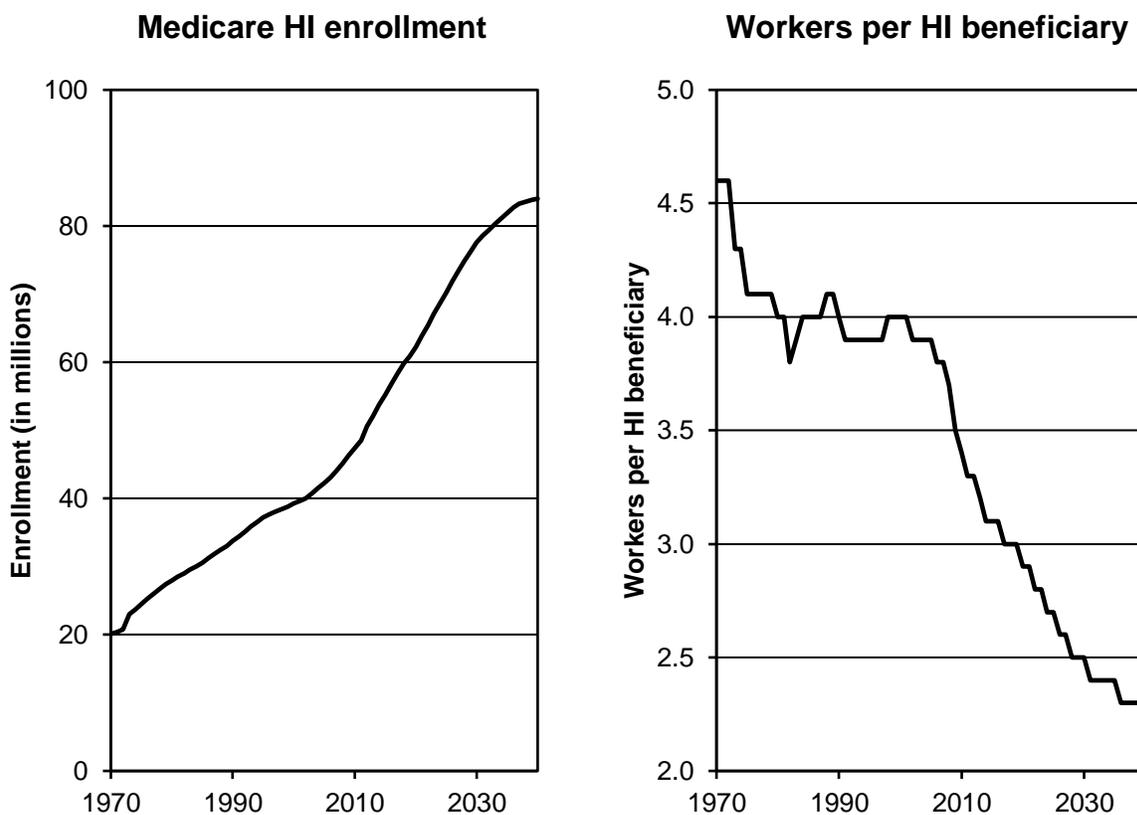


Note: GDP (gross domestic product). These projections are based on the Trustees' intermediate set of assumptions and do not reflect the potential effects of the COVID-19 pandemic. "Tax on benefits" refers to the portion of income taxes that higher income individuals pay on Social Security benefits, which is designated for Medicare. "State transfers" (often called the Part D "clawback") refers to payments from the states to Medicare for assuming primary responsibility for prescription drug spending that were mandated by the Medicare Prescription Drug, Improvement, and Modernization Act of 2003. "Drug fees" refers to the fee imposed by 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: The annual report of the Boards of Trustees of the Medicare trust funds 2020.

- Medicare spending accounted for 3.7 percent of GDP in 2019. The Medicare Trustees project that Medicare's share of GDP will rise to 5.5 percent by 2033 and to 5.9 percent by 2038.
- In the early years of the Medicare program, payroll taxes deposited into Medicare's Hospital Insurance Trust Fund (which finances Part A) were the main source of funding for the program, but beginning in 2009, general revenue transfers (which help finance Part B and Part D) became the largest single source of Medicare income. General revenue transfers are expected to continue to be a substantial share of Medicare financing, growing to about 49 percent by 2034, and then remaining stable through the rest of the century.
- As more general revenues are devoted to Medicare, fewer resources will be available to invest in growing the economic output of the future or in supporting other national priorities.

**Chart 1-14. Medicare enrollment is rising while the number of workers per HI beneficiary is declining**



Note: HI (Hospital Insurance). Hospital Insurance is also known as Medicare Part A. The potential effects of the COVID-19 pandemic are not included in these projections.

Source: The annual report of the Boards of Trustees of the Medicare trust funds 2020.

- As the baby-boom generation ages, enrollment in the Medicare program is surging. By 2033, Medicare is projected to have over 80 million beneficiaries—up from 62 million beneficiaries in 2020.
- While Medicare enrollment is rising, the number of workers per beneficiary is rapidly declining. Workers are the primary funder of Medicare’s HI Trust Fund, which they fund through payroll taxes. However, the number of workers per Medicare beneficiary has declined from 4.6 during the early years of the program to 2.9 in 2020 and is projected by the Medicare Trustees to fall to 2.5 by 2028.
- These demographics threaten the financial stability of the Medicare program.

## Chart 1-15. Medicare HI and SMI benefits and cost sharing per FFS beneficiary, 2018

	Average benefit in 2018 (in dollars)	Average cost sharing in 2018 (in dollars)
HI (Part A)	\$4,972	\$415
SMI (Part B, excludes Part D)	5,959	1,513

Note: HI (Hospital Insurance), SMI (Supplementary Medical Insurance), FFS (fee-for-service). Dollar amounts are nominal for FFS Medicare only and do not include Part D. "Average benefit" represents amounts paid for covered services per FFS beneficiary and excludes administrative expenses. "Average cost sharing" represents the sum of deductibles, coinsurance, and balance billing paid for covered services per FFS beneficiary and excludes all monthly premiums.

Source: CMS Program Statistics, CMS Office of Enterprise Data and Analytics, CMS Chronic Conditions Data Warehouse.

- In calendar year 2018, the Medicare program made \$4,972 in HI (Part A) benefit payments and \$5,959 in SMI (Part B) benefit payments on average per FFS beneficiary.
- Beneficiaries owed an average of \$415 in cost sharing for HI and \$1,513 in cost sharing for SMI in calendar year 2018. (Cost sharing excludes all monthly premiums.)
- To cover some of those cost-sharing requirements, 89 percent of beneficiaries have coverage that supplements or replaces the Medicare benefit package, such as Medicare Advantage, Medicaid, supplemental coverage through former employers, and Medigap coverage.



SECTION

2

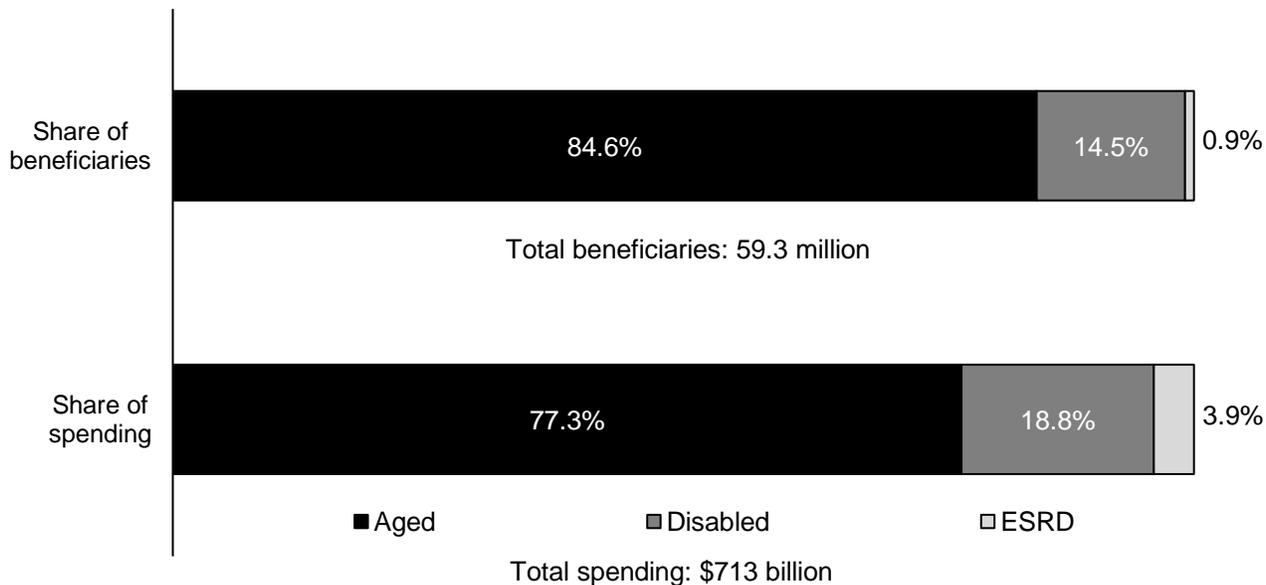
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**Medicare beneficiary  
demographics**

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**Chart 2-1. Aged beneficiaries accounted for the greatest share of the Medicare population and program spending, 2017**

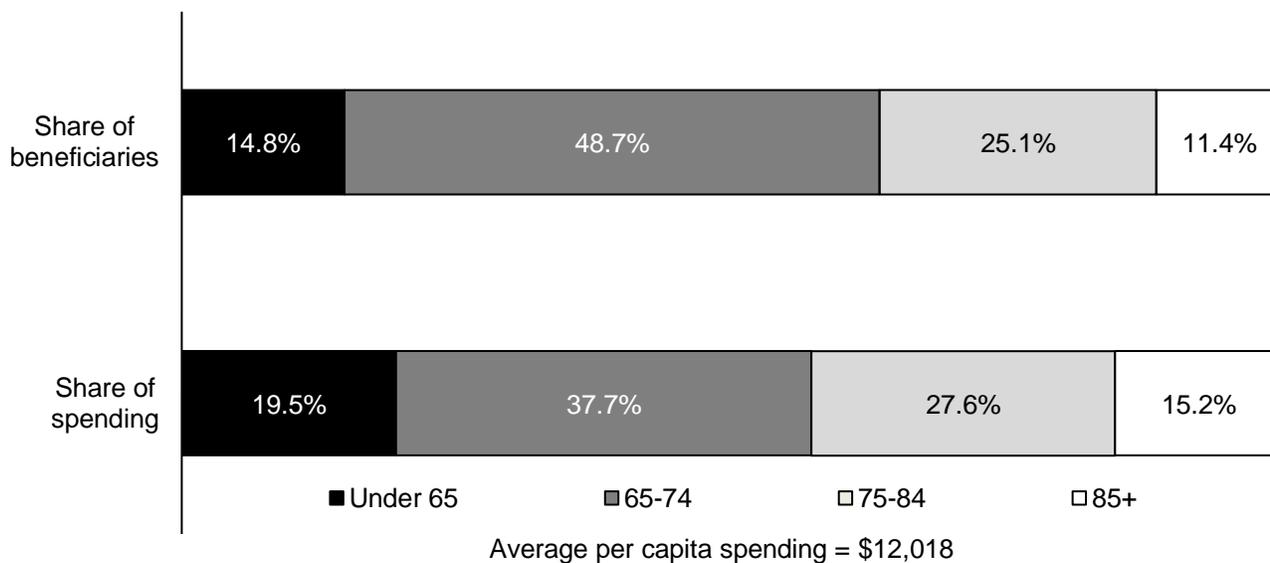


Note: ESRD (end-stage renal disease). The “aged” category includes beneficiaries ages 65 and older without ESRD. The “disabled” category includes beneficiaries under age 65 without ESRD. The “ESRD” category includes beneficiaries with ESRD, regardless of age. Results include fee-for-service, Medicare Advantage, community-dwelling, and institutionalized beneficiaries. The Medicare Current Beneficiary Survey is a point-in-time survey from a sample of Medicare beneficiaries. Year-to-year variation in reported data is expected.

Source: MedPAC analysis of the Medicare Current Beneficiary Survey, Cost Supplement file 2017.

- In 2017, beneficiaries ages 65 and older without ESRD composed 84.6 percent of the beneficiary population and accounted for 77.3 percent of Medicare spending. Beneficiaries under 65 with a disability and beneficiaries with ESRD accounted for the remaining population and spending.
- A disproportionate share of Medicare expenditures is devoted to Medicare beneficiaries with ESRD. On average, these beneficiaries incur spending that is more than five times greater than spending for aged beneficiaries (ages 65 years and older without ESRD) and more than three times greater than spending for beneficiaries under age 65 with a disability (non-ESRD). In 2017, \$54,905 was spent per ESRD beneficiary versus \$10,978 per aged beneficiary and \$15,529 per beneficiary under age 65 enrolled because of disability (data not shown).

**Chart 2-2. Beneficiaries younger than 65 accounted for a disproportionate share of Medicare spending, 2017**

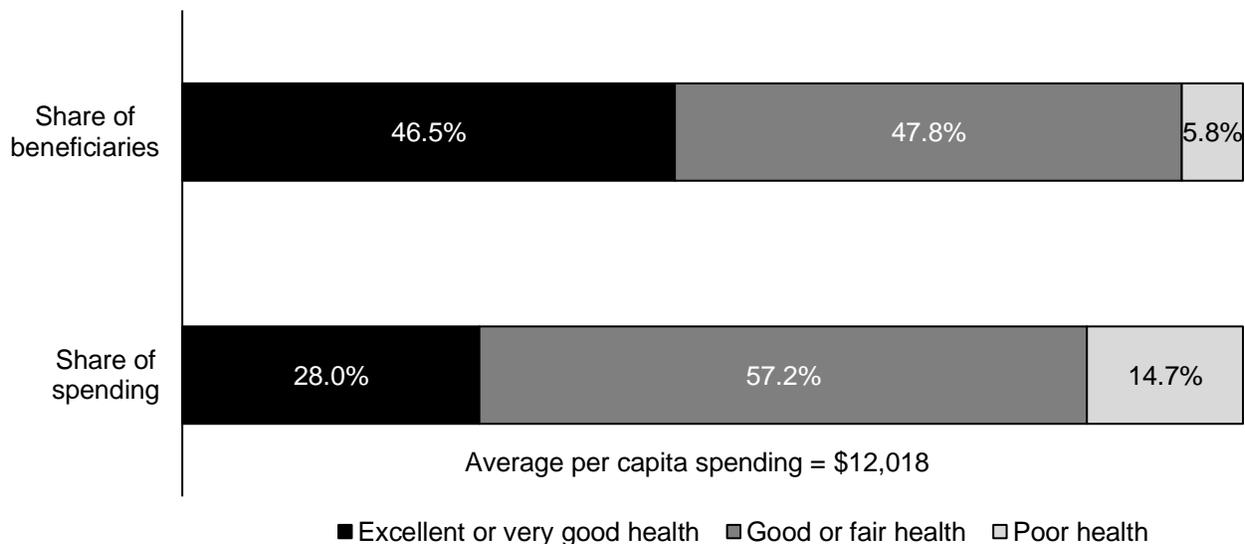


Note: Results include fee-for-service, Medicare Advantage, community-dwelling, and institutionalized beneficiaries. The Medicare Current Beneficiary Survey is a point-in-time survey from a sample of Medicare beneficiaries. Year-to-year variation in reported data is expected.

Source: MedPAC analysis of the Medicare Current Beneficiary Survey, Cost Supplement file 2017.

- Beneficiaries younger than 65 made up 14.8 percent of the beneficiary population in 2017 but accounted for 19.5 percent of Medicare spending.
- In 2017, average Medicare spending per beneficiary was \$12,018.
- For the aged population (65 and older), per capita expenditures increase with age. In 2017, per capita expenditures were \$9,314 for beneficiaries 65 to 74 years old, \$13,194 for those 75 to 84 years old, and \$15,959 for those 85 or older (data not shown).
- In 2017, per capita expenditures for Medicare beneficiaries under age 65 who were enrolled because of end-stage renal disease or disability were \$15,879 (data not shown).

**Chart 2-3. Beneficiaries who reported being in poor health accounted for a disproportionate share of Medicare spending, 2017**

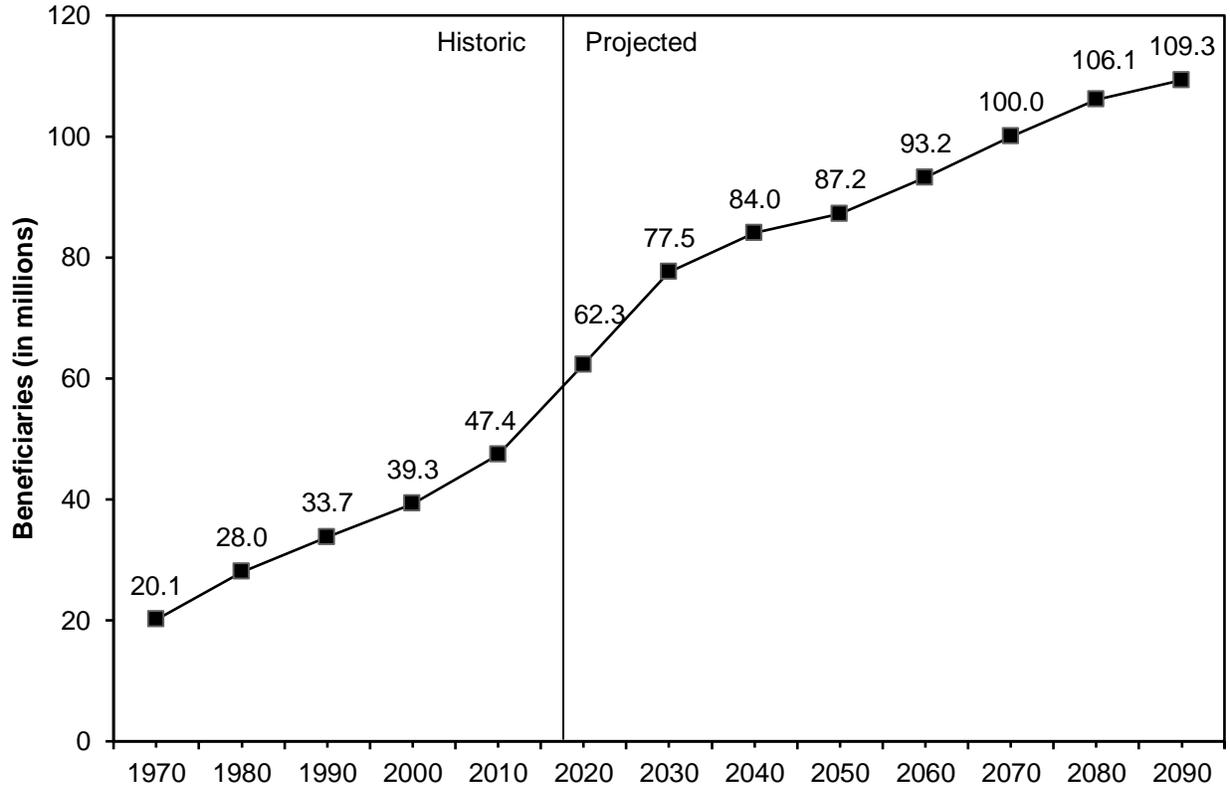


**Note:** Results include fee-for-service, Medicare Advantage, community-dwelling, and institutionalized beneficiaries. Totals may not sum to 100 percent due to rounding. "Other" category excluded. The Medicare Current Beneficiary Survey is a point-in-time survey from a sample of Medicare beneficiaries. Year-to-year variation in reported data is expected.

**Source:** MedPAC analysis of the Medicare Current Beneficiary Survey, Cost Supplement file 2017.

- In 2017, most beneficiaries reported fair to excellent health. Only about 6 percent reported poor health.
- Medicare spending is strongly associated with self-reported health status. In 2016, per capita expenditures were \$6,873 for those who reported excellent or very good health, \$13,649 for those who reported good or fair health, and \$29,109 for those who reported poor health (data not shown).

**Chart 2-4. Enrollment in the Medicare program is projected to grow rapidly through 2030**



Note: Enrollment numbers are based on Part A enrollment only. Beneficiaries enrolled only in Part B are not included. The potential effects of the COVID-19 pandemic are not reflected in these projections.

Source: The annual report of the Boards of Trustees of the Medicare trust funds 2020.

- The total number of people enrolled in the Medicare program is projected to increase from about 62 million in 2020 to about 78 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 continue to increase, but more slowly, after the entire baby-boom generation has become eligible.

## Chart 2-5. Characteristics of the Medicare population, 2017

Characteristic	Share of the Medicare population	Characteristic	Share of the Medicare population
<b>Total</b> (54.5 million)	100%	<b>Living arrangement</b>	
<b>Sex</b>		Institution	3%
Male	46	Alone	27
Female	54	With spouse	48
<b>Race/ethnicity</b>		Other	22
White, non-Hispanic	75	<b>Education</b>	
African American, non-Hispanic	10	No high school diploma	15
Hispanic	8	High school diploma only	26
Other	7	Some college or more	57
<b>Age</b>		<b>Income status</b>	
<65	15	Below poverty	15
65–74	47	100–125% of poverty	7
75–84	26	125–200% of poverty	17
85+	11	200–400% of poverty	27
<b>Health status</b>		Over 400% of poverty	35
Excellent or very good	46	<b>Supplemental insurance status</b>	
Good or fair	47	Medicare only	16
Poor	7	Managed care	33
<b>Residence</b>		Employer-sponsored insurance	19
Urban	80	Medigap	19
Rural	20	Medigap with employer-sponsored insurance	1
		Medicaid	11
		Other	1

Note: Total number of beneficiaries, age, and health status values may slightly differ from previous figures because only beneficiaries with complete characteristic data were included in this analysis. Totals may not sum to 100 percent due to rounding and exclusion of an “other” category. “Urban” indicates beneficiaries living in metropolitan statistical areas (MSAs). “Rural” indicates beneficiaries living outside MSAs. In 2017, “poverty” was defined as income of \$11,756 for single individuals ages 65 and older and \$14,828 for married couples ages 65 and older. Poverty thresholds are calculated by the U.S. Census Bureau (<https://www.census.gov/data/tables/time-series/demo/income-poverty/historical-poverty-thresholds.html>). Some beneficiaries may have more than one type of supplemental insurance. The Medicare Current Beneficiary Survey is a point-in-time survey from a sample of Medicare beneficiaries. Year-to-year variation in reported data is expected.

Source: MedPAC analysis of the Medicare Current Beneficiary Survey Cost Supplement file 2017.

- The majority of Medicare beneficiaries are female (rather than male) and White (rather than other races/ethnicities).
- About one-fifth of beneficiaries live in rural areas.
- Twenty-seven percent of the Medicare population lives alone.
- Most Medicare beneficiaries have some source of supplemental insurance. Managed care plans are the most common source of supplemental coverage.



SECTION

3

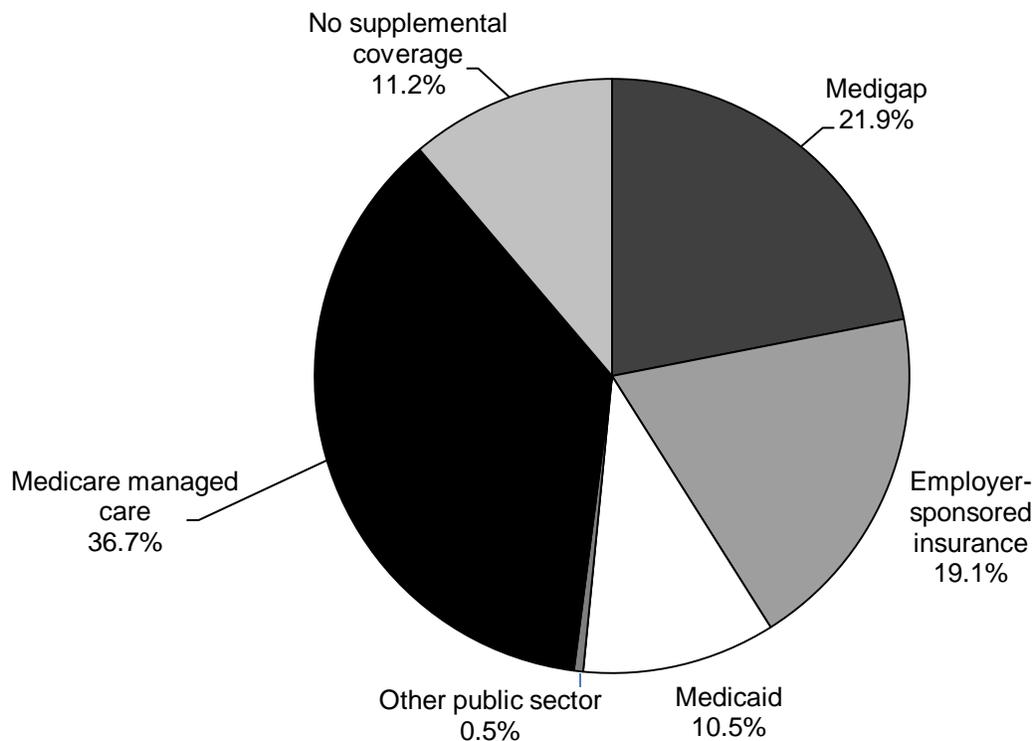
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**Medicare beneficiary and  
other payer financial liability**

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**Chart 3-1. Sources of supplemental coverage among noninstitutionalized Medicare beneficiaries, 2017**



Note: We assigned beneficiaries to the supplemental coverage category they were in for the most time in 2017. They could have had coverage in other categories during 2017. "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 2017 or who had Medicare as a secondary payer. Numbers do not total 100 because of rounding. CMS adjusted the beneficiary weights used in the Medicare Current Beneficiary Survey for 2017 so that the estimated number of beneficiaries in the Medicare Advantage program matched a control total. Differences between this chart and those published in previous Data Books may not reflect real change but rather may be due to differences in method.

Source: MedPAC analysis of Medicare Current Beneficiary Survey, Survey file 2017.

- Most beneficiaries living in the community (noninstitutionalized) have coverage that supplements or replaces the Medicare benefit package. In 2017, 89 percent of beneficiaries had supplemental coverage or participated in Medicare managed care.
- About 41 percent of beneficiaries had private sector supplemental coverage such as Medigap (about 22 percent) or employer-sponsored retiree coverage (about 19 percent).
- About 11 percent of beneficiaries had public sector supplemental coverage, primarily Medicaid.
- About 37 percent of beneficiaries participated in Medicare managed care. This care includes Medicare Advantage, health care prepayment, and cost plans. These types of arrangements generally replace Medicare's fee-for-service coverage and often add more coverage.
- The numbers in this chart differ from those in Chart 2-5, Chart 4-1, and Chart 4-4 because of differences in the populations represented in the charts. This chart excludes beneficiaries in long-term care institutions, while Chart 2-5 and Chart 4-4 include all Medicare beneficiaries, and Chart 4-1 excludes beneficiaries in Medicare Advantage.

**Chart 3-2. Sources of supplemental coverage among noninstitutionalized Medicare beneficiaries, by beneficiaries' characteristics, 2017**

	Number of beneficiaries (thousands)	Employer-sponsored insurance	Medigap insurance	Medicaid	Medicare managed care	Other public sector	Medicare only
<b>All beneficiaries</b>	<b>47,364</b>	<b>19%</b>	<b>22%</b>	<b>11%</b>	<b>37%</b>	<b>1%</b>	<b>11%</b>
<b>Age</b>							
<65	7,048	6	4	38	35	1	16
65–69	10,557	19	22	7	38	0	14
70–74	11,239	22	27	5	36	1	9
75–79	8,018	21	26	5	38	0	9
80–84	5,322	23	25	6	38	0	9
85+	5,180	24	24	6	36	0	9
<b>Income-to-poverty ratio</b>							
≤1.00	7,986	4	7	42	35	1	10
1.00 to 1.20	2,842	7	11	24	43	1	14
1.20 to 1.35	2,207	8	16	13	43	1	19
1.35 to 2.00	7,670	14	22	6	42	1	15
>2.00	26,659	29	28	1	34	0	9
<b>Eligibility status</b>							
Aged	40,098	21	25	6	37	0	10
Disabled	6,839	6	4	38	35	1	16
ESRD	372	14	23	24	19	1	20
<b>Residence</b>							
Urban	37,627	19	20	10	40	1	10
Rural	9,736	18	28	14	24	0	16
<b>Sex</b>							
Male	21,312	20	21	10	35	1	14
Female	26,052	18	23	11	38	0	9
<b>Health status</b>							
Excellent/very good	21,771	23	26	4	37	0	10
Good/fair	22,340	17	19	14	37	1	12
Poor	3,045	8	14	28	33	1	15

Note: ESRD (end-stage renal disease). We assigned beneficiaries to the supplemental coverage category they were in for the most time in 2017. They could have had coverage in other categories during 2017. "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. "Urban" indicates beneficiaries living in metropolitan statistical areas (MSAs) as indicated by core-based statistical areas. "Rural" indicates beneficiaries living outside MSAs, which includes both micropolitan statistical areas and rural areas as indicated by core-based statistical areas. Analysis excludes beneficiaries living in institutions such as nursing homes. It excludes beneficiaries who were not in both Part A and Part B throughout their enrollment in 2017 or who had Medicare as a secondary payer. The number of beneficiaries differs among boldface categories because we excluded beneficiaries with missing values. Numbers in some rows do not sum to 100 percent because of rounding.

Source: MedPAC analysis of Medicare Current Beneficiary Survey, Survey file 2017.

- Beneficiaries most likely to have employer-sponsored supplemental coverage are those who are age 65 or older, have income above twice the poverty level, are eligible because of age, and report better than poor health.
- Medigap is most common among those who are age 65 or older, have income higher than 1.35 times the poverty level, are eligible because of age or ESRD, are rural dwelling, and report better than poor health.
- Medicaid coverage is most common among those who are under age 65, have income lower than 1.2 times the poverty level, are eligible because of 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 70, are eligible because of disability or ESRD, are rural dwelling, are male, and report poor health.

**Chart 3-3. Covered benefits and enrollment in standardized Medigap plans, 2018**

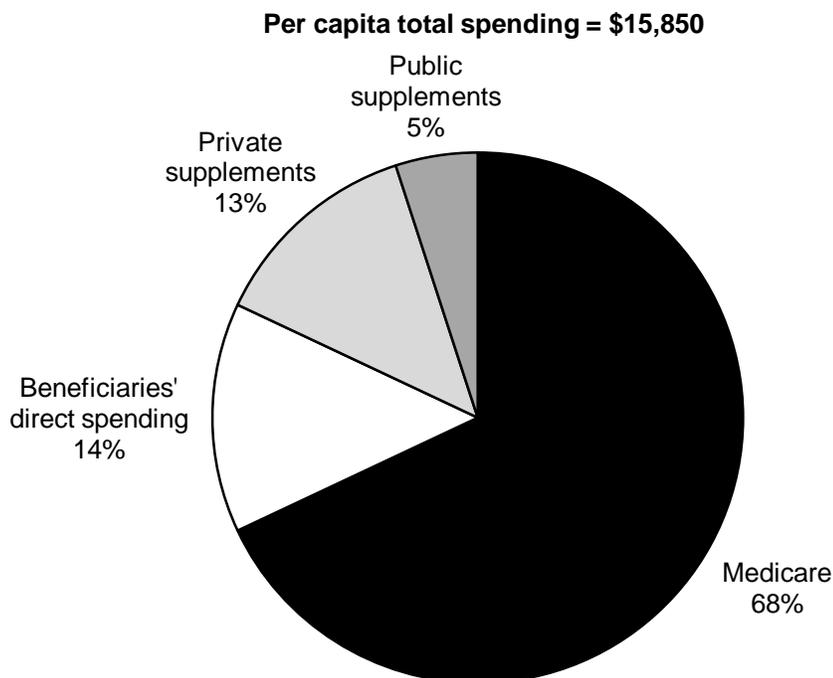
Benefit	Medigap standardized plan type										
	A	B	C*	D	F*	F	G	K	L	M	N
Part A hospital costs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Part B cost sharing	✓	✓	✓	✓	✓	✓	✓	50%	75%	✓	\$20/\$50
Blood (first 3 pints)	✓	✓	✓	✓	✓	✓	✓	50%	75%	✓	✓
Hospice cost sharing	✓	✓	✓	✓	✓	✓	✓	50%	75%	✓	✓
SNF coinsurance			✓	✓	✓	✓	✓	50%	75%	✓	✓
Part A deductible		✓	✓	✓	✓	✓	✓	50%	75%	50%	✓
Part B deductible			✓		✓	✓					
Part B excess charges					✓	✓	✓				
Foreign travel emergency			✓	✓	✓	✓	✓			✓	✓
Lives covered (in thousands)	125	225	700	150	6,750	275	2,300	75	50	5	1,350
Percent change 2016–2018	–20%	–17%	–21%	–18%	1%	18%	82%	8%	0%	–13%	17%

Note: SNF (skilled nursing facility). Three states (Massachusetts, Minnesota, and Wisconsin) have different plan types and are not included in this chart. The ✓ indicates that the plan covers all cost sharing. Percentages indicate that the plan covers that share of the total cost sharing. The \$20/\$50 indicates that the plan covers all but \$20 for physician office visits and all but \$50 for emergency room visits.  
 \*Beginning in 2020, neither the C plan nor the F plan are allowed to cover the Part B deductible for new policies sold. However, C plans and F plans sold before 2020 can continue to cover the Part B deductible.

Source: MedPAC analysis of National Association of Insurance Commissioners data, 2019.

- Medicare beneficiaries often purchase Medigap plans, also known as Medicare supplementary insurance plans, to cover fee-for-service Medicare cost sharing. Statute specifies 11 standardized plans. States enforce the standards based on model regulations developed by the National Association of Insurance Commissioners. Three states (Massachusetts, Minnesota, and Wisconsin) have waivers from these standards and have different standard plan types not included in this chart.
- Plan F, which covers all Medicare cost sharing, is the most popular plan, with 6.8 million enrollees. However, because the Congress was concerned about the overutilization of Medicare services, legislation prohibits the sale of new Plan F policies as of 2020. As a result, insurers have begun to direct beneficiaries into other plan types, namely plans G, K, and N, which do not cover the Part B deductible.
- During 2018, almost 14 million beneficiaries enrolled in Medigap plans (including those in Massachusetts, Minnesota, and Wisconsin). Of all Medicare beneficiaries, about one-fifth were enrolled in Medigap plans.

### Chart 3-4. Total spending on health care services for noninstitutionalized FFS Medicare beneficiaries, by source of payment, 2017

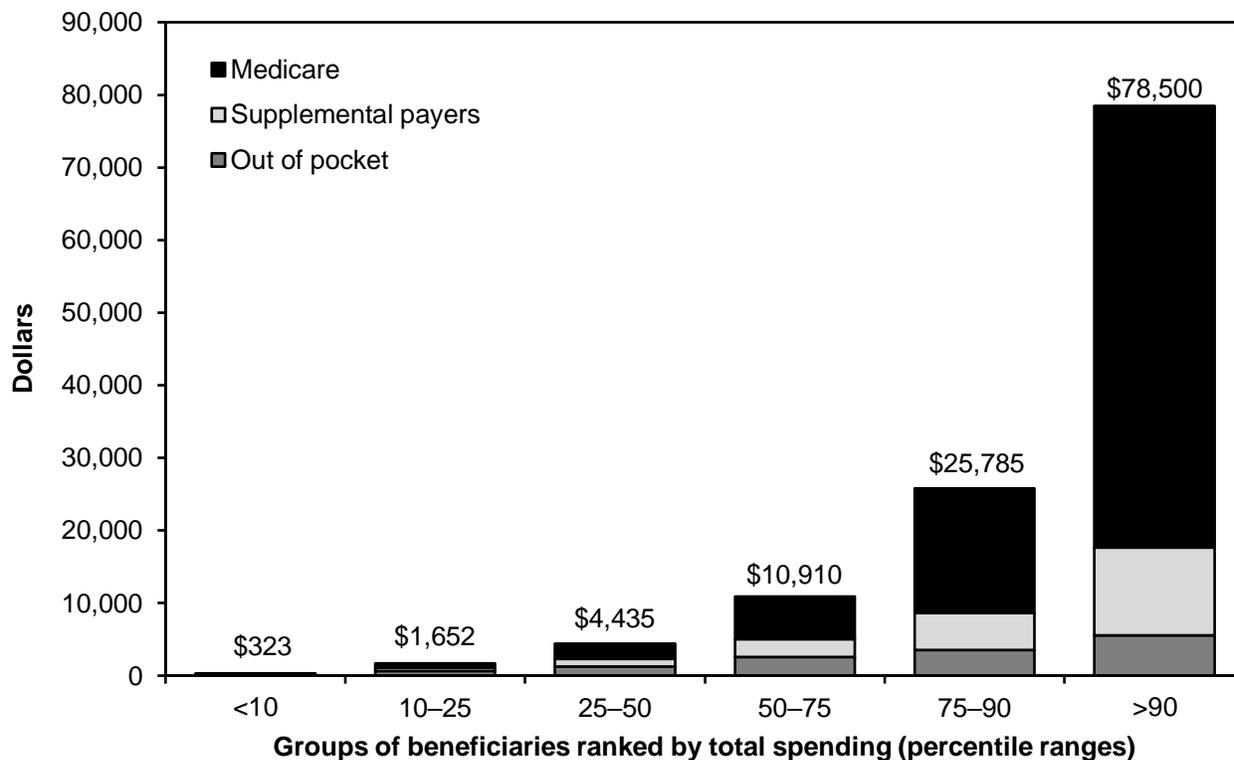


Note: FFS (fee-for-service). "Private supplements" includes employer-sponsored plans and individually purchased coverage. "Public supplements" includes Medicaid, Department of Veterans Affairs, and other public coverage. "Beneficiaries' direct spending" is on Medicare cost sharing and noncovered services, 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 Supplement file, 2017.

- Among FFS beneficiaries living in the community (noninstitutionalized), the total cost of health care services (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 about \$15,800 in 2017. Medicare was the largest source of payment: It paid about 68 percent of the health care costs for FFS beneficiaries living in the community, an average of \$10,755 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 about 13 percent of beneficiaries' costs, an average of \$2,087 per beneficiary.
- Beneficiaries paid about 14 percent of their health care costs out of pocket, an average of \$2,163 per beneficiary.
- Public sources of supplemental coverage—primarily Medicaid—paid about 5 percent of beneficiaries' health care costs, an average of \$846 per beneficiary.

**Chart 3-5. Per capita total spending on health care services among noninstitutionalized FFS beneficiaries, by source of payment, 2017**



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, but not supplemental premiums.

Source: MedPAC analysis of the Medicare Current Beneficiary Survey, Cost Supplement file, 2017.

- Total spending on health care services varied dramatically among FFS beneficiaries living in the community in 2017. Per capita spending for the 10 percent of beneficiaries with the highest total spending averaged \$78,500. Per capita spending for the 10 percent of beneficiaries with the lowest total spending averaged \$323.
- Among FFS beneficiaries living in the community, Medicare paid a larger share as total spending increased, and beneficiaries’ out-of-pocket spending was a smaller share as total spending increased. For example, Medicare paid 68 percent of total spending for all beneficiaries, but paid 77 percent of total spending for the 10 percent of beneficiaries with the highest total spending. Beneficiaries’ out-of-pocket spending covered 14 percent of total spending for all beneficiaries, but only 7 percent of total spending for the 10 percent of beneficiaries with the highest total spending (data not shown).



SECTION **4**

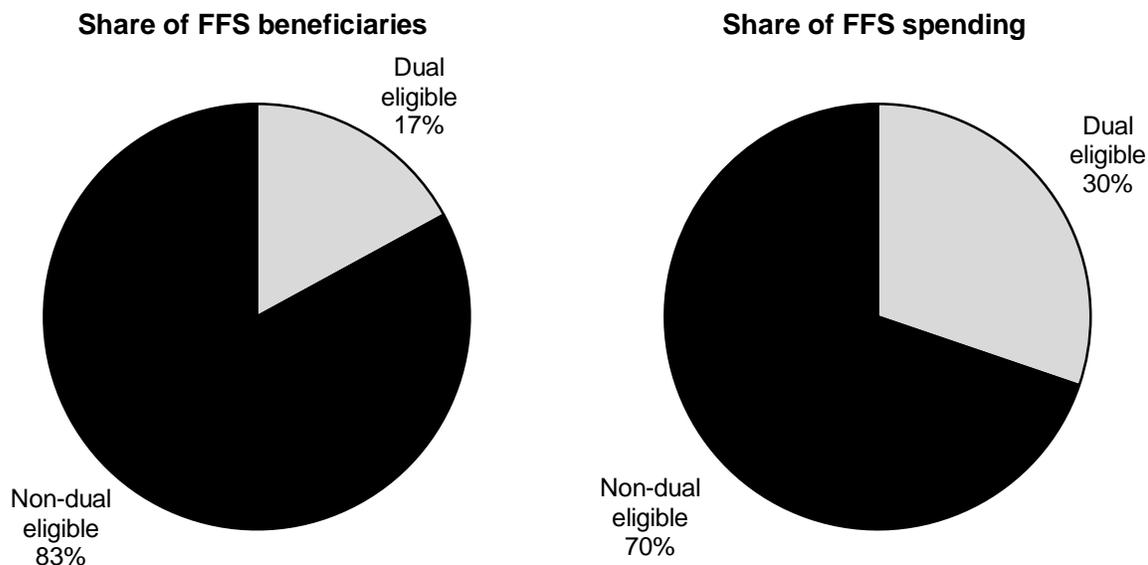
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**Dual-eligible  
beneficiaries**

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## Chart 4-1. Dual-eligible beneficiaries accounted for a disproportionate share of Medicare spending, 2017

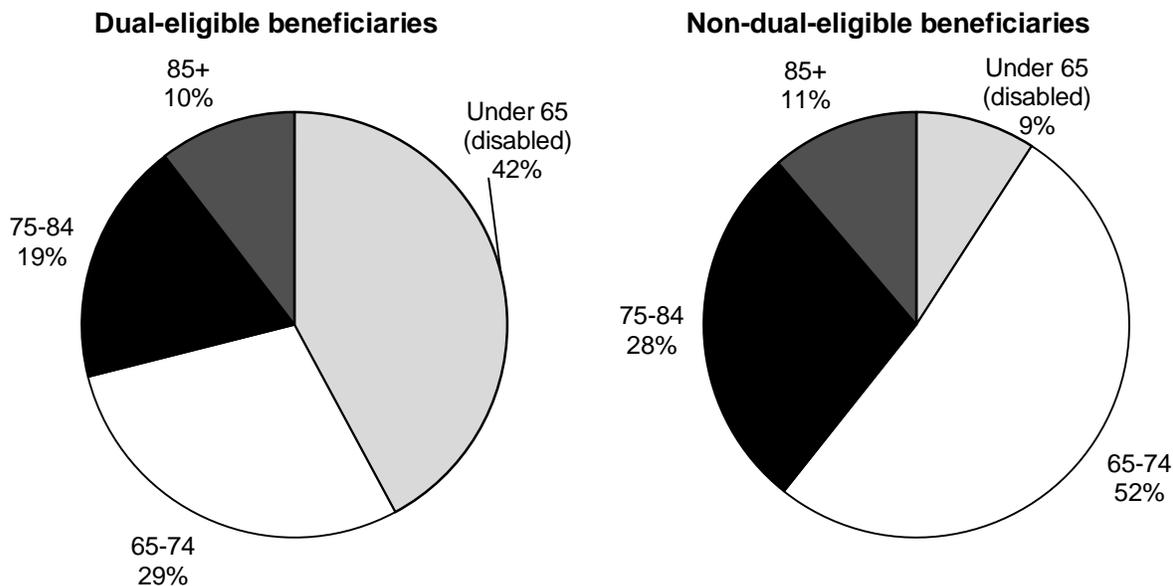


Note: FFS (fee-for-service). "Dual-eligible beneficiaries" are defined as beneficiaries who were eligible for both Medicare and Medicaid for at least one month during the year.

Source: MedPAC analysis of the Medicare Current Beneficiary Survey, 2017.

- Dual-eligible beneficiaries are those who qualify for both Medicare and Medicaid. Medicaid is a joint federal and state program designed to help people with low incomes obtain needed health care.
- Dual-eligible beneficiaries account for a disproportionate share of Medicare FFS expenditures. Although they were 17 percent of the Medicare FFS population in 2017, they represented 30 percent of aggregate Medicare FFS spending.
- On average, Medicare FFS per capita spending is more than twice as high for dual-eligible beneficiaries compared with non-dual-eligible beneficiaries: In 2017, \$19,846 was spent per dual-eligible beneficiary, and \$9,415 was spent per non-dual-eligible beneficiary (data not shown).
- In 2017, average total spending—which includes Medicare, Medicaid, supplemental insurance, and out-of-pocket spending across all payers—for dual-eligible beneficiaries was \$30,510 per beneficiary, about twice the amount for other Medicare beneficiaries (data not shown).

**Chart 4-2. Dual-eligible beneficiaries were more likely than non-dual-eligible beneficiaries to be under age 65 and disabled, 2017**

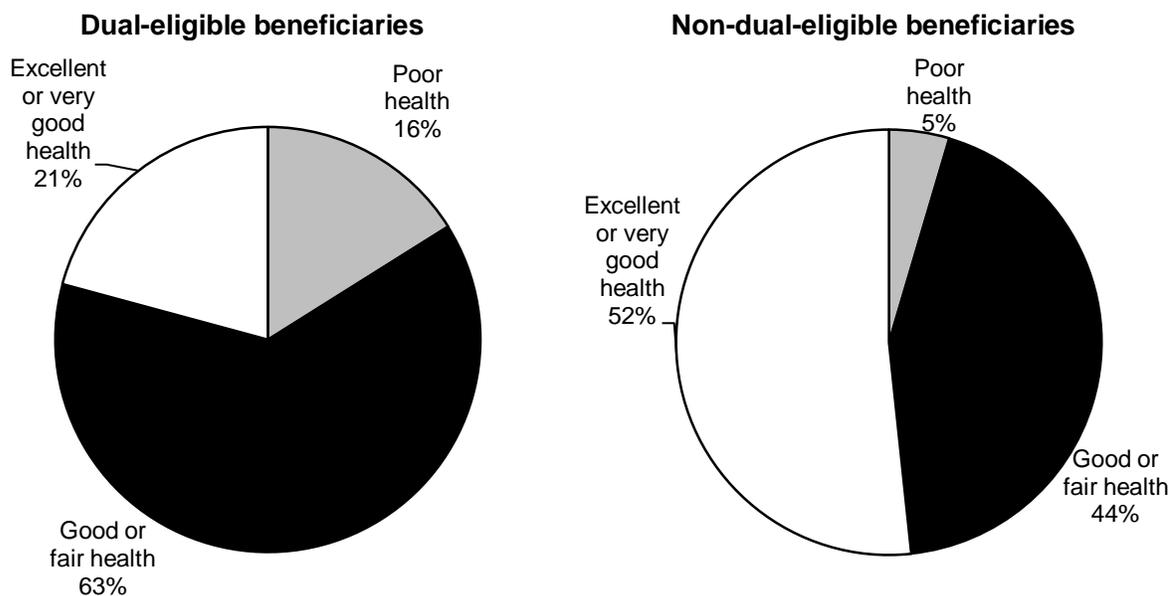


Note: Beneficiaries who are under age 65 generally qualify for Medicare because they are disabled. Once disabled beneficiaries reach age 65, they are counted as aged beneficiaries. "Dual-eligible beneficiaries" are defined as beneficiaries who were eligible for both Medicare and Medicaid for at least one month during the year.

Source: MedPAC analysis of Medicare Current Beneficiary Survey, 2017.

- Disability is a pathway for individuals to become eligible for both Medicare and Medicaid benefits.
- Dual-eligible beneficiaries are more likely than non-dual-eligible beneficiaries to be under age 65 and disabled. In 2017, 42 percent of dual-eligible beneficiaries were under age 65 and disabled compared with 9 percent of the non-dual-eligible population.

**Chart 4-3. Dual-eligible beneficiaries were more likely than non-dual-eligible beneficiaries to report being in poor health, 2017**



Note: "Dual-eligible beneficiaries" are defined as beneficiaries who were eligible for both Medicare and Medicaid for at least one month during the year. Percentages in the non-dual-beneficiaries pie chart do not total 100 because of rounding.

Source: MedPAC analysis of the Medicare Current Beneficiary Survey, 2017.

- Dual-eligible beneficiaries are more likely than non-dual-eligible beneficiaries to report being in poor health. In 2017, 16 percent of dual-eligible beneficiaries reported being in poor health compared with 5 percent of non-dual-eligible beneficiaries.
- Just over half of non-dual-eligible beneficiaries (52 percent) reported being in excellent or very good health in 2017. In comparison, about one-fifth (21 percent) of dual-eligible beneficiaries reported being in excellent or very good health.

**Chart 4-4. Demographic differences between dual-eligible beneficiaries and non-dual-eligible beneficiaries, 2017**

Characteristic	Percent of dual-eligible beneficiaries	Percent of non-dual-eligible beneficiaries
<b>Sex</b>		
Male	39%	47%
Female	61	53
<b>Race/ethnicity</b>		
White, non-Hispanic	52	81
African American, non-Hispanic	20	7
Hispanic	18	6
Other	9	7
<b>Limitations in ADLs</b>		
No limitations in ADLs	47	74
Limitations in 1–2 ADLs	25	17
Limitations in 3–6 ADLs	29	8
<b>Residence</b>		
Urban	78	80
Rural	22	20
<b>Living arrangement</b>		
Institution	10	1
Alone	32	26
With spouse	15	56
With children, nonrelatives, others	43	17
<b>Education</b>		
No high school diploma	38	11
High school diploma only	31	25
Some college or more	30	64
<b>Income status</b>		
Below poverty	55	5
100–125% of poverty	20	4
125–200% of poverty	17	17
200–400% of poverty	6	32
Over 400% of poverty	1	42
<b>Supplemental insurance status</b>		
Medicare or Medicare/Medicaid only	55	19
Medicare managed care	38	33
Employer-sponsored insurance	1	23
Medigap	3	23
Medigap/employer	<1	1
Other*	3	1

Note: ADL (activity of daily living). “Dual-eligible beneficiaries” are defined as beneficiaries who were eligible for both Medicare and Medicaid for at least one month during the year. “Urban” indicates beneficiaries living in metropolitan statistical areas (MSAs). “Rural” indicates beneficiaries living outside of MSAs. In 2017, poverty was defined as annual income of \$11,756 for people living alone and \$14,828 for married couples. Totals may not sum to 100 percent due to rounding and exclusion of an “other” category. Poverty thresholds are calculated by the U.S. Census Bureau (<https://www.census.gov/data/tables/time-series/demo/income-poverty/historical-poverty-thresholds.html>).

\*Includes public programs such as the Department of Veterans Affairs and state-sponsored drug plans.

Source: MedPAC analysis of Medicare Current Beneficiary Survey, 2017.

- Dual-eligible beneficiaries qualify for Medicaid due in part to low incomes. In 2017, 55 percent of dual-eligible beneficiaries lived below the poverty threshold, and 92 percent lived below 200 percent of the poverty threshold. Compared with non-dual-eligible beneficiaries, dual-eligible beneficiaries are more likely to be female, be African American or Hispanic, lack a high school diploma, have greater limitations in activities of daily living, and live in an institution. They are less likely to have supplemental employer-sponsored or Medigap coverage.

## Chart 4-5. Differences in Medicare spending and service use between dual-eligible beneficiaries and non-dual-eligible beneficiaries, 2017

Service	Dual-eligible beneficiaries	Non-dual-eligible beneficiaries
<b>Average FFS Medicare payment for all beneficiaries</b>		
Total Medicare FFS payments	\$19,846	\$9,415
Inpatient hospital	4,318	2,746
Physician <sup>a</sup>	3,410	2,663
Outpatient hospital	2,416	1,484
Home health	744	354
Skilled nursing facility <sup>b</sup>	1,397	462
Hospice	509	255
Prescribed medication <sup>c</sup>	7,013	1,449
<b>Share of FFS beneficiaries using service</b>		
Share using any type of service	93.8%	87.1%
Inpatient hospital	22.5	14.0
Physician <sup>a</sup>	89.8	81.9
Outpatient hospital	76.0	62.5
Home health	13.1	7.5
Skilled nursing facility <sup>b</sup>	7.4	3.4
Hospice	3.8	2.1
Prescribed medication <sup>c</sup>	75.9	59.9

Note: FFS (fee-for-service). Data in this analysis are restricted to beneficiaries in FFS Medicare. "Dual-eligible beneficiaries" are defined as beneficiaries who were eligible for both Medicare and Medicaid for at least one month during the year. 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 due to omitted "other" category.

<sup>a</sup> Includes a variety of medical services, equipment, and supplies.

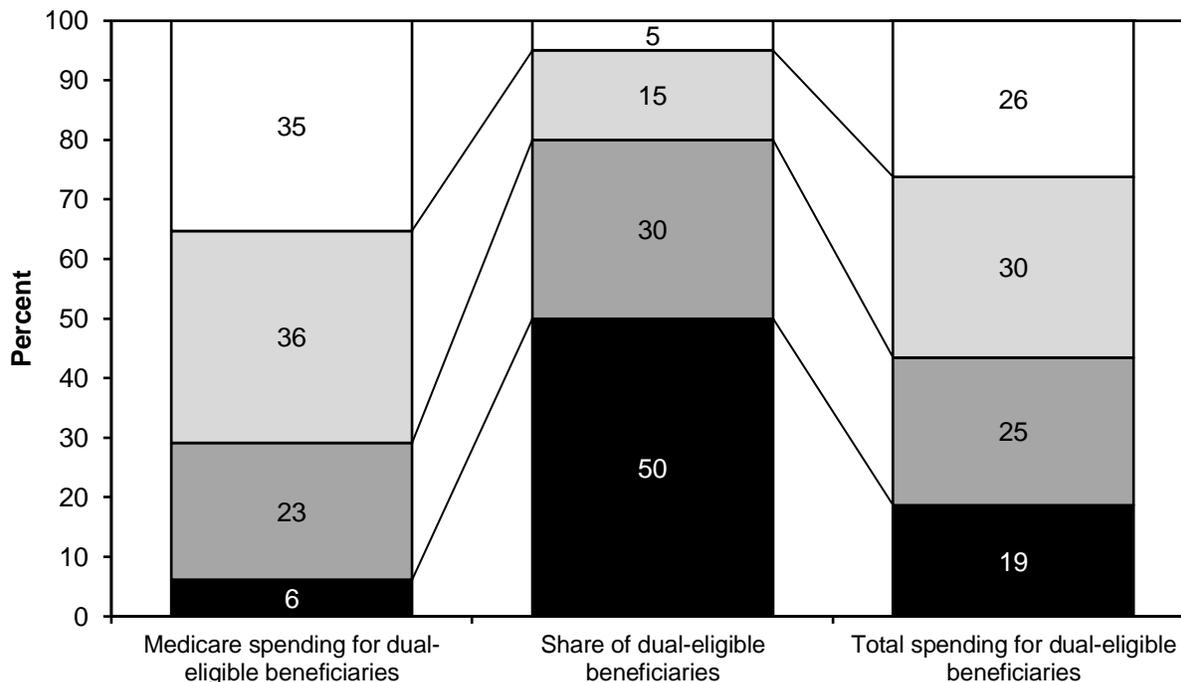
<sup>b</sup> Individual short-term facility (usually skilled nursing facility) stays for the MCBS population.

<sup>c</sup> Data from stand-alone prescription drug plans and Medicare Advantage–Prescription Drug plans.

