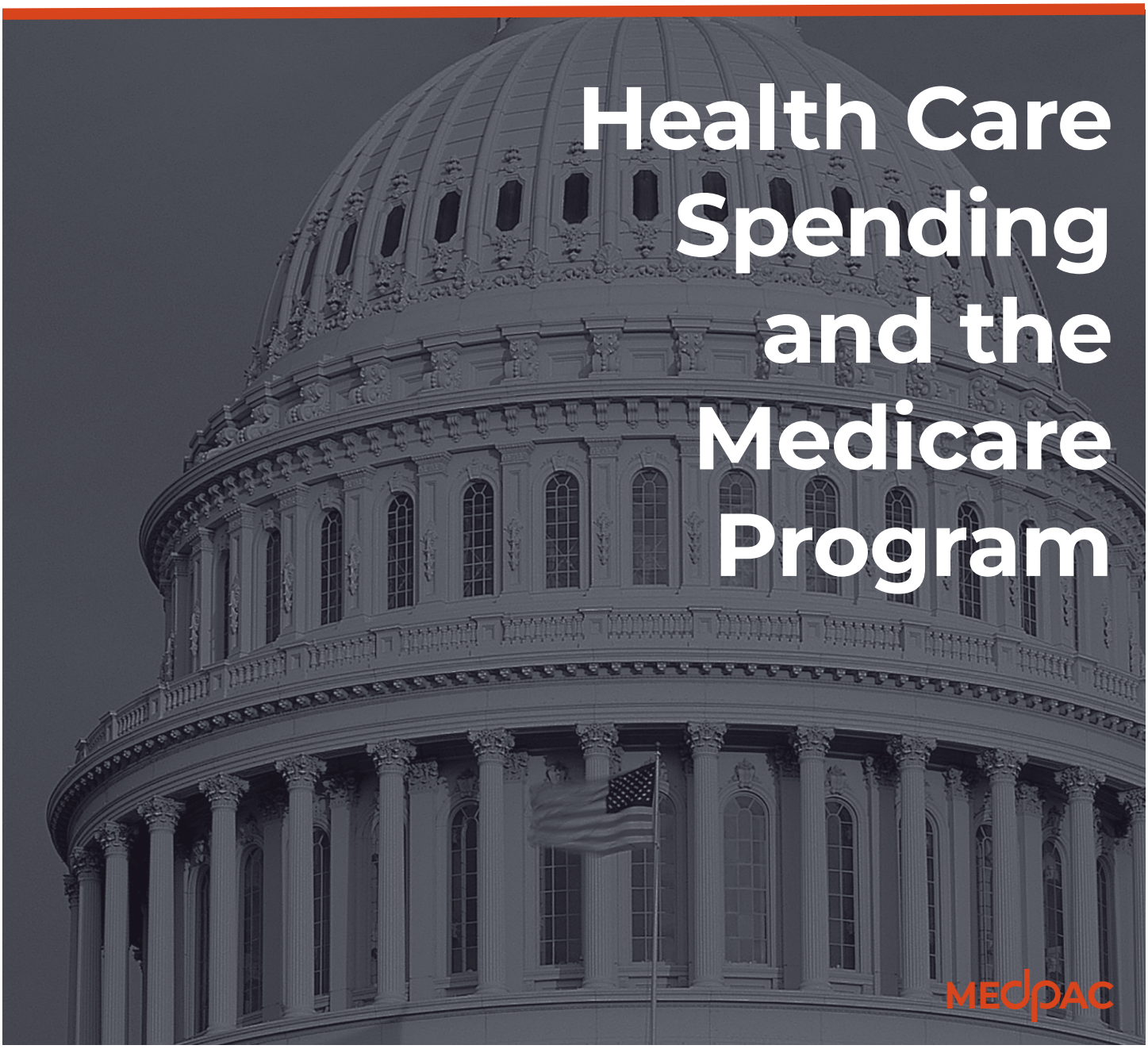
JULY 2022

A Data Book

Health Care Spending and the Medicare Program



MEDPAC

JULY 2022

A DATA BOOK

Health Care Spending and the Medicare Program

MEDPAC | Medicare Payment Advisory Commission

Introduction

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

MedPAC began producing its annual Data Book at the suggestion of congressional staff. Some of the information it contains is derived from MedPAC's March and June reports to the Congress; other information 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.

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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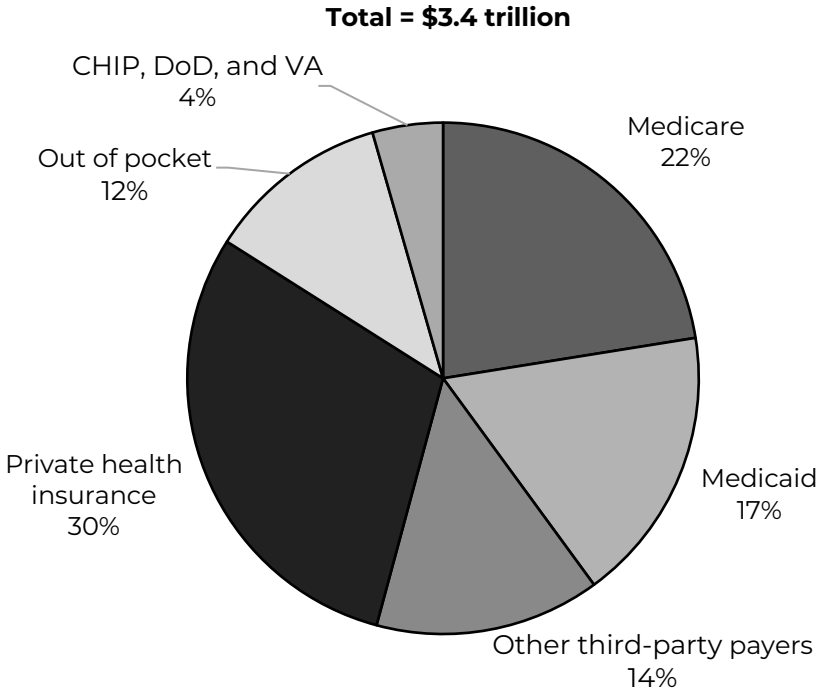
SECTION 1

National health care and Medicare spending

Chart 1-1. Medicare was the largest single purchaser of personal health care, 2020



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 that comprises spending for all medical goods and services that are provided for the treatment of an individual. "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 (including COVID-19 Paycheck Protection Program loans and the Provider Relief Fund), the Substance Abuse and Mental Health Services Administration, other state and local programs, and school health.

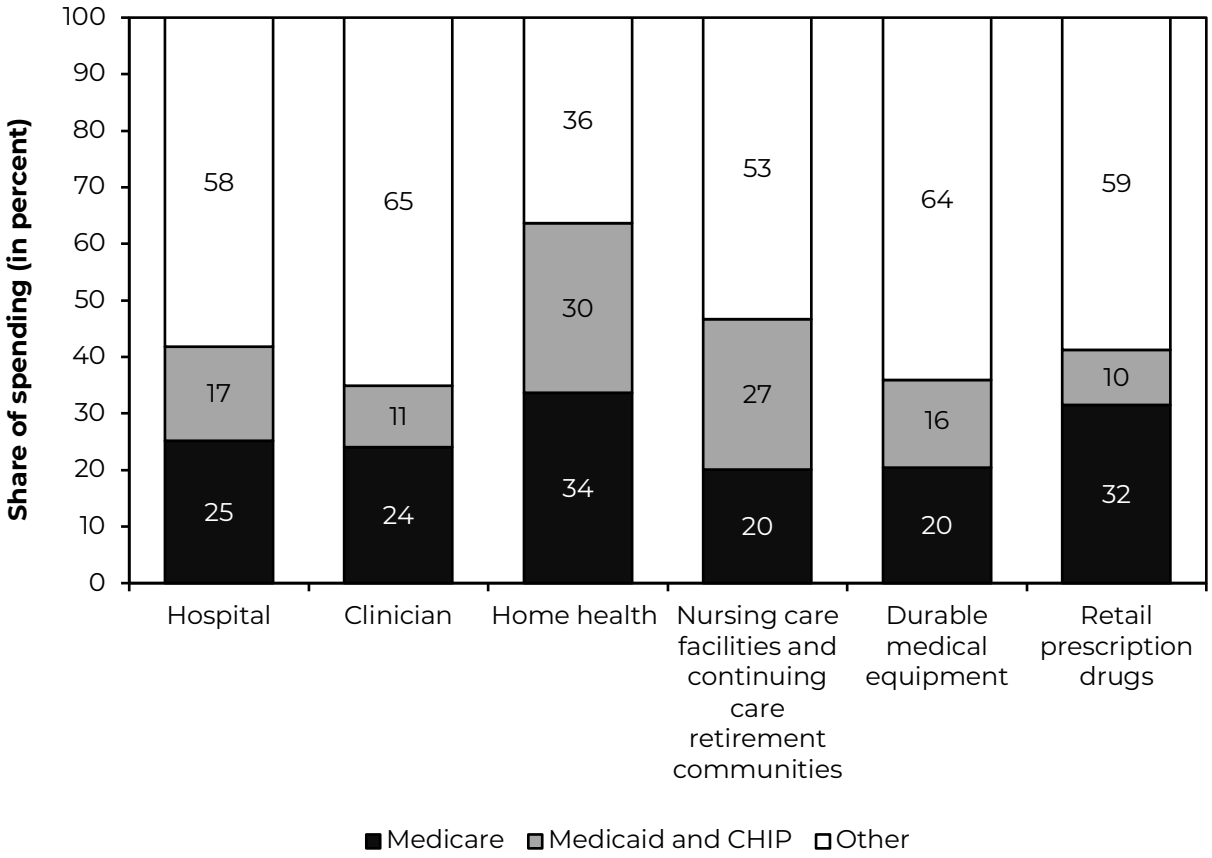
Source: CMS Office of the Actuary, Table 6: Personal Health Care Expenditures; Levels, Percent Change, and Percent Distribution, by Source of Funds: Selected Calendar Years 1970–2020, released December 2021, https://www.cms.gov/files/zip/nhe-tables.zip.

- Medicare is the largest single purchaser of health care in the U.S. (Although 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 $3.4 trillion spent on personal health care in 2020, Medicare accounted for 22 percent, or $754.5 billion. This amount comprises spending on direct patient care and excludes administrative and business costs.

- Private health insurance plans financed 30 percent of total personal health care spending, and consumer out-of-pocket spending (not including premiums) amounted to 12 percent.

- In this chart, enrollees' premium contributions are included in the spending category of their insurance type.

Chart 1-2. Medicare's share of spending on personal health care varied by type of service, 2020



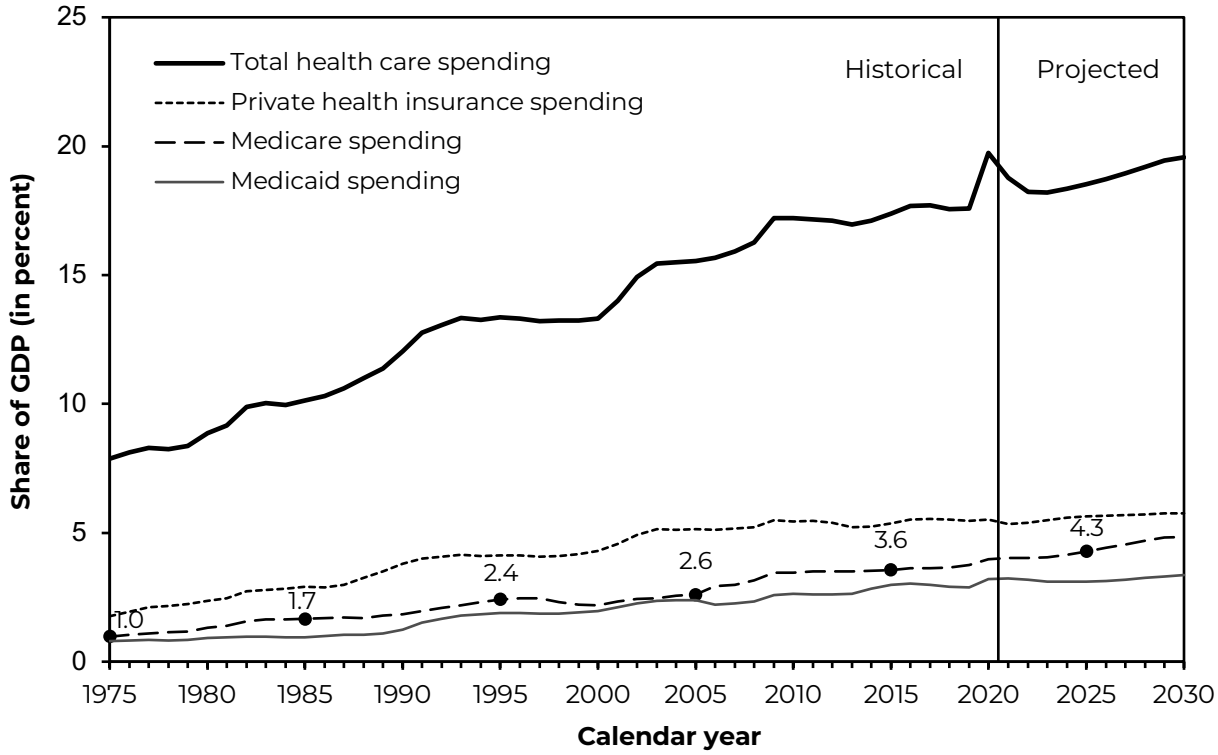
Note: CHIP (Children's Health Insurance Program). "Personal health care" is a subset of national health expenditures that comprises spending for all medical goods and services that are provided for the treatment of an individual. "Other" includes private health insurance, out-of-pocket spending, and 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.

Source: CMS Office of the Actuary, National Health Expenditures by Type of Service and Source of Funds: Calendar Years 1960 to 2020, released December 2021, https://www.cms.gov/files/zip/national-health-expenditures-type-service-and-source-funds-cy-1960-2020.zip.

- While Medicare's share of total personal health care spending was 22 percent in 2020 (see Chart 1-1), its share of spending by type of service varied, from 20 percent of spending on durable medical equipment to 34 percent of spending on home health care.

- Medicare's share of spending on nursing care facilities and continuing care retirement communities 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 1-3. Health care spending has consumed an increasing share of the country's GDP

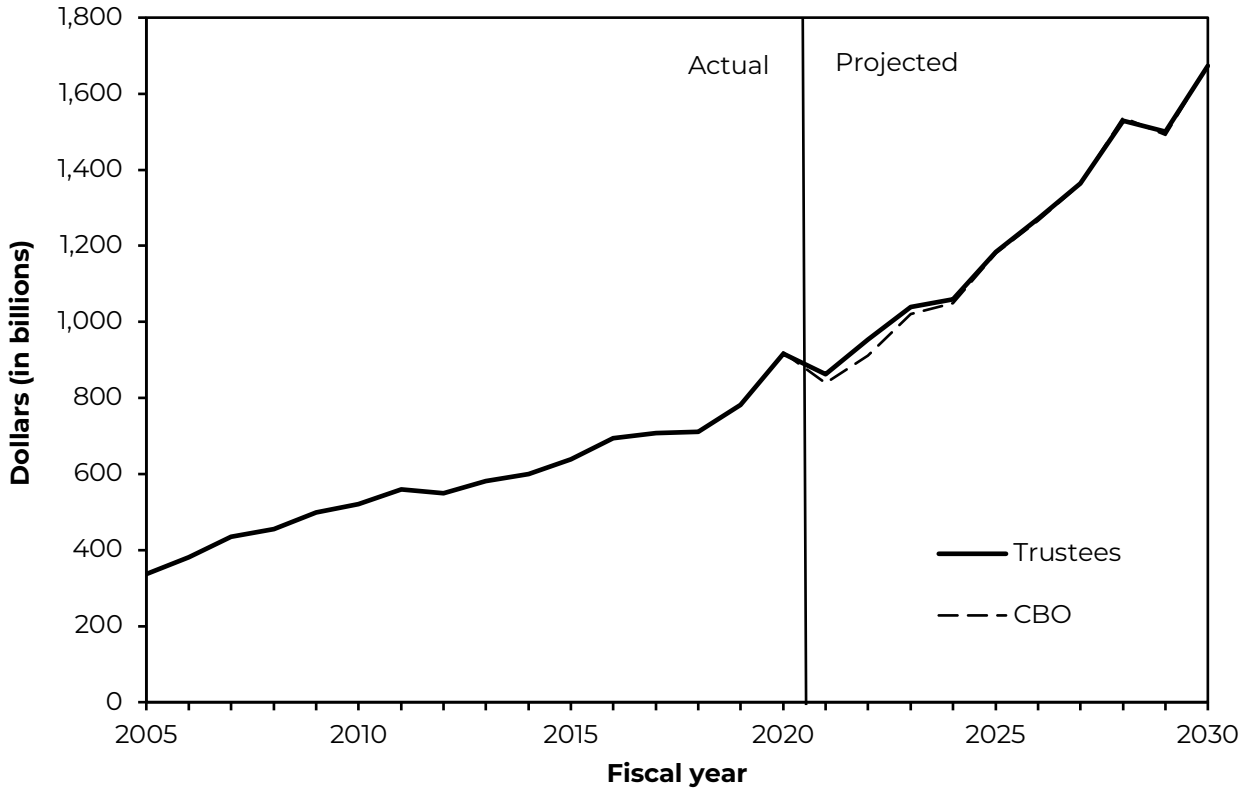


Note: GDP (gross domestic product).

Source: CMS Office of the Actuary, National Health Expenditure Data, historical data released December 2021 and projections released April 2022, https://www.cms.gov/research-statistics-data-and-systems/statistics-trends-and-reports/nationalhealthexpenddata.

- In 2020, total health care spending made up 19.7 percent of the country's GDP—driven upward by one-time spending prompted by the COVID-19 pandemic.
- Private health insurance spending constituted 5.5 percent of GDP spending in 2020, Medicare constituted 4.0 percent, and Medicaid constituted 3.2 percent.
- Over time, Medicare spending has accounted for an increasing share of GDP. From 1 percent in 1975, it is projected to reach nearly 5 percent of GDP by 2030.
- One of the drivers of Medicare spending growth between now and 2030 is the continued aging of the baby-boom generation into the Medicare program, which began in 2011. By 2030, all baby boomers will have reached Medicare-eligibility age.

Chart 1-4. The Medicare Trustees and CBO both project Medicare spending to exceed $1 trillion by 2023



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

Source: Congressional Budget Office's July 2021 baseline spending projections for Medicare, https://www.cbo.gov/system/files/2021-07/51302-2021-07-medicare.xlsx; the 2021 annual report of the Boards of Trustees of the Medicare trust funds.

- Medicare spending has more than doubled since 2005, increasing from $337 billion to over $800 billion by 2021. (Medicare spending reached $919 billion in 2020 due to one-time spending prompted by the COVID-19 pandemic.)

- The Medicare Trustees and CBO both project that Medicare spending between 2020 and 2030 will grow at an average annual rate of 6.2 percent. Medicare spending will reach $1 trillion by 2023 under both sets of projections.

Chart 1-5. Factors contributing to Medicare's projected spending growth, 2021–2030 (not including general economy-wide inflation)

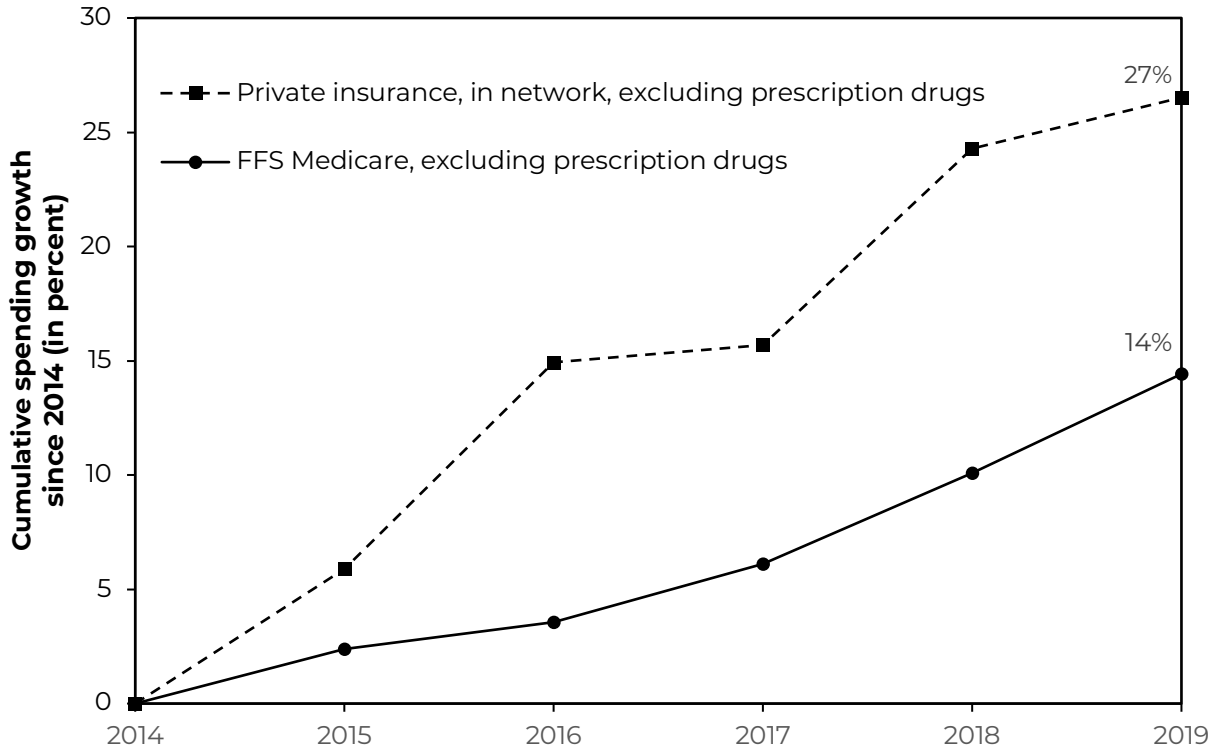
	Average annual percent change in:				
Medicare part	Medicare prices	Number of beneficiaries	Beneficiary demographic mix	Volume and intensity of services used	Medicare's projected spending
Part A	–0.2%	2.1%	–0.6%	2.4%	3.8%
Part B	–1.2	2.2	–0.2	5.1	6.0
Part D	–0.4	2.4	–0.2	1.8	3.5
Total*	–0.7	N/A**	–0.4	3.6	4.7

Note: N/A (not available). Includes Medicare Advantage enrollees. "Medicare prices" reflects Medicare's annual updates to payment rates (not including inflation, as measured by the consumer price index), multifactor productivity reductions, and any other reductions required by law or regulation. Part A prices are expected to decrease to a smaller degree than Part B and Part D in part due to statutorily required increases. Specifically, in each of fiscal years 2020 through 2023, there is a statutory 0.5 percent increase in inpatient operating payments due to unwinding a temporary reduction in payments that was put in place to recoup past overpayments resulting from changes in providers' documentation and coding. "Volume and intensity" is the residual after the other three factors shown in the table (growth in "Medicare prices," "number of beneficiaries," and "beneficiary demographic mix") are removed. Much of the 2.4 percent projected increase in Part A "volume and intensity" may be due to increased coding of hospital severity of illness, which could reflect real changes in patients' needs, changes in coding practices, or both; the 2.4 percent projected increase is not likely to reflect growth in volume per capita, given that the number of discharges per beneficiary has been declining for several decades. Figures in the "Medicare's projected spending" column are the product of the other columns in the table.
* The "total" row is the sum of the other rows of the table, each weighted by their part's share of total Medicare spending in 2020 (as measured by shares of gross domestic product).
** We are unable to calculate the total contribution to projected spending growth made by the growth in "Number of beneficiaries" because there is beneficiary overlap in enrollment in Part A, Part B, and Part D.

Source: MedPAC analysis of data from the 2021 annual report of the Boards of Trustees of the Medicare trust funds.

- Medicare's spending is projected to grow 4.7 percent per year, on average, between 2021 and 2030 (not including growth due to general economy-wide inflation).
- Medicare's projected spending growth is driven by growth in the number of beneficiaries (expected to increase by a little more than 2 percent per year over this period) and growth in the volume and intensity of services delivered per beneficiary (expected to rise by 3.6 percent per year).
- Unlike in the private health care sector, price growth is not expected to drive Medicare's increased spending because Medicare is able to administratively set prices for many health care providers.

Chart 1-6. Health care spending per enrollee grew faster for those who were privately insured than for beneficiaries in traditional FFS Medicare, 2014–2019



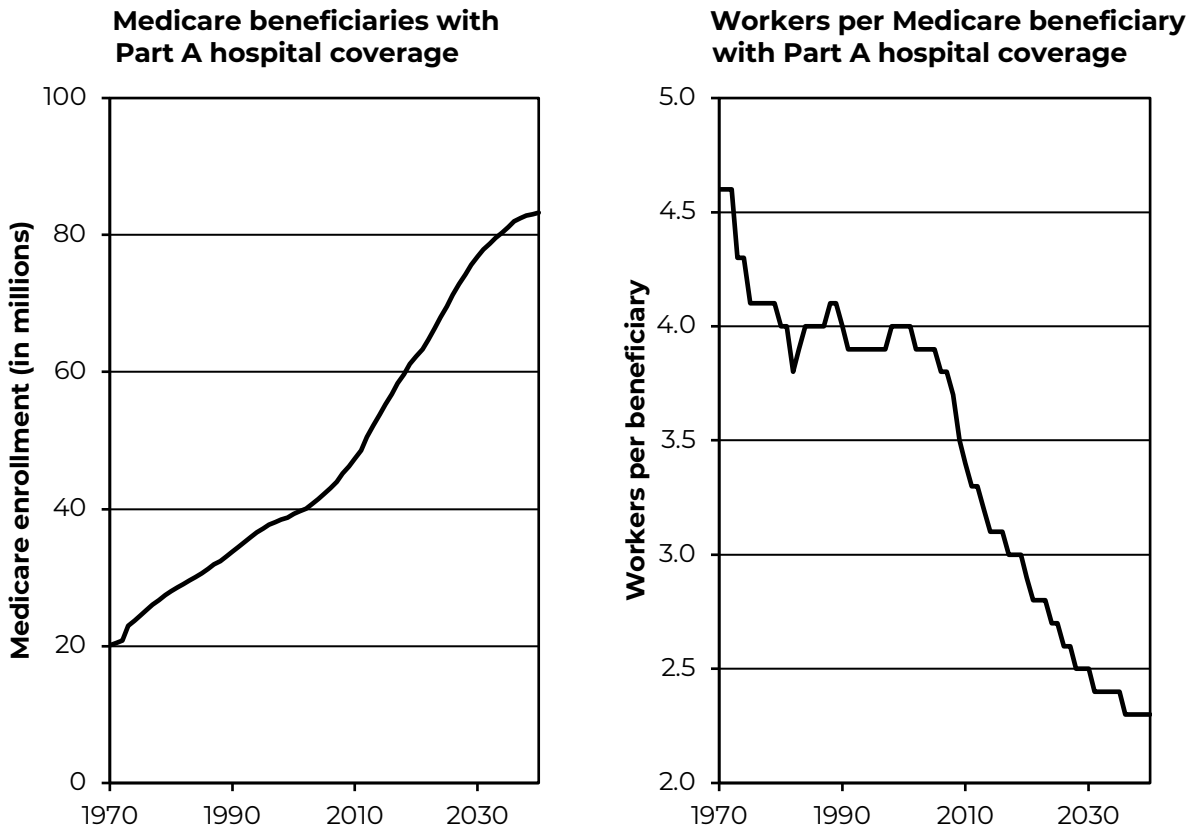
Note: FFS (fee-for-service). The figure shows cumulative growth since 2014. It reflects payments to providers from health insurers and patients (i.e., cost sharing) but not payments from other sources (e.g., workers' compensation or auto insurance). Data for spending on retail prescription drugs is not available for the privately insured, so it is excluded from both lines in this graph. Spending on out-of-network services for the privately insured is not available for that group and thus is not included in this graph. "Private insurance" reflects spending contributed by national and regional plans and third-party administrators nationwide for adults ages 18 to 64 in self-insured plans (i.e., employer self-funded plans) and fully insured plans, including individual and group plans, marketplace plans, and Medicare Advantage plans for non-elderly disabled individuals. The figure reflects spending for individuals with full-year insurance coverage (including individuals with $0 of health care spending).

Source: MedPAC analysis of Medicare's Master Beneficiary Summary File; FAIR Health analysis of its National Private Insurance Claims database (which reflects 150 million covered lives) for the subset of enrollees ages 18 to 64.

- Between 2014 and 2019, total health care spending per enrollee (including cost sharing) grew 27 percent for people with private insurance, compared with 14 percent for beneficiaries with traditional FFS Medicare coverage.

- 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 in the market produced a majority of the market's hospital discharges (data not shown). Studies have found that prices paid by private payers tend to increase as provider consolidation increases.

Chart 1-7. The declining ratio of workers to Medicare beneficiaries threatens the Medicare program's financial stability



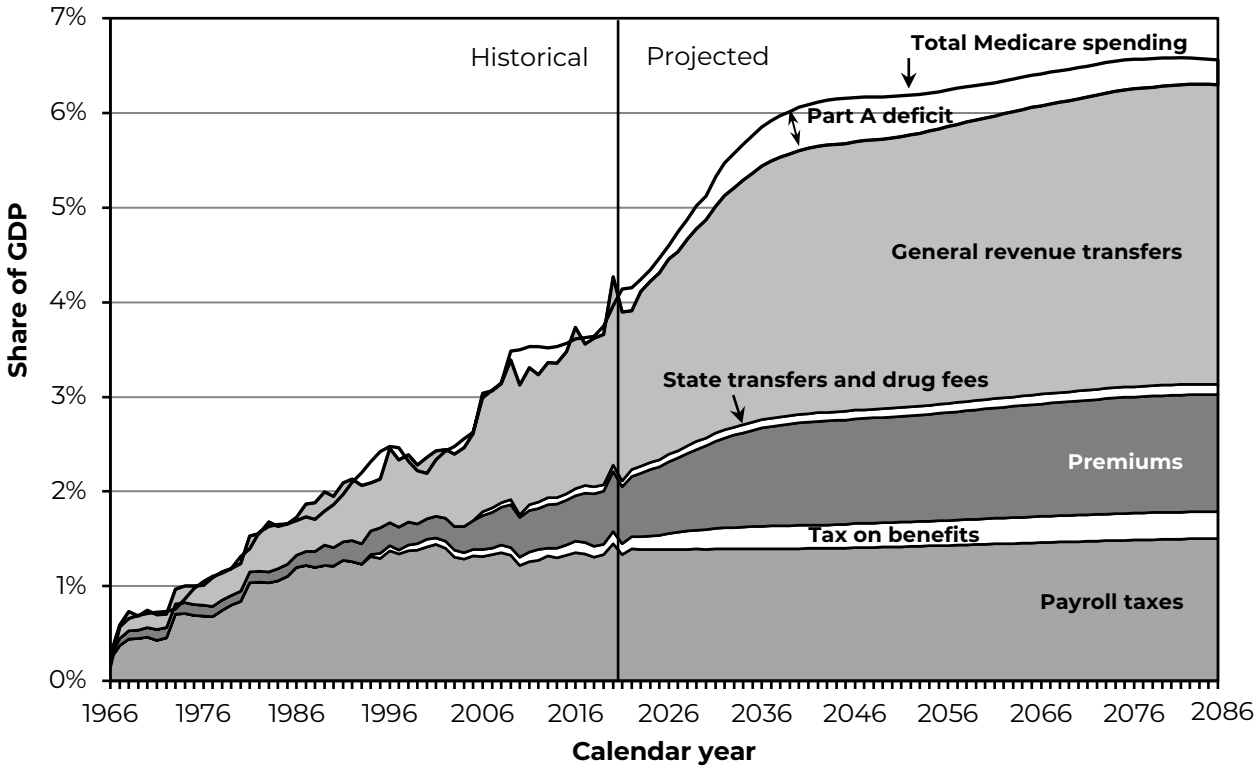
Note: Part A Hospital Insurance is largely financed by Medicare payroll taxes paid by workers. More beneficiaries have Part A Hospital Insurance than Part B Supplemental Medical Insurance. Part A Hospital Insurance is usually available to fee-for-service (FFS) Medicare beneficiaries at no cost, while FFS beneficiaries usually pay a premium for Part B Supplemental Medical Insurance. Medicare Advantage enrollees are considered to have both Part A and Part B coverage and are included in the above graphs.

Source: The 2021 annual report of the Boards of Trustees of the Medicare trust funds.

- As the baby-boom generation ages, enrollment in the Medicare program is surging. By 2030, all baby boomers will have reached the age of eligibility for the Medicare program, and 77 million beneficiaries are expected to have Medicare Part A Hospital Insurance—up from 62 million beneficiaries in 2020.

- While Medicare enrollment is rising, the number of workers per beneficiary is rapidly declining. Part A Hospital Insurance is primarily financed by workers' Medicare payroll taxes. However, the number of workers per Medicare beneficiary with Part A Hospital Insurance has declined from 4.6 in the early years of the program to 2.9 in 2020 and is projected to fall to 2.5 by 2030.

Chart 1-8. Medicare is mainly financed by general tax revenues, Medicare payroll taxes, and beneficiary premiums



Note: GDP (gross domestic product). These projections are based on the Trustees' intermediate set of assumptions. "Tax on benefits" refers to the portion of income taxes that higher-income individuals pay on Social Security benefits, which is designated for Medicare. "State transfers" (often called the Part D "clawback") refers to payments from the states to Medicare, required by the Medicare Prescription Drug, Improvement, and Modernization Act of 2003, for assuming primary responsibility for prescription drug spending. "Drug fees" refers to the fee imposed by the 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. Graph does not include the interest earned on trust fund investments (which makes up 1 percent of the Hospital Insurance Trust Fund's income and is expected to decline in coming years as trust fund assets decline).

Source: The 2021 annual report of the Boards of Trustees of the Medicare trust funds.

- Medicare spending accounted for 4.0 percent of GDP in 2020. By 2030, the Medicare Trustees project that Medicare's share of GDP will rise to 4.8 percent.

- In the early years of the Medicare program, Medicare payroll taxes deposited into the Hospital Insurance Trust Fund (which finances Part A) were the main source of funding for the Medicare program, but beginning in 2009, general revenue transfers (which help finance Part B and Part D) became the largest single source of Medicare funding. General revenue transfers are expected to grow to 51 percent of Medicare financing by 2031.

- As more general revenues are devoted to Medicare, fewer general tax revenues will be available to invest in growing the economic output of the country or supporting other national priorities.

Chart 1-9. The Medicare payroll tax will need to increase and/or Part A spending will need to decrease to maintain the solvency of Medicare's Hospital Insurance Trust Fund

To maintain Hospital Insurance Trust Fund solvency for:	Increase 2.9% payroll tax to:	Or decrease Part A spending by:
25 years (2020–2044)	3.71%	17.8%
50 years (2020–2069)	3.73	17.7
75 years (2020–2094)	3.67	16.2

Source: MedPAC analysis of Table III.B8 in the 2021 annual report of the Boards of Trustees of the Medicare trust funds.

- Medicare's Hospital Insurance Trust Fund helps pay for Part A services such as inpatient hospital stays, post-acute care provided by skilled nursing facilities, and hospice services. The trust fund is mainly financed through a dedicated payroll tax (i.e., a tax on wage earnings).

- Payroll tax revenues are not growing as fast as Part A spending, and Medicare often spends more on Part A services than it collects through trust fund revenues—creating annual deficits. Leftover surpluses from prior years have been used in recent years to pay for this deficit spending. As a result, the trust fund's reserves have been dwindling. Medicare's Trustees estimate that by 2026, the Hospital Insurance Trust Fund's prior surpluses will be depleted—meaning it will be unable to fully cover its obligations. The Congressional Budget Office also tracks the trust fund's financial status and projects that it will become insolvent within a similar time frame, by 2027.

- To keep the trust fund solvent over the next 25 years, the Medicare Trustees estimate that either the Medicare payroll tax would need to be increased immediately from its current rate of 2.9 percent to about 3.7 percent or Part A spending would need to be permanently reduced by about 18 percent (about $70 billion in 2022). Alternatively, some combination of smaller tax increases and smaller spending reductions could be used to achieve solvency.

Chart 1-10. Medicare Part A and Part B benefits and cost sharing per FFS beneficiary, 2020

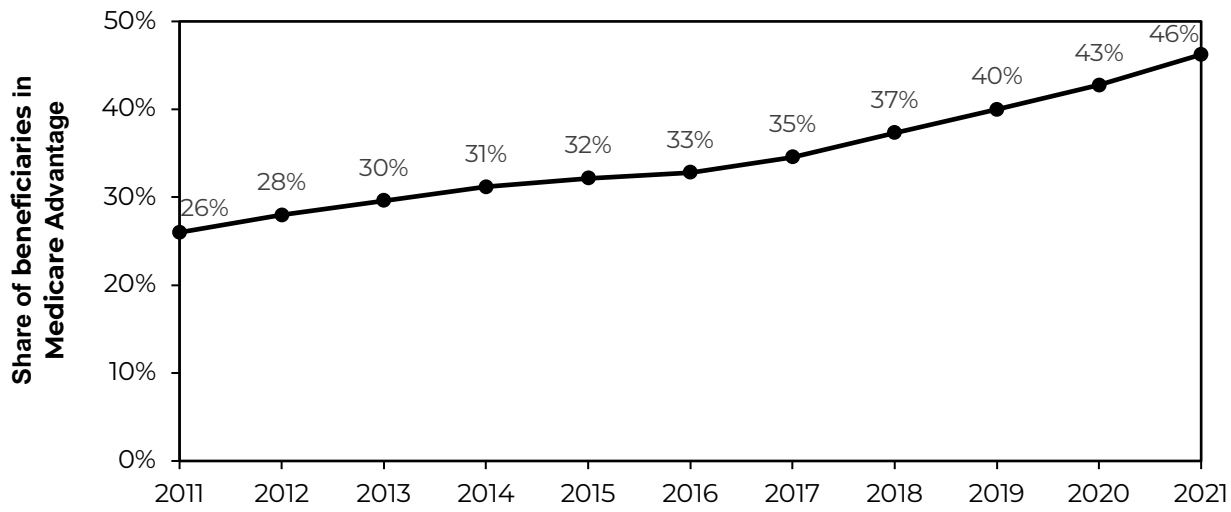
	Average benefit in 2020 (in dollars)	Average cost sharing in 2020 (in dollars)
Part A	$5,003	$383
Part B	5,959	1,469

Note: 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. The "Part A" row reflects spending for 37 million beneficiaries with Part A, and the "Part B" row reflects spending for 32 million beneficiaries with Part B.

Source: CMS, Medicare Part A and Part B Summary, 2020, https://data.cms.gov/summary-statistics-on-use-and-payments/medicare-service-type-reports/medicare-part-a-part-b-all-types-of-service.

- In calendar year 2020, the Medicare program made $5,003 in Part A benefit payments and $5,959 in Part B benefit payments, on average, per FFS beneficiary.
- Beneficiaries owed an average of $383 in cost sharing for Part A and $1,469 in cost sharing for Part B that year. (Cost sharing excludes monthly premiums.)
- These amounts are all down slightly from 2019, which could reflect reduced health care usage in the early months of the COVID-19 pandemic in 2020.
- To cover some cost-sharing requirements, 90 percent of beneficiaries had coverage that supplemented or replaced the Medicare benefit package in 2019, such as Medicare Advantage, Medigap coverage, supplemental coverage through former employers, or Medicaid (see Chart 3-1).

Chart 1-11. The share of Medicare beneficiaries enrolled in Medicare Advantage has grown rapidly



Note: Figure shows share of Medicare beneficiaries enrolled in Medicare Advantage plans, from among those beneficiaries with both Part A and Part B coverage. For detailed information on Medicare Advantage enrollment, see Section 9 of this report.

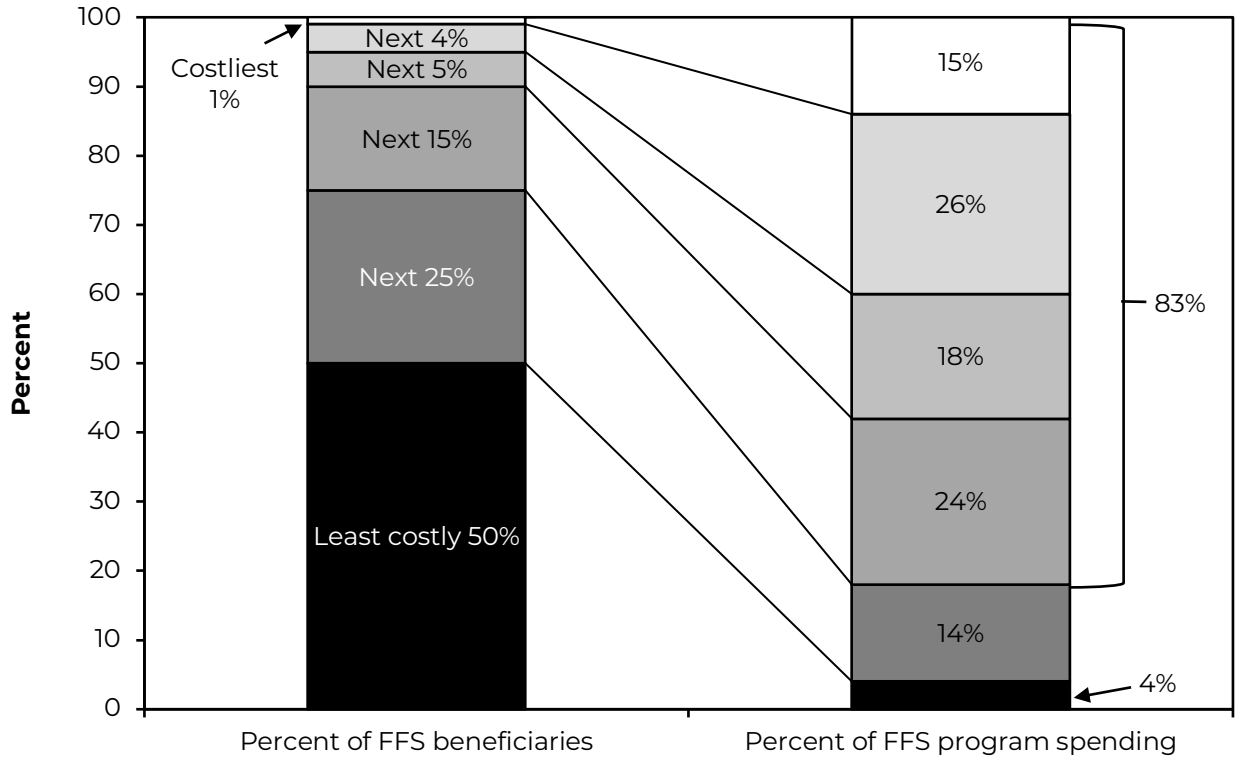
Source: MedPAC analysis of CMS enrollment files, July 2011–2021.

- The share of Medicare beneficiaries with both Part A and Part B coverage who chose to enroll in Medicare Advantage (MA) plans grew rapidly from 2011 to 2021—rising from 26 percent to 46 percent.

- Since 2016, spending per beneficiary (not risk standardized) in MA and other private plans has grown faster than in traditional fee-for-service (FFS) Medicare. From 2018 to 2019 alone, Medicare private plan spending per beneficiary rose 7.7 percent, compared with 3.5 percent in FFS Medicare (data not shown). (Medicare private plan spending includes spending on extra benefits that nearly all private plans provide.)

- The relatively faster growth in private plan spending per beneficiary in recent years at least partially reflects MA demographic changes, the growing number of MA plans receiving higher payments due to their quality bonus status, growth in the risk scores MA plans report for their enrollees, and Medicare enrollment growth in areas of the country where MA payment benchmarks are set at 115 percent of FFS Medicare's spending per beneficiary.

Chart 1-12. FFS program spending was highly concentrated in a small group of beneficiaries, 2019



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]). Percentages in second bar do not sum due to 100 percent due to rounding. The Medicare Current Beneficiary Survey is collected from a sample of Medicare beneficiaries; year-to-year variation in some reported data is expected.

Source: MedPAC analysis of the Medicare Current Beneficiary Survey, 2019.