Source: MedPAC analysis of the Medicare Current Beneficiary Survey, 2017.

- In 2017, average per capita Medicare FFS spending for dual-eligible beneficiaries was more than twice that for non-dual-eligible beneficiaries—\$19,846 compared with \$9,415.
- For each type of service, average Medicare FFS per capita spending was higher for dual-eligible beneficiaries than for non-dual-eligible beneficiaries.
- Higher average per capita FFS spending for dual-eligible beneficiaries is a function of higher use of these services by dual-eligible beneficiaries compared with 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 4-6. Both Medicare and total spending were concentrated among dual-eligible beneficiaries, 2017**



Note: "Total spending" includes Medicare, Medicaid, supplemental insurance, and out-of-pocket spending. Data in this analysis are restricted to beneficiaries in fee-for-service (FFS) Medicare. "Dual-eligible beneficiaries" are defined as beneficiaries who were eligible for both Medicare and Medicaid for at least one month during the year.

Source: MedPAC analysis of the Medicare Current Beneficiary Survey, 2017.

- Annual Medicare FFS and total spending on dual-eligible beneficiaries are concentrated among a small number. The costliest 5 percent of dual-eligible beneficiaries accounted for 35 percent of Medicare spending and 26 percent of total spending on dual-eligible beneficiaries in 2017. In contrast, the least costly 50 percent of dual-eligible beneficiaries accounted for only 6 percent of Medicare FFS spending and 19 percent of total spending on dual-eligible beneficiaries.
- On average, total spending (including Medicaid, Medigap, etc.) for dual-eligible beneficiaries in 2017 was about twice that for non-dual-eligible beneficiaries—\$30,510 compared with \$15,630, respectively (data not shown).

SECTION

5

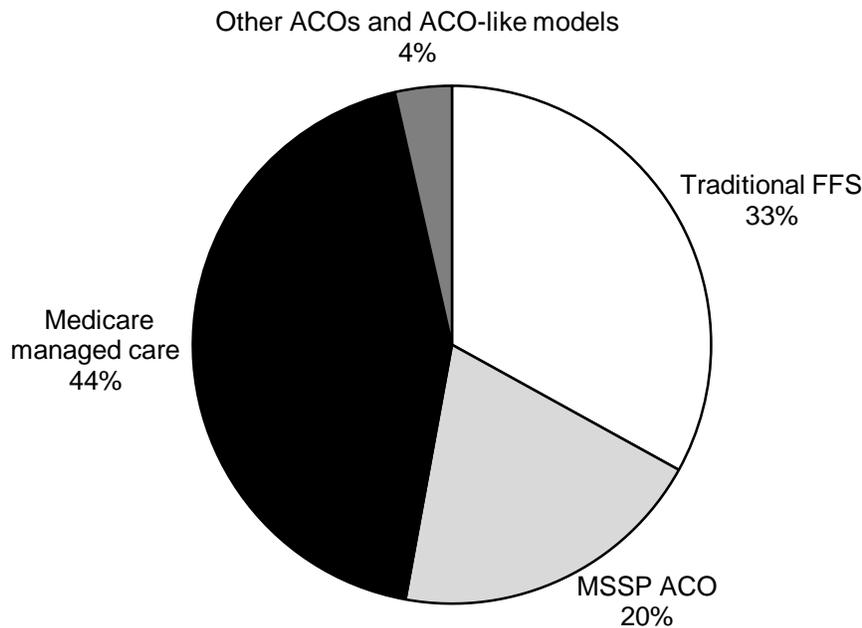
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**Alternative  
payment models**

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**Chart 5-1. Most beneficiaries are in Medicare managed care plans or are assigned to accountable care organizations, 2020**

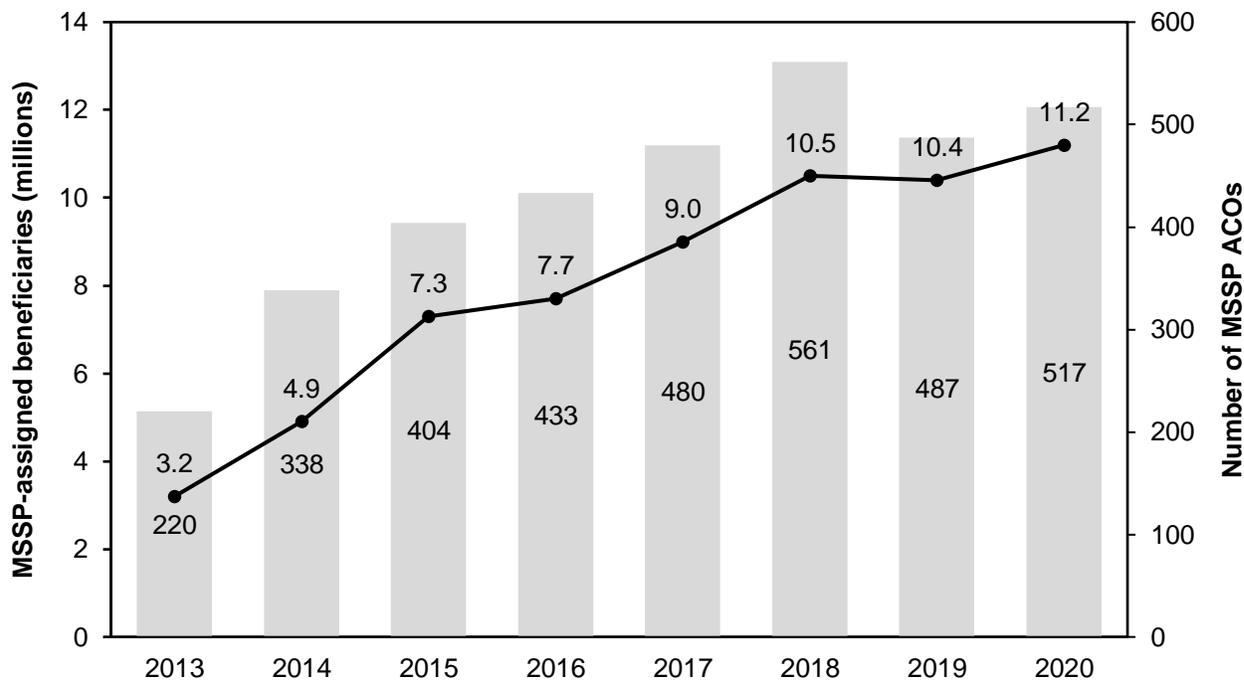


Note: ACO (accountable care organization), FFS (fee-for-service), MSSP (Medicare Shared Savings Program). This chart includes only beneficiaries enrolled in both Part A and Part B in January 2020. Both Part A and Part B coverage is necessary for either Medicare Advantage enrollment or ACO assignment. Percentages in this chart differ from those in Charts 9-5 and 9-10 because the 5.7 million beneficiaries with either only Part A or only Part B coverage are included in those charts. In general, Medicare managed care plans include Medicare Advantage plans as well as cost-reimbursed plans. Other ACOs and ACO-like models include the Next Generation ACO model, the Maryland Total Cost of Care (TCOC) model, the ESRD Seamless Care Organization (ESCO) model, and the Vermont All-Payer ACO. In the Maryland TCOC model, all FFS beneficiaries are assigned to a hospital, and each hospital is responsible for all Part A and Part B spending for all Medicare beneficiaries in its market. This system creates ACO-like incentives for the hospital and qualifies physicians affiliated with those hospitals for the Medicare Access and CHIP Reauthorization Act (MACRA) bonus payments for participation in eligible alternative payment models. Percentages do not total 100 because of rounding.

Source: CMS January 2020 enrollment dashboard data, CMS Shared Savings Program January 2020 Fast Facts, CMS ACO Next Generation 2018 performance data and 2019 participant lists, CMS ESCO 2018 report to the Congress, and State of Vermont Green Mountain Care Board 2020 report.

- Among the 56.5 million Medicare beneficiaries with both Part A and Part B coverage in 2020, approximately two-thirds are in Medicare managed care (Medicare Advantage or other private plans) or accountable care organization (ACO) models.
- The Medicare Shared Savings Program—a permanent ACO model established through the Affordable Care Act of 2010—accounts for most of the beneficiaries assigned to ACO or ACO-like payment models.
- Only 33 percent of Medicare beneficiaries with both Part A and Part B coverage are now in traditional fee-for-service (FFS) Medicare—a share that has declined in recent years.
- Even among the one-third of beneficiaries in traditional FFS, some beneficiaries may be assigned to other alternative payments models such as the Bundled Payments for Care Improvement Advanced model or the Comprehensive Primary Care Plus model.

**Chart 5-2. The number of beneficiaries assigned to MSSP ACOs grew rapidly through 2018 but more moderately since then**

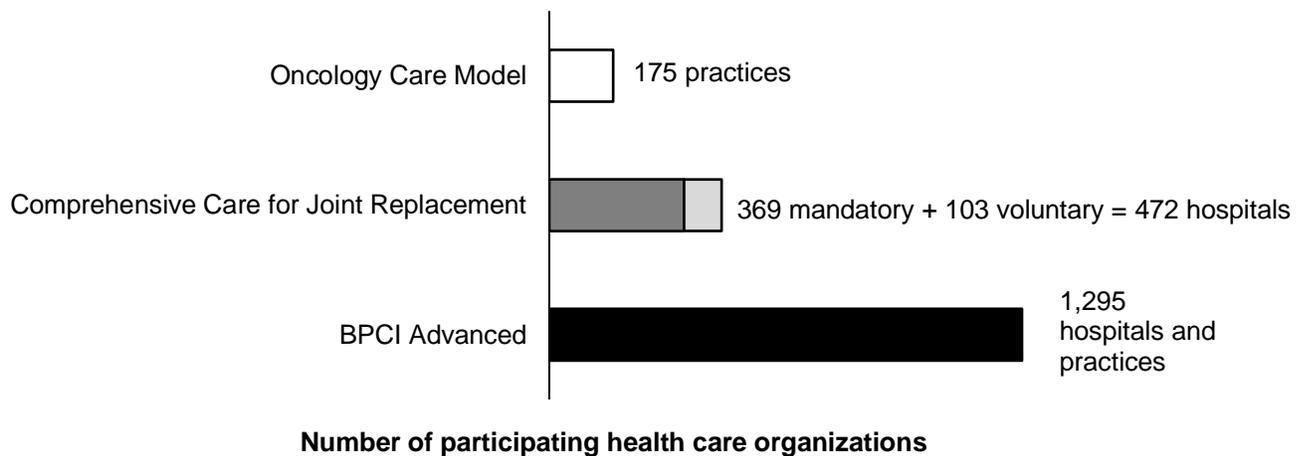


Note: MSSP (Medicare Shared Savings Program), ACO (accountable care organization). Numbers are as of January in each year. In 2019, MSSP ACOs were allowed to join the program in July 2019. Those ACOs and the beneficiaries assigned to them were not in the program as of January 2019 and are therefore not included in the 2019 counts on this chart. As of July 2019, there were 518 MSSP ACOs and 10.9 million beneficiaries assigned to them.

Source: CMS Shared Savings Program January 2020 Fast Facts.

- The number of beneficiaries assigned to MSSP ACOs grew rapidly through 2018 but has grown at a more moderate pace in recent years.
- The number of ACOs peaked in 2018 and then declined between 2018 and 2020.
- From 2018 to 2020, the simultaneous decline in MSSP ACOs but increase in assigned beneficiaries reflects larger assignment per ACO.
- CMS finalized changes to the MSSP program at the end of 2018 that included (1) requiring ACOs to transition toward greater levels of risk and (2) using regional spending as a component of all ACO benchmarks (the spending level used to measure an ACO's financial performance). These changes coincided with some ACOs dropping out of the program and fewer new ACOs joining the program.

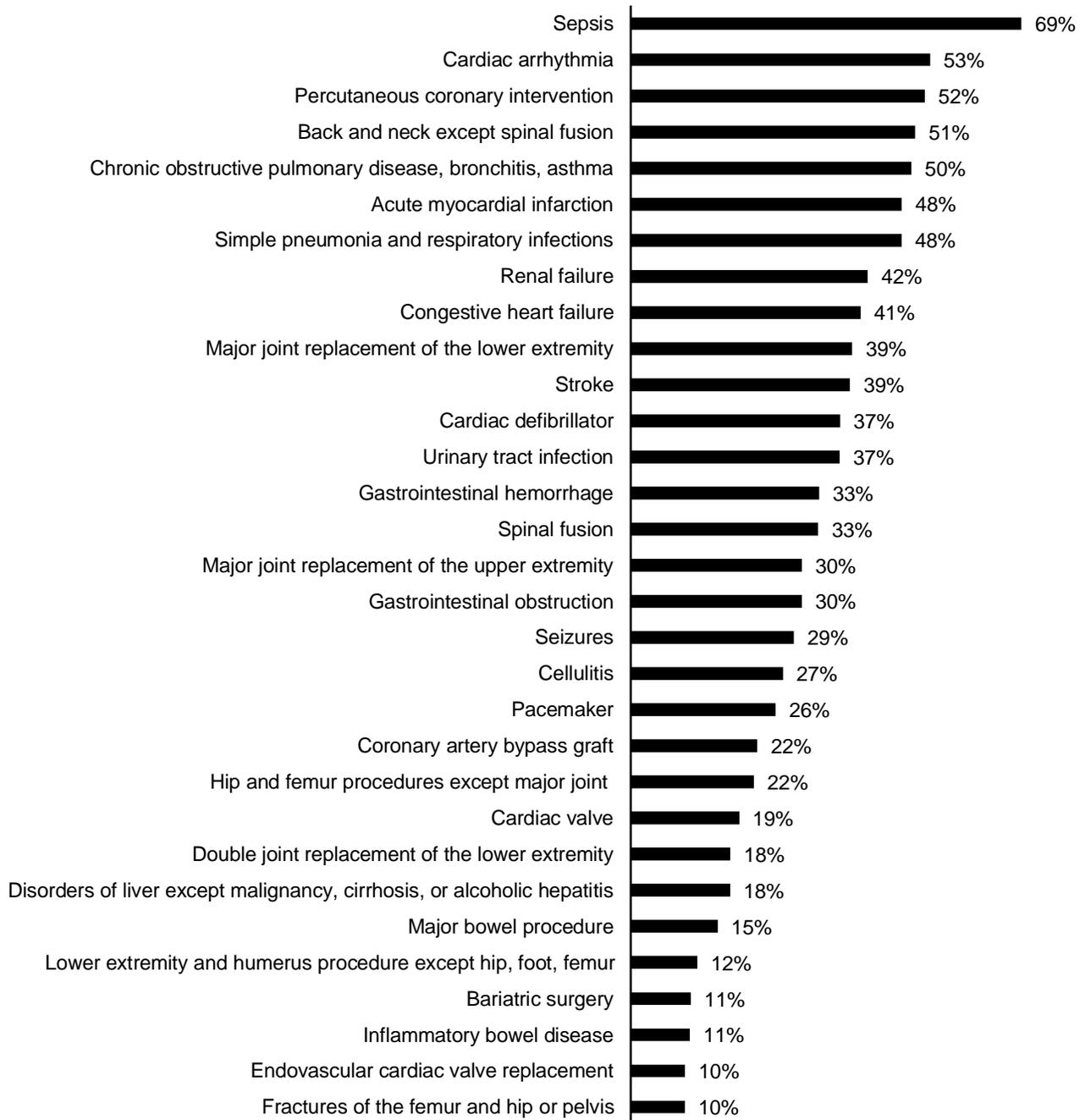
### Chart 5-3. Bundled Payments for Care Improvement (BPCI) Advanced is Medicare’s largest episode-based payment model, 2020



Sources: CMS’s Oncology Care Model website (<https://innovation.cms.gov/innovation-models/oncology-care>); information on the latest number of Comprehensive Care for Joint Replacement participants: Personal communication from CMS staff, May 1, 2020; information on BPCI Advanced participants: CMS’s Where Innovation Is Happening website (<https://innovation.cms.gov/innovation-models/map#model=bpci-advanced>).

- Medicare fee-for-service (FFS) providers can participate in episode-based payment models.
- Episode-based payment models give health care providers a spending target for most types of care provided during a clinical episode (e.g., 6 months of chemotherapy, an inpatient admission or outpatient procedure plus most other care provided in the subsequent 90 days). If total spending is less than the target, Medicare pays providers a bonus; if total spending is more than the target, Medicare recoups money from providers.
- Within FFS Medicare, the episode-based payment model with broadest participation (1,295 acute care hospitals and physician group practices participating) is the BPCI Advanced model.
- BPCI Advanced allows hospitals and practices to participate in dozens of clinical episodes, most of which are for inpatient admissions (as opposed to outpatient procedures). The most commonly pursued types of clinical episodes in BPCI Advanced are shown in Chart 5-4.
- About two-thirds of BPCI Advanced participants accept episode-based payments for fewer than six types of clinical episodes at a time. Twenty-two percent accept episode-based payments for only one type of clinical episode (data not shown).

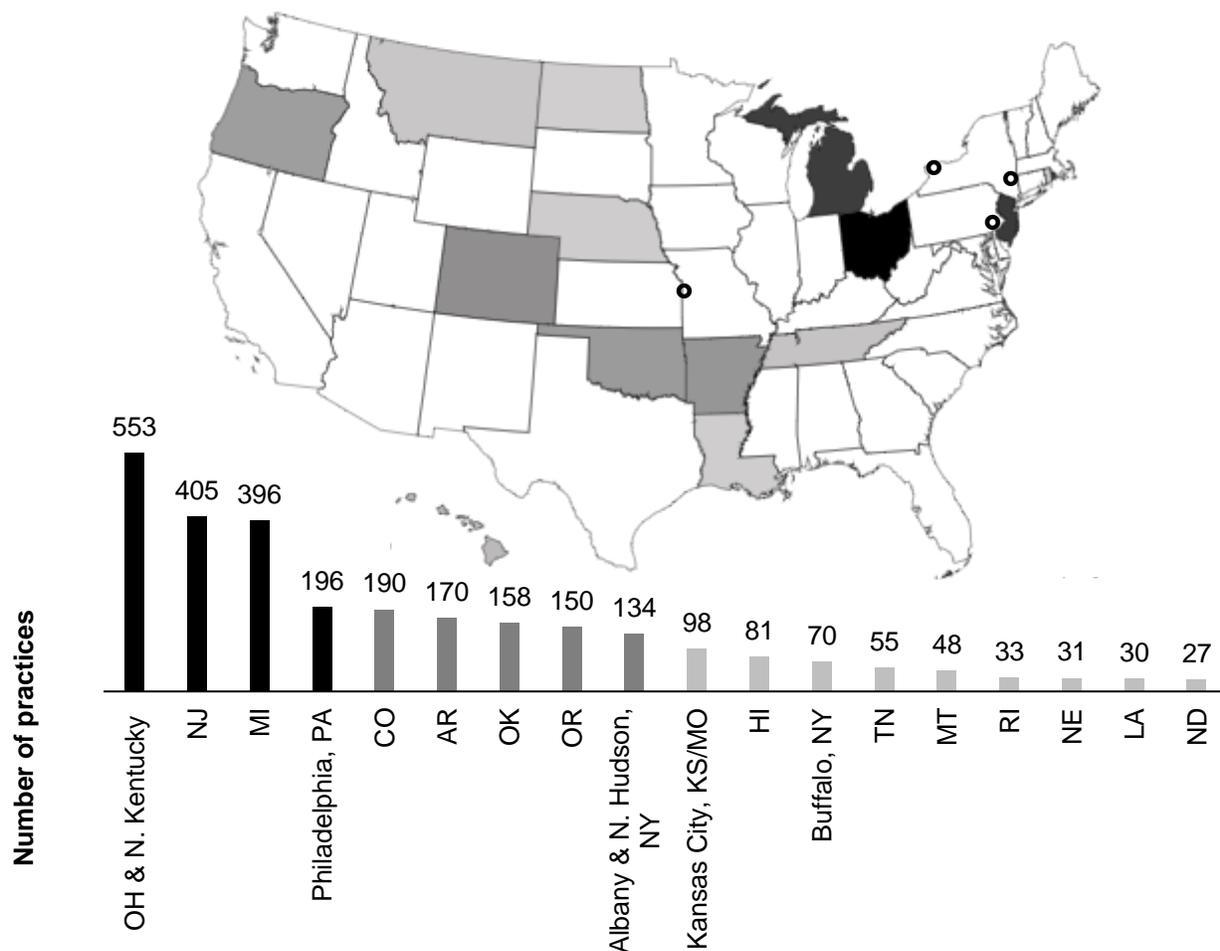
**Chart 5-4. Share of BPCI Advanced participants accepting financial responsibility for particular types of clinical episodes, 2020**



Note: BPCI (Bundled Payments for Care Improvement). BPCI Advanced participants can accept episode-based payments for multiple types of clinical episodes. The denominator is 1,295 BPCI Advanced participants in 2020.

Source: List of clinical episodes each BPCI Advanced participant agreed to take financial responsibility for in Model Year 3 (2020) downloaded from CMS's BPCI Advanced webpage (<https://innovation.cms.gov/innovation-models/bpci-advanced>).

**Chart 5-5. 2,825 practices are testing the Comprehensive Primary Care Plus (CPC+) model, 2020**

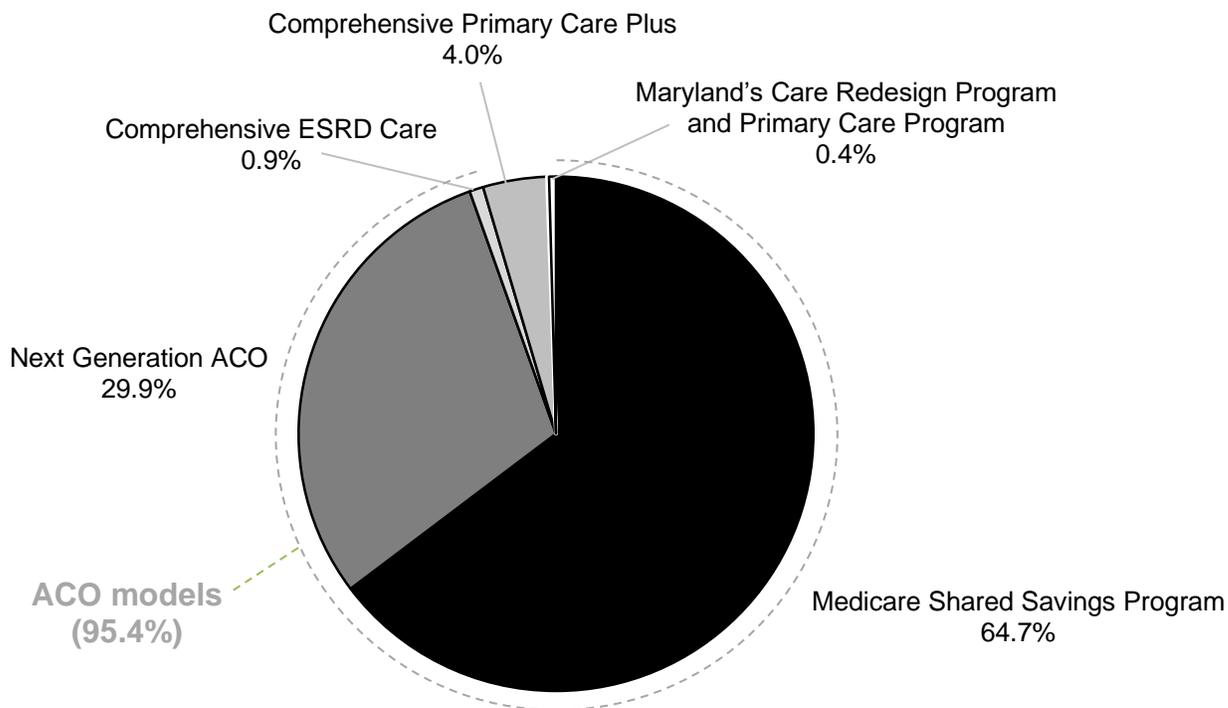


Note: Comprehensive Primary Care Plus (CPC+) is an advanced alternative payment model that CMS began testing in 2017 in some regions and in 2018 in others. CPC+ is a multipayer model, with some Medicaid and private insurers voluntarily paying similar fees for their enrollees. Alaska (not shown) was not selected as a region eligible to participate in the CPC+ model.

Source: CMS's list of CPC+ practices (<https://data.cms.gov/Special-Programs-Initiatives-Speed-Adoption-of-Bes/Comprehensive-Primary-Care-Plus/eevd-hiep>).

- CMS's CPC+ is an advanced alternative payment model that aims to strengthen primary care by providing additional, up-front payments to participating providers of primary care services. These payments are intended to support enhanced, coordinated care management and assist with care delivery transformation.
- Participating practices receive a risk-adjusted per beneficiary per month care management fee, in addition to standard fee-for-service (FFS) payments. Practices can also opt to shift some of their FFS revenue into prospective payments received quarterly.
- CPC+ practices can earn performance bonuses unless they also participate in a Medicare Shared Savings Program (MSSP) accountable care organization (since bonuses are already available through the MSSP). About half the CPC+ practices also participate in the MSSP.

**Chart 5-6. About 95 percent of the clinicians who qualified for a 5 percent A-APM bonus in 2020 were in ACO models**



Note: A-APM (advanced alternative payment model), ACO (accountable care organization), ESRD (end-stage renal disease). Clinicians' 2018 A-APM participation determines their 2020 bonuses. To qualify for the A-APM bonus, clinicians had to receive 25 percent of their professional services payments or provide 20 percent of their patients with professional services through an A-APM in 2018. The A-APM bonus is equal to 5 percent of a clinician's professional services payments from Medicare (not including cost sharing paid by beneficiaries). In addition to the A-APMs shown above, clinicians had the option of qualifying for the A-APM bonus through participation in the Oncology Care Model (under which no clinicians qualified) or the Bundled Payments for Care Improvement Advanced model (under which one clinician qualified). For the payment models shown, only those model tracks that require clinicians to take on some financial risk qualify as A-APMs (e.g., physicians participating in Track 1 of the Medicare Shared Savings Program did not qualify for A-APM bonuses because Track 1 involved no financial risk for participants). Percentages do not total 100 because of rounding.

Source: CMS data on clinicians who qualified for the 5 percent bonus in 2020 based on clinicians' 2018 model participation.

- The payment models that CMS has designated as A-APMs place health care providers at some financial risk for Medicare spending while expecting them to meet quality goals for a defined patient population. Clinicians who participate in A-APMs qualify for bonuses equal to 5 percent of their professional services payments from Medicare. These bonus payments are available from 2019 to 2024.
- In 2020, about 183,000 clinicians nationwide qualified for the A-APM bonus (based on 2018 A-APM participation). About 95 percent of these clinicians participated in ACOs, which give clinicians an opportunity to earn shared savings payments from Medicare if they lower health care spending while meeting care quality standards.
- Among physicians who qualified for an A-APM bonus in 2020, 62 percent were specialists and 38 percent were primary care physicians.

SECTION

6

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**Acute inpatient services**  
**General short-term hospitals**  
**Inpatient psychiatric facilities**

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**Chart 6-1. Urban IPPS hospitals accounted for under half of the 4,700 short-term acute care hospitals but about 80 percent of all-payer and Medicare FFS inpatient stays in 2018**

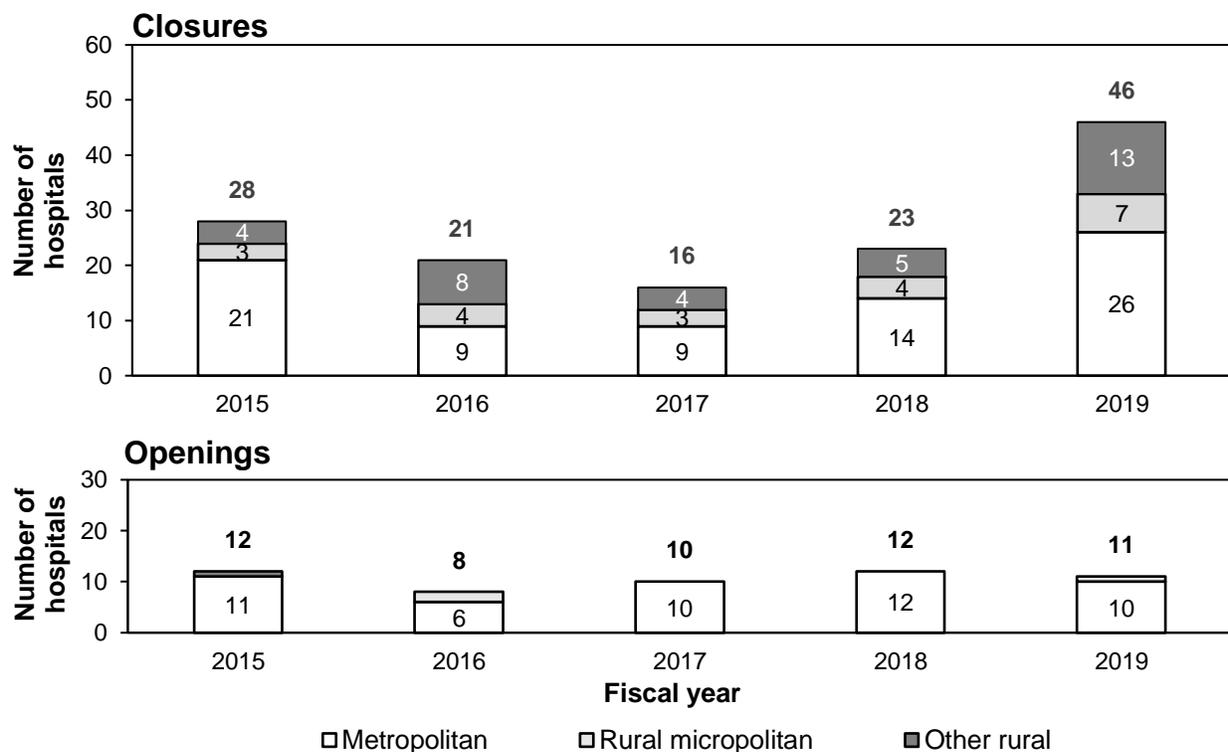
Hospital group	Hospitals		Inpatient stays			
	Number (in thousands)	Share of total	All payer		Medicare FFS	
			Number (in millions)	Share of total	Number (in millions)	Share of total
<b>All short-term acute</b>	<b>4.7</b>	<b>100</b>	<b>31.8</b>	<b>100</b>	<b>9.5</b>	<b>100</b>
IPPS	3.2	68	29.9	94	9.0	94
Metropolitan (urban)	2.1	45	26.3	83	7.6	80
Rural micropolitan	0.3	7	1.6	5	0.5	6
Other rural	0.7	16	2.1	7	0.9	9
For-profit	0.8	17	5	16	1.5	16
Nonprofit	1.9	40	20.9	66	6.4	67
Government	0.5	10	4.0	13	1.1	11
DSH	2.7	57	27.8	87	8.2	86
Non-DSH	0.5	11	2.2	7	0.8	8
Teaching	1.2	25	19.6	62	5.5	58
Nonteaching	2.0	43	10.4	33	3.5	37
Sole community	0.4	10	1.9	6	0.8	8
Medicare dependent	0.2	4	0.3	1	0.1	1
Neither	2.6	55	27.7	87	8.0	85
Critical access	1.3	29	0.6	2	0.3	3
Maryland	<0.1	1	0.6	2	0.2	2
Children's	<0.1	2	0.6	2	<0.1	<1
Cancer	<0.1	<1	0.1	0	<0.1	<1

Note: IPPS (inpatient prospective payment system), FFS (fee-for-service), DSH (disproportionate share hospital). Data are for short-term acute care hospitals in the U.S. (excluding territories) that had a cost report with a midpoint in fiscal year 2018. "Number of hospitals" is the number of Medicare provider numbers; a single provider number can represent multiple hospital locations. Metropolitan (urban) counties contain an urban cluster of 50,000 or more people, and rural micropolitan counties contain a cluster of 10,000 to 50,000 people. Components may not sum to totals due to rounding.

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

- In 2018, there were approximately 4,700 short-term acute care hospitals participating in the Medicare program, including 3,220 paid under the inpatient prospective payment system and 1,350 small, rural hospitals designated as critical access hospitals.
- Metropolitan IPPS hospitals accounted for 45 percent of short-term acute care hospitals but 83 percent of the 31.8 million all-payer inpatient stays and 80 percent of the 9.5 million Medicare FFS inpatient stays.

**Chart 6-2. The number of general, short-term acute care hospitals that ceased inpatient services substantially increased in 2019**

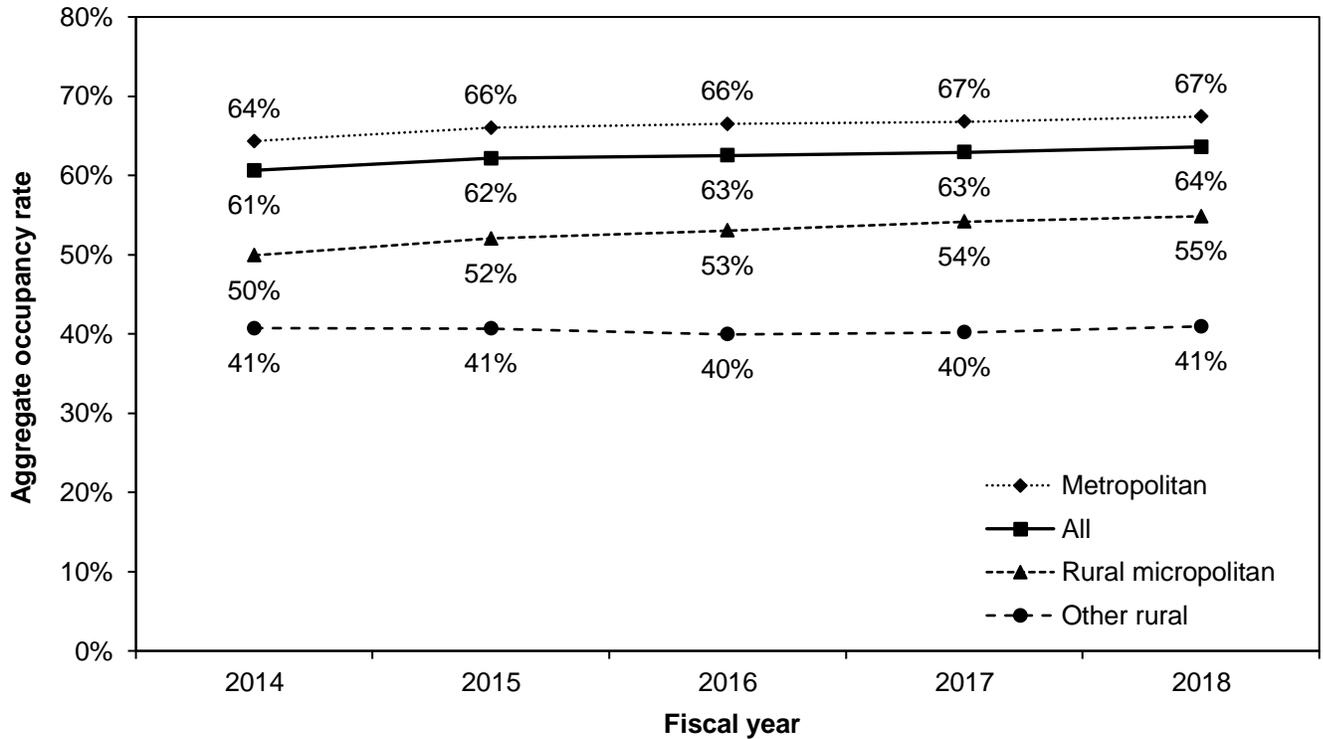


Note: "Closure" refers to a hospital location that ceased inpatient services, while "opening" refers to a new location for inpatient services. The chart does not include the relocation of inpatient services from one hospital to another under common ownership within 10 miles, nor does it include hospitals that both opened and closed within a 5-year time period. Data are for general short-term acute care hospitals in the U.S. paid under the inpatient prospective payment system, designated as critical access hospitals, or covered under the Maryland state waiver. Metropolitan (urban) counties contain an urban cluster of 50,000 or more people, and rural micropolitan counties contain a cluster of 10,000 to 50,000 people. The counts in this chart differ from those previously published for several reasons, including that this chart counts closures and openings based on fiscal year, uses an updated methodology, and is updated to remove hospitals previously counted as closures but that have since reopened.

Source: MedPAC analysis of the CMS Provider of Services file, census data on metropolitan and micropolitan areas, internet searches, and personal communication with the Department of Health and Human Services Office of Rural Health Policy.

- While hospital closures are still relatively rare events, there was a substantial increase in the number of hospitals that ceased inpatient services in fiscal year 2019, without a corresponding increase in openings.
- In 2019, 46 general short-term acute care hospitals participating in the Medicare program closed, and 11 hospitals opened. Among the 46 closures, 26 were in metropolitan counties, 7 were in rural micropolitan counties, and 13 were in other rural counties.
- The hospitals that closed in 2019 tended to be small (30 had 100 or fewer beds), had low inpatient occupancy rates (approximately 25 percent, on average), and had poor profitability (all-payer margin of -16 percent, on average, in the year before closure) (data not shown).
- Nearly all of the hospital openings from 2015 to 2019 were in metropolitan counties.

**Chart 6-3. Aggregate occupancy rate at short-term acute care hospitals has increased slightly, but remained much lower at rural hospitals, 2014–2018**

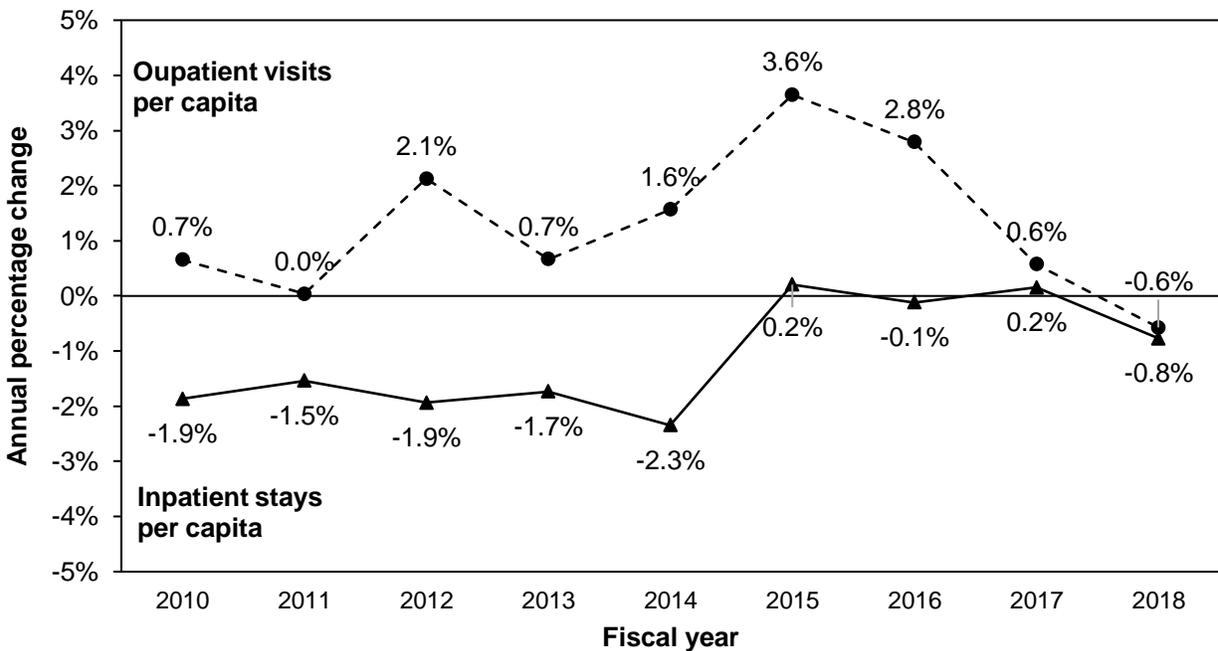


Note: Hospital occupancy rates are defined as total bed days (including swing bed days) and observation bed days used, minus nursery bed days used, divided by total bed days available. Data are for short-term acute care hospitals in the U.S. (excluding territories) that had a cost report with a midpoint in fiscal year 2018. Metropolitan (urban) counties contain an urban cluster of 50,000 or more people, and rural micropolitan counties contain a cluster of 10,000 to 50,000 people.

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

- The aggregate occupancy rate at short-term acute care hospitals increased slightly between 2014 and 2018, from 61 percent to 64 percent.
- Occupancy rates are generally higher for metropolitan hospitals than rural micropolitan or other rural hospitals. However, occupancy rates rose the fastest for rural micropolitan hospitals during this five-year period, with an average annual growth rate of 1.9 percent.
- Increasing occupancy in metropolitan and rural micropolitan areas in part reflects increasing volumes of inpatient days at these hospitals. In contrast, the total number of inpatient days in other rural areas declined, but the aggregate occupancy rate remained relatively steady because available inpatient bed days also declined due to closures and other reductions in beds (data not shown).

**Chart 6-4. Divergent trends in all-payer hospital outpatient visits and inpatient stays per capita narrowed in 2017 and 2018**

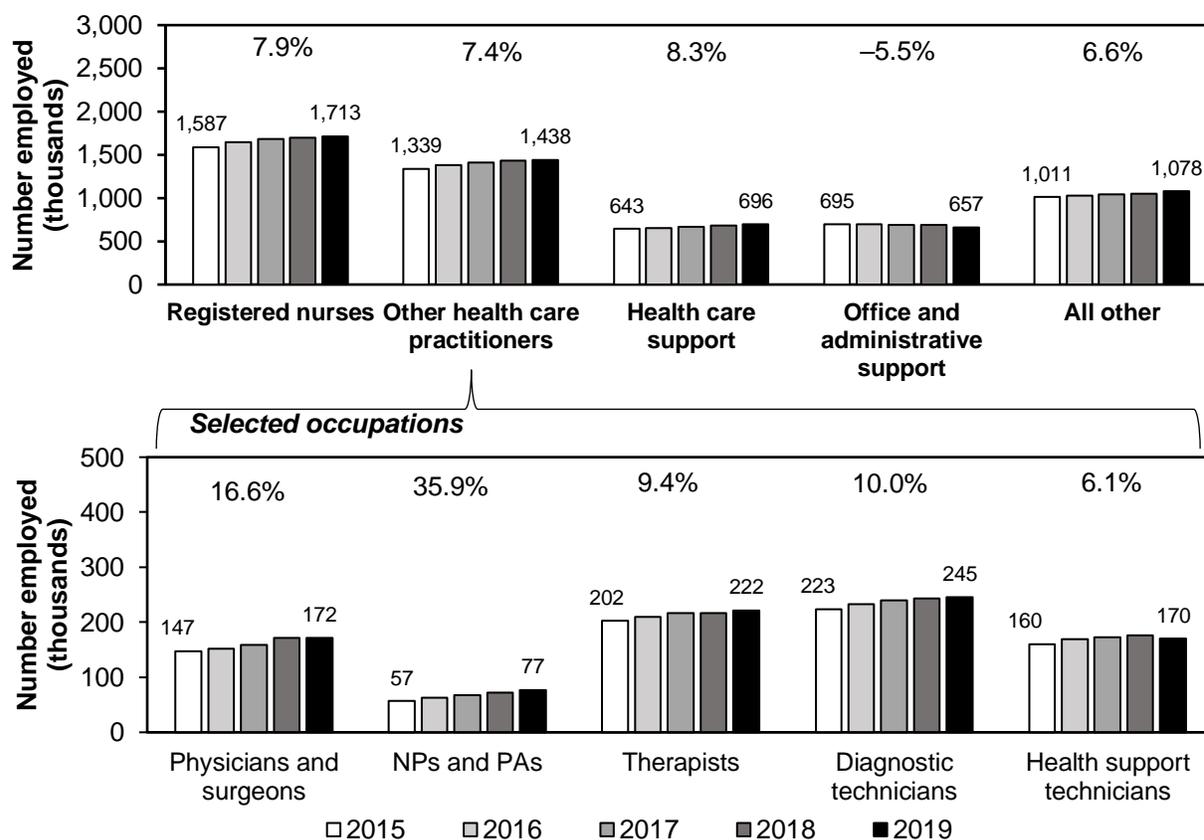


Note: “Outpatient visits” includes all clinic visits, referred visits, observation services, outpatient surgeries, and emergency department visits, regardless of the number of diagnostic and/or therapeutic treatments the patient received during the visit. Data are for community hospitals (nonfederal short-term general and specialty hospitals), estimated from those who responded to the American Hospital Association (AHA) survey. With the 2019 edition of Hospital Statistics, the AHA began using a new methodology to classify facilities as hospitals. As a result of the application of the new, broader hospital definition, the number of community hospitals in each year from 2013 to 2017 increased by approximately 400.

Source: MedPAC analysis of Hospital Statistics data from the American Hospital Association and CMS National Health Expenditure data.

- From 2010 to 2014, there were divergent trends in all-payer hospital outpatient visits and inpatient stays per capita, with growth in outpatient visits and declines in inpatient stays.
- Beginning in 2015, the divergent trends in all-payer outpatient and inpatient growth rates started to narrow, as inpatient stays per capita held relatively steady.
- Starting in 2017, the trends in all-payer outpatient visits and inpatient stays per capita were similar: both grew slightly in 2017 (0.6 percent and 0.2 percent, respectively) and decreased slightly in 2018 (–0.6 percent and –0.8 percent).

**Chart 6-5. Hospital employment growth from 2015 to 2019 was driven by an increase in health care practitioners**

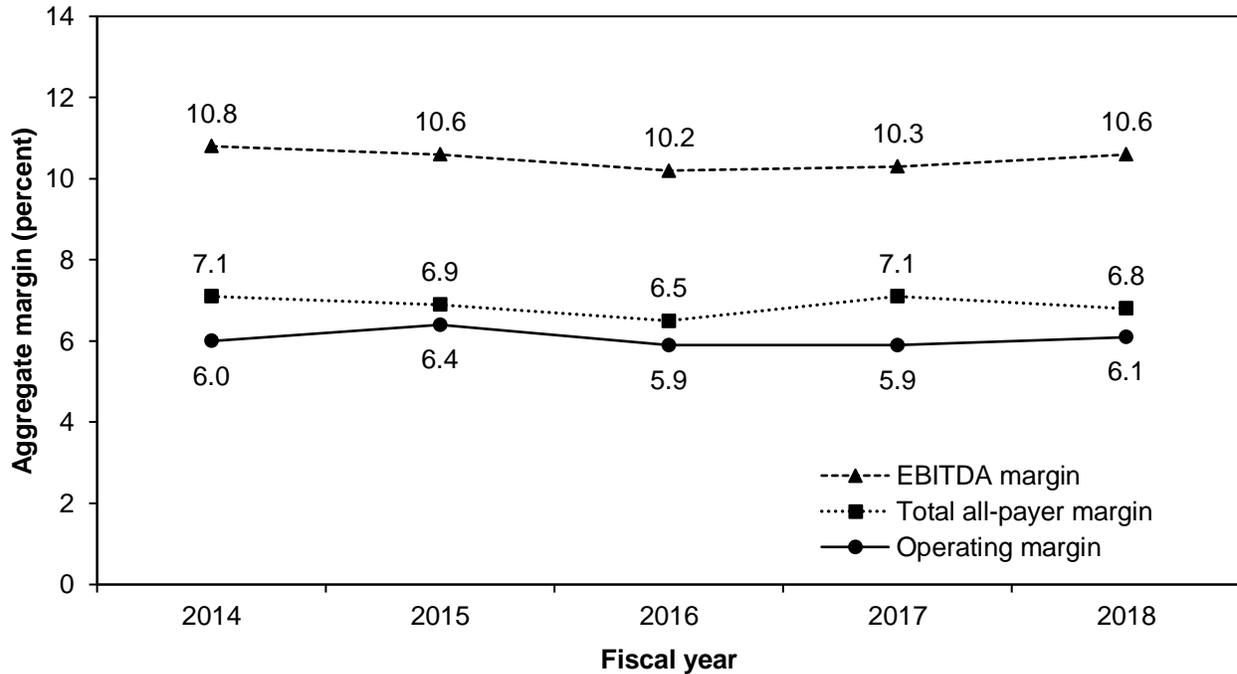


Note: NP (nurse practitioner), PA (physician assistant). Data are for general medical and surgical hospitals. The percentages shown at the top of each category are the cumulative percentage change from 2015 to 2019. Components of other health care practitioners in the bottom chart do not sum to all other health care practitioners in the top chart because only some subsets of practitioner occupations are shown.

Source: MedPAC analysis of Bureau of Labor Statistics, Current Employment Statistics data.

- The Bureau of Labor Statistics survey of employers indicates that general medical and surgical hospitals employed 5.6 million individuals in 2019. Of these, approximately 1.7 million (31 percent) were registered nurses and 1.4 million (26 percent) were other health care practitioners. The remaining 44 percent of hospital employees were in nonpractitioner occupational categories.
- From 2015 to 2019, the number of registered nurses increased 7.9 percent, similar to the rate of all other health care practitioners. However, within the group of other health care practitioners, several occupations grew rapidly. For example, while still a small share of all health care practitioners, the number of nurse practitioners and physician assistants employed by hospitals increased 35.9 percent.
- From 2015 to 2019, the number of hospital staff in several nonpractitioner occupations increased as well. For example, health care support staff (such as nursing assistants and orderlies) increased 8.3 percent.

**Chart 6-6. Short-term acute care hospitals' all-payer financial performance remained strong, 2014–2018**

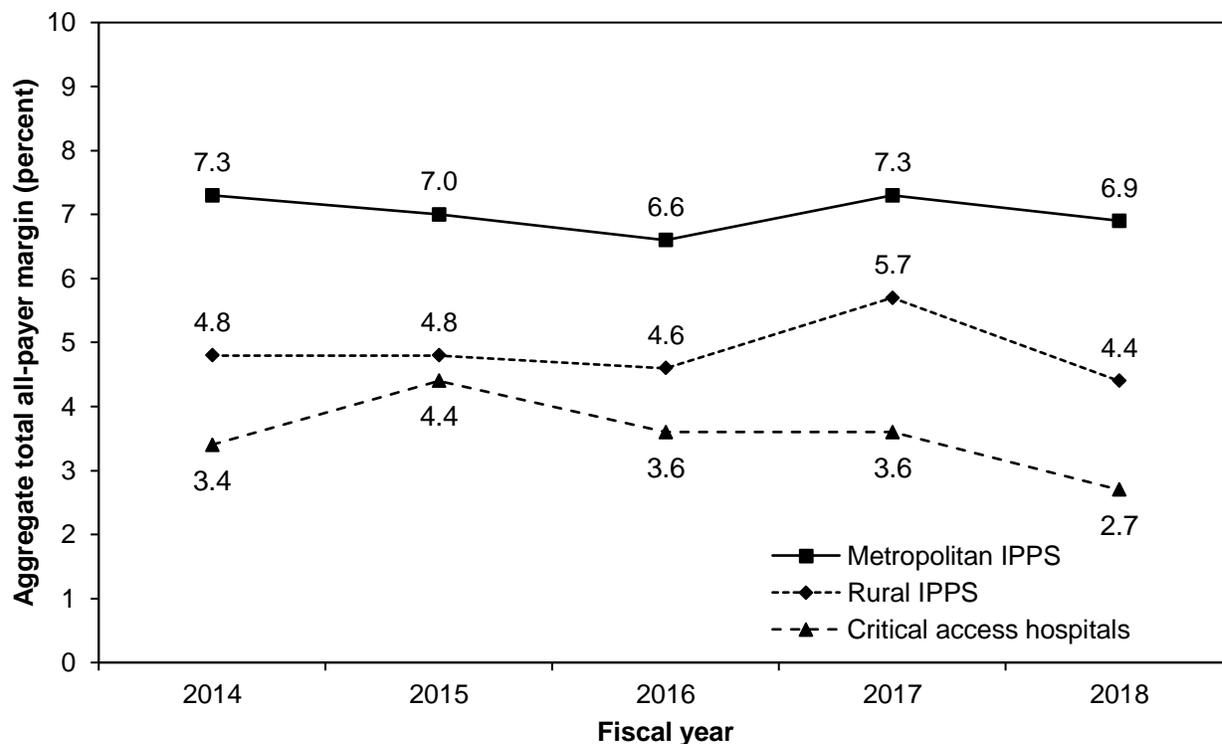


Note: EBITDA (earnings before interest, taxes, depreciation, and amortization). Data are for short-term acute care hospitals in the U.S. covered under the inpatient prospective payment system (excluding territories and those that report all-inclusive rates), that had complete cost reports and non-outlier cost per stay data. Aggregate margin is calculated as revenue minus costs, divided by revenue. “Total all-payer margin” includes all patient care services funded by all payers plus nonpatient revenue such as investment income.

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

- Hospitals’ aggregate 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 care, and nonpatient services.
- In 2018, hospitals’ aggregate total all-payer margin (which includes investment income) was 6.8 percent, a slight decrease from the all-time high of 7.1 percent in 2017 and 2014.
- Other measures of all-payer profitability also remained strong. Hospitals’ cash flow—as measured by EBITDA—has remained steady and strong for the decade, with an aggregate EBITDA margin between 10 percent and 11 percent. Hospitals’ operating margin also remained steady and strong.

**Chart 6-7. Urban IPPS hospitals continue to have a higher aggregate total all-payer margin than rural IPPS or critical access hospitals, 2014–2018**

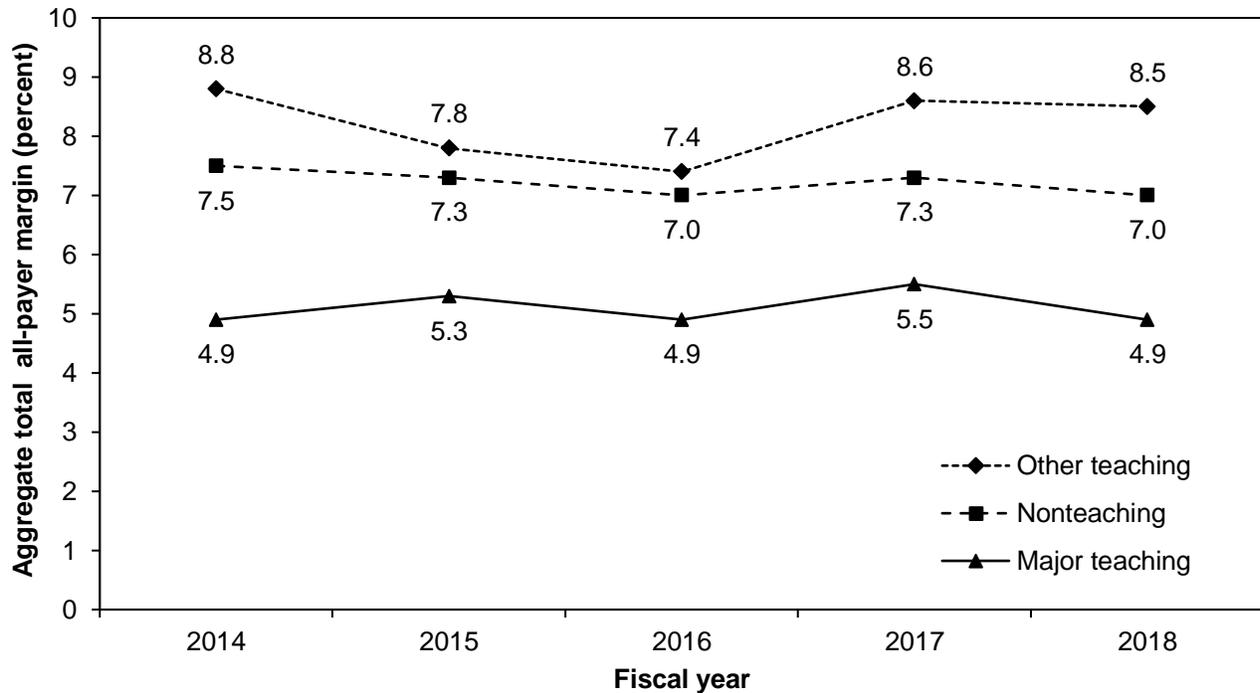


Note: IPPS (inpatient prospective payment system). Data are for short-term acute care hospitals in the U.S. paid under the inpatient prospective payment system (excluding territories and those that report all-inclusive rates) or are designated as critical access hospitals that had complete cost reports and non-outlier cost per stay data. Aggregate margin is calculated as revenue minus costs, divided by revenue. “Total all-payer margin” includes all patient care services funded by all payers, plus nonpatient revenue such as investment income. Metropolitan (urban) counties contain an urban cluster of 50,000 or more people; all other counties are classified as rural.