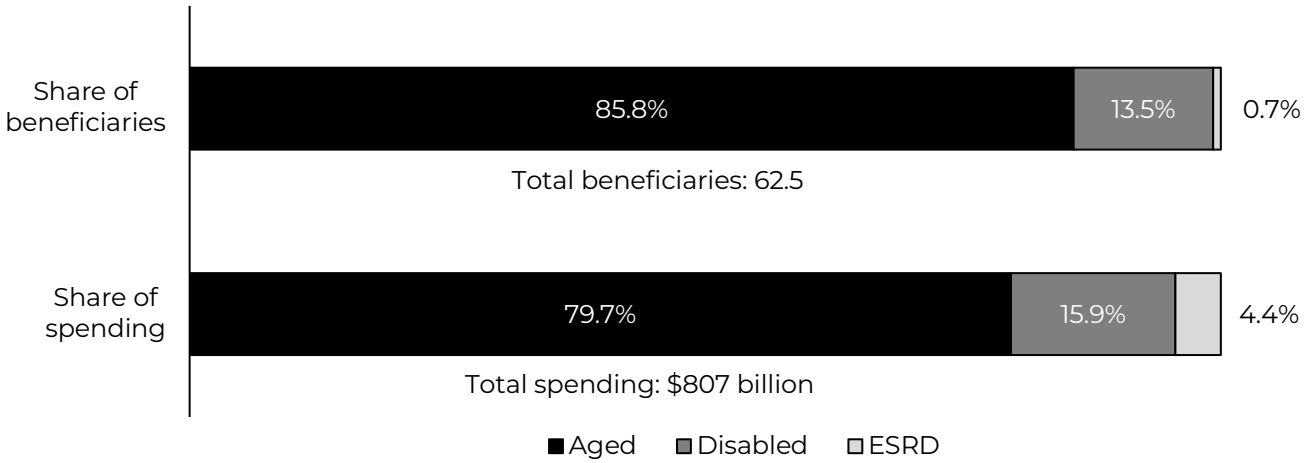
- Medicare FFS spending is concentrated among a small number of beneficiaries. In 2019, the costliest 5 percent of beneficiaries (i.e., adding the costliest 1 percent and the next-costliest 4 percent at the top of the bar at left) accounted for 41 percent of annual Medicare FFS spending. The costliest 25 percent of beneficiaries accounted for 83 percent of Medicare spending. 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.

SECTION 2

Medicare beneficiary demographics

Chart 2-1. Aged beneficiaries accounted for the greatest share of the Medicare population and program spending, 2019



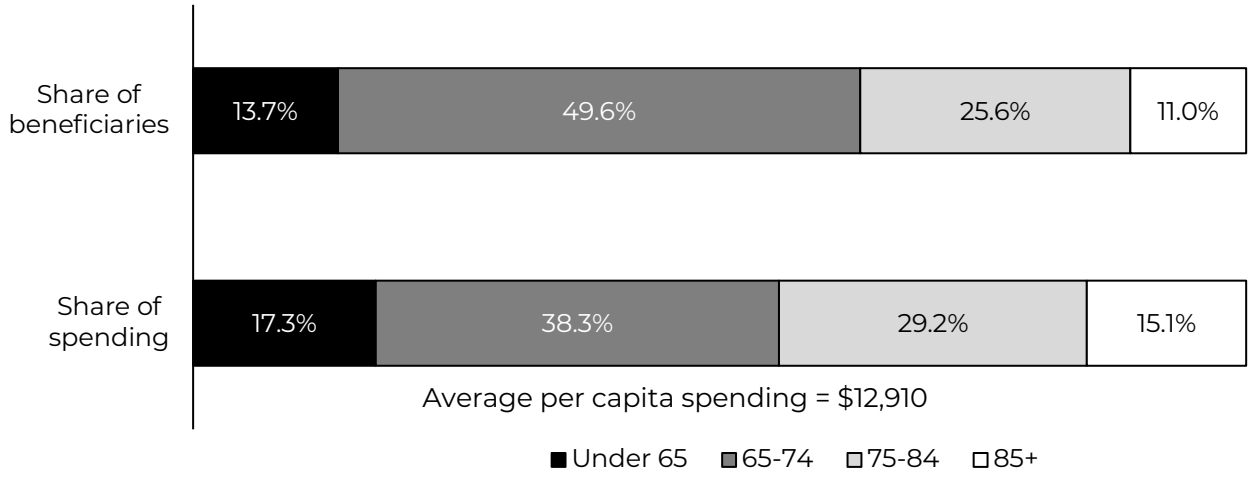
Note: ESRD (end-stage renal disease). The "aged" category includes beneficiaries ages 65 and older without ESRD. The "disabled" category includes beneficiaries under age 65 without ESRD. The "ESRD" category includes beneficiaries with ESRD, regardless of age. Results include fee-for-service, Medicare Advantage, community-dwelling, and institutionalized beneficiaries. The Medicare Current Beneficiary Survey is collected from a sample of Medicare beneficiaries; year-to-year variation in some reported data is expected. Totals may not sum to 100 percent due to rounding.

Source: MedPAC analysis of the Medicare Current Beneficiary Survey, Cost Supplement file 2019.

- In 2019, beneficiaries ages 65 and older without ESRD composed 85.8 percent of the beneficiary population and accounted for 79.7 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 on behalf of Medicare beneficiaries with ESRD. On average, these beneficiaries incur spending that is more than six times greater than spending for aged beneficiaries (ages 65 years and older without ESRD) and more than five times greater than spending for beneficiaries under age 65 with a disability (non-ESRD).

Chart 2-2. Beneficiaries younger than 65 accounted for a disproportionate share of Medicare spending, 2019

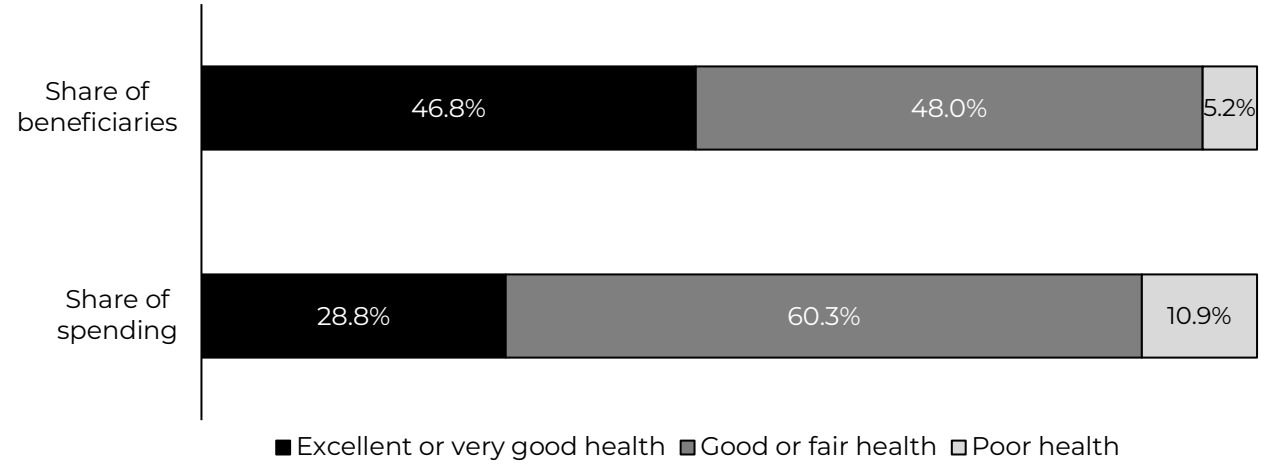


Note: Results include fee-for-service, Medicare Advantage, community-dwelling, and institutionalized beneficiaries. The Medicare Current Beneficiary Survey is collected from a sample of Medicare beneficiaries; year-to-year variation in some reported data is expected.

Source: MedPAC analysis of the Medicare Current Beneficiary Survey, Cost Supplement file 2019.

- Beneficiaries younger than 65 made up 13.7 percent of the beneficiary population in 2019 but accounted for 17.3 percent of Medicare spending.
- In 2019, average Medicare spending per beneficiary was $12,910.
- For the aged population (65 and older), per capita expenditures increase with age. In 2019, per capita expenditures were $9,971 for beneficiaries 65 to 74 years old, $14,713 for those 75 to 84 years old, and $17,742 for those 85 or older (data not shown).
- In 2019, per capita expenditures for Medicare beneficiaries under age 65 who were enrolled because of end-stage renal disease or disability were $16,289 (data not shown).

Chart 2-3. Beneficiaries who reported being in poor health accounted for a disproportionate share of Medicare spending, 2019

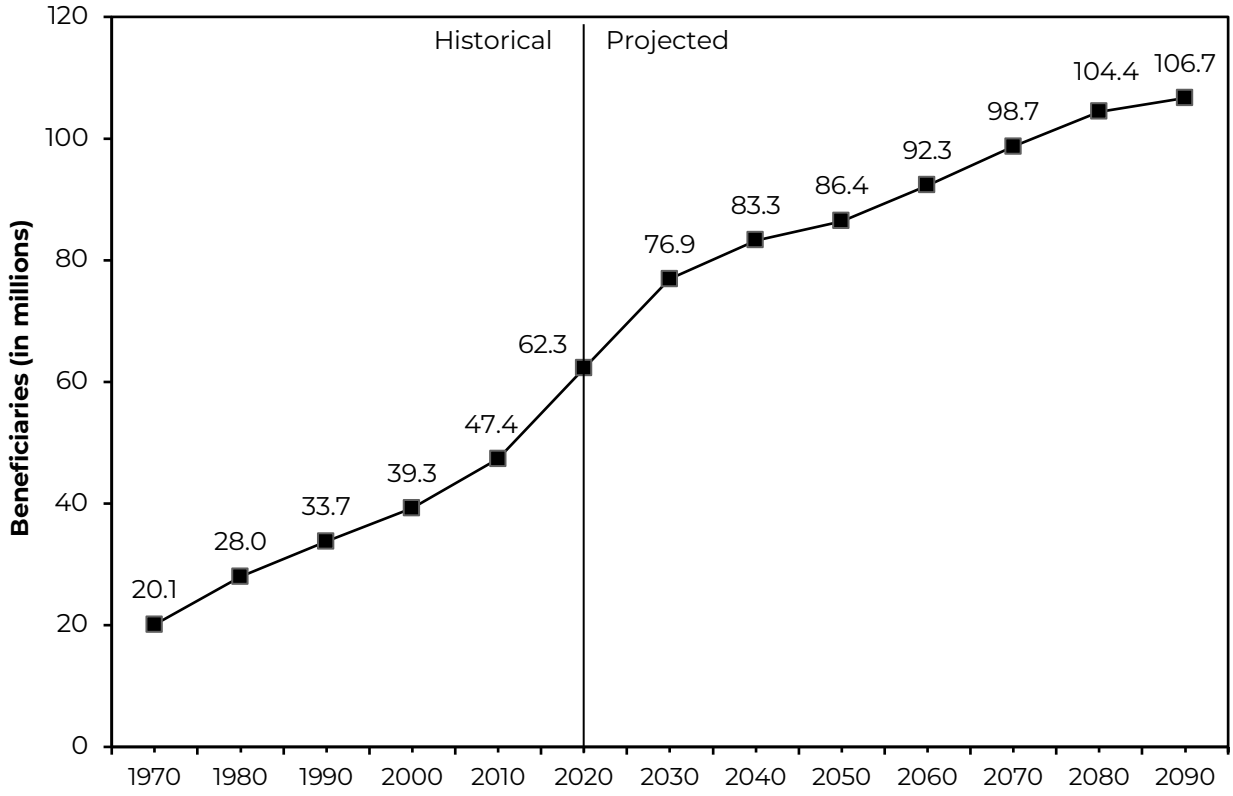


Note: Results include fee-for-service, Medicare Advantage, community-dwelling, and institutionalized beneficiaries. The Medicare Current Beneficiary Survey is collected from a sample of Medicare beneficiaries; year-to-year variation in some reported data is expected. Totals may not sum to 100 percent due to rounding.

Source: MedPAC analysis of the Medicare Current Beneficiary Survey, Cost Supplement file 2019.

- In 2019, most beneficiaries reported fair to excellent health. Only about 5 percent reported poor health.
- Medicare spending is strongly associated with self-reported health status. In 2019, per capita expenditures were $7,688 for those who reported excellent or very good health, $15,663 for those who reported good or fair health, and $26,330 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 coronavirus pandemic are not reflected in these projections.

Source: The annual report of the Boards of Trustees of the Medicare trust funds 2021.

- The total number of people enrolled in the Medicare program is projected to increase from about 62 million in 2020 to about 77 million in 2030.
- The rate of increase in Medicare enrollment has begun to accelerate as more members of the baby-boom generation become eligible for the program. Beginning in 2030, when the entire baby-boom generation will have become eligible, Medicare enrollment will continue to increase, but more slowly.

Chart 2-5. Characteristics of the Medicare population, 2019

Characteristic	Share of the Medicare population	Characteristic	Share of the Medicare population
Total (57.2 million)	100%	**Living arrangement**	
		Institution	3
Sex		Alone	29
Male	45	With spouse	47
Female	55	Other	22
Race/ethnicity		**Education**	
White, non-Hispanic	75	No high school diploma	14
Black, non-Hispanic	10	High school diploma only	25
Hispanic	8	Some college or more	59
Other	7		
		Income status	
Age		Below poverty	14
<65	14	100–125% of poverty	7
65–74	48	125–200% of poverty	17
75–84	27	200–400% of poverty	26
85+	11	Over 400% of poverty	36
Health status		**Supplemental insurance status**	
Excellent or very good	46	Medicare only	13
Good or fair	47	Managed care	37
Poor	6	Employer-sponsored insurance	19
		Medigap	18
Residence		Medigap with employer-sponsored insurance	2
Urban	81	Medicaid	9
Rural	19	Other	1

Note: Total number of beneficiaries, age, and health status values may slightly differ from previous reports' figures because only beneficiaries with complete characteristic data were included in this analysis. Components 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 2019, "poverty" was defined as income of $12,261 for single individuals ages 65 and older and $15,468 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 collected from a sample of Medicare beneficiaries; year-to-year variation in some reported data is expected.

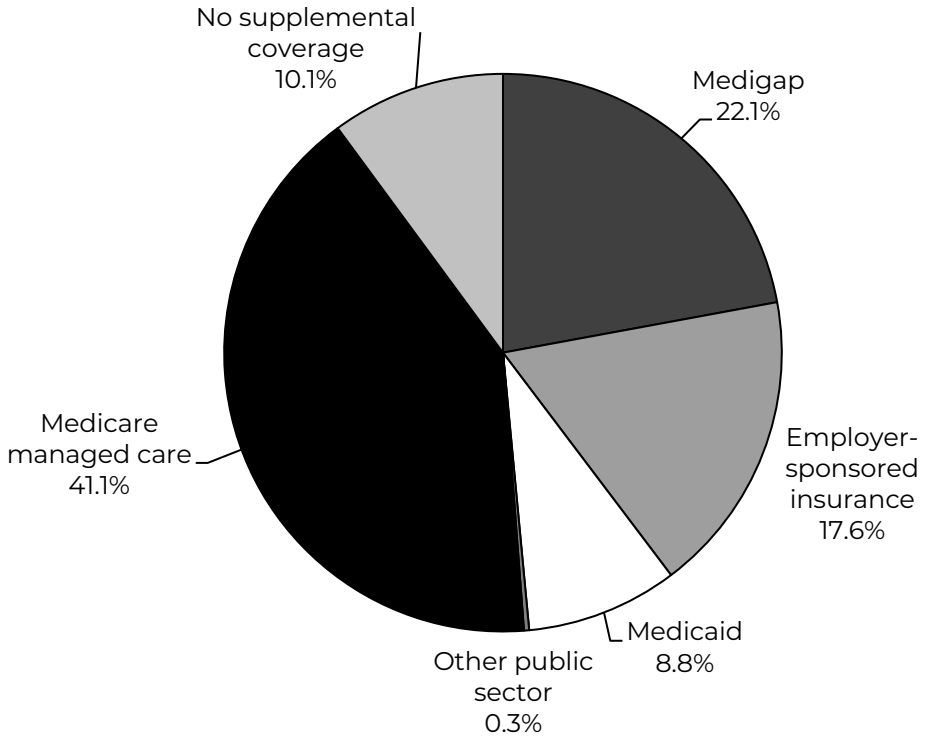
Source: MedPAC analysis of the Medicare Current Beneficiary Survey, Cost Supplement file 2019.

- A 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-nine 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

Medicare beneficiary and other payer financial liability

Chart 3-1. Sources of supplemental coverage among noninstitutionalized Medicare beneficiaries, 2019



Note: We assigned beneficiaries to the supplemental coverage category in which they spent the most time in 2019. They could have had coverage in other categories during 2019. "Other public sector" includes federal and state programs not included in other categories. This 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 Medicare enrollment in 2019 or who had Medicare as a secondary payer. The Medicare Current Beneficiary Survey is collected from a sample of Medicare beneficiaries; year-to-year variation in some reported data is expected.

Source: MedPAC analysis of Medicare Current Beneficiary Survey, Survey file 2019.

- Most beneficiaries living in the community (the noninstitutionalized) have coverage that supplements or replaces the Medicare benefit package. In 2019, 90 percent of beneficiaries had supplemental coverage or participated in Medicare managed care.
- About 40 percent of beneficiaries had private sector supplemental coverage such as Medigap (about 22 percent) or employer-sponsored retiree coverage (almost 18 percent).
- About 9 percent of beneficiaries had public sector supplemental coverage, primarily Medicaid.
- Forty-one percent of beneficiaries participated in Medicare managed care, which includes Medicare Advantage, health care prepayment, and cost plans. These types of arrangements generally replace Medicare's fee-for-service coverage and often provide 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, 2019

	Number of beneficiaries (thousands)	Employer-sponsored insurance	Medigap insurance	Medicaid	Medicare managed care	Other public sector	Medicare only
All beneficiaries	**50,097**	**18%**	**22%**	**9%**	**41%**	**0%**	**10%**
Age							
<65	6,799	9	3	34	38	0	16
65–69	11,082	16	26	5	41	0	12
70–74	12,493	19	26	5	41	0	9
75–79	9,004	20	24	4	43	0	8
80–84	5,515	22	23	5	43	0	7
85+	5,203	21	25	5	40	0	8
Income-to-poverty ratio							
≤1.00	7,751	3	6	38	44	0	9
1.00 to 1.20	3,156	3	9	23	52	0	13
1.20 to 1.35	1,973	6	17	12	43	1	21
1.35 to 2.00	8,095	11	21	5	48	1	14
>2.00	29,121	26	28	0	37	0	8
Eligibility status							
Aged	43,076	19	25	5	41	0	9
Disabled	6,712	9	3	33	39	0	16
ESRD	309	20	19	23	29	1	8
Residence							
Urban	40,469	17	21	8	44	0	9
Rural	9,628	18	27	12	28	0	14
Sex							
Male	22,465	18	21	8	40	0	12
Female	27,632	17	23	9	42	0	9
Health status							
Excellent/very good	23,630	20	27	4	40	0	9
Good/fair	23,415	16	19	12	42	0	11
Poor	2,846	12	12	24	39	0	13

Note: ESRD (end-stage renal disease). We assigned beneficiaries to the supplemental coverage category in which they spent the most time in 2019. They could have had coverage in other categories during 2019. "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. Analysis also excludes beneficiaries who were not in both Part A and Part B throughout their Medicare enrollment in 2019 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. The Medicare Current Beneficiary Survey is collected from a sample of Medicare beneficiaries; year-to-year variation in some reported data is expected.

Source: MedPAC analysis of Medicare Current Beneficiary Survey (MCBS), Survey file 2019.

- Beneficiaries most likely to have employer-sponsored supplemental coverage are those who are age 65 or older, have income above twice the poverty level, and report excellent or very good 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, are rural dwelling, and report excellent or very good 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, are rural dwelling, and report poor health.
- Lack of supplemental coverage (Medicare coverage only) is most common among beneficiaries who are under age 70, have income between 1.00 and 2.00 times the poverty level, are eligible because of disability, are rural dwelling, are male, and report poor health.

Chart 3-3. Covered benefits and enrollment in standardized Medigap plans, 2020

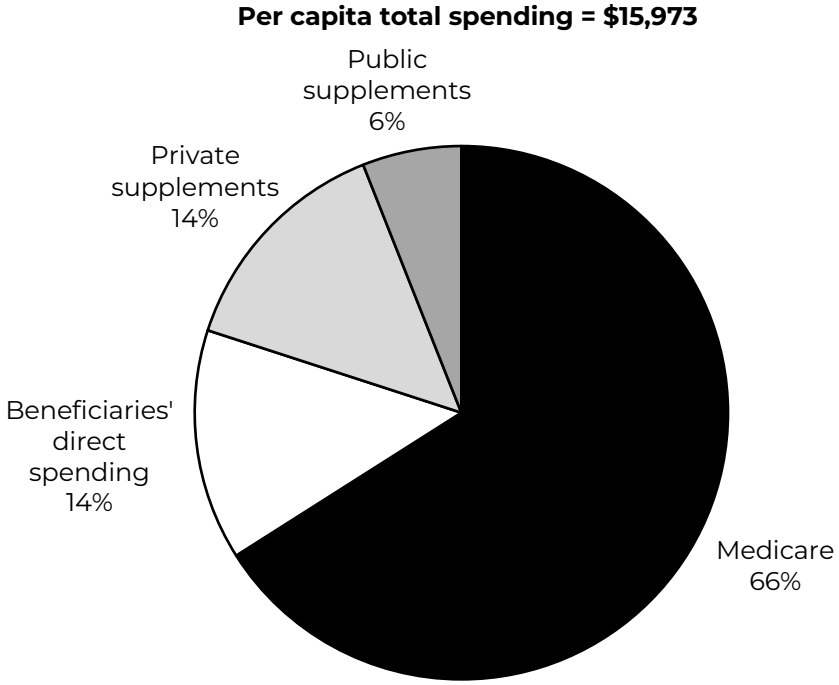
	Medigap standardized plan type										
Benefit	A	B	C*	D	F*	High-deductible F	G	K	L	M	N
Part A hospital costs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Part B cost sharing	✓	✓	✓	✓	✓	✓	✓	50%	75%	✓	$20/$50
Blood (first 3 pints)	✓	✓	✓	✓	✓	✓	✓	50%	75%	✓	✓
Hospice cost sharing	✓	✓	✓	✓	✓	✓	✓	50%	75%	✓	✓
SNF coinsurance			✓	✓	✓	✓	✓	50%	75%	✓	✓
Part A deductible		✓	✓	✓	✓	✓	✓	50%	75%	50%	✓
Part B deductible			✓		✓	✓					
Part B excess charges					✓	✓	✓				
Foreign travel emergency			✓	✓	✓	✓	✓			✓	✓
Lives covered (in thousands)	100	182	542	126	6,243	360	3,743	76	39	4	1,363

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 for that benefit. 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, new policies for Plans C or F are not allowed to be sold. However, beneficiaries who purchased C plans or F plans before 2020 will be able to continue to purchase those plans.

Source: MedPAC analysis of National Association of Insurance Commissioners data, 2021.

- 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 6.2 million enrollees. However, because the Congress was concerned about the overuse 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 2020, 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, 2019



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" includes Medicare cost sharing and spending on noncovered services, but not supplemental premiums. Analysis includes only FFS beneficiaries not living in institutions such as nursing homes. The Medicare Current Beneficiary Survey is collected from a sample of Medicare beneficiaries; year-to-year variation in some reported data is expected.

Source: MedPAC analysis of Medicare Current Beneficiary Survey, Cost Supplement file, 2019.

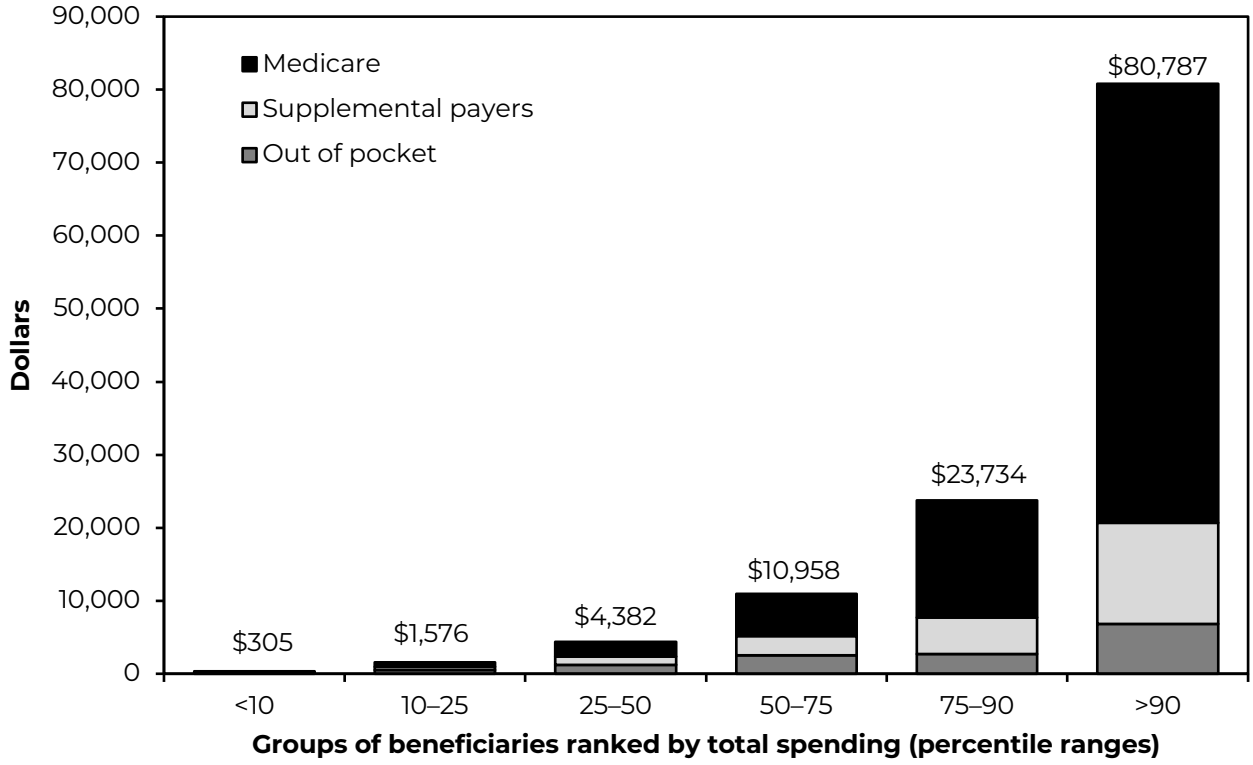
- Among FFS beneficiaries living in the community (rather than in an institution), the total cost of health care services (beneficiaries' direct spending as well as expenditures by Medicare, other public sector sources, and all private sector sources on all health care goods and services) averaged about $16,000 in 2019. Medicare was the largest source of payment: It paid about 66 percent of the health care costs for FFS beneficiaries living in the community, an average of $10,468 per beneficiary.

- Private sources of supplemental coverage—primarily employer-sponsored retiree coverage and Medigap—paid about 14 percent of beneficiaries' costs, an average of $2,225 per beneficiary.

- Beneficiaries paid about 14 percent of their health care costs out of pocket, an average of $2,279 per beneficiary.

- Public sources of supplemental coverage—primarily Medicaid—paid about 6 percent of beneficiaries' health care costs, an average of $1,001 per beneficiary.

Chart 3-5. Distribution of per capita total spending on health care services among noninstitutionalized FFS beneficiaries, by source of payment, 2019



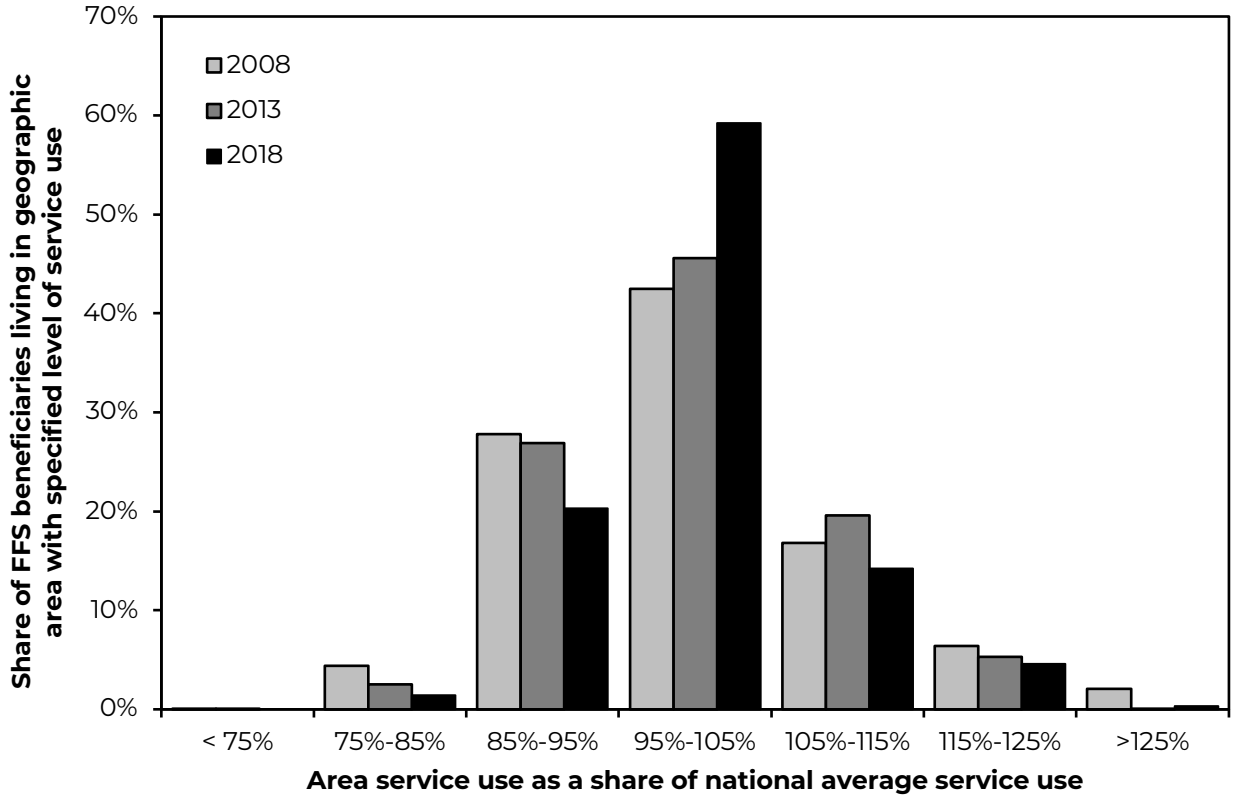
Note: FFS (fee-for-service). Analysis excludes those who are not in FFS Medicare and those living in institutions such as nursing homes. "Out-of-pocket" spending includes Medicare cost sharing and noncovered services, but not supplemental premiums. The Medicare Current Beneficiary Survey is collected from a sample of Medicare beneficiaries; year-to-year variation in some reported data is expected.

Source: MedPAC analysis of the Medicare Current Beneficiary Survey, Cost Supplement file, 2019.

- Total spending on health care services varied dramatically among FFS beneficiaries living in the community in 2019. Per capita spending for the 10 percent of beneficiaries with the highest total spending averaged nearly $81,000. Per capita spending for the 10 percent of beneficiaries with the lowest total spending averaged $305.

- Among FFS beneficiaries living in the community, Medicare paid a larger share and beneficiaries' out-of-pocket spending was a smaller share as total spending increased. For example, Medicare paid 66 percent of total spending for all beneficiaries, but paid 74 percent of total spending for the 10 percent of beneficiaries with the highest total spending (data not shown). Among all FFS beneficiaries living in the community, out-of-pocket spending amounted to 14 percent of total spending, but only 8 percent of total spending for the 10 percent of beneficiaries with the highest total spending (data not shown).

Chart 3-6. Geographic variation in use of services decreased among FFS Medicare beneficiaries, 2008–2018



Note: FFS (fee-for-service). "Service use" is per capita monthly Part A and Part B service use among FFS beneficiaries in each geographic area. We defined geographic areas as metropolitan statistical areas within each state for urban counties and rest-of-state nonmetropolitan areas for nonurban counties.

Source: MedPAC analysis of 2008, 2013, and 2018 beneficiary-level spending from the Medicare Beneficiary Summary Files and Medicare inpatient claims.

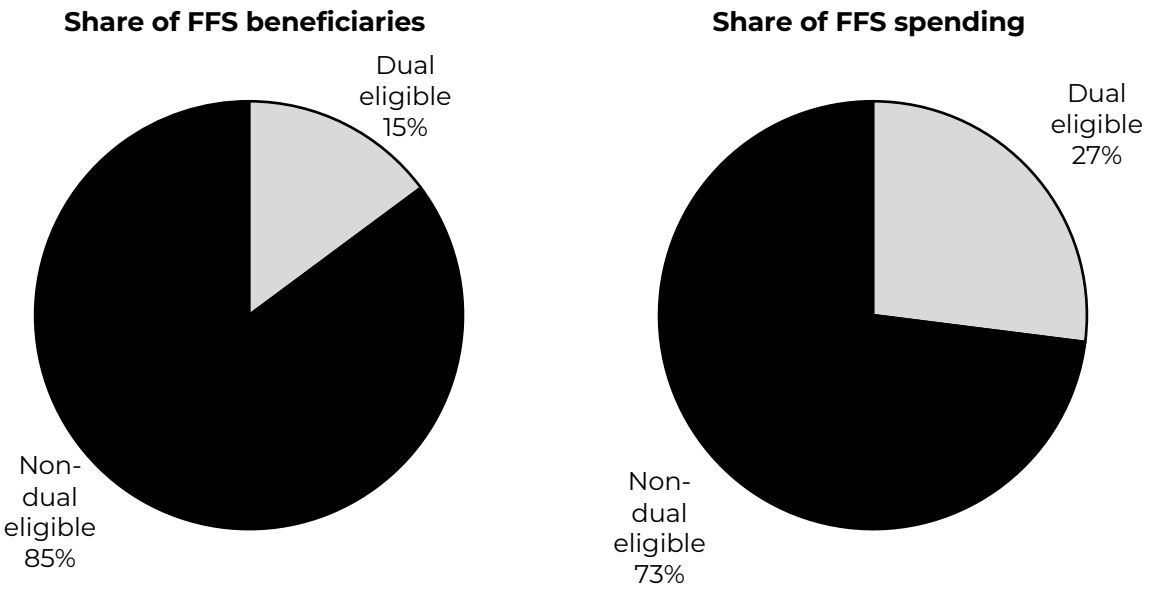
- FFS beneficiaries' use of Medicare-covered services varies by geographic area, but that variation decreased from 2008 to 2018. The share of FFS beneficiaries living in geographic areas that had service use within 5 percent of the national average (95 percent to 105 percent) increased from 43 percent in 2008 to 59 percent in 2018. Also, the share of FFS beneficiaries living in geographic areas that had service use that was more than 25 percent higher than the national average (>125 percent) decreased from 2 percent in 2008 to almost 0 percent in 2018.

- The service sector that had the largest decrease in variation from 2008 to 2018 was post-acute care, especially home health care (data not shown). From 2008 to 2018, the variation in use of home health services across geographic areas declined by 24 percent.

SECTION 4

Dual-eligible beneficiaries

Chart 4-1. Dual-eligible beneficiaries accounted for a disproportionate share of Medicare spending, 2019

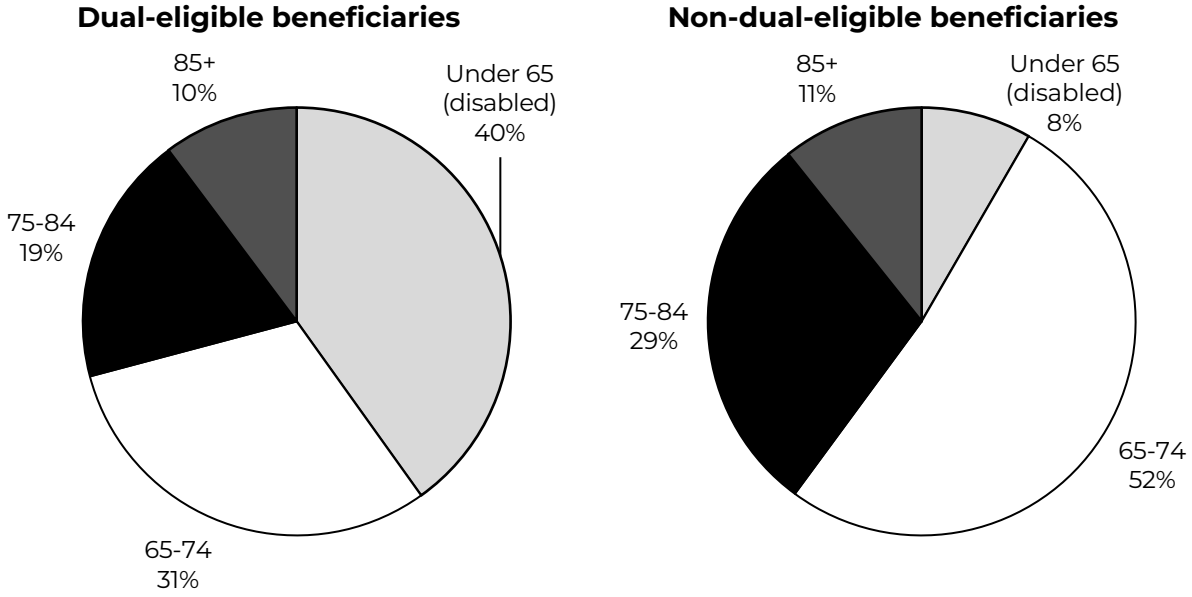


Note: FFS (fee-for-service). "Dual-eligible beneficiaries" are defined as beneficiaries who were eligible for both Medicare and Medicaid for at least one month during the year. The Medicare Current Beneficiary Survey is a point-in-time survey from a sample of Medicare beneficiaries. Year-to-year variation in reported data is expected.

Source: MedPAC analysis of the Medicare Current Beneficiary Survey, 2019.

- 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 15 percent of the Medicare FFS population in 2019, they represented 27 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 2019, $20,577 was spent per dual-eligible beneficiary, and $9,698 was spent per non-dual-eligible beneficiary (data not shown).
- In 2019, average total spending—which includes Medicare, Medicaid, supplemental insurance, and out-of-pocket spending across all payers—for dual-eligible beneficiaries was $33,220 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 have a disability, 2019

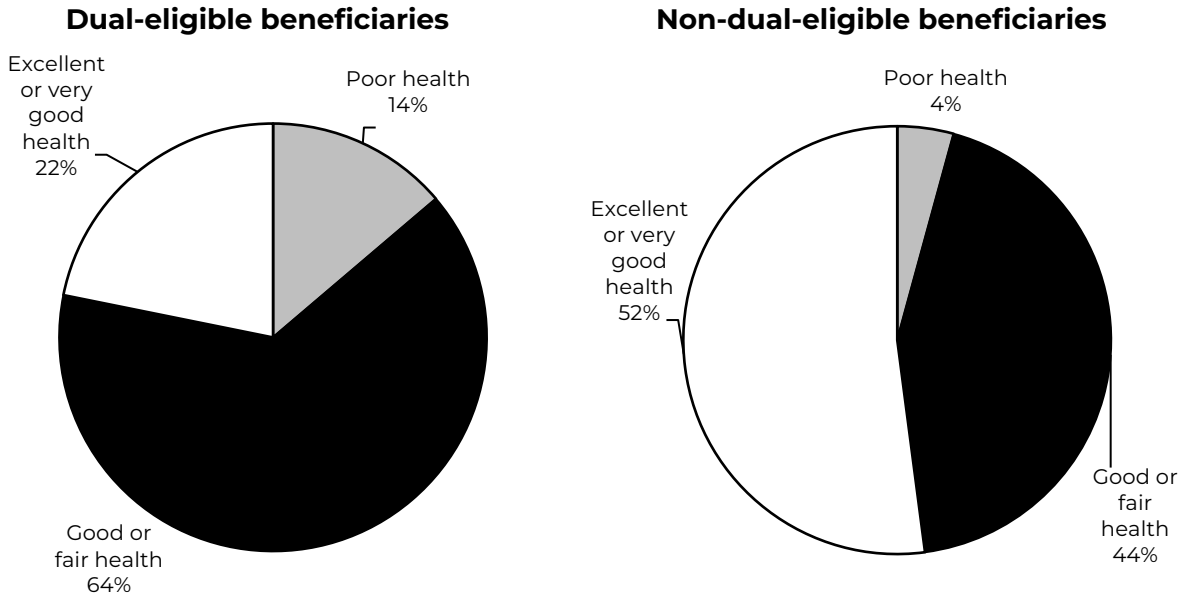


Note: Beneficiaries who are under age 65 generally qualify for Medicare because of disability. Once beneficiaries with disabilities reach age 65, they are counted as aged beneficiaries. "Dual-eligible beneficiaries" are defined as beneficiaries who were eligible for both Medicare and Medicaid for at least one month during the year. 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 Medicare Current Beneficiary Survey, 2019.

- 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 have a disability. In 2019, 40 percent of dual-eligible beneficiaries were under age 65 with a disability compared with 8 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, 2019



Note: "Dual-eligible beneficiaries" are defined as beneficiaries who were eligible for both Medicare and Medicaid for at least one month during the year. 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, 2019.

- Dual-eligible beneficiaries are more likely than non-dual-eligible beneficiaries to report being in poor health. In 2019, 14 percent of dual-eligible beneficiaries reported being in poor health compared with 4 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 2019. In comparison, about one-fifth (22 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, 2019

Characteristic	Share of dual-eligible beneficiaries	Share of non-dual-eligible beneficiaries
Sex		
Male	38%	47%
Female	62	53
Race/ethnicity		
White, non-Hispanic	50	81
African American, non-Hispanic	22	8
Hispanic	19	6
Other	9	6
Limitations in ADLs		
No limitations in ADLs	49	75
Limitations in 1–2 ADLs	24	17
Limitations in 3–6 ADLs	27	9
Residence		
Urban	79	81
Rural	21	19
Living arrangement		
Institution	10	1
Alone	35	27
With spouse	14	54
With children, nonrelatives, others	41	17
Education		
No high school diploma	38	9
High school diploma only	32	24
Some college or more	30	66
Income status		
Below poverty	57	5
100–125% of poverty	21	4
125–200% of poverty	16	17
200–400% of poverty	5	31
Over 400% of poverty	1	44
Supplemental insurance status		
Medicare or Medicare/Medicaid only	48	18
Medicare managed care	46	36
Employer-sponsored insurance	1	22
Medigap	3	23
Medigap/employer	<1	1
Other*	3	1

Note: ADL (activity of daily living). "Dual-eligible beneficiaries" 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 2019, poverty was defined as annual income of $12,261 for people living alone and $15,468 for married couples. 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). Totals may not sum to 100 percent due to rounding and exclusion of an "other" category. The Medicare Current Beneficiary Survey is a point-in-time survey of a sample of beneficiaries. Year-to-year data variation is expected.
* Includes public programs such as the Department of Veterans Affairs and state-sponsored drug plans.

Source: MedPAC analysis of Medicare Current Beneficiary Survey, 2019.

- Dual-eligible beneficiaries qualify for Medicaid due in part to low incomes. In 2019, 57 percent of dual-eligible beneficiaries lived below the poverty threshold, and 94 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, 2019

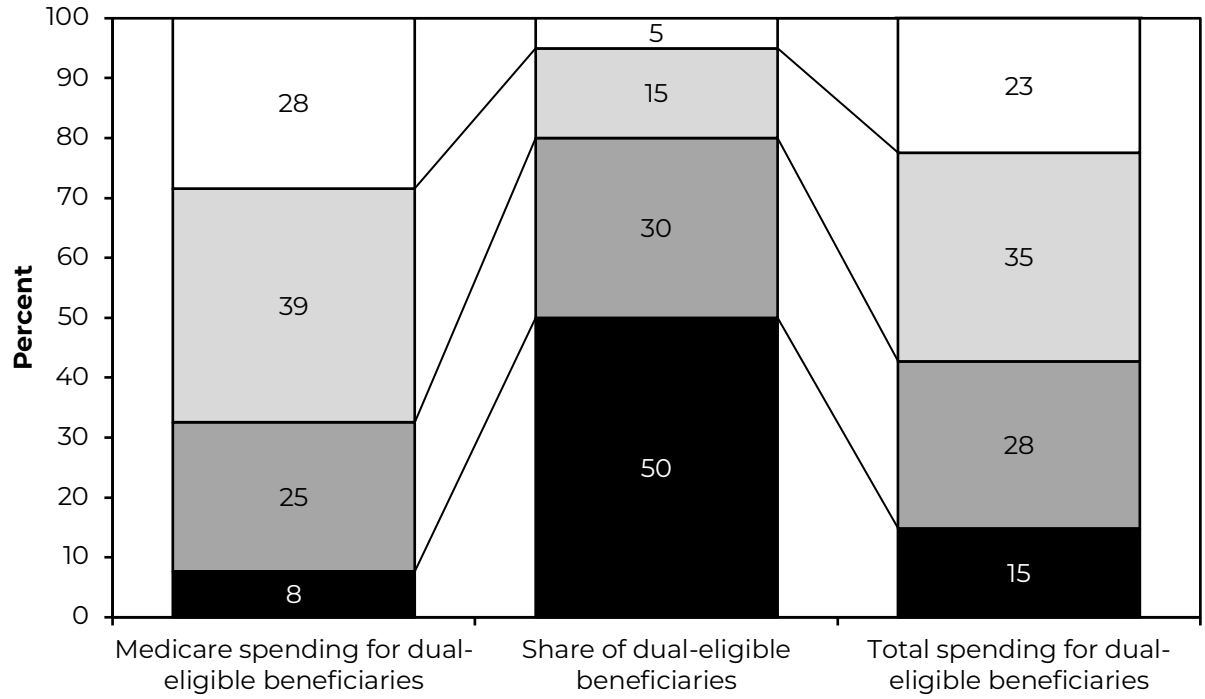
Service	Dual-eligible beneficiaries	Non-dual-eligible beneficiaries
Average FFS Medicare payment for all beneficiaries		
Total Medicare FFS payments	$20,577	$9,698
Inpatient hospital	4,834	2,378
Physician[a]	3,494	2,593
Outpatient hospital	3,252	1,798
Home health	871	326
Skilled nursing facility[b]	1,353	307
Hospice	447	220
Prescribed medication[c]	6,268	1,922
Share of FFS beneficiaries using service		
Share using any type of service	96.0%	84.5%
Inpatient hospital	22.2	12.6
Physician[a]	91.0	80.8
Outpatient hospital	77.2	62.1
Home health	13.0	6.9
Skilled nursing facility[b]	6.1	2.7
Hospice	3.4	1.9
Prescribed medication[c]	93.1	58.3

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 estimates from CMS Office of the Actuary. Total payments may not equal the sum of line items due to omitted "other" category. The MCBS is a point-in-time survey from a sample of Medicare beneficiaries. Year-to-year variation in reported data is expected.
[a] Includes a variety of medical services, equipment, and supplies.
[b] Individual short-term facility (usually skilled nursing facility) stays for the MCBS population.
[c] Data from stand-alone prescription drug plans.

Source: MedPAC analysis of the Medicare Current Beneficiary Survey, 2019.

- In 2019, average per capita Medicare FFS spending for dual-eligible beneficiaries was more than twice that for non-dual-eligible beneficiaries—$20,577 compared with $9,698.
- 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, 2019



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. 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, 2019.

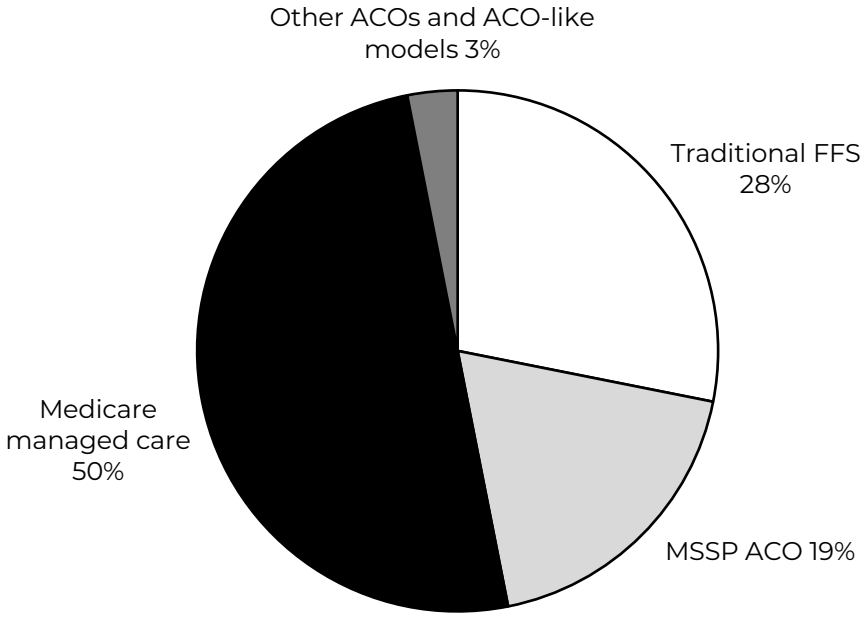
- Annual Medicare FFS and total spending on dual-eligible beneficiaries are concentrated among a small number of people. The costliest 5 percent of dual-eligible beneficiaries accounted for 28 percent of Medicare spending and 23 percent of total spending on dual-eligible beneficiaries in 2019. In contrast, the least costly 50 percent of dual-eligible beneficiaries accounted for only 8 percent of Medicare FFS spending and 15 percent of total spending on dual-eligible beneficiaries.

- On average, total spending (including Medicaid, Medigap, etc.) for dual-eligible beneficiaries in 2019 was almost twice that for non-dual-eligible beneficiaries—$33,220 compared with $16,721, respectively (data not shown).

SECTION 5

Alternative payment models

Chart 5-1. Most Medicare beneficiaries are in managed care plans or are assigned to accountable care organizations, 2022

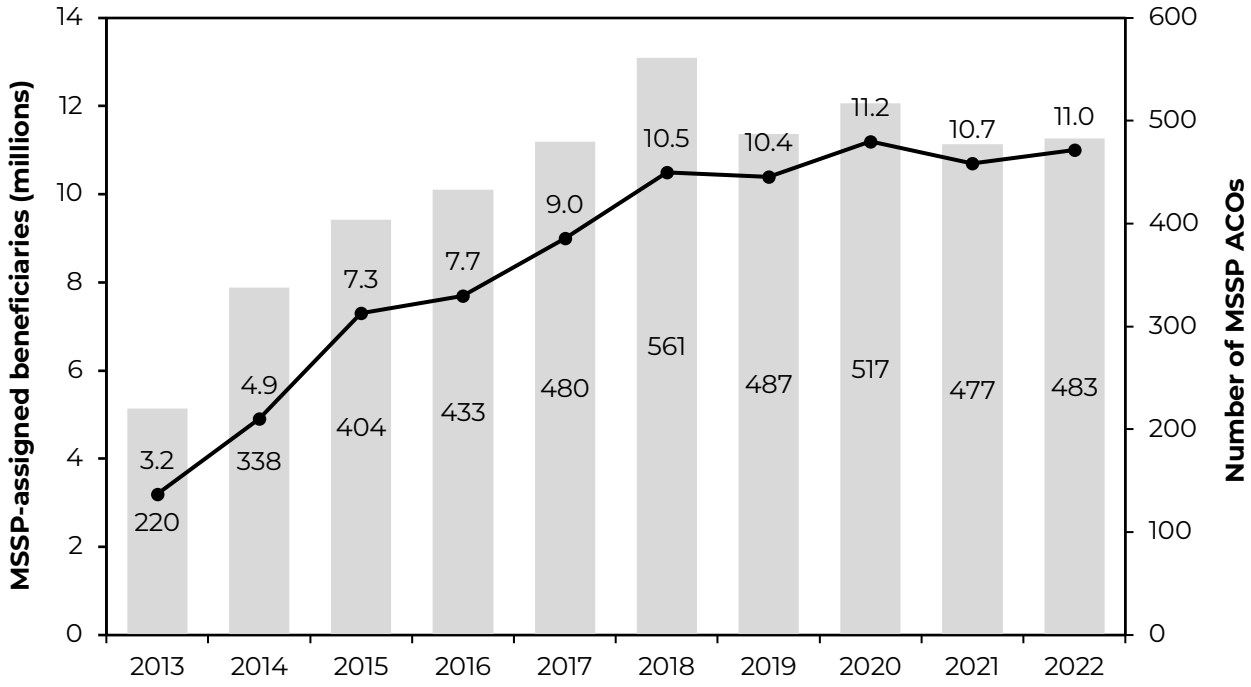


Note: ACO (accountable care organization), FFS (fee-for-service), MSSP (Medicare Shared Savings Program). This chart includes only beneficiaries enrolled in both Part A and Part B in January 2022. Both Part A and Part B coverage is necessary for either Medicare Advantage enrollment or ACO assignment. In general, Medicare managed care plans include Medicare Advantage plans as well as cost-reimbursed plans and Medicare-Medicaid demonstration plans. Other ACOs and ACO-like models include the Global and Professional Direct Contracting (GPDC) Model, the Maryland Total Cost of Care (TCOC) 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.

Source: CMS January 2022 enrollment data, CMS Shared Savings Program January 2022 Fast Facts, CMS GPDC 2021 summary performance and 2022 GPDC participant list, CMS ACO Next Generation 2020 performance data for Next Generation ACOs entering GPDC in 2022, and State of Vermont Green Mountain Care Board 2021 alignment report.

- Among the 58.6 million Medicare beneficiaries with both Part A and Part B coverage in 2022, approximately three-fourths (72 percent) are in Medicare managed care (Medicare Advantage or other private plans) or 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 28 percent of Medicare beneficiaries with both Part A and Part B coverage are now in traditional FFS Medicare—a share that has declined in recent years.
- Even among the share 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 Primary Care First Model.

Chart 5-2. The number of beneficiaries assigned to MSSP ACOs grew rapidly through 2018 and then leveled off

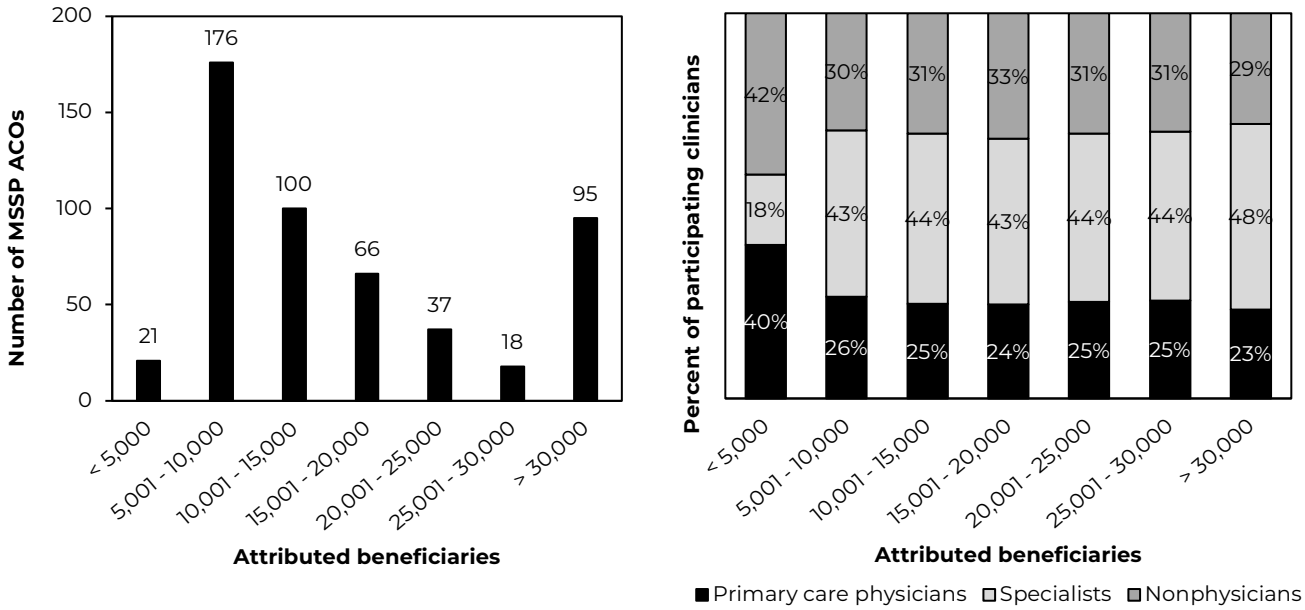


Note: MSSP (Medicare Shared Savings Program), ACO (accountable care organization). Numbers are as of January in each year. In 2019, MSSP ACOs were allowed to join the program in July. Those ACOs and the beneficiaries assigned to them were therefore not in the program as of January 2019 and so are not 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 (data not shown). In 2021, new MSSP ACOs were not allowed to join the program due to the coronavirus pandemic, though ACOs were still allowed to exit the program.

Source: CMS Shared Savings Program January 2022 Fast Facts.

- The number of beneficiaries assigned to MSSP ACOs grew rapidly through 2018 but has leveled off in recent years. In 2022, 19 percent of beneficiaries enrolled in both Part A and Part B were assigned to an MSSP ACO (see Chart 5-1).
- The number of ACOs peaked at 561 in 2018 and then declined to 487 in 2019. Growth in the number of ACOs was relatively flat between 2019 and 2022.
- CMS finalized changes to MSSP at the end of 2018 that included (1) requiring ACOs to transition toward greater levels of financial risk and (2) using regional spending as a component of all ACO benchmarks (the spending levels used to measure an ACO's financial performance). These changes coincided with some ACOs dropping out of the program and fewer new ACOs joining.
- While the number of ACOs and assigned beneficiaries has leveled off in recent years, the number of beneficiaries per ACO continues to increase (data not shown).

Chart 5-3. Distribution of ACOs and types of providers participating in MSSP, by number of attributed beneficiaries, 2020

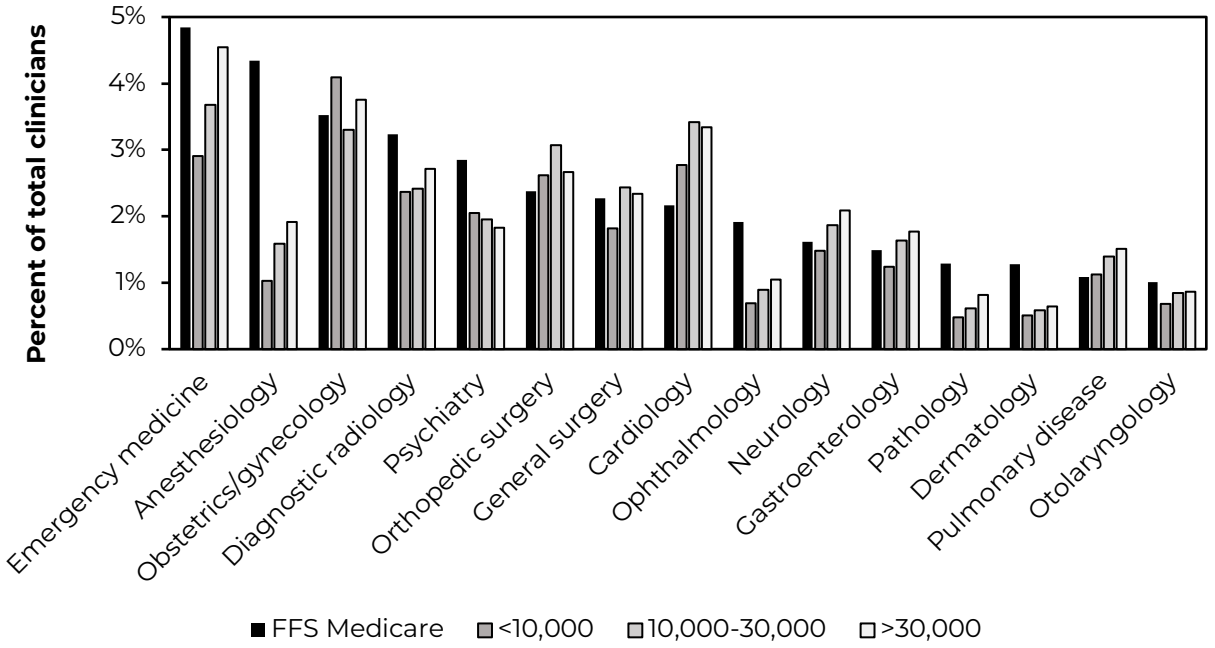


Note: ACO (accountable care organization), MSSP (Medicare Shared Savings Program). As of January 2020, there were 517 MSSP ACOs, but the chart includes only the 513 ACOs that did not drop out of the program prior to July 2020. "Nonphysician" clinicians include nurse practitioners, physician assistants, and clinical nurse specialists.

Source: Shared Savings Program Accountable Care Organizations public use files.

- Of 513 MSSP ACOs, more than half (58 percent) have 15,000 or fewer attributed beneficiaries. Less than 19 percent of MSSP ACOs have 30,000 or more attributed beneficiaries.
- MSSP ACOs usually have a combination of primary care physicians, specialists, and nonphysician practitioners; the mix of these practitioners is relatively similar across size categories. On average, 24 percent of clinicians participating in an MSSP ACO are primary care physicians, while 46 percent are specialists and 30 percent are nonphysician practitioners (data not shown).
- Primary care physicians comprise at least half of all participating clinicians in 60 (12 percent) MSSP ACOs, while specialists comprise more than half of all clinicians in 103 (20 percent) of MSSP ACOs (data not shown).

Chart 5-4. Participation by select specialists in MSSP ACOs, by number of attributed beneficiaries, 2018

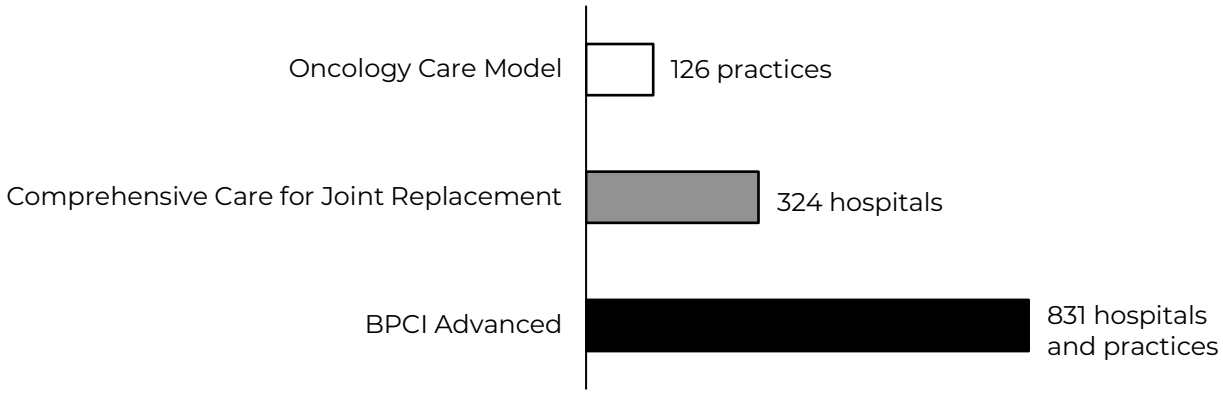


Note: MSSP (Medicare Shared Savings Program), ACO (accountable care organization), FFS (fee-for-service). "Total clinicians" includes all physicians, nurse practitioners, physician assistants, and clinical nurse specialists. This chart focuses on non–primary care physician specialties.

Source: Shared Savings Program Accountable Care Organizations public use files and research identifiable files; Carrier Standard Analytic File for 100 percent of Medicare beneficiaries.

- ACOs by design are oriented around primary care, but specialists can and do participate in these models. Most MSSP ACOs have a mix of physicians among various clinical specialties.
- Specialists' participation in ACOs relative to their share of all clinicians varies by specialty. For example, cardiologists comprise about 2 percent of all clinicians participating in FFS Medicare, but a larger share of clinicians participating in ACOs. By contrast, specialties such as anesthesiology and ophthalmology are underrepresented in ACOs relative to their share of all FFS clinicians.
- The portion of participating specialist physicians varies greatly across ACOs. For example, cardiologists account for a little more than 3 percent of all MSSP ACO physicians, but they comprise anywhere from 0 percent to 20 percent of clinicians in any individual ACO (data not shown).
- The portion of specialists as a share of all clinicians who participate in MSSP tends to be somewhat higher among larger ACOs (as measured by the number of attributed beneficiaries in each ACO). For example, the share of clinicians who specialize in emergency medicine is 2.9 percent in smaller ACOs, 3.7 percent in midsize ACOs, and 4.5 percent in the largest ACOs.
- Many specialties account for a larger share of clinicians in larger ACOs. This finding may reflect smaller ACOs being more often composed of independent physician practices with relatively fewer specialists, while larger ACOs are often affiliated with hospitals or health systems that have a broader range of specialists.

Chart 5-5. BPCI Advanced is Medicare's largest episode-based payment model, 2022

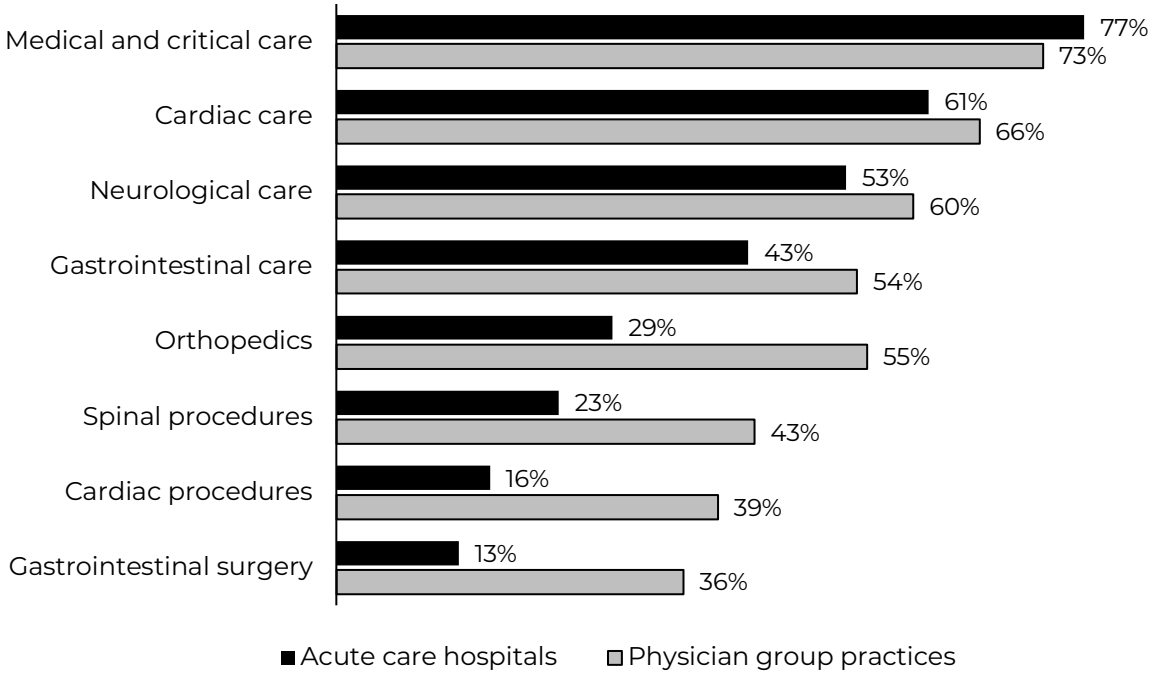


Note: BPCI (Bundled Payments for Care Improvement).

Source: CMS's Oncology Care Model website (https://innovation.cms.gov/innovation-models/oncology-care); Comprehensive Care for Joint Replacement website (https://innovation.cms.gov/innovation-models/cjr); information on BPCI Advanced participants: CMS's Where Innovation Is Happening website (https://innovation.cms.gov/innovation-models/bpci-advanced); 2020 CMMI Report to the Congress (https://innovation.cms.gov/data-and-reports/2021/rtc-2020).

- Medicare fee-for-service (FFS) providers can participate in episode-based payment models, and roughly one million Medicare beneficiaries have been attributed to at least one of these models.
- Episode-based payment models give health care providers a spending target for most types of care provided during a clinical episode (e.g., six months of chemotherapy or 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 is the BPCI Advanced Model, with 831 participating hospitals and practices (435 acute care hospitals and 396 physician group practices participate as episode initiators).

Chart 5-6. Share of BPCI Advanced episode initiators accepting responsibility for each clinical episode group, 2022



Note: BPCI (Bundled Payments for Care Improvement). BPCI Advanced participants can accept episode-based payments for multiple clinical-episode service-line groups. The denominators for each group are 435 acute care hospital and 396 physician group practice episode initiators in 2022.

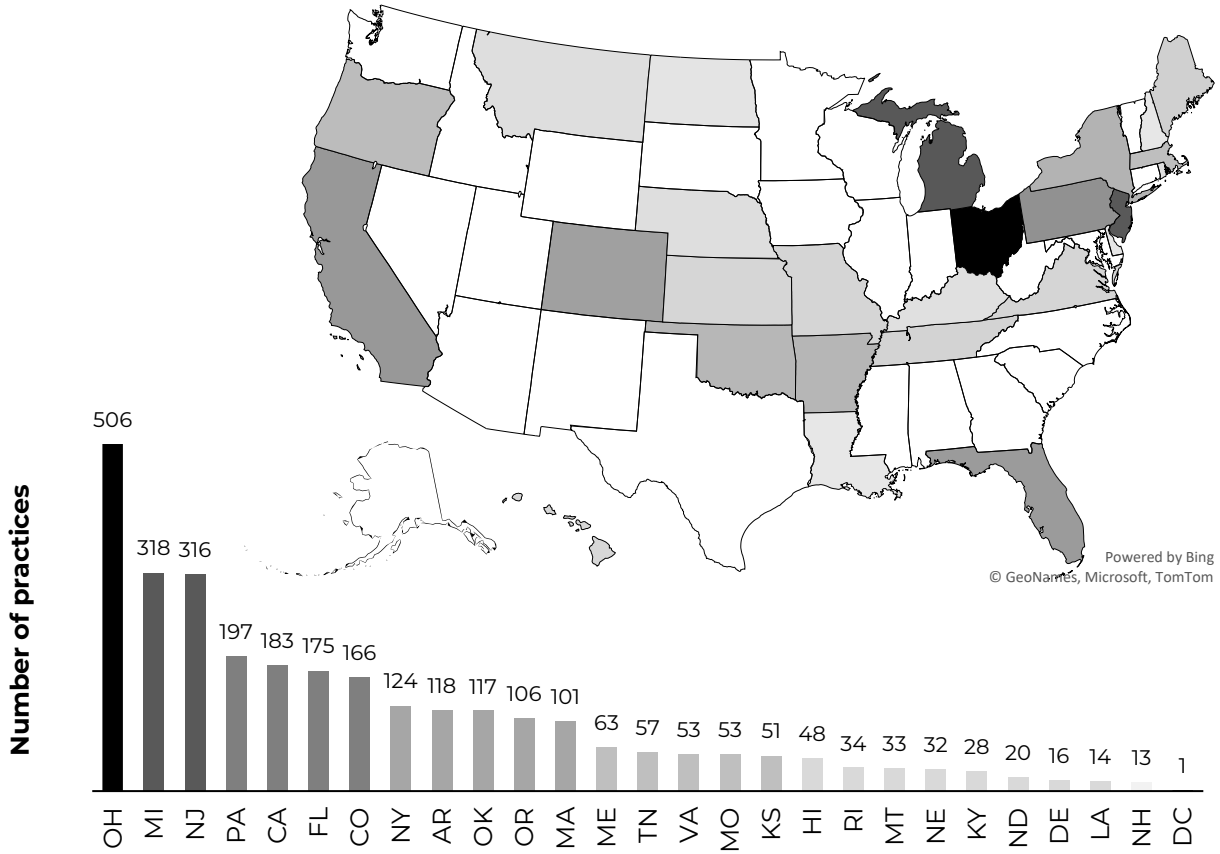
Source: List of clinical-episode service-line groups each BPCI Advanced participating episode initiator agreed to take financial responsibility for in Model Year 5 (2022) downloaded from CMS's BPCI Advanced webpage (https://innovation.cms.gov/innovation-models/bpci-advanced).

- BPCI Advanced covers dozens of types of inpatient and outpatient clinical episodes, which are aggregated into eight clinical-episode service-line groups (e.g., the cardiac care group includes acute myocardial infarction, cardiac arrhythmia, and congestive heart failure). Participating hospitals and physician practices select the service-line groups for which they will be financially responsible under the model.

- About three-quarters of hospital and physician practices initiate episodes within the medical and critical care service-line group, while only 13% of hospitals and 36% of physician practices opt to initiate episodes under the gastrointestinal surgery service-line group.

- More than 70 percent of BPCI Advanced episode initiators accept episode-based payments for fewer than five clinical-episode service-line groups. Twenty-two percent accept episode-based payments for only one clinical-episode service-line group (data not shown).

Chart 5-7. Almost 3,000 practices are testing the Primary Care First model, 2022



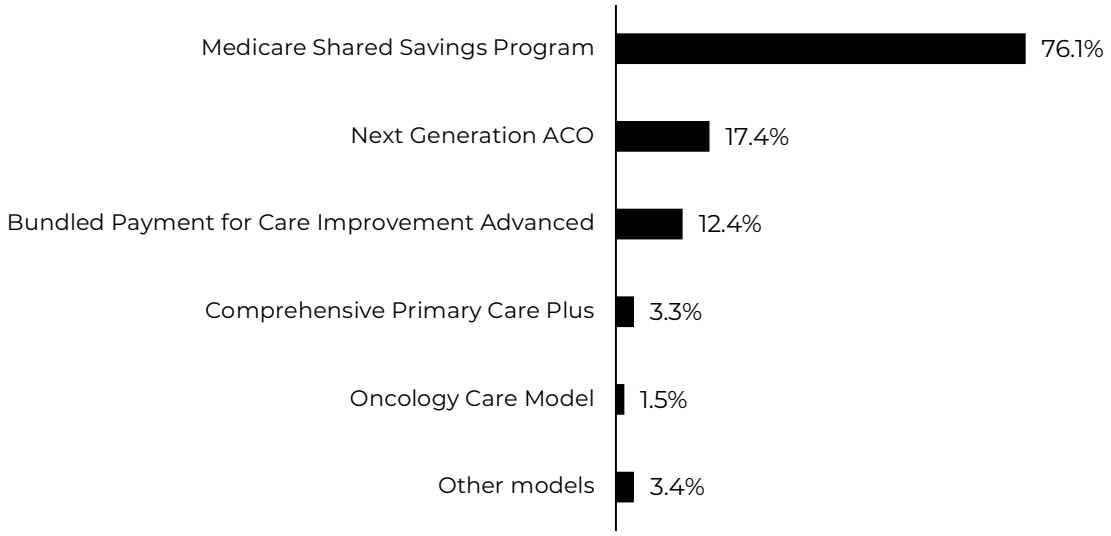
Note: Primary Care First is an advanced alternative payment model that CMS began testing with the first cohort in 2021 and the second cohort in 2022. Primary Care First is a multipayer model, with some Medicaid and private insurers voluntarily paying similar fees for their enrollees.

Source: CMS's list of Primary Care First practices (https://innovation.cms.gov/innovation-models/primary-care-first-model-options).

- CMS's Primary Care First is an advanced alternative payment model that has about 3,000 participating practices in 26 states and the District of Columbia. The model aims to strengthen primary care by testing alternative ways of paying 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, plus a flat primary care visit fee instead of fee-for-service payments for certain primary care services. These payments are subject to adjustments determined by each practice's performance on specified quality and utilization measures.

Chart 5-8. About 75 percent of the clinicians who qualified for a 5 percent A–APM bonus in 2022 were in the Medicare Shared Savings Program



Note: A–APM (advanced alternative payment model), ACO (accountable care organization). Clinicians' 2020 A–APM participation determines their 2022 bonuses. Shares do not sum to 100 percent because clinicians can participate in more than one A–APM simultaneously. To qualify for the A–APM bonus in 2022, clinicians had to receive 50 percent of their professional services payments or provide 35 percent of their patients with professional services through an A–APM in 2020. 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). "Other models" includes the Maryland Total Cost of Care Model, Comprehensive Care for Joint Replacement Model, Comprehensive ESRD (End-Stage Renal Disease) Care Model, and Vermont ACO model. 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).

Source: CMS data on clinicians who qualified for the 5 percent bonus in 2022 based on clinicians' 2020 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 2022, nearly 237,000 clinicians nationwide qualified for the A–APM bonus (based on 2020 A–APM participation) out of about 1.3 million who billed the Medicare physician fee schedule. About 93 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 (data not shown).

- Among clinicians who qualified for an A–APM bonus in 2022, 38 percent were specialists, 23 percent were primary care physicians, and 38 percent were nonphysician practitioners (data not shown).

SECTION 6

Acute inpatient services

General short-term hospitals
Inpatient psychiatric facilities

Chart 6-1. Number of short-term acute care hospitals and inpatient stays, 2020

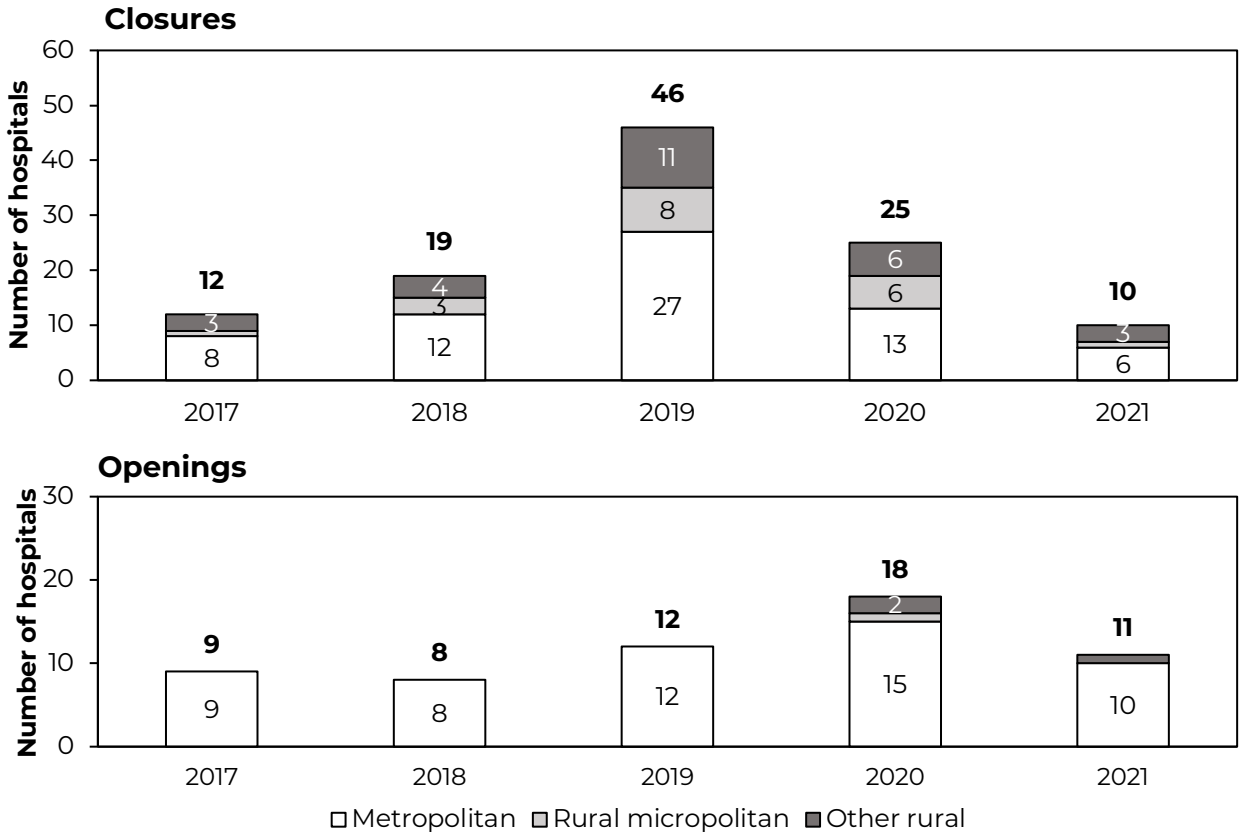
Hospital group	Hospitals		Inpatient stays			
			All payer		Medicare FFS	
	Number (in thousands)	Share of total	Number (in millions)	Share of total	Number (in millions)	Share of total
All short-term acute	**4.3**	**100**	**28.0**	**100**	**7.6**	**100**
IPPS	2.9	67	26.4	94	7.2	94
Metropolitan (urban)	2.2	51	24.5	88	6.5	85
Rural micropolitan	0.5	11	1.6	6	0.6	8
Other rural	0.2	5	0.3	1	0.1	1
For profit	0.7	16	4.4	16	1.2	15
Nonprofit	1.8	41	18.5	66	5.1	67
Government	0.4	10	3.6	13	0.9	12
DSH and teaching	1.0	24	16.9	60	4.3	56
DSH only	1.4	33	7.7	28	2.3	30
Teaching only	0.1	2	0.8	3	0.2	3
Neither	0.3	8	1.0	3	0.4	5
Sole community	0.3	8	1.0	4	0.4	5
Medicare dependent	0.1	3	0.2	1	0.1	1
Neither	2.4	56	25.2	90	6.7	88
Critical access	1.3	30	0.5	2	0.2	3
Maryland	<0.1	1	0.5	2	0.2	2

Note: FFS (fee-for-service), IPPS (inpatient prospective payment systems), 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 2020 and were complete as of our analysis. "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 and because children's and cancer hospitals are not listed separately.

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

- Due to cost report filing extensions during the coronavirus public health emergency, the number of hospitals in this chart is lower than in prior years. We include it here because it reflects the cost reports used to calculate margins and other metrics in subsequent charts in this chapter.

Chart 6-2. Fewer general short-term acute care hospitals closed in 2021



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 period. Data are for general short-term acute care hospitals in the U.S. paid under the inpatient prospective payment systems, 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, such as removing hospitals previously counted as closures but that have since reopened. The figures pertain to fiscal years.

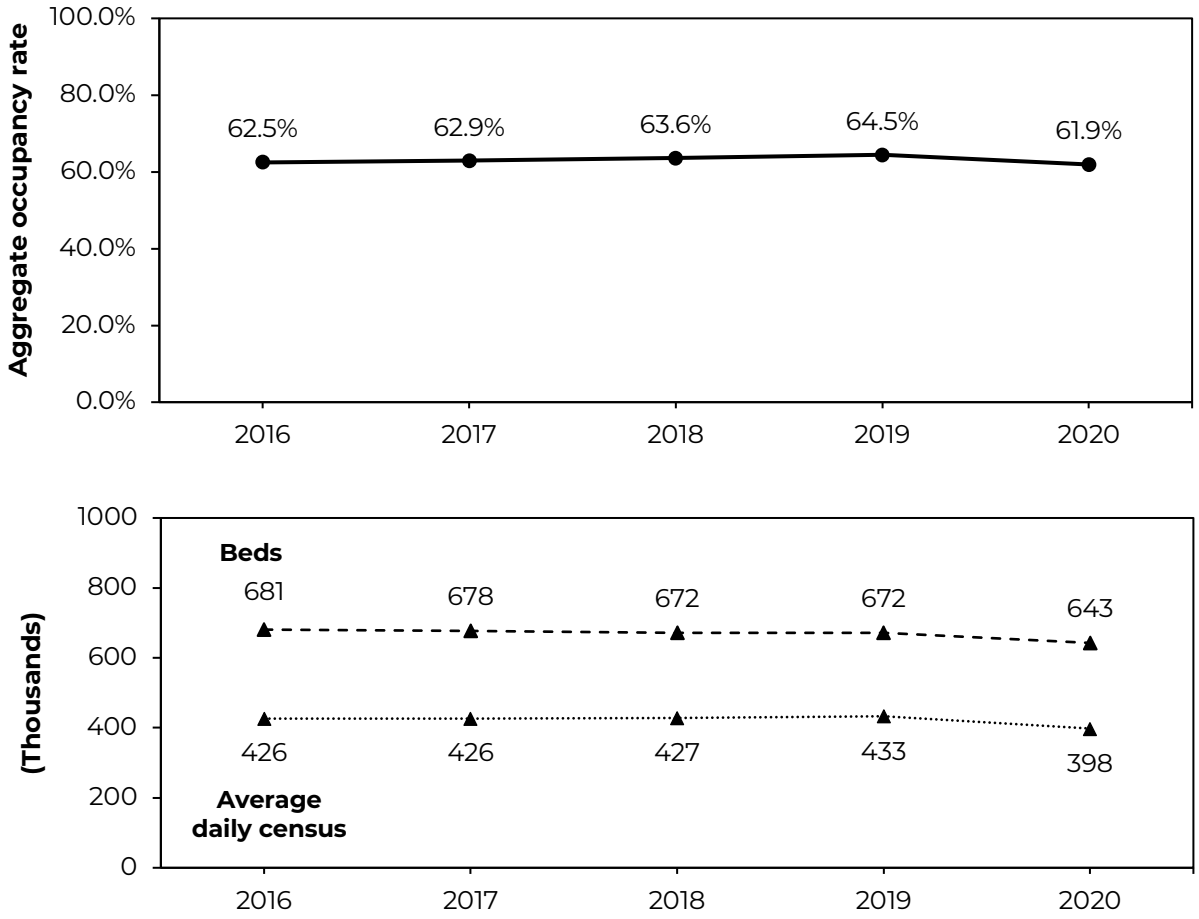
Source: MedPAC analysis of the CMS Provider of Services file, census data on metropolitan and micropolitan areas, internet searches, and personal communication with the Department of Health and Human Services Office of Rural Health Policy.

- In fiscal year 2021, 10 general short-term acute care hospitals participating in the Medicare program closed, and 11 hospitals opened. The number of closures decreased from the peak in 2019, while the number of openings stayed relatively consistent with historical trends. The decline in closures was likely a result of the substantial financial support provided by the federal government to hospitals during the coronavirus public health emergency.

- Among the 10 hospital closures in 2021, 6 were in metropolitan counties, 1 was in a rural micropolitan county, and 3 were in other rural counties.

- Nearly all of the hospital openings from 2017 to 2021 were in metropolitan counties.

Chart 6-3. Short-term acute care hospitals' occupancy rate declined slightly in 2020

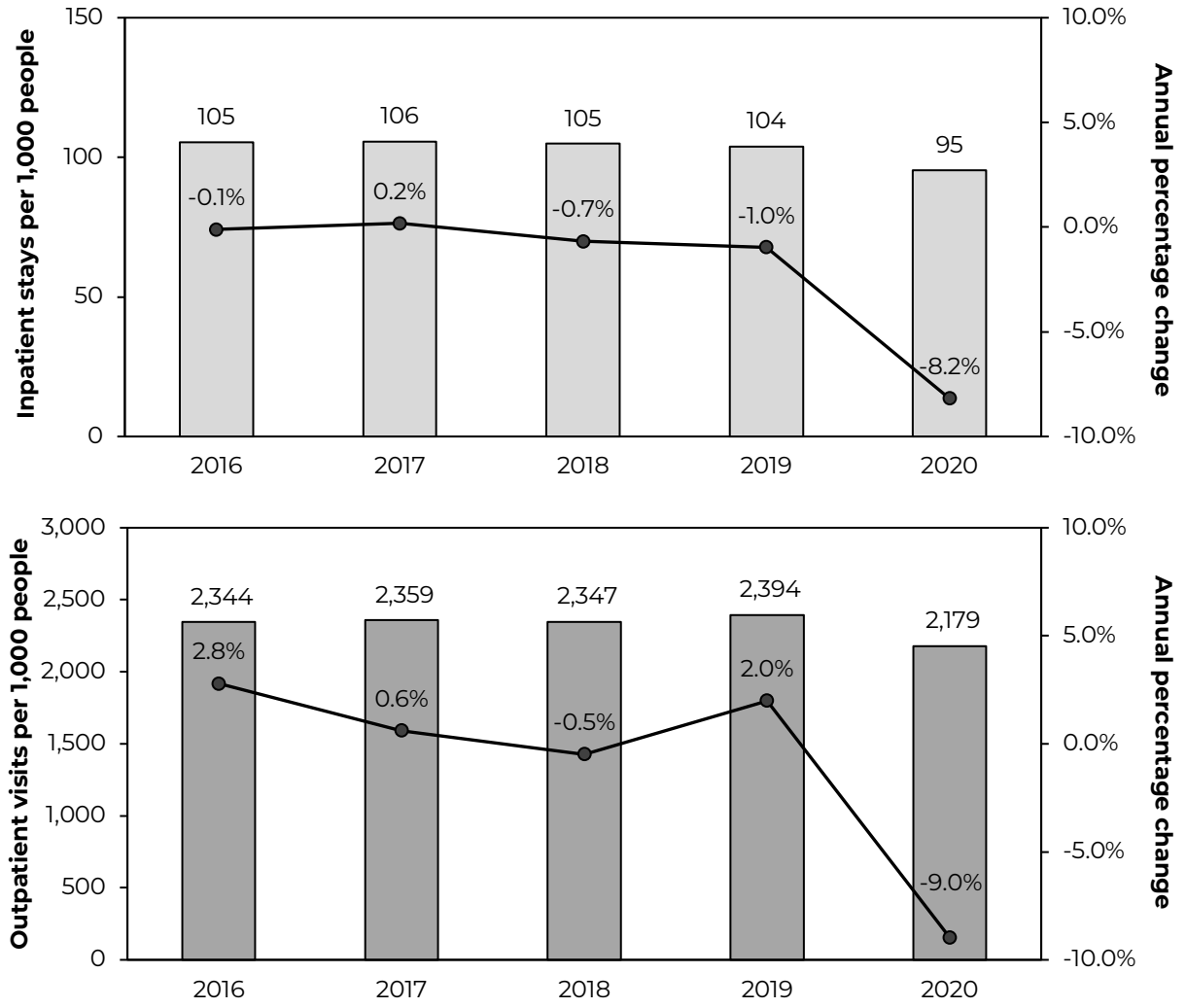


Note: "Aggregate occupancy rate" is calculated as total used bed days (including inpatient, swing, and observation bed days but excluding nursery bed days) divided by total bed days available. "Average daily census" is calculated as total used bed days divided by 365; "beds" refers to total bed days available divided by 365. 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 2020 and were complete as of our analysis. Occupancy rates may vary slightly from calculations of components due to rounding.