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

- Metropolitan (urban) IPPS hospitals continue to have a higher aggregate total all-payer margin than rural IPPS hospitals or critical access hospitals.
- From 2017 to 2018, the aggregate total all-payer margin for metropolitan IPPS hospitals decreased slightly from 7.3 to 6.9 percent, while the margin for rural IPPS hospitals decreased from a relative high of 5.7 percent (the highest margin since 2007 (data not shown)) to 4.4 percent.
- From 2017 to 2018, the aggregate total all-payer margin for critical access hospitals also decreased, from 3.6 percent to 2.7 percent (the lowest margin since 2010 (data not shown)).

**Chart 6-8. Major teaching hospitals continue to have a lower aggregate total all-payer margin than nonteaching and other teaching hospitals, 2014–2018**

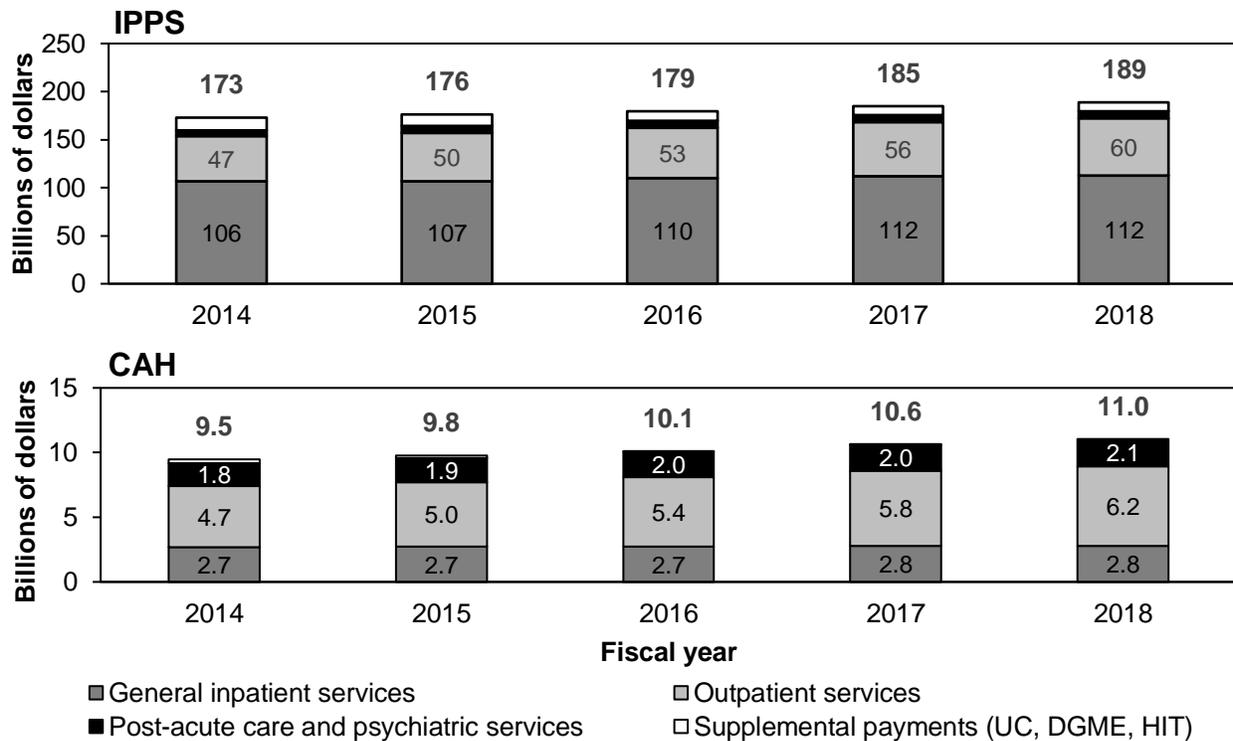


Note: Data are for short-term acute care hospitals in the U.S. covered under the inpatient prospective payment system (excluding territories and those that report all-inclusive rates) that had complete cost reports and non-outlier cost per stay data. Aggregate margin is calculated as revenue minus costs, divided by revenue. Total margin includes all patient care services funded by all payers, plus nonpatient revenue such as investment income. “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.

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

- The aggregate total all-payer margin for major teaching hospitals continues to be lower than that for other teaching and nonteaching hospitals. (In contrast, major teaching hospitals have a higher Medicare overall margin than other hospitals, see Chart 6-15.)
- From 2017 to 2018, the aggregate total all-payer margin for major teaching hospitals fell from 5.5 to 4.9 percent. Over this same period, the aggregate total all payer-margin decreased slightly less for nonteaching hospitals (from 7.3 percent to 7.0 percent) and for other teaching hospitals (from 8.6 percent to 8.5 percent).
- While the aggregate total all-payer margin for major teaching, other teaching, and nonteaching hospitals each decreased from 2017 to 2018, they each remained well above levels reported from 1997 to 2012 (data not shown).

**Chart 6-9. Inpatient services are the largest component of Medicare FFS revenue for IPPS hospitals, while outpatient services are the largest and fastest growing for CAHs, 2014–2018**



Note: FFS (fee-for-service), IPPS (inpatient prospective payment system), CAH (critical access hospital), UC (uncompensated care), DGME (direct graduate medical education), HIT (health information technology). Data are for the approximately 3,200 IPPS hospitals and 1,350 CAHs in the U.S. (excluding territories) that had a cost report with a midpoint in fiscal year 2018. Revenue includes payments from the Medicare FFS program (reflective of bad debt) and beneficiary cost sharing for services provided to Medicare FFS beneficiaries and the FFS share of supplemental payments. It does not include Medicare program payments for Medicare Advantage beneficiaries. Post-acute care includes swing bed, rehabilitation, and skilled nursing services. Components may not sum to totals due to rounding.

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

- The approximately 3,200 general short-term acute care hospitals paid under the IPPS received \$189 billion in Medicare FFS revenue in 2018, including \$112 billion for general inpatient services and \$60 billion for outpatient services. From 2014 to 2018, IPPS hospitals' Medicare FFS inpatient revenue increased at an average annual rate of 1.4 percent, while outpatient revenue increased 6.2 percent. These increases were driven by increases in payments per service (data not shown).
- The approximately 1,350 critical access hospitals (CAHs) received \$11 billion in Medicare FFS revenue in 2018, including \$2.8 billion for general inpatient services, \$6.2 billion for outpatient services, and \$2.1 billion in post-acute care services (mainly provided in swing beds). From 2014 to 2018, CAHs' Medicare FFS inpatient revenue increased at an average annual rate of 0.9 percent, while outpatient revenue increased 6.7 percent, and post-acute care revenue increased 4.3 percent. These increases were driven by increases in payments per service (data not shown).

**Chart 6-10. Base PPS payments represented about 84 percent of IPPS hospitals' overall Medicare FFS revenue, 2018**

Hospital group	Share of overall Medicare FFS revenue						
	Base PPS (and short stay <sup>a</sup> )	Low income, teaching <sup>b</sup>	High cost outliers	Rural and/or isolated <sup>c</sup>	Cost pass through	UC and DGME	Bad debt not reimbursed
All inpatient PPS	83.7%	5.6%	3.1%	2.0%	1.4%	5.1%	-0.6%
Metropolitan	83.4	6.2	3.3	1.3	1.5	5.4	-0.5
Rural micropolitan	88.8	2.3	2.4	3.4	0.6	3.0	-0.6
Other rural	84.0	2.0	1.4	7.9	0.8	3.1	-0.8
For profit	88.5	4.2	2.3	1.5	0.5	4.6	-0.8
Nonprofit	84.3	5.5	3.0	2.1	1.2	4.7	-0.5
Government	76.0	7.3	4.1	2.1	3.1	7.8	-0.6
DSH	82.9	5.9	3.1	2.0	1.4	5.5	-0.6
Non-DSH	92.9	1.6	2.6	1.4	0.9	0.5	-0.3
Teaching	80.3	7.6	3.5	1.6	1.8	6.2	-0.5
Nonteaching	90.4	1.6	2.2	2.7	0.5	3.0	-0.6
Sole community	80.2	2.5	2.2	11.5	0.3	2.8	-0.6
Medicare dependent	82.7	1.2	0.9	11.3	0.1	2.4	-0.9
Neither	84.1	6.0	3.2	0.9	1.5	5.4	-0.6
Critical access	1.6	0.0	0.0	0.1	99.3	0.0	-1.1

Note: PPS (prospective payment system), IPPS (inpatient prospective payment system), FFS (fee-for-service), DSH (disproportionate share hospital), UC (uncompensated care), DGME (direct graduate medical education). "Overall Medicare FFS revenue" includes payments from the Medicare FFS program (reflective of bad debt) and beneficiary cost sharing for services provided to Medicare FFS beneficiaries and their share of supplemental payments, across hospital service lines (inpatient, outpatient, and swing bed, rehabilitation, skilled nursing, and psychiatric services). Metropolitan (urban) counties contain an urban cluster of 50,000 or more people, and rural micropolitan counties contain a cluster of 10,000 to 50,000 people. Components may not sum to totals because other types of payments, such as quality, demonstration, and reconciliation payments, are not included in the table.

<sup>a</sup>"Short stay" includes adjustments for short-stay transfers in the inpatient PPS and short-stay outlier payments in the inpatient rehabilitation and psychiatric PPSs.

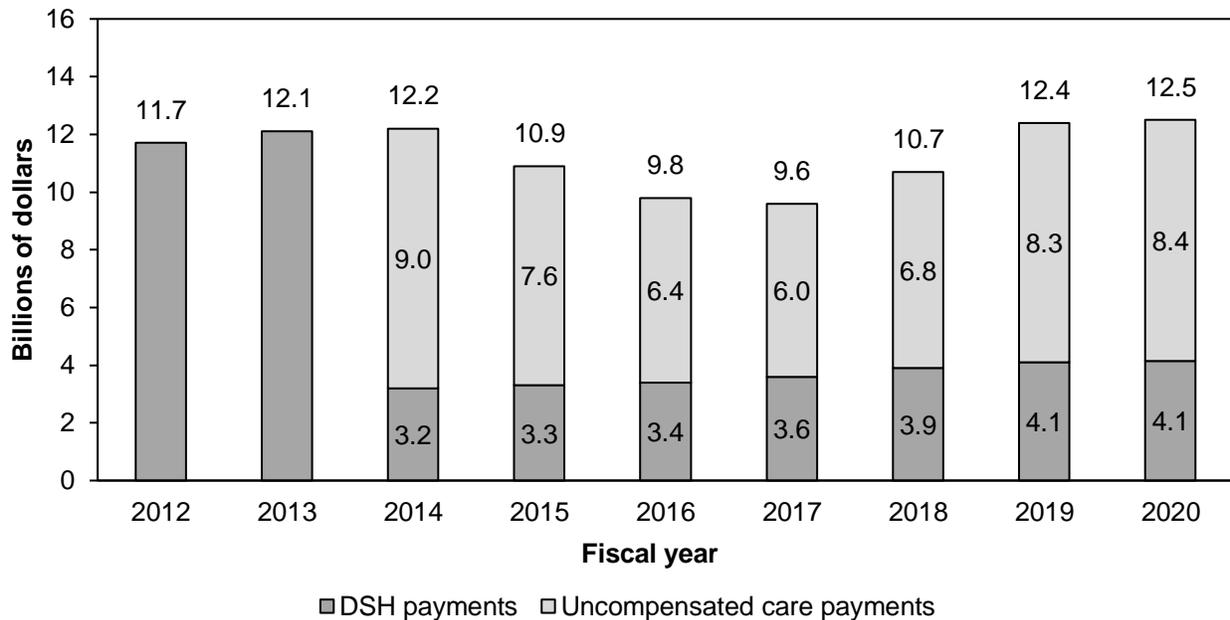
<sup>b</sup>"Low income, teaching" includes the disproportionate share and indirect medical education payments in the inpatient PPS and the low-income adjustment in the inpatient rehabilitation PPS.

<sup>c</sup>"Rural and/or isolated" includes payments above federal inpatient PPS rates from sole community hospital- or Medicare-dependent hospital-specific rates, the low-volume adjustment, and the rural adjustments to the rehabilitation and psychiatric PPSs.

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

- Base PPS payments accounted for about 84 percent of IPPS hospitals' aggregate overall Medicare FFS revenue, while PPS low-income and teaching adjustments, outlier payments, rural and/or isolated payments, cost-based pass-through amounts, supplemental payments, and bad debt accounted for the remaining 16 percent. However, the share of Medicare FFS revenue from different payment types varied substantially across different groups of IPPS hospitals.
- Cost-based reimbursement for CAHs results in payments significantly above what CAHs would be paid under the hospital PPSs, and it results in higher beneficiary cost sharing. (CAHs can have some PPS payments if they operate distinct-part rehabilitation or psychiatric hospitals that are reimbursed for those services under the respective PPSs.)

**Chart 6-11. Since implementation of uncompensated care payments in 2014, DSH payments have slowly increased, while uncompensated care payments have varied**



Note: DSH (disproportionate share). Payments represent CMS's estimated operating DSH payments and uncompensated care payments, before sequestration. Chart does not include capital DSH payments.

Source: CMS IPPS final rules.

- In each of 2012 and 2013, IPPS hospitals received approximately \$12 billion in aggregate operating DSH payments. The traditional DSH payment formula is based on hospitals' share of Medicaid patients and Medicare patients with Supplemental Security Income (SSI) and therefore results in increased DSH payments as Medicaid expands.
- Beginning in 2014, a policy change reduced operating DSH payments but added uncompensated care payments. Specifically, beginning in 2014, IPPS hospitals' operating DSH payments were calculated as 25 percent of the DSH payment the hospital would have received under the traditional DSH formula in effect before 2014. At the same time, a fixed pool of uncompensated care payments was created, set each year at 75 percent of the estimated aggregate operating DSH payments IPPS hospitals would have received under the traditional formula, less a percentage reduction in the uncompensated care pool that is proportional to the decline in the rate of uninsured since 2013. This uncompensated care pool is distributed to DSH-eligible IPPS hospitals based on each hospital's share of aggregate uncompensated care.
- Since the policy change, aggregate operating DSH payments have been slowly increasing, from \$3.2 billion in 2014 to \$4.1 billion in 2020. However, the amount of uncompensated care payments has varied, consistent with trends in the share of the population with Medicaid and without health insurance.

## Chart 6-12. Financial pressure led to lower hospital costs per discharge, 2015–2017

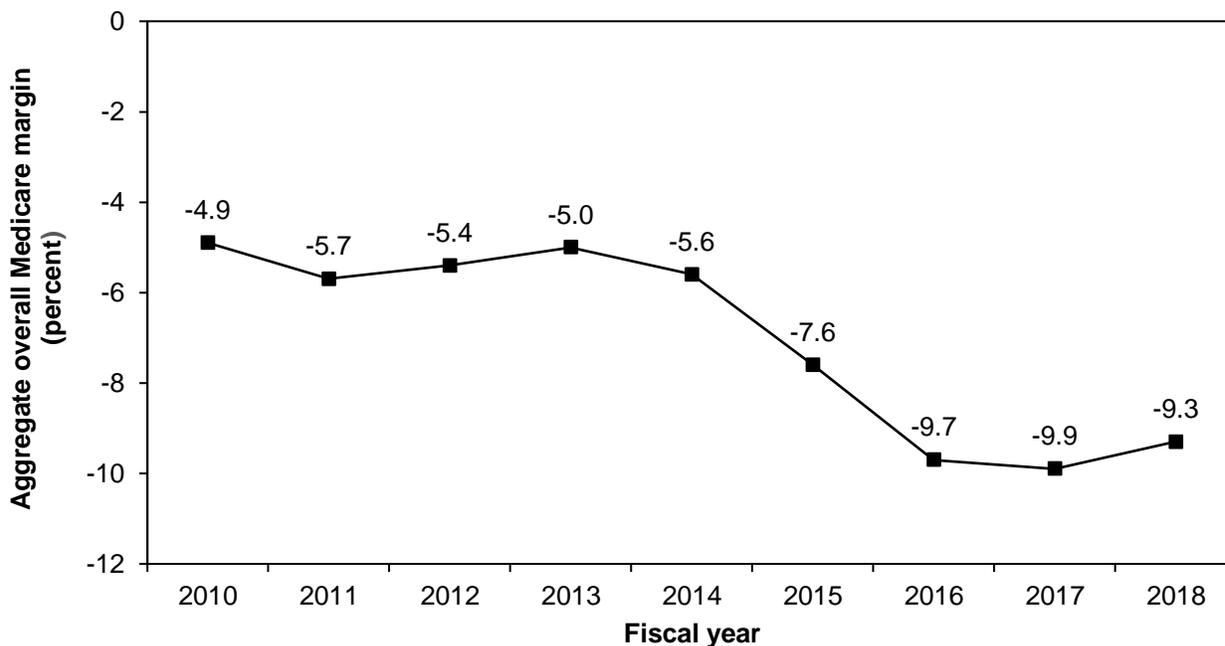
	Level of financial pressure, 2015–2017		
	High pressure (non-Medicare margin ≤ 1%)	Medium pressure	Low pressure (non-Medicare margin > 5%)
Number of hospitals	666	337	1,729
<b>Financial characteristics, 2018 (medians)</b>			
Non-Medicare margin (private, Medicaid, uninsured)	–4%	3%	14%
Standardized cost per discharge (as a share of the national median)			
For-profit and nonprofit hospitals	0.96	0.97	1.02
Nonprofit hospitals	0.97	0.99	1.04
For-profit hospitals	0.90	0.92	0.94
Annual growth in cost per discharge, 2016–2018	2%	2%	2%
Overall 2018 Medicare margin (medians)	–1%	–4%	–10%
<b>Patient characteristics (medians)</b>			
Total hospital discharges in 2018	3,347	6,483	7,872
Medicare share of inpatient days	39%	37%	37%
Medicaid share of inpatient days	8%	7%	6%
Medicare case-mix index	1.43	1.53	1.65

Note: Standardized costs are adjusted for hospital case mix, wage index, outliers, transfer cases, interest expense, and the effects of teaching and low-income Medicare patients on hospital costs. The sample includes short-term acute care hospitals paid under the inpatient prospective payment system that had complete cost reports on file with CMS by October 2019. “High-pressure” hospitals are defined as those with a median non-Medicare profit margin of 1 percent or less from 2015 to 2017 and a net worth (assets minus liabilities) that grew by less than 1 percent per year over that period 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 2015 to 2017 and a net worth that grew by more than 1 percent per year over that period 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 hospital cost report data and claims files from CMS.

- Hospitals under higher financial pressure had 4 percent lower standardized costs per discharge than the national median. For-profit hospitals tended to constrain their costs more than nonprofit hospitals. The median for-profit hospital had costs that were 6 percent below the average even when they were not under financial pressure.
- Hospitals with lower volume, lower case mix, and higher Medicaid and Medicare shares of discharges are more likely to be under financial pressure.
- One limitation of this analysis is that it measures only hospital inpatient costs. To the extent that hospitals with strong profit margins direct their resources toward non-inpatient expenditures (such as the purchase or subsidization of physician practices), those costs would not be included in our standardized costs per discharge.

**Chart 6-13. Aggregate overall Medicare margin for short-term acute care hospitals increased slightly from 2017 to 2018**

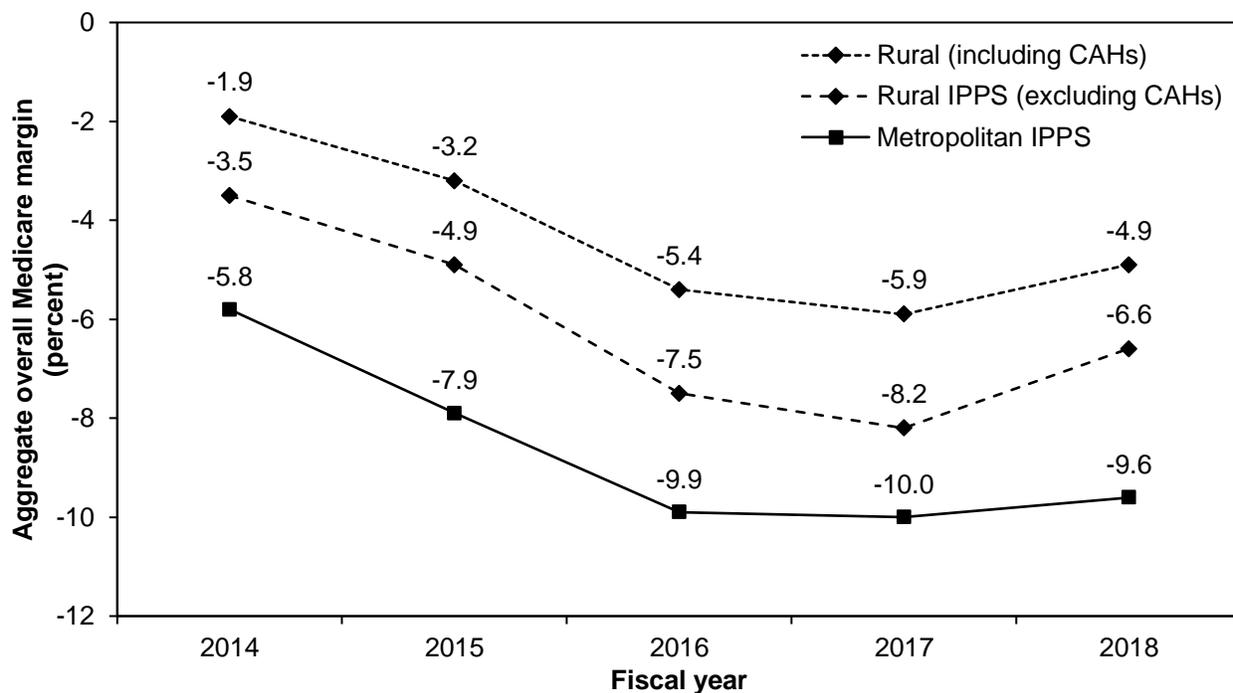


Note: Data are for short-term acute care hospitals in the U.S. covered under the inpatient prospective payment system (IPPS) (excluding territories and those that report all-inclusive rates), that had complete cost reports and non-outlier cost per stay data. Aggregate margin is calculated as revenue minus costs, divided by revenue. Margins are based on Medicare-allowable costs. The overall Medicare margin includes the costs and payments of acute inpatient, outpatient, inpatient psychiatric, rehabilitation, skilled nursing facility, and home health services, as well as graduate medical education, bad debts, health information technology, and uncompensated care payments.

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

- The aggregate 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, bad debts, Medicare payments for health information technology, and—starting in 2014—uncompensated care payments.
- From 2017 to 2018, the aggregate overall Medicare margin for IPPS hospitals increased from –9.9 percent to –9.3 percent. However, the margin remains well below levels from 2010 to 2013.
- The range of overall Medicare margins at individual IPPS hospitals varied substantially. For example, in 2018, 25 percent of hospitals had an overall Medicare margin of 1.8 percent or higher, and another 25 percent had a margin of –19.2 percent or lower (data not shown).

**Chart 6-14. Rural short-term acute care hospitals continue to have a higher aggregate overall Medicare margin than urban hospitals**

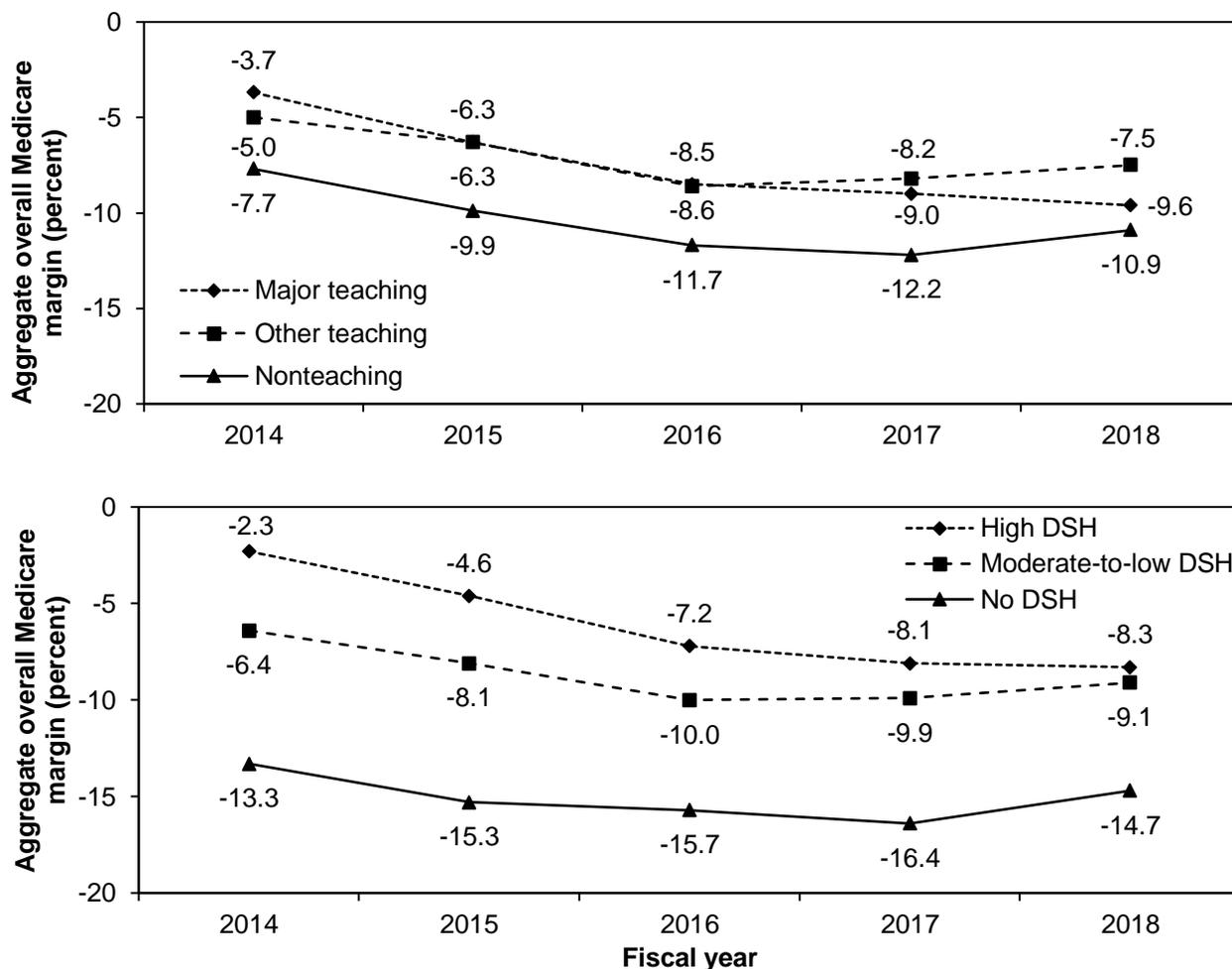


Note: CAH (critical access hospital), IPPS (inpatient prospective payment system). Data are for short-term acute care hospitals in the U.S. covered under the inpatient prospective payment system (excluding territories and those that report all-inclusive rates), that had complete cost reports and non-outlier cost per stay data. Aggregate margin is calculated as revenue minus costs, divided by revenue. Margins are based on Medicare-allowable costs. The overall Medicare margin includes the costs and payments of acute inpatient, outpatient, inpatient psychiatric, rehabilitation, skilled nursing facility, and home health services, as well as graduate medical education, bad debts, health information technology, and uncompensated care payments. Metropolitan (urban) counties contain an urban cluster of 50,000 or more people; all other counties and all CAHs are classified as rural.

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

- Since 2005, the aggregate overall Medicare margin for short-term acute care hospitals in rural counties has exceeded that for hospitals in metropolitan counties (not all data shown). The higher rural margins reflect special rural add-on payments (see Chart 6-10), including the introduction of low-volume add-on payments in 2013.
- In 2018, the difference between the aggregate overall Medicare margin at metropolitan and rural hospitals was 3.0 percentage points when compared with rural IPPS hospitals and 4.7 percentage points when compared with rural IPPS and critical access hospitals.

**Chart 6-15. Teaching and disproportionate share short-term acute care hospitals continue to have higher aggregate Medicare margins than other hospitals**

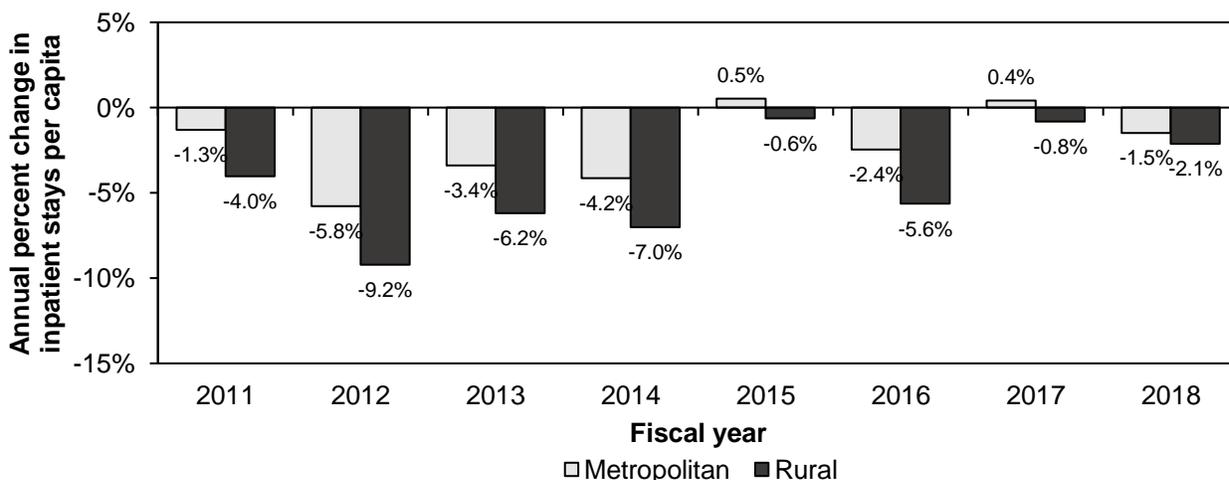
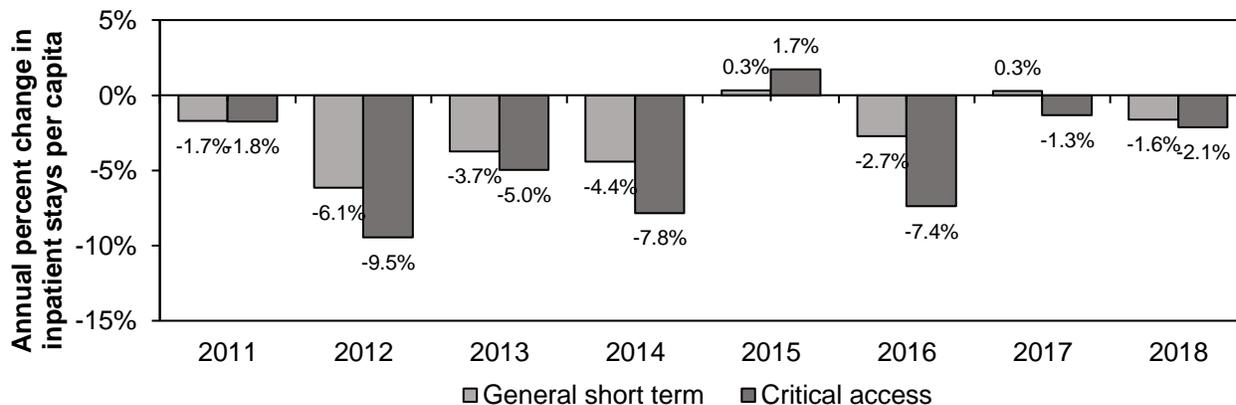


Note: DSH (disproportionate share). Data are for short-term acute care hospitals in the U.S. covered under the inpatient prospective payment system (excluding territories and those that report all-inclusive rates) that had complete cost reports and non-outlier cost per stay data. Aggregate margin is calculated as revenue minus costs, divided by revenue. Medicare margin is based on Medicare-allowable costs. The overall Medicare margin includes the costs and payments of acute inpatient, outpatient, inpatient psychiatric, rehabilitation, skilled nursing facility, and home health services, as well as graduate medical education, bad debts, health information technology, and uncompensated care payments.

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

- Both teaching hospitals and those that treat a large share of low-income patients (referred to as “disproportionate share hospitals”) continue to have higher aggregate overall Medicare margins than other hospitals. Their better financial performance under Medicare is largely due to the additional payments they receive from the indirect medical education and DSH adjustments to their inpatient payments, as well as supplemental uncompensated care payments.

**Chart 6-16. Decline in Medicare FFS inpatient stays per capita has slowed, with larger declines at critical access and rural hospitals**

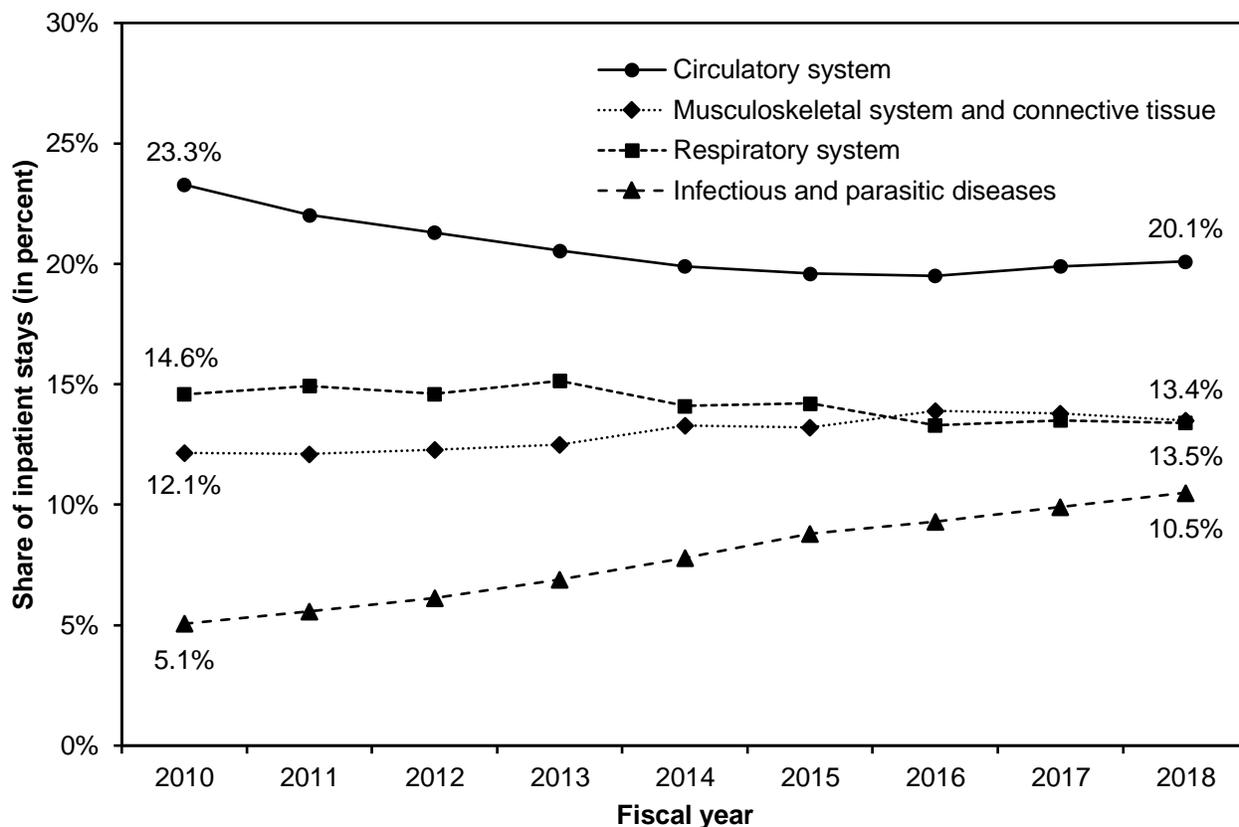


Note: FFS (fee-for-service). Data are for short-term acute care hospitals in the U.S. (exclusive of territories). "General short-term hospital" refers to short-term acute care hospitals paid under the inpatient prospective payment system or the Maryland state waiver. Metropolitan (urban) counties contain an urban cluster of 50,000 or more people; all other counties are classified as rural.

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

- The number of inpatient stays per 1,000 Medicare FFS beneficiaries has decreased from 306 in 2010 to 250 in 2018, declining sharply in the early years of this period but at a slowing rate in more recent years (data not shown).
- The magnitude of the decrease in inpatient stays per capita varied across types of hospitals, with larger declines at critical access hospitals and rural hospitals.
- From 2017 to 2018, the number of inpatient stays per capita fell 2.1 percent at critical access hospitals, compared with 1.6 percent at general acute care hospitals. During the same time period, the number of inpatient stays per capita fell 2.1 percent at rural hospitals, compared with 1.5 percent at metropolitan hospitals.

**Chart 6-17. Circulatory system diagnoses remain the most common reason for Medicare FFS beneficiaries' inpatient stays at short-term acute care hospitals, but the share has decreased, 2010–2018**

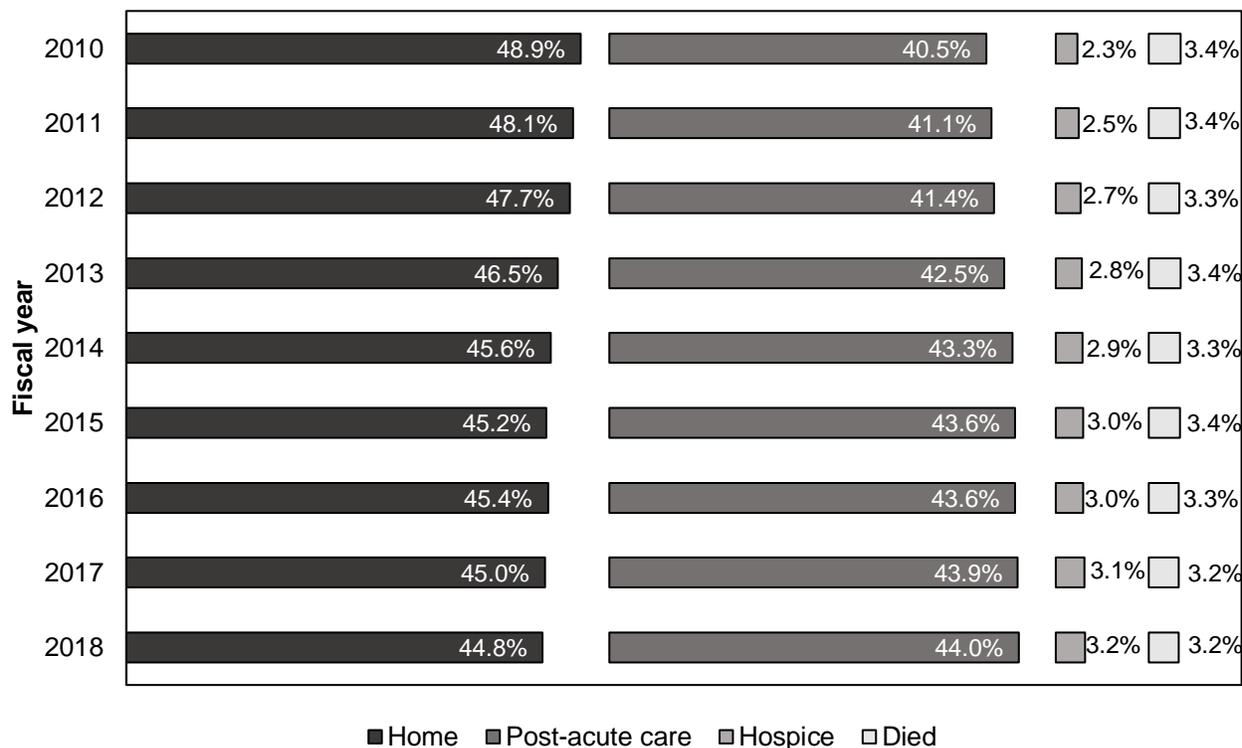


Note: FFS (fee-for-service). Data are for short-term acute care hospitals in the U.S. (exclusive of territories).

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

- In 2018, four major diagnostic categories accounted for over 57 percent of all Medicare FFS inpatient stays at short-term acute care hospitals.
- The circulatory system was the most common major diagnostic category among Medicare FFS inpatient stays; however, its share declined from about 23 percent to 20 percent from 2010 to 2018. Circulatory system diagnoses include heart failure and cardiac arrhythmia.
- From 2010 to 2018, the major diagnostic category with the largest increase was infectious and parasitic diseases, which increased from about 5 percent to nearly 11 percent of Medicare FFS inpatient stays, due to growth in the number of FFS beneficiaries hospitalized with septicemia (severe sepsis).

**Chart 6-18. A growing share of Medicare FFS beneficiaries' inpatient stays at short-term acute care hospitals are immediately followed by post-acute care or hospice, 2010–2018**

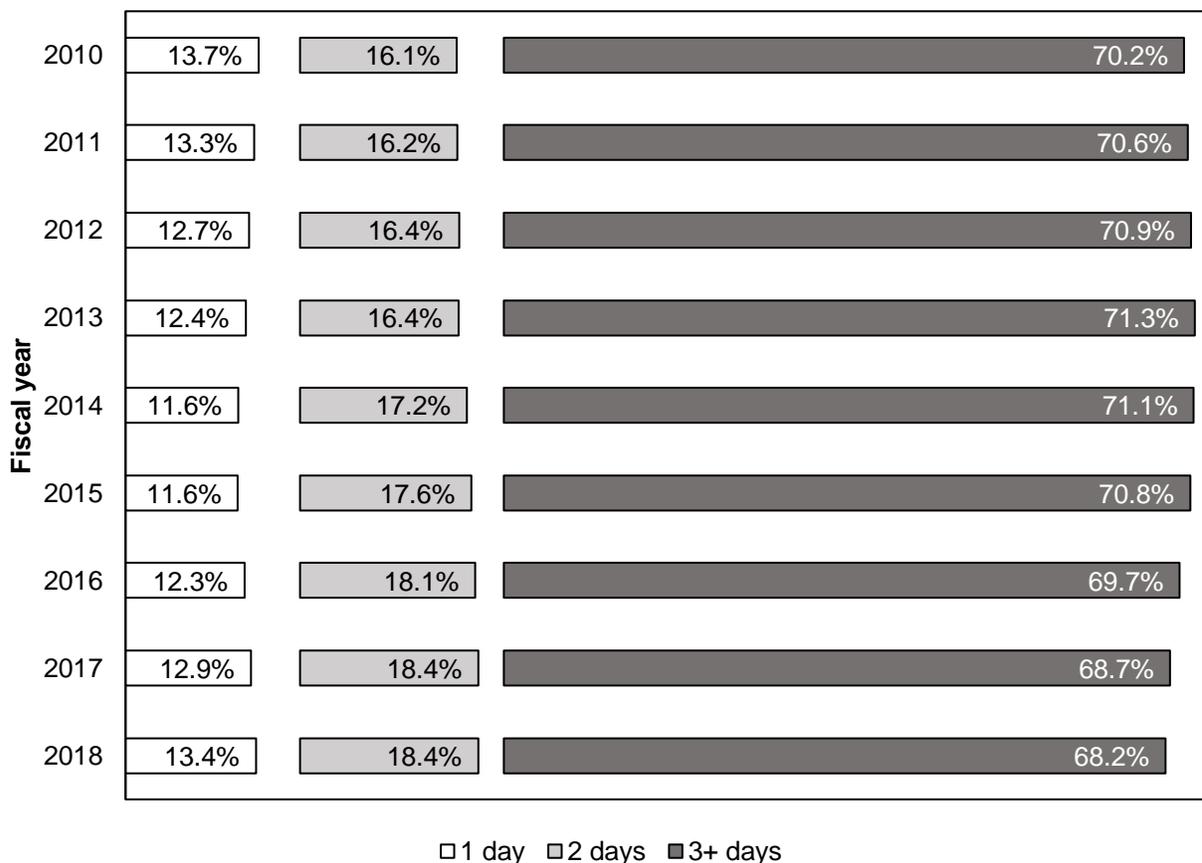


Note: FFS (fee-for-service). Data are for short-term acute care hospitals in the U.S. (exclusive of territories). Components do not sum to 100 percent because beneficiaries discharged to other destinations are not shown.

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

- From 2010 to 2018, the share of inpatient stays in which the Medicare FFS beneficiary was discharged home under self-care consistently declined, while the shares discharged to post-acute care and hospice consistently increased.
- In conjunction with the decline in Medicare FFS inpatient stays per capita, these trends could reflect in part a shift of care for less severe conditions to outpatient settings, with the remaining inpatient stays consisting of sicker patients. The increase in the share discharged to hospice also reflects increased use of hospice care in end-of-life planning.

**Chart 6-19. Share of Medicare FFS beneficiaries' short stays at short-term acute care hospitals decreased from 2010 to 2014 but then began to increase again**

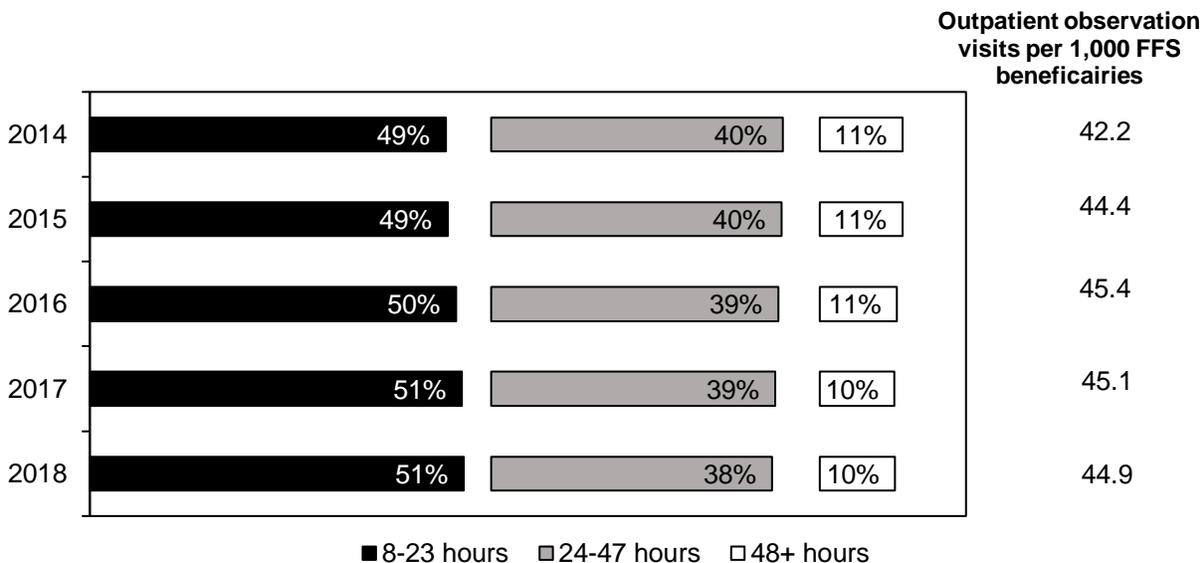


Note: FFS (fee-for-service). Data are for short-term acute care hospitals in the U.S. (exclusive of territories). Components may not sum to 100 percent due to rounding.

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

- The share of Medicare FFS beneficiaries that were one- or two-day stays decreased from 2010 to 2014, but then began to increase again.
- As the Commission has previously noted, growth in the number of one-day stays starting in 2015 could be due to the reduced likelihood that CMS's recovery audit contractors (RACs) would deny payment for one-day stays. In 2015, CMS ceased patient status reviews (which previously resulted in challenges to one-day stay claims). The result was that from 2014 to 2015, claims challenged by the RACs as overpayments fell by 91 percent (data not shown).
- From 2017 to 2018, the share of Medicare FFS beneficiaries' inpatient stays that were only one day increased from 12.9 to 13.4 percent, while the share of two-day stays held steady at 18.4 percent, and stays of three or more days decreased from 68.7 to 68.2 percent.

**Chart 6-20. Number of Medicare FFS outpatient observation visits per capita decreased slightly in 2017 and 2018, and nearly half remained longer than 24 hours**

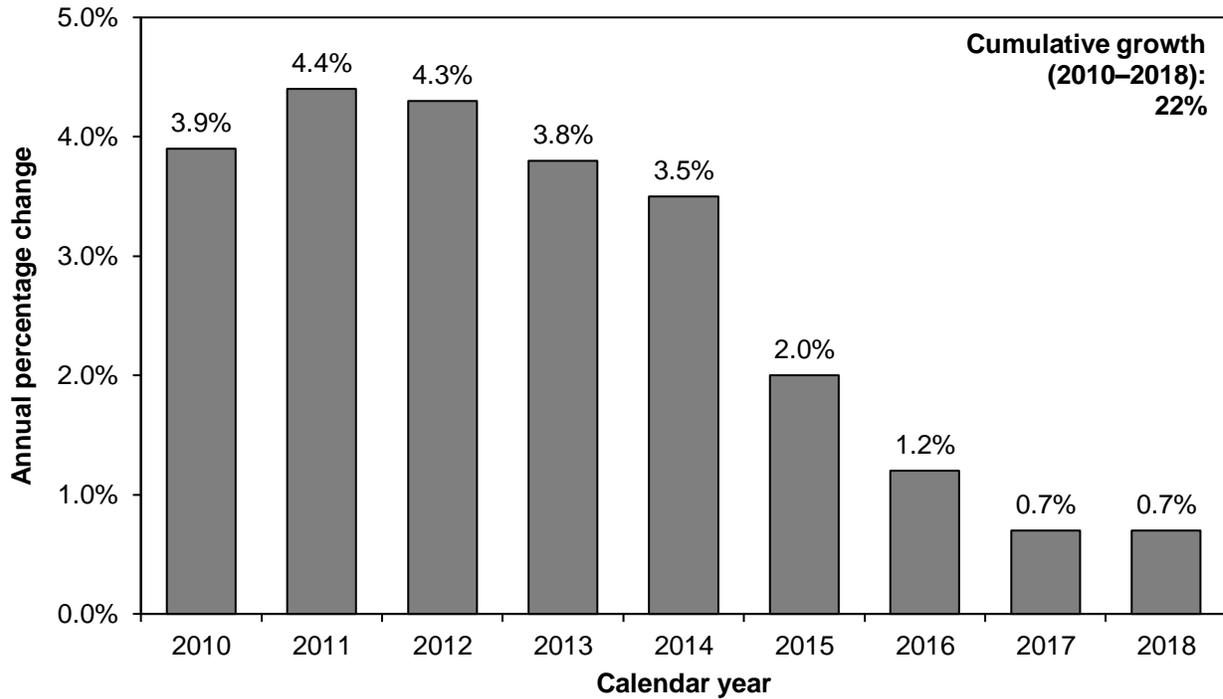


Note: FFS (fee-for-service). Observation visits are separately payable visits with a length of stay of at least eight hours. Data for outpatient observation visits include short-term acute care hospitals in the U.S. (exclusive of territories) paid under the inpatient prospective payment system or under the Maryland state waiver. "Outpatient observation visits" per capita refers to outpatient services per Medicare FFS Part B beneficiary. Years are calendar years.

Source: MedPAC analysis of outpatient standard analytical file data from CMS.

- Hospitals use observation care to determine whether a patient should be hospitalized for inpatient care, transferred to an alternative treatment setting, or sent home. On April 1, 2002, Medicare began providing separate payments to hospitals for some observation services. Previously, the observation services were packaged into the payments for the emergency department or clinic visits that occurred with observation care.
- In 2018, Medicare FFS beneficiaries had approximately 1.5 million outpatient observation visits, equivalent to 44.9 outpatient observation visits per 1,000 Medicare FFS beneficiaries.
- From 2014 to 2016, the number of Medicare FFS outpatient observation visits per capita increased by 3.2 visits. However, this slow growth reversed starting in 2016, with a decrease of 0.5 visits from 2016 to 2018.
- The decision on whether to discharge or admit a patient can usually be made in less than 24 hours; however, the Medicare benefit does not limit the length of outpatient observation stays. In each of 2014 to 2018, nearly half of outpatient observation visits were longer than 24 hours, including 10 percent that spanned more than 48 hours.

**Chart 6-21. Growth in Medicare FFS hospital outpatient services per capita has slowed, 2010–2018**

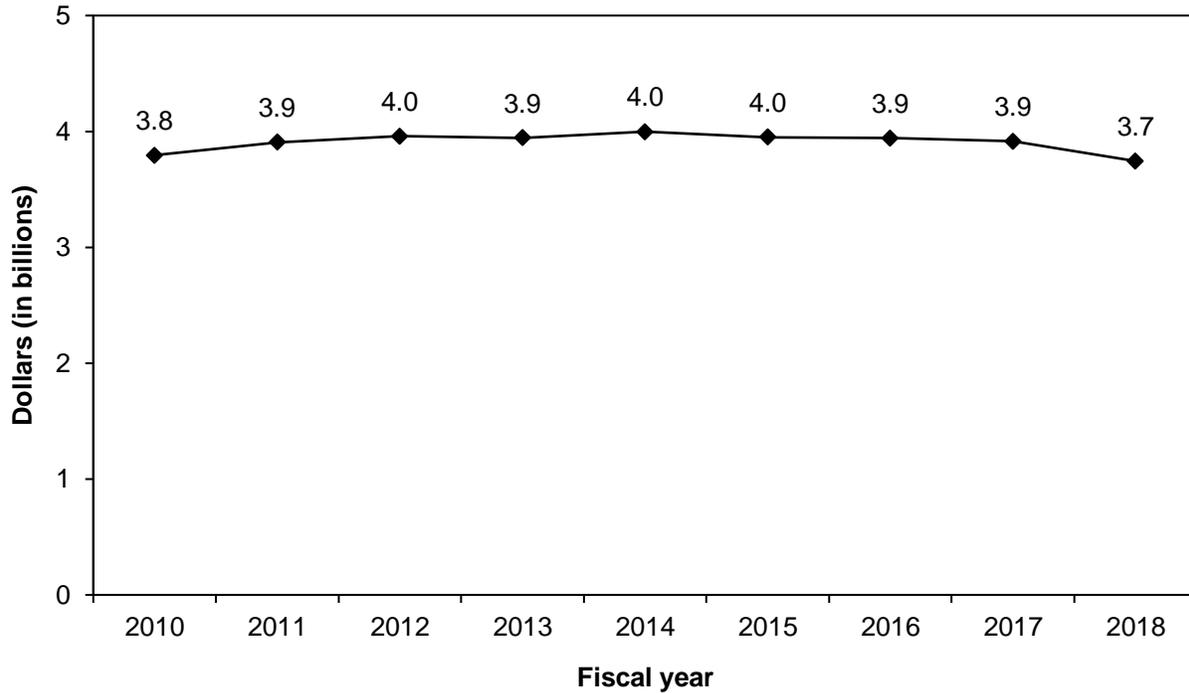


Note: FFS (fee-for-service). Data for outpatient services include all hospitals paid under the outpatient prospective payment system, including short-term acute care hospitals, long-term care hospitals, rehabilitation hospitals, and psychiatric hospitals. "Outpatient services per capita" refers to outpatient services per Medicare FFS Part B beneficiary.

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

- In 2018, Medicare FFS beneficiaries received approximately 150 million outpatient services at hospitals paid under the outpatient prospective payment system, equivalent to 4.5 outpatient services per Medicare FFS Part B beneficiary (data not shown).
- From 2010 to 2018, the number of Medicare outpatient visits per FFS beneficiary increased 22 percent.
- However, the rate of growth has slowed over time, with outpatient services per FFS beneficiary growing only 0.7 percent in both 2017 and 2018.

**Chart 6-22. Medicare FFS payments to inpatient psychiatric facilities decreased in 2018**



Note: FFS (fee-for-service). These fiscal year-incurred data represent only program spending; they do not include beneficiary cost sharing. Spending for inpatient psychiatric care furnished in scatter beds in acute care hospitals (and paid for under the acute care inpatient prospective payment system) is not included in this chart.

Source: CMS Office of the Actuary.

- Medicare pays for inpatient psychiatric facility (IPF) care under the IPF prospective payment system.
- Medicare program spending for FFS beneficiaries' care in IPFs decreased less than 1 percent per year, on average, from 2010 to 2018.
- However, from 2017 to 2018, Medicare program spending for IPF stays decreased 4.4 percent, reflective of a 6.3 percent decrease in IPF stays (data not shown).

**Chart 6-23. A growing share of Medicare-certified inpatient psychiatric facilities are for profit, 2011–2018**

Type of IPF	2011	2014	2017	2018	Average annual change		
					2011–2014	2014–2017	2017–2018
All	1,567	1,591	1,601	1,576	0.5%	0.2%	–1.6%
Urban	1,234	1,254	1,268	1,246	0.5	0.4	–1.7
Rural	332	336	331	326	0.4	–0.5	–1.5
Freestanding	440	476	516	520	2.7	2.7	0.8
Hospital-based units	1,127	1,115	1,085	1,056	–0.4	–0.9	–2.7
Nonprofit	766	740	736	718	–1.1	–0.2	–2.4
For profit	421	493	522	521	5.4	1.9	–0.2
Government	380	358	343	337	–2.0	–1.4	–1.7

Note: IPF (inpatient psychiatric facility). Data are from facilities that submitted valid Medicare cost reports in the given fiscal year. Components may not sum to totals due to missing data.

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

- Between 2011 and 2014, the number of IPFs that filed Medicare cost reports grew, on average, 0.5 percent per year. Similarly, between 2014 and 2017, the supply of IPFs increased slightly, growing, on average, 0.2 percent per year. However, in 2018, the number of IPFs fell by 1.6 percent.
- A growing share of Medicare IPF users receive care in for-profit facilities. Between 2011 and 2014, the number of for-profit IPFs grew 5.4 percent per year, on average. Over the same period, the number of nonprofit IPFs fell more than 1 percent per year, on average. The number of for-profit IPFs continued to grow through 2017, while the number of nonprofit IPFs slightly declined. From 2017 to 2018, the number of for-profit IPFs remained relatively stable, while the number of nonprofit facilities decreased by 2.4 percent.

**Chart 6-24. Almost three-quarters of Medicare FFS beneficiaries' stays at IPFs were for psychosis, 2018**

MS-DRG	Diagnosis	Share
885	Psychosis	72.3%
884	Organic disturbances and mental retardation	7.0
057	Degenerative nervous system disorders without MCC	5.8
897	Alcohol/drug abuse or dependency, no rehabilitation, without MCC	4.5
881	Depressive neurosis	3.5
895	Alcohol/drug abuse or dependency with rehabilitation, without MCC	1.7
882	Neurosis except depressive	1.3
880	Acute adjustment reaction and psychosocial dysfunction	0.9
883	Disorders of personality and impulse control	0.7
056	Degenerative nervous system disorders with MCC	0.6
894	Alcohol/drug use—left AMA	0.4
886	Behavioral and developmental disorders	0.2
896	Alcohol/drug abuse or dependency without rehabilitation, with MCC	0.2
876	OR procedure with principal diagnosis of mental illness	0.1
887	Other mental disorders	0.1
081	Nontraumatic stupor and coma without MCC	<0.1
080	Nontraumatic stupor and coma with MCC	<0.1
	Nonpsychiatric MS-DRGs	0.8
	Total	100.0

Note: FFS (fee-for-service), IPF (inpatient psychiatric facility), MS-DRG (Medicare severity–diagnosis related group), MCC (major comorbidity or complication), AMA (against medical advice), OR (operating room). Total may not sum to 100 percent due to rounding.

Source: MedPAC analysis of MedPAR data.

- Medicare patients in IPFs are generally assigned 1 of 17 psychiatric MS-DRGs.
- The most frequently occurring IPF diagnosis—accounting for about 72 percent of IPF discharges in 2018—was psychosis. This broad category includes patients with principal diagnoses of schizophrenia, bipolar disorder, and major depression.
- In 2018, the next most common discharge diagnosis, accounting for 7 percent of IPF cases, was organic disturbances and mental retardation.

## Chart 6-25. The majority of Medicare FFS beneficiaries who received IPF services were under the age of 65, 2018

Characteristic	Share of all IPF users	Share of IPF users with more than one IPF stay
Current eligibility status		
Aged	42.6%	30.0%
Disabled	57.4	69.9
ESRD only	0.1	0.1
Age		
<45	23.1	31.0
45–64	33.6	38.3
65–79	28.8	22.9
80+	14.4	7.9
All	100.0	27.6

Note: FFS (fee-for-service). IPF (inpatient psychiatric facility), ESRD (end-stage renal disease). The “aged” category includes beneficiaries ages 65 and older without ESRD. The “disabled” category includes beneficiaries under age 65 without ESRD. The “ESRD only” category includes beneficiaries with ESRD, regardless of age. Components may not sum to totals due to rounding.

Source: MedPAC analysis of MedPAR data.

- Of Medicare beneficiaries who had at least one IPF stay in 2018, 57.4 percent qualified for Medicare because of a disability. These beneficiaries tend to be younger and poorer than the typical fee-for-service beneficiary.
- Approximately 28 percent of Medicare beneficiaries who used an IPF in 2018 had more than one IPF stay during the year. These beneficiaries were much more likely than all IPF users to be disabled, often because of a psychiatric diagnosis.



SECTION

7

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**Ambulatory care**

**Physicians and other  
health professionals**

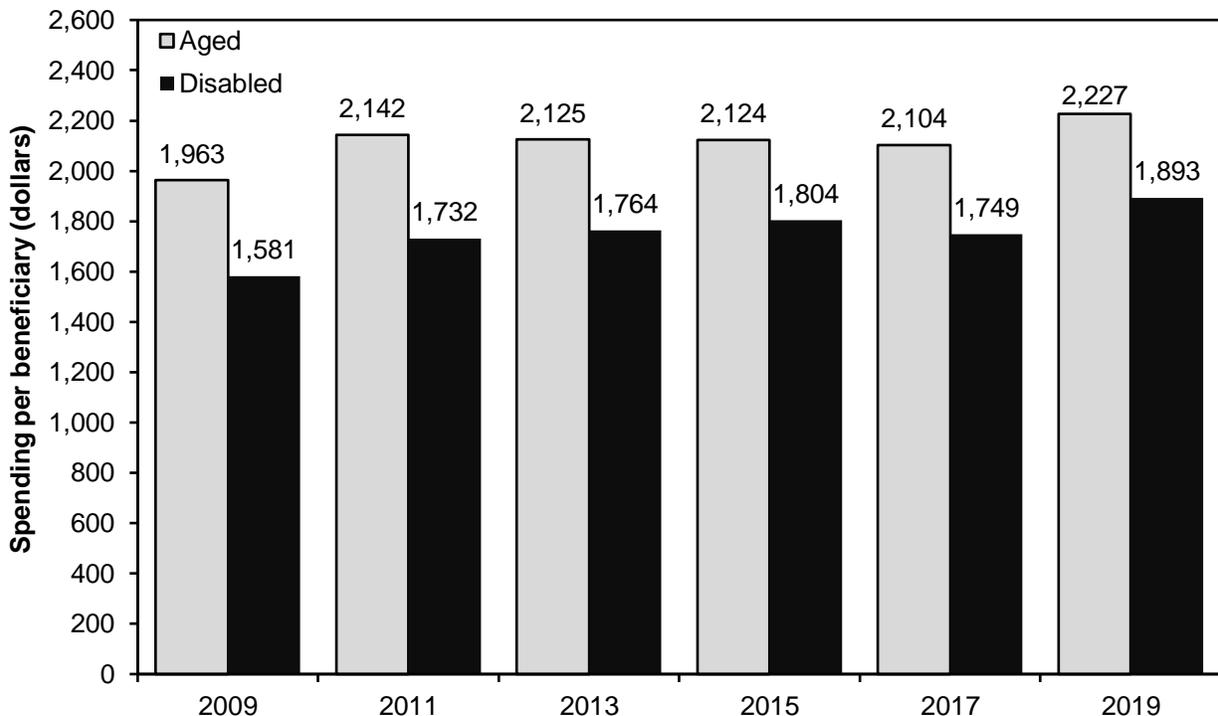
**Hospital outpatient services**

**Ambulatory surgical centers**

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**Chart 7-1. Medicare spending per fee-for-service beneficiary on services in the fee schedule for physicians and other health professionals, 2009–2019**

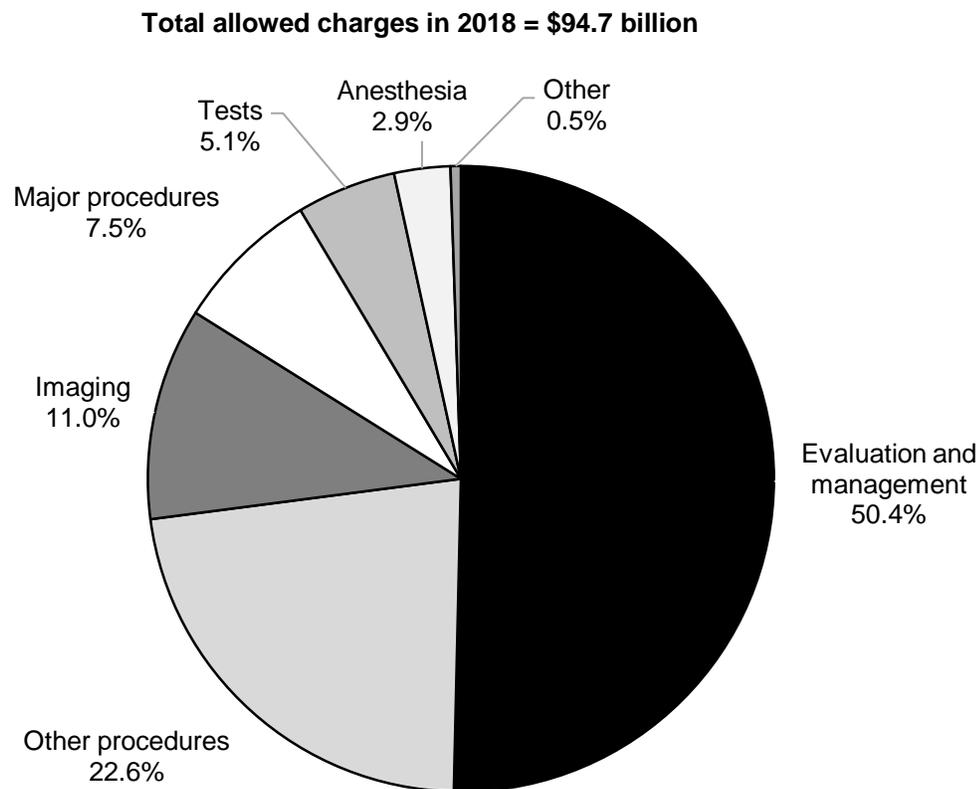


Note: Dollar amounts are Medicare spending only and do not include beneficiary cost sharing. The category “disabled” excludes beneficiaries who qualify for Medicare because they have end-stage renal disease. All beneficiaries age 65 and over are included in the “aged” category.

Source: The annual report of the Boards of Trustees of the Medicare trust funds 2020.

- The fee schedule for physicians and other health professionals includes a broad range of services such as office visits, surgical procedures, and diagnostic and therapeutic services. “Other health professionals” refers to nurse practitioners, physician assistants, physical therapists, and other clinicians. Total fee schedule spending (excluding beneficiary cost sharing) was \$73.5 billion in 2019 (data not shown).
- Spending per fee-for-service beneficiary for fee schedule services increased between 2009 and 2011, remained stable between 2011 and 2017, and began growing again after 2017. From 2009 to 2019, spending per beneficiary (across aged and disabled beneficiaries) grew at a cumulative rate of 15 percent.
- Per capita spending for disabled beneficiaries (under age 65) is lower than per capita spending for aged beneficiaries (ages 65 and over). In 2019, for example, per capita spending for disabled beneficiaries was \$1,893 compared with \$2,227 for aged beneficiaries. However, spending per capita grew much faster for disabled beneficiaries than aged beneficiaries between 2009 and 2019 (20 percent vs. 13 percent, respectively).

**Chart 7-2. Physician fee schedule—allowed charges by type of service, 2018**



Source: MedPAC analysis of the Carrier Standard Analytic File for 100 percent of beneficiaries.

- In 2018, allowed charges for physician fee schedule services totaled \$94.7 billion. Allowed charges include both program spending and beneficiary cost sharing.
- In 2018, about half of all allowed charges were for evaluation and management (E&M) services.
- Within the E&M category, about half of allowed charges were for office/outpatient visits. The remaining allowed charges within the E&M category were for various types of services that occurred across a broad range of settings, including hospital inpatient departments, emergency departments, and nursing facilities (data not shown).

**Chart 7-3. Total encounters per beneficiary increased and mix of clinicians furnishing them changed from 2013 to 2018**

Specialty category	Encounters per beneficiary		Percent change in encounters per beneficiary	
	2013	2018	Average annual	Total
Total (all clinicians)	20.8	21.9	1.0%	5.0%
Primary care physicians	4.1	3.6	-2.9	-13.7
Specialists	12.5	12.8	0.4	2.0
APRNs/PAs	1.3	2.2	11.5	72.1
Other practitioners	2.8	3.3	2.8	15.1

Note: APRN (advanced practice registered nurse), PA (physician assistant). We define “encounters” as unique combinations of beneficiary identification numbers, claim identification numbers (for paid claims), and national provider identifiers of the clinicians who billed for the service. Figures may not sum to totals due to rounding. Figures do not account for “incident to” billing, meaning, for example, that encounters with APRNs/PAs that are billed under Medicare’s “incident to” rules are included in the physician totals. We use the number of fee-for-service beneficiaries enrolled in Part B to define encounters per beneficiary.

Source: MedPAC analysis of the Carrier Standard Analytic File for 100 percent of beneficiaries and 2019 annual report of the Boards of Trustees of the Medicare trust funds.

- Encounters measure beneficiary interactions with clinicians. For example, if a physician billed for an office visit and an X-ray on the same claim, we count that as one encounter.
- The number of encounters per beneficiary grew 1 percent per year from 2013 to 2018, suggesting stable access to care.
- Encounters with specialist physicians accounted for a majority of all encounters and grew modestly from 2013 to 2018.
- In contrast, encounters with APRNs or PAs grew rapidly from 2013 to 2018, and encounters with primary care physicians declined substantially. These changes continue a longer term trend of declines in services billed by primary care physicians and rapid increases in services billed by APRNs and PAs (data not shown).
- The decline in encounters with primary care physicians occurred across a broad range of services, including evaluation and management services, tests, procedures, and imaging services (data not shown).

## Chart 7-4. Medicare beneficiaries' ability to get timely appointments with physicians was comparable with privately insured individuals, 2016–2019

Survey question	Medicare (ages 65 and older)				Private insurance (ages 50–64)			
	2016	2017	2018	2019	2016	2017	2018	2019
<b>Unwanted delay in getting an appointment:</b> Among those who needed an appointment, “How often did you have to wait longer than you wanted to get a doctor’s appointment?”								
<b>For routine care</b>								
Never	68% <sup>b</sup>	73% <sup>a</sup>	70% <sup>ab</sup>	72%	67% <sup>b</sup>	69% <sup>ab</sup>	64% <sup>ab</sup>	74%
Sometimes	22	20 <sup>a</sup>	20 <sup>a</sup>	20	23 <sup>b</sup>	22 <sup>ab</sup>	26 <sup>ab</sup>	19
Usually	4 <sup>b</sup>	3	5 <sup>b</sup>	3	5	4	5	4
Always	3	3	3 <sup>a</sup>	3	4 <sup>b</sup>	3	4 <sup>ab</sup>	3
<b>For illness or injury</b>								
Never	79 <sup>a</sup>	80 <sup>a</sup>	79 <sup>a</sup>	80	75 <sup>ab</sup>	76 <sup>ab</sup>	74 <sup>ab</sup>	81
Sometimes	16 <sup>a</sup>	15 <sup>a</sup>	15 <sup>a</sup>	14	19 <sup>ab</sup>	18 <sup>ab</sup>	19 <sup>ab</sup>	15
Usually	2 <sup>a</sup>	2	2	2	3 <sup>ab</sup>	2	3 <sup>b</sup>	2
Always	2 <sup>a</sup>	1 <sup>a</sup>	2	2	3 <sup>ab</sup>	2 <sup>a</sup>	2	1

Note: Numbers may not sum to 100 percent due to rounding and to missing responses (“Don’t Know” or “Refused”) not being presented. Overall sample sizes for each group (Medicare and privately insured) were approximately 4,000 in all years. Sample sizes for individual questions varied.

<sup>a</sup>Statistically significant difference (at a 95 percent confidence level) between the Medicare and privately insured samples in the given year.

<sup>b</sup>Statistically significant difference (at a 95 percent confidence level) from 2019 within the same insurance coverage category.

Source: MedPAC-sponsored annual telephone surveys conducted 2016–2019.

- Most Medicare beneficiaries have one or more doctor appointments in a given year. Their ability to schedule timely appointments is one indicator of access that we examine.
- Medicare beneficiaries (ages 65 and older) report similar access to physicians for appointments as compared with privately insured individuals ages 50 to 64. For example, in 2019, 72 percent of Medicare beneficiaries reported that they never had to wait longer than they wanted for routine care, and 80 percent reported the same for illness or injury care. Medicare beneficiaries’ ability to obtain either type of care when needed was statistically no different compared with privately insured individuals (the comparable rates for privately insured individuals were 74 percent for routine care and 81 percent for illness or injury care).
- 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 were looking for a new physician reported more difficulty finding one in primary care, 2016–2019**

Survey question	Medicare (ages 65 and older)				Private insurance (ages 50–64)			
	2016	2017	2018	2019	2016	2017	2018	2019
<b>Looking for a new physician:</b> “In the past 12 months, have you tried to get a new ...?” (Percent answering “Yes”)								
Primary care physician	8% <sup>a</sup>	9% <sup>a</sup>	10% <sup>b</sup>	8%	10% <sup>a</sup>	11% <sup>ab</sup>	10%	9%
Specialist	18	17 <sup>a</sup>	19 <sup>ab</sup>	17	18 <sup>b</sup>	20 <sup>ab</sup>	21 <sup>ab</sup>	15
<b>Getting a new physician:</b> 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 ... ?”								
<b>Primary care physician</b>								
No problem	64	69 <sup>a</sup>	71	72 <sup>a</sup>	63	59 <sup>a</sup>	67	62 <sup>a</sup>
Small problem	15	13	13	13 <sup>a</sup>	16	18	16	20 <sup>a</sup>
Big problem	20	14 <sup>a</sup>	14	14	20	22 <sup>a</sup>	16	17
<b>Specialist</b>								
No problem	82	83	84	85 <sup>a</sup>	79	81	80	79 <sup>a</sup>
Small problem	10 <sup>b</sup>	11 <sup>b</sup>	7	6 <sup>a</sup>	9	11	9	11 <sup>a</sup>
Big problem	8 <sup>a</sup>	5 <sup>ab</sup>	8	8	11 <sup>a</sup>	8 <sup>a</sup>	10	9

Note: Numbers may not sum to 100 percent due to rounding and to missing responses (“Don’t Know” or “Refused”) not being presented. Overall sample sizes for each group (Medicare and privately insured) were approximately 4,000 in all years. Sample sizes for individual questions varied.

<sup>a</sup>Statistically significant difference (at a 95 percent confidence level) between the Medicare and privately insured samples in the given year.

<sup>b</sup>Statistically significant difference (at a 95 percent confidence level) from 2019 within the same insurance coverage category.

Source: MedPAC-sponsored annual telephone surveys, conducted 2016–2019.

- In 2019, only 8 percent of Medicare beneficiaries and 9 percent of privately insured individuals reported looking for a new primary care physician. This finding suggests that most people were either satisfied with their current physician or did not need to look for one.
- In 2019, Medicare beneficiaries and privately insured individuals were more likely to report problems finding a new primary care physician than a new specialist.
- Of the 8 percent of Medicare beneficiaries who looked for a new primary care physician in 2019, 27 percent reported problems finding one: 14 percent reported their problem as “big,” and 13 percent reported their problem as “small.” Although this finding means that less than 3 percent of the total Medicare population reported problems finding a primary care physician, the Commission is concerned about the continuing pattern of greater problems accessing primary care than specialty care.
- Of the 9 percent of privately insured individuals who looked for a new primary care physician in 2019, 37 percent reported problems finding one: 17 percent reported their problem as “big,” and 20 percent reported their problem as “small.”

## Chart 7-6. Medicare beneficiaries' access to physician care was comparable with privately insured individuals, and minorities in both groups reported unwanted delays more frequently, 2019

Survey question	Medicare (ages 65 and older)			Private insurance (ages 50–64)		
	All	White	Minority	All	White	Minority
<b>Unwanted delay in getting an appointment:</b> Among those who needed an appointment, “How often did you have to wait longer than you wanted to get a doctor’s appointment?”						
<b>For routine care</b>						
Never	72%	74% <sup>b</sup>	68% <sup>b</sup>	74%	76% <sup>b</sup>	68% <sup>b</sup>
Sometimes	20	19	22	19	18 <sup>b</sup>	22 <sup>b</sup>
Usually	3	3	3 <sup>a</sup>	4	3 <sup>b</sup>	6 <sup>ab</sup>
Always	3	2	3	3	2	3
<b>For illness or injury</b>						
Never	80	82 <sup>b</sup>	76 <sup>b</sup>	81	83 <sup>b</sup>	77 <sup>b</sup>
Sometimes	14	13 <sup>b</sup>	18 <sup>b</sup>	15	14 <sup>b</sup>	18 <sup>b</sup>
Usually	2	2	3	2	2	2
Always	2	2	1	1	1 <sup>b</sup>	3 <sup>b</sup>

Note: Numbers may not sum to 100 percent due to rounding and to missing responses (“Don’t Know” or “Refused”) not being presented. Overall sample size for each group (Medicare and privately insured) was approximately 4,000 in 2019. Sample size for individual questions varied.

<sup>a</sup>Statistically significant difference (at a 95 percent confidence level) between the Medicare and privately insured populations in the given category.

<sup>b</sup>Statistically significant difference (at a 95 percent confidence level) by race within the same insurance category.

Source: MedPAC-sponsored telephone surveys conducted in 2019.

- In 2019, Medicare beneficiaries (ages 65 and older) reported similar access to physicians for appointments in comparison with privately insured individuals ages 50 to 64.
- Access varied by race, with minorities more likely than Whites to report access problems in both insurance categories. For example, in 2019, 82 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 76 percent of minority beneficiaries.

**Chart 7-7. Minorities in Medicare and with private insurance were more likely to report problems finding a new specialist, 2019**

Survey question	Medicare (ages 65 and older)			Private insurance (ages 50–64)		
	All	White	Minority	All	White	Minority
<b>Looking for a new physician: “In the past 12 months, have you tried to get a new ...?”</b>						
Primary care physician	8%	8%	8%	9%	9%	9%
Specialist	17	18 <sup>b</sup>	14 <sup>b</sup>	15	16	13
<b>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 ... ?”</b>						
<b>Primary care physician</b>						
No problem	72 <sup>a</sup>	74	66	62 <sup>a</sup>	65	56
Small problem	13 <sup>a</sup>	12	14	20 <sup>a</sup>	19	23
Big problem	14	12	20	17	16	20
<b>Specialist</b>						
No problem	85 <sup>a</sup>	88 <sup>ab</sup>	75 <sup>b</sup>	79 <sup>a</sup>	81 <sup>ab</sup>	72 <sup>b</sup>
Small problem	6 <sup>a</sup>	6	9	11 <sup>a</sup>	9 <sup>b</sup>	18 <sup>b</sup>
Big problem	8	7 <sup>b</sup>	16 <sup>b</sup>	9	9	10

Note: Numbers may not sum to 100 percent due to rounding and to missing responses (“Don’t Know” or “Refused”) not being presented. Overall sample size for each group (Medicare and privately insured) was approximately 4,000 in 2019. Sample size for individual questions varied.

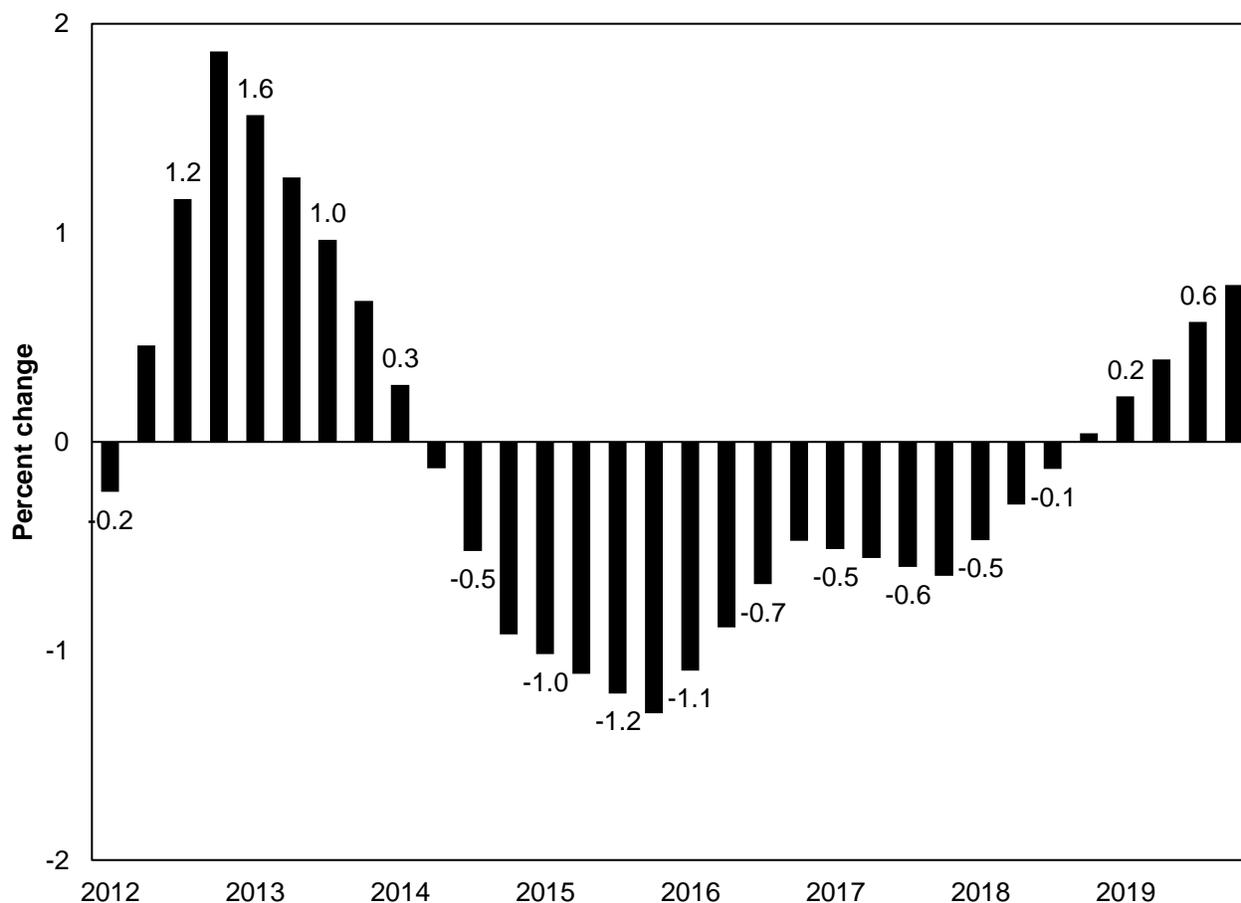
<sup>a</sup>Statistically significant difference (at a 95 percent confidence level) between the Medicare and privately insured populations in the given category.

<sup>b</sup>Statistically significant difference (at a 95 percent confidence level) by race within the same insurance category.

Source: MedPAC-sponsored telephone surveys conducted in 2019.

- Overall, Medicare beneficiaries reported fewer problems finding a new primary care physician or specialist than those with private insurance.
- Among those looking for a specialist, minorities were more likely than Whites to report problems finding one. This pattern held for Medicare beneficiaries and for privately insured individuals ages 50 to 64.

**Chart 7-8. Changes in physicians' professional liability insurance premiums, 2012–2019**

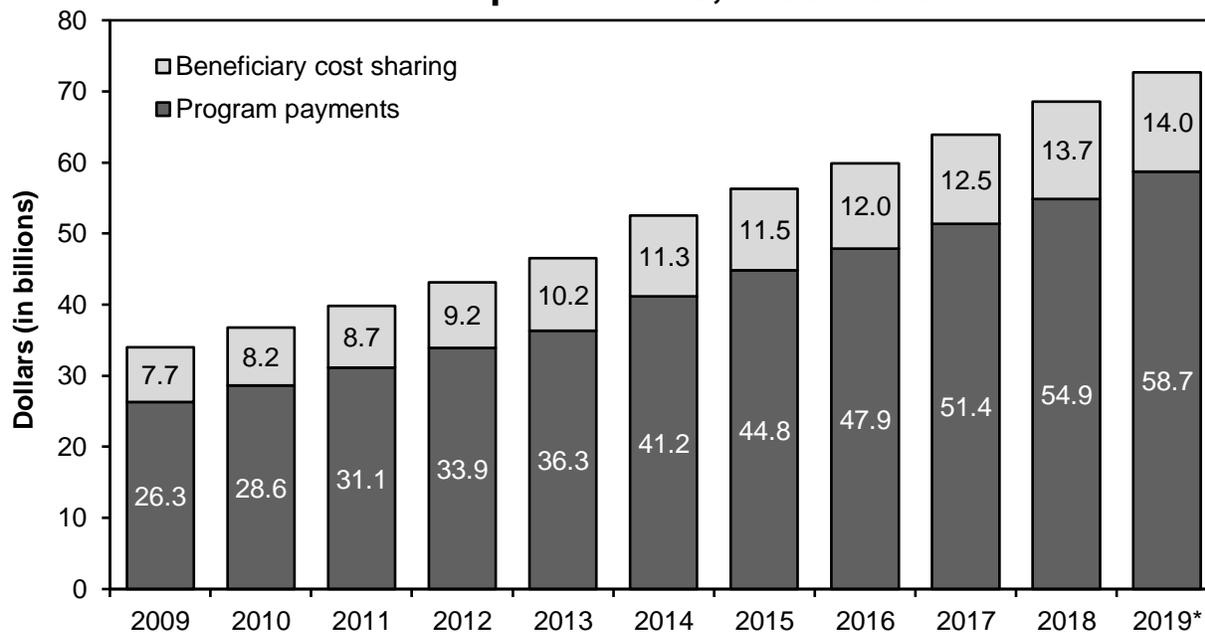


Note: Bars represent a four-quarter moving average percentage change.

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

- Medicare's fee schedule for physicians and other health professionals includes payments to clinicians that are intended to cover the relative cost of professional liability insurance (PLI) premiums. Payments for PLI account for 4.3 percent of total payments under the fee schedule (data not shown).
- Changes in the PLI premiums paid by physicians and other health professionals reflect 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).
- Premiums grew slowly from the second quarter of 2012 through the first quarter of 2014, declined from the second quarter of 2014 through the third quarter of 2018, and began increasing again in the first quarter of 2019.

**Chart 7-9. Spending on hospital outpatient services covered under the outpatient PPS, 2009–2019**



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, except those packaged into payment bundles.  
\*Estimated figures.

Source: CMS, Office of the Actuary.

- The Office of the Actuary estimates that spending under the outpatient PPS was \$72.7 billion in 2019 (\$58.7 billion in program spending, \$14.0 billion in beneficiary copayments). We estimate that the outpatient PPS accounted for about 7 percent of total Medicare program spending in 2019 (data not shown).
- Overall spending by Medicare and beneficiaries on hospital outpatient services covered under the outpatient PPS from calendar years 2009 to 2019 increased by 114 percent, an average of 7.9 percent per year. The Office of the Actuary projects continued growth in total spending, averaging 10.4 percent per year from 2019 to 2021 (data not shown).
- Beneficiary cost sharing under the outpatient PPS includes the Part B deductible and coinsurance for each service. Under the outpatient PPS, beneficiary cost sharing was about 19 percent in 2019 (data not shown).

## Chart 7-10. Most hospitals provide outpatient services

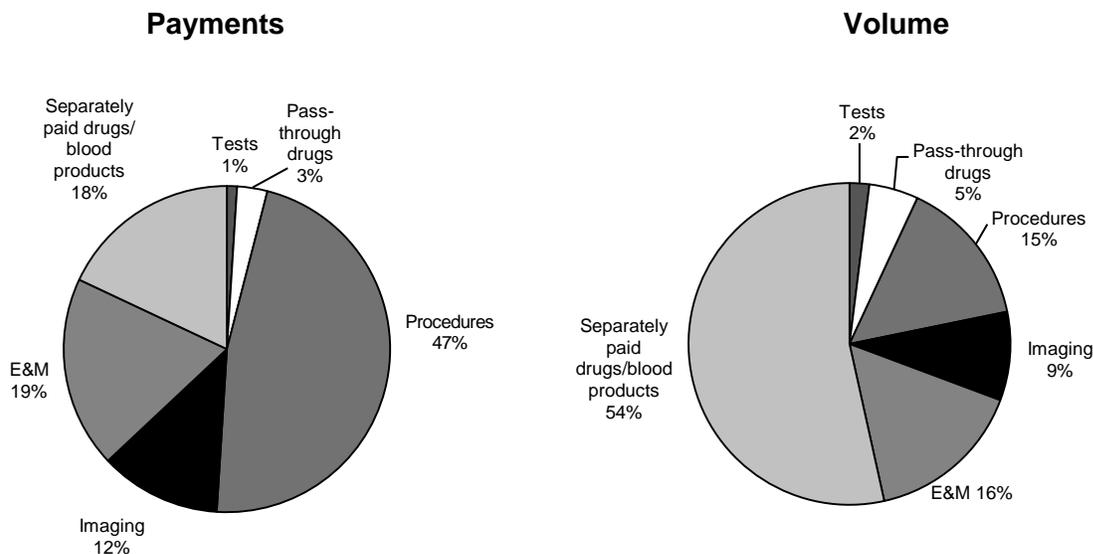
Year	Acute care hospitals	Share offering		
		Outpatient services	Outpatient surgery	Emergency services
2008	3,607	94%	87%	N/A
2010	3,518	95	90	N/A
2012	3,483	95	91	93%
2014	3,429	96	92	93
2016	3,370	96	93	93
2018	3,301	96	93	90
2019	3,245	96	93	91

Note: N/A (not applicable). We list emergency services from 2008 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 share of hospitals providing emergency services increased sharply from 2010 to 2012, but we question whether such a large increase actually occurred. This chart includes services provided or arranged by acute care 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 has declined slowly since 2008, from 3,607 in 2008 to 3,245 in 2019.
- The share of hospitals providing outpatient services remained stable, and the share offering outpatient surgery steadily increased from 2008 through 2014 and has remained stable since then. The share offering emergency services declined slightly from 2016 to 2018.

**Chart 7-11. Payments and volume of services under the Medicare hospital outpatient PPS, by type of service, 2018**



Note: PPS (prospective payment system), E&M (evaluation and management). “Payments” include both program spending and beneficiary cost sharing. We grouped services into the following categories, according to the Berenson-Eggers Type of Service codes developed by CMS: evaluation and management, procedures, imaging, and tests. “Pass-through drugs” and “separately paid drugs/blood products” are classified by their payment status indicator. The percentages in the “volume” figure do not sum to 100 due to rounding.

Source: MedPAC analysis of standard analytic file of outpatient claims for 2018.

- Hospitals provide many 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 from volume. For example, in 2018, procedures accounted for 47 percent of payments but only 15 percent of volume.
- Procedures (e.g., endoscopies, surgeries, and skin and musculoskeletal procedures) accounted for the greatest share of payments for services (47 percent) in 2018, followed by evaluation and management services (19 percent), separately paid drugs and blood products (18 percent), and imaging services (12 percent).
- Payments for separately payable drugs and blood products and pass-through drugs have increased in relation to other categories in the outpatient PPS, increasing from 15 percent of total outpatient PPS spending in 2013 to 21 percent of total outpatient PPS spending in 2018 (data not shown). Pass-through drugs are new drugs that have been approved by the FDA; were not paid under Medicare’s hospital outpatient payment system before January 1, 1997; and have been determined to have costs that are not insignificant in relation to the outpatient PPS payment rate for the applicable service. Statute allows drugs to have pass-through status for two to three years.

## Chart 7-12. Hospital outpatient services with the highest Medicare expenditures, 2018

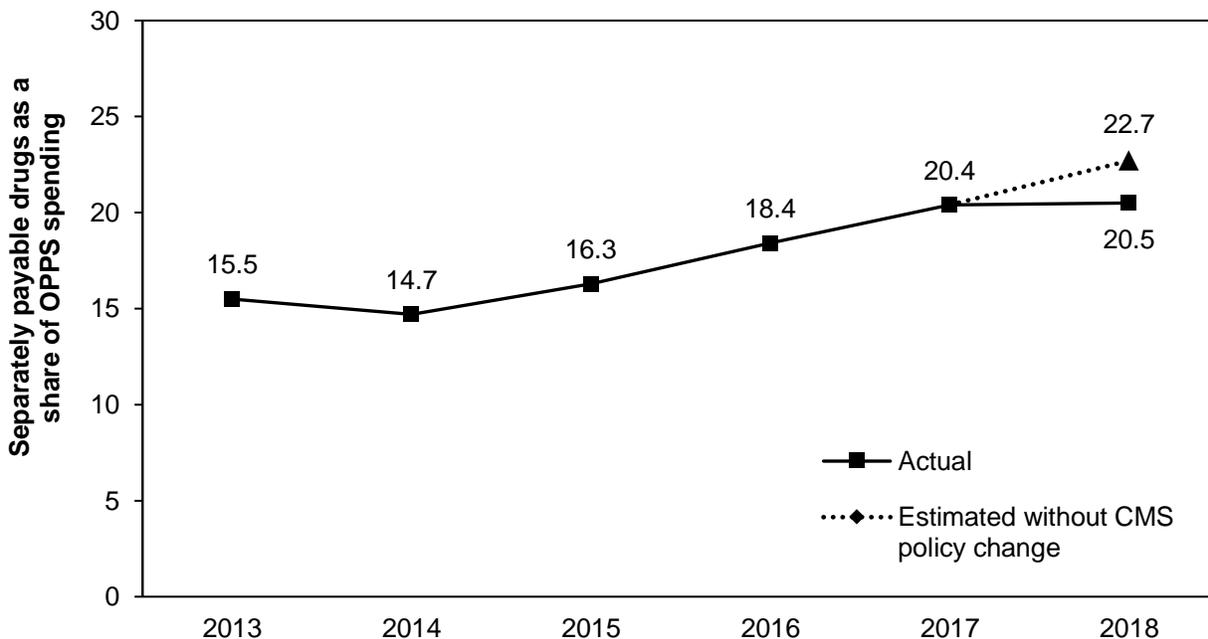
APC title	Share of Medicare expenditures	Volume (thousands)	Payment rate
Total	52%		
All emergency visits	7	13,010	\$337
Clinic visits	6	32,462	114
Comprehensive observation services	5	1,430	2,350
Level 3 endovascular procedures	3	189	10,510
Level 5 musculoskeletal procedures	2	135	10,123
Level 3 electrophysiologic procedures	2	68	18,516
Level 3 drug administration	2	6,544	191
Level 2 ICD and similar procedures	2	41	30,962
Level 4 musculoskeletal procedures	2	224	5,606
Level 1 endovascular procedures	2	355	2,814
Level 3 radiation therapy	1	1,843	522
Level 2 imaging without contrast	1	8,413	114
Level 4 imaging without contrast	1	1,828	487
Level 1 intraocular procedures	1	458	1,921
Level 1 laparoscopy and related procedures	1	193	4,489
Level 3 nuclear medicine and related services	1	706	1,203
Level 2 lower GI procedures	1	996	936
Level 3 imaging without contrast	1	3,498	232
Level 5 urology and related services	1	204	3,706
Level 4 drug administration	1	2,373	298
Level 1 imaging with contrast	1	2,802	253
Level 3 pacemaker and similar procedures	1	69	9,748
Level 1 upper GI procedures	1	963	743
Level 4 endovascular procedures	1	40	16,020
Level 4 neurostimulator and related procedures	1	23	27,892
Level 2 excision/biopsy/incision and drainage	1	451	1,348
Level 3 vascular procedures	1	249	2,493
Average APC		585	174

Note: APC (ambulatory payment classification), ICD (implantable cardioverter-defibrillator), GI (gastrointestinal). The payment rate for “all emergency visits” is a weighted average of payment rates for 10 emergency visit APCs (not listed on this chart). The shares of payments for the 27 APC categories do not add to the total share of payments (52 percent) because of rounding. The average APC figures in the last line represent averages for all APCs.

Source: MedPAC analysis of 100 percent analytic files of outpatient claims for calendar year 2018.

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

**Chart 7-13. Separately payable drugs have increased as a share of total spending in the outpatient prospective payment system, 2013–2018**



Note: OPSS (outpatient prospective payment system). The dotted line segment indicates our estimate of the share of total OPSS spending in 2018 that would have been attributable to separately payable drugs if CMS had not implemented a policy in 2018 that substantially reduced the OPSS payment rates for drugs obtained through the 340B Drug Pricing Program.

Source: MedPAC analysis of hospital outpatient standard analytic claims files from 2013 through 2018.

- The OPSS packages the cost of most drugs into the payment for the related services. However, the OPSS has two programs that provide separate payment for higher cost drugs: the pass-through program, which is focused on drugs that are new to the market, and the program for separately payable non-pass-through (SPNPT) drugs, which is focused on drugs that have been established in the drug market. Pass-through drugs can hold that status for two to three years, after which they can become SPNPT drugs. Most SPNPT drugs were previously pass-through drugs.
- Separately payable drugs have become an increasingly larger share of OPSS spending, increasing from 15.5 percent in 2013 to 20.5 percent in 2018.
- The share of OPSS spending attributable to separately payable drugs decreased slightly from 2013 to 2014 and increased only slightly from 2017 to 2018. The decrease from 2013 to 2014 in separately payable drugs' share of spending was the result of an unusually large increase in total OPSS spending caused by a change in policy that allowed for many clinical lab tests to be paid under the OPSS rather than the clinical lab fee schedule. The small increase from 2017 to 2018 was the result of a policy implemented by CMS that substantially decreased the payment rates for SPNPT drugs that hospitals obtained through the 340B Drug Pricing Program. Without that policy, we estimate that separately payable drugs would have been 22.7 percent of OPSS spending in 2018.

**Chart 7-14. Number of Medicare-certified ASCs increased by 10 percent, 2012–2018**

	2012	2013	2014	2015	2016	2017	2018
Medicare payments (billions of dollars)	\$3.6	\$3.7	\$3.8	\$4.1	\$4.3	\$4.6	\$4.9
New centers (during year)	179	179	190	170	168	215	224
Closed or merged centers (during year)	114	120	123	108	100	94	78
Net total number of centers (end of year)	5,194	5,253	5,320	5,382	5,450	5,571	5,717
Net percent growth in number of centers	1.3%	1.1%	1.3%	1.2%	1.3%	2.2%	2.6%
Share of all centers that are:							
For profit	94	95	95	95	95	95	95
Nonprofit	4	4	4	4	4	4	4
Government	2	2	2	2	2	2	2
Urban	93	93	93	93	93	93	93
Rural	7	7	7	7	7	7	7

Note: ASC (ambulatory surgical center). Medicare payments include program spending and beneficiary cost sharing for ASC facility services. Some figures do not match to Chart 7-15 in our 2019 data book because CMS updated the Provider of Services file. Some totals may not sum to 100 percent due to rounding.

Source: MedPAC analysis of Provider of Services file from CMS 2018. Payment data are from CMS, Office of the Actuary.

- ASCs are distinct entities that furnish ambulatory surgical services not requiring an overnight stay in a hospital. The most common ASC procedures are cataract removal with lens insertion, upper gastrointestinal endoscopy, colonoscopy, and nerve procedures.
- Total Medicare payments per fee-for-service (FFS) Medicare beneficiary for ASC services increased by approximately 5 percent per year, on average, from 2012 through 2018 (data not shown). Payments per FFS beneficiary served in an ASC grew by 4.9 percent per year during this period. From 2017 to 2018, total payments rose by 6.4 percent, and payments per beneficiary grew by 7.4 percent (per beneficiary data not shown).
- The number of Medicare-certified ASCs grew at an average annual rate of 1.6 percent from 2012 through 2018. In this same period, an annual average of 189 new facilities entered the market, while an average of 105 closed or merged with other facilities.
- Compared with earlier years (not shown), the number of ASCs grew slowly from 2012 through 2018. The slower growth may reflect the substantially higher rates that Medicare pays for ambulatory surgical services provided in hospital outpatient departments than in ASCs and the significant increase in hospital employment of physicians.

SECTION

8

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

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**Chart 8-1. The number of post-acute care providers decreased slightly in 2019**

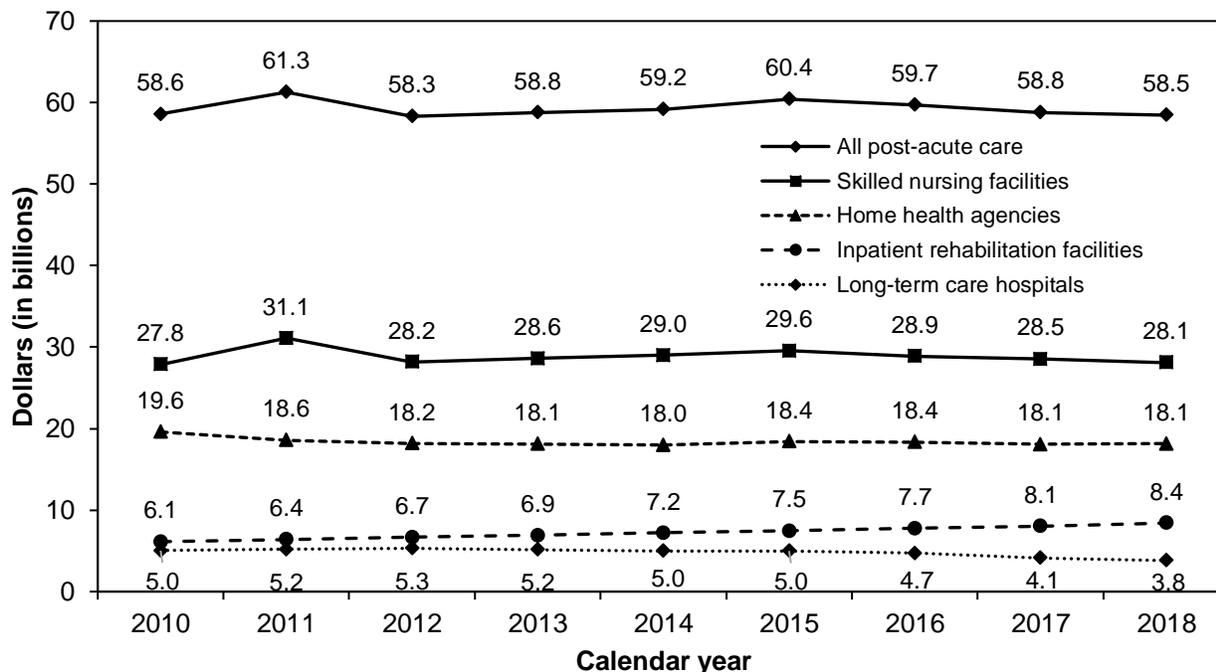
	2015	2016	2017	2018	2019	Average annual percent change 2015–2019	Percent change 2018–2019
Home health agencies	12,346	12,204	11,844	11,783	11,356	–2.1%	–3.6%
Inpatient rehabilitation facilities	1,182	1,188	1,178	1,170	1,152	–0.6	–1.5
Long-term care hospitals	426	423	411	386	371	–3.4	–3.9
Skilled nursing facilities	15,223	15,263	15,277	15,230	15,114	–0.2	–0.8

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 been declining since 2015 after several years of substantial growth (data not shown). The decline in agencies was concentrated in Texas and Florida, two states that saw considerable growth after the implementation of the home health prospective payment system in October 2000.
- The supply of inpatient rehabilitation facilities (IRFs) has been declining slightly since 2015, though the rate of change picked up between 2018 and 2019. Most IRFs are distinct units in acute care hospitals; about one-quarter are freestanding facilities. However, because freestanding IRFs tend to have more beds, they account for about half of Medicare discharges from IRFs.
- After peaking in 2012 (data not shown), the number of long-term care hospitals (LTCHs) has decreased. The number of LTCHs declined more rapidly after the implementation of a new “dual payment-rate structure” that reduces payments for certain Medicare discharges from LTCHs beginning in fiscal year 2016.
- The total number of skilled nursing facilities rose between 2015 and 2017, then decreased less than 1 percent per year between 2017 and 2019.

**Chart 8-2. Medicare fee-for-service spending for post-acute care expenditures was relatively stable from 2010 to 2018**



Note: These calendar year-incurred data represent only program spending; they do not include beneficiary cost sharing.

Source: CMS Office of the Actuary 2020.

- Aggregate fee-for-service (FFS) spending on post-acute care (PAC) has remained stable since 2012, in part because of expanded enrollment in managed care under Medicare Advantage (Medicare Advantage spending is not included in this chart). However, spending growth has varied by PAC sector.
- 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). Once CMS established that the adjustment it made was too large, it lowered the adjustment, and spending dropped in 2012. Overall, spending on SNF care and home health care was relatively stable between 2012 and 2018, decreasing slightly in the latter part of the period.
- FFS spending on inpatient rehabilitation facilities (IRFs) has increased steadily over the past decade. In all, spending on IRFs increased 37 percent between 2010 and 2018.
- FFS spending on long-term care hospitals (LTCHs) has decreased by 24 percent since 2015, largely due to the implementation of the dual payment-rate structure that reduced payments for certain LTCH cases.

**Chart 8-3. Freestanding SNFs and for-profit SNFs accounted for the majority of facilities, Medicare stays, and Medicare spending in 2012 and 2018**

Type of SNF	Facilities		Medicare-covered stays		Medicare payments (billions)	
	2012	2018	2012	2018	2012	2018
Totals	14,938	15,042	2,396,548	2,191,246	\$26.2	\$25.4
Freestanding	95%	96%	94%	96%	97%	97%
Hospital based	5	4	6	4	3	3
Urban	70	73	82	84	84	85
Rural	30	27	18	16	16	15
For profit	70	71	71	71	75	74
Nonprofit	25	23	25	25	21	22
Government	5	6	3	4	3	4

Note: SNF (skilled nursing facility). Totals may not sum to 100 percent due to rounding and missing values. The spending amount included here is lower than that reported by the Office of the Actuary, and the count of SNFs is slightly lower than what is reported in CMS's Survey and Certification Providing Data Quickly system.

Source: MedPAC analysis of the Provider of Services and Medicare Provider Analysis and Review files, 2012 and 2018.

- In 2018, freestanding facilities accounted for 96 percent of stays and 97 percent of Medicare's payments.
- Urban facilities accounted for 73 percent of facilities, 84 percent of stays, and 85 percent of Medicare payments in 2018.
- In 2018, for-profit facilities accounted for 71 percent of facilities and stays and 74 percent of Medicare payments.

## Chart 8-4. SNF admissions and stays continued to decline in 2018

Volume measure	2014	2016	2017	2018	Percent change 2017–2018
Covered admissions per 1,000 FFS beneficiaries	68.3	65.9	64.6	62.5	–3.3%
Covered days per 1,000 FFS beneficiaries	1,843	1,693	1,623	1,559	–3.9
Covered days per admission	27.0	25.7	25.1	25.0	–0.4

Note: SNF (skilled nursing facility), FFS (fee-for-service). Data include 50 states and the District of Columbia.

Source: Calendar year data from CMS, Office of Information Products and Data Analytics 2020.

- In 2018, 4 percent of beneficiaries enrolled in Medicare fee-for-service used SNF services, down slightly from 2011 (data not shown).
- Between 2017 and 2018, SNF admissions per 1,000 FFS beneficiaries decreased 3.3 percent. The decline is consistent with a decline in FFS per capita inpatient hospital stays that were three days or longer and therefore qualified for Medicare coverage of SNF care (data not shown).
- During the same period, covered days per admission declined 0.4 percent to 25 days, so there were fewer covered days per 1,000 beneficiaries.

## Chart 8-5. Freestanding SNF Medicare margins remained high in 2018

	2012	2014	2015	2016	2017	2018
All	14.1%	12.8%	12.6%	11.6%	11.3%	10.3%
Rural	13.3	10.9	10.9	9.9	9.7	8.2
Urban	14.2	13.1	13.0	11.9	11.5	10.7
Nonprofit	5.7	4.2	4.4	2.3	1.7	0.5
For profit	16.3	15.2	15.1	14.2	13.7	13.0

Note: SNF (skilled nursing facility).

Source: MedPAC analysis of freestanding SNF cost reports 2012–2018.

- Though lower than in recent years, the aggregate Medicare margin for freestanding SNFs in 2018 exceeded 10 percent for the 19th consecutive year (not all years are shown). After reaching over 21 percent in 2011 (data not shown), the margins have declined primarily because current law requires annual market basket increases to payments to be offset by a productivity adjustment.
- In 2018, on average, urban facilities had higher Medicare margins than rural facilities. For-profit SNFs had considerably higher Medicare margins than nonprofit SNFs, reflecting their larger size and lower cost growth.
- In 2018, the average total margin (the margin across all payers and all lines of business) for freestanding facilities was –0.3, the first year that it was negative since 1999 (data not shown).