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

- Due to cost report filing extensions during the public health emergency, the number of hospitals in this chart is lower than in prior years.
- With that caveat, the short-term acute care hospitals' occupancy rate declined slightly in 2020, reversing the prior trend of slight increases in the aggregate occupancy rate from 2016 through 2019.
- While the second chart indicates a decline in both inpatient beds and average daily census in 2020, the decline is driven by the decline in the number of included hospitals.
- Hospital occupancy rates varied by month and state, with more states having higher occupancy rates as the coronavirus pandemic continued into 2021 (data not shown).

Chart 6-4. All-payer inpatient stays per capita and outpatient visits per capita declined in 2020



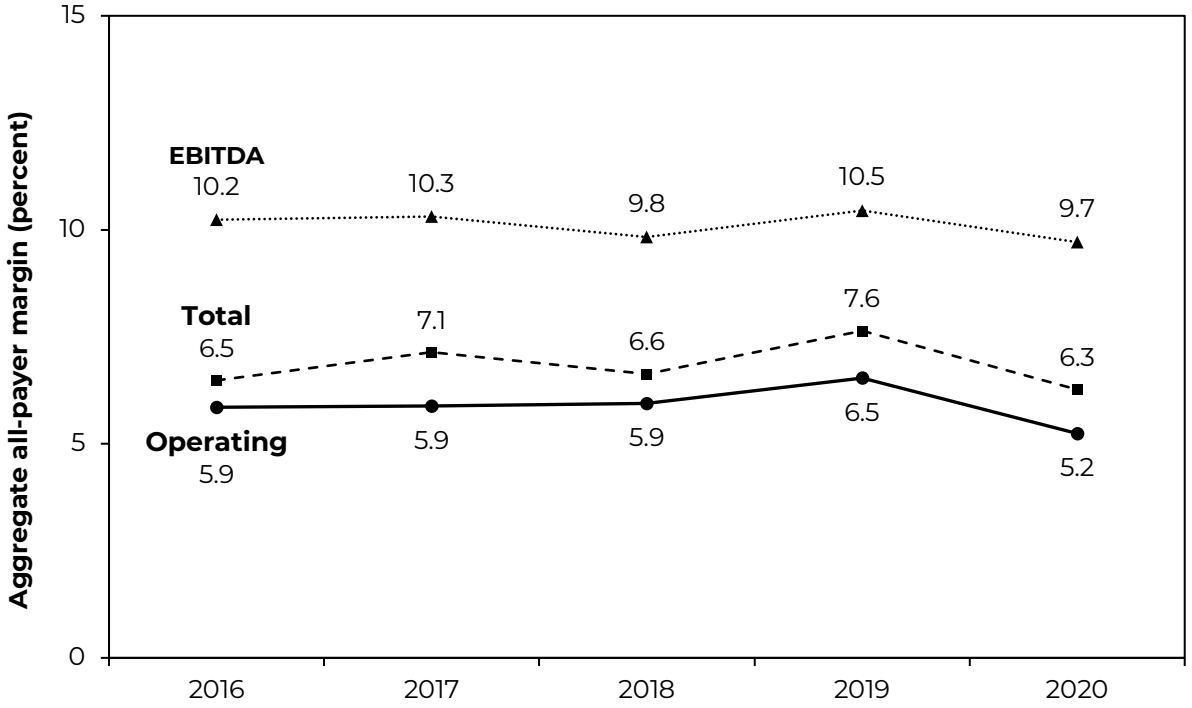
Note: "Outpatient visits" includes all clinic visits, referred visits, observation services, outpatient surgeries, and emergency department visits, regardless of the number of diagnostic and/or therapeutic treatments the patient received during the visit. Data are for community hospitals (nonfederal short-term general and specialty hospitals), estimated from those who responded to the American Hospital Association survey and reflect each hospital's own fiscal year. Given that not all hospitals are reporting the same 12-month period, the 2020 data reflect varying numbers of months of COVID-19 impacts.

Source: MedPAC analysis of Hospital Statistics data from the American Hospital Association and U.S. population estimates from National Health Expenditure data.

- In 2020, all-payer inpatient stays and hospital outpatient visits per capita declined, reflecting delayed and forgone care during the COVID-19 public health emergency. The exact numbers in 2020 should be interpreted with caution because hospitals reported data based on their own fiscal year, reflecting varying numbers of months of pandemic impacts.

- In contrast, from 2016 to 2019, there were divergent trends in all-payer inpatient stays and hospital outpatient visits per capita, with a cumulative 1.5 percent decline in inpatient stays but a 2.1 percent growth in outpatient visits.

Chart 6-5. IPPS hospitals' all-payer margin remained strong in 2020 with the support of federal relief funds



Note: IPPS (inpatient prospective payment systems), EBITDA (earnings before interest, taxes, depreciation, and amortization). Hospitals' margin is calculated as aggregate payments minus aggregate allowable costs, divided by aggregate payments. "All-payer" margin includes payments from all payers and, in 2020, reported federal relief funds. "Total margin" includes investments; "operating" margin is limited to patient care revenue; and EBITDA margin is a measure of cash flow. Data are for IPPS hospitals in the U.S. (excluding territories) that had a cost report with a midpoint in fiscal year 2020 and were complete as of our analysis.

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

- Hospitals' aggregate all-payer margin reflects the relationship between hospitals' payments and costs across all payers (Medicare, Medicaid, other government payers, and private payers). The all-payer total margin includes investment income, while the operating margin is limited to patient care revenue, and the EBITDA margin measures cash flow. In 2020, these measures include reported federal relief funds to support hospitals during the COVID-19 public health emergency.

- IPPS hospitals' all-payer total, operating, and EBITDA margins remained strong in 2020 with the support of over $32 billion in reported federal relief funds.

- The exact 2020 all-payer margins presented in this chart should be interpreted with caution. In particular, hospitals reported data based on their own fiscal year, reflecting varying numbers of months of pandemic impacts and differences in the extent to which they include federal relief funds. In addition, the final amount of federal relief funds that hospitals will end up retaining is still not known.

Chart 6-6. IPPS hospitals' all-payer total margin continued to vary across hospital groups in 2020, including differences in targeted federal relief funds

Hospital group	All-payer total margin					
	2016	2017	2018	2019	2020 without relief funds	2020 with relief funds
All IPPS	6.5%	7.1%	6.6%	7.6%	3.0%	6.3%
Metropolitan (urban)	6.6	7.2	6.8	7.8	3.1	6.2
Micropolitan	5.3	6.3	5.1	6.6	3.1	7.0
Other rural	1.9	2.7	0.7	1.4	–0.8	3.9
For profit	10.8	10.5	11.3	12.4	10.3	12.3
Nonprofit	6.2	7.3	6.3	7.3	2.5	5.9
DSH and teaching	6.3	7.0	6.4	7.4	2.3	5.6
DSH only	6.5	6.9	6.7	7.6	4.3	7.6
Teaching only	7.8	9.9	9.7	8.8	4.7	6.6
Neither	8.8	9.6	9.1	10.6	6.7	9.1
CAHs	3.7	3.6	2.8	3.6	2.1	6.4

Note: IPPS (inpatient prospective payment systems), DSH (disproportionate share hospital), CAH (critical access hospital). "Relief funds" refers to Provider Relief Fund payments and Paycheck Protection Program forgiven loans recorded on hospitals' cost reports. Hospitals' margin is calculated as aggregate payments minus aggregate allowable costs, divided by aggregate payments. "All-payer total margin" includes payments from all payers and from investments and, for 2020, is reported with and without reported federal relief funds. Metropolitan (urban) counties contain an urban cluster of 50,000 or more people; rural micropolitan counties contain a cluster of 10,000 to 50,000 people; all other counties are classified as "other rural." Data are for IPPS hospitals in the U.S. (excluding territories) that had a cost report with a midpoint in fiscal year 2020 and were complete as of our analysis.

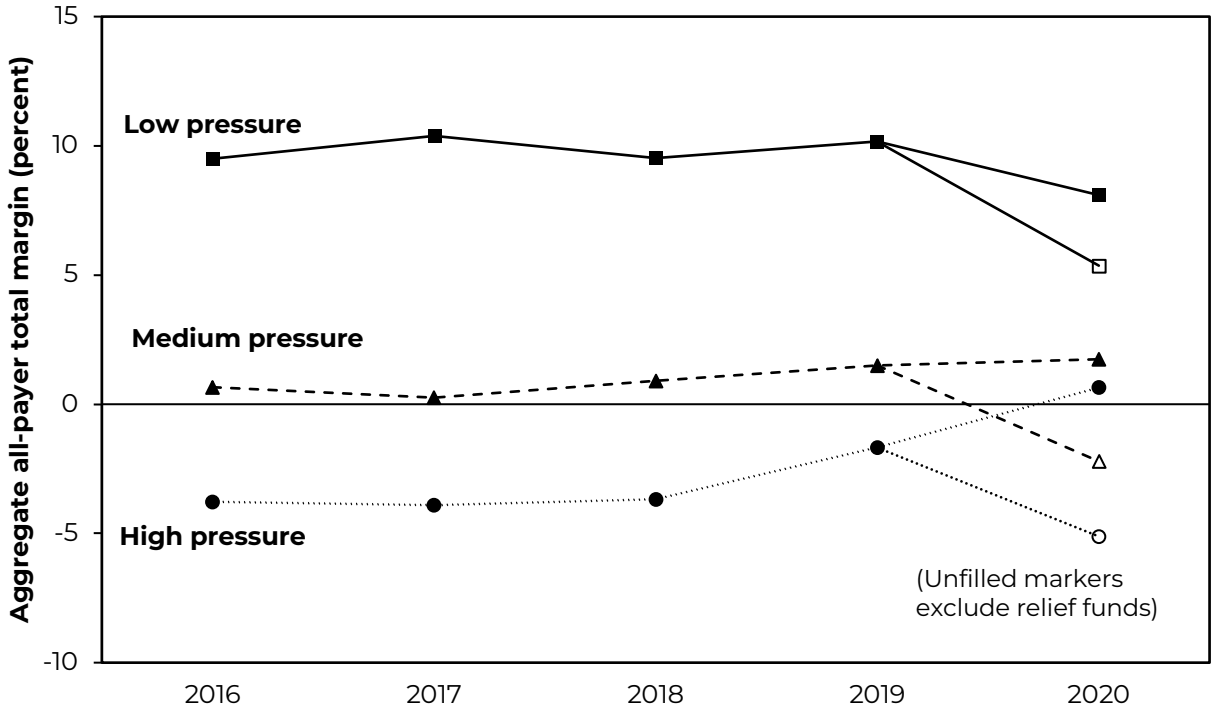
Source: MedPAC analysis of hospital cost report data from CMS.

- In 2020, there continued to be substantial variation in the all-payer total margin across hospital groups, and the variation increased relative to 2019. The exact 2020 all-payer margins presented in this chart should be interpreted with caution. In particular, hospitals reported data based on their own fiscal year, reflecting varying numbers of months of pandemic impacts and differences in the extent to which they include federal relief funds.

- Given those caveats, rural hospitals' all-payer total margin reached a near record high in 2020 (3.9 percent) due to the targeted relief funds these hospitals received.

- Disproportionate share hospitals' all-payer total margin declined in 2020 among those that were also teaching hospitals and held steady among those that were not also teaching hospitals. However, this difference in part reflects that teaching hospitals are more likely to have cost reporting years ending in June, before the 90-day period that DSH hospitals had to attest to the targeted relief funds.

Chart 6-7. IPPS hospitals' all-payer total margin continued to be higher for those under low fiscal pressure, 2016–2020



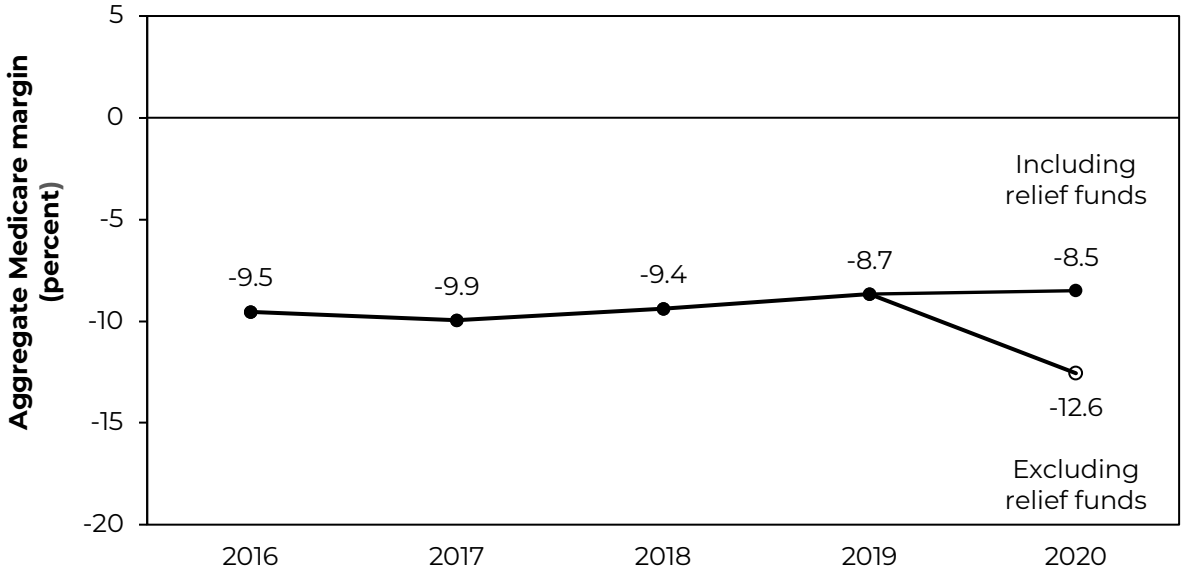
Note: IPPS (inpatient prospective payment systems). "Relief funds" refers to Provider Relief Fund payments and Paycheck Protection Program forgiven loans recorded on hospitals' cost reports. Hospitals' margin is calculated as aggregate payments minus aggregate allowable costs, divided by aggregate payments. "All-payer total margin" includes payments from all payers, from investments, and, in 2020, with and without reported federal relief funds. "Low-pressure" hospitals are defined as those with a median non-Medicare profit margin greater than 5 percent over five years and a net worth that would have grown by more than 1 percent per year over that period if the hospital's Medicare profits had been zero. "High-pressure" hospitals are defined as those with a median non-Medicare profit margin of 1 percent or less over five years and a net worth (assets minus liabilities) that would have grown by less 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. Data are for IPPS hospitals in the U.S. (excluding territories) that had a cost report with a midpoint in fiscal year 2020 and were complete as of our analysis.

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

- The all-payer total margin continued to vary depending on IPPS hospitals' level of fiscal pressure. IPPS hospitals under low fiscal pressure—defined as those with a median non-Medicare profit margin of greater than 5 percent and growth in net worth—continued to have a higher aggregate all-payer total margin than hospitals under more fiscal pressure. (In contrast, the aggregate Medicare margin is lower among IPPS hospitals under low fiscal pressure; see Chart 6-10.)

- While this variation held in 2020, IPPS hospitals under high fiscal pressure disproportionately benefited from federal relief funds, such that their 2020 all-payer total margin including relief funds became positive. The exact 2020 all-payer margins presented in this chart should be interpreted with caution. In particular, hospitals reported data based on their own fiscal year, reflecting varying numbers of months of pandemic impacts and differences in the extent to which they include federal relief funds.

Chart 6-8. IPPS hospitals' Medicare margin remained negative in 2020, but increased slightly when including Medicare's share of federal relief funds



Note: IPPS (inpatient prospective payment systems). "Relief funds" refers to Provider Relief Fund payments and Paycheck Protection Program forgiven loans recorded on hospitals' cost reports, with the Medicare share calculated using fee-for-service Medicare's share of 2019 all-payer operating revenue. Hospitals' "Medicare margin" is calculated as aggregate Medicare payments minus aggregate allowable Medicare costs, divided by aggregate payments. Payments and costs include multiple hospital service lines (including inpatient, outpatient, swing bed, skilled nursing, rehabilitation, psychiatric, and home health services) as well as direct graduate medical education and uncompensated care payments. Data are for IPPS hospitals in the U.S. (excluding territories) that had a cost report with a midpoint in fiscal year 2020 and were complete as of our analysis.

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

- Hospitals' Medicare margin reflects the relationship between hospitals' Medicare fee-for-service (FFS) payments and Medicare-allowable costs across inpatient, outpatient, and other services, as well as supplemental Medicare payments not tied to the provision of services (such as uncompensated care and direct graduate medical education payments).

- From 2019 to 2020, IPPS hospitals' Medicare margin fell when excluding federal relief funds. However, because federal relief funds were intended to help cover lost revenue and payroll costs—including lost revenue from Medicare patients and the cost of staff who help treat these patients—we include a portion of these relief funds (based on FFS Medicare's share of 2019 all-payer operating revenue) in our Medicare margins. Using this method, we allocated $6.4 billion of the over $32 billion in federal funds that hospitals reported on their cost reports toward hospitals' care of FFS Medicare beneficiaries. With these relief funds, IPPS hospitals' 2020 Medicare margin increased slightly from 2019.

- The exact 2020 Medicare margins presented in this chart should be interpreted with caution. In particular, hospitals reported data based on their own fiscal year, reflecting varying numbers of months of pandemic impacts and differences in the extent to which they include federal relief funds.

Chart 6-9. IPPS hospitals' Medicare margin continued to vary across hospital groups in 2020, including differences in targeted federal relief funds

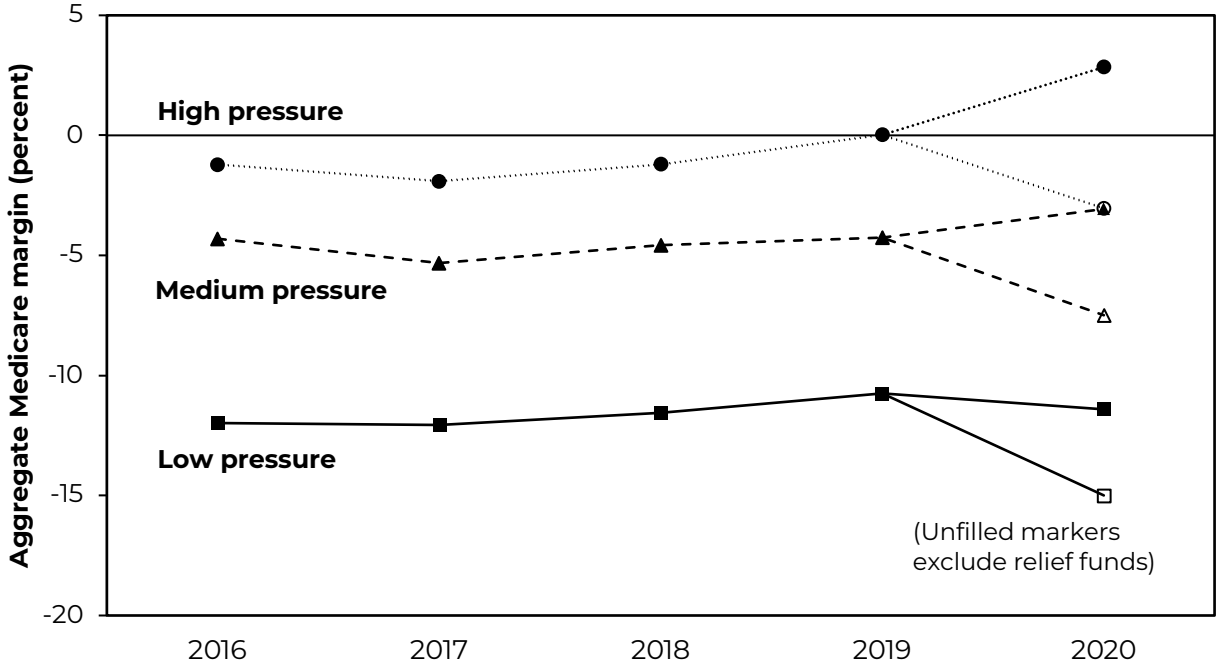
Hospital group	Medicare total margin					
	2016	2017	2018	2019	2020 without relief funds	2020 with relief funds
All IPPS	–9.5%	–9.9%	–9.4%	–8.7%	–12.6%	–8.5%
Metropolitan (urban)	–9.7	–10.1	–9.6	–9.0	–13.0	–9.1
Micropolitan	–8.0	–8.3	–6.9	–6.1	–8.4	–3.8
Other rural	–4.1	–5.6	–5.3	–2.6	–4.2	1.3
For profit	–2.3	–2.8	–1.0	0.5	0.5	3.1
Nonprofit	–10.8	–11.0	–10.6	–10.1	–14.8	–10.5
DSH and teaching	–8.3	–8.6	–8.3	–7.8	–12.1	–8.0
DSH only	–10.6	–11.1	–10.4	–9.1	–12.2	–8.1
Teaching only	–14.1	–15.0	–13.2	–12.7	–17.3	–14.8
Neither	–16.7	–17.9	–15.7	–15.2	–18.4	–15.2
CAHs	–1.7	–1.8	–1.9	–1.8	–1.2	3.6

Note: IPPS (inpatient prospective payment systems), DSH (disproportionate share hospital), CAH (critical access hospital). "Relief funds" refers to Provider Relief Fund payments and Paycheck Protection Program forgiven loans recorded on hospitals' cost reports, with the Medicare share calculated using fee-for-service Medicare's share of 2019 all-payer operating revenue. Hospitals' "Medicare margin" is calculated as aggregate Medicare payments minus aggregate allowable Medicare costs, divided by aggregate payments. Payments and costs include multiple hospital service lines (including inpatient, outpatient, swing bed, skilled nursing, rehabilitation, psychiatric, and home health services) as well as direct graduate medical education and uncompensated care payments. Metropolitan (urban) counties contain an urban cluster of 50,000 or more people; rural micropolitan counties contain a cluster of 10,000 to 50,000 people; all other counties are classified as "other rural." Data are for IPPS hospitals in the U.S. (excluding territories) or CAHs that had a cost report with a midpoint in fiscal year 2020 and were complete as of our analysis.

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

- In 2020, there continued to be substantial variation in hospitals' Medicare margins, and the variation increased relative to 2019. The exact 2020 all-payer margins presented in this chart should be interpreted with caution. In particular, hospitals reported data based on their own fiscal year, reflecting varying numbers of months of pandemic impacts and the extent to which they include federal relief funds.
- Given those caveats, rural hospitals continued to have a higher Medicare margin than urban hospitals and had a larger increase when including federal relief funds.
- Disproportionate share hospitals continued to have a higher Medicare margin than other hospitals and had a larger increase after allocating federal relief funds.
- For-profit hospitals continued to have a higher Medicare margin than nonprofits and maintained a positive Medicare margin even prior to federal relief fund allocation.

Chart 6-10. IPPS hospitals' Medicare margin continued to be higher for those under high fiscal pressure, 2016–2020



Note: IPPS (inpatient prospective payment systems). "Relief funds" refers to Provider Relief Fund payments and Paycheck Protection Program forgiven loans recorded on hospitals' cost reports. Hospitals' "Medicare margin" is calculated as aggregate Medicare payments minus aggregate allowable Medicare costs, divided by aggregate payments. Payments and costs include multiple hospital service lines (including inpatient, outpatient, swing bed, skilled nursing, rehabilitation, psychiatric, and home health services) as well as direct graduate medical education and uncompensated care payments. "High-pressure" hospitals are defined as those with a median non-Medicare profit margin of 1 percent or less over five years and a net worth (assets minus liabilities) that would have grown 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 over five years and a net worth that would have grown 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. Data are for IPPS hospitals in the U.S. (excluding territories) that had a cost report with a midpoint in fiscal year 2020 and were complete as of our analysis.

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

- IPPS hospitals' Medicare margin continued to vary depending on their level of fiscal pressure. IPPS hospitals under the highest fiscal pressure—defined as those with a median non-Medicare profit margin of 1 percent or less and a lack of material growth in worth—continued to have a higher aggregate Medicare margin than hospitals under less fiscal pressure. (In contrast, IPPS hospitals under fiscal pressure have a lower all-payer total margin; see Chart 6-7.)

- While this variation held in 2020, IPPS hospitals under high fiscal pressure disproportionately benefited from federal relief funds, causing their 2020 Medicare margin including relief funds to become positive. The exact 2020 Medicare margins presented in this chart should be interpreted with caution. In particular, hospitals reported data based on their own fiscal year, reflecting varying numbers of months of pandemic impacts and differences in whether they include federal relief funds.

Chart 6-11. Financial pressure led to lower hospital costs per discharge in 2020

	Level of financial pressure, 2015–2019		
	High pressure (non-Medicare margin ≤ 1%)	Medium pressure	Low pressure (non-Medicare margin > 5%)
Number of hospitals	590	314	1,618
Financial characteristics, 2020 (medians)			
Non-Medicare margin (private, Medicaid, uninsured)	–3%	5%	13%
Standardized cost per Medicare discharge (as a share of the national median)			
For-profit and nonprofit hospitals	0.93	0.97	1.03
Nonprofit hospitals	0.97	1.00	1.05
For-profit hospitals	0.85	0.87	0.93
Annual growth in cost per discharge, 2017–2020	5%	5%	5%
Medicare margin (Before federal relief funds)	–2%	–6%	–12%
Patient characteristics (medians)			
Total hospital discharges in 2020	3,345	5,651	7,823
Medicare share of inpatient days*	58%	59%	59%
Medicaid share of inpatient days*	24%	24%	21%
Medicare case-mix index	1.46	1.56	1.69

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 systems with over 500 discharges that had complete cost reports as of the time of our analysis. "High-pressure" hospitals are defined as those with a median non-Medicare profit margin of 1 percent or less over five years and a net worth (assets minus liabilities) that would have grown 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 over five years and a net worth that would have grown 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.
* Unlike data books in prior years that focused on Medicare fee-for-service (FFS) days, the number of Medicare and Medicaid inpatient days in this chart includes FFS days and managed care days. Most inpatient days are now either Medicaid or Medicare.

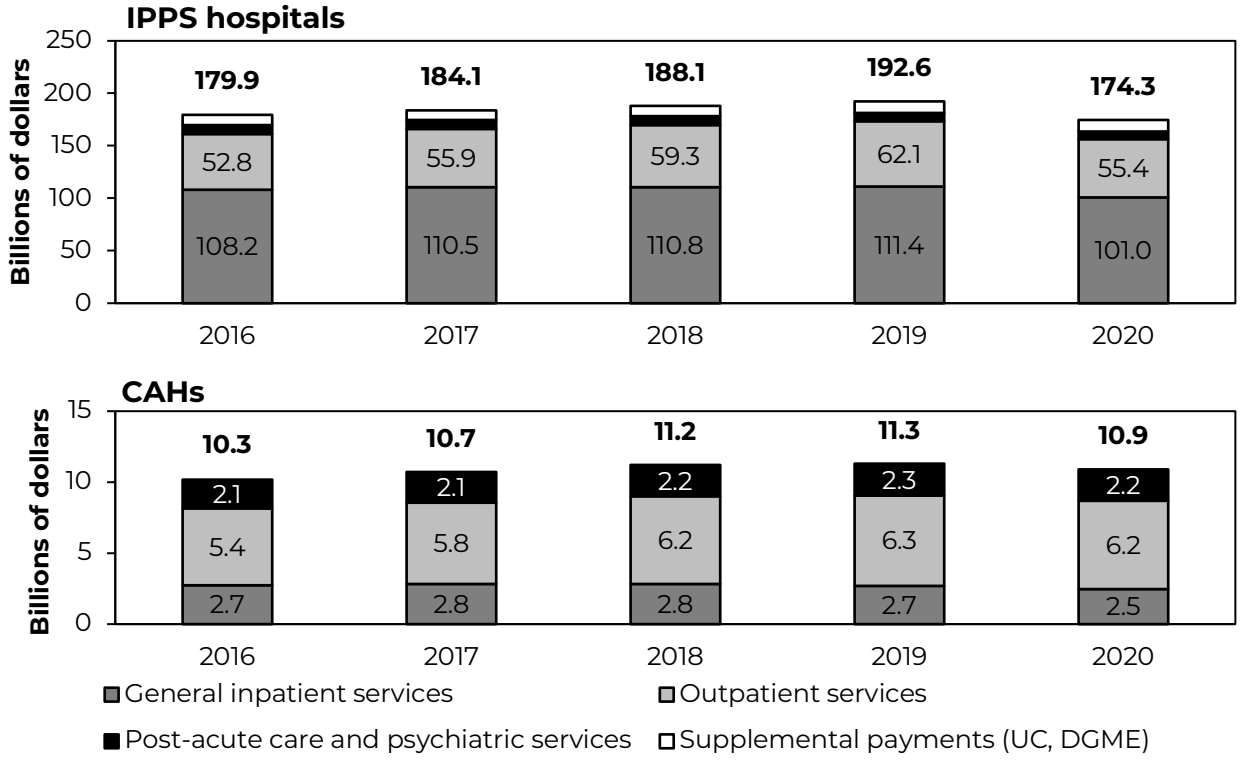
Source: MedPAC analysis of hospital cost report data and claims files from CMS.

- Hospitals under high financial pressure had 7 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 7 percent below the median even when they were not under financial pressure.

- Hospitals with lower volume and lower case mix are more likely to be under financial pressure.

- Cost per case grew rapidly in 2020 due to the pandemic's effect on costs, volume, and case mix. One limitation of this analysis is that it measures only hospital inpatient costs.

Chart 6-12. Medicare FFS payments for inpatient services continued to be the largest component of payments to IPPS hospitals but not to CAHs, 2016–2020



Note: FFS (fee-for-service), IPPS (inpatient prospective payment systems), CAH (critical access hospital), UC (uncompensated care), DGME (direct graduate medical education). Medicare-designated CAHs are limited to 25 beds and primarily operate in rural areas; Medicare pays these hospitals based on their reported costs. Data are for IPPS hospitals in the U.S. (excluding territories) or CAHs with complete cost report data as of the time of our analysis. Components may not sum to totals due to rounding and components with values not shown. The 2020 payment amounts do not include Medicare's share of Provider Relief Fund payments or Paycheck Protection Program forgiven loans provided as part of the public health emergency.

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

- In 2020, Medicare FFS payments for general inpatient services continued to be the largest component of payments to IPPS hospitals, while payments for outpatient services continued to be the largest component of payments to CAHs.
- For both IPPS hospitals and CAHs, the share of total Medicare FFS payments for inpatient services has been slowly declining while the share for outpatient services has been increasing.
- The exact 2020 payments should be interpreted with caution. The decrease in Medicare FFS payments reflects both the decrease in services during the COVID-19 public health emergency and a lower number of hospitals due to cost report filing extensions during the public health emergency.

Chart 6-13. About 15 percent of IPPS payments in 2020 were from adjustments and additional payments

Hospital group	Share of IPPS payments					
	Base PPS	Low income (DSH)	Teaching (IME)	Outliers	Rural and/or isolated	Quality
All IPPS	84.5%	3.2%	6.9%	4.7%	1.3%	–0.8%
Metropolitan (urban)	84.6	3.3	7.2	4.9	0.6	–0.8
Micropolitan	84.2	2.4	2.4	2.3	9.1	–0.5
Other rural	79.9	2.4	0.6	1.3	16.4	–0.6
For profit	89.7	3.4	4.1	2.9	0.9	–1.2
Nonprofit	84.8	3.0	6.8	4.6	1.2	–0.7
Government	77.4	4.1	10.1	7.0	2.1	–0.9
DSH and teaching	81.1	3.6	10.0	5.4	0.6	–0.9
DSH only	91.2	3.1	0.0	3.2	3.1	–0.8
Teaching only	89.1	0.1*	6.0	4.3	0.6	–0.3
Neither	94.1	0.1*	0.0	2.9	3.2	–0.5
Sole community	79.6	2.3	2.6	2.4	13.4	–0.4
Medicare dependent	82.8	2.0	0.5	1.2	14.2	–0.5
Low volume	78.8	2.1	0.7	1.5	17.1	–0.2

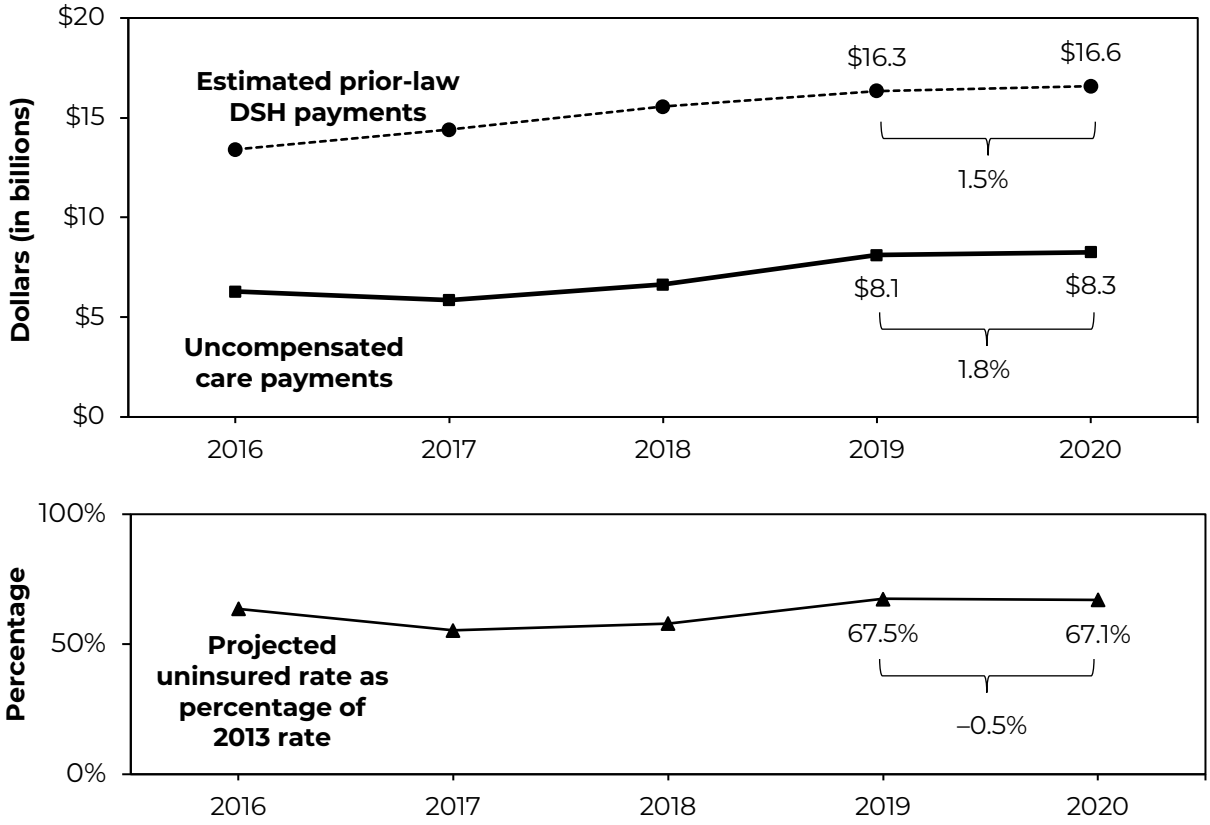
Note: IPPS (inpatient prospective payment systems), DSH (disproportionate share hospital), IME (indirect medical education). Payments are shares of total inpatient operating and capital PPS payments and exclude uncompensated care, direct graduate medical education, Medicare Advantage IME, and other pass-through payments outside of the IPPS. "Rural and/or isolated" includes additional payments to sole community hospitals, Medicare-dependent hospitals, and low-volume hospitals. While sole community and Medicare-dependent hospitals that are paid on their hospital-specific rate do not technically receive any base PPS payments or adjustments, the "Rural and/or isolated" column includes only the amount by which their rate exceeds the otherwise applicable IPPS payments. "Quality" includes payments and penalties from the Value-Based Purchasing Program, Hospital Readmissions Reduction Program, and Hospital-Acquired Conditions Reduction Program. Metropolitan (urban) counties contain an urban cluster of 50,000 or more people; rural micropolitan counties contain a cluster of 10,000 to 50,000 people; all other counties are classified as "other rural." Components may not sum to totals due to rounding and because other types of payments, such as new technology payments, are not included in the table. Data are for IPPS hospitals in the U.S. (excluding territories) with complete cost report data as of the time of our analysis.
* DSH group is defined by receiving inpatient operating DSH payments, while the DSH payments column includes both inpatient operating and capital DSH payments. All urban hospitals with more than 100 beds are eligible for inpatient capital DSH payments.

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

- In 2020, base payments accounted for about 85 percent of IPPS payments to hospitals for inpatient services provided to Medicare fee-for-service beneficiaries, while low-income and teaching adjustments, outlier payments, rural and/or isolated payments, and quality payments and penalties accounted for the remaining 15 percent.

- While the exact 2020 payments should be interpreted with caution due to the public health emergency, the share of IPPS payments for different adjustments was similar to those in 2019, which had more complete data.

Chart 6-14. Medicare's uncompensated care payments to IPPS hospitals increased nearly 2 percent in 2020

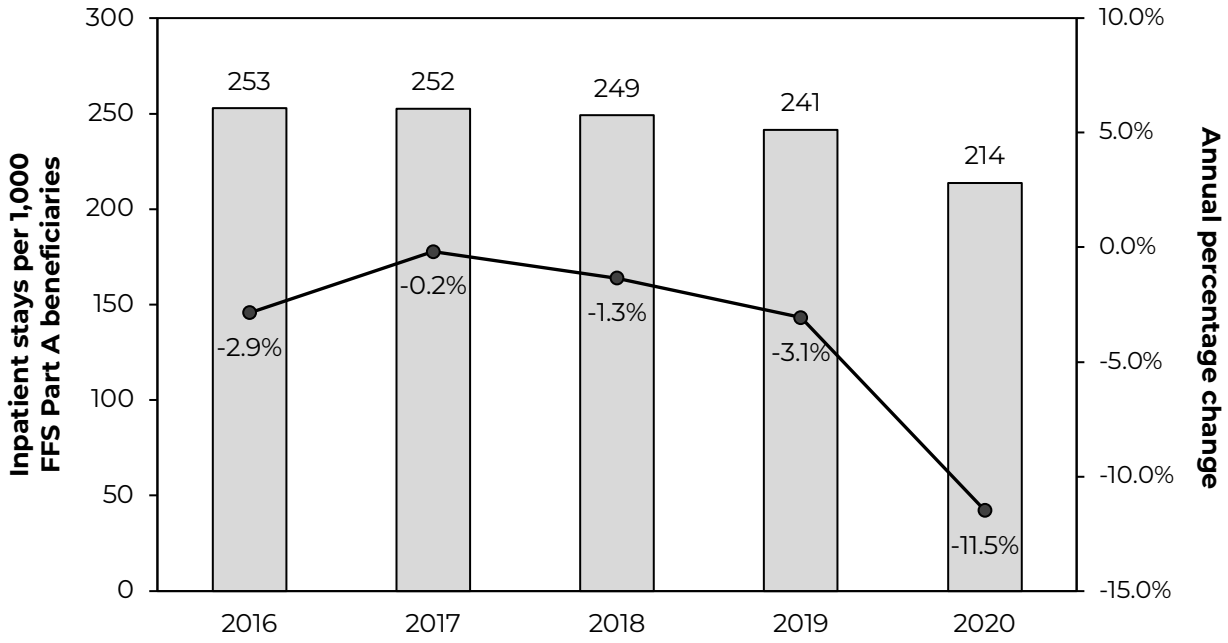


Note: IPPS (inpatient prospective payment systems), DSH (disproportionate share hospital). "Estimated prior-law DSH payments" refers to operating DSH payments only. "Uncompensated care payments" are postsequestration; the 2 percent sequestration of Medicare payments was suspended in May 2020. CMS estimated that from 2019 to 2020, the uninsured rate declined from 9.5 percent to 9.4 percent, equivalent to a change from 67.7 percent to 67.1 percent of the 2013 uninsured rate of 14 percent. There was also a 0.2 percentage point mandatory reduction in 2019, bringing the projected uninsured rate in 2019 down to 67.5 percent.

Source: MedPAC analysis of IPPS final rules.

- In addition to IPPS payments for fee-for-service Medicare beneficiaries' inpatient stays, the Medicare program makes uncompensated care payments to IPPS hospitals to help cover their costs of treating uninsured patients. When the rate of uninsured individuals increases and hospitals have greater losses on uncompensated care, the Medicare program makes higher uncompensated care payments to hospitals.
- In 2020, uncompensated care payments grew 1.8 percent to $8.3 billion. Under current law, the uncompensated care pool is the product of two factors: 75 percent of the estimated DSH payment under prior law and the uninsured rate as a percentage of the rate in 2013. This amount is subject to sequestration (when the sequester is in effect). Thus, the 1.8 percent growth in the 2020 uncompensated care pool was the result of (1) an estimated 1.5 percent increase in what DSH payments would have been under prior law; (2) a projected 0.5 percent decline in the national uninsured rate relative to 2013 (after taking into account the mandatory reduction through 2019); and (3) a 0.8 percent increase from the suspension of Medicare sequestration.

Chart 6-15. Medicare FFS inpatient stays per capita declined more than 11 percent in 2020



Note: FFS (fee-for-service). Data are for short-term acute care hospitals in the U.S. (exclusive of territories). The number of inpatient stays per 1,00 FFS Part A beneficiaries can change from what was previously published when CMS updates its estimates of FFS enrollment.

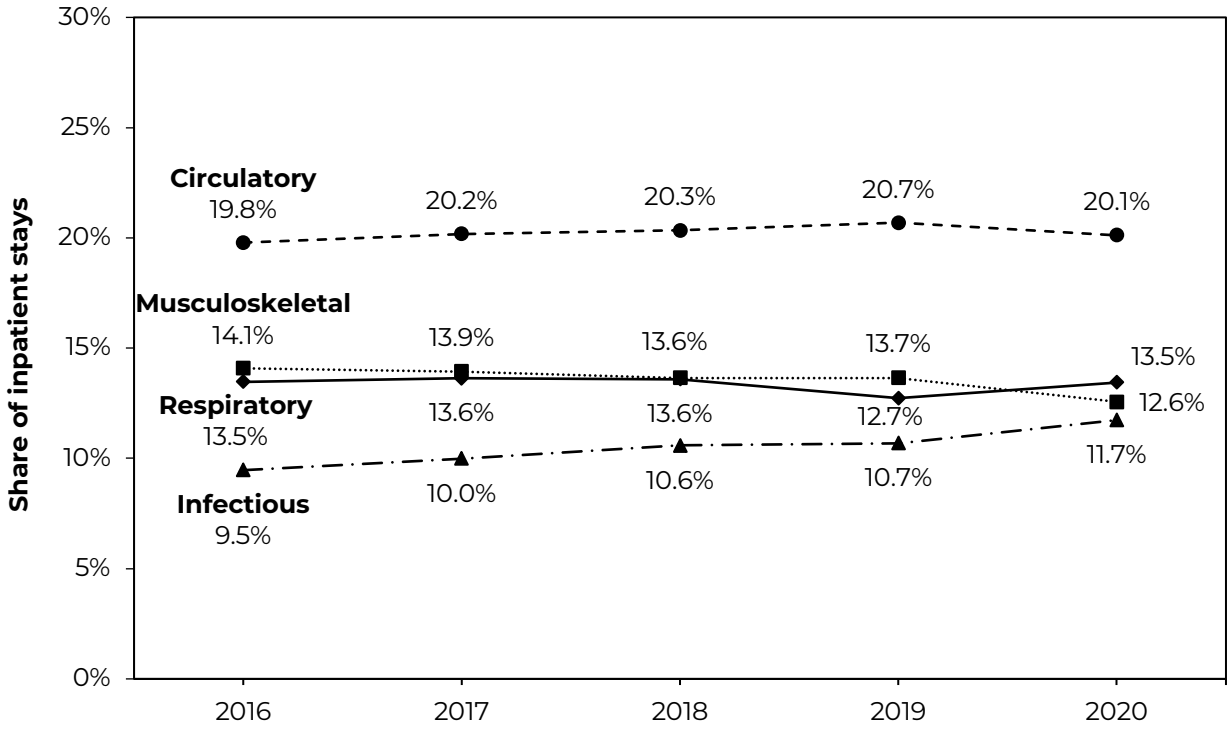
Source: MedPAC analysis of Medicare Provider Analysis and Review data and enrollment data from CMS.

- The number of inpatient stays per 1,000 Medicare FFS beneficiaries decreased from 241 in 2019 to 214 in 2020, an 11.5 percent decline. This decline is slightly larger than the 8.2 percent decline in all-payer inpatient stays per capita, though that difference could reflect differences in reporting hospitals (see Chart 6-4).

- The decrease in Medicare FFS inpatient stays per capita in 2020 was driven by a large drop in spring 2020, followed by a partial rebound as beneficiaries and providers continued to postpone care because of the coronavirus pandemic. For the first five months of fiscal year 2020 (from October 2019 through February 2020), Medicare FFS inpatient stays per capita were slightly below 2019 levels, while average case mix was slightly higher—both consistent with historical trends. However, in March 2020, inpatient volume began to decline, and by April, inpatient stays per capita were 40 percent below the level in 2019. Inpatient volume partially rebounded by summer 2020 but remained about 15 percent below 2019 levels through the end of fiscal years 2020 and 2021, and case mix remained about 6 percent higher than 2019 levels (data not shown).