## Chart 8-6. Cost and payment differences explain variation in Medicare margins for freestanding SNFs in 2018

Characteristic	Highest margin quartile (n = 3,318)	Lowest margin quartile (n = 3,318)	Ratio of highest quartile to lowest quartile
<b>Cost measures</b>			
Standardized cost per day	\$278	\$410	0.68
Standardized cost per discharge	\$11,392	\$14,506	0.79
Average daily census (patients)	88	65	1.34
<b>Revenue measures</b>			
Medicare payment per day	\$530	\$458	1.16
Medicare payment per discharge	\$22,554	\$15,730	1.43
Share of days in intensive therapy	89%	81%	1.10
Share of medically complex days	3	3	1.00
Medicare share of facility revenue	22	12	1.83
Average length of stay (days)	41	34	1.20
Medicaid share of days	66	57	1.16
<b>Patient characteristics</b>			
Case-mix index	1.42	1.32	1.08
Share of dual-eligible beneficiaries	51%	36%	1.42
Share of minority beneficiaries	15	5	3.00
Share of very old beneficiaries	26	33	0.79
<b>Facility mix</b>			
Share for profit	85%	55%	N/A
Share urban	81	70	N/A

Note: SNF (skilled nursing facility), N/A (not applicable). Values shown are medians for the quartile. Highest margin quartile SNFs were in the top 25 percent of the distribution of Medicare margins. Lowest margin quartile SNFs were in the bottom 25 percent of the distribution of Medicare margins. "Standardized cost per day" includes Medicare costs adjusted for differences in area wages and the case mix (using the nursing component's relative weights) of Medicare beneficiaries. "Days in intensive therapy" are days classified into ultra-high and very high rehabilitation case-mix groups. "Very old beneficiaries" are 85 years or older. "Medically complex days" are those assigned to clinically complex or special-care case-mix groups. Quartile figures presented in the table are rounded, but the ratio column was calculated using unrounded data.

Source: MedPAC analysis of freestanding SNF claims and cost reports 2018.

- Medicare margins varied widely across freestanding SNFs. One-quarter of SNFs had Medicare margins at or below -0.7 percent, and one-quarter of facilities had Medicare margins at or above 19.7 percent (data not shown).
- High-margin SNFs had lower costs per day (32 percent lower costs than low-margin SNFs), after adjusting for wage and case-mix differences, and higher payment per day (16 percent).
- Facilities with the highest Medicare margins had higher case-mix indexes, higher shares of beneficiaries who were dually eligible for Medicare and Medicaid, and higher shares of minority beneficiaries.

**Chart 8-7. Financial performance of relatively efficient SNFs in 2018 reflects a combination of lower cost per day and higher payment per day**

	Relatively efficient SNFs	Other SNFs
<b>Performance in 2018</b>		
Community discharge rate	52%	41%
Readmission rate	9%	10%
Standardized cost per day	\$304	\$331
Medicare revenue per day	\$530	\$482
Medicare margin	16.9%	9.9%
Total margin	2.0%	0.3%
Facility case-mix index	1.44	1.36
Medicare average length of stay	30 days	37 days
Occupancy rate	88%	84%
Average daily census	98	78
Share of ultra-high therapy days	69%	56%
Share of medically complex days	4%	4%
Medicaid share of facility days	58%	63%
Share urban	85%	68%
Share for profit	79%	67%

Note: SNF (skilled nursing facility). The analysis includes 11,551 freestanding facilities. SNFs were defined as “relatively efficient” by their cost per day measure (2015–2017) and two quality measures (community discharge and readmission rates) for the same period (2015–2017). Relatively efficient SNFs were those in the best third of the distribution of any one measure and not in the bottom third on any measure in each of three years. Eight percent of SNFs qualified as relatively efficient. Costs per day were standardized for differences in case mix (using the nursing component relative weights) and wages. Rates of risk-adjusted community discharge and readmission for patients with potentially avoidable conditions during the SNF stay are quality measures and were calculated for all facilities with at least 25 stays. “Ultra-high therapy days” include days with at least 720 minutes per week of therapy. “Medically complex days” are those assigned to clinically complex or special-care case-mix groups.

Source: MedPAC analysis of quality measures and Medicare cost report data for 2015–2018.

- “Relatively efficient SNFs” are defined as those consistently providing relatively low-cost and high-quality care compared with other SNFs. Compared with other SNFs in 2018, relatively efficient SNFs furnished considerably higher quality (higher discharge to community rates and lower readmission rates) and had costs per day that were 8 percent lower.
- Compared with other SNFs in 2018, relatively efficient SNFs treated the same share of medically complex patients, had a higher share of ultra-high therapy days, shorter stays, higher occupancy rates, and higher average daily censuses.

## Chart 8-8. SNFs improved on some measures but not others from 2012 to 2018

Measure	2012	2014	2016	2018
Discharged to the community	35.7%	37.7%	39.6%	41.4%
Potentially avoidable readmissions				
During SNF stay	11.4	10.8	10.8	10.6
During 30 days after discharge from SNF	5.7	5.7	5.8	5.9
Rate of improvement in one or more mobility ADLs	43.6	43.5	43.6	43.9
Rate of no decline in mobility	87.2	87.1	87.1	87.2

Note: SNF (skilled nursing facility), ADL (activity of daily living). High rates of discharge to the community indicate better quality. High readmission rates indicate worse quality. All rates were risk adjusted. The rate of improvement in mobility ADLs is the average of the rates of improvement in bed mobility, transfer, and ambulation, weighted by the number of stays included in each measure. Stays with improvement in one, two, or three mobility ADLs are counted in the improvement measures. “Rate of no decline in mobility” is the share of stays with no decline in any of the three ADLs. Rates are the average of facility rates and calculated for all facilities with 25 or more stays, except the rate of potentially avoidable readmissions during the 30 days after discharge, which is reported for all facilities with 20 or more stays. Measures exclude hospital-based swing-bed units.

Source: MedPAC analysis of Medicare claims and Minimum Data Set data for 2012–2018.

- Quality measures for SNFs draw on two sources: claims for payment submitted by SNFs and patient assessment data collected by SNFs. Given evidence that the patient assessment information reported by inpatient rehabilitation facilities and home health agencies may reflect financial considerations, these measures should be interpreted carefully.
- Rates of claims-based, risk-adjusted community discharge (discharged home with or without home health care) and potentially avoidable readmission during the SNF stay improved between 2012 and 2018. A greater share of beneficiaries was discharged to the community (41.4 percent compared with 35.7 percent). A lesser share of beneficiaries was readmitted to an acute care hospital during the SNF stay (10.6 percent compared with 11.4 percent). The share of beneficiaries readmitted to an acute care hospital in the 30 days after discharge from the SNF has increased slightly since 2012, to 5.9 percent in 2018.
- Both readmission rates include only patients readmitted to a hospital with the principal diagnosis of a potentially avoidable condition. The 13 potentially avoidable conditions are congestive heart failure, electrolyte imbalance/dehydration, respiratory infection, sepsis, urinary tract or kidney infection, hypoglycemia or diabetic complications, anticoagulant complications, fractures and musculoskeletal injuries, acute delirium, adverse drug reactions, cellulitis/wound infections, pressure ulcers, and abnormal blood pressure.
- The two patient assessment–based, risk-adjusted measures of change in functional status were essentially unchanged between 2012 and 2018. The mobility measures are composites of the patients’ abilities in bed mobility, transfer, and ambulation, and they reflect the likelihood that a patient’s abilities will change, given his or her functional ability at admission. A facility admitting patients with worse prognoses will have lower expected rates of achieving these outcomes, and this difference will be reflected in the risk-adjusted rates.

## Chart 8-9. Trends in the provision of home health care

	2011	2018	Percent change 2011–2018	
			Annual average	Cumulative
Number of users (in millions)	3.4	3.4	–0.3	–1.9
Share of FFS beneficiaries who used home health care	9.4%	8.8	–1.1	–7.2
Episodes (in millions)	6.8	6.3	–1.2	–8.2
Episodes per home health patient	2.0	1.9	–0.9	–6.4
Visits per home health episode	17.2	16.5	–0.6	–4.0
Visits per home health patient	34.2	30.8	–1.5	–10.2
Average payment per episode	\$2,917	\$3,089	0.8	5.9

Note: FFS (fee-for-service). Yearly figures presented in the table are rounded, but the percent-change columns were calculated using unrounded data. Average payment per episode excludes low-use episodes, those with fewer than five visits.

Source: MedPAC analysis of the home health standard analytic file from CMS.

- Between 2011 and 2018, episode volume declined by 8.2 percent and the number of users dropped 1.9 percent.
- The number of visits per patient decreased between 2011 and 2018. This decline was a consequence of two other utilization declines in this period: a decline in average number of episodes per home health patient and a decline in the average number of visits per episode.
- The average payment per full episode was \$3,089 in 2018, an increase of 5.9 percent relative to 2011. Throughout the 2011 to 2018 period, Medicare implemented a number of policies to reduce or slow the growth in home health payments. However, despite these reductions, the margins of free-standing home health agencies were over 15 percent in 2017 and 2018, indicating that payments remain well in excess of costs despite these policies (see Chart 8-11).

## Chart 8-10. Most home health episodes are not preceded by hospitalization or PAC stay

	Number of episodes (in millions)		Percent change 2011–2018	
	2011	2018	Annual average	Cumulative
Episodes preceded by a hospitalization or PAC stay	2.2	2.1	>–0.1%	–0.5%
Episodes not preceded by a hospitalization or PAC stay	4.6	4.2	–1.4	–10.3
Share of episodes not preceded by a hospitalization or PAC stay	67%	66%	–0.4	–2.7
Total	6.8	6.3	–1.1	–7.8

Note: PAC (post-acute care). “Episodes preceded by a hospitalization or PAC stay” refers to episodes that occurred less than 15 days after a stay in a hospital (including a long-term care hospital), skilled nursing facility, or inpatient rehabilitation facility. “Episodes not preceded by a hospitalization or PAC stay” refers to episodes for which there was no hospitalization or PAC stay in the previous 15 days.

Source: 2018 home health standard analytic file, 2018 Medicare Provider and Analysis Review file, and 2018 skilled nursing facility standard analytic file.

- Most home health episodes are not preceded by a hospitalization or institutional PAC stay, and these episodes accounted for about two-thirds of PAC stays in 2011 through 2018. During this period, the number of home health episodes not preceded by a hospitalization or PAC stay declined 10.3 percent, while the number of episodes preceded by a hospitalization or PAC stay decreased 0.5 percent.
- The experience of the 2011 through 2018 period follows one that saw large growth in the number and share of episodes not preceded by a hospital or institutional PAC stay (data not shown). In 2001, episodes not preceded by a hospital or institutional PAC stay accounted for 53 percent of volume; by 2011 those episodes had increased to 67 percent of total episodes. Over the same period, the share of episodes preceded by a hospitalization or institutional PAC stay declined from 47 percent in 2001 to 33 percent in 2011 (data not shown). The shares of episode volume accounted for by these two categories have not changed substantially since 2011.
- Beneficiaries for whom the majority of home health episodes were preceded by a hospitalization or PAC stay had different characteristics from community-admitted beneficiaries (those who had no prior hospitalization or PAC) (data not shown). These beneficiaries were more likely to be dually eligible for Medicare and Medicaid, to have more home health episodes, and to have more episodes with a high share of home health aide services compared with other home health users coming from a hospitalization or other PAC stay (data not shown). Community-admitted users generally had slightly fewer chronic conditions, tended to be older, and were more likely to have dementia or Alzheimer’s disease (data not shown).

**Chart 8-11. Medicare margins for freestanding home health agencies, 2017 and 2018**

	2017	2018	Share of agencies 2018
All	15.2%	15.3%	100%
Geography			
Mostly urban	15.8	15.6	84
Mostly rural	13.4	13.8	16
Type of control			
For profit	16.4	16.8	89
Nonprofit	10.9	9.9	11
Volume quintile (lowest to highest)			
First	7.4	7.8	20
Second	9.8	9.3	20
Third	11.5	11.9	20
Fourth	13.6	13.9	20
Fifth	17.0	17.3	20

Note: Agencies are characterized as urban or rural based on the residence of the majority of their patients.

Source: MedPAC analysis of 2017–2018 Medicare Cost Report files from CMS.

- In 2018, freestanding home health agencies (HHAs) (85 percent of all HHAs) had an aggregate margin of 15.3 percent. HHAs that served mostly urban patients in 2018 had an aggregate margin of 15.6 percent; HHAs that served mostly rural patients had an aggregate margin of 13.8 percent. The 2018 margin is consistent with the historically high margins the home health industry has experienced since the prospective payment system (PPS) was implemented in 2000. The margins from 2001 to 2017 averaged 16.5 percent (data not shown), indicating that most agencies have been paid well in excess of their costs under the PPS.
- For-profit agencies in 2018 had an average margin of 16.8 percent, and nonprofit agencies had an average margin of 9.9 percent.
- Agencies with higher episode volumes had higher margins. The agencies in the lowest volume quintile in 2018 had an aggregate margin of 7.8 percent, while those in the highest quintile had an aggregate margin of 17.3 percent.

## Chart 8-12. Home health agencies' assessment-based performance measures increased markedly from 2014 to 2018, while claims-based performance measures were largely unchanged

Measure	2014	2015	2016	2017	2018
Average share of an agency's beneficiaries who:					
Used emergency department care	12.0%	12.2%	12.1%	12.7%	12.8%
Had to be admitted to the hospital	15.4	15.5	16.2	15.4	15.4
Average share of a home health agency's beneficiaries with improvements in:					
Walking	61	63	69	74	77
Transferring	55	59	65	72	77

Note: All data pertain to fee-for-service beneficiaries only and are risk adjusted for differences in patient condition among home health patients.

Source: MedPAC analysis of Medicare claims data and Outcome and Assessment Information Set data provided by the University of Colorado.

- Quality measures for home health care draw on two sources, claims for payment submitted by home health agencies (HHAs) and patient assessment data collected by HHAs. In recent years, quality measures based on claims have indicated little change in quality, while measures based on patient assessment data have indicated improved quality. The claims-based rates of hospitalization and emergency department use have not changed significantly from 2014 to 2018, while the patient assessment-based functional improvement rates have improved substantially. From 2014 and 2018, average rates of beneficiaries with improvement in transferring improved from 55 percent to 77 percent. These divergent trends raise concerns about the objectivity of the patient assessment data and suggest that the functional measures of quality, such as walking and transferring, should be interpreted carefully.
- Medicare implemented a value-based purchasing program for home health agencies in nine states in 2018. In 2020, agencies in these states will receive bonuses or penalties of up to 6 percent, depending on their performance on 20 measures, including the functional and emergency department use measures listed above.

## Chart 8-13. Number of FFS IRF cases increased in 2018

	2010	2015	2017	2018	Average annual percent change 2010–2018	Percent change 2017–2018
Number of IRF cases	365,095	393,475	396,294	408,038	1.4%	3.0%
Cases per 10,000 FFS beneficiaries	101.3	103.4	102.7	105.7	0.5	2.9
Payment per case	\$16,814	\$18,527	\$19,481	\$20,124	2.3%	3.3
Average length of stay (in days)	13.1	12.7	12.7	12.7	–0.4	–0.6

Note: FFS (fee-for-service), IRF (inpatient rehabilitation facility). Numbers of cases reflect Medicare FFS utilization only. The number of cases presented differs from past reports due to a change in methodology. Yearly figures presented in the table are rounded, but the percent-change columns were calculated using unrounded data.

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

- After a period of relative stability from 2015 to 2017, the number of Medicare FFS cases increased 3.0 percent, growing to about 408,000 cases in 2018.
- In 2018, the number of IRF cases per 10,000 FFS beneficiaries grew to 105.7, up 2.9 percent from the previous year. Relatively few Medicare beneficiaries use IRF services because, to qualify for Medicare coverage, IRF patients must be able to tolerate and benefit from rehabilitation therapy that is intensive, which is usually interpreted to mean at least three hours of therapy a day for at least five days a week. Yet, compared with all Medicare beneficiaries, those admitted to IRFs in 2018 were disproportionately over age 85 (data not shown).
- With the increase in the number of IRF cases per FFS beneficiary, FFS Medicare's share of IRF discharges rose slightly, to 59 percent of total discharges (data not shown).
- The average length of stay in an IRF has held steady since 2015.

## Chart 8-14. Most common types of FFS inpatient rehabilitation facility cases, 2018

Type of case	Share of cases
Stroke	20.0%
Other neurological conditions	14.7
Brain injury	10.8
Debility	11.6
Fracture of the lower extremity	10.3
Other orthopedic conditions	7.9
Cardiac conditions	5.9
Spinal cord injury	4.9
Major joint replacement of lower extremity	4.1
All other	9.7

Note: FFS (fee-for-service). "Other neurological conditions" includes multiple sclerosis, Parkinson's disease, polyneuropathy, and neuromuscular disorders. "Fracture of the lower extremity" includes hip, pelvis, and femur fractures. Patients with debility have generalized deconditioning not attributable to other conditions. "Other orthopedic conditions" excludes fractures of the hip, pelvis, and femur and hip and knee replacements. "All other" includes conditions such as amputations, arthritis, and pain syndrome. All Medicare FFS inpatient rehabilitation facility (IRF) cases with valid patient assessment information were included in this analysis.

Source: MedPAC analysis of Inpatient Rehabilitation Facility–Patient Assessment Instrument data from CMS.

- In 2018, the most frequently occurring case type among FFS beneficiaries admitted to IRFs was stroke, which accounted for 20.0 percent of Medicare FFS cases.
- Between 2017 and 2018, we observed disproportionate growth in the number of cases with debility (data not shown). Between 2017 and 2018, the share of these cases rose from 10.7 percent to 11.6 percent of FFS IRF cases.
- The distribution of case types differs by type of IRF (data not shown). For example, in 2018, only 16 percent of cases in freestanding for-profit IRFs were admitted for rehabilitation following a stroke, compared with 26 percent of cases in hospital-based nonprofit IRFs. Likewise, 20 percent of cases in freestanding for-profit IRFs were admitted with other neurological conditions, twice the share admitted to hospital-based nonprofit IRFs. Cases with other orthopedic conditions also made up a higher share of cases in freestanding for-profit facilities than in all other IRFs. By contrast, the share of cases with brain injury or debility was similar across IRF types (data not shown).

**Chart 8-15. Inpatient rehabilitation facilities' Medicare margins by type of facility, 2010–2018**

	2010	2012	2014	2015	2016	2017	2018
All IRFs	8.6%	11.2%	12.2%	13.9%	13.3%	13.9%	14.7%
Hospital based	–0.5	0.6	0.7	2.1	0.8	1.5	2.5
Freestanding	21.4	23.9	25.2	26.6	25.8	25.6	25.4
Urban	9.0	11.5	12.6	14.3	13.6	14.2	15.0
Rural	4.7	6.6	6.4	8.6	9.1	8.2	9.8
Nonprofit	2.1	2.0	1.7	3.4	1.5	2.1	2.4
For profit	19.6	23.0	23.9	25.1	24.5	24.1	24.6

Note: IRF (inpatient rehabilitation facility).

Source: MedPAC analysis of cost report data from CMS.

- In 2018, the aggregate IRF Medicare margin increased to 14.7 percent.
- Margins varied by ownership, with for-profit IRFs having substantially higher margins. At the same time, Medicare margins in freestanding IRFs far exceeded those of hospital-based facilities. Nevertheless, one-quarter of hospital-based IRFs had Medicare margins greater than 13 percent (data not shown), indicating that many hospitals can manage their IRF units profitably. Further, despite comparatively low average margins in hospital-based IRFs, evidence suggests that these units make a positive financial contribution to their parent hospitals. For example, aggregate inpatient Medicare margins for hospitals are consistently higher for hospitals with IRF units versus hospitals without IRF units (1.4 percentage points higher in 2018). Aggregate overall Medicare margins for hospitals with IRF units were 2.4 percentage points higher for 2018 (data not shown).
- Higher unit costs are a major driver of low margins in both hospital-based and nonprofit IRFs. However, in an analysis of data from 2013, the Commission found that the mix of case types in IRFs was also correlated with profitability. IRFs with the highest margins had a higher share of neurological cases and a lower share of stroke cases. Further, we observed differences in the types of stroke and neurological cases admitted to high- and low-margin IRFs. Stroke cases in the highest margin IRFs were much less likely to have paralysis than were stroke cases in the lowest margin IRFs. Neurological cases in the highest margin IRFs were much more likely to be neuromuscular disorders (such as amyotrophic lateral sclerosis or muscular dystrophy) than were neurological cases in the lowest margin IRFs (data not shown).
- In an analysis of data from 2013, the Commission found that high-margin IRFs had patients who were, on average, less severely ill in the preceding stay in an acute care hospital than patients admitted to low-margin IRFs. Once admitted to and assessed by the IRF, however, the average patient profile changed, with patients treated in high-margin IRFs appearing to be more disabled than those in low-margin IRFs. This finding suggests the possibility that assessment and coding practices may contribute to greater revenues in some IRFs (data not shown).

## Chart 8-16. Low standardized costs led to high margins for both hospital-based and freestanding IRFs, 2018

Characteristic	Lowest cost quartile	Highest cost quartile
Median cost per discharge		
All	\$11,583	\$20,257
Hospital based	12,216	20,278
Freestanding	11,194	20,001
Median Medicare margin		
All	28.6%	-19.9%
Hospital based	23.7	-20.4
Freestanding	31.4	-17.3
Median		
Number of beds	44	18
Occupancy rate	74%	54%
Share of facilities in the quartile that are:		
Hospital based	36%	94%
Freestanding	64	6
Nonprofit	25	64
For profit	70	18
Government	5	17
Urban	94	72
Rural	6	28

Note: IRF (inpatient rehabilitation facility). Cost per discharge is standardized for differences in wages across geographic areas, differences in case mix across providers, and differences across providers in the prevalence of high-cost outliers, short-stay outliers, and transfer cases. Totals may not sum to 100 percent due to rounding.

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

- IRFs with the lowest standardized costs (those in the lowest cost quartile) had a median standardized cost per discharge that was 43 percent less than that of the IRFs with the highest standardized costs (those in the highest cost quartile).
- IRFs with the lowest costs tended to be larger: The median number of beds was 44 compared with 18 in the highest cost quartile. In addition, IRFs with the lowest costs had a higher median occupancy rate (74 percent vs. 54 percent, respectively). These results suggest that low-cost IRFs benefit from economies of scale.
- Low-cost IRFs were disproportionately freestanding and for profit. Still, 36 percent of IRFs in the lowest cost quartile were hospital based and 25 percent were nonprofit. By contrast, in the highest cost quartile, 94 percent were hospital based and 64 percent were nonprofit.

## Chart 8-17. Risk-adjusted quality indicators for IRFs held steady or improved slightly from 2012 to 2018

Measure	2012	2014	2015	2016	2017	2018
Potentially avoidable rehospitalizations during IRF stay	2.8%	2.7%	2.6%	2.7%	2.7%	2.6%
Potentially avoidable rehospitalizations during 30 days after discharge from IRF	5.0	4.8	4.4	4.8	4.8	4.8
Discharged to the community	74.4	75.3	75.1	76.0	76.0	76.4
Discharged to a SNF	6.7	6.9	6.9	6.7	6.7	6.6

Note: IRF (inpatient rehabilitation facility), SNF (skilled nursing facility). High rates of rehospitalization and discharge to a SNF indicate worse quality. High rates of discharge to the community indicate better quality. Rates are the average of the facility rates and are calculated for all facilities with 25 or more stays.

Source: Analysis of Medicare claims data and Inpatient Rehabilitation Facility–Patient Assessment Instrument data from CMS.

- Between 2012 and 2018, the national average rate of risk-adjusted potentially avoidable rehospitalizations during IRF stays declined from 2.8 percent to 2.6 percent (lower rates are better). The national average rate of risk-adjusted potentially avoidable rehospitalizations within 30 days after discharge from an IRF declined from 5.0 percent to 4.4 percent in 2015, then rose to 4.8 percent in 2016 and held steady.
- The rehospitalization rates count only stays readmitted to a hospital with the principal diagnosis of a potentially avoidable condition. The potentially avoidable rehospitalizations we measure are respiratory-related illness (pneumonia, influenza, bronchitis, chronic obstructive pulmonary disease, and asthma); sepsis; congestive heart failure; fractures or fall with a major injury; urinary tract or kidney infection; blood pressure management; electrolyte imbalance; anticoagulant therapy complications; diabetes-related complications; cellulitis or wound infection; pressure ulcer; medication error or adverse drug reaction; and delirium.
- Between 2012 and 2018, the national average for the risk-adjusted community discharge rate increased from 74.4 percent to 76.4 percent (higher rates are better). Our measure of community discharge does not give IRFs credit for discharging a Medicare beneficiary to the community if the beneficiary is subsequently admitted to an acute care hospital within 30 days of the IRF discharge.
- Between 2012 and 2018, the national risk-adjusted rate of discharge to a SNF improved slightly (was lower). Between 2012 and 2014, the national risk-adjusted rate of discharge to a SNF increased from 6.7 percent to 6.9 percent, but subsequently declined to 6.7 percent in 2016, then again in 2018 to 6.6 percent (lower rates are better).

**Chart 8-18. The top 25 MS–LTC–DRGs accounted for almost 70 percent of LTCH discharges in 2018**

MS–LTC –DRG	Description	Discharges	Share of cases
189	Pulmonary edema and respiratory failure	18,761	18.3%
207	Respiratory system diagnosis with ventilator support 96+ hours	12,691	12.4
871	Septicemia without ventilator support 96+ hours with MCC	6,154	6.0
166	Other respiratory system OR procedures with MCC	2,636	2.6
208	Respiratory system diagnosis with ventilator support <96 hours	2,616	2.6
949	Aftercare with CC/MCC	2,128	2.1
592	Skin ulcers with MCC	2,066	2.0
177	Respiratory infections and inflammations with MCC	2,038	2.0
981	Extensive OR procedure unrelated to principal diagnosis with MCC	1,938	1.9
539	Osteomyelitis with MCC	1,798	1.8
682	Renal failure with MCC	1,708	1.7
291	Heart failure and shock with MCC	1,645	1.6
4	Tracheostomy with ventilator support 96+ hours or primary diagnosis except face, mouth, and neck without major OR	1,542	1.5
559	Aftercare, musculoskeletal system and connective tissue with MCC	1,459	1.4
314	Other circulatory system diagnoses with MCC	1,305	1.3
919	Complications of treatment with MCC	1,262	1.2
862	Postoperative and post-traumatic infections with MCC	1,249	1.2
853	Infectious and parasitic diseases with OR procedure with MCC	1,239	1.2
870	Septicemia with ventilator support 96+ hours	1,187	1.2
570	Skin debridement with MCC	1,108	1.1
193	Simple pneumonia and pleurisy w MCC	1,013	1.0
190	Chronic obstructive pulmonary disease with MCC	996	1.0
638	Diabetes with CC	986	1.0
560	Aftercare, musculoskeletal system and connective tissue w CC	968	1.0
689	Kidney and urinary tract infections with MCC	941	0.9
	<b>Top 25 MS–LTC–DRGs</b>	<b>71,434</b>	<b>70.0</b>
	<b>Total</b>	<b>102,288</b>	<b>100.0</b>

Note: MS–LTC–DRG (Medicare severity long-term care diagnosis related group), LTCH (long-term care hospital), MCC (major complication or comorbidity), OR (operating room), CC (complication or comorbidity). MS–LTC–DRGs are the case-mix system for LTCHs.

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 2018, the top 25 MS–LTC–DRGs accounted for 70 percent of LTCH Medicare cases.
- Consistent with 2016 and 2017, the two most frequent diagnoses in LTCHs in 2018 were pulmonary edema and respiratory failure and a respiratory system diagnosis with ventilator support of more than 96 hours.
- Over 40 percent of all LTCH cases were respiratory conditions. Nonprofit LTCHs care for a higher share of beneficiaries with diagnoses of pulmonary edema and respiratory failure and a respiratory system diagnosis with ventilator support of more than 96 hours than for-profit LTCHs (data not shown).

**Chart 8-19. The number of Medicare LTCH cases and users decreased by over 11 percent between 2017 and 2018**

	2014	2015	2016	2017	2018	Average annual change		
						2014– 2016	2016– 2017	2017– 2018
Cases	133,984	131,129	125,586	116,424	102,288	–3.2%	–7.3%	–12.1%
Cases per 10,000 FFS beneficiaries	35.4	34.4	32.5	30.1	26.5	–4.2	–7.3	–11.9
Payment per case	\$40,015	\$40,719	\$40,656	\$38,253	\$40,105	0.8	–5.9	4.8
Length of stay (in days)	26.3	26.6	26.8	26.3	26.6	1.0	–2.2	1.2
Users	118,288	116,088	111,171	103,322	91,754	–3.1	–7.1	–11.2

Note: LTCH (long-term care hospital), FFS (fee-for-service). Yearly figures presented in the table are rounded, but the average annual changes were calculated using unrounded data.

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

- The Pathway for SGR Reform Act of 2013 created a “dual payment-rate structure” for LTCHs where, beginning in fiscal year 2016, only certain LTCH cases continue to qualify for the standard LTCH prospective payment system (PPS) rate, while cases that do not meet a set of criteria are paid a lower “site-neutral” rate (*site neutral* is defined as the lower of Medicare’s inpatient hospital PPS rate or 100 percent of the cost of the case).
- Controlling for the number of FFS beneficiaries, the number of LTCH cases declined by about 4 percent annually between 2014 and 2016. The number of cases declined more rapidly following the implementation of the dual payment-rate structure. From 2016 to 2017, the number of LTCH cases declined by over 7 percent, and from 2017 to 2018, the number of LTCH cases declined by another 12 percent.
- Reflecting the decline in the number of Medicare cases, the number of beneficiaries who had LTCH stays (“users”) also decreased by 11.2 percent from 2017 to 2018.
- Reductions in payment per case from 2015 through 2017 reflect a lower payment rate for cases that did not meet the criteria after the implementation of the dual payment-rate structure. From 2017 to 2018, on a payment per case basis, the increase in the share of cases that qualified for the standard LTCH PPS rate offset the payment reduction for cases paid the “site-neutral” rate.

**Chart 8-20. The aggregate LTCH Medicare margin increased in 2018**

Type of LTCH	Share of discharges in 2018	Medicare margin				
		2014	2015	2016	2017	2018
All	100%	5.2%	4.7%	3.9%	-2.2%	-0.5%
Urban	95	5.2	4.7*	4.0	-1.9	-0.2
Rural	5	5.1	3.5*	-0.2	-13.6	-9.5
Nonprofit	14	-2.2	-5.9	-5.7	-13.0	-11.7
For profit	84	7.0	6.5	5.5	-0.3	1.3

Note: LTCH (long-term care hospital).  
 \*CMS adopted new core-based statistical area codes for LTCHs beginning in fiscal year 2015; this change reclassified several facilities as urban that had previously been classified as rural, and therefore the margin across categories of urban and rural facilities between 2014 and 2015 should not be compared.

Source: MedPAC analysis of cost report data from CMS.

- After peaking in 2012, the aggregate LTCH margin began to fall in 2013, primarily due to policy changes that reduced payments, including the start of a three-year phase-in of a downward adjustment for budget neutrality and the effect of sequestration that began on April 1, 2013. Margins steadily declined between 2012 and 2018 (early years not shown).
- In fiscal year 2016, CMS began implementing a “dual payment-rate structure” where certain LTCH cases not meeting a set of criteria specified in law are paid a lower “site-neutral” rate (*site neutral* is defined as the lower of Medicare’s inpatient hospital PPS rate or 100 percent of the cost of the case). As a result, the aggregate Medicare margin fell to -2.2 percent in 2017. Increases in the aggregate share of cases meeting the criteria resulted in the aggregate Medicare margin increasing to -0.5 percent in 2018.
- Financial performance in 2018 varied across LTCHs. The aggregate Medicare margin for for-profit LTCHs (which accounted for 84 percent of all Medicare discharges from LTCHs) decreased from 6.5 percent in 2015 to 1.3 percent in 2018. The aggregate margin for nonprofit LTCHs decreased from -5.9 percent in 2015 to -11.7 percent in 2018.

**Chart 8-21. The share of LTCH cases meeting the criteria for the standard LTCH PPS rate increased from 2017 to 2018**

Cases meeting the criteria	2015	2016	2017	2018	Percent change	
					2015–2017	2017–2018
Cases	72,429	72,318	74,666	71,916	1.5%	–3.7%
Share of all LTCH cases	55%	58%	64%	70%		
Cases per 10,000 FFS beneficiaries	19.0	18.7	19.3	18.6	0.7	–3.4
Payment per case	\$46,217	\$46,223	\$46,127	\$46,789	–0.1	1.4
Spending (in billions)	\$3.3	\$3.3	\$3.4	\$3.4	1.4	–2.3
Length of stay (in days)	28.5	27.9	27.9	28.0	–1.0	0.4
Aggregate Medicare margin	6.8%	6.3%	5.8%	5.8%	N/A	N/A

Note: LTCH (long-term care hospital), PPS (prospective payment system), FFS (fee-for-service), N/A (not applicable). Yearly figures presented in the table are rounded, but the percent changes were calculated using unrounded data.

Source: MedPAC analysis of cost report data from CMS.

- The Pathway for SGR Reform Act of 2013 created a “dual payment-rate structure” for LTCHs where, beginning in fiscal year 2016, only certain LTCH cases continue to qualify for the standard LTCH PPS rate, while cases that do not meet a set of criteria are paid a lower “site-neutral” rate (*site neutral* is defined as the lower of Medicare’s inpatient hospital PPS rate or 100 percent of the cost of the case).
- Controlling for the number of FFS beneficiaries, the number of cases meeting the criteria to qualify for the standard LTCH PPS rate decreased by 3.4 percent in 2018, in contrast to the 11.9 percent reduction in all LTCH cases per 10,000 FFS beneficiaries (see Chart 8-19).
- After decreasing from 28.5 days in 2015 to 27.9 days in 2016, the average length of stay for cases meeting the criteria to qualify for the standard LTCH PPS rate has remained relatively stable since 2017.
- The aggregate Medicare margin for cases meeting the criteria to qualify for the standard LTCH PPS rate was 5.8 percent in 2018. Because cases that meet the criteria are generally more profitable under the dual payment-rate structure than those that do not, we expect stronger financial performance under Medicare for LTCHs that treat higher shares of these cases.



SECTION

9

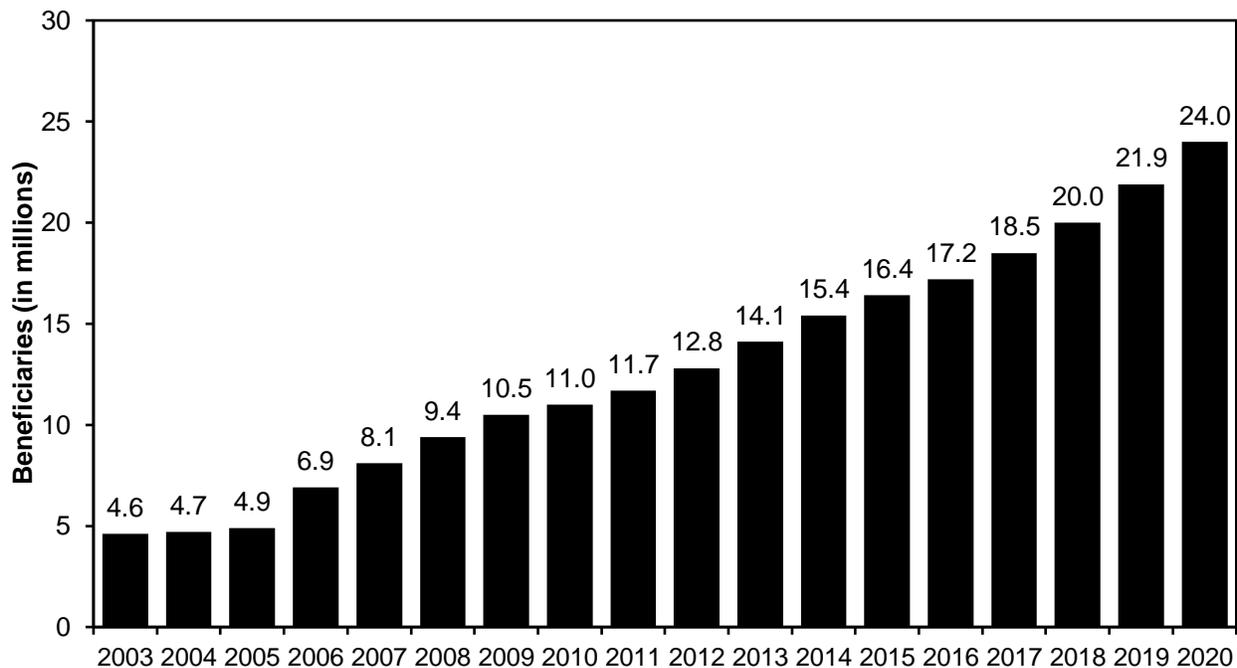
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**Medicare Advantage**

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**Chart 9-1. Enrollment in MA plans, 2003–2020**



Note: MA (Medicare Advantage).

Source: CMS Medicare managed care contract reports and monthly summary reports, February 2003–2020.

- Historically, the Commission has used information on “Medicare eligibles” as the denominator in calculating the share of Medicare beneficiaries enrolled in Medicare Advantage (MA). “Medicare eligibles” include people previously, but no longer, covered by Medicare and people within 5 months of their 65th birthday. We now have data that allows us to calculate the share of MA enrollment as a share of Medicare beneficiaries with either Part A or Part B coverage and thus can calculate a more accurate MA enrollment percentage. The percentages published here supersede all prior estimates by the Commission of the share of Medicare beneficiaries enrolled in MA.
- Enrollment in MA plans that are paid on an at-risk capitated basis reached 24.0 million enrollees in February 2020. MA enrollment represents 39 percent of all 62.2 million Medicare beneficiaries (and 42 percent of all 56.5 million beneficiaries enrolled in both Part A and Part B). Medicare Advantage and other private plans account for 40 percent of all Medicare beneficiaries. (Other private plans consist of private fee-for-service plans, cost plans, Medicare medical savings account plans, plans under the Program of All-Inclusive Care for the Elderly (PACE), and Medicare–Medicaid plans participating in CMS’s financial alignment demonstration.)
- MA enrollment has grown steadily since 2003, increasing more than fivefold. The Medicare program paid MA plans about \$274 billion in 2019 to cover Part A and Part B services for MA enrollees (data not shown).

## Chart 9-2. MA plans available to almost all Medicare beneficiaries, 2012–2020

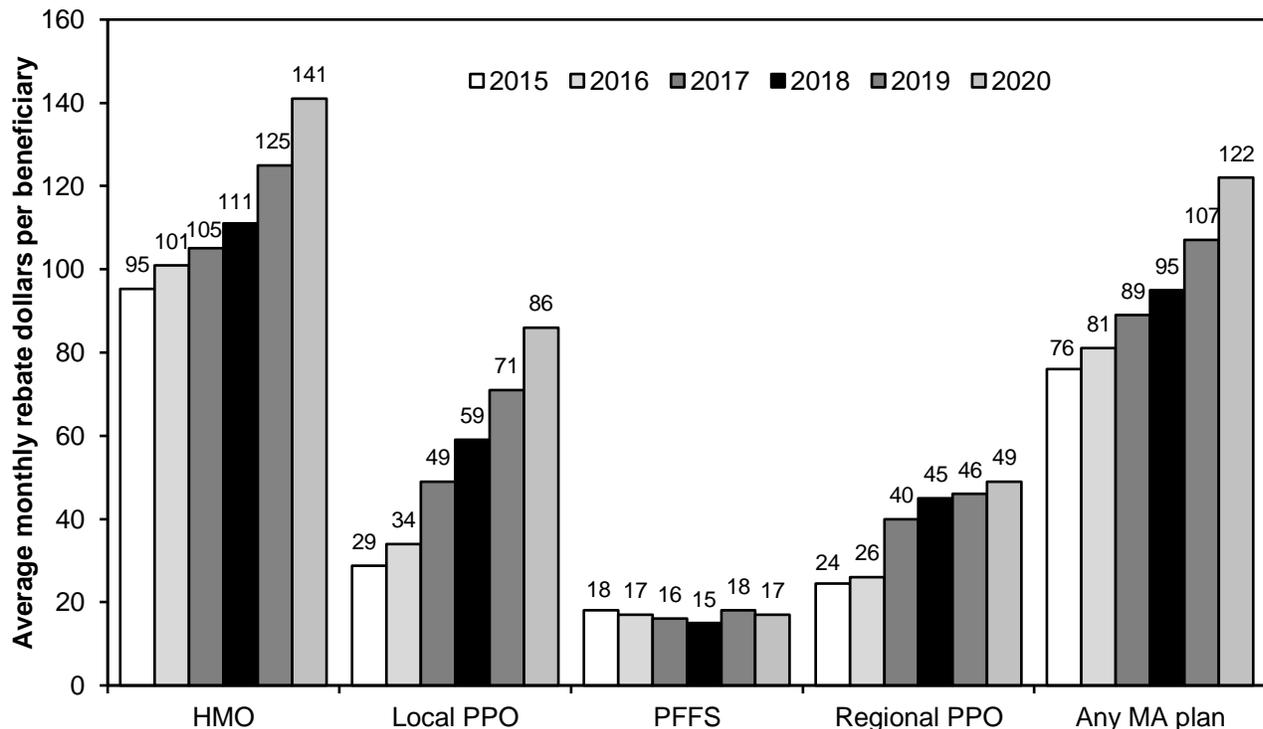
Share of Medicare beneficiaries living in counties with plans available						
	CCPs			PFFS	Any MA plan	Average plan offerings per beneficiary
	HMO or local PPO (local CCP)	Regional PPO	Any CCP			
2012	93%	76%	99%	60%	100%	19
2013	95	71	99	59	100	19
2014	95	71	99	53	100	18
2015	95	70	98	47	99	17
2016	96	73	99	47	99	18
2017	95	74	98	45	99	18
2018	96	74	98	41	99	20
2019	97	74	98	38	99	23
2020	98	73	99	36	99	27

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

Source: MedPAC analysis of plan bid data from CMS, 2012–2020.

- There are four types of MA plans, three of which are CCPs. Local CCPs include HMOs and local PPOs, 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 of local PPOs. These CCPs accounted for 97 percent of Medicare private plan enrollees as of February 2020 (data not shown). Since 2011, PFFS plans are required to have networks in areas with two or more CCPs. In other areas, PFFS plans are not required to have networks, and enrollees are free to use any Medicare provider.
- Local CCPs are available to 98 percent of Medicare beneficiaries in 2020, and regional PPOs are available to 73 percent of beneficiaries. Since 2006, almost all Medicare beneficiaries have had MA plans available (data not shown); 99 percent have an MA plan available in 2020.
- The number of plans from which beneficiaries may choose in 2020 is higher than at any time during the years examined. In 2020, beneficiaries can choose from an average of 27 plans operating in their counties.

**Chart 9-3. Average monthly rebate dollars, by plan type, 2015–2020**



Note: HMO (health maintenance organization), PPO (preferred provider organization), PFFS (private fee-for-service), MA (Medicare Advantage). Employer group waiver and special needs plans are excluded.

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

- Perhaps the best summary measure of plan benefit value is the average rebate, which plans receive to provide additional benefits. Plans are awarded rebates for bidding under their benchmarks. The rebates must be returned to the plan members in the form of extra benefits. The extra benefits may be lower cost sharing, supplemental benefits, or lower premiums. The average rebate for all non-employer, non–special needs plans rose to a high of \$122 per month per beneficiary for 2020.
- HMOs have had, by far, the highest rebates because they tend to bid lower than other types of plans. Average rebates for HMOs have risen sharply over the past few years and are at a high of \$141 per month per beneficiary for 2020.
- For both local and regional PPOs, the rebates rose sharply after 2016. Rebates for local PPOs have tripled since 2015.
- Rebates for PFFS plans have been relatively stable since 2015.

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

Plan type	Total enrollees (in thousands)					Percent change 2019–2020
	2016	2017	2018	2019	2020	
Local CCPs	15,588	16,920	18,463	20,502	22,704	11%
Regional PPOs	1,315	1,353	1,327	1,255	1,170	–7
PFFS	238	190	154	118	87	–26

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

Source: CMS health plan monthly summary reports, February 2016–2020.

- Enrollment in local CCPs grew by 11 percent over the past year. Enrollment in regional PPOs declined by 7 percent, and enrollment in PFFS plans dropped by 26 percent. Combined enrollment in the three types of plans grew by 10 percent from February 2019 to February 2020 (data not shown).

**Chart 9-5. MA and cost plan enrollment by state and type of plan, 2020**

State or territory	All Medicare beneficiaries (in thousands)	Distribution (in percent) of enrollees by plan type					Total
		HMO	Local PPO	Regional PPO	PFFS	Cost	
<b>U.S. total</b>	<b>62,171</b>	<b>24%</b>	<b>13%</b>	<b>2%</b>	<b>0%</b>	<b>0%</b>	<b>39%</b>
Alabama	1,054	21	23	1	0	0	45
Alaska	102	0	1	0	0	0	1
Arizona	1,342	35	7	1	0	0	43
Arkansas	641	16	5	7	1	0	29
California	6,350	40	3	0	0	0	43
Colorado	926	31	11	0	0	1	43
Connecticut	686	21	22	1	0	0	44
Delaware	211	8	10	0	0	0	18
Florida	4,608	32	12	5	0	0	49
Georgia	1,748	13	21	9	0	0	42
Hawaii	277	17	28	2	0	0	47
Idaho	340	22	14	0	0	0	37
Illinois	2,256	12	15	0	0	0	27
Indiana	1,271	14	19	2	0	0	35
Iowa	631	9	14	0	0	2	25
Kansas	540	8	12	0	1	0	21
Kentucky	935	14	20	3	0	1	38
Louisiana	880	35	6	1	0	0	41
Maine	342	22	16	1	0	0	39
Maryland	1,048	8	4	0	0	0	13
Massachusetts	1,344	16	7	1	0	0	24
Michigan	2,084	17	28	0	0	0	45
Minnesota	1,033	15	27	0	0	6	48
Mississippi	607	13	7	3	0	0	23
Missouri	1,238	24	12	3	0	0	40
Montana	233	9	11	0	0	0	20
Nebraska	350	12	6	0	1	1	20
Nevada	538	34	6	0	0	0	40
New Hampshire	303	10	9	2	0	0	21
New Jersey	1,630	15	17	0	0	0	32
New Mexico	427	21	17	0	0	0	39
New York	3,663	28	11	3	0	0	43
North Carolina	2,006	17	20	3	0	0	40
North Dakota	133	0	4	0	0	15	20
Ohio	2,359	25	17	1	0	0	43
Oklahoma	745	13	11	1	0	0	25
Oregon	874	31	17	0	0	0	47
Pennsylvania	2,756	27	17	0	0	0	44
Puerto Rico	752	78	2	0	0	0	80
Rhode Island	223	36	5	1	0	0	42
South Carolina	1,088	10	11	10	0	0	31
South Dakota	178	1	8	0	0	13	23
Tennessee	1,368	28	14	1	0	0	43
Texas	4,219	23	14	4	0	0	42
Utah	406	31	9	0	0	0	40
Vermont	149	5	5	4	0	0	14
Virgin Islands	20	0	0	0	0	0	1
Virginia	1,527	14	6	2	1	1	25
Washington	1,380	31	5	0	0	0	36
Washington, DC	94	8	13	0	0	0	22
West Virginia	441	4	29	1	1	4	38
Wisconsin	1,186	25	16	1	0	4	46
Wyoming	112	0	2	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. U.S. total includes beneficiaries in all outlying areas. Component percentages may not sum to totals due to rounding. In contrast with prior years, we report MA enrollment as a share of current Medicare beneficiaries. In prior years, we reported MA enrollment as a percentage of total Medicare eligibles, which included individuals who were (1) alive and ever enrolled but no longer in Medicare and (2) enrolled in Medicare with a future effective date.

Source: CMS enrollment and population data February 2020.

## Chart 9-6. MA plan benchmarks, bids, and Medicare program payments relative to FFS spending, 2020

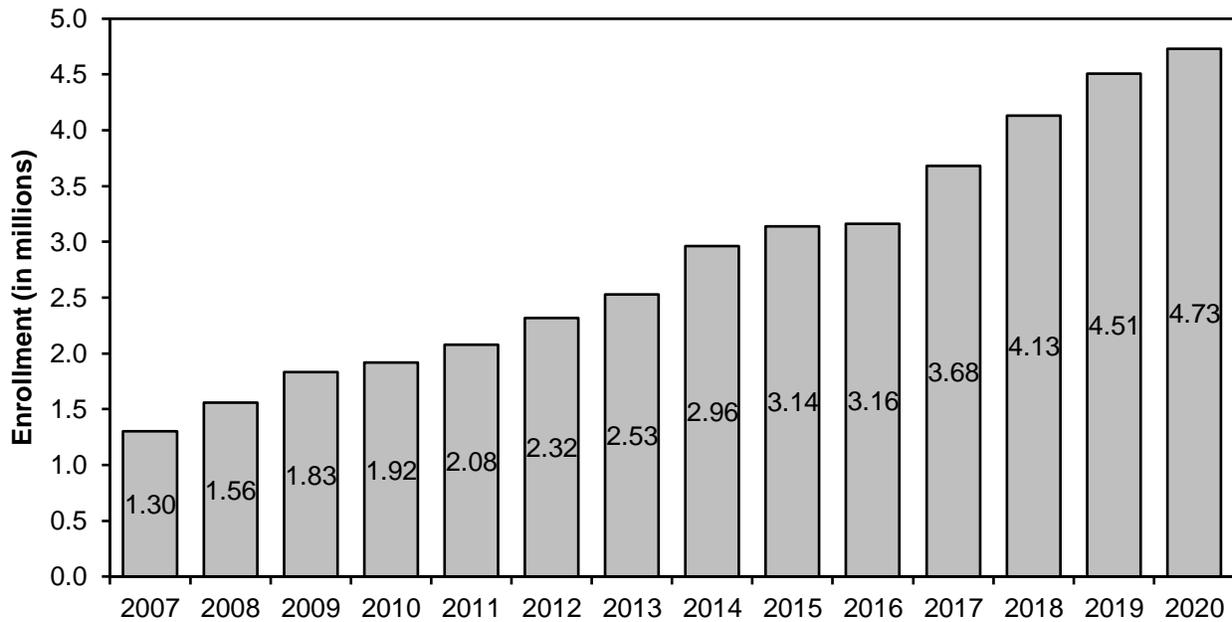
	All plans	HMOs	Local PPOs	Regional PPOs	PFFS
Benchmarks/FFS	107%	107%	109%	105%	106%
Bids/FFS	88	87	94	91	105
Payments/FFS	100	100	104	97	105

Note: MA (Medicare Advantage), FFS (fee-for-service), HMO (health maintenance organization), PPO (preferred provider organization), PFFS (private fee-for-service). Data exclude employer plans, which do not submit plan bids but receive payment based on the bids and benchmarks of nonemployer plans.

Source: MedPAC analysis of plan bid data from CMS October 2019.

- Since 2006, plan bids have partly determined the Medicare payments that plans 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. Benchmarks for each county are set by means of a statutory formula based on percentages (ranging from 95 percent to 115 percent) of each county's per capita Medicare FFS spending. Plans with quality ratings of 4 or more stars may have their benchmarks raised by 10 percent in some counties.
- 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 it ranges from 50 percent to 70 percent. The plan must then return the rebate to its enrollees in the form of lower cost sharing, supplemental benefits, or lower premiums.
- We estimate that MA benchmarks average 107 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 geographical areas.
- Plans' enrollment-weighted bids (excluding employer plans, which no longer submit bids) average 88 percent of FFS spending in 2020. On average, each coordinated care plan type (HMO, local PPO, regional PPO) has demonstrated the ability to provide the same services for less than FFS in the areas where they bid.
- We project that 2020 MA payments will be 100 percent of FFS spending. This figure does not include employer plans and does not account for risk-coding differences between FFS and MA plans that have not been resolved through the coding intensity factor. We estimate that coding differences add 2 percentage points to 3 percentage points to payments relative to FFS.
- The ratio of payments relative to FFS spending varies by the type of MA plan. HMO and regional PPO payments are estimated to be 100 and 97 percent of FFS, respectively, while payments to local PPOs and PFFS plans average 104 percent and 105 percent of FFS, respectively.

**Chart 9-7. Enrollment in employer group MA plans, 2007–2020**

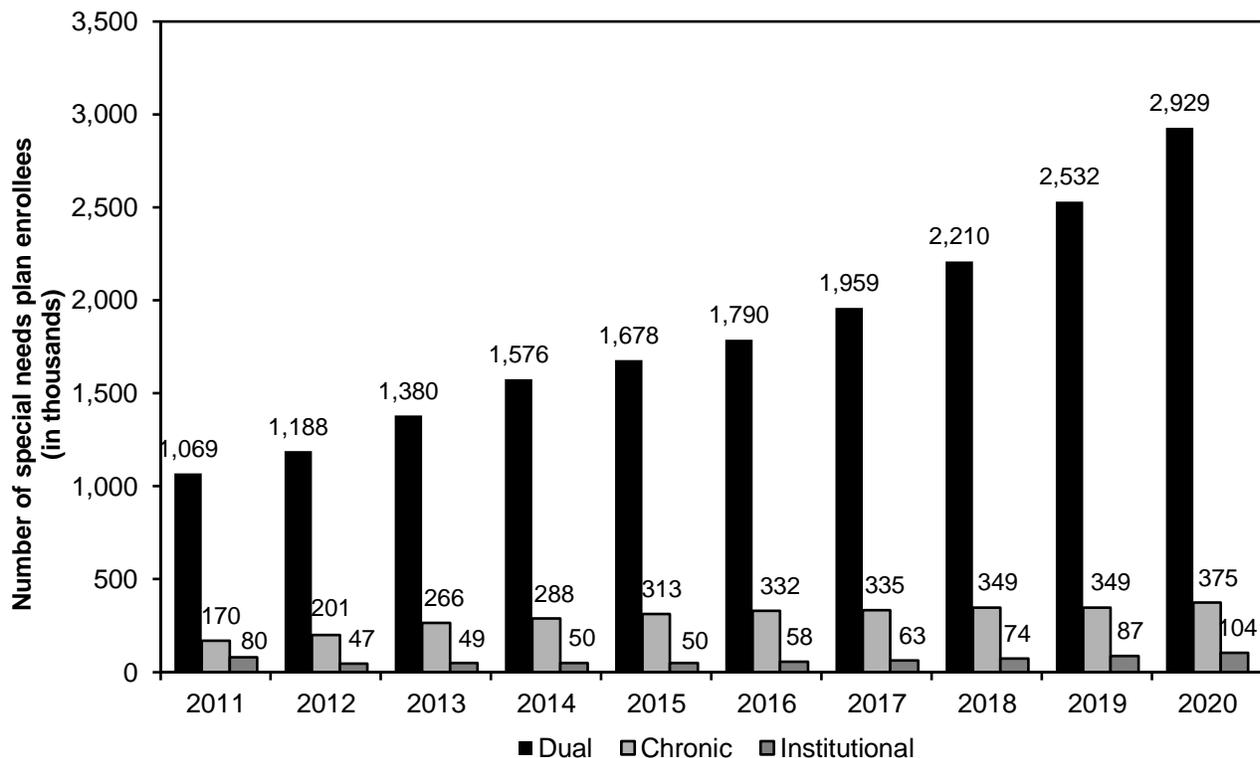


Note: MA (Medicare Advantage). Enrollment numbers are as of November for 2007 and February for 2008 through 2020.

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 2020, about 4.7 million enrollees were in employer group plans, or about 20 percent of all MA enrollees. Employer plan enrollment grew by 5 percent from 2019 and has doubled since 2012.

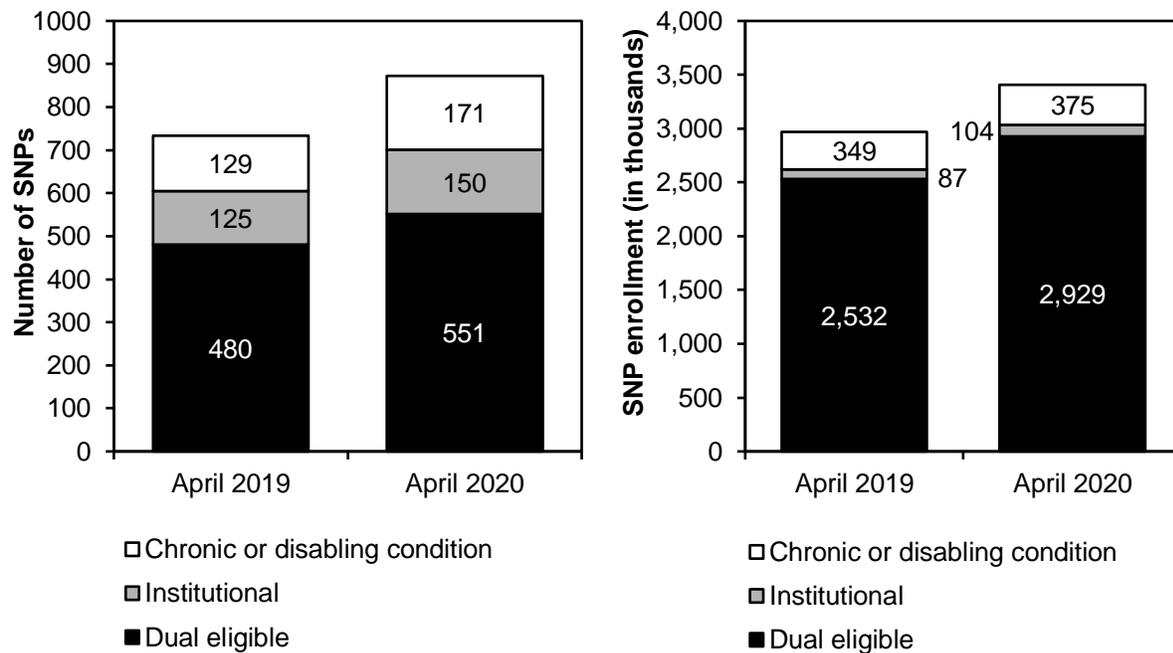
**Chart 9-8. Number of special needs plan enrollees, 2011–2020**



Source: CMS special needs plans comprehensive reports, April 2011–2020.

- The Congress created special needs plans (SNPs) as a new 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, but SNP authority was extended several times. The Bipartisan Budget Act of 2018 made SNPs permanent.
- 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 exceeds 2.9 million in 2020, doubling since 2013.
- Enrollment in chronic condition SNPs has fluctuated as plan requirements have changed but has generally risen annually since 2011.
- Enrollment in institutional SNPs has risen annually since 2015.

**Chart 9-9. Number of SNPs and SNP enrollment rose from 2019 to 2020**



Note: SNP (special needs plan).

Source: CMS special needs plans comprehensive reports, April 2019 and 2020.

- The number of SNPs increased by 19 percent from April 2019 to April 2020. Dual-eligible SNPs increased by 15 percent, institutional SNPs increased by 20 percent, and the number of chronic condition SNPs increased by 33 percent.
- In 2020, most SNPs (63 percent) are for dual-eligible beneficiaries, while 17 percent are for beneficiaries who reside in institutions (or reside in the community but have a similar level of need), and 20 percent are for beneficiaries with chronic conditions.
- From April 2019 to April 2020, the number of SNP enrollees increased by 15 percent. Enrollment in SNPs for dual eligibles grew by 16 percent, enrollment in SNPs for institutionalized beneficiaries grew by 19 percent, and enrollment in SNPs for chronic conditions grew by 7 percent. Enrollment in all SNPs has grown from 0.9 million in May 2007 (not shown) to 3.4 million in April 2020.
- The availability of SNPs varies by type of special needs population served (data not shown). In 2020, 90 percent of beneficiaries reside in areas where SNPs serve dual-eligible beneficiaries (up from 89 percent in 2019), 67 percent live where SNPs serve institutionalized beneficiaries (up from 63 percent in 2019), and 52 percent live where SNPs serve beneficiaries with chronic conditions (up from 47 percent in 2019).

**Chart 9-10. The share of Medicare beneficiaries in private plans does not differ substantially in medically underserved areas compared with other areas, but is somewhat lower in rural areas, 2020**

	Medicare population (in millions)	As percent of Medicare population	Percent of category in MA and other private plans
<b>All beneficiaries</b>	<b>61.7</b>	<b>100%</b>	<b>40%</b>
<b>County's medically underserved area designation</b>			
Partial county	38.8	63	41
Entire county	10.9	18	38
No medically underserved areas	12.0	19	37
<b>Urban influence code designation</b>			
Metropolitan	44.5	72	43
Rural: Micropolitan	7.9	13	33
Rural: Adjacent to metropolitan	8.5	14	32
Rural: Not adjacent to metropolitan	0.7	1	23

Note: MA (Medicare Advantage). Beneficiaries in the Virgin Islands, Guam, American Samoa, and the Northern Mariana Islands or in foreign areas are excluded. MA plans consist of HMOs, local preferred provider organizations (PPOs), regional PPOs, private fee-for-service plans, and Medical Savings Account plans. Private plans include 0.7 million beneficiaries in non-MA private plans, which consist of Medicare–Medicaid plans, Program of All-Inclusive Care for the Elderly plans, and cost plans. Medically underserved areas (MUAs) are designated by the Health Resources and Services Administration (HRSA) as partial counties (census tracts and county subdivisions) or entire counties that disproportionately have a combination of indicators that may include a low number of primary care providers per 1,000 population, high infant mortality, high poverty, and a large elderly population. Urban influence codes (UICs) are designated by the Office of Management and Budget (OMB) by population size of the metro area, and nonmetropolitan counties by size of the largest city or town and proximity to metro and micropolitan areas (areas with a population of at least 10,000 people but fewer than 50,000). The UICs were last updated in 2013 and are updated every 10 years. Components may not sum to totals due to rounding.

Source: MedPAC analysis of HRSA MUAs, OMB UICs, and CMS enrollment data February 2020.

- In general, an MA plan's service area consists of one or more entire counties. (MA regional PPOs are required to cover entire regions, which consist of one or more states. In rare circumstances, MA "local" plans receive a waiver that allows them to serve only a portion of a county if the plan is able to prove that the demographic composition (e.g., income and race) of the portion of the county the plan intends to serve is not substantively different from the rest of the county.)
- We examined beneficiary access to MA plans and market share of MA plans by two geographic designations: MUAs and UICs.

*(Chart continued next page)*

## **Chart 9-10. The share of Medicare beneficiaries in private plans does not differ substantially in medically underserved areas compared with other areas, but is somewhat lower in rural areas, 2020 (continued)**

- HRSA designates MUAs by census tract, county, or county subdivisions. HRSA designates MUAs based on a score of four combined indicators: (1) disproportionately low number of primary care providers per 1,000 people, (2) high infant mortality, (3) high poverty, and (4) a large elderly population. Part of a county may be designated as an MUA, the entire county may receive the designation, or the entire county may have no MUAs.
- The Office of Management and Budget UICs classify geographic areas as metropolitan, micropolitan, adjacent to metropolitan, and not adjacent to metropolitan; the latter three types of areas are considered rural. UICs distinguish metropolitan counties by the population size of their metro area and nonmetropolitan counties by the size of the largest city or town and proximity to metro and micropolitan areas (areas with a population of at least 10,000 people but fewer than 50,000). The UICs were last updated in 2013 and are updated every 10 years.
- Counties that have designated medically underserved areas (either partially or counties that are entirely composed of MUAs) have shares of MA enrollment similar to counties with no designated MUAs. The share of beneficiaries in MA and other private plans is the highest in counties partially designated as MUAs (41 percent). The proportion of Medicare beneficiaries in private plans located in counties that are designated entirely as MUAs (38 percent) is almost the same as counties that do not have any MUA designation (37 percent).
- Most (72 percent) of all 61.7 million Medicare beneficiaries live in metropolitan areas. The share of Medicare beneficiaries who live in metropolitan areas enrolled in MA and other private plans (43 percent) is higher than the share of rural beneficiaries enrolled in MA plans.
- Nearly all Medicare beneficiaries in rural areas reside in a micropolitan county or a county that is adjacent to a metropolitan area. Roughly one-third of Medicare beneficiaries in these areas are enrolled in MA and other private plans.
- About 1 percent of Medicare beneficiaries reside in a rural county that is not adjacent to a metropolitan area. Nearly one-quarter (23 percent) of these beneficiaries are enrolled in MA and other private plans.

**Chart 9-11. MA and other private plan enrollment patterns do not differ by medically underserved area designation but do vary based on urban influence designation, 2020**

	MA and private plan population (in millions)	As a percent of MA and private plan population	Percent of category			
			HMO	Local PPO	Regional PPO	Other private plans
<b>All Medicare private plan enrollees</b>	<b>24.7</b>	<b>100%</b>	<b>60%</b>	<b>32%</b>	<b>5%</b>	<b>3%</b>
<b>County's medically underserved area designation</b>						
Partial county	16.1	65	65	29	3	4
Entire county	4.2	17	52	35	12	2
No medically underserved areas	4.4	18	50	42	6	3
<b>Urban influence code designation</b>						
Metropolitan	19.2	78	66	28	3	3
Rural: Micropolitan	2.7	11	37	46	12	5
Rural: Adjacent to metropolitan	2.6	11	42	45	9	4
Rural: Not adjacent to metropolitan	0.2	1	28	49	13	10

Note: MA (Medicare Advantage), HMO (health maintenance organization), PPO (preferred provider organization). Beneficiaries in the Virgin Islands, Guam, American Samoa, and the Northern Mariana Islands or in foreign areas are excluded. MA plans consist of HMOs, local PPOs, regional PPOs, private fee-for-service plans, and Medical Savings Account plans. Private plans include 0.7 million beneficiaries in non-MA private plans, which consist of Medicare–Medicaid plans, Program of All-Inclusive Care for the Elderly plans, and cost plans. Medically underserved areas (MUAs) are designated by the Health Resources and Services Administration (HRSA) as partial counties (census tracts and county subdivisions) or entire counties that disproportionately have a combination of indicators that may include a low number of primary care providers per 1,000 population, high infant mortality, high poverty, and a large elderly population. Urban influence codes (UICs) are designated by the Office of Management and Budget (OMB) by population size of the metro area, and nonmetropolitan counties by size of the largest city or town and proximity to metro and micropolitan areas (areas with a population of at least 10,000 people but fewer than 50,000). The UICs were last updated in 2013 and are updated every 10 years. Components may not sum to totals due to rounding.

Source: MedPAC analysis of HRSA MUAs, OMB UICs, and CMS enrollment and population data February 2020.

- Local coordinated care plans (HMOs and local PPOs), which represent 92 percent of private plan enrollees, may choose which individual counties to serve. Regional PPOs (5 percent of all private plan enrollees) cover entire state-based regions.
- Enrollment by type of plan is not notably different between counties with different MUA designations. The proportion of enrollees in HMOs is similar for counties that are designated entirely as medically underserved areas (52 percent) compared with counties that do not have any medically underserved area designation (50 percent). The remainder of private plan enrollment in these areas is generally in either local or regional PPOs.
- HMOs account for the largest share of private plan enrollment in metropolitan areas (66 percent), but PPOs account for the largest share of private plan enrollment in rural areas (more than 50 percent combined between local PPOs and regional PPOs).

## Chart 9-12. MA plans are available to nearly all beneficiaries in medically underserved and rural areas, 2020

	Share of Medicare beneficiaries living in counties with plans available in 2020						
	As a percent of Medicare population	Any MA plan	CCPs				
			HMO	Local PPO	HMO or local PPO	Regional PPO	Any CCP
<b>All beneficiaries</b>	<b>100%</b>	<b>99%</b>	<b>95%</b>	<b>93%</b>	<b>98%</b>	<b>73%</b>	<b>99%</b>
<b>County's medically underserved area designation</b>							
Partial county	63	99	98	93	99	69	99
Entire county	18	98	88	91	95	82	98
No medically underserved areas	19	98	94	95	97	81	98
<b>Urban influence code designation</b>							
Metropolitan	72	100	100	95	100	72	100
Rural: Micropolitan	13	97	87	90	94	71	97
Rural: Adjacent to metropolitan	14	96	84	88	92	81	96
Rural: Not adjacent to metropolitan	1	86	61	71	75	68	84

Note: MA (Medicare Advantage), CCP (coordinated care plan), HMO (health maintenance organization), PPO (preferred provider organization). 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 plans, employer-only plans, Program of All-Inclusive Care for the Elderly, and certain demonstration plans). Medically underserved areas (MUAs) are designated by the Health Resources and Services Administration (HRSA) as partial counties (census tracts and county subdivisions) or entire counties that disproportionately have a combination of indicators that may include a low number of primary care providers per 1,000 population, high infant mortality, high poverty, and a large elderly population. Urban influence codes (UICs) are designated by the Office of Management and Budget (OMB) by population size of the metro area, and nonmetropolitan counties by size of the largest city or town and proximity to metro and micropolitan areas (areas with a population of at least 10,000 people but fewer than 50,000). The UICs were last updated in 2013 and are updated every 10 years. Components may not sum to totals due to rounding.

Source: MedPAC analysis of HRSA MUAs, OMB UICs, and CMS enrollment and population data February 2020.

- We examined the availability of MA plans to all Medicare beneficiaries. Consistent with prior work, we exclude employer plans and special needs plans. Although about one-third of MA enrollees are in these excluded plans, their availability is restricted to certain populations. In addition, we do not include other private plans such as cost plans.
- MA plans are available to nearly all Medicare beneficiaries, irrespective of whether beneficiaries reside in a county with a designated medically underserved area. Among counties that are designated entirely as medically underserved areas, 98 percent of beneficiaries have access to an MA plan.
- Nearly all Medicare beneficiaries residing in metropolitan areas have access to an MA plan.
- Nearly all beneficiaries in rural counties have access to an MA plan. Between 96 percent and 97 percent of beneficiaries in micropolitan counties or those adjacent to a metropolitan area have access to an MA plan. Among the 1 percent of Medicare beneficiaries residing in a rural county that is not adjacent to a metropolitan area, 86 percent have access to an MA plan.

## Chart 9-13. Most Medicare beneficiaries have access to a considerable number of MA plans, but rural beneficiaries and beneficiaries in counties composed entirely of MUAs typically have fewer plans from which to choose, 2020

	As a percent of Medicare population	Average plan offerings per beneficiary	Share of Medicare beneficiaries living in counties with an available zero-premium plan with drug coverage
<b>All beneficiaries</b>	<b>100%</b>	<b>27</b>	<b>93%</b>
<b>County's medically underserved area designation</b>			
Partial county	63	30	93
Entire county	18	18	91
No medically underserved areas	19	25	95
<b>Urban influence code designation</b>			
Metropolitan	72	31	96
Rural: Micropolitan	13	16	82
Rural: Adjacent to metropolitan	14	16	85
Rural: Not adjacent to metropolitan	1	9	65

Note: MA (Medicare Advantage), MUA (medically underserved area). 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 plans, employer-only plans, and certain demonstration plans). MUAs are designated by the Health Resources and Services Administration (HRSA) as partial counties (census tracts and county subdivisions) or entire counties that disproportionately have a combination of indicators that may include a low number of primary care providers per 1,000 population, high infant mortality, high poverty, and a large elderly population. Urban influence codes (UICs) are designated by the Office of Management and Budget (OMB) by population size of the metro area, and nonmetropolitan counties by size of the largest city or town and proximity to metro and micropolitan areas (areas with a population of at least 10,000 people but fewer than 50,000). The UICs were last updated in 2013 and are updated every 10 years.

Source: MedPAC analysis of HRSA MUAs, OMB UICs, and CMS enrollment and population data February 2020.

- In 2020, the average beneficiary has 27 plans from which to choose in his or her county.
- On average, beneficiaries residing in counties that are designated entirely as medically underserved areas have fewer MA plans from which to choose, but still have an average of 18 plans available to them. About 91 percent of beneficiaries in these counties have a zero-premium plan with drug coverage available.
- On average, Medicare beneficiaries residing in metropolitan areas have more MA plans from which to choose (an average of 31 plan choices) compared with beneficiaries in rural areas. Nevertheless, the average beneficiary in micropolitan counties or those adjacent to a metropolitan area can choose among an average of 16 plans. Beneficiaries residing in rural counties that are not adjacent to a metropolitan area (1 percent of all beneficiaries) have 9 plans from which to choose, on average.
- At least one zero-premium plan with drug coverage is available to most beneficiaries (93 percent). Availability of these plans in rural areas is somewhat less prevalent than in metropolitan areas. In metropolitan areas, 96 percent of beneficiaries have access to a zero-premium plan. In comparison, over 80 percent of beneficiaries in micropolitan counties or those adjacent to a metropolitan area have access to a zero-premium plan. In rural counties that are not adjacent to a metropolitan area, 65 percent of beneficiaries have an available zero-premium plan.

**Chart 9-14. Twenty most common condition categories among MA beneficiaries, as defined in the CMS–HCC model, 2018**

Conditions (defined by HCC)	Percent of beneficiaries with listed condition	Percent of beneficiaries with listed condition and no others
Diabetes with chronic complications	19.7%	3.6%
Vascular disease	18.7	2.2
COPD	14.0	1.7
CHF	11.6	0.5
Specified heart arrhythmias	11.4	1.3
Major depressive, bipolar, and paranoid disorders	11.3	1.9
Diabetes without complications	8.5	3.1
Morbid obesity	8.5	1.0
Rheumatoid arthritis and inflammatory connective tissue disease	6.5	1.1
Breast, prostate, colorectal, and other cancers and tumors	5.1	1.3
Coagulation defects and other specified hematological disorders	4.8	0.4
Angina pectoris	4.0	0.3
Drug/alcohol dependence	3.6	0.3
Other significant endocrine and metabolic disorders	3.5	0.3
Acute renal failure	3.4	0.1
Cardio-respiratory failure and shock	2.5	0.0
Seizure disorders and convulsions	2.5	0.3
Ischemic or unspecified stroke	2.2	0.1
Septicemia, sepsis, systemic inflammatory response syndrome/shock	1.8	0.0
Hemiplegia/Hemiparesis	1.6	0.1

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

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

- CMS uses the 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, which are collected into HCCs, to adjust the capitated payments.
- Diabetes with chronic complications is the most common HCC, and over 28 percent of MA enrollees are in at least one of the two diabetes HCCs.

**Chart 9-15. Medicare private plan enrollment patterns, by age and Medicare–Medicaid dual-eligible status, December 2018**

	As percent of Medicare population	Percent of category in FFS	Percent of category in private plans
<b>All beneficiaries</b>	<b>100%</b>	<b>65%</b>	<b>35%</b>
Aged (65 or older)	85	64	36
Under 65	15	68	32
<b>Non–dual eligible</b>	<b>82</b>	<b>66</b>	<b>34</b>
Aged (65 or older)	74	65	35
Under 65	8	69	31
<b>Dual eligible</b>	<b>18</b>	<b>60</b>	<b>40</b>
Aged (65 or older)	11	56	44
Under 65	7	67	33
<b>Dual-eligible beneficiaries by category (all ages)</b>			
<b>Full dual eligibility</b>	<b>13</b>	<b>65</b>	<b>35</b>
<b>Beneficiaries with partial dual eligibility</b>			
QMB only	3	53	47
SLMB only	2	48	52
QI	1	46	54

Note: FFS (fee-for-service), QMB (qualified Medicare beneficiary), SLMB (specified low-income beneficiary), QI (qualified individual). The Medicare population includes beneficiaries who have either Part A coverage or Part B coverage. Dual-eligible beneficiaries are eligible for Medicare and Medicaid. See accompanying text for an explanation of the categories of dual-eligible beneficiaries. “Plans” include Medicare Advantage plans as well as cost-reimbursed plans. Data exclude Puerto Rico because of the inability to determine specific dual-eligible categories. As of December 2018, Puerto Rico had 579,000 Medicare beneficiaries enrolled in private plans. Dual-eligible special needs plans in Puerto Rico had 281,000 enrollees in December 2018. Figures may not sum to totals due to rounding.

Source: MedPAC analysis of 2018 denominator and common Medicare environment files and CMS monthly Medicare Advantage reports.

- Medicare plan enrollment among the dually eligible continues to increase. In 2018, 40 percent of dual-eligible beneficiaries were in Medicare private plans, up from 36 percent in 2017.
- A substantial share of dual-eligible beneficiaries (40 percent (not shown in table)) are under the age of 65 and entitled to Medicare on the basis of disability or end-stage renal disease. Regardless of dual-eligibility status, beneficiaries under age 65 are less likely than aged beneficiaries to enroll in Medicare private plans (32 percent vs. 36 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 private Medicare plans than beneficiaries with “partial” dual eligibility. Full dual-eligibility categories consist of beneficiaries with coverage through state Medicaid programs 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 (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 (52 percent and 54 percent, respectively) than any other category shown in this chart, and the rates are higher than the average rate (35 percent) across all Medicare beneficiaries.

SECTION

# 10

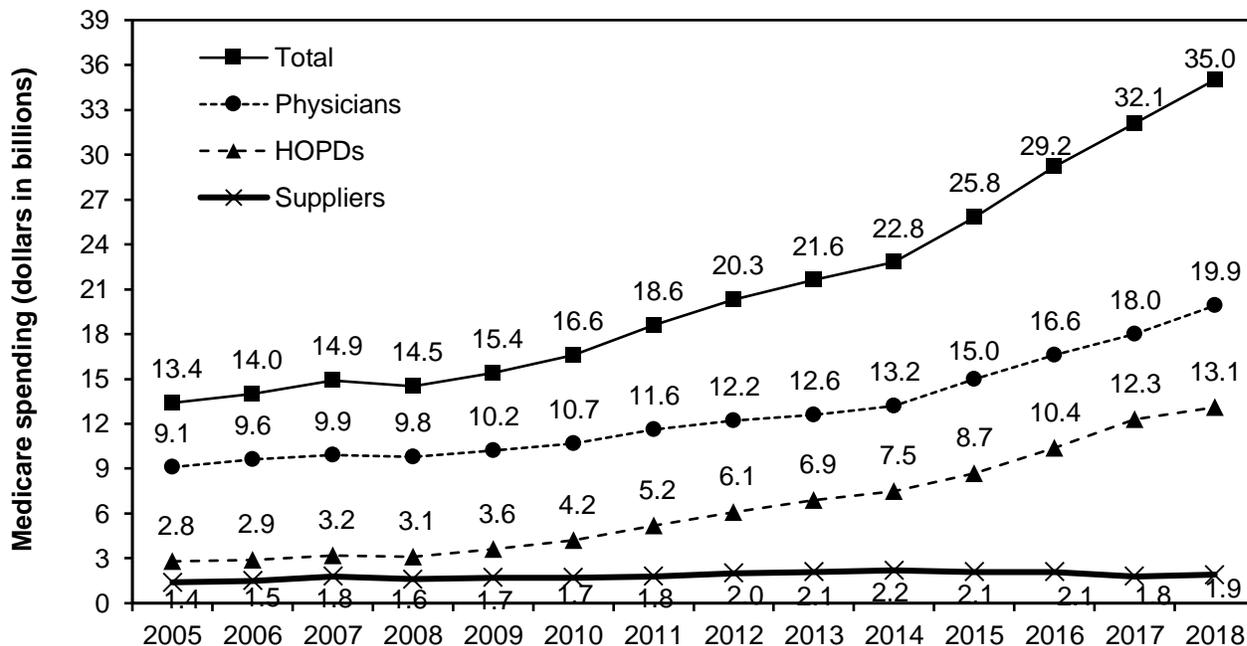
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**Prescription drugs**

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**Chart 10-1. Medicare spending for Part B drugs furnished by physicians, hospital outpatient departments, and suppliers, 2005–2018**



Note: HOPD (hospital outpatient department). Data include Part B–covered drugs furnished by several provider types, including physicians, suppliers, and hospital outpatient departments, and exclude those furnished by critical access hospitals, Maryland hospitals, and dialysis facilities. “Medicare spending” includes program payments and beneficiary cost sharing. Data reflect all Part B drugs whether they were paid based on the average sales price or another payment formula. Data exclude blood and blood products (other than clotting factor). Components may not sum to totals due to rounding.

Source: MedPAC and Acumen LLC analysis of Medicare claims data.

- The Medicare program and beneficiaries spent about \$35 billion on Part B drugs furnished by physicians, hospital outpatient departments (HOPDs), and suppliers in 2018, an increase of about 9 percent from 2017.
- Since 2005, Medicare pays for most Part B drugs at a rate of the average sales price plus 6 percent (ASP + 6 percent). Between 2005 and 2018, total spending grew at an average annual rate of 7.7 percent. Spending growth was slower from 2005 to 2009 (about 3.7 percent per year on average) and more rapid from 2009 to 2018 (about 9.5 percent per year on average).
- Eligible hospitals that participate in the 340B drug discount program receive substantial discounts on outpatient drugs, including those covered by Medicare Part B. Beginning 2018, Medicare reduced the payment rate for certain Part B drugs furnished by 340B hospitals to ASP – 22.5 percent.
- Spending on Part B–covered drugs in outpatient hospitals was \$13.1 billion in 2018. If the 340B payment reduction had not occurred, we estimate that Part B drug spending in outpatient hospitals would have been \$1.8 billion higher (that is, approximately \$15 billion) in 2018.

(Chart continued next page)

## **Chart 10-1. Medicare spending for Part B drugs furnished by physicians, hospital outpatient departments, and suppliers, 2005–2018 (continued)**

- Of total 2018 Part B drug spending, physicians accounted for 57 percent (\$19.9 billion), HOPDs accounted for 38 percent (\$13.1 billion), and suppliers accounted for 5 percent (\$1.9 billion).
- Overall, from 2009 and 2018, Part B drug spending has grown more rapidly for HOPDs than for physicians and suppliers—at average annual rates of about 15 percent, 8 percent, and 2 percent, respectively. However, in the most recent one-year period from 2017 to 2018, Part B drug spending grew more rapidly in physician offices (11 percent) than HOPDs (7 percent) because Medicare reduced the payment rates for some Part B drugs furnished by 340B hospitals beginning 2018. If 340B hospitals had been paid ASP + 6 percent instead of ASP – 22.5 percent, we estimate that Part B drug spending in HOPDs would have grown 22 percent between 2017 and 2018 instead of 7 percent.
- Between 2017 and 2018, Medicare payments for supplier-furnished drugs (such as inhalation drugs, home infusion drugs, and three types of oral drugs) increased 4 percent. In the prior year—from 2016 to 2017—spending on supplier-furnished drugs decreased as a result of a change in the payment formula for Part B–covered home infusion drugs (from 95 percent of the average wholesale price to ASP + 6 percent) and patent expirations and generic entry for certain products.
- Not included in these data are critical access hospitals and Maryland hospitals, which are not paid under the ASP system, and end-stage renal disease facilities, which are paid for most Part B drugs through the dialysis bundled payment rate. Medicare and beneficiaries spent approximately \$930 million in critical access hospitals and \$380 million in Maryland hospitals for Part B drugs in 2018. In addition, in 2018, Medicare spent \$1.2 billion for calcimimetics in dialysis facilities through a transitional drug add-on payment adjustment to the bundled dialysis payment rate.

## Chart 10-2. Change in Medicare payments and utilization for separately payable Part B drugs, 2009–2018

	2009	2018	Average annual growth 2009–2018
<b>Total payments: Separately payable Part B drugs (in billions)</b>	\$11.9*	\$33.1*	12.0%
<b>Total payments: All Part B drugs excluding vaccines (in billions)</b>	\$11.7	\$31.8	11.7
Number of beneficiaries using a Part B drug (in millions)	2.7	3.9	4.3
Average total payments per beneficiary who used a Part B drug	\$4,402	\$8,165	7.1
Average number of Part B drugs per beneficiary	1.39	1.35	–0.4
Average annual payment per Part B drug per beneficiary	\$3,158	\$6,047	7.5
<b>Total payments: All Part B vaccines (in billions)</b>	\$0.2	\$1.3	21.9
Number of beneficiaries using a Part B vaccine (in millions)	13.4	16.8	2.5
Average total payments per beneficiary who used a Part B vaccine	\$16	\$77	18.9
Average number of Part B vaccines per beneficiary	1.08	1.20	1.2
Average annual payment per Part B vaccine per beneficiary	\$15	\$64	17.5

Note: This analysis includes Part B drugs paid based on the average sales price as well as the small group of Part B drugs that are paid based on the average wholesale price or reasonable cost or that are contractor priced. “Vaccines” refers to the three Part B–covered preventive vaccines: influenza, pneumococcal, and hepatitis B. Data include Part B drugs furnished by physicians, hospitals paid under the outpatient prospective payment system, and suppliers and exclude data for critical access hospitals, Maryland hospitals, and dialysis facilities. Yearly figures presented in the table are rounded; the average annual growth rate was calculated using unrounded data.

\*For purposes of this analysis, spending on separately payable Part B drugs excludes any drug that was bundled in 2009 or 2018 (i.e., drugs that were packaged under the outpatient prospective payment system in 2009 or 2018 were excluded from both years of the analysis, regardless of the setting where the drug was administered), drugs billed under not-otherwise-classified billing codes, and blood and blood products (other than clotting factor). Without those exclusions, Part B drug spending was \$15.4 billion in 2009 and \$35.0 billion in 2018, as shown in Chart 10-1.

Source: MedPAC analysis of Medicare claims data for physicians, hospital outpatient departments, and suppliers.

- Total payments by the Medicare program and beneficiaries for separately payable Part B drugs increased 12.0 percent per year, on average, between 2009 and 2018.
- Medicare spending on separately payable Part B drugs excluding Part B–covered preventive vaccines grew at a similar rate (11.7 percent per year) between 2009 and 2018.
- The largest factor contributing to the growth in separately payable Part B drug spending (excluding vaccines) was the change in the price Medicare paid for drugs. Between 2009 and 2018, the average annual payment per drug increased on average by 7.5 percent per year, which reflects increases in the prices of existing drugs and changes in the mix of drugs, including the adoption of new, higher priced drugs. Growth in the average payment per drug would have been even higher if not for the 2018 reduction in Medicare’s payment rate for certain Part B drugs provided by 340B hospitals.

(Chart continued next page)

## **Chart 10-2. Change in Medicare payments and utilization for separately payable Part B drugs, 2009–2018 (continued)**

- Growth in the number of beneficiaries using nonvaccine Part B drugs (about 4.3 percent per year on average) also contributed to increased spending. The number of Part B drugs received per user declined from about 1.39 in 2009 to 1.35 in 2018, which modestly offset spending growth.
- Medicare covers three preventive vaccines: influenza, pneumococcal, and—for beneficiaries at high or medium risk—hepatitis B. Spending on the three preventive vaccines furnished by physicians, hospital outpatient departments, and pharmacy suppliers was \$690 million for influenza, \$617 million for pneumococcal, and \$7 million for hepatitis B. (Not included in these data are vaccines furnished in other settings such as ESRD facilities. With other settings included, 2018 vaccine spending was \$706 million on influenza, \$627 million on pneumococcal, and \$38 million on hepatitis B vaccines.)
- Although vaccines are a relatively small share of overall spending on separately payable Part B drugs, vaccine spending grew rapidly, at an average rate of about 22 percent per year, between 2009 and 2018.
- As with other separately paid Part B drugs, the largest driver of increased vaccine spending was price growth, as the average payment per vaccine grew at an average rate of 17.5 percent per year between 2009 and 2018. Substantial price growth occurred for both pneumococcal and flu vaccines between 2009 and 2018, with the average payment per vaccine increasing from \$36 to \$150 for pneumococcal and from \$12 to \$42 for flu vaccines over this period (data not shown). In addition, use of the pneumococcal vaccine Prevnar-13 increased following a 2014 recommendation by the Centers for Disease Control and Prevention advisory committee for a one-time vaccination of all people age 65 and older. Because the price of Prevnar-13 is higher than other Part B–covered vaccines, its increased use has contributed to growth in the average payment per vaccine.

**Chart 10-3. Top 10 Part B drugs paid based on ASP, by type of provider, 2017 and 2018**

	Dollars (in millions)					
	Total Part B drug spending		Physician and supplier Part B drug spending		HOPD Part B drug spending	
	2017	2018	2017	2018	2017	2018
Eylea	\$2,469	\$2,577	\$2,312	\$2,435	\$158	\$142
Keytruda	1,037	1,813	394	764	643	1,049
Opdivo	1,474	1,718	695	827	778	891
Rituxan	1,758	1,703	857	867	900	836
Prolia/Xgeva	1,243	1,420	763	909	481	511
Neulasta	1,405	1,373	653	640	751	733
Lucentis	1,039	1,217	1,006	1,186	32	30
Remicade	1,347	1,154	821	745	526	408
Avastin	1,071	1,014	524	503	547	511
Herceptin	786	823	354	386	432	438
<b>Total spending, top 10 drugs</b>	<b>\$13,627</b>	<b>\$14,812</b>	<b>\$8,379</b>	<b>\$9,263</b>	<b>\$5,249</b>	<b>\$5,549</b>
<b>Total spending, all Part B drugs</b>	<b>\$32,083</b>	<b>\$34,955</b>	<b>\$19,801</b>	<b>\$21,832</b>	<b>\$12,282</b>	<b>\$13,123</b>

Note: ASP (average sales price), HOPD (hospital outpatient department). The 10 drugs shown in the chart reflect the Part B drug billing codes paid under the ASP methodology with the highest Medicare expenditures in 2018. Data for 2017 are shown for comparison. Data include Part B-covered drugs furnished by several provider types, including physicians, suppliers, and hospital outpatient departments, but exclude those furnished by critical access hospitals, Maryland hospitals, and dialysis facilities. "Drug spending" includes Medicare program payments and beneficiary cost sharing. "Total spending, all Part B drugs" reflects all products, whether paid based on ASP or another method. Data exclude blood and blood products (other than clotting factor). Components may not sum to totals due to rounding.

Source: MedPAC and Acumen LLC analysis of Medicare claims data.

- Part B drugs are billed under more than 700 billing codes, but spending is concentrated. Medicare spending (including cost sharing) on the top 10 drugs paid under the ASP system totaled about \$14.8 billion in 2018, about 42 percent of all Part B drug spending that year.
- As of 2018, all of the top 10 Part B drugs are biologics. Many of these products are used to treat cancer or its side effects (Keytruda, Opdivo, Rituxan, Prolia/Xgeva, Neulasta, Avastin, Herceptin). Drugs used to treat age-related macular degeneration (Eylea, Lucentis, Avastin) and rheumatoid arthritis (Remicade and Rituxan) are also in the top 10.
- Medicare spending on immune globulin (for which there are several products billed through separate billing codes) amounted to more than \$1.5 billion in 2018 (data not shown).

**Chart 10-4. Growth in ASP for the 20 highest expenditure Part B drugs, 2005–2020**

Part B drug	Total Medicare payments in 2018 (in billions)	Average annual ASP growth				Earliest year of ASP data if not 2005
		2005–2015	2015–2019	2019–2020	2005–2020	
Eylea	2.6	0.0%*	–0.4%	–1.9%	–0.5%*	2013
Keytruda	1.8	N/A	2.3*	2.6	2.4*	2016
Opdivo	1.7	N/A	2.7*	2.4	2.6*	2016
Rituxan	1.7	5.1	7.1	–1.0	5.2	
Prolia/Xgeva	1.4	0.6*	6.1	3.6	3.7*	2012
Neulasta	1.4	4.4	7.6	–9.2	4.3	
Lucentis	1.2	–0.4*	–2.1	–4.6	–1.3*	2008
Remicade	1.2	3.4	0.8	–25.2	0.5	
Avastin	1.0	1.8	4.6	–0.7	2.3	
Herceptin	0.8	4.8	6.1	–1.1	4.7	
Orencia	0.8	7.4*	11.7	6.3	8.6*	2007
Darzalex	0.6	N/A	5.6*	3.3	4.8*	2017
Ocrevus	0.5	N/A	0.5*	0.1	0.3*	2018
Alimta	0.5	4.1	2.9	3.9	3.8	
Velcade	0.4	5.1	–0.5	–1.7	3.1	
Sandostatin LAR	0.4	5.3	8.4	4.1	6.1	
Xolair	0.4	6.1	7.6	0.8	6.1	
Soliris	0.4	2.5*	2.3	0.0	2.3*	2008
Gammagard	0.4	3.1*	1.9	–5.5	2.0*	2008
Gamunex-C / Gammaked	0.4	2.9*	–0.1	0.6	1.7*	2008
Consumer price index for urban consumers		2.1	1.9	2.5	2.0	

Note: ASP (average sales price), N/A (not applicable). Growth rates for ASP are calculated from first quarter to first quarter of each year. “Medicare payments” includes Medicare program payments and beneficiary cost sharing for these drugs furnished by physicians, suppliers, and hospital outpatient departments, but excludes those furnished by critical access hospitals, Maryland hospitals, and dialysis facilities. Vaccines for which Medicare pays 95 percent of the average wholesale price are also excluded from this table. See Chart 10-2 and associated bullets for information on vaccine price growth. \*Indicates that ASP payment rates for a specific product were not available for the full period listed, and the average annual growth rate was calculated based on the earliest year that a first-quarter payment rate was available.

Source: MedPAC analysis of CMS ASP pricing files and consumer price index for all urban consumers data from the Bureau of Labor Statistics and MedPAC and Acumen LLC analysis of Medicare claims data.

- Over the period from 2005 to 2020, 18 out of 20 of the top Part B drugs have experienced price increases, with 14 of these products’ ASPs increasing faster than the consumer price index for urban consumers.

*(Chart continued next page)*

## **Chart 10-4. Growth in ASP for the 20 highest expenditure Part B drugs, 2005–2020 (continued)**

- In the most recent year, price changes have been mixed. Among the top 20 Part B drugs, ASP increased for 10 products, decreased for 9 products, and was unchanged for 1 product between the first quarters of 2019 and 2020.
- Biosimilar competition may account for the decreases in ASP between 2019 and 2020 for some originator biologics, as Rituxan, Neulasta, Remicade, Avastin, and Herceptin all faced biosimilar entry during 2019 or earlier. For these five products, the recent price declines begin to reverse a long period of rising prices, with average price growth over the last 15 years ranging from 0.5 percent per year for Remicade to 5.2 percent per year for Rituxan.

**Chart 10-5. Trends in Medicare Part B payment rates for originator biologics and their biosimilar products**

	2016 Q1	2017 Q1	2018 Q1	2018 Q3	2019 Q1	2019 Q3	2020 Q1
<b>Neupogen and biosimilars</b>							
Neupogen's payment rate	\$1.01	\$1.00	\$1.00	\$1.02	\$1.00	\$0.98	\$0.96
Percent biosimilars' payment rates are below Neupogen's payment rate	4–24%	22–29%	31–39%	36–42%	25–42%	30–41%	34–45%
Biosimilar market share	25%	51%	63%	67%	70%	73%	N/A <sup>a</sup>
<b>Remicade and biosimilars</b>							
Remicade's payment rate	\$79.91	\$82.22	\$85.81	\$83.90	\$76.65	\$64.87	\$57.35
Percent biosimilars' payment rates are below Remicade's payment rate	N/A <sup>b</sup>	–22%	12%	17–23%	19–25%	16–21%	10–17%
Biosimilar market share	N/A <sup>b</sup>	0%	6%	9%	11%	14%	N/A <sup>a</sup>
<b>Neulasta and biosimilars</b>							
Neulasta's payment rate	\$3,828	\$4,117	\$4,442	\$4,721	\$4,682	\$4,528	\$4,252
Percent biosimilars' payment rates are below Neulasta's payment rate	N/A <sup>b</sup>	N/A <sup>b</sup>	N/A <sup>b</sup>	N/A <sup>c</sup>	8%	5–12%	5–12%
Biosimilar market share	N/A <sup>b</sup>	N/A <sup>b</sup>	N/A <sup>b</sup>	1%	8%	20%	N/A <sup>a</sup>
<b>Procrit/Epogen and biosimilars</b>							
Procrit/Epogen payment rate	\$12.33	\$12.32	\$12.13	\$13.09	\$11.95	\$11.46	\$10.56
Percent biosimilar's payment rate is below Procrit/Epogen's payment rate	N/A <sup>b</sup>	N/A <sup>b</sup>	N/A <sup>b</sup>	N/A <sup>b</sup>	5%	11%	12%
Biosimilar market share	N/A <sup>b</sup>	N/A <sup>b</sup>	N/A <sup>b</sup>	N/A <sup>b</sup>	6%	24%	N/A <sup>a</sup>

Note: Q1 (first quarter), Q3 (third quarter), N/A (not available). An originator biologic is a drug product derived from a living organism. A biosimilar product is a follow-on product that is approved by the Food and Drug Administration based on the product being highly similar to the originator biologic. The biosimilars included in the analysis are Zarxio, Nivestym, and Granix for originator biologic Neupogen; Inflectra and Renflexis for originator biologic Remicade; Fulphila and Udenyca for originator Neulasta; and Retacrit for originator Procrit/Epogen. Although Granix is not a biosimilar in the U.S. (because it was approved under the standard Food and Drug Administration approval process for new biologics), we include it here because it was approved as a biosimilar to Neupogen in Europe and it functions as a competitor to Neupogen in the U.S. market. For Remicade, the biosimilar's payment rate was 22 percent above the originator's payment rate in first quarter 2017.

<sup>a</sup>Claims data on utilization are not yet available for this quarter.

<sup>b</sup>Biosimilar product was not yet approved and/or launched.

<sup>c</sup>A published payment rate was unavailable for this product for this quarter.

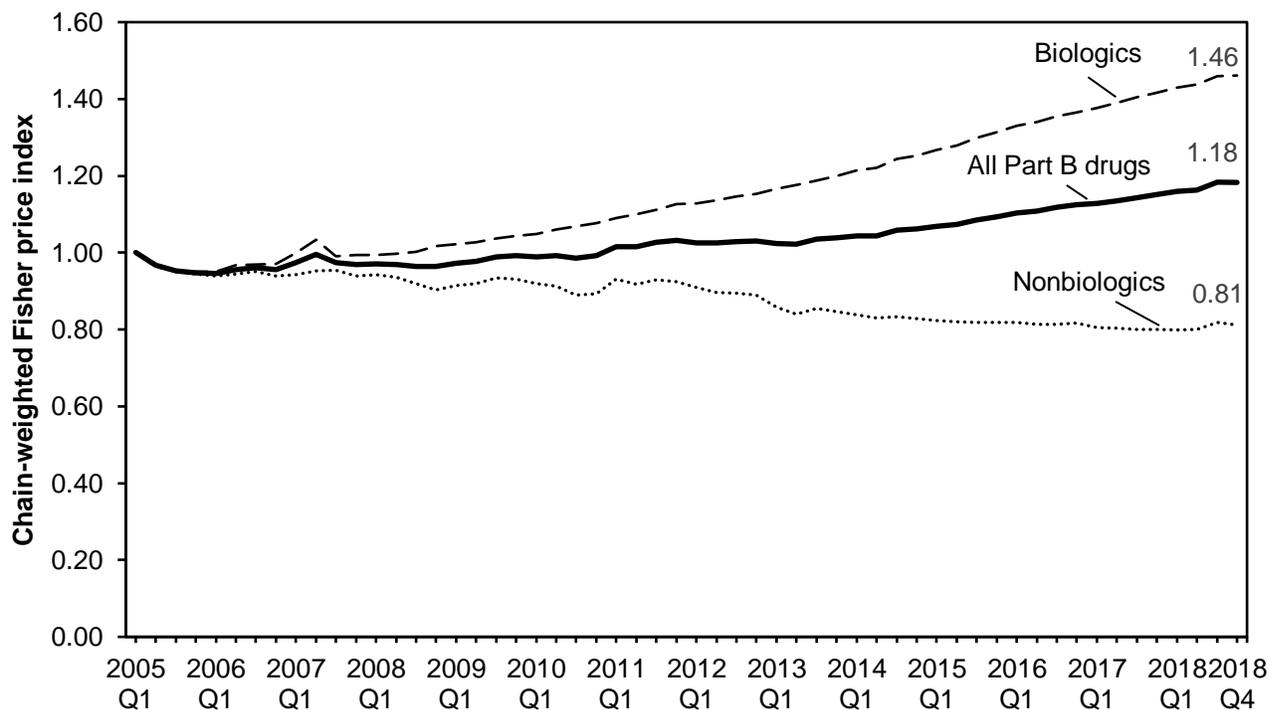
Source: MedPAC analysis of payment rates from CMS ASP pricing files. MedPAC and Acumen LLC analysis of Medicare claims data.

(Chart continued next page)

## Chart 10-5. Trends in Medicare Part B payment rates for originator biologics and their biosimilar products (continued)

- An originator biologic is a product derived from a living organism. A biosimilar product is a follow-on product approved by the Food and Drug Administration based on the product being highly similar to the originator biologic.
- Under Part B, Medicare pays for an originator biologic at 106 percent of its own average sales price (ASP). For biosimilars, Medicare pays 100 percent of the biosimilar's ASP + 6 percent of the originator product's ASP.
- Medicare payment rates for biosimilars are lower than those of the corresponding originator biologics because biosimilars have lower prices (as measured by ASP) than originator biologics. The extent to which originator biologics have lowered their prices in response to biosimilar entry and the extent to which market share has shifted to biosimilars varies by product.
- For Neupogen, the originator biologic that has faced biosimilar competition for the longest period (since late 2015), the payment rates for biosimilar products are substantially less (34 percent to 45 percent less as of the first quarter of 2020) than for the originator. The originator Neupogen has reduced its price only modestly (5 percent) between 2016 and 2020. Biosimilars account for the majority of utilization: 73 percent market share as of the third quarter of 2019.
- For Remicade, the payment rates for biosimilar products are about 10 percent to 17 percent below the originator's payment rate as of the first quarter of 2020. After biosimilar entry in late 2016, the originator Remicade's price initially increased (4 percent between the first quarters of 2017 and 2018). Subsequently Remicade's price decreased substantially, falling 33 percent between the first quarters of 2018 and 2020. Remicade has continued to retain most of the market share, with biosimilars accounting for only 14 percent of utilization as of the third quarter of 2019.
- For Neulasta, which has faced biosimilar competition since mid-2018, biosimilars' payment rates are 5 percent to 12 percent below the originator's payment rate as of the first quarter of 2020. The originator Neulasta's price has decreased 10 percent between the third quarter of 2018 and the first quarter of 2020. Biosimilar utilization is growing, reaching a market share of 20 percent as of the third quarter of 2019.
- For Procrit/Epogen, which have faced biosimilar competition since late 2018, the payment rate of their biosimilar is 12 percent below the originator's payment rate as of the first quarter of 2020. The originator's payment rate has decreased 19 percent between the third quarter of 2018 and the first quarter of 2020. The biosimilar accounts for almost one-fourth of utilization as of the third quarter of 2019.
- Not shown in the chart, three additional originator products—Avastin, Herceptin, and Rituxan—faced biosimilar entry during the second half of 2019. The biosimilars' payment rates are 13 percent (Avastin), 14 percent (Herceptin), and 8 percent (Rituxan) below the originator's payment rate as of the first quarter of 2020 (data not shown). The originator products' ASPs have declined by roughly 1 percent between the first quarter of 2019 and 2020 (as shown in Chart 10-4).

**Chart 10-6. Price indexes for Medicare Part B drugs, 2005–2018**

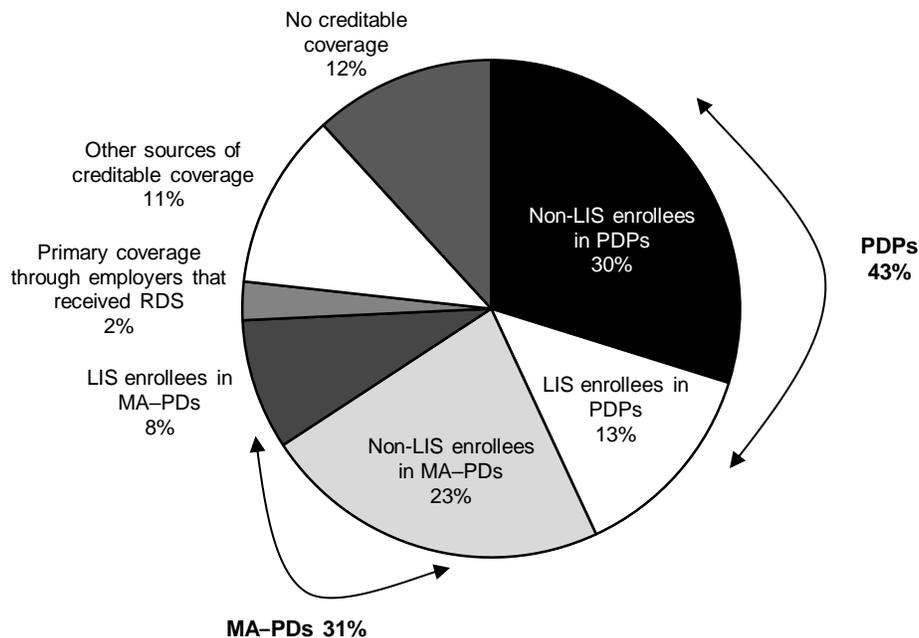


Note: Q1 (first quarter), Q4 (fourth quarter). The Part B price indexes reflect growth in the average sales price of Part B–covered drugs over time, measured for individual drugs at the level of the Healthcare Common Procedure Coding System billing code. These measures of price growth reflect growth in the price of individual products but do not reflect changes in price due to the introduction of new products or changes in the mix of products used. The Part B price index for biologics in this chart and in Chart 10-27 are different due to the different periods of analysis.

Source: Acumen LLC analysis for MedPAC.

- The Part B price indexes reflect growth in the average sales price (ASP) at the individual product level and do not reflect changes in price that occur as a result of changes in the mix of drugs used or the introduction of new, higher priced drugs.
- Measured by the change in the ASP of individual Part B–covered drugs, the prices of Part B–covered drugs rose by an average of about 18 percent cumulatively between 2005 and 2018 (an index of 1.18).
- Underlying this overall trend in the price index are different patterns by type of product. The price index for Part B–covered biologics increased by 46 percent between 2005 and 2018 (an index of 1.46). In contrast, the price index for nonbiologics declined by 19 percent (an index of 0.81) over this period. The nonbiologic group includes single-source drugs and drugs with generic competition. The downward price trend for nonbiologics in part reflects patent expiration and generic entry for some of these products. It also reflects the design of the ASP payment system, which spurs price competition among generics and their associated brand-name products by assigning these products to a single billing code and paying them the same average rate.

**Chart 10-7. In 2018, 88 percent of Medicare beneficiaries were enrolled in Part D plans or had other sources of creditable drug coverage**



Note: LIS (low-income [drug] subsidy), PDP (prescription drug plan), MA-PD (Medicare Advantage–Prescription Drug [plan]), RDS (retiree drug subsidy). “Creditable coverage” means the value of drug benefits is equal to or greater than that of the basic Part D benefit. Components may not total to 100 due to rounding.

Source: MedPAC analysis of the Medicare denominator file 2018.

- In 2018, 88 percent of Medicare beneficiaries were enrolled in Part D plans, got prescription drug coverage through employer-sponsored plans that received Medicare’s RDS, or had other sources of drug coverage that were equal to or greater than the average value of Part D’s defined standard benefit (called “creditable coverage”). Twelve percent of Medicare beneficiaries had no drug coverage or coverage that was less generous.
- That same year, nearly three-quarters of Medicare beneficiaries received prescription drug benefits through Part D plans: 43 percent in stand-alone PDPs and 31 percent in MA-PDs.
- Nearly 22 percent of Medicare beneficiaries received Part D’s LIS in 2018. Of all LIS beneficiaries, about three-fifths of them (13 percent of all Medicare beneficiaries) were enrolled in stand-alone PDPs, and the remaining beneficiaries (8 percent) were in MA-PDs.
- Other enrollees in stand-alone PDPs accounted for 30 percent of all Medicare beneficiaries. Another 23 percent of Medicare beneficiaries were enrolled in MA-PDs and did not receive low-income subsidies.

*(Chart continued next page)*

## **Chart 10-7. In 2018, 88 percent of Medicare beneficiaries were enrolled in Part D plans or had other sources of creditable drug coverage (continued)**

- Employer and union health plans continue to be important sources of drug coverage for Medicare beneficiaries. In 2018, 12 percent of Medicare beneficiaries were in Part D plans (including PDPs and MA–PDs) set up by employers or unions for their retirees (data not shown). Under these employer group waiver plans (EGWPs), Medicare is the primary payer for basic drug benefits, and typically the employer offers wrap-around coverage. Separately, 2 percent of Medicare beneficiaries were in plans offered by employers that received Medicare’s RDS. (If an employer remains the primary payer of creditable drug coverage for its retirees, 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.) Additionally, in 2018, 11 percent of Medicare beneficiaries had creditable drug coverage from sources other than Part D, much (but not all) of which was related to past employment, for example, through the Federal Employees Health Benefits Program, TRICARE, and employers that did not sponsor an EGWP or receive the RDS.

**Chart 10-8. Changes in parameters of the Part D defined standard benefit over time**

	2006	2018	2019	2020	Cumulative change 2006–2020
Deductible	\$250.00	\$405.00	\$415.00	\$435.00	74%
Initial coverage limit	2,250.00	3,750.00	3,820.00	4,020.00	79%
Annual out-of-pocket threshold	3,600.00	5,000.00	5,100.00	6,350.00	76%
Total covered drug spending at annual out-of-pocket threshold	5,100.00	8,417.60	8,139.54	9,719.38	91%
Cost sharing above the annual out-of-pocket threshold is the greater of 5% coinsurance or these amounts:					
Copay for generic/preferred multisource drugs	2.00	3.35	3.40	3.60	80%
Copay for other prescription drugs	5.00	8.35	8.50	8.95	79%

Note: Under Part D's defined standard benefit, the enrollee pays the deductible and then 25 percent of covered drug spending (75 percent is paid by the plan) until total covered drug spending reaches the initial coverage limit (ICL). Before 2011, enrollees exceeding the ICL were responsible for 100 percent of covered drug spending up to the annual out-of-pocket (OOP) threshold. Beginning in 2011, enrollees pay reduced cost sharing in the coverage gap. For 2011 and later years, the amount of total covered drug spending at the annual OOP threshold depended on the mix of brand-name 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 source of supplemental coverage. Cost sharing paid by most sources of supplemental coverage does not count toward this threshold. The amount for 2019 is lower than that for 2018 because of a change in law that causes 95 percent of an enrollee's spending for brand-name drugs in Part D's coverage-gap phase to count toward the OOP threshold, compared with 85 percent in 2018. Above the OOP limit, the enrollee pays 5 percent coinsurance or the respective copay shown above, whichever is greater.

Source: CMS Office of the Actuary.

- The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 specified a defined standard benefit structure for Part D. In 2020, the standard benefit has a \$435 deductible, 25 percent coinsurance on covered drugs until the enrollee reaches \$4,020 in total covered drug spending, and then a coverage gap until OOP spending reaches the annual threshold. (The total dollar amount of drug spending at which a beneficiary reaches the OOP threshold varies from person to person, depending on the mix of brand-name and generic prescriptions filled. CMS estimates that in 2020, a person who does not receive Part D's low-income subsidy and has no supplemental coverage would, on average, reach the threshold at \$9,719.38 in total drug spending.) Before 2011, enrollees were responsible for paying the full discounted price of drugs filled during the coverage gap. Because of changes made by the Affordable Care Act of 2010, enrollees pay reduced cost sharing for drugs filled in the coverage gap. In 2020, the cost sharing for drugs filled during the gap phase is about 25 percent for brand-name drugs and generics. Enrollees with drug spending that exceeds the annual threshold pay the greater of \$3.60 to \$8.95 or 5 percent coinsurance per prescription.