- The magnitude of the decrease in Medicare FFS inpatient stays per capita varied across types of hospitals. For example, from 2019 to 2020, the number of Medicare FFS inpatient stays per capita fell 11.2 percent at hospitals located in metropolitan (urban) areas, 13.1 percent at those in rural micropolitan areas, and 14.1 percent at those located in other rural areas (data not shown).

Chart 6-16. Four major diagnostic categories accounted for over half of all Medicare FFS inpatient stays at short-term acute care hospitals, 2016–2020



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 from CMS.

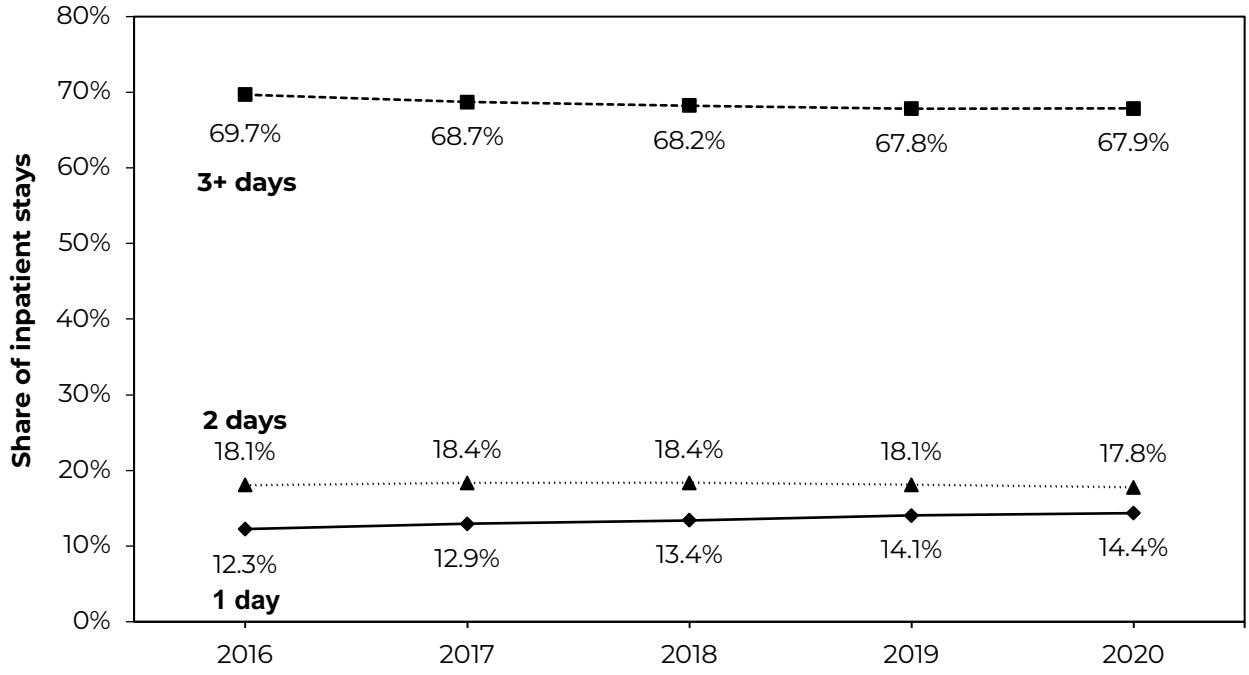
- Over half of all Medicare FFS inpatient stays at short-term acute care hospitals were for beneficiaries with a primary diagnosis in one of four major diagnostic categories: circulatory, musculoskeletal, respiratory, or infectious diseases.

- The most common major diagnostic category of Medicare FFS inpatient stays is diseases of the circulatory system, such as heart failure and cardiac arrhythmia. In each of 2016 through 2020, about 20 percent of Medicare FFS inpatient stays were for circulatory system diseases.

- Of the four most common major diagnostic categories, the one with the largest increase from 2016 to 2020, was infectious and parasitic diseases, such as septicemia. This rise continued a longer-term trend, with the share of Medicare FFS beneficiaries' inpatient stays for infectious diseases doubling since 2010 (data not shown).

- In 2020, the share of Medicare FFS inpatient stays for respiratory conditions increased while the share for musculoskeletal conditions declined, reflecting the increase in COVID-19 stays and delays in nonemergency stays, such as those for hip and knee replacements, during the public health emergency.

Chart 6-17. Share of one-day stays among Medicare FFS beneficiaries at short-term acute care hospitals continued to increase in 2020



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.

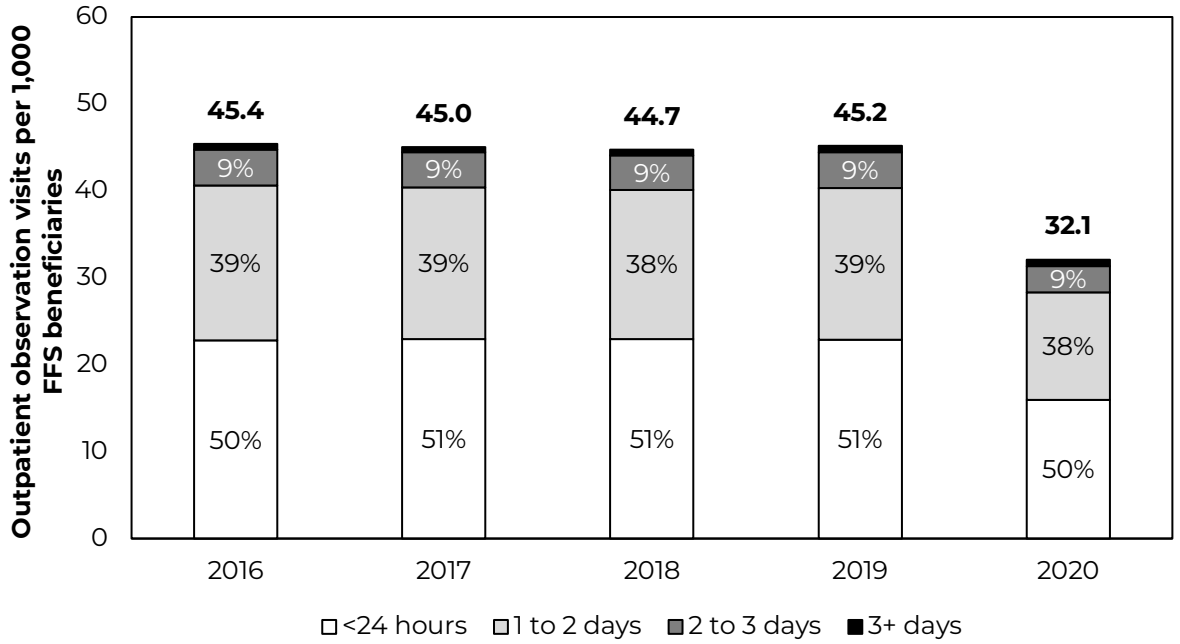
Source: MedPAC analysis of Medicare Provider Analysis and Review data from CMS.

- The share of Medicare FFS beneficiaries' inpatient stays at short-term acute care hospitals that were only one day long steadily increased from 2016 to 2020, up to 14.4 percent, reversing the prior trend of declining one-day stays from 2010 to 2014 (data not shown). 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 would deny payment for one-day stays.

- The share of Medicare FFS beneficiaries' inpatient stays that were three days or longer also slightly increased in 2020, reversing the declining trend from 2016 to 2019. The growth in 2020 was driven by an increase in the share of inpatient stays seven days or longer, which increased from 21.1 percent in 2019 to 22.7 percent in 2020 (data not shown). In contrast, the share of stays of exactly three days declined from 18.5 percent in 2019 to 17.2 percent in 2020, which likely in part reflects the waiver during the public health emergency of the three-day stay requirement for skilled nursing facilities.

- Driven by the increase in longer stays, in 2020 the average length of inpatient stay increased 3.9 percent, to 5.14 days per stay (data not shown).

Chart 6-18. Number of Medicare FFS outpatient observation visits per capita declined 30 percent in 2020



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 observation visits—that is, observation visits that did not result in an inpatient admission—per Medicare FFS Part B beneficiary. Years are calendar years. Components may not sum to 100 percent due to rounding and component values not shown.

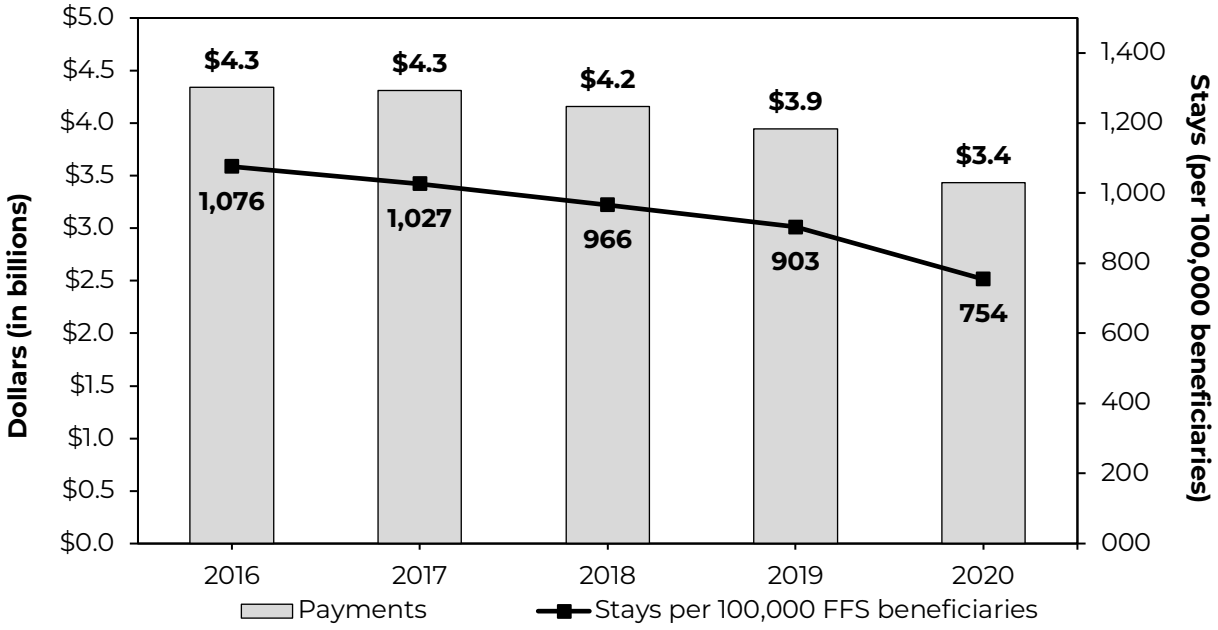
Source: MedPAC analysis of outpatient standard analytical file data from CMS.

- Hospitals sometimes use observation care to determine whether a patient should be hospitalized for inpatient care, transferred to an alternative treatment setting, or sent home.

- The number of Medicare FFS outpatient observation visits per capita remained relatively steady from 2016 to 2019, at about 45 visits per 1,000 beneficiaries. The distribution of observation visits by length of stay also remained steady, with about half longer than 24 hours, including 10 percent that spanned more than 2 days.

- In 2020, the number of Medicare FFS outpatient observation visits per capita declined 30 percent to about 32 visits per 1,000 beneficiaries, though the distribution by length of stay remained similar to prior years. The decline in observation visits in 2020 reflects the COVID-19 public health emergency and is similar to the decline in non-COVID emergency room visits (data not shown).

Chart 6-19. Inpatient psychiatric facility PPS payments and stays continued to decline, with largest decline in FY 2020



Note: PPS (prospective payment system), FY (fiscal year), FFS (fee-for-service). The 2020 payment amounts do not include Medicare's share of Provider Relief Fund payments or Paycheck Protection Program forgiven loans provided as part of the public health emergency.

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

- The Medicare FFS program pays for inpatient psychiatric facility (IPF) services under the IPF PPS.
- From 2016 to 2019, total (Medicare FFS plus beneficiary) payments for IPF PPS services decreased from $4.3 billion to $3.9 billion—equivalent to a 3 percent annual decrease—and inpatient psychiatric stays decreased from 1,076 stays to 903 per 100,000 Medicare FFS beneficiaries—equivalent to a 6 percent annual decrease.
- From 2019 to 2020, the decrease in payments was 13 percent (from $3.9 billion to $3.4 billion) and the decline in stays was 17 percent (from 903 to 754 per 100,000 Medicare FFS beneficiaries). This substantial decrease is likely related to avoidance or deferral of stays due to the COVID-19 public health emergency.

Chart 6-20. The share of freestanding and for-profit Medicare-certified inpatient psychiatric facilities continued to increase, 2016–2020

Type of IPF	2016	2017	2018	2019	2020	Average annual change 2016–2019	Average annual change 2019–2020
All	1,600	1,610	1,590	1,540	1,530	–1.3%	–0.6%
Share of all							
Urban	78%	78%	78%	79%	79%	0.5	0.0
Rural	21	21	20	19	19	–2.4	–0.5
Freestanding	31	33	33	35	36	3.3	2.7
Hospital-based units	69	67	67	65	64	–1.6	–1.5
Nonprofit	46	46	46	45	44	–1.0	–1.8
For profit	32	33	33	34	34	1.8	1.0
Government	22	22	21	21	22	–0.5	2.1

Note: IPF (inpatient psychiatric facility). Data are from facilities that submitted valid Medicare cost reports and had at least one Medicare IPF prospective payment system stay in the given fiscal year. The number of cases presented differs from past reports due to a change in methodology. IPF counts are rounded to the 10s' place. Components and annual changes may not match totals due to rounding.

Source: MedPAC analysis of Medicare Provider of Analysis and Review, Medicare hospital cost reports, and the Provider of Services data from CMS.

- From 2016 to 2020, the number of IPFs nationwide decreased about 1 percent each year, from about 1,600 to 1,530.
- Most IPFs are located in urban areas (nearly 80 percent). The share of IPFs in urban and rural areas remained mostly steady, with a slight shift in the share of IPFs toward urban areas since 2016.
- Most IPFs (64 percent in 2020) are hospital-based units; however, since 2016, the share of freestanding IPFs grew by approximately 3 percent annually while the share of hospital-based IPFs decreased.
- About a third of IPFs are for profit, and the share of for-profit IPFs has been increasing over time by more than 1 percent annually. The shares of freestanding and for-profit IPFs have steadily increased by nearly 5 percent annually in the past five years (data not shown).

Chart 6-21. Growing share of Medicare FFS beneficiaries' stays at IPFs were for schizophrenia, schizotypal, and other psychotic disorders, 2016–2020

MS–DRG/ ICD–10 block	Diagnosis	2016	2019	2020	Average annual change 2016–2019	Average annual change 2019–2020
885	Psychosis	70.9%	73.4%	74.4%	1%	1%
F30–F39	Mood [affective] disorders	38.7	38.6	37.5	0	–3
F20–F29	Schizophrenia, schizotypal, delusion, and other non-mood psychotic disorders	32.3	34.8	36.9	3	6
884	Organic disturbances and mental retardation	6.6	7.0	6.9	2	–2
057	Degenerative nervous system disorders without MCC	6.5	5.5	4.9	–6	–10
897	Alcohol/drug abuse or dependency, no rehabilitation, without MCC	4.6	4.4	4.2	–2	–3
881	Depressive neurosis	4.4	3.2	2.9	–10	–9
895	Alcohol/drug abuse or dependency with rehabilitation, without MCC	1.6	1.6	1.6	0	–2
882	Neurosis except depressive	1.3	1.3	1.3	1	–4
	Other psychiatric MS–DRGs*	3.1	2.8	3.0	–3	7
	Nonpsychiatric MS–DRGs	0.9	0.8	0.8	–5	4
	Total	100.0	100.0	100.0		

Note: FFS (fee-for-service), IPF (inpatient psychiatric facility), MS–DRG (Medicare severity diagnosis related group), ICD–10 (International Classification of Diseases, 10th Revision), MCC (major comorbidity or complication). Totals may not sum to 100 percent due to rounding.
*Other psychiatric MS–DRGs include 056 (degenerative nervous system disorders with MCC), 080 (nontraumatic stupor and coma with MCC), 081 (nontraumatic stupor and coma without MCC), 876 (operating room procedure with principal diagnosis of mental illness), 880 (acute adjustment reaction and psychosocial dysfunction), 883 (disorders of personality and impulse control), 886 (behavioral and developmental disorders), 887 (other mental disorders), 894 (alcohol/drug use—left against medical advice), 896 (alcohol/drug abuse or dependency without rehabilitation, with MCC)

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

- Medicare FFS patients in IPFs are generally assigned 1 of 17 psychiatric MS–DRGs. However, the MS–DRG system does not differentiate well among Medicare beneficiaries in IPFs; in 2020, 96 percent of cases were assigned to seven MS–DRGs and nearly 75 percent of cases were assigned to the psychosis MS–DRG.

- The psychosis MS–DRG is a broad category including patients with principal diagnoses of mood disorders (such as bipolar disorder and major depression) and non-mood psychotic disorders (such as schizophrenia). From 2016 to 2019, the share of patients with non-mood psychotic disorders increased by 3 percent annually. More recently, from 2019 to 2020, corresponding with the start of the COVID-19 public health emergency, this share increased by 6 percent. In contrast, the share of patients with mood disorders did not change prior to 2019 but decreased by 3 percent between 2019 and 2020. Given that the number of overall IPF stays decreased substantially (see Chart 6-19) during this time, it may be that patients with certain diagnoses (such as schizophrenia and psychotic disorders) were less able to avoid or defer IPF use.

Chart 6-22. Medicare FFS beneficiaries using IPFs tended to be disabled, under age 65, low income, and non-White, FY 2020

Characteristic	Share of all IPF users	Share of IPF users with more than one IPF stay in 2020	Share of all FFS beneficiaries
All	100%	27%	—
Current eligibility status and demographics			
Aged	45	31	87
Disabled	55	69	13
ESRD	0.1	0.0	0.2
Female	50	45	53
Male	50	55	47
<45	24	33	3
45–64	31	36	10
65–79	31	24	66
80+	14	7	21
Non-Hispanic White	73	68	78
Black	16	19	9
Asian/Pacific Islander	1	2	3
Hispanic	6	7	6
American Indian/Alaska native	1	1	1
Other or unknown	3	3	3
Urban	80	83	80
Rural	20	17	20
Dual eligible or LIS during year			
No	33	23	82
Yes	67	77	18

Note: FFS (fee-for-service), IPF (inpatient psychiatric facility), FY (fiscal year), ESRD (end-stage renal disease), LIS (low-income subsidy). Components may not sum to totals due to rounding.

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

- Of Medicare FFS beneficiaries who had at least one IPF stay in 2020, 55 percent qualified for Medicare because of a disability, compared with 13 percent across all FFS beneficiaries. Beneficiaries who used IPF care also tended to be younger and poorer.

- Twenty-seven percent of Medicare FFS beneficiaries who used an IPF in 2020 had more than one IPF stay during the year. These beneficiaries were even more likely than all IPF users to be disabled (often because of a psychiatric diagnosis), under age 65, low income, and non-White.

- The shares and patterns were similar for beneficiaries using IPFs in 2019.

SECTION 7

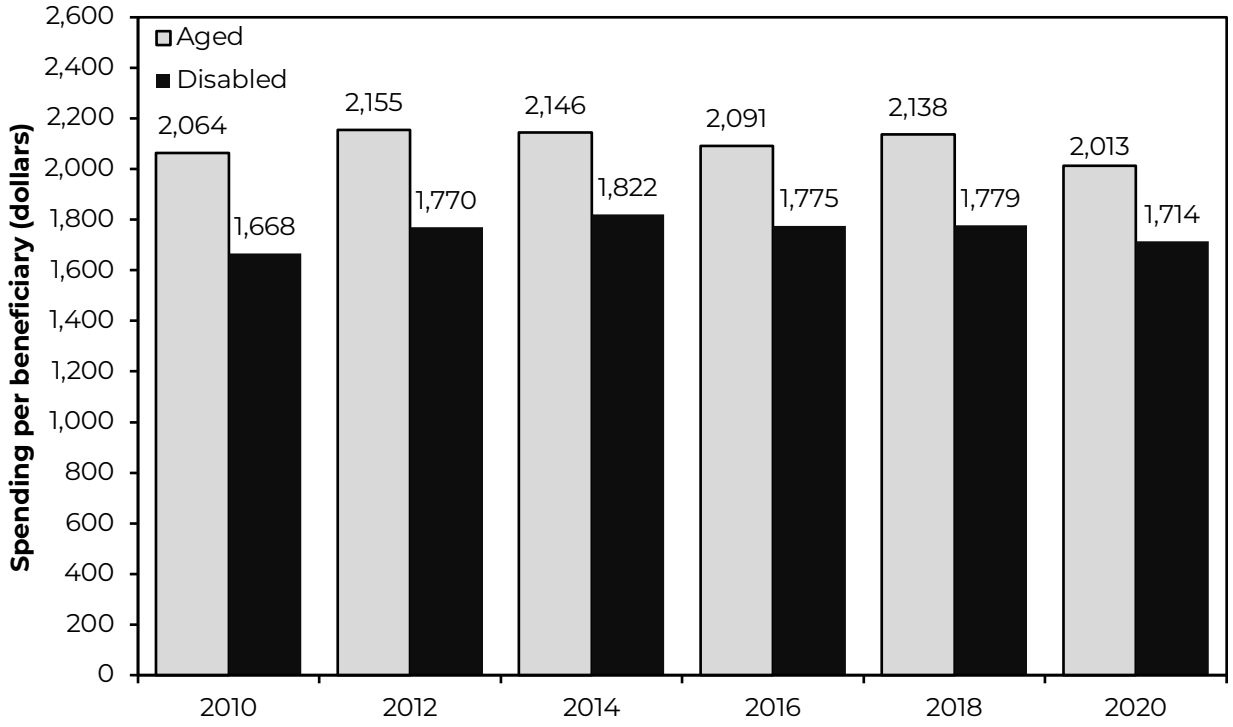
Ambulatory care

Physicians and other health professionals

Hospital outpatient services

Ambulatory surgical centers

Chart 7-1. Medicare spending per fee-for-service beneficiary on services in the physician fee schedule, 2010–2020



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 ages 65 and over are included in the "aged" category.

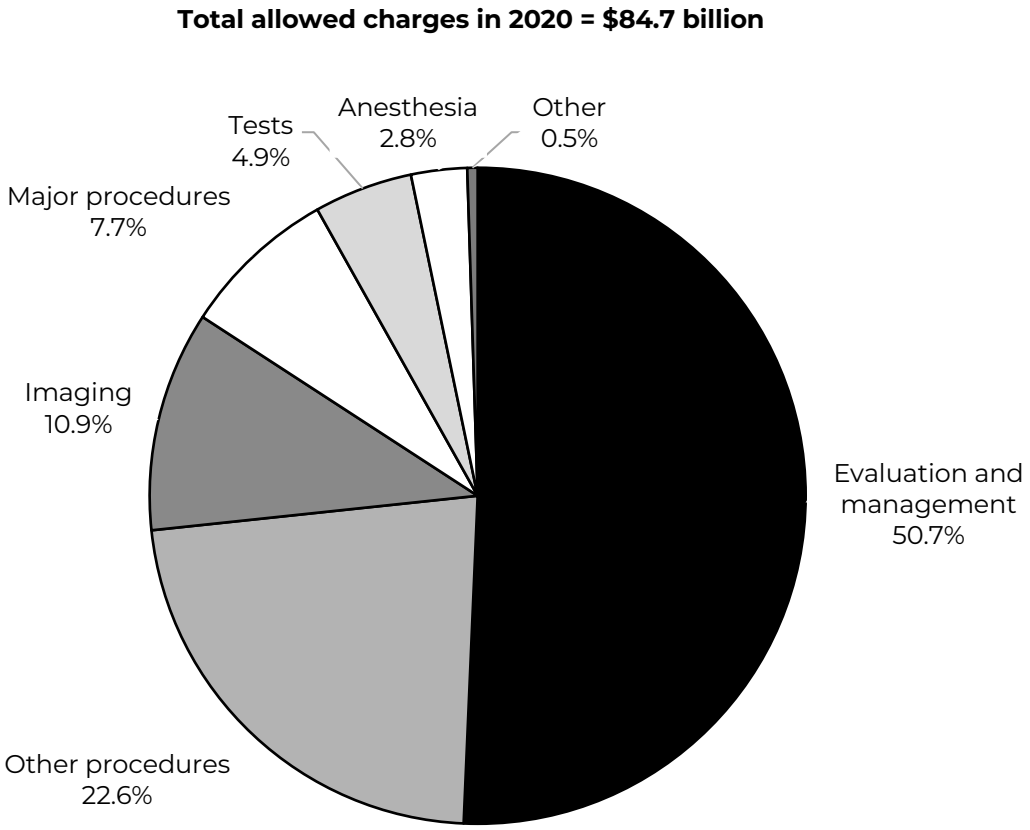
Source: The annual report of the Boards of Trustees of the Medicare trust funds 2021.

- The physician fee schedule includes a broad range of services such as office visits, surgical procedures, and diagnostic and therapeutic services. Total fee schedule spending (excluding beneficiary cost sharing) was $64.8 billion in 2020 (data not shown).

- Spending per fee-for-service beneficiary for fee schedule services increased between 2010 and 2012, remained stable between 2012 and 2018, and declined between 2018 and 2020 due to the effects of the coronavirus pandemic, which began in early 2020. From 2010 to 2020, spending per beneficiary (across aged beneficiaries and those with disabilities) declined by a cumulative rate of 1 percent.

- Per capita spending for beneficiaries with disabilities (under age 65) is lower than per capita spending for aged beneficiaries (ages 65 and over). In 2020, for example, per capita spending for beneficiaries with disabilities was $1,714 compared with $2,013 for aged beneficiaries. However, spending per capita grew faster for beneficiaries with disabilities than aged beneficiaries between 2010 and 2020 (3 percent vs. –2 percent, respectively).

Chart 7-2. Physician fee schedule–allowed charges by type of service, 2020



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

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

- In 2020, allowed charges for physician fee schedule services totaled $84.7 billion. "Allowed charges" includes both program spending and beneficiary cost sharing.
- In 2020, more than 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 provided across a broad range of settings, including hospital inpatient departments, emergency departments, and nursing facilities (data not shown).

Chart 7-3. Total encounters per FFS beneficiary fell in 2020 due to the coronavirus pandemic

	Encounters per beneficiary			Percent change in encounters per beneficiary		
				Average annual		
Specialty category	2015	2019	2020	2015–2019	2019–2020	Total
Total (all clinicians)	21.1	22.3	19.8	1.3%	–11.1%	–6.4%
Primary care physicians	3.8	3.5	3.1	–2.5	–10.9	–19.4
Specialists	12.7	19.9	11.4	0.4	–11.7	–10.1
APRNs/PAs	1.6	2.5	2.4	11.2	–2.7	48.8
Other practitioners	3.0	3.4	2.9	3.3	–15.1	–3.2

Note: FFS (fee-for-service), 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. Components 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 FFS 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 2021 annual report of the Boards of Trustees of the Medicare trust funds.

- "Encounters" are a measure of 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.
- After rising over the 2015 to 2019 period, the overall number of encounters per beneficiary fell 11.1 percent from 2019 to 2020 due to the coronavirus pandemic.
- Encounters with specialist physicians accounted for the majority of all encounters. These encounters increased by an average of 0.4 percent per year between 2015 and 2019, but fell by 11.7 percent from 2019 to 2020.
- Encounters with APRNs and PAs grew rapidly from 2015 to 2020 (48.8 percent), and encounters with primary care physicians declined substantially (–19.4 percent). 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.
- 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. The number of clinicians billing Medicare's physician fee schedule increased and the mix of clinicians changed, 2015–2020

	Number (in thousands)					Number per 1,000 beneficiaries				
	Physicians					Physicians				
Year	Primary care specialties	Other specialties	APRNs and PAs	Other practitioners	Total	Primary care specialties	Other specialties	APRNs and PAs	Other practitioners	Total
2015	141	439	178	161	919	2.8	8.7	3.5	3.2	18.1
2016	141	447	198	166	952	2.7	8.6	3.8	3.2	18.3
2017	140	455	218	172	985	2.6	8.5	4.1	3.2	18.4
2018	139	462	237	178	1,015	2.5	8.4	4.3	3.2	18.6
2019	139	468	258	184	1,048	2.5	8.4	4.6	3.3	18.7
2020	135	468	268	175	1,047	2.4	8.2	4.7	3.1	18.3

Note: APRN (advanced practice registered nurse), PA (physician assistant). "Primary care specialties" includes family medicine, internal medicine, pediatric medicine, and geriatric medicine, with an adjustment to exclude hospitalists. Hospitalists are counted in "other specialties." "Other practitioners" includes clinicians such as physical therapists, psychologists, social workers, and podiatrists. The number of clinicians shown in this table includes only those with a caseload of more than 15 beneficiaries in the year. Beneficiary counts used to calculate clinicians per 1,000 beneficiaries include beneficiaries enrolled in traditional Medicare Part B and those in Medicare Advantage, based on the assumption that clinicians generally furnish services to beneficiaries in both programs. Numbers exclude nonperson providers, such as clinical laboratories and independent diagnostic testing facilities.

Source: MedPAC analysis of Medicare claims data for 100 percent of beneficiaries and 2021 annual report of the Boards of Trustees of the Medicare trust funds.

- From 2015 to 2019, the total number of clinicians billing the fee schedule grew in absolute terms and relative to the size of the overall Medicare population. In 2020, the overall number of clinicians shrank slightly, likely due to the effects of the coronavirus pandemic.

- The total number of clinicians per 1,000 beneficiaries increased from 18.1 to 18.7 before falling to 18.3 in 2020. Although the ratio of clinicians to Medicare beneficiaries decreased in 2020, probably due to the pandemic, the effect on the overall supply of clinicians was relatively small and may be temporary.

- Over the 2015 to 2020 period, the number of primary care physicians billing the fee schedule slowly declined—yielding a net loss of about 6,000 primary care physicians by 2020. Over the same five-year period, the number of APRNs and PAs billing the fee schedule grew rapidly from about 178,000 to 268,000. The number of specialist physicians and other practitioners, such as physical therapists and podiatrists, who billed the fee schedule increased at a steady pace.

Chart 7-5. Medicare beneficiaries' ability to get timely appointments with physicians was comparable with that of privately insured individuals, 2018–2021

	Medicare (ages 65 and older)				Private insurance (ages 50–64)			
Survey question	2018	2019	2020	2021	2018	2019	2020	2021
Unwanted delay in getting an appointment: Among those who needed an appointment in the past 12 months, "How often did you have to wait longer than you wanted to get a doctor's appointment?"								
For routine care								
Never	70%[a]	72%[b]	69%[a]	67%[a]	64%[ab]	74%[b]	73%[ab]	78%[a]
Sometimes	20[ab]	20[b]	22[a]	23[a]	26[ab]	19	20[ab]	17[a]
Usually	5	3[b]	3[b]	5[a]	5[b]	4[b]	4[b]	3[a]
Always	3[a]	3	3	3[a]	4[ab]	3[b]	3[b]	2[a]
For illness or injury								
Never	79[a]	80	79	78[a]	74[ab]	81	80[b]	83[a]
Sometimes	15[a]	14	15	16[a]	19[ab]	15	15	13[a]
Usually	2	2	2	2	3[b]	2	3	2
Always	2	2	2	2	2	1	2	1

Note: Components may not sum to 100 percent because of rounding and because the table excludes the following responses: "Don't Know" and "Refused." Sample sizes for each group (Medicare and private insurance) were approximately 4,000 each year. Sample sizes for individual questions varied. Survey includes beneficiaries enrolled in fee-for-service Medicare or Medicare Advantage and excludes beneficiaries under the age of 65.

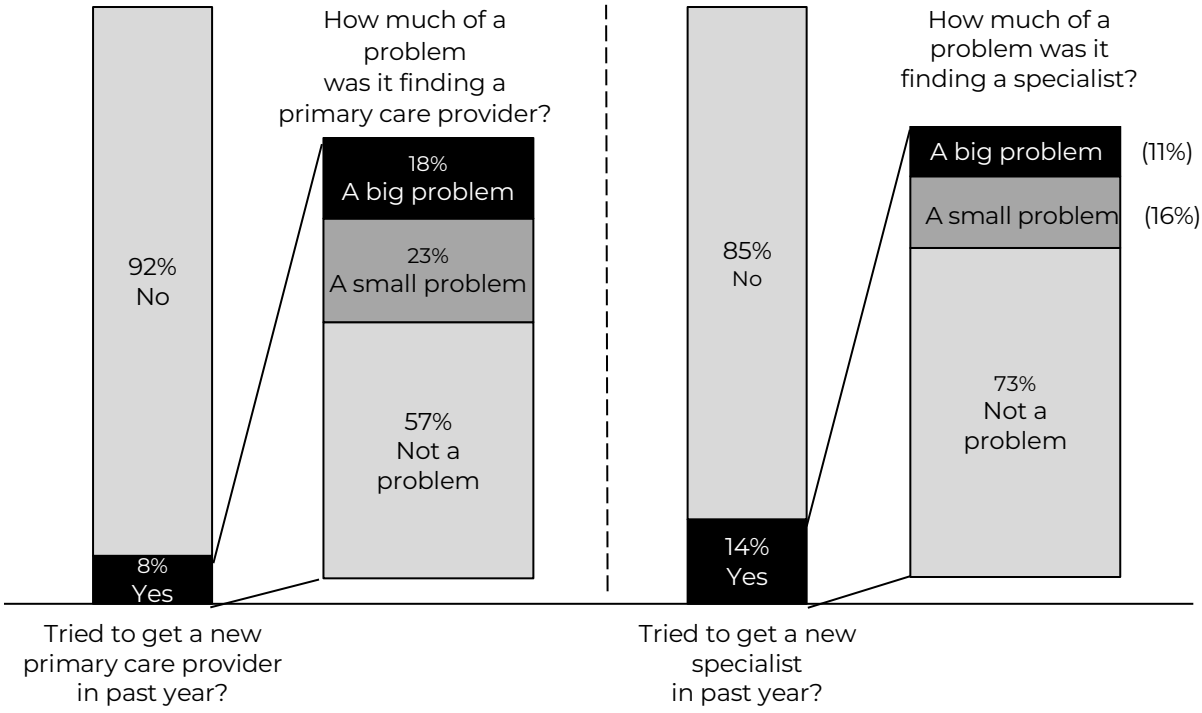
[a] Statistically significant difference between the Medicare and private insurance groups in the given year (at a 95 percent confidence level).

[b] Statistically significant difference from 2021 within the same insurance category (at a 95 percent confidence level).

Source: MedPAC-sponsored annual telephone surveys conducted 2018–2021.

- 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 in our annual survey.
- Before the COVID-19 pandemic, comparable shares of Medicare beneficiaries ages 65 and over and privately insured individuals ages 50 to 64 reported that they never had to wait longer than they wanted to get a doctor's appointment for routine care or for an illness or injury. During the pandemic, Medicare beneficiaries were less likely to report never having to wait for an appointment compared to younger privately insured people, which may reflect decisions by beneficiaries and/or their clinicians to put off nonurgent care during the pandemic given elderly individuals' elevated risk of death from COVID-19.
- Appointment scheduling for illness or injury is consistently better than for routine care appointments, for both Medicare beneficiaries and privately insured individuals, suggesting clinicians prioritize making these more urgent types of appointments available on a timely basis.

Chart 7-6. Medicare beneficiaries had more problems finding a new primary care provider than a new specialist, 2021



Note: Components may not sum to 100 percent because the figure does not show the share of respondents who said they didn't know or refused to answer. Overall sample size for Medicare beneficiaries was approximately 4,000. Survey includes beneficiaries enrolled in traditional fee-for-service Medicare or Medicare Advantage.

Source: MedPAC's annual access-to-care telephone survey conducted In 2021.

- In 2021, only 8 percent of Medicare beneficiaries reported looking for a new primary care provider. This finding suggests that most beneficiaries were satisfied with their current provider and did not need to look for a new one.
- In 2021, among Medicare beneficiaries looking for a new clinician, beneficiaries were more likely to report problems finding a new primary care provider than a new specialist.
- Of the 8 percent of Medicare beneficiaries who looked for a new primary care provider in 2021, 23 percent reported a "big problem" finding a new one, and another 18 percent reported a "small problem" finding a new one. Although this finding means that only 3 percent of the total Medicare population reported problems finding a new primary care provider, the Commission is concerned about the continuing pattern of greater problems accessing primary care than specialty care. We have observed this trend in our annual survey for many years, among both Medicare beneficiaries and privately insured people (data not shown).

Chart 7-7. More Black beneficiaries waited longer than they wanted for appointments compared with White beneficiaries, 2021

	Medicare (ages 65 and older)			Private insurance (ages 50–64)		
Survey question	White	Black	Hispanic	White	Black	Hispanic
Unwanted delay in getting an appointment: Among those who needed an appointment in the past 12 months, "How often did you have to wait longer than you wanted to get a doctor's appointment?"						
For routine care						
Never	69%[ab]	57%[b]	60%[ab]	82%[ab]	66%[b]	72%[ab]
Sometimes	23[a]	27	24	14[ab]	27[b]	22[b]
Usually	4[a]	6	5	2[a]	3	4
Always	2[b]	6[ab]	7[ab]	1	2[a]	1[a]
For illness or injury						
Never	80[ab]	68[ab]	77	85[ab]	78[ab]	80
Sometimes	16[ab]	23[b]	16	12[ab]	18[b]	14
Usually	2	3[b]	0[ab]	1[b]	3	3[ab]
Always	2[b]	4[ab]	4[b]	1	1[a]	1

Note: Components may not sum to 100 percent because of rounding and because the table excludes the following responses: "Don't Know" and "Refused." "White" refers to non-Hispanic White respondents. "Black" refers to non-Hispanic Black respondents. "Hispanic" refers to Hispanic respondents of any race. The small size of our survey prevents us from breaking out results for other races. Sample sizes for each insurance group (Medicare and private insurance) were approximately 4,000 in 2021. Sample sizes for individual questions varied. Survey includes beneficiaries enrolled in fee-for-service Medicare or Medicare Advantage and excludes beneficiaries under the age of 65.

[a] Statistically significant difference between the Medicare and private insurance groups (at a 95 percent confidence level).

[b] Statistically significant difference by race/ethnicity within the same insurance category (at a 95 percent confidence level).

Source: MedPAC-sponsored telephone survey conducted in 2021.

- In 2021, White respondents were more likely than Black respondents to report that they never had to wait longer than they wanted to get an appointment for an illness or injury.
- White respondents were more likely than Black or Hispanic respondents to report that they never had to wait longer than they wanted to get an appointment for routine care.
- These trends were observed both for Medicare beneficiaries and for privately insured individuals.

Chart 7-8. There were few statistically significant differences in the shares of White, Black, and Hispanic beneficiaries who reported problems finding a new primary care provider or specialist, 2021

	Medicare (ages 65 and older)			Private insurance (ages 50–64)		
Survey question	White	Black	Hispanic	White	Black	Hispanic
Looking for a new provider: "In the past 12 months, have you tried to get a new …?"						
Primary care provider	7%	9%	11%	6%	6%	6%
Specialist	14[a]	12	16	10[a]	9	11
Getting a new provider: Among those who tried to get an appointment with a new provider, "How much of a problem was it finding a primary care provider/specialist who would treat you? Was it … ?"						
Primary care provider						
No problem	56	71	56	58	73[b]	37[b]
(Share overall)	*4*	*6*	*6[a]*	*4*	*4*	*2[a]*
Small problem	25	12	24	26	22	32
(Share overall)	*2*	*1*	*2*	*2*	*1*	*2*
Big problem	17	17	20	16	5	30
(Share overall)	*1*	*2*	*2*	*1*	*0*	*2*
Specialist						
No problem	73	70	79	74	87	76
(Share overall)	*10[a]*	*9*	*13*	*8[a]*	*8*	*8*
Small problem	15	4	18	17	7	20
(Share overall)	*2*	*0[b]*	*3[b]*	*2*	*1*	*2*
Big problem	11[b]	26[ab]	3[b]	9	6[a]	4
(Share overall)	*1[b]*	*3[ab]*	*0[b]*	*1*	*1[a]*	*0*

Note: Totals may not sum to 100 percent because of rounding and because the table excludes the following responses: "Don't Know" and "Refused." "White" refers to non-Hispanic White respondents. "Black" refers to non-Hispanic Black respondents. "Hispanic" refers to Hispanic respondents of any race. The small size of our survey prevents us from breaking out results for other races. Sample sizes for each insurance group (Medicare and private insurance) were approximately 4,000 in 2021. Sample sizes for individual questions varied. Survey includes beneficiaries enrolled in fee-for-service Medicare or Medicare Advantage and excludes beneficiaries under the age of 65. "Share overall" refers to the share of total insurance group, by race.

[a] Statistically significant difference between the Medicare and private insurance groups (at a 95 percent confidence level).

[b] Statistically significant difference by race/ethnicity within the same insurance category (at a 95 percent confidence level).

Source: MedPAC-sponsored telephone survey conducted in 2021.

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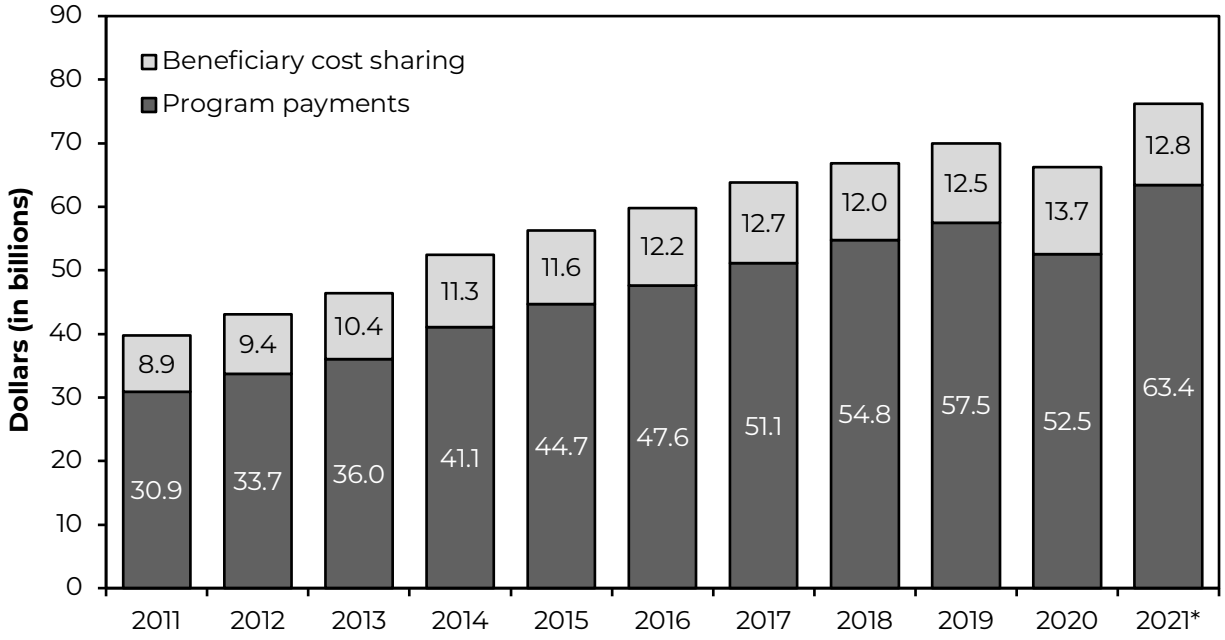
Chart 7-8. There were few statistically significant differences in the shares of White, Black, and Hispanic beneficiaries who reported problems finding a new primary care provider or specialist, 2021 (continued)

- In 2021, our survey found no statistically significant differences in the shares of Medicare beneficiaries of different races and ethnicities who tried to find a new primary care provider or a new specialist in the past year.

- Our survey also found no statistically significant differences in shares of Medicare beneficiaries of different races and ethnicities who reported problems finding a new primary care provider.

- There were no statistically significant differences in the shares of Medicare beneficiaries of different races and ethnicities who reported a problem finding a new specialist. However, among those who did report a problem, Black beneficiaries were more likely than other groups to report having a “big problem” (as opposed to a “small problem”).

Chart 7-9. Spending on hospital outpatient services covered under the outpatient PPS, 2011–2021



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 $76.2 billion in 2021 ($63.4 billion in program spending, $12.8 billion in beneficiary copayments). We estimate that the outpatient PPS accounted for about 7 percent of total Medicare program spending in 2021 (data not shown).
- From calendar year 2011 to 2021, overall spending by Medicare and beneficiaries on hospital outpatient services covered under the outpatient PPS increased by 91 percent, an average of 6.7 percent per year. The Office of the Actuary projects continued growth in total spending, averaging 8.0 percent per year from 2021 to 2023 (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 17 percent in 2021 (data not shown).

Chart 7-10. Most hospitals provide outpatient services

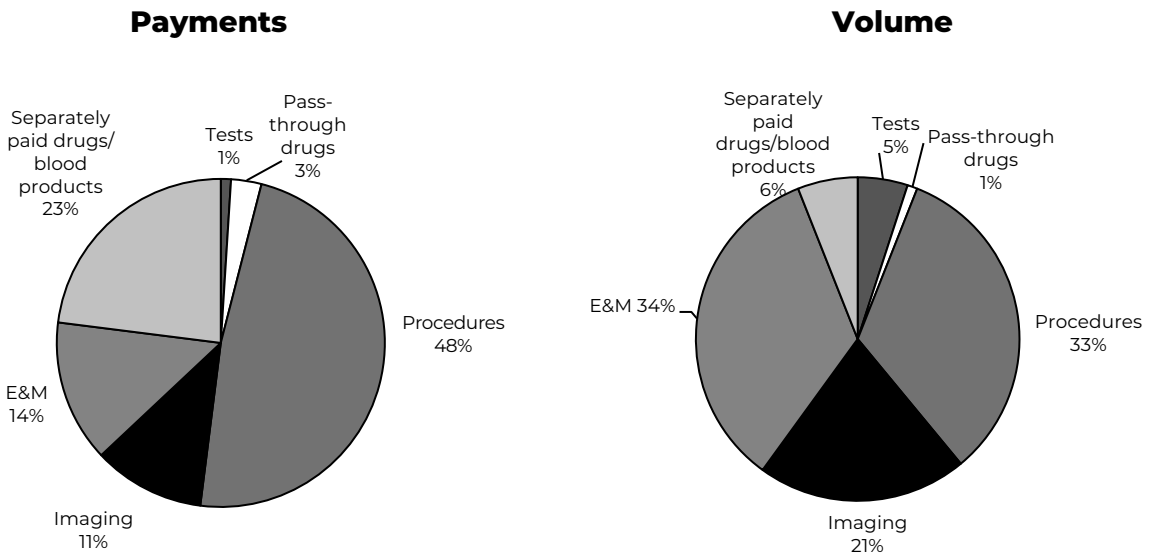
Year	Acute care hospitals	Share offering		
		Outpatient services	Outpatient surgery	Emergency services
2008	3,607	94%	87%	N/A
2010	3,518	95	90	N/A
2012	3,483	95	91	93%
2014	3,429	96	92	93
2016	3,370	96	93	93
2018	3,301	96	93	90
2020	3,194	96	93	91
2021	3,189	96	93	91

Note: N/A (not applicable). We list emergency services for 2008 and 2010 as "N/A" because the data source we used in this chart changed the variable for identifying hospitals' provision of emergency services. 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 declined slowly from 3,607 in 2008 to 3,189 in 2021.
- 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, 2020



Note: PPS (prospective payment system), E&M (evaluation and management). "Payments" includes 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 components in neither figure sum to 100 percent due to rounding. The share for each type of service changed substantially from the shares reported in the 2021 data book because we changed how we calculate the volume for the drug categories. For the 2021 data book, we calculated the volume in the drug categories as the sum of the number of units for each drug. In this chart, we calculated the volume in the drug categories as the sum of the number of times each drug was administered.

Source: MedPAC analysis of standard analytic file of outpatient claims for 2020.

- 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 2020, procedures accounted for 48 percent of payments but only 33 percent of volume.

- Procedures (e.g., endoscopies, surgeries, and skin and musculoskeletal procedures) accounted for the greatest share of payments for services (48 percent) in 2020, followed by separately paid drugs and blood products (23 percent), E&M services (14 percent), and imaging services (11 percent). The share attributable to E&M services dropped from the 2019 level (19 percent, data not shown) because clinic and emergency department visits decreased sharply as patients responded to the coronavirus pandemic.

Chart 7-12. Hospital outpatient services with the highest Medicare expenditures, 2020

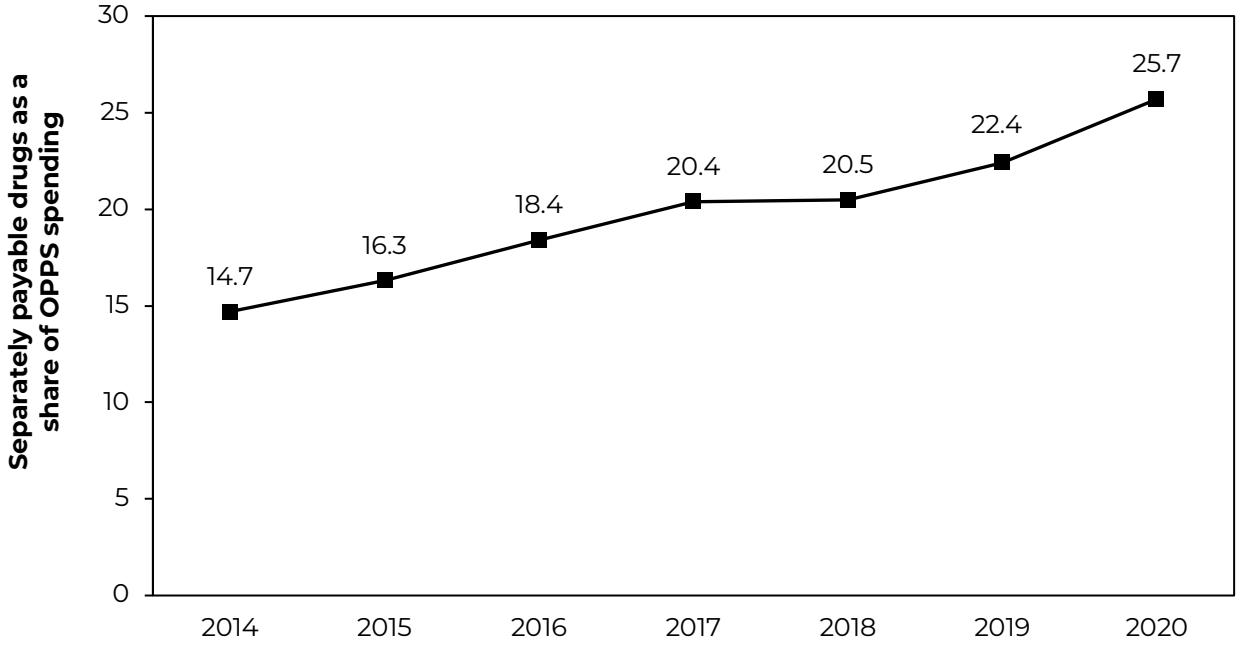
APC title	Share of Medicare expenditures	Volume (thousands)	Payment rate
Total	49%		
All emergency visits	5	9,442	$343
Level 5 musculoskeletal procedures	5	255	11,901
Clinic visits	4	24,385	116
Comprehensive observation services	4	1,012	2,204
Level 3 electrophysiologic procedures	2	68	20,435
Level 3 endovascular procedures	2	134	9,908
Level 4 musculoskeletal procedures	2	185	5,982
Level 2 ICD and similar procedures	2	33	32,283
Level 3 drug administration	2	5,341	184
Level 3 radiation therapy	2	1,786	539
Level 2 imaging with contrast	1	2,085	382
Level 1 endovascular procedures	1	276	2,850
Level 1 laparoscopy and related procedures	1	164	4,834
Level 4 drug administration	1	2,476	310
Level 4 endovascular procedures	1	50	15,940
Level 4 imaging without contrast	1	1,552	482
Level 2 imaging without contrast	1	6,604	112
Level 3 nuclear medicine and related services	1	564	1,272
Level 3 pacemaker and similar procedures	1	65	10,252
Level 2 lower GI procedures	1	740	1,004
Level 3 imaging without contrast	1	2,760	233
Level 1 intraocular procedures	1	305	2,022
Level 4 intraocular procedures	1	404	1,443
Level 5 urology and related services	1	136	4,232
Level 2 laparoscopy and related procedures	1	69	8,413
Level 3 vascular procedures	1	201	2,771
Level 1 imaging without contrast	1	6,842	80
Level 1 upper GI procedures	1	768	786
Average APC		626	$410

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 28 APC categories do not add to the total share of payments (49 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 2020.

- 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, 2014–2020



Note: OPPS (outpatient prospective payment system).

Source: MedPAC analysis of hospital outpatient standard analytic claims files from 2014 through 2020.

- The OPPS packages the cost of most drugs into the payment for the related services. However, the OPPS 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 large share of OPPS spending, increasing from 14.7 percent in 2014 to 25.7 percent in 2020.

- The share of OPPS spending attributable to separately payable drugs increased each year from 2014 to 2020, but the increase was relatively small from 2017 to 2018. The small increase during that period 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 OPPS spending in 2018 and 24.8 percent in 2019.

Chart 7-14. Number of Medicare-certified ASCs increased by 11 percent, 2014–2020

	2014	2015	2016	2017	2018	2019	2020
Medicare payments (billions of dollars)	$3.8	$4.1	$4.3	$4.6	$4.9	$5.2	$4.9
New centers (during year)	189	170	171	217	236	240	174
Closed or merged centers (during year)	123	110	101	102	111	91	55
Net total number of centers (end of year)	5,292	5,352	5,422	5,537	5,662	5,811	5,930
Net percent growth in number of centers	1.3%	1.1%	1.3%	2.1%	2.3%	2.6%	2.0%
Share of all centers that are:							
For profit	95	95	95	95	95	95	95
Nonprofit	4	4	4	4	4	4	4
Government	2	2	1	1	1	1	1
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 differ from Chart 7-14 in our 2021 data book because CMS updated the Provider of Services file. Some components may not sum to 100 percent due to rounding.

Source: MedPAC analysis of Provider of Services file from CMS 2021. 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 2014 through 2020 (data not shown). Payments per FFS beneficiary served in an ASC grew by 6.5 percent per year during this period. From 2019 to 2020, total payments per FFS beneficiary dropped by 3.9 percent, and payments per beneficiary grew by 10.2 percent (per beneficiary data not shown).

- The number of Medicare-certified ASCs grew at an average annual rate of 1.9 percent from 2014 through 2020. In this same period, an annual average of 200 new facilities entered the market, while an average of 99 closed or merged with other facilities.

Chart 7-15. Between 35 and 74 low-value services were provided per 100 FFS beneficiaries in 2019; Medicare spent between $2.5 billion and $7.3 billion on these services

	Broader version of measure			Narrower version of measure		
Measure	Count per 100 beneficiaries	Share of beneficiaries affected	Spending (millions)	Count per 100 beneficiaries	Share of beneficiaries affected	Spending (millions)
Imaging for nonspecific low back pain	13.2	9.6%	$280	3.7	3.3%	$78
PSA screening at age > 75 years	9.0	6.1	87	5.1	4.2	49
Spinal injection for low back pain	7.2	3.8	1,509	3.2	1.9	674
Colon cancer screening for older adults	6.9	6.6	437	0.2	0.2	3
PTH testing in early CKD	6.0	3.6	122	5.0	3.1	102
Carotid artery disease screening in asymptomatic adults	4.9	4.5	284	3.9	3.6	226
T3 level testing for patients with hypothyroidism	4.7	2.7	31	4.7	2.7	31
Preoperative chest radiography	3.9	3.6	63	0.9	0.9	15
Head imaging for uncomplicated headache	3.9	3.5	284	2.4	2.2	176
Stress testing for stable coronary disease	3.9	3.7	1,183	0.4	0.4	139
Cervical cancer screening at age > 65 years	1.6	1.6	37	1.5	1.5	33
Head imaging for syncope	1.2	1.2	89	0.7	0.7	55
Homocysteine testing in cardiovascular disease	1.2	1.0	11	0.2	0.2	2
Preoperative echocardiography	1.0	0.9	85	0.3	0.3	26
Preoperative stress testing	0.7	0.6	201	0.2	0.2	62
CT for uncomplicated rhinosinusitis	0.6	0.6	48	0.3	0.3	20
Imaging for plantar fasciitis	0.5	0.5	11	0.3	0.3	4
Screening for carotid artery disease for syncope	0.5	0.5	30	0.4	0.4	22
BMD testing at frequent intervals	0.5	0.5	12	0.3	0.3	8
Vitamin D testing in absence of hypercalcemia or decreased kidney function	0.4	0.4	7	0.4	0.4	7
Cancer screening for patients with CKD on dialysis	0.4	0.3	11	0.1	0.1	2
PCI/stenting for stable coronary disease	0.3	0.3	1,545	0.1	0.1	271
Arthroscopic surgery for knee osteoarthritis	0.2	0.2	183	0.03	0.03	32
Preoperative PFT	0.2	0.2	2	0.1	0.1	1
Vertebroplasty/kyphoplasty for osteoporotic vertebral fractures	0.2	0.2	359	0.2	0.2	351
Hypercoagulability testing after DVT	0.2	0.1	6	0.1	0.1	2
IVC filter to prevent pulmonary embolism	0.1	0.1	20	0.1	0.1	20
Renal artery angioplasty/stenting	0.1	0.1	182	0.02	0.02	43
EEG for headache	0.1	0.1	4	0.03	0.03	2
Carotid endarterectomy for asymptomatic patients	0.1	0.1	147	0.02	0.02	60
Pulmonary artery catheterization in ICU	0.01	0.01	0.2	0.01	0.01	0.2
Total	73.7	37.4	7,371	34.9	22.6	2,549

(Chart continued next page)

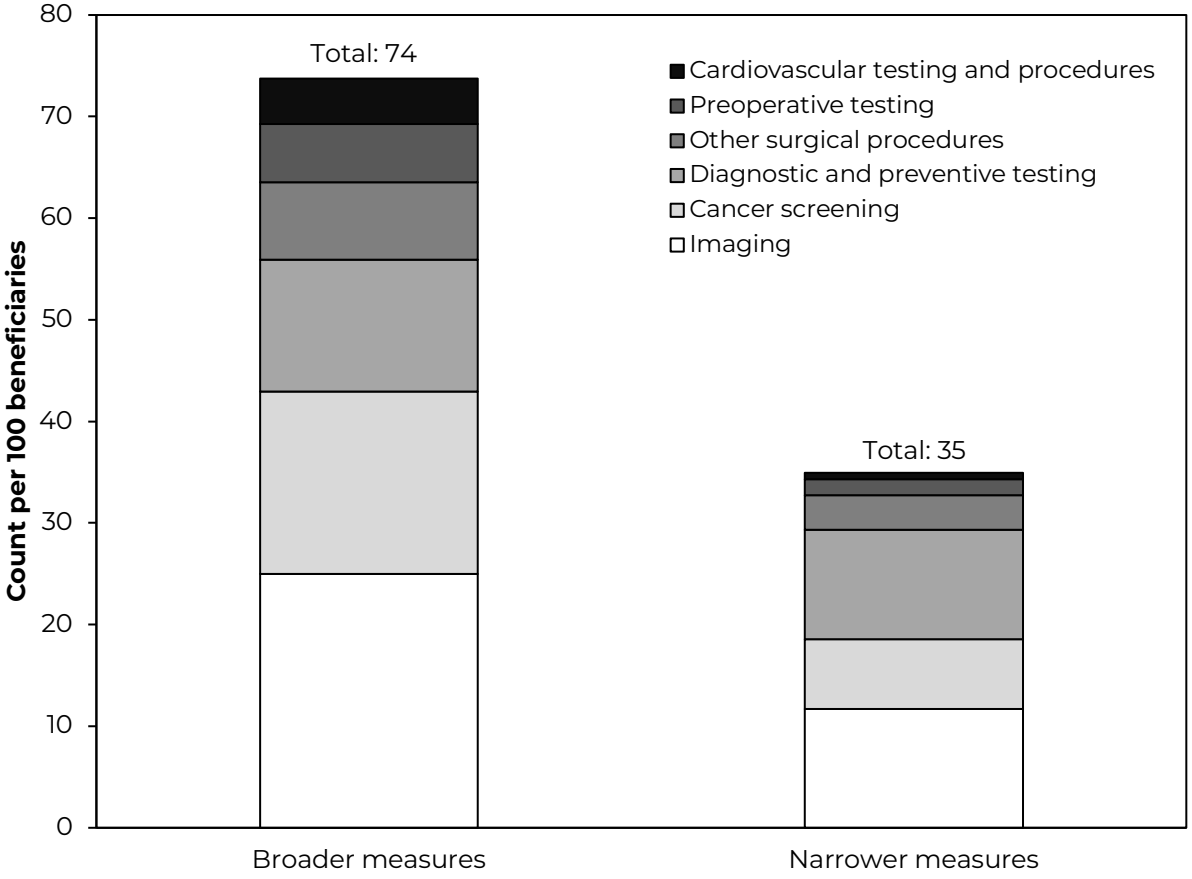
Chart 7-15. Between 35 and 74 low-value services were provided per 100 FFS beneficiaries in 2019; Medicare spent between $2.5 billion and $7.3 billion on these services (continued)

Note: FFS (fee-for-service), PSA (prostate-specific antigen), PTH (parathyroid hormone), CKD (chronic kidney disease), CT (computed tomography), BMD (bone mineral density), PCI (percutaneous coronary intervention), PFT (pulmonary function test), DVT (deep vein thrombosis), IVC (inferior vena cava), EEG (electroencephalography), ICU (intensive care unit). "Count" refers to the number of unique services. Components may not sum to totals due to rounding. The total for "share of beneficiaries affected" does not equal the column sum because some beneficiaries received services covered by multiple measures. "Spending" includes Medicare Part A and Part B program spending and beneficiary cost sharing for services detected by measures of low-value care. Spending is based on a standardized price for each service from 2009 that was updated to 2019. The broad and narrow versions of the measures for T3 level testing for patients with hypothyroidism and IVC filter to prevent pulmonary embolism are the same.

Source: MedPAC analysis of 100 percent of Medicare claims using measures developed by Schwartz and colleagues (Schwartz, A. L., M. E. Chernew, B. E. Landon, et al. 2015. Changes in low-value services in year 1 of the Medicare Pioneer Accountable Care Organization Program. *JAMA Internal Medicine* 175: 1815–1825; Schwartz, A. L., B. E. Landon, A. G. Elshaug, et al. 2014. Measuring low-value care in Medicare. *JAMA Internal Medicine* 174: 1067–1076).

- Low-value care is the provision of a service that has little or no clinical benefit or care in which the risk of harm from the service outweighs its potential benefit.
- The 31 measures of low-value care in this chart were developed by a team of researchers. The measures are drawn from evidence-based lists—such as Choosing Wisely—and the medical literature. We applied these measures to 100 percent of Medicare claims data from 2019. These 31 measures do not represent *all* instances of low-value care; the actual number (and corresponding spending) may be much higher.
- The researchers developed two versions of each measure: a broader version (more sensitive, less specific) and a narrower version (less sensitive, more specific). Increasing the sensitivity of a measure captures more potentially inappropriate use but is also more likely to misclassify some appropriate use as inappropriate. Increasing a measure's specificity leads to less misclassification of appropriate use as inappropriate at the expense of potentially missing some instances of inappropriate use.
- Based on the broader versions of the measures, our analysis found about 74 instances of low-value care per 100 beneficiaries in 2019, with about 37 percent of beneficiaries receiving at least 1 low-value service that year. Medicare spending for these services was $7.3 billion. Based on the narrower versions of the measures, our analysis showed about 35 instances of low-value care per 100 beneficiaries, with almost 23 percent of beneficiaries receiving at least 1 low-value service. Medicare spending for these services totaled about $2.5 billion.

Chart 7-16. Imaging, cancer screening, and diagnostic and preventive testing accounted for most of the volume of low-value care in 2019

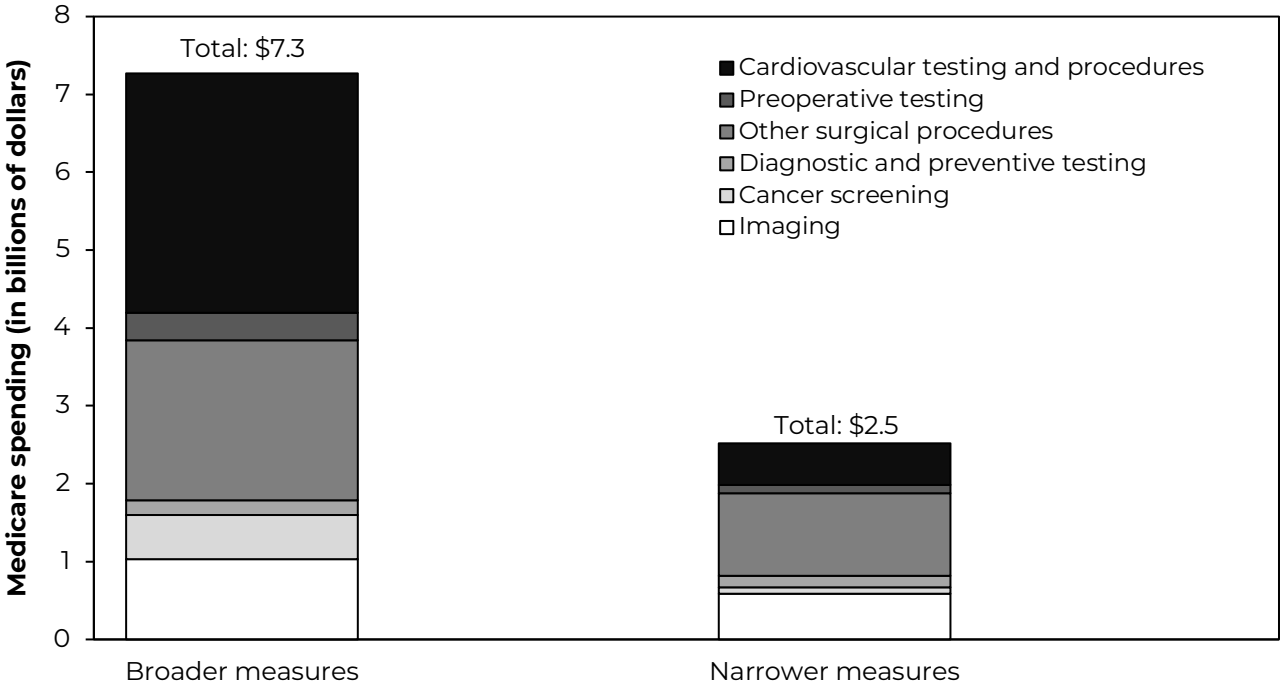


Note: "Count" refers to the number of unique services provided to fee-for-service Medicare beneficiaries.

Source: MedPAC analysis of 100 percent of Medicare claims using measures developed by Schwartz and colleagues (Schwartz, A. L., M. E. Chernew, B. E. Landon, et al. 2015. Changes in low-value services in year 1 of the Medicare Pioneer Accountable Care Organization Program. *JAMA Internal Medicine* 175: 1815–1825; Schwartz, A. L., B. E. Landon, A. G. Elshaug, et al. 2014. Measuring low-value care in Medicare. *JAMA Internal Medicine* 174: 1067–1076).

- We assigned each of the 31 measures of low-value care from Chart 7-15 to 1 of 6 clinical categories.
- Imaging and cancer screening accounted for 58 percent of the volume of low-value care per 100 beneficiaries using the broader versions of the measures. The "imaging" category includes back imaging for patients with nonspecific low back pain and screening for carotid artery disease in asymptomatic adults. The "cancer screening" category includes prostate-specific antigen testing for men ages 75 or older and colorectal cancer screening for older adults.
- Using the narrower versions of the measures, imaging and diagnostic and preventive testing accounted for 64 percent of the volume of low-value care per 100 beneficiaries.

Chart 7-17. Cardiovascular testing and procedures, other surgical procedures, and imaging accounted for most spending on low-value care in 2019



Note: "Spending" includes Medicare Part A and Part B program spending and beneficiary cost sharing for services detected by measures of low-value care. To estimate spending, we used standardized prices to adjust for regional differences in payment rates. The standardized price is the median payment amount per service in 2009, adjusted for the increase in payment rates between 2009 and 2019. This method was developed by Schwartz et al. (2014).

Source: MedPAC analysis of 100 percent of Medicare claims using measures developed by Schwartz and colleagues (Schwartz, A. L., M. E. Chernew, B. E. Landon, et al. 2015. Changes in low-value services in year 1 of the Medicare Pioneer Accountable Care Organization Program. *JAMA Internal Medicine* 175: 1815–1825; Schwartz, A. L., B. E. Landon, A. G. Elshaug, et al. 2014. Measuring low-value care in Medicare. *JAMA Internal Medicine* 174: 1067–1076).

- Cardiovascular testing and procedures and other surgical procedures accounted for 71 percent of total spending on low-value care using the broader measures. Other surgical procedures and imaging made up nearly two-thirds of spending on low-value care using the narrower measures.
- The "cardiovascular testing and procedures" category includes stress testing for stable coronary disease and percutaneous coronary intervention with balloon angioplasty or stent placement for stable coronary disease. The "other surgical procedures" category includes spinal injection for low back pain and arthroscopic surgery for knee osteoarthritis. The "imaging" category includes back imaging for patients with nonspecific low back pain and screening for carotid artery disease in asymptomatic adults.
- The spending estimates probably understate actual spending on low-value care because they do not include the cost of downstream services (e.g., follow-up tests and procedures) that may result from the initial low-value service. Also, we are not capturing *all* low-value care through these 31 measures.

SECTION 8

Post-acute care

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

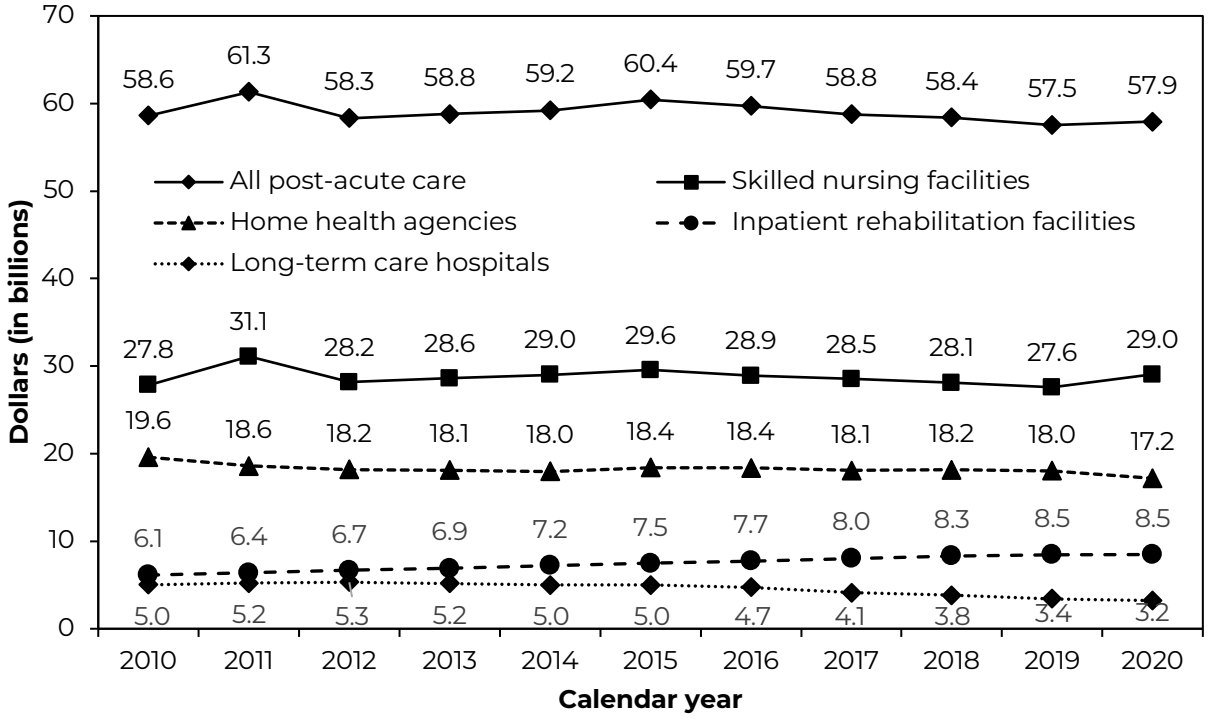
Chart 8-1. The number of post-acute care providers decreased slightly in 2021

	2017	2018	2019	2020	2021	Average annual percent change 2017–2021	Percent change 2020–2021
Home health agencies	11,963	11,699	11,569	11,565	11,474	–1.0	–0.8
Inpatient rehabilitation facilities	1,178	1,170	1,152	1,159	1,181	0.1	1.9
Long-term care hospitals	411	386	371	351	345	–4.3	–1.7
Skilled nursing facilities	15,377	15,350	15,297	15,159	15,086	–0.5	–0.5

Source: MedPAC analysis of active provider counts from CMS Survey and Certification's Quality, Certification, and Oversight reports (skilled nursing facilities and home health agencies) and CMS Provider of Services files (inpatient rehabilitation facilities and long-term care hospitals).

- The number of home health agencies has been declining since 2013 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.
- After declining for several years, the total number of inpatient rehabilitation facilities (IRFs) increased from 1,152 IRFs in 2019 to 1,159 IRFs in 2020. In 2021, the number of IRFs increased again to 1,181 IRFs. 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 decline became more rapid after the implementation of a dual payment-rate system that reduced payments for certain Medicare discharges from LTCHs beginning in fiscal year 2016.
- The total number of skilled nursing facilities rose between 2016 and 2017, then decreased less than 1 percent per year between 2017 and 2021.

Chart 8-2. Medicare fee-for-service spending for post-acute care was relatively stable from 2010 to 2020



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

Source: CMS Office of the Actuary 2022.

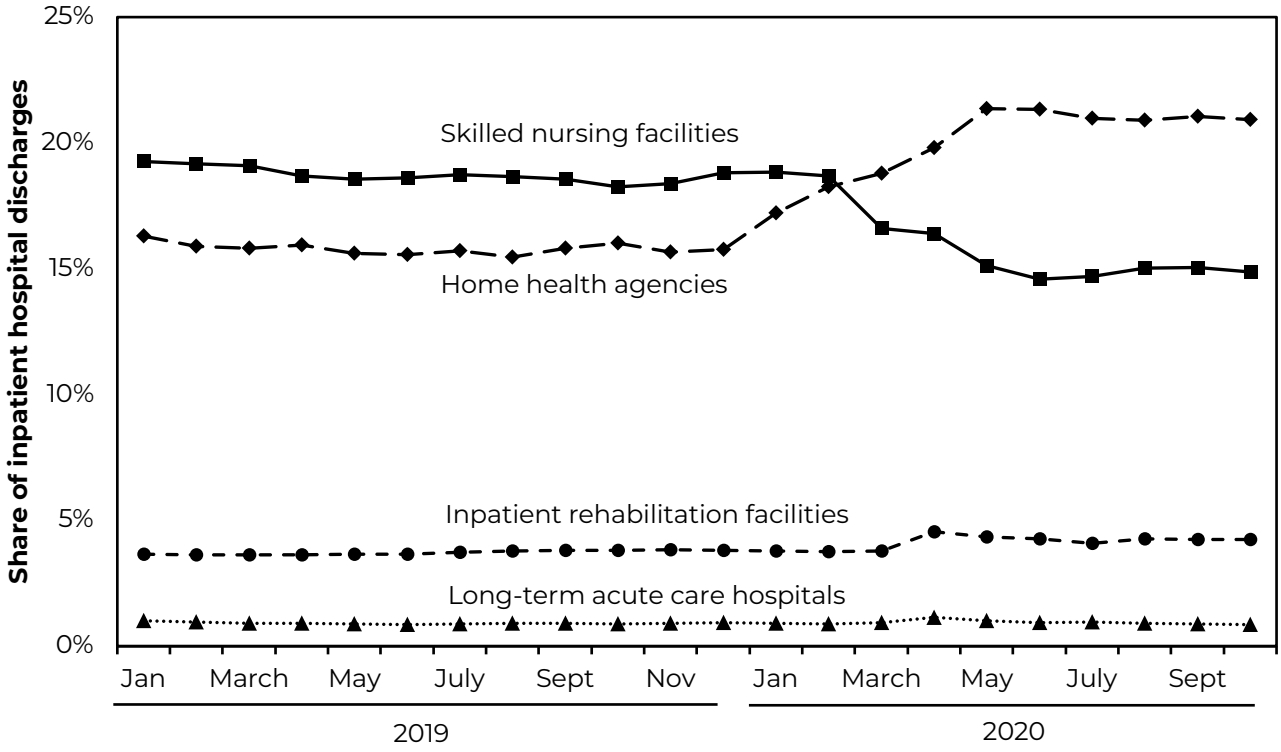
- Aggregate fee-for-service (FFS) spending on post-acute care (PAC) has remained stable since 2010, in part because of expanded enrollment in managed care under Medicare Advantage (Medicare Advantage spending is not included in this chart). However, spending growth has varied by PAC sector. In 2020, the COVID-19 public health emergency had varying effects on each sector. Spending for skilled nursing facility (SNF) care increased, declined for home health care and long-term care hospitals, and was steady for inpatient rehabilitation facility (IRF) care.

- FFS spending on SNFs increased in 2020 due to the implementation of the new case-mix system, the pandemic-related policy that waived the prior hospital stay requirement (thus enabling SNFs to "skill in place" nursing home residents who required higher-skilled services), higher case-mix indexes, longer stays, and the temporary suspension of the sequester that otherwise would have lowered payment rates.

- FFS spending on IRFs has increased steadily over the past decade. In all, spending on IRFs increased 38 percent between 2010 and 2019.

- FFS spending on long-term care hospitals (LTCHs) decreased by about 32 percent from 2015 and 2019, largely due to the implementation of the dual payment-rate system that reduced payments for certain LTCH cases.

Chart 8-3. Use of skilled nursing facilities and home health agencies after an inpatient hospital stay shifted in 2020



Note: This chart shows where beneficiaries received post-acute care (PAC) after a hospitalization. PAC use for beneficiaries admitted from the community is not included.

Source: MedPAC analysis of Medicare Provider Analysis and Review files and the home health standard analytic file.

- About 39 percent of inpatient hospital discharges in both 2019 and 2020 were followed by services at a skilled nursing facility (SNF), home health agency, inpatient rehabilitation facility, or long-term acute care hospital (data not shown). Use of PAC after hospital discharge varied depending on the condition or treatment a patient received while hospitalized. For example, in 2019 the share of hospital discharges using PAC was 47 percent for postsurgical patients compared with 36 percent for patients who received mostly medical services during their inpatient stay (data not shown).

- In 2019, SNF care was the most common type of PAC, used after 18.7 percent of inpatient discharges. Home health care was the second most frequent type of PAC, used after 15.8 percent of inpatient discharges.

- In March 2020, at the onset of the COVID-19 public health emergency, the share of inpatient hospital discharges referred to SNFs declined to 16.6 percent and by October 2020 had reached 14.9 percent. By contrast, the share receiving home health care services increased to 20.9 percent. The shift to home health care reflected the pandemic-related effects experienced by nursing homes and the reluctance of beneficiaries to use them. The share of inpatient hospital discharges referred to inpatient rehabilitation facilities also increased slightly in April 2020.

Chart 8-4. Freestanding SNFs and for-profit SNFs accounted for the majority of facilities, Medicare stays, and Medicare spending in 2020

Type of SNF	Facilities	Medicare-covered stays	Medicare FFS payments (billions)
Totals	13,884	1,722,219	$24.7
Freestanding	96%	97%	97%
Hospital based	4	3	3
Urban	73	83	84
Rural	27	17	16
For profit	71	74	78
Nonprofit	24	23	20
Government	5	3	3

Note: SNF (skilled nursing facility), FFS (fee-for-service). 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 Survey and Certification's Quality, Certification, and Oversight reports. Components may not sum to 100 percent due to rounding.

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

- In 2020, freestanding facilities accounted for 97 percent of Medicare-covered SNF stays and 97 percent of Medicare's payments to SNFs.
- Urban facilities accounted for 73 percent of facilities, 83 percent of stays, and 84 percent of Medicare payments in 2020.
- In 2020, for-profit facilities accounted for 71 percent of facilities but higher shares of stays (74 percent) and Medicare payments (78 percent). The shares of stays and payments increased from 2019, when for-profit facilities accounted for 71 percent of all stays and 75 percent of Medicare FFS payments (data not shown).

Chart 8-5. SNF admissions continued to decline in 2020

Volume measure	2014	2016	2018	2019	2020	Percent change 2019–2020
Covered admissions per 1,000 FFS beneficiaries	68.3	65.9	62.5	59.5	54.8	–7.9%
Covered days per 1,000 FFS beneficiaries	1,843	1,693	1,559	1,475	1,453	–1.5
Covered days per admission	27.0	25.7	25.0	24.8	26.5	6.9

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, 2021.

- SNF use for all beneficiaries has been declining for years, reflecting expanded enrollment in Medicare Advantage (MA) and more entities participating in alternative payment models (APMs) such as accountable care organizations and bundled payment demonstrations. MA plans and participants in APMs have financial incentives to shift post-acute care to home health services when possible and to shorten lengths of stays in SNFs.

- Reflecting the continued expansion of beneficiaries enrolling in MA, in 2020, 3.3 percent of beneficiaries enrolled in FFS Medicare used SNF services, down from 4 percent in 2019 (data not shown).

- Between 2019 and 2020, covered SNF admissions per 1,000 FFS beneficiaries decreased 7.9 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). It also reflects a decline in SNF use during the coronavirus public health emergency.

- During the same period, covered days per admission declined at a slower 1.5 percent because stays were longer.

Chart 8-6. Freestanding SNF Medicare margins remained high in 2020

	2012	2014	2016	2018	2019	2020
All	14.1%	12.8%	11.6%	10.9%	11.9%	16.5%
Rural	13.3	10.8	9.7	8.6	10.2	18.4
Urban	14.2	13.1	11.9	11.2	12.2	16.1
Nonprofit	5.7	4.3	2.6	0.8	1.4	0.6
For profit	16.3	15.1	14.1	13.7	15.0	20.0

Note: SNF (skilled nursing facility).

Source: MedPAC analysis of freestanding SNF cost reports 2012–2020.

- The aggregate Medicare margin for freestanding SNFs in 2020 exceeded 10 percent for the 21st consecutive year (not all years are shown). The aggregate Medicare margin was 16.5 percent in 2020, a sizable increase from 2019. Had we considered an allocated share of the additional federal relief funds providers received due to the coronavirus pandemic, we estimate the aggregate margin would be even higher, at 19.2 percent.

- The aggregate Medicare margin increased in 2020 because SNFs kept their cost growth below the payment rate increase and, on the payment side, providers received augmented payments from the new case-mix system and the suspension of the sequester that otherwise would have lowered payment rates.

- Aggregate Medicare margins (excluding the federal relief funds) varied widely across freestanding SNFs. One-quarter of SNFs had Medicare margins that were 28.7 percent or higher; one-quarter had margins that were 4 percent or lower (data not shown). On average, rural facilities had higher Medicare margins than urban facilities, and for-profit SNFs had considerably higher Medicare margins than nonprofit SNFs, reflecting their larger size and lower cost growth.

- High-margin SNFs had lower costs per day (43 percent lower costs than low-margin SNFs), after adjusting for wage and case-mix differences, and higher payments per day (10 percent) (data not shown).

- In 2020, the average total margin (the margin across all payers and all lines of business) for freestanding facilities was 3.0 percent, up from 0.6 percent in 2019 (data not shown).

Chart 8-7. SNF quality measures were stable or improving between 2015 and 2019; 2020 rates reflect conditions unique to the coronavirus PHE

Measure	2015	2017	2019	Average annual change 2015–2019	2020	Average annual change 2019–2020
Successful discharge to the community						
All SNFs	43.9%	44.4%	44.8%	0.5%	38.6%	–13.8%
For profit	43.0	43.6	43.7	0.4	42.5	–2.7
Nonprofit	47.2	47.6	48.0	0.4	37.6	–21.7
Freestanding	43.4	44.0	44.4	0.6	38.2	–14.0
Hospital based	52.9	53.8	53.6	0.3	48.2	–10.1
Hospitalizations						
All SNFs	15.1	14.4	13.7	–2.4	14.2	3.6
For profit	15.7	14.9	14.2	–2.5	14.7	3.5
Nonprofit	13.3	12.9	12.3	–1.9	12.6	2.4
Freestanding	15.3	14.6	13.8	–2.5	14.3	3.6
Hospital based	10.6	10.2	10.0	–1.4	10.4	4.0

Note: SNF (skilled nursing facility), PHE (public health emergency). "Successful discharge to the community" includes beneficiaries discharged to the community (including those discharged to the same nursing home they were in before) who did not have an unplanned hospitalization or die in the 30 days after discharge. The hospitalization measure captures all unplanned hospital admissions, readmissions, and outpatient observation stays that occurred during the SNF stay. Both measures are uniformly defined and risk adjusted across SNFs, home health agencies, inpatient rehabilitation facilities, and long-term care hospitals. Providers with at least 60 stays in the year were included in calculating the average facility rate. The "All SNFs" category includes the performance of government-owned SNFs, which are not displayed separately in the table. The average annual changes were calculated using unrounded annual rates.

Source: MedPAC analysis of SNF claims and linked inpatient hospital stays, 2015 through 2020, for fee-for-service beneficiaries.

- While we report 2020 results for quality measures we track, these data reflect conditions unique to the PHE that confound our measurement and assessment of trends in 2020. For example, increased mortality due to COVID-19 infection and capacity constraints of acute care hospitals likely affected outcomes. In addition, the Commission's quality metrics rely on risk-adjustment models that use performance from previous years to predict beneficiary risk; COVID-19, a new diagnosis, is not included in the current models. As a result, our models may not adequately represent the acuity and mix of patients receiving care in 2020. Therefore, we report the changes we have observed in the quality measures but do not draw conclusions about whether quality improved, worsened, or stayed the same in 2020.

Chart 8-8. Trends in home health care use and spending

	2011	2017	2018	2019	Average annual change 2011–2019	2020	Average annual change 2019–2020
Home health users (millions)	3.4	3.4	3.4	3.3	–0.6%	3.1	–7.3%
Share of beneficiaries using home health	9.4%	8.8%	8.7%	8.5%	–1.2%	8.1%	–4.7%
Total payments (in billions)	$18.4	$17.9	$18.0	$17.9	–0.3%	$17.1	–4.7%
Average payment per home health user	$5,348	$5,255	$5,333	$5,437	0.2%	$5,591	2.8%
Average payment per FFS beneficiary	$505	$461	$466	$465	–1.0%	$455	–2.0%

Note: FFS (fee-for-service). Yearly figures presented in the table are rounded, but the percent change columns were calculated using unrounded data.

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

- On an average annual basis between 2011 and 2019, total spending declined by 0.3 percent and the number of users dropped by 0.6 percent.
- In 2020, the use of home health care was disrupted by the COVID-19 public health emergency, and the decline in volume was greater than previous years. Total spending declined by 4.7 percent, and the number of beneficiaries using home health care decreased 7.3 percent. However, the decline in volume in 2020 was concentrated in March and April of that year (data not shown).
- As the number of beneficiaries receiving home health care declined by more than the drop in total spending, the average payment per home health user increased by about 2.8 percent a year in 2020, reaching $5,591. Through most of the 2011 to 2020 period, Medicare implemented a number of policies to reduce or slow the growth of home health payments. However, despite these reductions, the margins of freestanding home health agencies averaged in excess of 15 percent in this period, indicating that payments remain well in excess of costs despite these policies (data not shown; see Chart 8-10 for home health care Medicare margins in 2019 and 2020).

Chart 8-9. Most home health periods are not preceded by hospitalization or PAC stay

	2019	2020
Periods by source of referral		
Preceded by hospital or institutional PAC	25.3%	25.7%
Community admitted	74.7%	74.3%
Periods by timing of 30-day period		
Early	35.0%	31.1%
Late	65.0%	68.9%

Note: PAC (post-acute care). Periods "preceded by hospitalization or institutional PAC" refers to periods 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. "Community admitted" refers to periods for which there was no hospitalization or PAC stay in the previous 15 days. "Early" periods are periods for beneficiaries who have not received any home health care in the prior 60 days; "late" periods are the second or later in a series of consecutive periods. In 2020, CMS implemented a new unit of payment, replacing the 60-day episode in effect in 2019 and prior years with a 30-day period. In this table, 60-day episodes from 2019 have been converted to 30-day periods to facilitate comparison of volume with 2020.

Source: MedPAC analysis of 2020 home health standard analytic file, 2019 home health limited data set.

- Most home health periods are not preceded by a hospitalization or institutional PAC stay, and these periods accounted for about three-quarters of PAC stays in 2019 and 2020.
- Home health periods for beneficiaries who have not received any home health care in the prior 60 days are classified as "early" under the home health payment system. Periods that are the second or later in a series of consecutive periods are classified as "late." The share of late periods increased slightly from 65.0 percent in 2019 to 68.9 percent in 2020.
- The share of periods by timing or source of referral did not change substantially in 2020 compared to the prior year. The mix of cases by clinical payment group (data not shown) also did not change significantly. These relatively unchanged indicators for patient acuity suggest that the types of patients served by home health agencies did not change significantly in 2020, despite Medicare's implementation of significant payment policy changes and the disruptions of the COVID-19 public health emergency that year.