*(Chart continued next page)*

## **Chart 10-8. Changes in parameters of the Part D defined standard benefit over time (continued)**

- Most parameters of this defined standard benefit structure have changed over time at the same rate as the annual change in average total drug expenses of Medicare beneficiaries enrolled in Part D, with cumulative changes of 74 percent to 79 percent between 2006 and 2020. The out-of-pocket threshold for 2020 is much higher than that for 2019 because the 2019 amount was restrained by a provision in law that limited increases between 2014 and 2019. In 2020, the out-of-pocket threshold reverted to what it otherwise would have been had CMS increased it by the same factor as other benefit parameters—that is, annual growth in Part D spending per enrollee. The effects of this increase on beneficiaries are somewhat muted by the fact that manufacturers provide a 70 percent discount on brand-name drugs in the coverage-gap phase, which counts as beneficiary spending toward the threshold.
- 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 sponsoring organizations 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. Defined standard benefit plans and plans that are actuarially equivalent to the defined standard benefit are both 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.
- Under the Bipartisan Budget Act of 2018, manufacturers of brand-name drugs must provide a 70 percent discount in the coverage gap, enrollees pay 25 percent cost sharing, and plan sponsors are responsible for covering only 5 percent of the cost of brand-name drugs.

## Chart 10-9. Characteristics of stand-alone Medicare PDPs

	2019				2020			
	Plans		Enrollees as of February 2019		Plans		Enrollees as of February 2020	
	Number	Percent	Number (in millions)	Percent	Number	Percent	Number (in millions)	Percent
Total	901	100%	20.8	100%	948	100%	20.5	100%
<b>Type of organization</b>								
National	746	83	19.4	93	716	76	18.8	92
Other	155	17	1.4	7	232	24	1.7	8
<b>Type of benefit</b>								
Defined standard	0	0	0.0	0	0	0	0.0	0
Actuarially equivalent	348	39	12.1	58	382	40	11.3	55
Enhanced	553	61	8.7	42	566	60	9.2	45
<b>Type of deductible</b>								
Zero	263	29	8.1	39	133	14	3.0	15
Reduced	170	19	3.3	16	161	17	5.0	25
Defined standard*	468	52	9.4	45	654	69	12.4	61
<b>Some formulary tiers not subject to a deductible</b>								
Some	414	46	8.2	39	504	53	11.5	56
None	487	54	12.6	61	444	47	9.0	44

Note: PDP (prescription drug plan). The PDPs and enrollment described here exclude employer-only plans and plans offered in U.S. territories. "National" data reflect the total number of plans for organizations with at least 1 PDP in each of the 34 PDP regions. "Actuarially equivalent" includes both actuarially equivalent standard and basic alternative benefits. "Enhanced" refers to plans with basic plus supplemental coverage. Components may not sum to totals due to rounding. \*The defined standard benefit's deductible was \$415 in 2019 and is \$435 in 2020.

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

- Plan sponsors are offering 948 stand-alone PDPs in 2020 compared with 901 in 2019—an increase of more than 5 percent. Total enrollment in PDPs declined by 1.5 percent to 20.5 million beneficiaries in 2020 from 20.8 million in 2019.
- In 2020, 76 percent of all PDPs are offered by sponsoring organizations that have at least 1 PDP in each of the 34 PDP regions (shown as "national" organizations in the table). Plans offered by those national sponsors account for 92 percent of all PDP enrollment.
- For 2020, 60 percent of PDP offerings include enhanced benefits (basic plus supplemental coverage), nearly the same percentage as in 2019. In 2020, the share of PDPs with actuarially equivalent benefits (having the same average value as the defined standard benefit but with alternative benefit designs) also remained fairly stable at 40 percent. Actuarially equivalent plans continue to attract the largest share of PDP enrollees (55 percent), but the share of enrollees choosing enhanced benefit plans rose slightly to 45 percent in 2020 compared with 42 percent in 2019.
- In 2020, 69 percent of PDPs use the same \$435 deductible as in Part D's defined standard benefit, up significantly from 52 percent in 2019. Only 15 percent of PDP enrollees are in plans with no deductible. Also in 2020, 53 percent of all PDPs designate certain formulary tiers that are not subject to the deductible. If, for example, a PDP used such a designation for preferred generic drugs, an enrollee would pay just the plan's cost sharing for that tier rather than the full cost of the prescription up to the amount of the deductible. In 2020, 56 percent of PDP enrollees were in such plans, up from 39 percent in 2019.

## Chart 10-10. Characteristics of MA–PDs

	2019				2020			
	Plans		Enrollees as of February 2019		Plans		Enrollees as of February 2020	
	Number	Percent	Number (in millions)	Percent	Number	Percent	Number (in millions)	Percent
Totals	2,414	100%	13.8	100%	2,799	100%	15.3	100%
<b>Type of organization</b>								
Local HMO	1,601	66	9.7	70	1,848	66	10.6	69
Local PPO	751	31	3.3	24	891	32	4.0	26
PFFS	29	1	0.1	1	26	1	0.1	0
Regional PPO	33	1	0.8	6	34	1	0.7	4
<b>Type of benefit</b>								
Defined standard	37	2	0.1	<0.5	43	2	0.1	<0.5
Actuarially equivalent	83	3	0.2	2	81	3	0.2	2
Enhanced	2,294	95	13.5	98	2,675	96	15.0	98
<b>Type of deductible</b>								
Zero	1,116	46	6.4	46	1,349	48	7.4	49
Reduced	1,138	47	7.0	50	1,244	44	7.3	48
Defined standard*	160	7	0.5	3	206	7	0.5	4
<b>Some formulary tiers not subject to a deductible</b>								
Some	1,225	51	7.2	52	1,386	50	7.7	50
None	1,189	49	6.6	48	1,413	50	7.6	50

Note: MA–PD (Medicare Advantage–Prescription Drug [plan]), HMO (health maintenance organization), PPO (preferred provider organization), PFFS (private fee-for-service). The MA–PDs and enrollment described here exclude employer-only plans, plans offered in U.S. territories, 1876 cost plans, special needs plans, demonstrations, and Part B–only plans. Components may not sum to totals due to rounding. “Actuarially equivalent” includes both actuarially equivalent standard and basic alternative benefits. “Enhanced” refers to plans with basic plus supplemental coverage.  
\*The defined standard benefit’s deductible was \$415 in 2019 and is \$435 in 2020.

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

- There are nearly 16 percent more MA–PDs in 2020 than in 2019. Sponsors are offering 2,799 MA–PDs in 2020 compared with 2,414 the year before. Enrollment in MA–PDs grew from 13.8 million in 2019 to 15.3 million in 2020 (10.6 percent).
- Between 2019 and 2020, the number of drug plans offered by HMOs grew from 1,601 to 1,848 and remain the dominant type of MA–PD, making up 66 percent of all offerings. Over the same period, the number of drug plans offered by local PPOs also increased from 751 plans to 891 plans.
- A larger share of MA–PDs than stand-alone prescription drug plans (PDPs) offer enhanced benefits (compare Chart 10-10 with Chart 10-9). In 2020, 60 percent of all PDPs have enhanced benefits compared with 96 percent of MA–PDs. In 2020, enhanced MA–PDs attracted 98 percent of total MA–PD enrollment.
- Forty-eight percent of MA–PDs have no deductible in 2020, and those plans attracted 49 percent of all MA–PD enrollees.
- In 2020, 50 percent of MA–PDs designated certain cost-sharing tiers of their formularies that are not subject to a deductible. Those plans account for 50 percent of MA–PD enrollment.

## Chart 10-11. Change in average Part D premiums, 2016–2020

	Average monthly premium weighted by enrollment					Cumulative change in weighted average premium, 2016–2020
	2016	2017	2018	2019	2020	
<b>All plans</b>	<b>\$31</b>	<b>\$32</b>	<b>\$32</b>	<b>\$29</b>	<b>\$27</b>	<b>–12%</b>
Basic plans	28	30	30	32	30	7
Enhanced plans						
Basic benefits	27	27	26	22	20	–26
Supplemental benefits	<u>7</u>	<u>6</u>	<u>7</u>	<u>6</u>	<u>6</u>	–5
Total premium	33	33	33	28	26	–22
All basic coverage	27	29	28	25	23	–15
<b>PDPs</b>	<b>39</b>	<b>41</b>	<b>41</b>	<b>40</b>	<b>38</b>	<b>–2</b>
Basic coverage	29	31	31	32	30	4
Enhanced coverage						
Basic benefits	41	43	42	35	33	–20
Supplemental benefits	<u>12</u>	<u>11</u>	<u>15</u>	<u>15</u>	<u>15</u>	25
Total premium	53	54	57	50	48	–10
All basic coverage	34	36	35	33	31	–8
<b>MA–PDs, including SNPs</b>	<b>18</b>	<b>19</b>	<b>18</b>	<b>16</b>	<b>15</b>	<b>–17</b>
Basic coverage	22	26	28	28	26	19
Enhanced coverage						
Basic benefits	15	16	15	13	12	–18
Supplemental benefits	<u>2</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>1</u>	–43
Total premium	17	18	17	14	13	–21
All basic coverage	16	18	17	15	14	–16
MA–PD buy-down of basic premium	15	16	16	16	15	1
MA–PD buy-down of supplemental benefits	14	15	16	17	20	43
Base beneficiary premium	34.10	35.63	35.02	33.19	32.74	–4

Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]), SNP (special needs plan). All calculations exclude employer-only groups and plans offered in U.S. territories. In addition, MA–PDs exclude Part B–only plans, demonstrations, and 1876 cost plans. The MA–PD data reflect the portion of Medicare Advantage plans’ total monthly premium attributable to Part D benefits for plans that offer Part D coverage, as well as Part C rebate dollars that were used to offset Part D premium costs. The fact that average premiums for enhanced MA–PDs are lower than for basic MA–PDs could reflect several factors such as changes in enrollment among plan sponsors and counties of operation and differences in the average health status of plan enrollees. Cumulative changes were calculated from unrounded data. Components may not sum to totals due to rounding.

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

(Chart continued next page)

## Chart 10-11. Change in average Part D premiums, 2016–2020 (continued)

- Part D enrollees can select between plans with basic or enhanced benefits (the latter combine basic and supplemental coverage). Medicare aims to subsidize 74.5 percent of the average cost of basic benefits; enrollees pay premiums for the remaining 25.5 percent and all of the cost of any supplemental benefits. (For more about how plan premiums are determined, see Part D *Payment Basics* at [http://www.medpac.gov/docs/default-source/payment-basics/medpac\\_payment\\_basics\\_19\\_partd\\_final\\_sec.pdf?sfvrsn=0](http://www.medpac.gov/docs/default-source/payment-basics/medpac_payment_basics_19_partd_final_sec.pdf?sfvrsn=0).)
- The overall average premium paid by enrollees for any type of Part D coverage declined from \$29 per month in 2019 to \$27 per month in 2020. Over the period from 2016 to 2020, year-to-year changes in average premiums have varied by type of benefit (basic vs. enhanced) and type of plan (PDP vs. MA–PD); the changes have not necessarily corresponded to changes observed in the base beneficiary premium.
- Across all basic plans and the basic portion of enhanced plans, the average premium for basic benefits fell from \$27 in 2016 to \$23 per month in 2020, a cumulative decline of 15 percent. This decline occurred despite very rapid growth in spending for Part D's catastrophic phase of the benefit (data not shown). In the catastrophic phase, Medicare subsidizes 80 percent of enrollees' drug spending. (For more information about Medicare's Part D spending, see Chapter 14 of the Commission's March 2020 report to the Congress at [http://medpac.gov/docs/default-source/reports/mar20\\_medpac\\_ch14\\_sec.pdf?sfvrsn=0](http://medpac.gov/docs/default-source/reports/mar20_medpac_ch14_sec.pdf?sfvrsn=0).)
- Over the five-year period, the average enrollee premium for basic coverage in PDPs ranged between a low of \$29 in 2016 and a high of \$32 per month in 2019. Between 2016 and 2020, the average premium increased by a cumulative 4 percent. Among enhanced plans offered by PDPs, the average enrollee premium has ranged from \$48 in 2020 to \$57 in 2018. Over the five-year period, the average premium decreased by a cumulative 10 percent. Of the \$48 average premium in 2020 among enhanced PDPs, \$33 was for basic benefits and \$15 was for supplemental benefits. The portion of enhanced premiums attributable to supplemental benefits has grown quickly, while the portion for basic benefits has declined.
- The average Part D premium paid by beneficiaries enrolled in MA–PDs with basic coverage ranged between a low of \$22 in 2016 and a high of \$28 per month in 2018 and 2019. From 2016 to 2020, the average premium increased by a cumulative 19 percent. The average premium paid by beneficiaries enrolled in MA–PDs offering enhanced coverage has decreased from \$17 in 2016 to \$13 in 2020, a cumulative 21 percent decrease. MA–PD sponsors typically use a portion of Medicare's Part C (Medicare Advantage) payments to “buy down” the premiums that plan enrollees would otherwise have to pay for Part D basic premiums and supplemental benefits. Because of those Part C payment “rebates,” in 2020, MA–PD enrollees avoided having to pay \$15 per month in basic premiums and an additional \$20 per month for supplemental coverage, on average.

## Chart 10-12. More premium-free PDPs for LIS enrollees in 2020

PDP region	State(s)	Number of PDPs			Number of PDPs that have zero premium for LIS enrollees		
		2019*	2020*	Difference	2019*	2020	Difference
1	ME, NH	26	26	0	7	6	-1
2	CT, MA, RI, VT	26	25	-1	7	7	0
3	NY	23	27	4	8	9	1
4	NJ	26	28	2	6	8	2
5	DC, DE, MD	25	27	2	9	10	1
6	PA, WV	30	31	1	9	10	1
7	VA	27	29	2	6	7	1
8	NC	28	28	0	7	9	2
9	SC	26	28	2	3	5	2
10	GA	26	28	2	4	6	2
11	FL	27	27	0	2	4	2
12	AL, TN	29	30	1	6	7	1
13	MI	29	30	1	9	9	0
14	OH	26	28	2	7	2	-5
15	IN, KY	26	28	2	7	7	0
16	WI	28	30	2	8	9	1
17	IL	27	28	1	7	8	1
18	MO	26	28	2	4	5	1
19	AR	26	27	1	4	6	2
20	MS	24	25	1	5	7	2
21	LA	26	26	0	8	9	1
22	TX	27	30	3	5	5	0
23	OK	28	29	1	7	8	1
24	KS	26	28	2	4	6	2
25	IA, MN, MT, ND, NE, SD, WY	28	29	1	6	8	2
26	NM	27	26	-1	7	7	0
27	CO	26	26	0	7	7	0
28	AZ	28	31	3	10	12	2
29	NV	26	28	2	3	5	2
30	OR, WA	26	28	2	7	8	1
31	ID, UT	26	28	2	8	8	0
32	CA	30	32	2	7	8	1
33	HI	24	25	1	4	5	1
34	AK	22	24	2	7	7	0
	Total	901	948	47	215	244	29

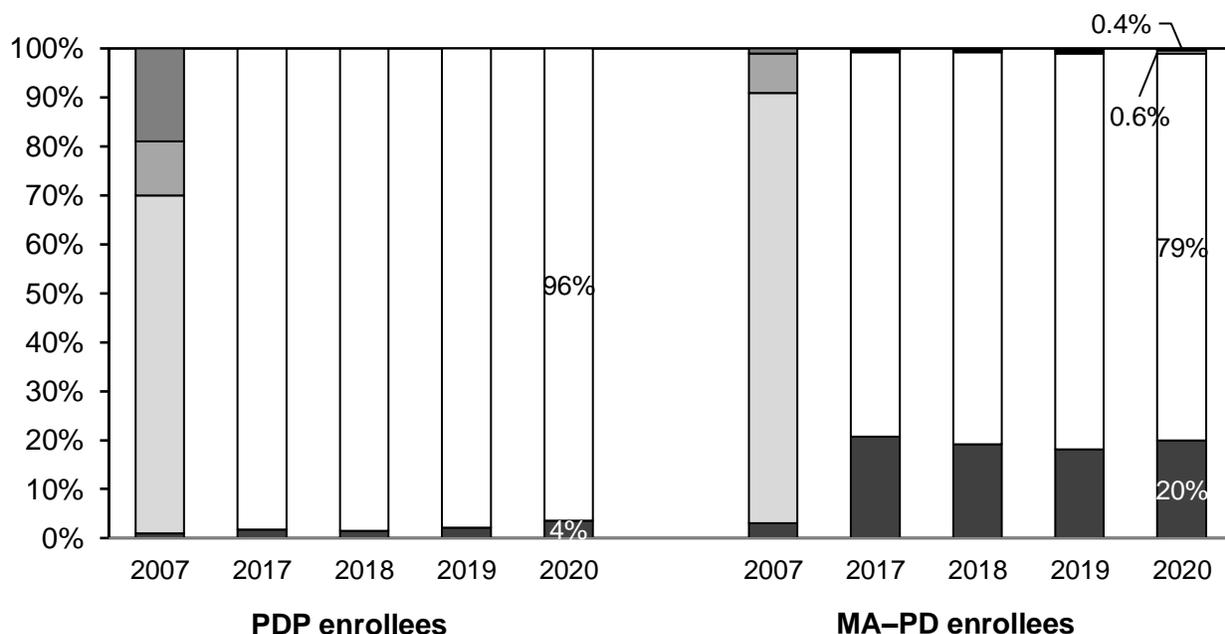
Note: LIS (low-income [drug] subsidy), PDP (prescription drug plan).

\*These figures include two plans in 2019 that did not accept new enrollees because of CMS sanctions.

Source: MedPAC based on 2019 and 2020 Part D plan report file provided by CMS.

- The total number of stand-alone PDPs increased by 5 percent, from 901 in 2019 to 948 in 2020. The median number of plans offered in PDP regions increased to 28 plans from 26 in 2019 (data not shown). In 2020, Alaska has the fewest stand-alone PDPs, with 24, and Region 32 (California) had the most, with 32.
- In 2020, 244 PDPs qualify as premium free to LIS enrollees. With the exception of Ohio, which has only two plans with no premium for LIS enrollees, at least four premium-free PDPs are available in any given region.

**Chart 10-13. In 2020, most Part D enrollees are in plans that use a five-tier formulary structure**



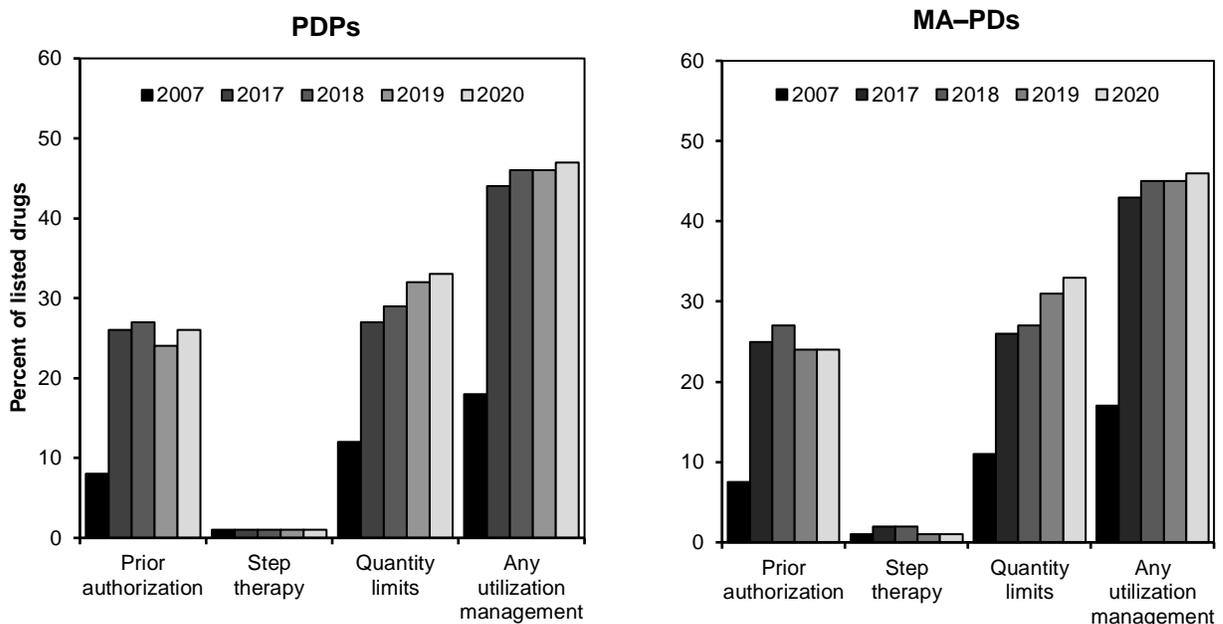
- 25% coinsurance
- Three tiers: Generic, brand, and specialty
- Four tiers: Generic, preferred brand, nonpreferred, and specialty
- Five tiers: Preferred generic, other generic, preferred brand, nonpreferred, and specialty
- Other tier structure

Note: PDP (prescription drug plan), MA-PD (Medicare Advantage-Prescription Drug [plan]). Calculations are weighted by enrollment. All calculations exclude employer-only groups and plans offered in U.S. territories. In addition, MA-PDs exclude demonstration programs, special needs plans, and 1876 cost plans. Components may not sum to totals due to rounding. All stand-alone PDP enrollees and about 98 percent of MA-PD enrollees have a specialty tier in addition to the tiers listed above.

Source: MedPAC analysis of formularies submitted to CMS.

- Most Part D enrollees choose plans that have a five-tier structure: two generic, one preferred brand-name tier, and one nonpreferred drug tier (which may include both brand-name and generic drugs), plus a specialty tier. In 2020, nearly all PDP enrollees continue to enroll in plans with this five-tier structure. Seventy-nine percent of MA-PD enrollees are in such plans in 2020, a slight decrease from 81 percent in 2019.
- For enrollees in PDPs with a five-tier structure, the median copay in 2020 is \$43 for a preferred brand-name drug and 38 percent coinsurance for a nonpreferred drug (data not shown). The median copay for a generic drug is \$0 for drugs on a lower tier and \$4 for those on a higher tier. For MA-PD enrollees, in 2020, the median copay is \$47 for a preferred brand and \$100 for a nonpreferred brand. The median copays for generic drugs are \$2 and \$10 for the two generic tiers, respectively.
- All stand-alone PDPs and about 98 percent of MA-PDs use a specialty tier for drugs that have a negotiated price of \$670 per month or more. In 2020, median cost sharing for a specialty-tier drug is 25 percent among PDPs and 31 percent among MA-PDs (data not shown).

**Chart 10-14. In 2020, the share of listed drugs subject to some utilization management increased slightly**



Note: PDP (prescription drug plan), MA-PD (Medicare Advantage-Prescription Drug [plan]). Calculations are weighted by enrollment. All calculations exclude employer-only groups and plans offered in U.S. territories. In addition, MA-PDs exclude demonstration programs, special needs plans, and 1876 cost plans. Values reflect the share 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 before being prescribed other drugs in the same therapeutic category. “Quantity limits” means that plans limit the number of doses of a drug available to the enrollee in a given time period.

Source: MedPAC analysis of formularies submitted to CMS.

- In addition to the number of drugs listed on a plan’s formulary, plans’ processes for nonformulary exceptions and use of utilization management tools—prior authorization (preapproval for coverage), quantity limits (limitations on the number of doses of a particular drug covered in a given period), and step therapy requirements (enrollees being required to try specified drugs before being prescribed other drugs in the same therapeutic category)—can affect access to certain drugs.
- In 2020, the use of some form of utilization management, on average, increased slightly to 47 percent of drugs listed on a plan’s formulary in stand-alone PDPs and 46 percent in MA-PDs. Part D plans typically use quantity limits or prior authorization to manage enrollees’ prescription drug use.
- Among the drugs listed on plan formularies, on average, the share that requires prior authorization in 2020 increased to just over a quarter for stand-alone PDPs while the share for MA-PDs remained the same at 24 percent. The share with quantity limits increased for both types of plans. In 2020, on average, quantity limits apply to 33 percent of drugs listed on formularies of both stand-alone PDPs and MA-PDs. The share of drugs listed on plan formularies that requires the use of step therapy remained very low for both stand-alone PDPs and MA-PDs.

## Chart 10-15. Characteristics of Part D enrollees, 2018

	All Medicare	Part D	Plan type		Subsidy status	
			PDP	MA–PD	LIS	Non-LIS
Beneficiaries* (in millions)	62.8	46.8	27.2	19.5	14.0	32.8
Percent of all Medicare	100%	74%	43%	31%	22%	52%
<b>Gender</b>						
Male	46%	43%	43%	43%	41%	44%
Female	54	57	57	57	59	56
<b>Race/ethnicity</b>						
White, non-Hispanic	74	73	78	66	53	81
African American, non-Hispanic	10	11	9	13	20	7
Hispanic	9	10	6	15	17	7
Asian	3	4	3	4	6	2
Other	3	3	3	2	3	3
<b>Age (years)**</b>						
<65	17	17	18	16	40	7
65–69	27	25	25	25	18	27
70–74	21	22	21	23	13	25
75–79	15	16	15	16	10	18
80+	20	21	22	20	18	22

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

\*Figures for “All Medicare” and “Part D” include all beneficiaries with at least one month of enrollment in the respective program. A beneficiary was classified as “LIS” if that individual received Part D’s LIS at some point during the year. For individuals who switched plan types during the year, classification into plan types was based on the greater number of months of enrollment.

\*\*Age as of July 2018.

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

- In 2018, nearly 47 million Medicare beneficiaries (74 percent) were enrolled in Part D at some point in the year. About 27 million were in stand-alone PDPs, and the remaining 19.5 million were in MA–PDs. Fourteen million enrollees received Part D’s LIS.
- Demographic characteristics of Part D enrollees are generally similar to the overall Medicare population, with the exception of gender (Part D enrollees are more likely to be female). MA–PD enrollees are less likely to be disabled beneficiaries under age 65 and more likely to be Hispanic or African American compared with PDP enrollees; LIS enrollees are more likely to be female, minority, and disabled beneficiaries under age 65 compared with non-LIS enrollees.

## Chart 10-16. Part D enrollment trends, 2007–2018

	2007	2010	2014	2018	Average annual growth rate		
					2007–2010	2010–2014	2014–2018
<b>Part D enrollment (in millions)*</b>							
Total	26.1	29.7	40.0	46.8	4.4%	7.7%	4.0%
Employer group waiver plans	2.0	2.6	7.0	7.3	9.2	27.4	0.8
By plan type							
PDP	18.3	18.9	25.1	27.2	1.1	7.3	2.1
MA–PD	7.8	10.6	14.9	19.5	10.9	8.9	6.9
By subsidy status							
LIS	10.4	11.3	12.8	14.0	2.7	3.1	2.2
Non-LIS	15.7	18.4	27.2	32.8	5.5	10.2	4.8
By race/ethnicity							
White, non-Hispanic	19.4	22.0	29.6	34.1	4.3	7.7	3.6
African American, non-Hispanic	2.9	3.3	4.4	5.1	4.1	7.4	3.6
Hispanic	2.5	3.0	3.9	4.7	5.8	6.7	4.8
Other	1.3	1.4	2.1	2.9	3.9	10.3	8.8
By age (years)**							
<65	5.5	6.3	7.8	8.0	4.7	5.5	0.8
65–69	5.4	6.6	9.5	11.6	6.5	9.9	4.9
70–79	8.8	9.9	13.9	17.4	3.8	8.9	5.8
80+	6.4	7.1	8.8	9.8	3.2	5.7	2.7
<b>Part D enrollment (in percent)</b>							
Total	100%	100%	100%	100%			
Employer group waiver plans	8	9	17	16			
By plan type							
PDP	70	64	63	58			
MA–PD	30	36	37	42			
By subsidy status							
LIS	40	38	32	30			
Non-LIS	60	62	68	70			
By race/ethnicity							
White, non-Hispanic	74	74	74	73			
African American, non-Hispanic	11	11	11	11			
Hispanic	10	10	10	10			
Other	5	5	5	6			
By age (years)**							
<65	21	21	19	17			
65–69	21	22	24	25			
70–79	34	33	35	37			
80+	25	24	22	21			

Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]), LIS (low-income [drug] subsidy). A beneficiary was 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 during the year, that individual was classified into the type of plan with the greater number of months of enrollment. Components may not sum to totals due to rounding. Average annual growth rate is calculated on unrounded numbers.

\*Figures include all beneficiaries with at least one month of enrollment.

\*\*Age as of July of the respective year.

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

(Chart continued next page)

## Chart 10-16. Part D enrollment trends, 2007–2018 (continued)

- Part D enrollment grew faster between 2010 and 2014 (average annual growth rate (AAGR) of 7.7 percent) than between 2007 and 2010 (AAGR of 4.4 percent) or between 2014 and 2018 (AAGR of 4.0 percent). The faster enrollment growth between 2010 and 2014 largely reflects the growth in enrollment in Part D plans operated by employers for their retirees (employer group waiver plans, or EGWPs). Enrollment in EGWPs grew from 2.6 million to 7.0 million (AAGR of 27.4 percent) during this period.
- The number of enrollees receiving the LIS grew modestly between 2007 and 2018, with an AAGR of between 2.2 percent (from 2014 to 2018) and 3.1 percent (from 2010 to 2014). During the same period, the number of non-LIS enrollees grew faster than LIS enrollees, with an AAGR of 10.2 percent between 2010 and 2014 and an AAGR of 4.8 percent or greater before 2010 and after 2014. Faster enrollment growth among non-LIS enrollees is partly attributable to the recent growth in EGWPs that shifted beneficiaries into Part D plans from employer plans that had previously received Medicare’s retiree drug subsidy (RDS) (see Chart 10-7 for information on the RDS).
- Between 2014 and 2018, the largest growth in enrollment was observed for beneficiaries ages 70 to 79 (5.8 percent annually, on average), reflecting the aging of the baby boom cohort.
- While MA–PD enrollment growth decelerated in recent years from the nearly 11 percent AAGR observed between 2007 and 2010, enrollment in MA–PDs continued to exceed that of PDPs between 2014 and 2018 (AAGR of 6.9 percent and 2.1 percent, respectively).

## Chart 10-17. Part D enrollment by region, 2018

PDP region	State(s)	Share of Medicare enrollment			Share of Part D enrollment*			
		Part D*	RDS	EGWP	Plan type		Subsidy status	
					PDP	MA-PD	LIS	Non-LIS
1	ME, NH	71%	3%	9%	71%	29%	32%	68%
2	CT, MA, RI, VT	78	2	15	66	34	34	66
3	NY	79	4	18	53	47	37	63
4	NJ	75	3	18	78	22	24	76
5	DE, DC, MD	65	3	15	84	16	31	69
6	PA, WV	77	3	14	56	44	28	72
7	VA	65	2	9	74	26	28	72
8	NC	75	2	12	57	43	30	70
9	SC	73	2	13	65	35	29	71
10	GA	74	2	12	52	48	34	66
11	FL	77	3	7	45	55	29	71
12	AL, TN	75	2	9	51	49	34	66
13	MI	80	3	26	70	30	25	75
14	OH	79	3	13	59	41	26	74
15	IN, KY	77	2	12	68	32	30	70
16	WI	73	2	9	56	44	24	76
17	IL	74	4	12	70	30	28	72
18	MO	76	2	9	60	40	26	74
19	AR	71	3	3	70	30	37	63
20	MS	73	1	3	76	24	44	56
21	LA	76	4	9	56	44	40	60
22	TX	73	2	11	58	42	32	68
23	OK	67	1	9	76	24	31	69
24	KS	72	1	4	80	20	23	77
25	IA, MN, MT, NE, ND, SD, WY	75	2	6	73	27	22	78
26	NM	73	2	13	55	45	39	61
27	CO	74	2	10	54	46	24	76
28	AZ	75	2	8	50	50	27	73
29	NV	70	2	6	50	50	26	74
30	OR, WA	69	5	7	51	49	27	73
31	ID, UT	71	2	7	54	46	22	78
32	CA	80	2	13	48	52	35	65
33	HI	71	2	25	38	62	26	74
34	AK	42	26	3	98	2	52	48
	Mean	74	2	12	58	42	30	70
	Minimum	42	1	3	38	2	22	48
	Maximum	80	26	26	98	62	52	78

Note: PDP (prescription drug plan), RDS (retiree drug subsidy), EGWP (employer group waiver plans), MA-PD (Medicare Advantage-Prescription Drug [plan]), LIS (low-income [drug] subsidy). Definition of regions is based on PDP regions used in Part D. 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, Medicare provides the employer with an RDS (see Chart 10-7).  
\*Includes enrollment in Part D plans operated for employees and their retirees (EGWPs).

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

- Among Part D regions in 2018, all but one region (Region 34 (Alaska, or AK)) had 65 percent or more of all Medicare beneficiaries enrolled in Part D. (Beneficiaries in Alaska are less likely to enroll in Part D because alternative employer-sponsored drug coverage is more widely available: The share of Medicare beneficiaries enrolled in employer-sponsored plans that received the RDS was 26 percent, compared with an average of 2 percent nationwide.) In some other regions with lower than average enrollment in Part D (Region 5 and Region 7), many beneficiaries likely received their drug coverage through the Federal Employees Health Benefits Program, which does not receive the RDS.

(Chart continued next page)

## Chart 10-17. Part D enrollment by region, 2018 (continued)

- In 2018, all regions except Region 26 and Region 34 experienced a decrease in the number of beneficiaries who received the RDS (data not shown). Since 2010, many employers have switched from operating RDS-eligible employer plans to sponsoring Part D plans for their retirees (EGWPs). In 2018, 12 percent of Medicare beneficiaries were enrolled in EGWPs compared with 2 percent who were in employer plans that received the RDS (see Chart 10-7 for information on the RDS).
- The share of Medicare beneficiaries in EGWPs varied from 3 percent in Region 34 (AK) to about a quarter in Region 13 (MI) and Region 33 (HI).
- Wide variation was seen in the shares of Part D beneficiaries who enrolled in PDPs and MA–PDs across PDP regions. The pattern of MA–PD enrollment is generally consistent with availability of and enrollment in Medicare Advantage plans.
- The share of Part D enrollees receiving the LIS ranged from 22 percent in Region 25 (IA, MN, MT, NE, ND, SD, and WY) and Region 31 (ID and UT) to 52 percent in Region 34 (AK). In all but 2 of the 34 PDP regions, LIS enrollees accounted for 40 percent or less of total Part D enrollment.

## Chart 10-18. Components of Part D spending growth

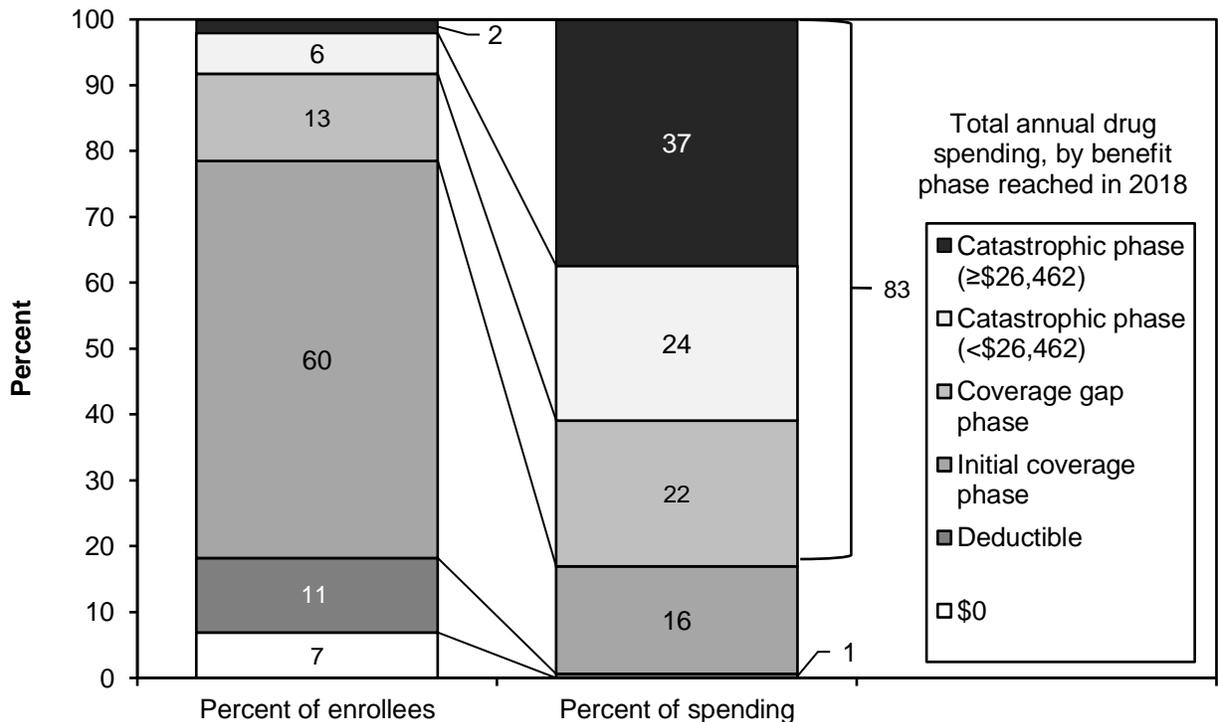
	2009	2018	Average annual growth 2009–2018
<b>Total gross spending (in billions)</b>	<b>\$73.7</b>	<b>\$168.1</b>	<b>9.6%</b>
High-cost beneficiaries	29.2	102.2	14.9%
Lower cost beneficiaries	44.6	65.9	4.4%
<b>Number of beneficiaries using a Part D drug (in millions)</b>	<b>26.5</b>	<b>43.5</b>	<b>5.7%</b>
High-cost beneficiaries	2.4	3.9	5.5%
Lower cost beneficiaries	24.1	39.7	5.7%
<b>Amount per beneficiary who used Part D drugs</b>			
Gross drug spending per year	\$2,781	\$3,861	3.7%
Average price per 30-day prescription	\$55	\$69	2.5%
Number of 30-day prescriptions	50.4	55.9	1.1%
<b>Amount per high-cost beneficiary who used Part D drugs</b>			
Gross drug spending per year	\$12,294	\$26,482	8.9%
Average price per 30-day prescription	\$110	\$247	9.3%
Number of 30-day prescriptions	111.4	107.4	–0.4%
<b>Amount per lower cost beneficiary who used Part D drugs</b>			
Gross drug spending per year	\$1,846	\$1,662	–1.2%
Average price per 30-day prescription	\$42	\$33	–2.6%
Number of 30-day prescriptions	44.5	50.9	1.5%

Note: “High-cost beneficiaries” refers to individuals who incurred spending high enough to reach the catastrophic phase of the benefit. “Gross spending” reflects payments to pharmacies from all payers, including beneficiary cost sharing, but does not include rebates and discounts from pharmacies and manufacturers that are not reflected in prices at the pharmacies. Changes in the average price per prescription reflect both price inflation and changes in the mix of drugs used. Components may not sum to totals due to rounding.

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

- Between 2009 and 2018, gross spending on drugs under the Part D program grew by an annual average rate of 9.6 percent. The annual growth in spending was considerably higher (14.9 percent) among high-cost beneficiaries (individuals who incurred spending high enough to reach the catastrophic phase of the benefit) compared with 4.4 percent for lower cost beneficiaries.
- During the 2009 through 2018 period, the number of beneficiaries who used Part D drugs grew by an annual average rate of 5.7 percent. Similar rates of growth were observed among high-cost beneficiaries and lower cost beneficiaries.
- The average price per 30-day prescription covered under Part D rose from \$55 in 2009 to \$69 in 2018. Overall, growth in price per prescription accounted for nearly two-thirds (2.5 percentage points) of the 3.7 percent average annual growth in spending per beneficiary among beneficiaries who used Part D drugs.
- The average annual growth rate in overall spending per beneficiary reflects two distinct patterns of price and spending growth, one for high-cost beneficiaries and another for lower cost beneficiaries. Among high-cost beneficiaries, annual growth in prices (9.3 percent) accounted for all of the spending growth (8.9 percent) during this period. In contrast, among lower cost beneficiaries, the average annual decrease in prices (–2.6 percent) resulted in an overall decrease in spending (–1.2 percent annually), despite an increase in the number of prescriptions filled during the same period.

**Chart 10-19. The majority of Part D spending was incurred by just over one-fifth of all Part D enrollees, 2018**



Note: "Spending" (gross) reflects payments from all payers, including beneficiaries (cost sharing) but does not include rebates and discounts from pharmacies and manufacturers that are not reflected in prices at the pharmacies. In 2018, the defined standard basic benefit included a \$405 deductible and 25 percent coinsurance until the enrollee reached \$3,750 in total covered drug spending. An individual with an average mix of drugs who did not receive Part D's low-income subsidy and who had no other supplemental coverage would have reached the catastrophic phase of the benefit at about \$8,418 in total drug spending. In 2018, among those who reached the catastrophic phase of the benefit, an enrollee at the 75th percentile of the distribution had drug spending totaling \$26,462. 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 in a subset of beneficiaries. In 2018, about 21 percent of Part D enrollees had annual spending exceeding the initial coverage limit (typically set at \$3,750 in gross drug spending), at which point enrollees were responsible for a higher proportion of the cost of the drugs until they reached the catastrophic phase of the benefit (at about \$8,418 in gross drug spending under the defined standard benefit for beneficiaries not receiving Part D's low-income subsidy (LIS)). These beneficiaries accounted for 83 percent of total Part D spending.
- The costliest 8 percent of beneficiaries, those with drug spending above the catastrophic threshold, accounted for about 61 percent of total Part D spending. Seventy percent of beneficiaries with the highest spending received the LIS (data not shown; see Chart 10-20). Spending on prescription drugs has become more concentrated over time. Before 2011, the costliest 8 percent of beneficiaries accounted for 40 percent or less of total Part D spending (data not shown). In comparison, for Medicare Part A and Part B spending, Medicare fee-for-service spending accounted for by the costliest 5 percent of beneficiaries has been stable at about 40 percent for many years (data not shown; see Chart 1-11 for 2017 figures).
- In 2018, among Part D enrollees who reached the catastrophic phase of the benefit, those enrollees with annual spending at or above \$26,462 (2 percent of all Part D enrollees) accounted for 37 percent of total Part D spending.

**Chart 10-20. Characteristics of Part D enrollees, by benefit phase reached, 2018**

	Annual drug spending		
	Below initial coverage limit	Coverage-gap phase	Catastrophic phase
<b>Sex</b>			
Male	43%	43%	43%
Female	57	57	57
<b>Race/ethnicity</b>			
White, non-Hispanic	73	75	66
African American, non-Hispanic	10	10	15
Hispanic	10	9	12
Other	6	5	7
<b>Age (years)</b>			
<65	15	16	37
65–69	26	20	19
70–74	22	21	17
75–80	16	18	12
80+	21	26	15
<b>LIS status*</b>			
LIS	25	32	70
Non-LIS	75	68	30
<b>Plan type**</b>			
PDP	57	62	65
MA–PD	43	38	35

Note: LIS (low-income [drug] subsidy), PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]). “Spending” (gross) reflects payments from all payers, including beneficiaries (cost sharing) but does not include rebates and discounts from pharmacies and manufacturers that are not reflected in prices at the pharmacies. In 2018, the defined standard basic benefit included a \$405 deductible and 25 percent coinsurance until the enrollee reached \$3,750 in total covered drug spending. An individual with an average mix of drugs who did not receive Part D’s low-income subsidy and who had no other supplemental coverage would have reached the catastrophic phase of the benefit at about \$8,418 in total drug spending. A small number of beneficiaries were excluded from the analysis because of missing data. Components may not sum to 100 due to rounding.  
 \*A beneficiary was 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 during the year, that individual was classified in the type of plan with the 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 2018, Part D enrollees who reached the catastrophic phase of the benefit were more likely to be minority, disabled and under age 65, and receiving the LIS compared with Part D enrollees with annual spending below the catastrophic threshold.
- While LIS enrollees are more likely to reach the catastrophic phase of the benefit, their share has been declining, from more than 80 percent in 2010 and earlier years (data not shown) to 70 percent in 2018. This decline reflects more rapid growth in enrollment of individuals who do not receive the LIS as well as the growth in average prices of drugs taken by those individuals.
- Part D enrollees who reached the catastrophic phase of the benefit were more likely to be enrolled in stand-alone PDPs (65 percent) compared with enrollees whose spending was below the initial coverage limit (57 percent) or enrollees in the coverage gap who did not reach the catastrophic threshold (62 percent). Some of this difference likely reflects the facts that LIS enrollees are more costly on average and are more likely to be in PDPs.

## Chart 10-21. Part D spending and use per enrollee, 2018

	Part D	Plan type		LIS status	
		PDP	MA-PD	LIS	Non-LIS
Total gross spending (billions)*	\$168.1	\$106.2	\$61.9	\$81.8	\$86.3
Total number of prescriptions (millions)	2,433	1,428	1,005	877	1,556
Average spending per prescription	\$69	\$74	\$62	\$93	\$55
<b>Per enrollee per month</b>					
Total spending	\$317	\$346	\$276	\$529	\$229
OOP spending	33	36	28	6	44
Manufacturer gap discount	13	15	10	N/A	18
Plan liability	209	226	186	363	146
Low-income cost-sharing subsidy	47	51	40	160	N/A
Other**	15	18	11	<1	21
Number of prescriptions	4.6	4.7	4.5	5.7	4.1

Note: PDP (prescription drug plan), MA-PD (Medicare Advantage-Prescription Drug [plan]), LIS (low-income [drug] subsidy), OOP (out-of-pocket), N/A (not applicable). "Total gross spending" reflects payments from all payers, including beneficiaries (cost sharing) but does not include rebates and discounts from pharmacies and manufacturers that are not reflected in prices at the pharmacies. 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. "Plan liability" includes plan payments for drugs covered by both basic and supplemental (enhanced) benefits. In addition to the major categories shown in the chart, total spending includes amounts paid by other relatively minor payers such as group health plans, workers' compensation, and charities. "Number of prescriptions" is standardized to a 30-day supply.

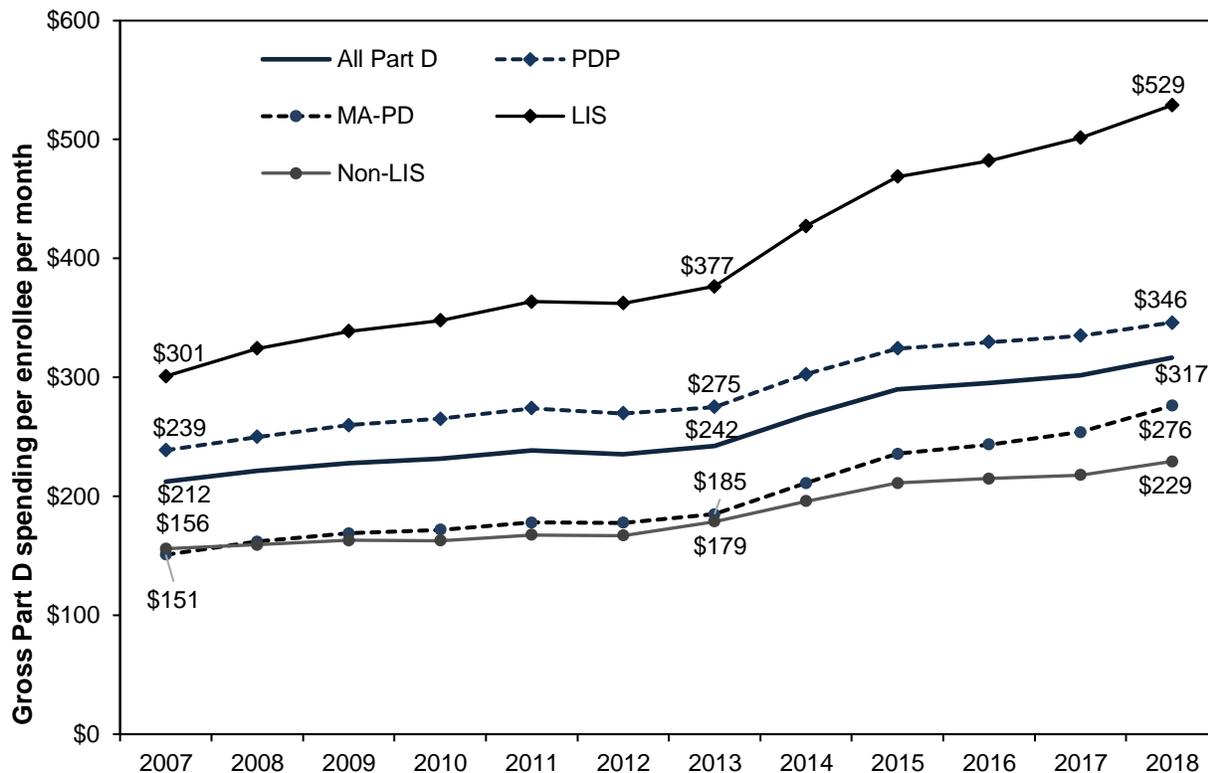
\*\*Total gross spending" includes nearly \$6.9 billion in manufacturer discounts for brand-name drugs filled by non-LIS enrollees during the coverage gap.

\*\*\*Other" amount includes payments by patient assistance organizations and third-party payers other than Part D plans that reduce the patient cost-sharing liability.

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

- In 2018, gross spending on drugs for the Part D program totaled \$168.1 billion, with more than 60 percent (\$106.2 billion) accounted for by Medicare beneficiaries enrolled in stand-alone PDPs. Part D enrollees receiving the LIS accounted for nearly half (\$81.8 billion) of the total. Manufacturer discounts for brand-name drugs filled by non-LIS enrollees while they were in the coverage gap accounted for 4.1 percent of the total, or 8 percent of the gross spending by non-LIS enrollees (up from 3.8 percent and 7.5 percent, respectively, in 2017) (data not shown).
- The number of prescriptions filled by Part D enrollees totaled over 2.4 billion, with nearly 60 percent (about 1.4 billion) accounted for by PDP enrollees. The 30 percent of enrollees who received the LIS accounted for about 36 percent (877 million) of the total number of prescriptions filled.
- In 2018, Part D enrollees filled 4.6 prescriptions at \$317 per month on average, an increase from \$302 per month (for 4.5 prescriptions) in 2017 (2017 data not shown). The average monthly plan liability for PDP enrollees (\$226) was considerably higher than that of MA-PD enrollees (\$186), while the difference in average monthly OOP spending was smaller for MA-PD enrollees than PDP enrollees (\$36 vs. \$28, respectively). The average monthly low-income cost-sharing subsidy was higher for PDP enrollees (\$51) compared with MA-PD enrollees (\$40).
- Average monthly spending per LIS enrollee (\$529) was more than double that of a non-LIS enrollee (\$229), and the average number of prescriptions filled per month by an LIS enrollee was 5.7 compared with 4.1 for a non-LIS enrollee. LIS enrollees had much lower monthly OOP spending, on average, than non-LIS enrollees (\$6 vs. \$44, respectively). Part D's LIS pays for most of the cost sharing for LIS enrollees, averaging \$160 per month in 2018.

**Chart 10-22. Trends in Part D spending and use per enrollee per month, 2007–2018**



Note: PDP (prescription drug plan), LIS (low-income [drug] subsidy), MA–PD (Medicare Advantage–Prescription Drug [plan]). “Spending” (gross) reflects payments from all payers, including beneficiaries (cost sharing) but does not include rebates and discounts from pharmacies and manufacturers that are not reflected in prices at the pharmacies. 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. Figures are sensitive to the method used to classify PDE records to each plan type and LIS status.

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

- Between 2007 and 2018, average per capita spending per month for Part D–covered drugs grew from \$212 to \$317, an average growth of 3.7 percent annually, or about 49 percent cumulatively. The rate of growth in average per capita spending more than doubled after 2013, in part reflecting the introduction of new hepatitis C treatments in 2014 and subsequent years.
- Between 2007 and 2018, monthly per capita spending for LIS enrollees grew faster than that for non-LIS enrollees, increasing from \$301 to \$529 (a cumulative growth of nearly 76 percent) compared with an increase from \$156 to \$229 for non-LIS enrollees (a cumulative growth of 47 percent). The number of prescriptions filled by both LIS and non-LIS enrollees grew by just under 2 percent annually during this period (data not shown).
- The growth in monthly per capita drug spending among MA–PD enrollees exceeded that of PDP enrollees during the 2007 to 2018 period (annual average growth of 5.6 percent and 3.4 percent, respectively). However, the average per capita spending for MA–PD enrollees continued to be lower than that of PDP enrollees (by about \$70 per month in 2018).

**Chart 10-23. Top 15 therapeutic classes of drugs covered under Part D, by spending and volume, 2018**

Top 15 therapeutic classes by spending			Top 15 therapeutic classes by volume		
	Dollars			Prescriptions	
	Billions	Percent		Millions	Percent
Diabetic therapy	\$26.8	15.9%	Antihyperlipidemics	257.4	10.6%
Asthma/COPD therapy agents	12.4	7.4	Antihypertensive therapy agents	252.6	10.4
Antivirals	9.8	5.8	Diabetic therapy	163.9	6.7
Antineoplastic (enzyme inhibitors)	9.5	5.6	Antidepressants	151.2	6.2
Anticoagulants	9.4	5.6	Beta-adrenergic blockers	150.4	6.2
Analgesics (anti-inflammatory/antipyretic, non-narcotic)	7.7	4.6	Peptic ulcer therapy	123.2	5.1
Anticonvulsants	6.2	3.7	Diuretics	115.4	4.7
Antipsychotics	5.9	3.5	Calcium channel blockers	110.5	4.5
Antihypertensive therapy agents	5.0	3.0	Thyroid therapy	96.7	4.0
Antineoplastics (immunomodulators)	5.0	3.0	Anticonvulsants	94.9	3.9
Antihyperlipidemics	4.6	2.7	Analgesics (narcotic)	71.7	2.9
Analgesics (narcotic)	3.1	1.9	Asthma/COPD therapy agents	69.1	2.8
Antineoplastics (hormone antagonists)	3.0	1.8	Antibacterial agents	57.7	2.4
Antidepressants	2.7	1.6	Prostatic hypertrophy agents	48.4	2.0
Peptic ulcer therapy	2.7	1.6	Anticoagulants	45.0	1.8
Subtotal, top 15 classes	113.9	67.8	Subtotal, top 15 classes	1,808.0	74.3
Total, all classes	168.1	100.0	Total, all classes	2,432.5	100.0

Note: COPD (chronic obstructive pulmonary disease). "Spending" (gross) reflects payments from all payers, including beneficiaries (cost sharing) but does not include rebates and discounts from pharmacies and manufacturers that are not reflected in prices at the pharmacies. "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. Components may not sum to totals due to rounding.

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

- In 2018, the top 15 therapeutic classes by spending accounted for more than two-thirds of the \$168.1 billion spent on prescription drugs covered by Part D plans. The top 15 therapeutic classes by volume accounted for nearly three-quarters of the over 2.4 billion prescriptions dispensed in 2018.
- While many of the same therapeutic classes on the top-15 list appear year after year, the ranking has changed from time to time. For example, market entries of new hepatitis C therapies more than tripled Part D spending on antivirals between 2013 and 2015 (data not shown). In 2018, antivirals accounted for \$9.8 billion, down from \$11.7 billion in 2016 (2016 data not shown). The growth in spending for drugs to treat cancer resulted in three classes of antineoplastic therapies (enzyme inhibitors, immunomodulators, and hormone antagonists) appearing on the top-15 list for the first time in 2018, compared with just one class between 2012 and 2014 and none before 2012.