Chart 8-10. Medicare margins for freestanding home health agencies, 2019 and 2020

	2019	2020	Share of agencies 2020
All	15.4%	20.2%	100%
Geography			
Mostly urban	16.1	20.0	87
Mostly rural	14.2	21.6	13
Type of control			
For profit	17.4	22.7	87
Nonprofit	11.4	12.4	13
Volume quintile (lowest to highest)			
First	9.7	11.6	20
Second	11.4	14.0	20
Third	13.3	17.0	20
Fourth	14.1	18.8	20
Fifth	17.5	22.4	20

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

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

- In 2020, freestanding home health agencies (HHAs) (87 percent of all HHAs) had an aggregate margin of 20.2 percent. The 2020 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 2019 averaged 16.2 percent (data not shown), indicating that most agencies have been paid well in excess of their costs under the PPS.

- HHAs that served mostly urban patients in 2020 had an aggregate margin of 20.0 percent; HHAs that served mostly rural patients had an aggregate margin of 21.6 percent. For-profit agencies in 2020 had an average margin of 22.7 percent, while nonprofit agencies had an average margin of 12.4 percent.

- Agencies with higher episode volumes had higher margins. The agencies in the lowest-volume quintile in 2019 had an aggregate margin of 11.6 percent, while those in the highest quintile had an aggregate margin of 22.4 percent.

Chart 8-11. Changes in home health care quality in 2020 likely reflect disruption of COVID-19 public health emergency

Measure	2015	2016	2017	2018	2019	2020
Successful discharge to community	68.3%	69.2%	69.6%	70.4%	72.2%	60.9%
Hospitalization during home health stay	20.6%	20.8%	21.4%	21.5%	21.4%	18.3%

Note: "Successful discharge to the community" includes beneficiaries discharged to the community (including those discharged to the same nursing home) who did not have an unplanned hospitalization or die in the 30 days after discharge. The hospitalization measure captures all unplanned hospital admissions and readmissions and outpatient observation stays that occur during the stay. Both measures are uniformly defined and risk adjusted across the four post-acute care settings. Providers with at least 60 stays in the year (the minimum count to meet a reliability threshold of 0.7) were included in calculating the average facility rate.

Source: MedPAC analysis of Medicare Provider Analysis and Review and home health standard analytic files from CMS.

- Over the five years from 2015 to 2019, the share of patients successfully discharged from home health care to the community rose from 68.3 percent to 72.2 percent (higher rates indicate better performance). Over this period, the share of patients hospitalized while receiving home health care increased slightly from 20.6 percent to 21.4 percent (higher rates indicate worse performance).

- In 2020, the rate of hospitalizations declined slightly, but the share of beneficiaries successfully discharged to the community also declined. While we report 2020 results for these measures, these data reflect conditions unique to the public health emergency that confound our measurement and assessment of trends in 2020. For example, increased mortality due to COVID-19 infection and other changes to the health care delivery system could affect these measures. In addition, the Commission's quality metrics rely on risk-adjustment models that use performance from previous years to predict beneficiary risk; COVID-19, a new diagnosis, is not included in the current models. As a result, our models may not adequately represent the acuity and mix of patients receiving care in 2020. Therefore, we report the changes we have observed in the quality measures but do not draw conclusions about whether quality improved, worsened, or stayed the same in 2020.

Chart 8-12. Number of IRF cases decreased in 2020

	2015	2017	2019	Average annual percent change 2015–2019	2020	Percent change 2019–2020
Number of IRF cases	393,475	396,294	409,059	0.8%	378,756	–7.4%
Cases per 10,000 FFS beneficiaries	103.3	102.0	106.0	0.5	100.9	–5.0
Payment per case	$18,527	$19,481	$20,417	2.0	$21,765	6.6
Average length of stay (in days)	12.7	12.7	12.6	–0.2	12.9	2.0

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

- From 2015 to 2017, the number of FFS IRF cases steadily rose, then jumped to about 409,000 cases in 2019. In 2020, however, the total number of cases fell by 7.4 percent to about 379,000 cases. Controlling for the number of FFS beneficiaries, FFS cases declined by 5 percent in 2020.

- Consistent with the impact of the public health emergency (PHE), the number of IRF cases fell around April 2020 but then began to rise, reaching over 95 percent of prepandemic levels by the end of the fiscal year (data not shown). A large portion of IRF volume comes from patients who are transferred from the acute-care hospital (ACH) setting after surgery. Although the share of ACH cases discharged to IRFs was unaffected in 2020, the drop in volume in April 2020 is consistent with a temporary suspension of elective surgeries in ACHs from March through May 2020. The rebound in volume in summer 2020 may have been the result of the pent-up demand for surgical services after many FFS beneficiaries' surgeries had been canceled or delayed.

- Due to a combination of PHE-related factors, IRFs' overall case-mix index (CMI) increased 11 percent between 2019 and 2020, compared with a 3 percent average decrease in CMI between 2018 and 2019 (data not shown). The increase in the acuity level of IRF patients is one of several factors that contributed to the rise in payments per case and average length of stay. In 2020, payments per case rose by 6.6 percent to almost $22,000 per case, and the average length of stay grew by 2 percent to 12.9 days.

Chart 8-13. Most common types of IRF cases, 2020

Type of case	Share of cases
Stroke	19.1%
Other neurological conditions	14.0
Debility	13.5
Fracture of the lower extremity	11.3
Brain injury	11.2
Other orthopedic conditions	7.4
Cardiac conditions	5.8
Spinal cord injury	4.7
Major joint replacement of lower extremity	2.9
All other	10.2

Note: IRF (inpatient rehabilitation facility). "Other neurological conditions" includes multiple sclerosis, Parkinson's disease, polyneuropathy, and neuromuscular disorders. Patients with debility have generalized deconditioning not attributable to other conditions. "Fracture of the lower extremity" includes hip, pelvis, and femur fractures. "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 fee-for-service 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 2020, the most frequently occurring case type among fee-for-service (FFS) beneficiaries admitted to IRFs was stroke, which accounted for 19.1 percent of Medicare FFS cases.

- Due to the public health emergency, in addition to waiving the 3-hour rule in 2020, CMS waived the "60 percent rule," which requires that at least 60 percent of patients admitted to an IRF have as a primary diagnosis or comorbidity at least 1 of 13 qualifying conditions. The waiver of these rules allowed IRFs to treat a broader mix of patients, including those without a qualifying condition or who were unable to tolerate intensive therapy. Nevertheless, the mix of case types in IRFs remained relatively stable. Between 2019 and 2020, the share of IRF cases with a diagnosis of debility increased from 12.3 percent to 13.5 percent of IRF discharges. The share of cases with lower extremity fracture increased from 10.0 percent to 11.3 percent, while the share of patients with stroke declined from 19.8 percent to 19.1 percent (2019 data not shown).

- The distribution of case types differs by type of IRF (data not shown). For example, in 2020, only 16 percent of cases in freestanding for-profit IRFs were admitted for rehabilitation following a stroke, compared with 24 percent of cases in hospital-based nonprofit IRFs. Likewise, 19 percent of cases in freestanding for-profit IRFs were admitted with other neurological conditions, more than 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.

Chart 8-14. IRF Medicare margins by type of facility, 2015–2020

	2015	2016	2017	2018	2019	2020
All IRFs	13.9%	13.3%	13.9%	14.7%	14.3%	13.5%
Hospital based	2.1	0.9	1.4	2.5	2.1	1.6
Freestanding	26.6	25.9	25.6	25.4	24.7	23.5
Urban	14.3	13.7	14.2	15.0	14.7	13.8
Rural	8.4	9.1	8.3	9.9	8.6	8.9
Nonprofit	3.5	1.8	2.0	2.5	1.5	–0.7
For profit	25.0	24.5	24.3	24.6	24.2	23.7
Number of beds						
1–10	–7.7	–10.1	–10.5	–5.7	–4.2	–6.5
11–24	–0.4	–0.3	0.6	2.1	2.0	2.5
25–64	16.0	15.0	15.7	16.9	16.0	15.0
65+	22.9	22.5	22.0	21.2	20.9	19.3

Note: IRF (inpatient rehabilitation facility).

Source: MedPAC analysis of cost report data from CMS.

- In 2020, the aggregate margin fell slightly from 2019 levels but remained high at 13.5 percent. Had we considered an allocated share of the additional federal relief funds providers received due to the coronavirus pandemic, the aggregate margin would have been 14.9 percent.

- Margins varied by ownership, with for-profit IRFs having substantially higher margins. Medicare margins in freestanding IRFs far exceeded those of hospital-based facilities.

- There was a wide range in Medicare margins for hospital-based IRFs. One-quarter of hospital-based IRFs had Medicare margins greater than 14 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, in 2020, hospitals' aggregate total margins across all lines of service were slightly higher in hospitals with IRF units compared with those without such units (6.5 percent vs. 6.2 percent; data not shown).

- There are also large differences in Medicare margins when comparing the size of IRFs. In 2020, the aggregate Medicare margin for IRFs with 10 or fewer beds was –6.5 percent. In comparison, the Medicare margin for IRFs with 65 or more beds was 19.3 percent. These differences are in large measure due to economies of scale: That is, smaller facilities have higher unit costs.

Chart 8-15. Risk-adjusted quality indicators for IRFs, 2016–2020

Measure	2016	2017	2018	2019	2020
All-condition hospitalizations within an IRF stay	7.7%	7.9%	7.7%	7.8%	7.8%
Successful discharge to community	64.6	64.8	65.1	65.5	67.3

Note: IRF (inpatient rehabilitation facility). The "all-condition hospitalization" measure captures all unplanned hospital admissions and readmissions and outpatient observation stays that occur during the stay. "Successful discharge to the community" includes beneficiaries discharged to the community (including those discharged to the same nursing home) who did not have an unplanned hospitalization or die in the 30 days after discharge. Both measures are uniformly defined and risk adjusted across the four post-acute care settings. Providers with at least 60 stays in the year (the minimum count to meet a reliability of 0.7) were included in calculating the average facility rate. High rates of hospitalizations within a stay indicate worse quality. High rates of successful discharge to the community indicate better quality.

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

- While we report 2020 results for quality measures we track, these data reflect conditions unique to the public health emergency that confound our measurement and assessment of trends in 2020. For example, increased mortality due to COVID-19 infection and capacity constraints of acute care hospitals likely affected outcomes. In addition, the Commission's quality metrics rely on risk-adjustment models that use performance from previous years to predict beneficiary risk; COVID-19, a new diagnosis, is not included in the current models. As a result, our models may not adequately represent the acuity and mix of patients receiving care in 2020. Therefore, we report the changes we have observed in the quality measures but do not draw conclusions about whether quality improved, worsened, or stayed the same in 2020.

- Between 2016 and 2019, the two quality measures we examined held steady or improved.

- In 2020, the national average rate of risk-adjusted all-condition hospitalizations within an IRF stay was 7.8 percent. The national average rate of risk-adjusted successful discharge to community was 67.3 percent in 2020.

Chart 8-16. Ten MS–LTC–DRGs accounted for over half of LTCH discharges in 2020

MS–LTC–DRG	Description	Discharges	Share of cases
189	Pulmonary edema and respiratory failure	15,076	19.4%
207	Respiratory system diagnosis with ventilator support 96+ hours	11,254	14.5
871	Septicemia without ventilator support 96+ hours with MCC	3,965	5.1
177	Respiratory infections and inflammations with MCC	2,869	3.7
208	Respiratory system diagnosis with ventilator support <96 hours	2,393	3.1
166	Other respiratory system OR procedures with MCC	1,903	2.5
949	Aftercare with CC/MCC	1,572	2.0
981	Extensive OR procedure unrelated to principal diagnosis with MCC	1,535	2.0
682	Renal failure with MCC	1,349	1.7
4	Tracheostomy with ventilator support 96+ hours or primary diagnosis except face, mouth, and neck without major OR	1,281	1.7
	Top 10 MS–LTC–DRGs	43,197	55.7
	Total	77,603	100.0

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. Shares for each MS–LTC–DRG presented in the table are rounded, but the sum of the top 10 was calculated using unrounded values.

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 2020, the top 10 MS–LTC–DRGs accounted for over 55 percent of LTCH Medicare cases.

Chart 8-17. LTCH volume fell during the dual payment-rate system transition period (2016–2019), largely due to declining volume of nonqualifying cases

		2019	Average annual percent change 2016–2019	2020	Percent change 2019–2020
Cases	All	91,147	–10.1%	77,603	–14.9%
	Nonqualifying cases	23,160	–24.2	18,702	–19.2
	Qualifying cases	67,987	–2.0	58,901	–13.4
	Share of qualifying cases	75%	8.6	76%	1.8
Cases per 10,000 FFS beneficiaries	All	23.8	–10.1	20.9	–12.4
	Nonqualifying cases	6.1	–24.2	5.0	–16.9
	Qualifying cases	17.8	–2.0	15.8	–10.9
Payment per case	All	$41,448	0.6	$45,634	10.1
	Nonqualifying cases	$25,738	–8.0	$32,401	25.9
	Qualifying cases	$46,800	0.4	$49,835	6.5
Length of stay (in days)	All	26.8	–0.1	27.6	3.0
	Nonqualifying cases	23.3	–2.9	23.8	2.4
	Qualifying cases	28.0	0.1	28.8	2.8

Note: LTCH (long-term care hospital), FFS (fee-for-service). "Qualifying cases" refers to Medicare cases that meet the criteria specified in the Pathway for SGR Reform Act of 2013 for payment under the LTCH prospective payment system. All counts are for stays covered by FFS Medicare and do not include those in private plans.

Source: MedPAC analysis of Medicare Provider Analysis and Review data from CMS and the annual report of the Boards of Trustees of the Medicare trust funds.

- Beginning in fiscal year 2016, only certain LTCH cases qualify for the higher standard LTCH prospective payment system (PPS) rate. Cases that do not meet LTCH-qualifying criteria are paid a lower site-neutral rate—the lower of (1) an amount based on Medicare's inpatient hospital PPS rate or (2) 100 percent of the cost of the case.
- The number of LTCH cases per 10,000 FFS beneficiaries declined, on average, by about 10 percent per year between 2016 and 2019. In contrast, the number of cases meeting the LTCH-qualifying criteria decreased by just 2 percent per year during the same period.
- In 2020, the volume of all LTCH cases fell nearly 15 percent, while the volume of qualifying cases fell 13.4 percent, due, in part, to the overall reduction in upstream acute care volume during the pandemic.
- During the public health emergency (PHE), all cases were paid the higher standard LTCH PPS. As a result of this temporary PHE-related payment change, the average payment per nonqualifying case between 2019 and 2020 increased 26 percent.

Chart 8-18. LTCHs' Medicare aggregate margin had been negative during the phase-in of site-neutral rates for nonqualifying cases but increased in 2020 due to higher Medicare payments

Type of LTCH	Share of discharges in 2020	Medicare margin				
		2016	2017	2018	2019	2020
All	100%	3.9%	–2.2%	–0.5%	–1.6%	3.6
Nonprofit	16	–5.7	–13.0	–11.7	–12.2	–12.7
For profit	76	5.5	–0.3	1.3	0.4	6.3

Note: LTCH (long-term care hospital). Nonprofit and for-profit shares sum to 92 percent of discharges because margins for government-owned facilities are not shown.

Source: MedPAC analysis of cost report data from CMS.

- In fiscal year 2016, CMS began implementing a dual payment-rate system under which LTCH cases not meeting criteria specified in law are paid a lower site-neutral rate—the lower of an amount based on (1) Medicare's inpatient hospital prospective payment system rate or (2) 100 percent of the cost of the case. As a result, the aggregate Medicare margin fell to –2.2 percent in 2017 and remained negative through 2019.

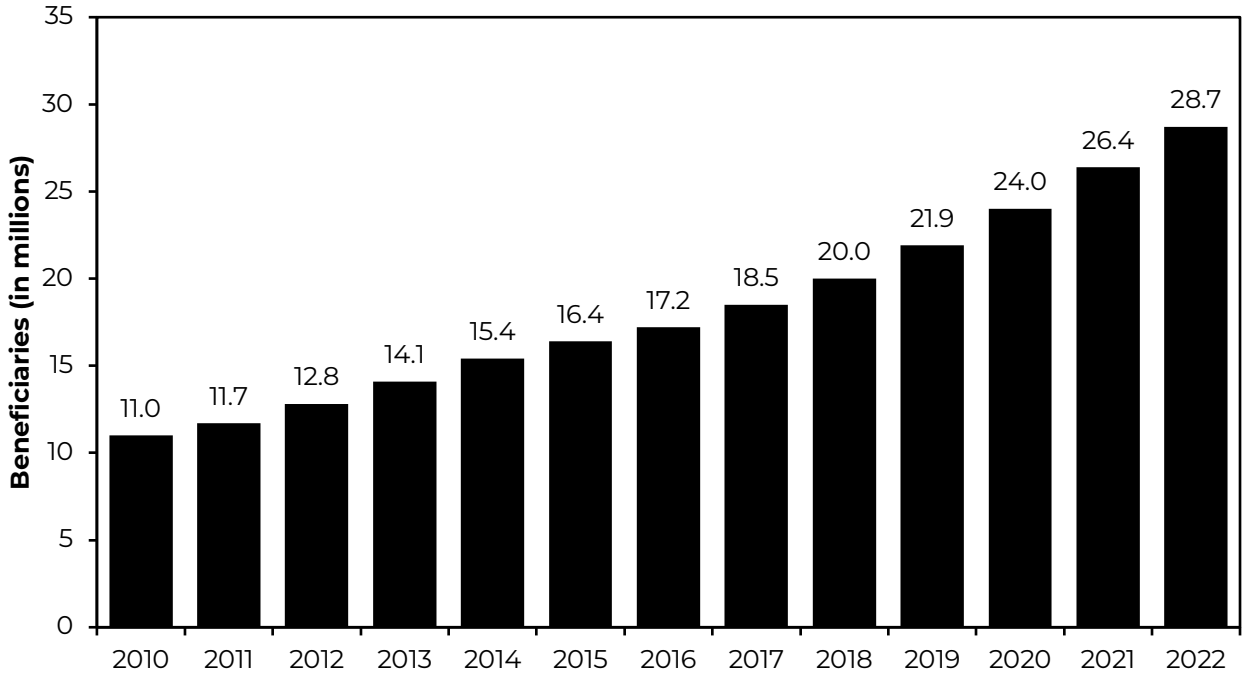
- In 2020, when all cases were paid the higher standard LTCH prospective payment system rates due to the public health emergency, Medicare aggregate margins (excluding relief funds) for all LTCHs increased to 3.6 percent. With reported Provider Relief Fund revenue allocated to Medicare payments, margins were 5 percent (data not shown).

- LTCHs with a high share (greater than 85 percent) of qualifying cases have had consistently higher aggregate margins than those that do not, each year since CMS began implementing a dual payment-rate system. In 2020, LTCHs with a high share of qualifying cases had Medicare aggregate margins, excluding relief funds, of 6.9 percent (data not shown).

SECTION 9

Medicare Advantage

Chart 9-1. Enrollment in MA plans, 2010–2022



Note: MA (Medicare Advantage).

Source: CMS Medicare managed care contract reports and monthly summary reports, February 2010–2022.

- In February 2022, enrollment in MA plans, which are paid on an at-risk capitated basis, reached 28.7 million, or 49 percent of all eligible Medicare beneficiaries (only beneficiaries enrolled in both Part A and Part B are eligible to enroll in an MA plan). An additional 1 percent of all Medicare beneficiaries with both Part A and Part B coverage are enrolled in other private plans such as cost plans, plans under the Program of All-Inclusive Care for the Elderly (PACE), and Medicare–Medicaid plans participating in CMS's financial alignment demonstration (data not shown).
- MA enrollment has grown steadily since 2010 (increasing nearly threefold) and has grown particularly rapidly in recent years: In each of the last four years, MA enrollment has grown by at least 9 percent. The Medicare program paid MA plans about $350 billion in 2021 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, 2015–2022

Share of Medicare beneficiaries living in counties with plans available

	CCPs					
	HMO or local PPO (local CCP)	Regional PPO	Any CCP	PFFS	Any MA plan	Average plan offerings per beneficiary
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
2021	98	72	99	34	99	32
2022	99	74	99	35	99	36

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 (special needs plans, employer plans) or are not paid based on MA rates (cost plans and certain demonstration plans). For 2015 through 2021, "share of Medicare beneficiaries" includes beneficiaries who do not have both Part A and Part B coverage (i.e., includes all Medicare beneficiaries). For 2022, the share of Medicare beneficiaries includes only beneficiaries with both Part A and Part B coverage (i.e., MA-eligible beneficiaries).

Source: MedPAC analysis of plan bid data from CMS, 2015–2022.

- There are four types of MA plans, three of which are coordinated care plans (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 one or more entire states and have networks that may be looser than those of local PPOs. CCPs accounted for 98 percent of Medicare private plan enrollees as of February 2022 (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 99 percent of eligible Medicare beneficiaries in 2022, and regional PPOs are available to 74 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 2022.

- The number of plans from which beneficiaries may choose in 2022 is higher than at any time during the years examined. In 2022, beneficiaries can choose from an average of 36 plans operating in their counties.

Chart 9-3. Changes in enrollment vary among major plan types

Plan type	Total enrollees (in thousands) 2018	2019	2020	2021	2022	Percent change 2021–2022
Local CCPs	18,463	20,502	22,704	25,325	27,878	10%
Regional PPOs	1,327	1,255	1,170	1,003	756	–25
PFFS	154	118	87	61	48	–21

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 2018–2022.

- Almost all MA enrollees (98 percent) choose local CCPs (HMOs or local PPOs), which limit or discourage use of out-of-network providers. Enrollment in local CCPs grew by 10 percent over the past year.
- Though network requirements may be looser in regional PPOs and PFFS plans, enrollment in both types of plans has been declining for several years and dropped sharply in 2022, with enrollment in regional PPOs falling by 25 percent and enrollment in PFFS plans falling by 21 percent.
- Combined enrollment in the three types of plans grew by 9 percent from February 2021 to February 2022 (data not shown).

Chart 9-4. MA and cost plan enrollment by state and type of plan, 2022

State or territory	All MA-eligible beneficiaries (in thousands)	Distribution (in percent) of beneficiaries by plan type					
		HMO	Local PPO	Regional PPO	PFFS	Cost	Total
U.S. total	58,591	29%	19%	1%	0%	0%	49%
Alabama	996	27	30	0	0	0	58
Alaska	97	0	2	0	0	0	2
Arizona	1,299	38	13	0	0	0	52
Arkansas	608	20	16	3	1	0	40
California	5,883	48	4	0	0	0	52
Colorado	885	36	17	0	0	0	53
Connecticut	643	21	34	1	0	0	56
Delaware	209	13	15	0	0	0	29
Florida	4,558	36	18	2	0	0	56
Georgia	1,678	16	34	5	0	0	55
Hawaii	255	22	36	1	0	0	59
Idaho	341	29	17	0	0	0	46
Illinois	2,095	14	22	0	0	0	37
Indiana	1,219	19	26	1	0	0	47
Iowa	610	14	16	0	0	2	33
Kansas	517	9	20	1	1	0	31
Kentucky	881	24	25	2	0	1	51
Louisiana	838	43	10	1	0	0	54
Maine	332	30	24	1	0	0	55
Maryland	939	13	9	0	0	0	21
Massachusetts	1,250	18	13	1	0	0	31
Michigan	2,013	21	35	0	0	0	57
Minnesota	1,003	17	36	0	0	6	59
Mississippi	579	21	13	2	0	0	36
Missouri	1,180	27	22	1	0	0	51
Montana	228	9	18	0	0	0	27
Nebraska	336	14	13	0	0	2	30
Nevada	511	42	9	0	0	0	52
New Hampshire	288	13	18	1	0	0	32
New Jersey	1,486	14	27	0	0	0	41
New Mexico	403	26	24	0	0	0	50
New York	3,395	32	17	3	0	0	53
North Carolina	1,964	24	23	4	0	0	51
North Dakota	128	0	10	0	0	19	29
Ohio	2,239	32	19	1	0	0	52
Oklahoma	702	16	21	1	0	0	38
Oregon	839	34	21	0	0	0	55
Pennsylvania	2,588	30	22	0	0	0	53
Puerto Rico	663	93	1	0	0	0	95
Rhode Island	205	42	11	0	0	0	54
South Carolina	1,073	13	25	4	0	0	42
South Dakota	172	1	12	0	0	18	31
Tennessee	1,314	34	17	0	0	0	52
Texas	4,058	30	19	3	0	0	53
Utah	393	37	14	0	0	0	51
Vermont	144	6	19	3	0	0	29
Virgin Islands	19	1	29	0	0	0	29
Virginia	1,434	23	11	2	0	0	36
Washington	1,320	35	11	0	0	0	46
Washington, DC	78	11	22	0	0	0	33
West Virginia	414	7	38	1	0	4	50
Wisconsin	1,164	29	21	1	0	4	55
Wyoming	110	0	5	0	2	1	8

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 U.S. territories. Component percentages and U.S. total may not sum to totals due to rounding. We report MA enrollment as a share of MA-eligible beneficiaries (Medicare beneficiaries with both Part A and Part B coverage).

Source: CMS enrollment and population data, February 2022.

Chart 9-5. MA plan benchmarks, bids, and Medicare program payments relative to FFS spending, 2022

	All plans	HMOs	Local PPOs	Regional PPOs	All plans after coding estimate
Benchmarks/FFS	108%	108%	109%	97%	112%
Bids/FFS	85	84	89	84	88
Payments/FFS	100	100	102	92	104

Note: MA (Medicare Advantage), FFS (fee-for-service), HMO (health maintenance organization), PPO (preferred provider organization), PFFS (private fee-for-service). Employer plans do not submit plan bids and generally receive payment based on the bidding behavior of PPOs. Thus, employer plans are included only in the overall "Payments/FFS." All numbers in this table have been risk adjusted and reflect quality bonuses. To account for our most recent coding estimate of 3.6 percent, we estimated overall benchmarks, bids, and payments if coding differences between MA and FFS were fully reflected (i.e., if the risk-adjusted differences between MA and FFS did not include coding differences). The FFS spending denominator used in the table includes all Part A and Part B spending. Overall MA payments relative to spending for FFS enrollees with both Part A and Part B would decrease by about 1 percentage point.

Source: MedPAC analysis of plan bid data from CMS, October 2021.

- 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 a bidding target in each county that is 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 typically have their benchmarks raised by 5 percent (and up to 10 percent in some counties).

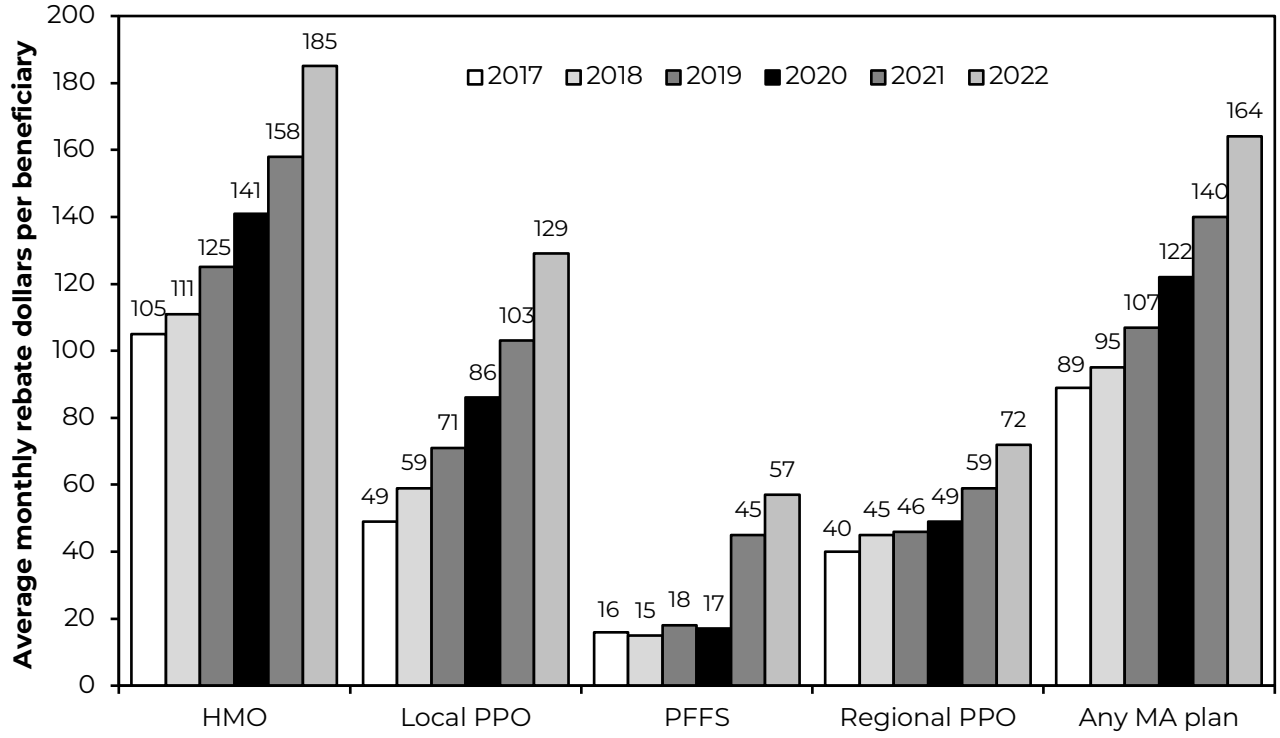
- If a plan's bid is above the benchmark, then the plan receives the benchmark as payment from Medicare and enrollees have to pay an additional premium that equals the difference. If a plan's bid is below the benchmark, the plan receives its bid plus a "rebate," defined by law as a percentage of the difference between the plan's bid and its benchmark. The percentage is based on the plan's quality rating, and it is typically 65 percent or 70 percent. After accounting for administrative expenses and profit, plans must return rebates to enrollees in the form of lower cost sharing, supplemental benefits, or lower premiums.

- We estimate that MA benchmarks average 108 percent of FFS spending when weighted by MA enrollment. The ratio varies by plan type, which draws enrollment from different geographic areas.

- Plans' enrollment-weighted bids average 85 percent of FFS spending in 2022. On average, each coordinated care plan type (HMO, local PPO, and regional PPO) has demonstrated the ability to provide the same services for less than FFS in the areas where they bid.

- After accounting for risk-coding differences between FFS and MA plans that have not been resolved through the coding intensity factor, we estimate that MA payments are 4 percent higher than spending for similar beneficiaries in FFS.

Chart 9-6. Average monthly rebate dollars, by plan type, 2017–2022



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 data from CMS.

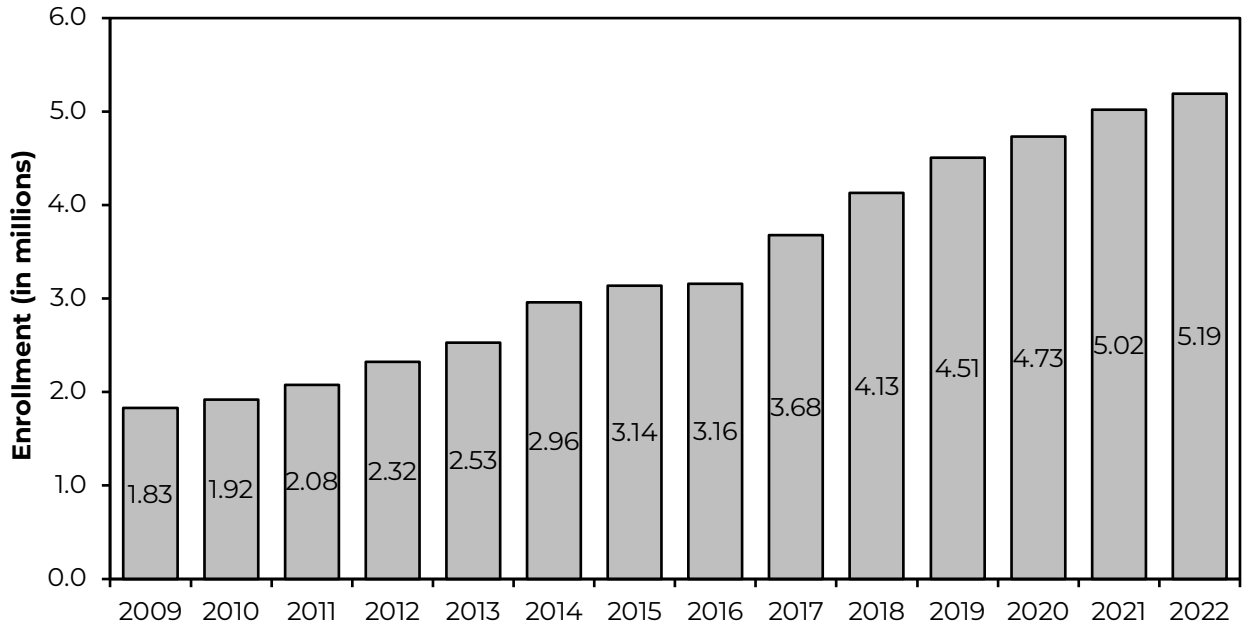
- Perhaps the best summary measure of plan benefit value is the average rebate, which plans receive to provide additional benefits that are not covered under Medicare Part A and Part B. Plans are awarded rebates for bidding under their benchmarks. The rebates must be returned to the plan members in the form of extra benefits (after accounting for plan margins and administrative costs). The extra benefits may be lower cost sharing, supplemental benefits, or lower premiums. The average rebate for all nonemployer, non–special needs plans rose to a high of $164 per month per beneficiary for 2022.

- 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 historical high of $185 per month per beneficiary for 2022.

- For local PPOs, rebates have risen sharply in recent years, more than doubling since 2018.

- While the availability of PFFS plans is relatively low, rebates for PFFS plans rose sharply in 2022 among the relatively small number of PFFS plans.

Chart 9-7. Enrollment in employer group MA plans, 2009–2022



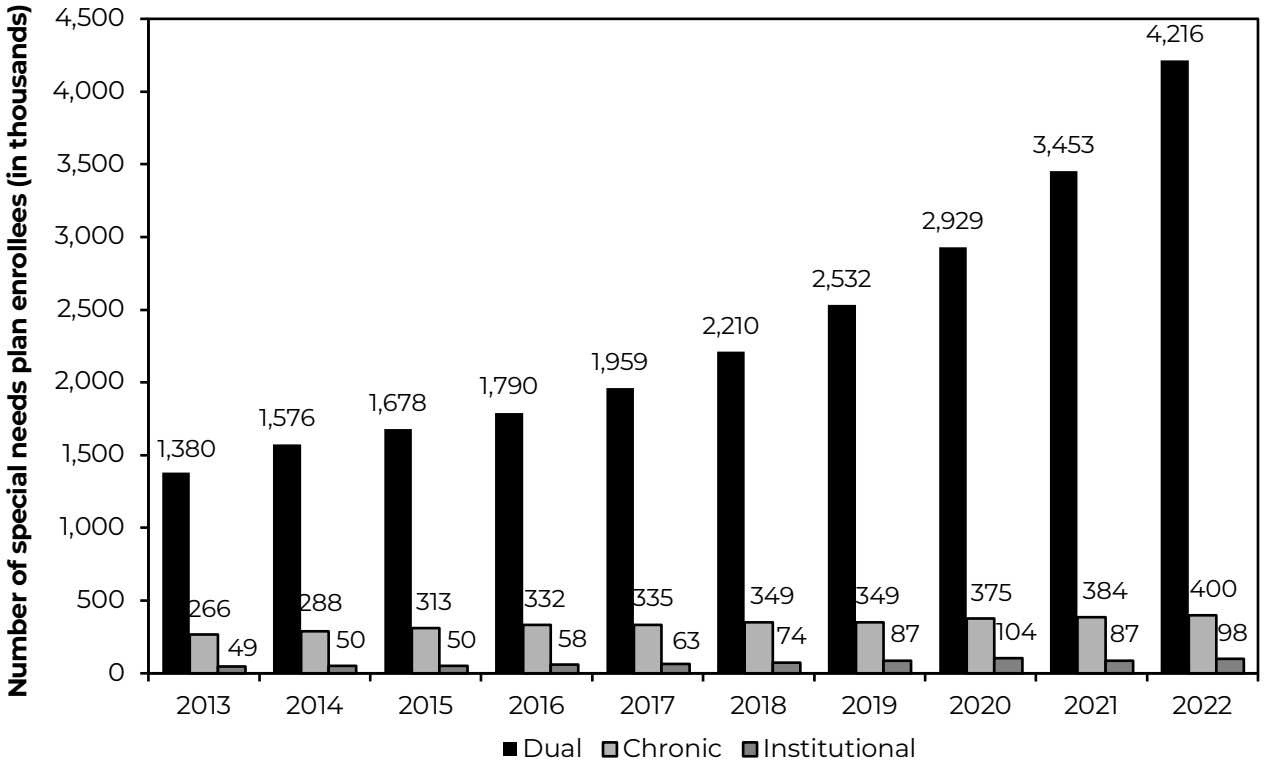
Note: MA (Medicare Advantage).

Source: CMS enrollment data, February 2009–2022.

- 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 2022, about 5.2 million enrollees were in employer group plans, or about 18 percent of all MA enrollees. Employer plan enrollment grew by 3 percent from 2021 and has more than doubled since 2013.

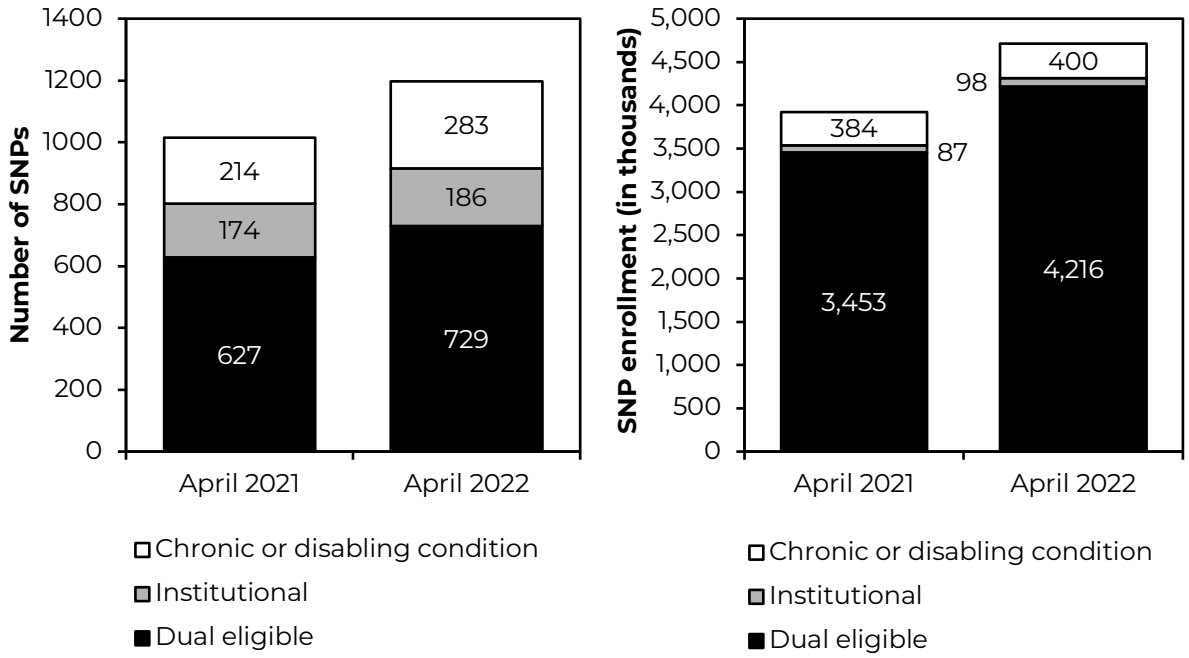
Chart 9-8. Number of special needs plan enrollees, 2013–2022



Source: CMS special needs plans comprehensive reports, April 2013–2022.

- The Congress created special needs plans (SNPs) as a new Medicare Advantage (MA) plan type in the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 to provide a common framework for the existing plans serving special needs beneficiaries and to expand beneficiaries' access to and choice among MA plans.
- SNPs were originally authorized for five years, 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 4.2 million in 2022, tripling since 2013.
- Enrollment in chronic condition SNPs has grown at varying rates as plan requirements have changed, but it has generally risen annually since 2013.
- Enrollment in institutional SNPs increased in 2022, after a decline in 2021.

Chart 9-9. Number of SNPs and SNP enrollment rose from 2021 to 2022



Note: SNP (special needs plan).

Source: CMS special needs plans comprehensive reports, April 2021 and 2022.

- The number of SNPs increased by 18 percent from April 2021 to April 2022. Dual-eligible SNPs increased by 16 percent, institutional SNPs increased by 7 percent, and the number of chronic condition SNPs increased by 32 percent.

- In 2022, most SNPs (61 percent) are for dual-eligible beneficiaries, while 16 percent are for beneficiaries who reside in institutions (or reside in the community but have a similar level of need), and 24 percent are for beneficiaries with chronic conditions.

- From April 2021 to April 2022, the number of SNP enrollees increased by 20 percent. Enrollment in SNPs for dual-eligible beneficiaries grew by 22 percent, enrollment in SNPs for institutionalized beneficiaries increased by 13 percent, and enrollment in SNPs for beneficiaries with certain chronic conditions grew by 4 percent. Enrollment in all SNPs has grown from 0.9 million in May 2007 (data not shown) to 4.7 million in April 2022.

- The availability of SNPs varies by type of special needs population served (data not shown). In 2022, 94 percent of beneficiaries reside in areas where SNPs serve dual-eligible beneficiaries (up from 92 percent in 2021), 74 percent live where SNPs serve institutionalized beneficiaries (up from 72 percent in 2021), and 59 percent live where SNPs serve beneficiaries with chronic conditions (up from 57 percent in 2021).

Chart 9-10. The share of Medicare beneficiaries in MA plans is lower in rural areas, 2022

	MA-eligible population (in millions)	As percent of MA-eligible population	Share of MA-eligible population category in MA plans
All MA-eligible beneficiaries	**58.6**	**100%**	**49%**
Urban Influence Code designation			
Metropolitan	48.2	82	51
Rural: Micropolitan	5.9	10	41
Rural: Adjacent to metropolitan	2.8	5	41
Rural: Not adjacent to metropolitan	1.7	3	33

Note: MA (Medicare Advantage). Beneficiaries in the Virgin Islands, Guam, American Samoa, the Northern Mariana Islands, and non-U.S. 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. We report MA enrollment as a share of MA-eligible beneficiaries (Medicare beneficiaries with both Part A and Part B coverage). Urban Influence Codes (UICs) are designated by the Office of Management and Budget (OMB) based on the population size of the metropolitan 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. Components may not sum to totals due to rounding.

Source: MedPAC analysis of OMB UICs and CMS enrollment data, February 2022.

- Most (82 percent) of the total 58.6 million Medicare beneficiaries eligible for MA enrollment live in metropolitan areas. The share of MA-eligible beneficiaries who live in metropolitan areas enrolled in MA plans (51 percent) is higher than the share of rural beneficiaries enrolled in MA plans (40 percent; data not shown).

- Nearly all MA-eligible beneficiaries in rural areas reside in a micropolitan county or a county that is adjacent to a metropolitan area. More than 40 percent of MA-eligible beneficiaries in these areas are enrolled in MA plans. From 2021 to 2022, MA enrollment in these rural areas grew faster compared with metropolitan areas (13 percent compared with 8 percent; data not shown).

- About 3 percent of MA-eligible beneficiaries reside in a rural county that is not adjacent to a metropolitan area. One-third (33 percent) of these beneficiaries are enrolled in MA plans. From 2021 to 2022, MA enrollment in these areas grew by 16 percent—faster than the overall MA enrollment growth of about 9 percent during this period (data not shown).

Chart 9-11. MA enrollment patterns vary based on urban influence designation, 2022

	MA population (in millions)	As a percent of MA population	Share of category			
			HMO	Local PPO	Regional PPO	Other MA plans
All MA enrollees	**28.7**	**100%**	**59%**	**38%**	**3%**	**<0.5%**
Urban Influence Code designation						
Metropolitan	24.6	86	62	36	2	<0.5
Rural: Micropolitan	2.4	8	41	53	6	1
Rural: Adjacent to metropolitan	1.1	4	38	54	7	1
Rural: Not adjacent to metropolitan	0.5	2	34	57	8	1

Note: MA (Medicare Advantage), HMO (health maintenance organization), PPO (preferred provider organization). Beneficiaries in the Virgin Islands, Guam, American Samoa, the Northern Mariana Islands, and non-U.S. areas are excluded. MA plans consist of HMOs, local PPOs, regional PPOs, private fee-for-service plans, and Medical Savings Account plans. We report MA enrollment as a share of MA-eligible beneficiaries (Medicare beneficiaries with both Part A and Part B coverage). Urban Influence Codes (UICs) are designated by the Office of Management and Budget (OMB) based on the population size of the metropolitan 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. Components may not sum to totals due to rounding.

Source: MedPAC analysis of OMB UICs and CMS enrollment and population data, February 2022.