*(Chart continued next page)*

## Chart 10-23. Top 15 therapeutic classes of drugs covered under Part D, by spending and volume, 2018 (continued)

- Spending on drugs to treat diabetes has grown at a double-digit rate since 2007 (data not shown). In 2018, spending on diabetic therapy totaled \$26.8 billion, an increase of about 15 percent from \$23.3 billion in 2017 (2017 data not shown). The number of prescriptions filled for diabetic therapy totaled 163.9 million, an increase of 5.5 percent from 155.4 million in 2017.
- Nine therapeutic classes are among the top 15 in both spending and volume. Diabetic therapy dominates the list by spending, accounting for almost 16 percent of total spending and nearly a quarter of spending for the top 15 therapeutic classes, followed by asthma/COPD therapy agents. Cardiovascular agents (antihyperlipidemics, antihypertensive therapy agents, beta-adrenergic blockers, diuretics, and calcium channel blockers) dominate the list by volume, accounting for about 36 percent of all prescriptions and 50 percent of the prescriptions in the top 15 therapeutic classes.

## Chart 10-24. Part D patterns of prescribing by provider type, 2017

	Part D	Provider type		
		Primary care*	Specialty/ others	NP/PA/ CNS
Number of individual prescribers (thousands)	1,163	254	660	249
Share of all individual prescribers		22%	57%	21%
Average beneficiary count	158	254	125	146
Average per beneficiary				
Gross spending	\$753	\$912	\$745	\$617
Number of prescriptions	6.0	11.2	4.2	5.4
<b>Top 1 percent of prescribers based on number of prescriptions filled per beneficiary</b>				
Number of individual prescribers	10,311	7,228	1,921	1,162
Share of top 1 percent of prescribers		70%	19%	11%
Total gross spending (billions)	\$9.9	\$7.7	\$1.5	\$0.7
Share of provider type's total gross spending	6%	13%	2%	3%
Total number of prescriptions (millions)	142	118	17	8
Share of provider type's total prescriptions filled	10%	14%	4%	3%
Average per beneficiary				
Gross spending	\$3,812	\$3,243	\$5,371	\$4,773
Number of prescriptions	42	42	42	41

Note: NP (nurse practitioner), PA (physician assistant), CNS (clinical nurse specialist). "Gross spending" reflects payments from all payers, including beneficiaries (cost sharing) but does not include rebates and discounts from pharmacies and manufacturers that are not reflected in prices at the pharmacies. Numbers may not sum to totals due to rounding. "Number of prescriptions" is a count of prescription drug events and is not adjusted for the size (number of days' supply) of the prescriptions. As such, these figures are not comparable with the prescription counts shown in Chart 10-18, Chart 10-21, and Chart 10-23. \*The definition of "primary care" used here includes practitioners who have a primary Medicare specialty designation of family practice, internal medicine, pediatrics, or geriatrics.

Source: MedPAC analysis of Medicare Part D prescriber-level public use file from CMS.

- In 2017, nearly 1.2 million individual providers wrote prescriptions for Medicare beneficiaries that were filled under Part D. Of those, about 22 percent were primary care providers, 57 percent were specialty or other types of providers, and 21 percent were NPs, PAs, or CNSs in primary and specialty care. While historically, NPs and PAs have been concentrated in primary care, more recent patterns suggest that they are increasingly practicing in specialty fields.
- The average count of Medicare-only beneficiaries was higher among primary care providers compared with specialty and other types of providers and with NPs, PAs, and CNSs—254 beneficiaries versus 125 beneficiaries and 146 beneficiaries, respectively.

(Chart continued next page)

## Chart 10-24. Part D patterns of prescribing by provider type, 2017 (continued)

- On a per beneficiary basis, average gross spending for Part D prescriptions was much higher for prescriptions written by primary care providers (\$912) compared with the average for specialty and other providers (\$745) and for NPs, PAs, and CNSs (\$617). Primary care providers also wrote more prescriptions per beneficiary, on average: 11.2 compared with 4.2 for specialty and other providers and 5.4 for NPs, PAs, and CNSs.
- More than 10,300 prescribers were among the top 1 percent of all prescribers, as ranked by the average number of Part D prescriptions filled per beneficiary in 2017. The top prescribers were much more likely than all providers to be practicing in primary care: 70 percent were primary care providers, 19 percent were specialty and other providers, and 11 percent were NPs, PAs, and CNSs.
- The top 1 percent of prescribers accounted for 6 percent of total gross spending and 10 percent of all prescriptions filled. Among primary care prescribers who were within the top 1 percent, results were more concentrated: They accounted for 13 percent of gross prescription spending and 14 percent of all prescriptions written by primary care providers.
- Among the prescriptions that were written by prescribers in the top 1 percent of all prescribers in 2017, per beneficiary Part D spending averaged \$3,812 for 42 prescriptions filled.

**Chart 10-25. Part D patterns of prescribing for selected specialties, 2017**

	Number of individual Part D prescribers (thousands)	Share of all Part D prescribers (percent)	Average per beneficiary	
			Gross spending (in dollars)	Number of prescriptions
All Part D	1,162.9	100%	\$753	6.0
All specialty/others	659.6	57	745	4.2
Selected specialties:				
Psychiatry	25.4	4	1,260	13.3
Cardiology	20.3	3	799	8.3
Ophthalmology	19.8	3	454	4.1
Psychiatry & neurology	14.2	2	1,232	11.3
Neurology	13.9	2	3,050	7.4
Gastroenterology	13.6	2	1,669	3.6
Urology	10.7	2	423	3.9
Pulmonary disease	9.5	1	2,977	6.8
Nephrology	8.6	1	1,793	8.5
Hematology & oncology	8.5	1	8,081	6.1
Endocrinology	5.9	1	2,421	8.1
Infectious disease	5.4	1	6,635	8.9
Rheumatology	4.7	1	3,374	7.9
Medical oncology	3.2	<0.5	7,422	5.7

Note: "Gross spending" reflects payments from all payers, including beneficiaries (cost sharing) but does not include rebates and discounts from pharmacies and manufacturers that are not reflected in prices at the pharmacies.  
 "Number of prescriptions" is a count of prescription drug events and is not adjusted for the size (number of days' supply) of the prescriptions. As such, they are not comparable with the prescription counts shown in Chart 10-18, Chart 10-21, and Chart 10-23.

Source: MedPAC analysis of Medicare Part D prescriber-level public use file from CMS.

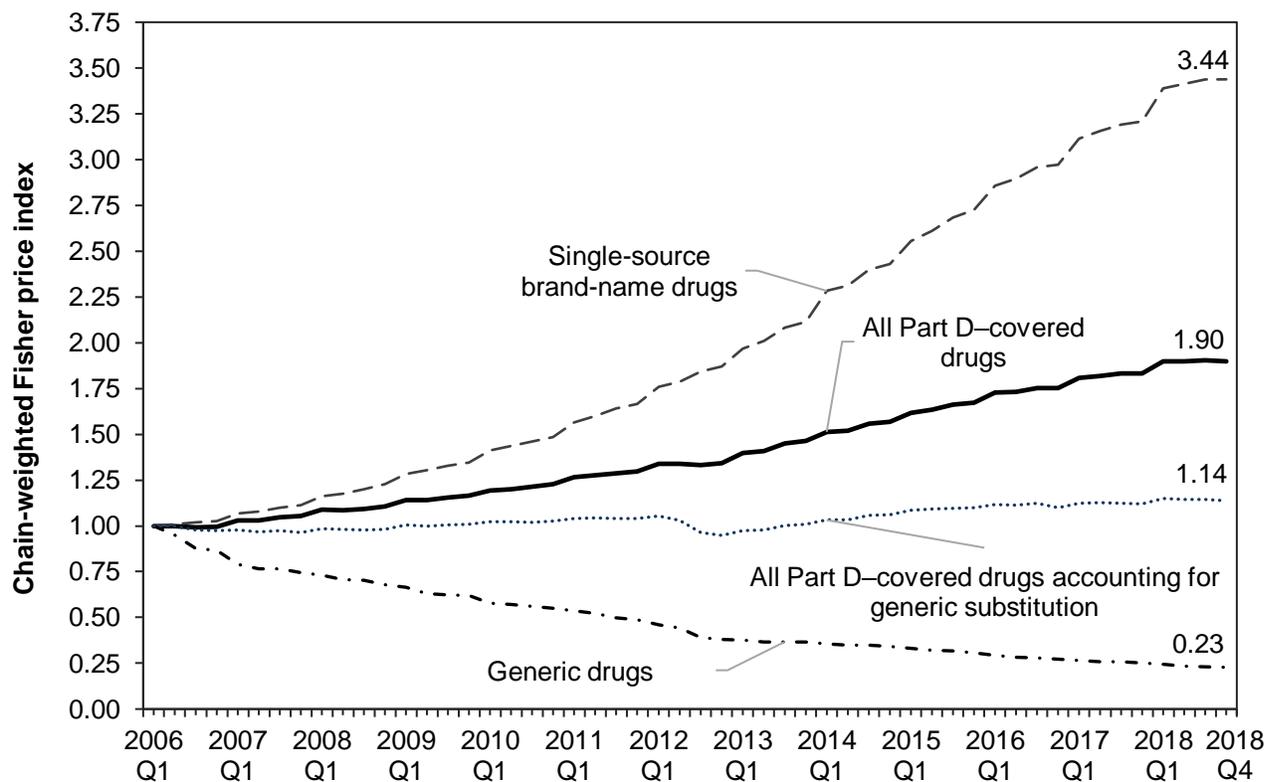
- Of specialty care prescribers, psychiatrists were among the most numerous, making up 4 percent of all Part D prescribers in 2017. Cardiologists, ophthalmologists, psychiatrist/neurologists, neurologists, gastroenterologists, and urologists each made up another 2 percent to 3 percent of Part D prescribers.
- Psychiatrists wrote an average of 13.3 prescriptions per beneficiary, with an average of \$1,260 in gross spending per patient. Those are higher than the overall Part D averages of 6.0 prescriptions and \$753 in average gross spending per beneficiary. Other specialties with comparatively high average gross spending per beneficiary include psychiatry/neurology, neurology, gastroenterology, pulmonary disease, nephrology, hematology/oncology, endocrinology, infectious disease, rheumatology, and medical oncology.

(Chart continued next page)

## **Chart 10-25. Part D patterns of prescribing for selected specialties, 2017 (continued)**

- Other specialties such as ophthalmology and urology had lower average gross spending per beneficiary. Cardiologists had average gross spending per beneficiary slightly higher than that of all Part D specialty prescribers (\$799 vs. \$753, respectively), but wrote an average of 8.3 prescriptions per beneficiary—considerably more than the average of 4.2 per beneficiary for all Part D specialty prescribers.

**Chart 10-26. Price growth for Part D–covered drugs, 2006–2018**

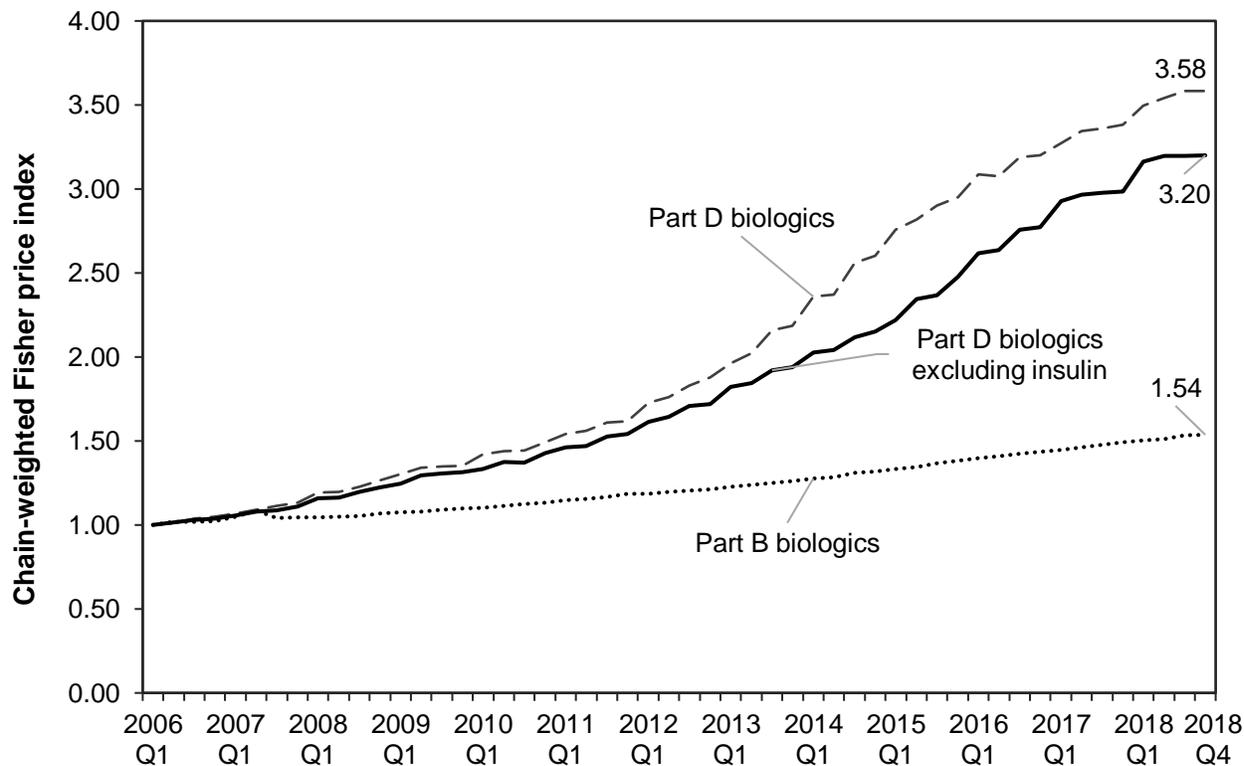


Note: Q1 (first quarter), Q4 (fourth quarter). Part D indexes reflect total amounts paid to pharmacies and do not reflect retrospective rebates or discounts from manufacturers and pharmacies. These measures of price growth reflect growth in the price of individual products but do not reflect changes in price due to the introduction of new products or to changes in the mix of products used.

Source: Acumen LLC analysis for MedPAC.

- Measured by individual national drug codes, prices of drugs and biologics covered under Part D rose 90 percent cumulatively between 2006 and 2018 (an index of 1.90). (Prices reflect total amounts paid to pharmacies and do not reflect retrospective rebates or discounts from manufacturers and pharmacies.)
- As measured by a price index that takes generic substitution into account, Part D prices increased by just 14 percent cumulatively (an index of 1.14) over the 12-year period. Before 2013, increased generic use kept overall prices stable by offsetting increases in prices of brand-name drugs. From 2013 to 2015, however, the introduction of new generics slowed, and prices for brand-name drugs grew more rapidly—as reflected by an uptick in the price index.
- Overall, between 2006 and 2018, prices of generic drugs covered under Part D decreased to 23 percent of the average price observed at the beginning of 2006. In comparison, prices of single-source, brand-name drugs (drugs with no generic substitutes) grew by a cumulative 244 percent (an index of 3.44) during the same period.

**Chart 10-27. Comparison of price growth for Part B and Part D biologics, 2006–2018**



Note: Q1 (first quarter), Q4 (fourth quarter). Part D indexes reflect total amounts paid to pharmacies and do not reflect retrospective rebates or discounts from manufacturers and pharmacies. The Part B index reflects growth in the average sales price of Part B–covered biologics over time, measured for individual biologics at the Healthcare Common Procedure Coding System billing code level. These measures of price growth reflect growth in the price of individual products but do not reflect changes in price due to the introduction of new products or the changes in the mix of products used. The Part B price index for biologics in this chart and in Chart 10-6 are different due to the different periods of analysis.

Source: Acumen LLC analysis for MedPAC.

- Measured by the change in the average sales price of individual Part B–covered biologics, the prices of Part B–covered biologics rose by an average of 54 percent cumulatively between 2006 and 2018 (an index of 1.54). Measured by individual national drug codes, prices of biologics covered under Part D rose 258 percent cumulatively during the same period (an index of 3.58). (Prices reflect total amounts paid to pharmacies and do not reflect retrospective rebates or discounts from manufacturers and pharmacies).
- Prices of noninsulin biologics covered under Part D grew less rapidly (by an average of 220 percent cumulatively, an index of 3.20) compared with the growth in prices of all Part D biologics during the same period.
- These measures of price growth reflect growth in price at the individual product level and do not reflect changes in price that occur as a result of shifts in the mix of biologics used or the introduction of new, higher priced biologics.
- Currently, biologics that may be covered under either Part B or Part D are limited to a subset of drugs within therapeutic classes such as therapies to treat inflammatory conditions (e.g., rheumatoid arthritis) and certain types of cancer.



SECTION

# 11

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## **Other services**

**Dialysis**

**Hospice**

**Clinical laboratory**

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## Chart 11-1. Number of dialysis facilities is growing, and most facilities are for profit and freestanding

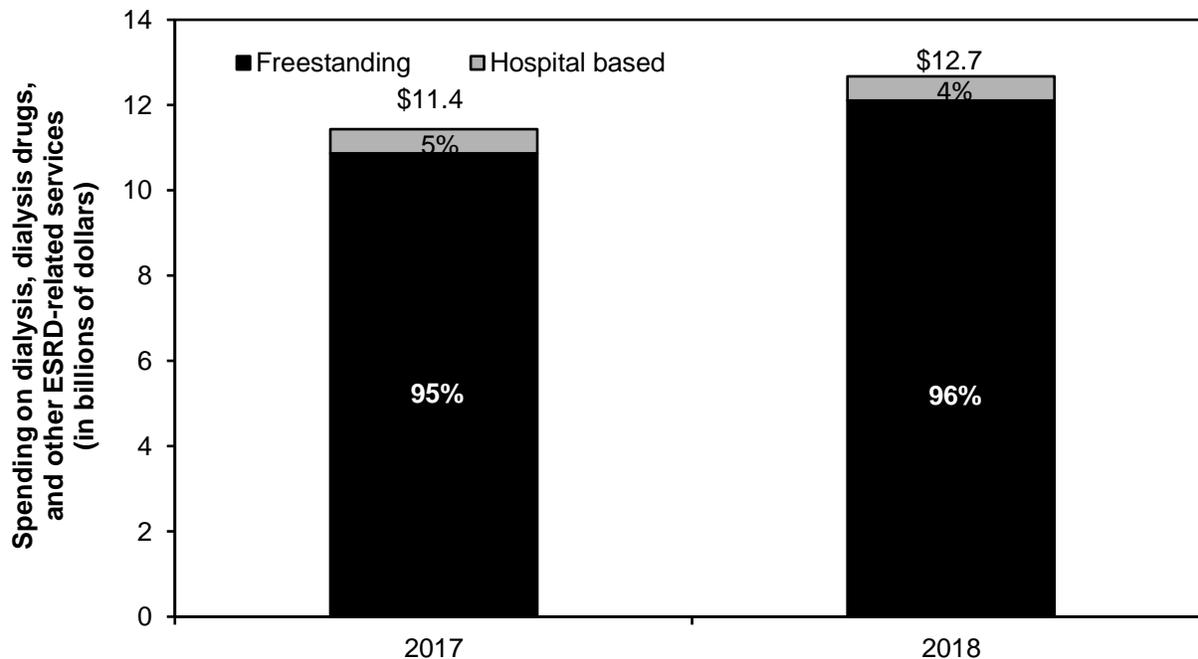
	2018	Average annual percent change	
		2013–2018	2017–2018
Total number of:			
Dialysis facilities	7,441	4%	5%
Hemodialysis stations	130,257	4	6
Mean number of hemodialysis stations per facility			
	18	-0.2	1.2
<u>Share of total facilities</u>			
Hospital based	5%	-4	-6
Freestanding	95	5	6
Urban	83	5	6
Rural, micropolitan	10	2	3
Rural, adjacent to urban	4	2	2
Rural, not adjacent to urban	2	2	-2
Frontier	0.5	1	0
For profit	88	5	5
Nonprofit	12	-0.4	2

Note: "Nonprofit" includes facilities designated as either nonprofit or government. "Average annual percent change" is based on comparing 2013, 2017, and 2018 end-of-year files. Components may not sum to totals due to rounding.

Source: Compiled by MedPAC from the institutional outpatient claims files and the Dialysis Compare files from CMS.

- Between 2013 and 2018, the number of facilities has increased, on average, 4 percent per year. The average size of a facility has remained relatively constant, averaging nearly 18 dialysis treatment stations per facility (17.7 stations in 2013, 17.3 stations in 2017, and 17.5 stations in 2018).
- Since 2013, facilities' capacity to provide care—as measured by hemodialysis treatment stations—grew 4 percent annually on average. Capacity at urban facilities grew by 4 percent per year, while capacity at rural facilities grew at a rate of 2 percent per year (data not shown).
- Since 2013, the number of freestanding and for-profit facilities increased, while hospital-based facilities decreased. Both freestanding and for-profit facilities each increased by 5 percent per year to nearly 7,050 freestanding facilities and about 6,570 for-profit facilities.

**Chart 11-2. Medicare spending for outpatient dialysis services furnished by freestanding and hospital-based dialysis facilities, 2017 and 2018**



Note: ESRD (end-stage renal disease).

Source: Compiled by MedPAC from the institutional outpatient claims files from CMS.

- In 2018, total spending for dialysis, dialysis drugs, and ESRD-related clinical laboratory tests was \$12.7 billion. Medicare paid all facilities under a prospective payment system (PPS) that includes in the payment bundle certain dialysis drugs and ESRD-related clinical laboratory tests that were separately paid before 2011.
- Between 2017 and 2018, total ESRD expenditures increased by 11 percent. Nearly all of the growth in spending is due to payments for two drugs that qualified in 2018 for the ESRD PPS's transitional drug add-on payment adjustment (TDAPA). Without the TDAPA, dialysis spending would have increased 0.5 percent, a rate similar to the growth seen between 2016 and 2017.
- Freestanding dialysis facilities treated most dialysis beneficiaries and accounted for 96 percent of expenditures in 2018.

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

	2007		2013		2017	
	Patients (thousands)	Percent	Patients (thousands)	Percent	Patients (thousands)	Percent
Total	527.2	100%	658.4	100%	746.6	100%
Dialysis	369.3	70	462.0	70	523.7	70
In-center hemodialysis	335.4	64	408.3	62	458.6	61
Home hemodialysis*	3.7	0.7	8.1	1	9.5	1
Peritoneal dialysis*	28.7	5	43.9	7	52.7	7
Unknown	1.5	0.3	1.7	0.3	2.9	0.4
Functioning graft and kidney transplant	157.9	30	196.4	30	222.8	30

Note: ESRD (end-stage renal disease). Totals may not equal sum of components due to rounding. Data include both Medicare (fee-for-service and Medicare Advantage) and non-Medicare patients. The “functioning graft and kidney transplant” category includes patients who have a functioning graft at the start of the year in question (i.e., 2007, 2013, or 2017), or who receive a transplant during the year in question.  
\*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 2007 and 2017.
- 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 cleansed 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 2007 and 2017, the total number of in-center hemodialysis patients grew by 3 percent annually, while the total number of peritoneal dialysis patients increased by about 6 percent annually. Although a smaller proportion of all dialysis patients undergo home hemodialysis, the number of these patients grew 10 percent per year during this period.
- Functioning graft patients are patients who have had a successful kidney transplant. Patients undergoing a kidney transplant may receive either a living kidney or a cadaveric kidney donation. In 2017, 28 percent of transplanted kidneys were from living donors and the remainder were from cadaver donors (data not shown).

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

	Share of total in 2017	Average annual percent change 2012–2017
Total (N = 746,557)	100%	3%
<b>Age (years)</b>		
0–17	1	0.4
18–44	14	1
45–64	43	3
65–79	33	6
80+	9	4
<b>Sex</b>		
Male	58	4
Female	42	3
<b>Race/ethnicity</b>		
White	62	3
African American	30	3
Native American	1	2
Asian American	6	6
Hispanic	18	4
Non-Hispanic	80	3
Unknown	2	1
<b>Underlying cause of ESRD</b>		
Diabetes	39	4
Hypertension	26	4
Glomerulonephritis	16	2
Other causes	20	3

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. Data include both Medicare (fee-for-service and Medicare Advantage) and non-Medicare patients.

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

- Among ESRD patients, nearly 42 percent are over age 65. About 62 percent are White.
- Diabetes is the most common cause of renal failure.
- The number of ESRD patients increased by 3 percent annually between 2012 and 2017. Among the fastest growing groups of patients are patients between the ages of 65 and 79, Asian Americans, and Hispanics.

## Chart 11-5. Characteristics of Medicare fee-for-service dialysis patients, 2018

	Share of all FFS dialysis patients
<b>Age (years)</b>	
Under 45	10%
45–64	38
65–74	28
75–84	18
85+	6
<b>Sex</b>	
Male	56
Female	44
<b>Race</b>	
White	47
African American	35
All other	18
<b>Residence</b>	
Urban county	83
Rural county, micropolitan	10
Rural county, adjacent to urban	5
Rural county, not adjacent to urban	2
Frontier county	1
<b>Prescription drug coverage status</b>	
Enrolled in Part D plan or other source of creditable drug coverage	89
LIS	58
<b>Dually eligible for Medicare and Medicaid</b>	48

Note: FFS (fee-for-service), LIS (low-income [drug] subsidy). Urban counties contain a core area with 50,000 or more people, rural micropolitan counties contain at least one cluster of at least 10,000 and fewer than 50,000 people, 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 (see Chart 2-5).
- In 2018, about 17 percent of FFS dialysis patients resided in a rural county.
- Nearly half of all dialysis patients were dually eligible for Medicare and Medicaid services.
- Nearly 90 percent of FFS dialysis patients were enrolled in Part D plans or had other sources of creditable drug coverage.

## Chart 11-6. Aggregate margins varied by type of freestanding dialysis facility, 2018

Type of facility	Share of freestanding dialysis treatments	Aggregate margin
All facilities	100%	2.1%
Urban	88	2.8
Rural	12	-2.8
Treatment volume (quintile)		
Lowest	7	-19.3
Second	12	-8.0
Third	17	-0.1
Fourth	24	4.2
Highest	39	8.7

Note: Margins include payments and costs for dialysis services commonly provided under treatment, including injectable drugs and laboratory tests that were separately paid before 2011. Totals may not sum to 100 percent due to rounding.

Source: Compiled by MedPAC from 2018 cost reports and the 2018 institutional outpatient file from CMS.

- For 2018, the aggregate Medicare margin for dialysis-related services, including ESRD-related drugs and laboratory tests that were separately paid before 2011, was 2.1 percent.
- Between 2017 and 2018, the aggregate Medicare margin increased (from -1.1 percent to 2.1 percent) due to the profitability of the drugs paid under the transitional drug add-on payment adjustment (TDAPA) policy. Excluding the payments and costs of the drugs paid under the TDAPA (calcimimetics), we estimate that the 2018 aggregate Medicare margin would have been about -2 percent.
- Generally, freestanding dialysis facilities' margins vary by the size of the facility; facilities with greater treatment volume have higher margins on average. Differences in capacity and treatment volume explain some of the differences observed between the margins of urban facilities versus rural facilities. Urban facilities are larger on average than rural facilities with respect to the number of dialysis treatment stations and Medicare treatments provided. Some rural facilities have benefited from the ESRD prospective payment system's low-volume adjustment.

## Chart 11-7. Dialysis quality of care: Some measures show progress, others need improvement, 2012–2017

Outcome measure	2012	2016	2017
Share of in-center hemodialysis patients:			
Receiving adequate dialysis	97%	98%	98%
Dialyzed with an AV fistula	60	62	63*
Share of peritoneal dialysis patients receiving adequate dialysis	90	93	93
Share of all dialysis patients managing anemia			
Mean hemoglobin <10 g/dL	23	29	28
Mean hemoglobin 10 to <12 g/dL	69	66	67
Mean hemoglobin ≥12 g/dL	7	5	5
Share of all dialysis patients wait-listed for a kidney	17.6	15.3	13.7
Renal transplant rate per 100 patient years	3.5	3.5	3.6
Annual mortality rate per 100 patient years**	17.0	16.4	16.5
Total hospital admissions per patient year**	1.9	1.7	1.7
Hospital days per patient year**	12.0	11.4	11.3

Note: AV (arteriovenous), g/dL (grams per deciliter [of blood]), USRDS (United States Renal Data System). Totals may not sum to 100 percent due to rounding. The rate per patient year is calculated by dividing the total number of events by the fraction of the year that patients were followed. Data on dialysis adequacy, anemia management, and fistula utilization represent the share of patients meeting CMS's clinical performance measures. The United States Renal Data System (USRDS) adjusts hospitalization and mortality measures by age, gender, race, and primary diagnosis of end-stage renal disease.

\*Use of AV fistula as of May 2018 (data on 2017 AV fistula use not available from USRDS).

\*\*Lower values suggest higher quality.

Source: All measures, except for share of patients receiving adequate dialysis and anemia management, compiled by MedPAC using data from the United States Renal Data System. Measure of share of patients receiving adequate dialysis and anemia management compiled by MedPAC using data from CMS's 100 percent institutional outpatient files.

- Quality of dialysis care is mixed. Performance has improved on some measures, but performance on others remains unchanged or has declined.
- Between 2012 and 2017, overall adjusted mortality rates decreased from 17.0 percent to 16.5 percent. During this period, the proportion of hemodialysis patients receiving adequate dialysis remained high, and there has been a modest decline in the overall rates of hospitalization.
- All hemodialysis patients require vascular access—the site on the patient's body where blood is removed and returned during dialysis. Use of arteriovenous fistulas, considered the best type of vascular access, has modestly increased from 60 percent to 63 percent of hemodialysis patients between 2012 and 2017.
- 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. Between 2012 and 2017, the share of dialysis patients accepted on the kidney transplant waiting list declined from 17.6 to 13.7, and the renal transplant rate per 100 dialysis-patient years remained relatively constant at 3.6.

## Chart 11-8. Hospice spending and use increased in 2018

	2000	2017	2018	Average annual change, 2000–2017	Change, 2017–2018
Medicare payments (in billions)	\$2.9	\$17.9	\$19.2	11.2%	7.4%
Beneficiaries in hospice (in millions)	0.534	1.493	1.551	6.2%	3.9%
Number of hospice days for all hospice beneficiaries (in millions)	25.8	106.3	113.5	8.7%	6.8%
Average length of stay among decedents (in days)	53.5	88.1	89.6	3.0%	1.7%
Median length of stay among decedents (in days)	17	17	18	0 days	1 day

Note: Average length of stay is calculated for decedents who were using 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 or her lifetime. Total spending, number of hospice users, number of hospice days, and average length of stay displayed in the table are rounded; the percentage change (except for length of stay) is calculated using unrounded data. Length-of-stay data for 2017 and 2018 are based on the Medicare Beneficiary Database obtained from CMS in October 2019. Length-of-stay figures for 2017 differ from those published in the June 2019 data book because they were based on an earlier version of the Medicare Beneficiary Database obtained from CMS. CMS has revised the hospice election information for some beneficiaries in the Medicare Beneficiary Database.

Source: MedPAC analysis of the denominator file, the Medicare Beneficiary Database, and the 100 percent hospice claims standard analytic file from CMS.

- Total Medicare payments to hospices were about \$19.2 billion in 2018, about 7 percent higher than the prior year.
- The number of Medicare beneficiaries receiving hospice services, total number of days of hospice care, and average length of stay continued to grow in 2018.

**Chart 11-9. Hospice use increased across beneficiary groups from 2000 to 2018**

	Share of decedents using hospice			Average annual percentage point change 2000–2017	Percentage point change 2017–2018
	2000	2017	2018		
All	22.9%	50.0%	50.7%	1.6	0.7%
FFS beneficiaries	21.5	49.0	49.7	1.6	0.7
MA beneficiaries	30.9	52.3	52.8	1.3	0.5
Dual eligibles	17.5	44.8	45.6	1.6	0.8
Non–dual eligibles	24.5	51.7	52.4	1.6	0.7
<b>Age (years)</b>					
<65	17.0	29.6	30.0	0.7	0.4
65–84	24.7	46.7	47.1	1.3	0.4
85+	21.4	60.1	61.4	2.3	1.3
<b>Race/ethnicity</b>					
White	23.8	52.2	53.0	1.7	0.8
Minority	17.3	39.3	39.7	1.3	0.4
<b>Gender</b>					
Male	22.4	45.5	46.1	1.4	0.6
Female	23.3	54.2	55.1	1.8	0.9
<b>Residence</b>					
Urban county	24.2	51.0	51.6	1.6	0.6
Rural county, micropolitan	18.3	46.9	47.9	1.7	1.0
Rural county, adjacent to urban	17.5	46.6	47.5	1.7	0.9
Rural county, nonadjacent to urban	15.0	41.2	42.3	1.5	1.1
Frontier county	13.1	34.1	36.1	1.2	2.0

Note: FFS (fee-for-service), MA (Medicare Advantage). “Residence” refers to the beneficiary’s county of residence. Urban, micropolitan, and rural designations are based on the urban influence codes. This chart uses the 2013 urban influence code definition. The frontier category is defined as population density equal to or less than six people per square mile and overlaps with the beneficiary county of residence categories. Hospice use rates for 2017 and 2018 are based on the Medicare Beneficiary Database obtained from CMS in October 2019. Hospice use rates for 2017 differ from those published in the June 2019 data book because they were based on an earlier version of the Medicare Beneficiary Database obtained from CMS. CMS has revised the hospice election information for some beneficiaries in the Medicare Beneficiary Database.

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

- Hospice use grew across beneficiary groups in 2018, 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 not dual eligible, who were MA enrollees, older, White, female, or living in an urban area were more likely to use hospice than their respective counterparts.

## Chart 11-10. Number of Medicare-participating hospices has increased due to growth in for-profit hospices

	2000	2016	2017	2018
All hospices	2,255	4,382	4,488	4,639
For profit	672	2,940	3,097	3,226
Nonprofit	1,324	1,275	1,230	1,248
Government	257	167	160	158
Freestanding	1,069	3,369	3,519	3,674
Hospital based	785	501	471	454
Home health based	378	487	475	466
SNF based	22	25	22	22
Urban	1,455	3,474	3,603	3,736
Rural	757	901	879	869

Note: SNF (skilled nursing facility). Numbers may not sum to totals because of missing data for a small number of providers. The rural and urban definitions in this chart are based on updated definitions of the core-based statistical areas (which rely on data from the 2010 census).

Source: MedPAC analysis of Medicare cost reports, Provider of Services file, and the standard analytic file of hospice claims from CMS.

- There were 4,639 Medicare-participating hospices in 2018. Almost 70 percent of them were for-profit hospices.
- The number of Medicare-participating hospices grew by roughly 150 providers between 2017 and 2018 and has doubled since 2000. For-profit hospices accounted for most of the net growth in providers between 2017 and 2018.
- Growth in the number of providers has occurred predominantly among freestanding providers. The number of hospital-based and home health–based providers declined between 2016 and 2018. The number of SNF-based providers is small and has changed little over the years. (A hospice’s status as freestanding versus hospital based, home health based, or SNF based reflects the type of cost report submitted by the provider and does not necessarily reflect the location of care.)
- The number of hospices located in rural areas has declined in the last several years, decreasing about 5 percent between 2016 and 2018. The number of providers located in rural areas is not necessarily an indicator of access to care. The share of rural decedents using hospice has been increasing since 2000 (see Chart 11-9).

## Chart 11-11. Hospice cases and length of stay, by diagnosis, 2018

Diagnosis	Share of total cases	Share of cases with length of stay greater than 180 days
Cancer	26%	9%
Alzheimer's, nervous system disorders, organic psychosis	23	35
Circulatory, except heart failure	20	25
Heart failure	8	23
Other	8	16
Respiratory disease	6	15
Chronic airway obstruction, NOS	5	29
Genitourinary disease	2	9
Digestive disease	2	9
All	100	21

Note: NOS (not otherwise specified). Cases include all patients who received hospice care in 2018, not just decedents. "Diagnosis" reflects primary diagnosis on the beneficiary's last hospice claim in 2018. The share of cases with length of stay greater than 180 days reflects the share of hospice patients who received hospice care in 2018 whose lifetime length of hospice stay exceeded 180 days at the end of 2018 (or at the time of death or discharge in 2018 if the beneficiary was not enrolled in hospice at the end of 2018).

Source: MedPAC analysis of 100 percent hospice claims standard analytic file from CMS and the Medicare Beneficiary Database.

- In 2018, the most common primary diagnoses among Medicare hospice patients were cancer (26 percent), neurological conditions (Alzheimer's disease, nervous system disorders, and organic psychosis) (23 percent of cases), circulatory conditions other than heart failure (20 percent), and heart failure (8 percent).
- Length of stay varies by diagnosis. Long hospice stays were most common among patients with Alzheimer's disease and other nervous system disorders, circulatory conditions (including heart failure), and chronic airway obstruction. Long hospice stays were least common among beneficiaries with cancer, genitourinary disease, and digestive disease.

## Chart 11-12. Hospice average length of stay among decedents increased slightly in 2018

Year	Average length of stay (in days)	Percentiles of length of stay (in days)				
		10th	25th	50th	75th	90th
2000	53.5	3	6	17	56	141
2016	87.0	2	5	17	78	243
2017	88.1	2	5	17	78	248
2018	89.6	2	5	18	81	253

Note: Length of stay is calculated for decedents who were using 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 or her lifetime. Length-of-stay data for 2016, 2017, and 2018 are based on the Medicare Beneficiary Database obtained from CMS in October 2019. Some length-of-stay figures for 2016 and 2017 differ from those published in the June 2019 data book because they were based on an earlier version of the Medicare Beneficiary Database obtained from CMS.

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

- Average length of stay among decedents was 89.6 days in 2018, an increase from 2017 of more than one day.
- There is wide variation in hospice length of stay. In 2018, hospice length of stay among decedents ranged from 2 days at the 10th percentile to 253 days at the 90th percentile.
- Since 2000, growth in average length of stay among decedents has largely been the result of increases in length of stay for patients with the longest stays. Length of stay at the 90th percentile was more than 100 days greater in 2018 than in 2000.
- Short stays in hospice have changed little since 2000. For example, among decedents, median length of stay was 18 days in 2018 and 17 days in 2000. Hospice length of stay at the 25th percentile was 5 days in 2018 and 6 days in 2000.

**Chart 11-13. Hospice length of stay among decedents, by beneficiary and hospice characteristics, 2018**

	Average length of stay (in days)	Length-of-stay percentiles (in days)		
		10th	50th	90th
<b>Beneficiary</b>				
Diagnosis				
Cancer	53	3	17	128
Neurological	151	4	38	445
Heart/circulatory	97	2	17	288
COPD	119	2	28	350
Other	56	2	8	156
Site of service				
Home	93	4	26	245
Nursing facility	106	3	21	310
Assisted living facility	155	5	54	438
<b>Hospice</b>				
For profit	110	3	23	321
Nonprofit	68	2	13	186
Freestanding	92	2	18	263
Home health based	70	2	15	191
Hospital based	57	2	12	153

Note: COPD (chronic obstructive pulmonary disease). Average length of stay is calculated for Medicare beneficiaries who died in 2018 and used hospice that year, and it reflects the total number of days the decedent was enrolled in the Medicare hospice benefit during his or her lifetime. "Diagnosis" reflects primary diagnosis on the beneficiary's last hospice claim.

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 among decedents varies by both beneficiary and provider characteristics. Most of this variation reflects differences in length of stay among patients with the longest stays (i.e., at the 90th percentile). Length of stay varies much less for patients with shorter stays (i.e., at the 10th or 50th percentile).
- Beneficiaries with neurological conditions and COPD have the longest stays, while beneficiaries with cancer have the shortest stays, on average.
- Beneficiaries who receive hospice services in assisted living facilities have longer stays on average than beneficiaries who receive care at home or in a nursing facility.
- For-profit and freestanding hospices have longer average lengths of stay than nonprofit and provider-based (home health-based and hospital-based) hospices.

## Chart 11-14. More than half of Medicare hospice spending in 2018 was for patients with stays exceeding 180 days

	Medicare hospice spending, 2018 (in billions)
All hospice users in 2018	\$19.2
Beneficiaries with LOS > 180 days	11.1
Days 1–180	3.8
Days 181–365	3.5
Days 366+	3.8
Beneficiaries with LOS ≤ 180 days	8.2

Note: LOS (length of stay). LOS reflects the beneficiary's lifetime LOS as of the end of 2018 (or at the time of death or discharge in 2018 if the beneficiary was not enrolled in hospice at the end of 2018). All spending reflected in the chart occurred only in 2018. Break-out groups do not sum to total because of rounding.

Source: MedPAC analysis of 100 percent hospice claims standard analytic file data and the common Medicare enrollment file from CMS.

- In 2018, Medicare hospice spending on patients with stays exceeding 180 days was about \$11.1 billion, more than half (58 percent) of all Medicare hospice spending that year.
- About \$3.8 billion, or about 20 percent, of Medicare hospice spending in 2018 was on hospice care for patients who had already received at least one year of hospice.

## Chart 11-15. Hospice aggregate Medicare margins, 2013–2017

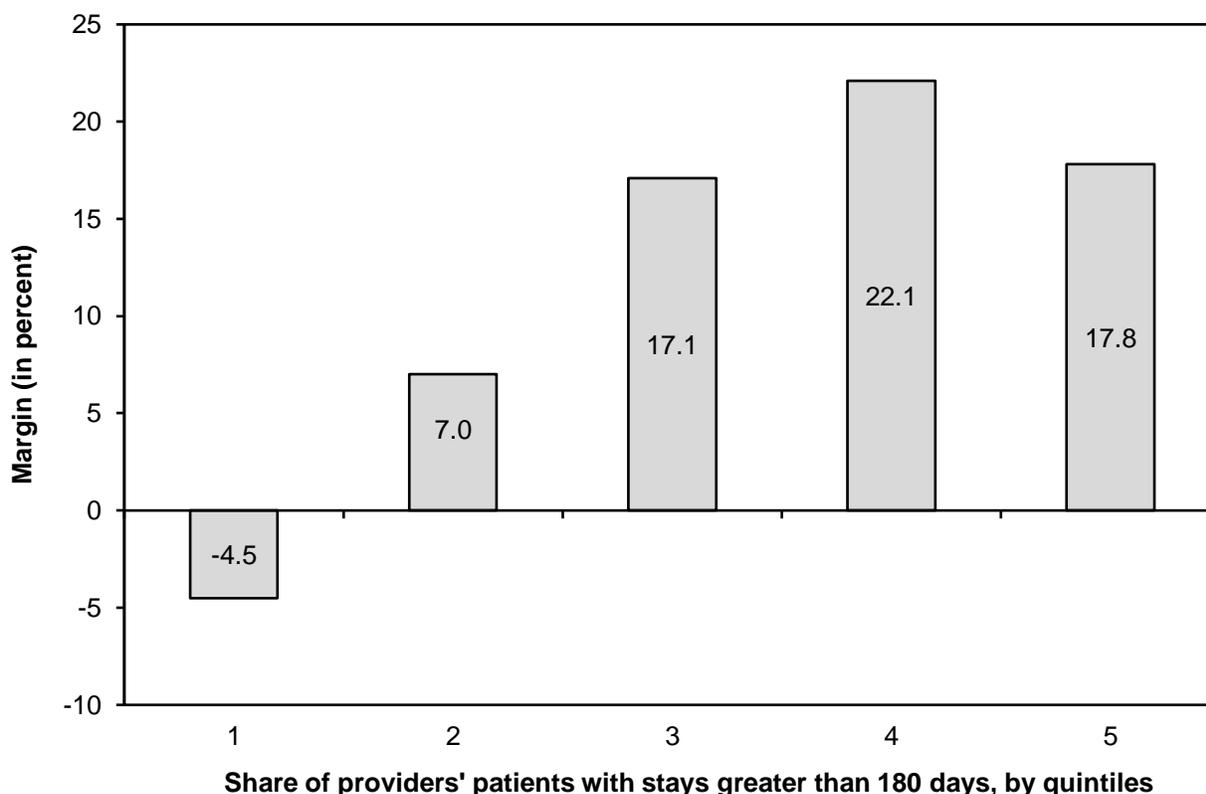
	Share of hospices (2017)	Medicare margin				
		2013	2014	2015	2016	2017
All	100%	8.5%	8.2%	9.9%	10.9%	12.6%
Freestanding	78	12.0	11.6	13.8	14.0	15.3
Home health based	11	2.5	3.5	3.3	6.2	8.0
Hospital based	10	-17.4	-20.8	-23.8	-16.7	-13.8
For profit	69	15.0	15.3	17.8	17.9	20.2
Nonprofit	27	0.8	-0.4	0.0	2.2	2.5
Government	4	N/A	N/A	N/A	N/A	N/A
Urban	80	8.8	8.7	10.4	11.4	12.9
Rural	20	5.9	3.3	4.8	6.3	8.8
Below cap	86.0	8.6	8.4	9.9	10.7	12.5
Above cap	14.0	7.0	6.0	9.8	12.6	13.0
Above cap (including cap overpayments)	14.0	20.1	18.8	21.4	20.2	21.2

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. The percentages of freestanding and provider-based (home health–based and hospital-based) hospices do not sum to 100 percent because skilled nursing facility–based hospices are not broken out separately.

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

- The aggregate Medicare margin was 12.6 percent in 2017, up from 10.9 percent in 2016.
- In 2017, freestanding hospices had higher margins (15.3 percent) than home health–based (8.0 percent) and hospital-based hospices (-13.8 percent).
- The 2017 margin among for-profit hospices was high at 20.2 percent. Nonprofit hospices as a group had a margin of 2.5 percent in 2017, but the subset of nonprofit hospices that were freestanding had a higher margin, 5.7 percent (latter figure not shown in chart).
- The aggregate 2017 margin was higher for urban hospices (12.9 percent) than rural hospices (8.8 percent).
- Hospices that exceeded the cap (Medicare’s aggregate average per beneficiary payment limit) had a 2017 margin of about 21 percent before the return of the cap overpayments.

**Chart 11-16. Medicare margins were higher among hospices with more long stays, 2017**



Note: Margins exclude overpayments to hospices that exceeded the cap on the average annual Medicare payment per beneficiary. Margins are calculated based on Medicare-allowable, reimbursable costs. For hospice providers in the lowest (first) quintile, the share of stays greater than 180 days was less than 12.4 percent; it was between 12.4 percent and 20.0 percent in the second quintile; it was between 20.0 percent and 26.7 percent in the third quintile; it was between 26.7 percent and 34.9 percent in the fourth quintile; and it was greater than 34.9 percent in the highest (fifth) quintile.

Source: MedPAC analysis of Medicare hospice cost reports and 100 percent hospice claims standard analytic file from CMS.

- Medicare's per diem payment system for hospice has provided an incentive for longer lengths of stay.
- Hospices with more patients who had stays greater than 180 days generally had higher margins in 2017. Hospices in the lowest length-of-stay quintile had a margin of -4.5 percent compared with a 22.1 percent margin for hospices in the second highest length-of-stay quintile.

*(Chart continued next page)*

## **Chart 11-16. Medicare margins were higher among hospices with more long stays, 2017 (continued)**

- Margins were somewhat lower in the highest length-of-stay quintile (17.8 percent) compared with the second highest quintile (22.1 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 about 20 percent before the return of overpayments (see Chart 11-15).
- The 2017 margin estimates reflect hospices' financial performance in the second year of the new payment system, which began January 2016. The payment reforms modestly reduced the variation in profitability by length of stay. In 2015, there was a 29 percentage point spread in the margins between the lowest length of stay quintile (-8.9 percent) and the second highest length of stay quintile (20.4 percent) (data not shown). In 2017, the difference in margins between those length of stay quintiles narrowed to about 22 percentage points, as shown in the chart.

## Chart 11-17. Hospices that exceeded Medicare’s annual payment cap, selected years

	2002	2014	2015	2016	2017
Share of hospices exceeding the cap	2.6%	12.1%	12.3%	12.7%	14.0%
Average payments over the cap per hospice exceeding the cap (in thousands)	\$470	\$370	\$316	\$295	\$273
Payments over the cap as a share of overall Medicare hospice spending	0.6%	1.2%	1.0%	1.0%	1.0%

Note: The aggregate cap statistics reflect the Commission’s estimates and may differ from those of the CMS claims-processing contractors. Our estimates for 2014 to 2017 assume all hospices use the proportional methodology and rely on claims data through 14 months after the end of each cap year (with the exception of 2017, which used 15 months). The claims-processing contractors may reopen the hospice cap calculation for up to three years; the reopening process and timing may vary across contractors. To illustrate the potential effect of reopening, we re-estimated cap overpayments for 2014 and 2015 using 38 months of claims data after the end of each cap year. With 38 months of data, the estimated share of hospices exceeding the cap increased by roughly 1 percentage point, and the average payments over the cap per hospice exceeding the cap increased by roughly \$20,000 in both 2014 and 2015. Cap year 2017 reflects an 11-month period from November 1, 2016, to Sept 30, 2017. For years before 2017, the cap year was defined as the period beginning November 1 and ending October 31 of the following year.

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

- The share of hospices exceeding the aggregate cap was 14.0 percent in 2017, up from 12.7 percent in 2016.
- Medicare payments over the cap represented 1.0 percent of total Medicare hospice spending in 2017.
- On average, above-cap hospices exceeded the cap by about \$273,000 per provider in 2017, down from about \$295,000 per provider in 2016.

## Chart 11-18. Hospice live-discharge rates, 2016–2018

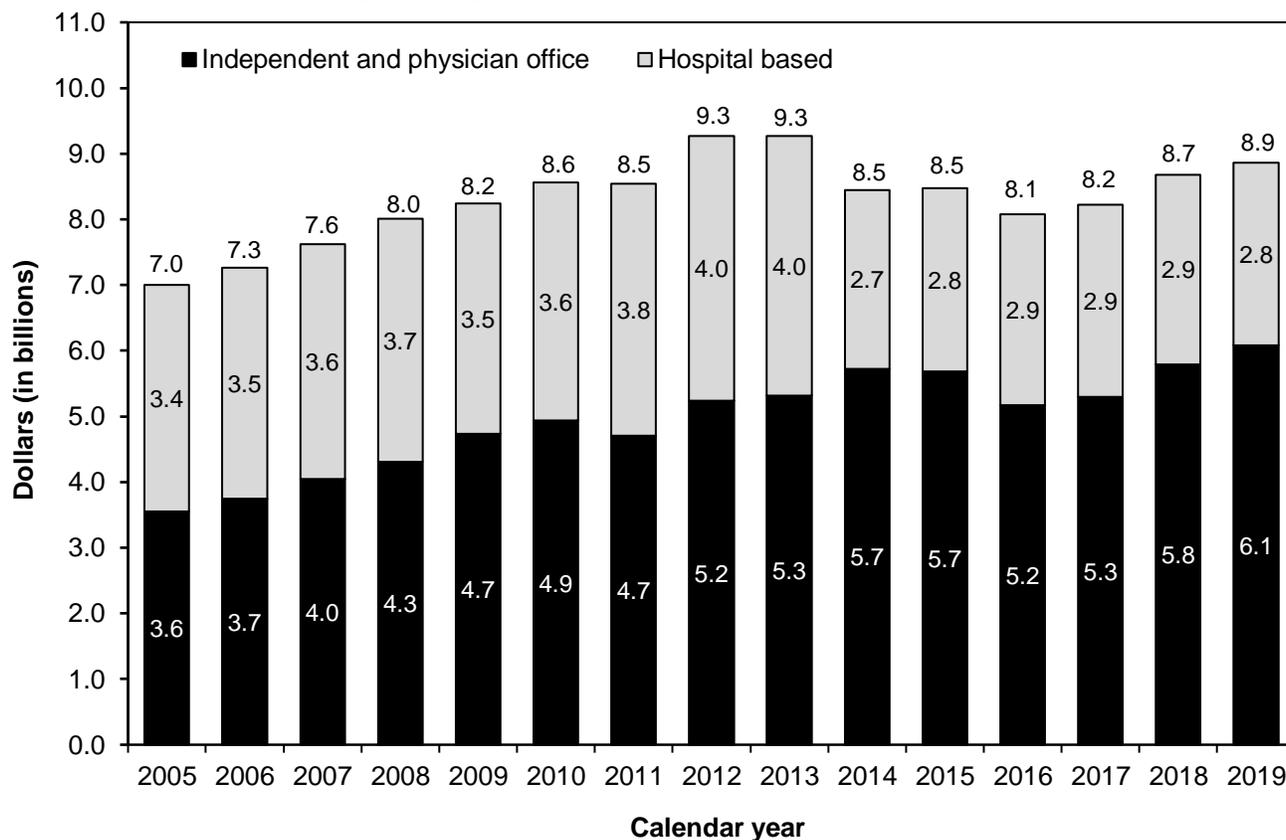
	2016	2017	2018
Live discharge as a share of all discharges, by reason for live discharge			
All live discharges	16.9%	16.7%	17.0%
No longer terminally ill	6.8	6.5	6.3
Beneficiary revocation	6.4	6.4	6.6
Transfer hospice providers	2.1	2.1	2.2
Move out of service area	1.2	1.4	1.6
Discharge for cause	0.3	0.3	0.3
Providers' overall rate of live discharge as a share of all discharges, by percentile (for providers with more than 30 discharges)			
10th percentile	8.6	8.5	8.5
25th percentile	11.8	12.2	12.0
50th percentile	17.6	18.1	17.9
75th percentile	26.7	27.1	27.8
90th percentile	40.8	41.4	42.5

Note: Percentages may not sum to totals due to rounding. "All discharges" includes patients discharged alive or deceased.

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

- In 2018, the overall live-discharge rate was 17.0 percent and has changed little since 2016.
- The most common reasons for live discharge were the beneficiary revoking the hospice benefit and the beneficiary no longer being terminally ill, accounting for 39 percent and 37 percent of live discharges, respectively. Less frequent reasons for live discharges included a beneficiary transferring hospice providers, a beneficiary moving out of the service area, and a beneficiary being discharged for cause.
- Among providers with more than 30 discharges, 10 percent of providers had live-discharge rates in excess of 42 percent.
- Small hospices as a group have substantially higher live-discharge rates than larger hospices. In 2018, the aggregate live-discharge rate was 44 percent for hospices with 30 or fewer discharges (data not shown).

**Chart 11-19. Medicare spending for clinical laboratory services, 2005–2019**



Note: Spending is for services paid under the clinical laboratory fee schedule. Hospital-based services are furnished in labs owned or operated by hospitals. The components of each bar may not sum to the total at the top of each bar due to rounding. The spending data include only program payments; there is no beneficiary cost sharing for clinical lab services.

Source: The annual report of the Boards of Trustees of the Medicare trust funds, 2015 and 2020.

- Medicare spending for clinical laboratory services in all settings grew by an average of 3.6 percent per year between 2005 and 2013.
- From 2013 to 2014, Medicare spending for lab services declined by about 9 percent because, beginning in 2014, many lab tests provided in hospital outpatient departments are no longer paid separately under the clinical lab fee schedule. Instead, many of these tests are packaged with their associated visits or procedures under the hospital outpatient prospective payment system.
- Medicare spending for lab services decreased by an average of 0.9 percent per year from 2014 to 2017.
- Beginning in 2018, clinical laboratory fee schedule payment rates are based on private sector rates. From 2017 to 2019, Medicare spending for lab services grew by an average of 3.8 percent per year.



**425 I Street, NW • Suite 701 • Washington, DC 20001**  
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