- Local coordinated care plans (HMOs and local PPOs), which represent 97 percent of MA enrollees, may choose which individual counties to serve. Regional PPOs (3 percent of all MA enrollees) cover entire state-based regions.

- HMOs account for the largest share of MA plan enrollment in metropolitan areas (62 percent), but local PPOs account for the largest share (more than 50 percent) of MA plan enrollment in rural areas.

Chart 9-12. MA plans are available to nearly all beneficiaries in rural areas, 2022

	As a share of MA-eligible population	Share of Medicare beneficiaries living in counties with plans available in 2022					
		Any MA plan	CCPs				
			HMO	Local PPO	HMO or local PPO	Regional PPO	Any CCP
All MA-eligible beneficiaries	**100%**	**99%**	**97%**	**95%**	**98%**	**74%**	**99%**
Urban Influence Code designation							
Metropolitan	82	>99.5	99	98	>99.5	73	>99.5
Rural: Micropolitan	10	99	93	95	97	77	98
Rural: Adjacent to metropolitan	5	97	93	95	97	83	97
Rural: Not adjacent to metropolitan	3	92	80	83	87	71	91

Note: MA (Medicare Advantage), CCP (coordinated care plan), HMO (health maintenance organization), PPO (preferred provider organization). These data do not include the Virgin Islands, Guam, American Samoa, the Northern Mariana Islands, or non-U.S. areas, and they do not include MA plans that have restricted enrollment (special needs plans, employer-only plans). We report MA enrollment as a share of MA-eligible beneficiaries (Medicare beneficiaries with both Part A and Part B coverage) rather than as a share of all Medicare beneficiaries. Urban Influence Codes (UICs) are designated by the Office of Management and Budget (OMB) based on the population size of the metropolitan 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.

Source: MedPAC analysis of OMB UICs and CMS enrollment and population data February 2022.

- We examined the availability of MA plans to all MA-eligible beneficiaries. Consistent with prior work, we exclude employer-only 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.

- 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. About 99 percent of beneficiaries in micropolitan counties have access to an MA plan; 97 percent of those adjacent to a metropolitan area have access to an MA plan. Among the 3 percent of Medicare beneficiaries residing in a rural county that is not adjacent to a metropolitan area, 92 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 typically have fewer plans from which to choose, 2022

	As a share of MA-eligible population	Average plan offerings per beneficiary	Share of Medicare beneficiaries living in counties with an available zero-premium plan with drug coverage
All MA-eligible beneficiaries	**100%**	**36**	**98%**
Urban Influence Code designation			
Metropolitan	82	39	99
Rural: Micropolitan	10	24	93
Rural: Adjacent to metropolitan	5	22	95
Rural: Not adjacent to metropolitan	3	16	84

Note: MA (Medicare Advantage). These data do not include the Virgin Islands, Guam, American Samoa, the Northern Mariana Islands, and non-U.S. areas, nor do they include MA plans that have restricted enrollment (special needs plans, employer-only plans). Urban Influence Codes (UICs) are designated by the Office of Management and Budget (OMB) by the population size of the 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.

Source: MedPAC analysis of OMB UICs and CMS enrollment and population data February 2022.

- In 2022, the average beneficiary has 36 plans from which to choose in their county.

- On average, Medicare beneficiaries residing in metropolitan areas have more MA plans from which to choose (an average of 39 plan choices) compared with beneficiaries in rural areas. Nevertheless, the average beneficiary in micropolitan counties or counties adjacent to a metropolitan area can choose among an average of 24 and 22 plans, respectively. Beneficiaries residing in rural counties that are not adjacent to a metropolitan area (3 percent of all beneficiaries) have 16 plans from which to choose, on average.

- At least one zero-premium plan with drug coverage is available to nearly all beneficiaries (98 percent). The availability of these plans in rural areas is somewhat less prevalent than in metropolitan areas. In metropolitan areas, 99 percent of beneficiaries have access to a zero-premium plan. In comparison, about 93 percent of beneficiaries in micropolitan counties and 95 percent of those adjacent to a metropolitan area have access to a zero-premium plan. In rural counties that are not adjacent to a metropolitan area, 84 percent of beneficiaries have an available zero-premium plan.

Chart 9-14. MA enrollment patterns, by age, dual-eligible status, and ESRD status, June 2021

	All MA-eligible beneficiaries		FFS		MA		MA enrollment as a share of all MA-eligible category
	Enrollment, in millions	Share of total	Enrollment, in millions	Share of total	Enrollment, in millions	Share of total	
Total	**56.5**	**100%**	**30.4**	**100%**	**26.1**	**100%**	**46%**
Aged (65 or older)	49.0	87	26.4	87	22.6	87	46
Under 65	7.5	13	4.0	13	3.5	13	47
Non–dual eligible	**45.7**	**81**	**25.2**	**83**	**20.4**	**78**	**45**
Aged (65 or older)	42.4	75	23.5	77	18.9	72	44
Under 65	3.3	6	1.7	6	1.6	6	48
Full dual eligibility	**7.6**	**13**	**4.1**	**13**	**3.5**	**13**	**46**
Aged (65 or older)	4.5	8	2.2	7	2.3	9	51
Under 65	3.1	5	1.8	6	1.2	5	40
Partial dual eligibility	**3.3**	**6**	**1.1**	**4**	**2.2**	**8**	**66**
Aged (65 or older)	2.1	4	0.7	2	1.5	6	69
Under 65	1.2	2	0.5	2	0.7	3	60
			Enrollment subcategories, all ages				
ESRD	**0.5**	**1**	**0.3**	**1**	**0.2**	**1**	**35**
Beneficiaries with partial dual eligibility							
QMB only	1.7	3	0.6	2	1.1	4	64
SLMB only	1.0	2	0.3	1	0.7	3	67
QI	0.6	1	0.2	1	0.4	2	68

Note: MA (Medicare Advantage), ESRD (end-stage renal disease), FFS (fee-for-service), QMB (qualified Medicare beneficiary), SLMB (specified low-income beneficiary), QI (qualified individual). Data exclude cost 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-eligible beneficiaries are Medicare beneficiaries with both Part A and Part B coverage. Dual-eligible beneficiaries are eligible for Medicare and Medicaid. Data exclude Puerto Rico because enrollment data undercount dual-eligible categories. As of June 2021, Puerto Rico had about 615,000 Medicare beneficiaries enrolled in MA plans, and about 282,000 were enrolled in dual-eligible special needs plans. Figures may not sum to totals due to rounding.

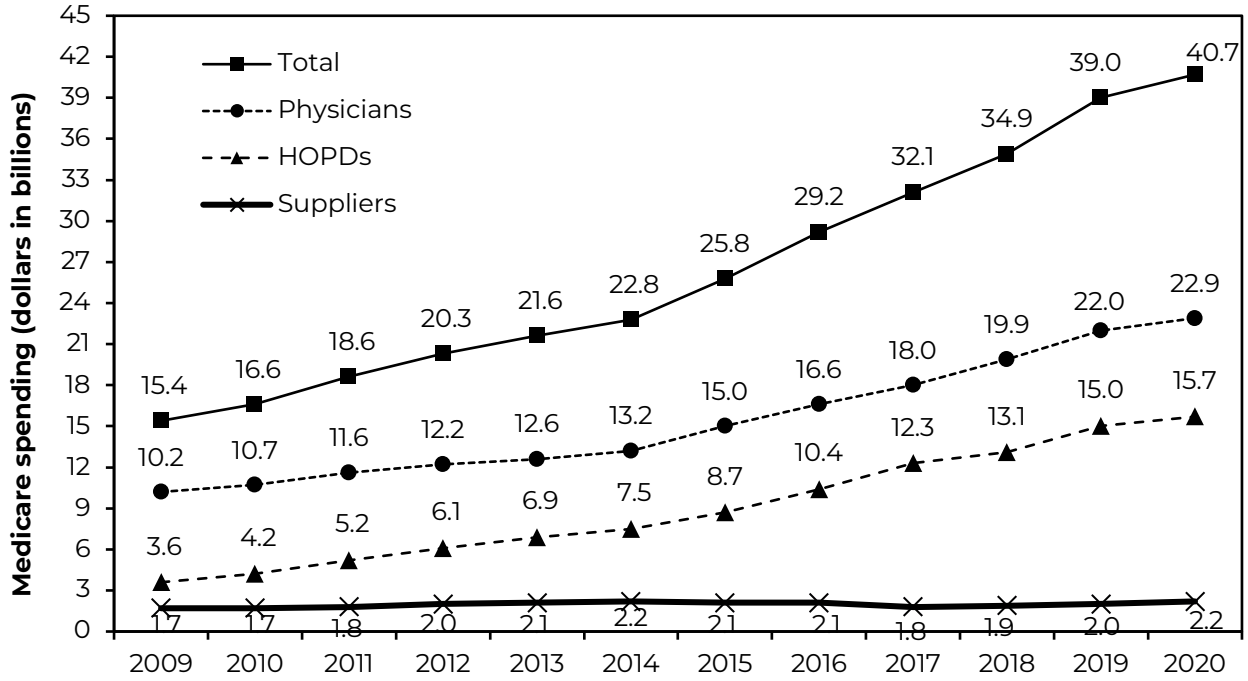
Source: MedPAC analysis of 2021 common Medicare environment files.

- Medicare beneficiaries with Medicaid benefits who have full dual eligibility (i.e., those who have coverage of 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 MA plans than beneficiaries with "partial" dual eligibility. Fully dual-eligible beneficiaries have coverage through state Medicaid programs, including certain QMBs (i.e., QMB-Plus) and certain SLMBs (i.e., SLMB-Plus) who also have Medicaid coverage for services. Beneficiaries with partial dual eligibility (such as QIs or SLMBs) have coverage for Medicare premiums or premiums and Medicare cost sharing (as QMBs).
- Medicare plan enrollment among the dually eligible continues to increase. In 2021, 46 percent of full duals were in MA plans (up from 40 percent in 2020; data not shown), and 66 percent of partial dual-eligible beneficiaries were in MA plans (up from 60 percent in 2020; data not shown). QI beneficiaries have the highest rates of MA enrollment among partial duals (68 percent).
- A substantial share of the dually eligible (39 percent; data not shown) are under the age of 65 and entitled to Medicare on the basis of disability or ESRD. Beneficiaries under age 65 who are fully dual eligible are far less likely than aged fully dual-eligible beneficiaries to enroll in MA (40 percent vs. 51 percent, respectively). As a result, about the same share (13 percent) of MA enrollees is fully dual-eligible compared with FFS enrollees.
- Beginning in 2021, individuals with ESRD are no longer prohibited from joining an MA plan during open enrollment. As a result, ESRD beneficiaries had much higher rates of plan enrollment in 2021 (35 percent) compared with 2020 (23 percent; data not shown).

SECTION 10

Prescription drugs

Chart 10-1. Medicare spending for Part B drugs furnished by physicians, hospital outpatient departments, and suppliers, 2009–2020



Note: HOPD (hospital outpatient department). Data include Part B–covered drugs furnished by several provider types, including physicians, suppliers, and HOPDs, 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 $40.7 billion on Part B drugs furnished by physicians, HOPDs, and suppliers in 2020, an increase of about 4.4 percent from 2019.
- Between 2009 and 2020, Part B drug spending grew 9.2 percent per year on average. Growth was more rapid between 2009 and 2019 (9.7 percent per year on average) than between 2019 and 2020 (4.4 percent).
- Quarterly spending growth patterns suggest that slower Part B drug spending growth in 2020 was partly due to the COVID-19 pandemic. Spending declined in the second quarter of 2020, coinciding with the first wave of the pandemic. Comparing quarterly spending in each quarter of 2020 to the same quarter of 2019, spending increased 7.4 percent in the first quarter of 2020, declined 1.2 percent in the second quarter of 2020, increased 8.4 percent in the third quarter of 2020, and increased 3.6 percent in the fourth quarter of 2020.

(Chart continued next page)

Chart 10-1. Medicare spending for Part B drugs furnished by physicians, hospital outpatient departments, and suppliers, 2009–2020 (continued)

- Savings from biosimilar competition also contributed to slower aggregate spending growth in 2020. For those categories of biologics with biosimilar availability, Medicare spending declined between 2019 and 2020 by about $800 million, from $6.3 billion to $5.5 billion. This reduction in spending largely reflects both increased biosimilar uptake and price reductions by originator biologics; reduced utilization among some categories of biologics, likely related to the pandemic, also played a role.

- Medicare pays for most Part B drugs at a rate of 106 percent of the average sales price (ASP + 6 percent). Eligible hospitals that participate in the 340B drug discount program receive substantial discounts on outpatient drugs, including those covered by Medicare Part B. Beginning in 2018, Medicare reduced the payment rate for certain Part B drugs furnished by 340B hospitals to ASP – 22.5 percent. The 340B policy reduced 2020 Medicare Part B spending on drugs in outpatient hospitals by about $2.3 billion (compared with what 2020 payments would have been in the absence of the policy).

- Of total 2020 Part B drug spending, physicians accounted for 56 percent ($23 billion), HOPDs accounted for 38 percent ($16 billion), and suppliers accounted for 5 percent ($2 billion).

- Overall, from 2009 to 2020, Part B drug spending has grown more rapidly for HOPDs than for physicians and suppliers—at average annual rates of about 14 percent, 8 percent, and 3 percent, respectively.

- 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 $1.1 billion in critical access hospitals and $0.4 billion in Maryland hospitals for Part B drugs in 2020. Also in 2020, Medicare spent $0.7 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, 2009–2020

	2009	2020	Average annual growth 2009–2020
Total payments: Separately payable Part B drugs (in billions)	$11.6*	$38.5*	11.5%
Total payments: All Part B drugs excluding vaccines (in billions)	$11.4	$37.2	11.3
Number of beneficiaries using a Part B drug (in millions)	2.5	3.6	3.4
Average total payments per beneficiary who used a Part B drug	$4,584	$10,384	7.7
Average number of Part B drugs per beneficiary	1.35	1.32	–0.2
Average annual payment per Part B drug per beneficiary	$3,395	$7,845	7.9
Total payments: All Part B vaccines (in billions)	$0.2	$1.3	18.0
Number of beneficiaries using a Part B vaccine (in millions)	13.4	16.9	2.1
Average total payments per beneficiary who used a Part B vaccine	$16	$80	15.6
Average number of Part B vaccines per beneficiary	1.08	1.17	0.7
Average annual payment per Part B vaccine per beneficiary	$15	$68	14.8

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 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 2020 (i.e., drugs that were packaged under the outpatient prospective payment system in 2009 or 2020 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 $40.7 billion in 2020, 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 11.5 percent per year, on average, between 2009 and 2020.
- Medicare spending on separately payable Part B drugs excluding Part B–covered preventive vaccines grew at a similar rate (11.3 percent per year) between 2009 and 2020.
- Growth in the average price that Medicare Part B paid per drug accounted for more than half of the growth in separately payable Part B drug spending (excluding vaccines) between 2009 and 2020. During that period, the average annual payment per drug increased on average by 7.9 percent per year, which reflects increases in the prices of existing drugs; adoption of new, higher-priced drugs; and shifts in the mix of drugs. Growth in the average payment per drug would have been higher if not for the reduction in Medicare's payment rate for certain Part B drugs provided by 340B hospitals beginning in 2018.

(Chart continued next page)

Chart 10-2. Change in Medicare payments and utilization for separately payable Part B drugs, 2009–2020 (continued)

- Growth in the number of beneficiaries using nonvaccine Part B drugs (about 3.4 percent per year on average) also contributed to increased spending. The number of Part B drugs received per user declined slightly from about 1.35 in 2009 to 1.32 in 2020, which modestly offset spending growth.

- In 2020, Medicare Part B covered 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 $854 million for influenza, $487 million for pneumococcal, and $5 million for hepatitis B (data not shown). (Not included in these data are vaccines furnished in other settings such as end-stage renal disease facilities. With other settings included, 2020 vaccine spending was $883 million on influenza, $509 million on pneumococcal, and $35 million on hepatitis B vaccines.)

- Although Medicare Part B also covers COVID-19 vaccines, the federal government's direct purchase of COVID-19 vaccines meant that Medicare was not liable for the cost of COVID-19 vaccines in 2020.

- 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 18.0 percent per year, between 2009 and 2020.

- The largest driver of increased vaccine spending was price growth, as the average payment per vaccine grew at an average rate of 14.8 percent per year between 2009 and 2020. Substantial price growth occurred for both pneumococcal and influenza vaccines between 2009 and 2020, with the average payment per vaccine increasing from $36 to $155 for pneumococcal vaccines and from $12 to $51 for influenza vaccines over this period (data not shown). The growth in the average payment per vaccine reflects higher launch prices for new vaccines (e.g., Prevnar-13 for pneumococcal disease and Fluzone High-Dose, Fluad, and Flublok for influenza) and price growth over time among existing products (e.g., new vaccines after launch and certain older products).

Chart 10-3. Top 20 Part B drugs, 2020

		2020			Percent change, 2019–2020		
		Total spending (billions)	Average spending per user	Number of users	Total spending	Average spending per user	Number of users
Keytruda	Cancer	3.5	$59,400	58,900	31%	11%	18%
Eylea	MD	3.0	10,500	286,900	3	–2	6
Prolia/Xgeva	OS, cancer SE	1.6	2,800	587,200	1	2	0
Opdivo	Cancer	1.6	62,200	25,500	–11	5	–15
Rituxan*	Cancer, RA	1.3	22,700	57,400	–25	–7	–20
Lucentis	MD	1.1	9,200	121,600	–12	–5	–8
Orencia	RA	1.0	34,100	30,100	11	9	2
Neulasta*	Cancer SE	0.9	13,300	67,800	–23	–11	–13
Darzalex	Cancer	0.8	64,600	13,000	5	–2	8
Avastin*	Cancer, MD	0.7	3,900	176,500	–34	–17	–21
Remicade*	RA	0.7	14,800	45,100	–27	–21	–8
Tecentriq	Cancer	0.6	50,000	12,500	34	8	25
Ocrevus	MS	0.6	49,900	12,500	–1	–1	1
Soliris	Autoimmune	0.6	363,800	1,700	14	9	4
Cimzia	RA	0.5	25,900	19,700	16	8	7
Imfinzi	Cancer	0.5	55,000	9,200	13	7	5
Alimta	Cancer	0.5	26,700	18,700	–2	6	–8
Fluzone HD	Vaccine	0.5	60	8,046,600	11	11	0
Herceptin*	Cancer	0.5	34,400	13,500	–42	–13	–33
Sandostatin LAR Depot	Cancer SE	0.4	44,800	10,000	3	5	–2
Top 10 drugs		**15.6**					
Top 20 drugs		**21.0**					
All Part B drugs		**40.7**					

Note: MD (macular degeneration), OS (osteoporosis), SE (side effects), RA (rheumatoid arthritis), MS (multiple sclerosis), HD (high-dose). "Drug spending" includes Medicare program payments and beneficiary cost sharing. The 20 drugs shown in the chart reflect the Part B drug billing codes with the highest Medicare expenditures in 2020. 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. Data exclude blood and blood products (other than clotting factor). Components may not sum to totals due to rounding.
* For refence biologics that have biosimilar competitors, data in the table reflect only the reference biologic. If spending for a reference biologic and its biosimilars is summed, 2020 total spending was $1.6 billion for Rituxan, $1.2 billion for Neulasta, $1.0 billion for Avastin, $0.8 billion for Remicade, and $0.7 billion for Herceptin and their respective biosimilars.

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

(Chart continued next page)

Chart 10-3. Top 20 Part B drugs, 2020 (continued)

- Part B drugs are billed under roughly 900 billing codes, but spending is concentrated. In 2020, Medicare spending (including cost sharing) on the top 10 products accounted for $15.6 billion, or 38 percent of total Part B drug spending. Spending on the top 20 products accounted for $21.0 billion, or about 52 percent of total Part B drug spending.

- The top 20 Part B drugs tend to be concentrated in certain therapeutic areas. Twelve of the top 20 drugs are indicated for cancer patients: 9 drugs that treat cancer and 3 supportive drugs that treat cancer side effects. The top 20 also include 3 products used to treat macular degeneration and 4 products used to treat rheumatoid arthritis. Also among the top 20 are 1 product for multiple sclerosis, 1 product for rare autoimmune conditions, and 1 influenza vaccine product.

- Most products in the top 20 are biologics. Seventeen of the top 20 are biologics, two are drugs, and one is a preventive vaccine (data not shown).

- Five of the top 20 products have biosimilar competitors. Because the chart displays data at the billing code–level, data reflect only the originator biologic and not its biosimilars (since each biosimilar has its own billing code). If spending for an originator biologic and its biosimilars is summed, total 2020 Medicare Part B spending (including cost sharing) was $1.6 billion for Rituxan, $1.2 billion for Neulasta, $1.0 billion for Avastin, $0.8 billion for Remicade, and $0.7 billion for Herceptin and their biosimilars (data not shown).

- Among the top 20 highest-expenditure Part B drugs, average spending per user varies. Of eight products used to treat cancer (excluding Avastin, for which costs vary substantially depending on whether it is used for cancer or macular degeneration), average spending per user ranged from $23,000 to $65,000, with five products averaging $50,000 or more per user. Average spending per user ranged from $3,000 to $45,000 for three cancer supportive drugs, $15,000 to $34,000 for four drugs used to treat rheumatoid arthritis, and from $9,000 to $11,000 for two drugs used to treat macular degeneration (excluding Avastin). Soliris, a product used to treat rare autoimmune conditions, had the highest average cost per user among the top 20, $364,000.

- Between 2019 and 2020, spending increased for 11 of the top 20 Part B drugs and decreased for 9 drugs. For example, Keytruda and Tecentriq experienced the largest total spending growth (more than 30 percent), which reflected an increase in both average spending per user and number of users. In 2020, total spending also increased more than 10 percent for Cimzia, Fluzone High-Dose, Imfinzi, Orencia, and Soliris. Among the products that experienced spending decreases in 2020, five products are originator biologics that now face biosimilar competition. A few other products that experienced total spending decreases are in therapeutic classes with multiple brand products; thus, the decline in total spending and number of users for some products may reflect shifts in market share across therapeutic alternatives.

Chart 10-4. Growth in ASP for the 20 highest-expenditure Part B drugs, 2015–2022

	Total Medicare payments in 2020 (in billions)	Average annual percentage change in ASP 2015–2021	Percentage change in ASP 2021–2022
Keytruda	$3.5	2.1%[c]	3.3%
Eylea	3.0	–1.0	–0.7
Prolia/Xgeva	1.6	5.4	5.5
Opdivo	1.6	2.4[c]	2.5
Rituxan[a]	1.3	3.9	–6.2
Lucentis	1.1	–3.3	–4.8
Orencia	1.0	9.4	–21.7
Neulasta[a]	0.9	–2.1	–29.1
Darzalex	0.8	4.5[d]	2.1
Avastin[a]	0.7	1.7	–9.7
Remicade[a]	0.7	–8.0	–15.6
Tecentriq	0.6	1.0[e]	1.8
Ocrevus	0.6	0.1[e]	2.8
Soliris	0.6	1.5	–0.6
Cimzia	0.5	4.8	–23.3
Imfinzi	0.5	1.9[f]	–0.3
Alimta	0.5	3.2	3.9
Fluzone High-Dose[b]	0.5	10.6	7.0
Herceptin[a]	0.5	2.5	–11.8
Sandostatin LAR Depot	0.4	6.2	0.4
Consumer Price Index for Urban Consumers		1.9	7.5

Note: ASP (average sales price). Growth rates for ASP are calculated from first quarter to first quarter of each year and for the Consumer Price Index for Urban Consumers (CPI–U) from January to January of each year. If a product launched after 2015, the table displays average annual ASP growth between the earliest year that a first-quarter payment rate was available for the product and 2021. ASP at the billing code level is calculated using the publicly available Part B drug payment rate data on CMS's website. "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.
[a] Indicates the product is an originator biologic that has experienced biosimilar entry. ASP trends are for the originator product only.
[b] For Fluzone High-Dose, a preventive vaccine paid 95 percent of the average wholesale price, the table displays the percent change in the actual payment rate rather than ASP.
[c] ASP growth for period from 2016 to 2021.
[d] ASP growth for period from 2017 to 2021.
[e] ASP growth for period from 2018 to 2021.
[f] ASP growth for period from 2020 to 2021.

Source: MedPAC analysis of CMS ASP pricing files and CPI–U data from the Bureau of Labor Statistics and MedPAC and Acumen LLC analysis of Medicare claims data.

(Chart continued next page)

Chart 10-4. Growth in ASP for the 20 highest-expenditure Part B drugs, 2015–2022 (continued)

- From 2015 to 2021, 16 out of 20 of the top Part B drugs have experienced net price increases, with 11 of these products' ASPs increasing faster than the CPI–U on net over the 6-year period (or between launch and 2021 if launched after 2015).

- Alimta, Cimzia, Darzalex, Orencia, Prolia/Xgeva, Rituxan, and Sandostatin LAR all experienced average ASP growth of between 3.2 percent and 9.4 percent per year between 2015 and 2021 (or since launch if after 2015). Fluzone High-Dose, which is paid 95 percent of the average wholesale price, also experienced substantial price growth (10.6 percent per year on average between 2015 and 2021).

- In the most recent year, more products in the top 20 experienced a price decrease than a price increase. ASP decreased for 11 products and increased for 9 products between the first quarters of 2021 and 2022.

- Between the first quarters of 2021 and 2022, a year with high inflation (7.5 percent growth in CPI–U), none of the nine products with price increases experienced increases greater than inflation. This contrasts with experience over a longer time horizon. For example, among 14 of the top 20 drugs that were available prior to 2015, 10 of these products experienced average annual price growth that exceeded inflation between 2005 and 2015 (or between launch and 2015 if launched after 2005).

- Some of the price declines in 2022 among the top 20 products occurred among biologics facing biosimilar competition. Avastin, Herceptin, Neulasta, Remicade, and Rituxan have all faced biosimilar entry since 2019 or earlier. Prices for these originator biologics declined between 6 percent and 29 percent between 2021 and 2022.

- Price declines in recent years among originator biologics facing biosimilar competition follow a lengthy period in which the price Medicare paid for these products rose significantly. For example, on average over the 10-year period between 2005 to 2015, the ASP increased about 5 percent per year for Herceptin and Rituxan, 4 percent per year for Neulasta, 3 percent per year for Remicade, and 2 percent per year for Avastin (data not shown).

- The ASP payment rates for Orencia and Cimzia declined by more than 20 percent between 2021 and 2022 due to a statutory change. The Consolidated Appropriations Act, 2020, required that the self-administered forms of these products, which are not covered by Part B, be excluded from the calculation of the ASP payment rates beginning July 2021. Even with the decline in 2022, these products' payment rates have grown rapidly since launch. Orencia's payment rate increased on average 6 percent per year over the 15-year period from 2007 to 2022. Cimzia's payment rate increased on average 4.4 percent per year over the 12-year period from 2010 to 2022 (data not shown).

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

	First biosimilar entry	Percent change in originator biologic's ASP		Biosimilars' payment rate as a percent of originator biologic's payment rate (2022 Q1)	Biosimilar market share (2021 Q3)
		In 10 years before biosimilar entry	Since biosimilar entry (through 2022 Q1)		
Neupogen and biosimilars	2015 Q3	71%	–1%	31%–46%	79%
Remicade and biosimilars	2016 Q4	54%	–55%	105%–120%	19%
Neulasta and biosimilars	2018 Q3	117%	–54%	111%–148%	31%
Procrit/Epogen and biosimilars	2018 Q4	35%	–33%	99%	54%
Avastin and biosimilars	2019 Q3	42%	–17%	59%–75%	56%
Herceptin and biosimilars	2019 Q3	69%	–19%	55%–71%	56%
Rituxan and biosimilars	2019 Q4	68%	–10%	66%–75%	43%

Note: ASP (average sales price), Q1 (first quarter), Q3 (third quarter), Q4 (fourth quarter) 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 (FDA) based on the product being highly similar to the originator biologic. The biosimilars included in the analysis are Zarxio, Nivestym, and Granix for originator Neupogen; Inflectra, Renflexis, and Avsola for originator Remicade; Fulphila, Udenyca, Nyvepria, and Ziextenzo for originator Neulasta; Retacrit for originator Procrit//Epogen; Mvasi and Zirabev for originator Avastin; Ontruzant, Herzuma, Ogivri, Trazimera, and Kanjinti for originator Herceptin; and Truxima, Ruxience, and Riabni for originator Rituxan. Although Granix is not a biosimilar in the U.S. (because it was approved under the standard FDA 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. "First biosimilar entry date" reflects the earliest market date for a product approved by the FDA as a biosimilar to the originator biologic.

Source: MedPAC analysis of payment rates from CMS's ASP pricing files and product market date information from CMS's database on drug products in the Medicaid Drug Rebate Program and Acumen LLC analysis of Medicare claims data.

- Under Part B, Medicare pays for an originator biologic at 106 percent of its own ASP. For biosimilars, Medicare pays 100 percent of the biosimilar's ASP plus 6 percent of the originator product's ASP. During the first two to three quarters when a biosimilar is new to the market, ASP data are unavailable and Medicare pays a rate of wholesale acquisition cost plus 3 percent.

- Biosimilar entry has generated savings for Medicare. Pricing patterns and biosimilar uptake vary across products.

(Chart continued next page)

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

- For some products, biosimilars are priced substantially below originators and biosimilar uptake has driven savings. For example, Neupogen, the originator biologic that has faced biosimilar competition for the longest period (since the third quarter of 2015), has not significantly reduced its price and has lost most of its market share to biosimilars. As of the first quarter of 2022, biosimilars' payment rates were much lower than the originator's payment rate (i.e., 31 percent to 46 percent of the originator's payment rate). Biosimilars accounted for nearly 80 percent of market share as of the third quarter of 2021.

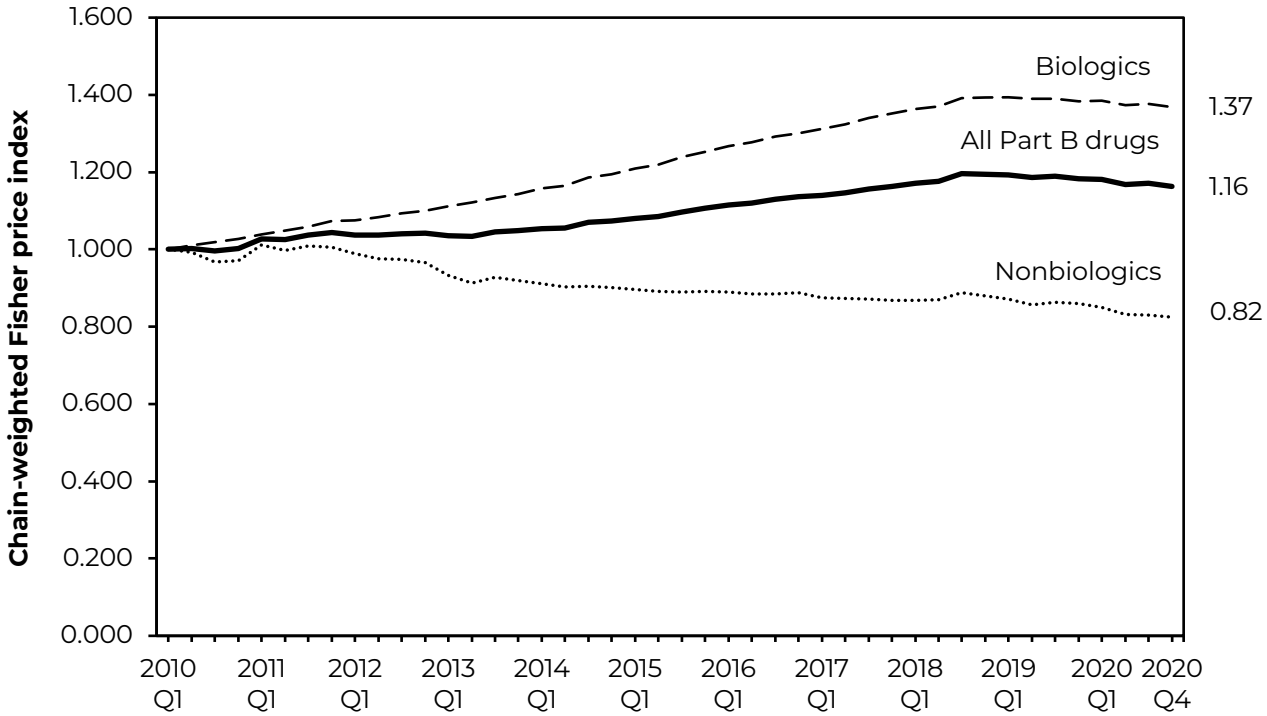
- For other products, reference biologics have responded to biosimilar entry by lowering their prices, and savings have come from both the originator biologic and biosimilars. For example, the price of the originators Procrit/Epogen has fallen 33 percent since biosimilar entry in the fourth quarter of 2018. Medicare's payment rate for the biosimilar is slightly lower (1 percent) than for the originators, as of the first quarter of 2022. Biosimilars accounted for more than half (54 percent) of utilization as of the third quarter of 2021.

- In a few cases, originator biologics are priced below biosimilars as of the first quarter of 2022. Prices have fallen substantially for originators Remicade (declining 55 percent since biosimilar entry in the fourth quarter of 2016) and Neulasta (declining 54 percent since biosimilar entry in the third quarter of 2018). As of the first quarter of 2022, Medicare's payment rates for both originator biologics were lower than its payment rates for their biosimilars. In the most recently released payment rates for the third quarter of 2022, one biosimilar to Remicade and one biosimilar to Neulasta have lower payment rates than the originator biologic, while the other biosimilars payment rates continue to exceed the originator biologics' (data not shown). Remicade has continued to retain most of its market share, accounting for 81 percent of utilization in the third quarter of 2021, while Neulasta has retained 69 percent of its market share, as of the third quarter of 2021.

- In 2019, three originator biologics used to treat cancer (Avastin, Herceptin, Rituxan) faced biosimilar entry, representing the first availability of biosimilar anticancer agents. Biosimilars for these three products have rapidly gained market share, with biosimilars accounting for between 43 percent and 56 percent of utilization among these products as of the third quarter of 2021.

- Although biosimilar competition has resulted in reduced prices for originator biologics relative to the products' prices at the time of biosimilar entry, originator biologics experienced substantial price increases prior to biosimilar entry. Across the 7 originator biologics, cumulative growth in ASP over the 10 years prior to biosimilar entry ranged from 35 percent to 117 percent.

Chart 10-6. Price indexes for Medicare Part B drugs, 2010–2020



Note: Q1 (first quarter), Q4 (fourth quarter). The Part B price indexes are Fisher price indexes and 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. The price index is different from the change in the aggregate average price Medicare pays for drugs (Chart 10-2), which reflects changes in the prices of existing products, rising launch prices of new products, and shifts in the mix of drugs.

Source: Acumen LLC analysis for MedPAC.

- The Part B price indexes reflect growth in the average sales price (ASP) at the individual product level, which is a measure of average postlaunch price growth for Part B drugs. This is different from the change in the aggregate average price Medicare Part B pays for drugs (Chart 10-2), which reflects a broader set of dynamics (including changes in the price of existing products, rising launch prices of new products compared with older products, and shifts in the mix of 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 16 percent cumulatively between 2010 and 2020 (an index of 1.16).

- Underlying overall trends in the price index are different patterns by type of product. Between 2010 and 2020, the price index for Part B–covered biologics increased by 37 percent (index of 1.37), while the price index for nonbiologics declined by 18 percent (index of 0.82).

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Chart 10-6. Price indexes for Medicare Part B drugs, 2010–2020 (continued)

- Since the third quarter of 2018, the overall price index for Part B drugs has declined from 1.20 to 1.16, which is driven by a decline in the biologics' price index, coupled with the continued decline in the nonbiologics' price index.

- Between the first quarter of 2019 and the fourth quarter of 2020, the biologics' price index declined from 1.39 to 1.37. Pricing trends differ for biologics that face biosimilar competition and biologics that do not. Between the first quarter of 2019 and the fourth quarter of 2020, the price index declined for originator biologics and their biosimilar competitors (from 1.57 to 1.31) and increased for biologics without biosimilar competition (from 1.26 to 1.29) (data not shown).

- 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. Part D enrollment by plan type, 2007–2021

	2007	2013	2017	2021	Average annual growth rate 2007-2021
Total Medicare enrollment, in millions	46.8	55.3	61.5	66.9	2.6%
Part D enrollment, in millions					
Part D plans	26.2	37.8	45.2	51.6	5.0
Non-Medicare employer plans under the RDS*	7.4	3.5	1.8	1.2	–12.4
Total Part D	33.5	41.3	47.0	52.8	3.3%
Total Part D share of Medicare enrollment	*72%*	*75%*	*76%*	*79%*	
LIS enrollment					
PDP	8.9	9.2	8.8	6.7	–2.0
MA–PD	1.5	3.2	4.9	7.6	12.2
Total LIS	10.5	12.4	13.7	14.3	2.3
Share of LIS enrollees in MA–PD	*14%*	*26%*	*36%*	*53%*	
Share of Part D plan enrollees with LIS	*40%*	*33%*	*30%*	*28%*	
EGWPs (PDPs and MA–PDs), in millions	2.0	6.4	7.2	7.8	10.1
EGWP share of total Part D enrollment	*6%*	*15%*	*15%*	*15%*	
Non-EGWP Part D plans, in millions					
PDP	17.5	19.4	22.1	20.9	1.3
MA–PD	6.6	12.0	15.9	22.9	9.3
Share of non-EGWP plan enrollees in MA–PD	*27%*	*38%*	*42%*	*52%*	

Note: RDS (retiree drug subsidy), LIS (low-income subsidy), PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]), EGWP (employer group waiver plan). 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. Enrollment numbers in this table differ from those in the Commission's previous years' data books and in its 2022 March report to the Congress because this table counts individuals who were ever enrolled for at least one month in the year rather than at a single point in time.
* Excludes federal government and military retirees covered by either the Federal Employees Health Benefit Program or the TRICARE for Life program.

Source: MedPAC analysis of common Medicare environment file from CMS.

- In 2021, 79 percent of Medicare beneficiaries were enrolled in Part D plans for at least one month during the year or had prescription drug coverage through employer-sponsored plans that receive Medicare's RDS. That share is up from 72 percent in 2007.

- Between 2007 and 2021, the number of enrollees receiving the LIS grew modestly (by 2.3 percent per year, on average). During the same period, the number of non-LIS enrollees grew faster than LIS enrollees (growing by about 7 percent per year, on average) (data not shown). Faster enrollment growth among non-LIS enrollees has resulted in a decline in the share of Part D enrollees who receive the LIS. In 2021, 28 percent of Part D enrollees received the LIS (a decrease from 40 percent in 2007). Of all LIS beneficiaries, 53 percent were in MA–PDs and just under half (47 percent) were enrolled in stand-alone PDPs.

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Chart 10-7. Part D enrollment by plan type, 2007–2021 (continued)

- Employer and union health plans continue to be important sources of drug coverage for Medicare beneficiaries. In 2021, 7.8 million Medicare beneficiaries (15 percent of Part D plan enrollees) were in plans (including PDPs and MA–PDs) set up by employers or unions for their retirees. Under these employer group waiver plans (EGWPs), Medicare is the primary payer for basic drug benefits, and typically the employer offers wraparound coverage. Separately, 1.2 million Medicare beneficiaries were in plans offered by employers that receive 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.)

- In 2021, among non-EGWP plans open to any Part D enrollee, 22.9 million (52 percent) were in MA–PDs and 20.9 million (48 percent) were in stand-alone PDPs. Over the 2007 to 2021 period, enrollment in PDPs has grown much more slowly than that in MA–PDs—an annual average of 1.3 percent compared with 9.3 percent.

Chart 10-8. Characteristics of Part D enrollees, 2021

	All Medicare	Part D	Plan type		Subsidy status	
			PDP	MA–PD	LIS	Non-LIS
Beneficiaries* (in millions)	66.9	51.6	25.7	25.9	14.3	37.3
Percent of all Medicare	100%	77%	38%	39%	21%	56%
Gender						
Male	46%	43%	43%	44%	41%	44%
Female	54	57	57	56	59	56
Race/ethnicity						
White, non-Hispanic	73	73	80	66	53	81
Black, non-Hispanic	11	11	8	14	21	7
Hispanic	9	9	6	13	17	6
Asian	4	4	3	4	6	3
Other	4	3	4	3	4	3
Age (years)**						
<65	15	15	14	16	37	7
65–69	27	25	25	26	20	27
70–74	23	23	23	23	15	26
75–79	15	16	16	16	10	18
80+	20	20	22	19	17	22

Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]), LIS (low-income 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 2021.

Source: MedPAC analysis of the common Medicare environment file from CMS.

- In 2021, 51.6 million Medicare beneficiaries (77 percent) were enrolled in Part D at some point in the year. Enrollees were split nearly equally between stand-alone PDPs (25.7 million) and MA–PDs (25.9 million). Just over 14 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 more likely to be Hispanic or Black 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 10-9. Changes in parameters of the Part D defined standard benefit over time, 2006–2022

	2006	2021	2022	Average annual change 2006–2022
Deductible	$250.00	$445.00	$480.00	4.2%
Initial coverage limit	2,250.00	4,130.00	4,430.00	4.3
Annual out-of-pocket threshold	3,600.00	6,550.00	7,050.00	4.3
Total covered drug spending at annual out-of-pocket threshold				
Enrollees eligible for manufacturers' coverage-gap discount	5,100.00	10,048.39	10,690.20	4.7
Other enrollees	5,100.00	9,313.75	10,012.50	4.3
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	3.70	3.95	4.3
Copay for other prescription drugs	5.00	9.20	9.85	4.3

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, certain enrollees pay reduced cost sharing in the coverage gap because manufacturers of brand-name drugs must provide a discount. Criteria to be eligible for the coverage-gap discount exclude most enrollees who receive Part D's low-income subsidy as well as enrollees in qualified retiree drug plans. 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 who have no source of supplemental coverage with the average mix of brand and generic spending. Cost sharing paid by most sources of supplemental coverage does not count toward this threshold. 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 2022, the standard benefit has a $480 deductible, 25 percent coinsurance on covered drugs until the enrollee reaches $4,430 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 2022, a person who does not receive Part D's low-income subsidy and has no supplemental coverage would, on average, reach the threshold at about $10,690 in total drug spending.) Before 2011, enrollees were responsible for paying the full discounted price of drugs filled during the coverage gap. Subsequently, certain enrollees pay reduced cost sharing for drugs filled in the coverage gap because manufacturers of brand-name drugs must provide a discount. In 2022, 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 $3.95 to $9.85 or 5 percent coinsurance per prescription.

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Chart 10-9. Changes in parameters of the Part D defined standard benefit over time, 2006–2022 (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 92 percent to 110 percent between 2006 and 2022.

- 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 (see Chart 10-15). 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 up to two plans 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 to eligible enrollees 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 10-10. Characteristics of stand-alone Medicare PDPs, 2021–2022

	2021				2022			
	Plans		Enrollees as of February 2021		Plans		Enrollees as of February 2022	
	Number	Percent	Number (in millions)	Percent	Number	Percent	Number (in millions)	Percent
Total	996	100%	19.7	100%	766	100%	19.0	100%
Type of benefit								
Defined standard	1	<0.5	0.0	0	0	0	0.0	0
Actuarially equivalent	377	38	9.8	50	302	39	8.7	46
Enhanced	618	62	10.0	50	464	61	10.3	54
Type of deductible								
Zero	139	14	2.7	14	136	18	2.7	14
Reduced	192	19	4.5	23	90	12	1.2	6
Defined standard*	665	67	12.5	63	540	70	15.1	79
Some formulary tiers not subject to a deductible	587	59	12.0	61	405	53	11.9	63
Participate in SSM	308	31	5.4	28	256	33	6.1	32

Note: PDP (prescription drug plan), SSM (Senior Savings Model). The PDPs and enrollment described here exclude employer-only plans and plans offered in U.S. territories. "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 $445 in 2021 and is $480 in 2022.

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

- Plan sponsors are offering 766 stand-alone PDPs in 2022 compared with 996 in 2021—a decrease of more than 23 percent due primarily to mergers among plan sponsors and requirements that plan sponsors offer no more than one basic and two enhanced PDPs per region. Total enrollment in PDPs declined by 3.6 percent to 19.0 million beneficiaries in 2022 from 19.7 million in 2021, as enrollees shifted to MA–PDs (see Chart 10-7).
- For 2022, 61 percent of PDP offerings include enhanced benefits (basic plus supplemental coverage), a small decrease from the share in 2021. Enhanced plans have increased their share of enrollment, up to 54 percent in 2022 from 50 percent in 2021.
- In 2022, 70 percent of PDPs use the same $480 deductible as in Part D's defined standard benefit compared with 67 percent in 2021. Only 14 percent of PDP enrollees are in plans with no deductible. Also in 2022, 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 2022, 63 percent of PDP enrollees were in such plans, up from 61 percent in 2021.
- In 2022, 256 PDPs (33 percent) participate in the Center for Medicare and Medicaid Innovation's Part D Senior Savings Model that covers certain insulins at cost sharing of no more than $35 per one-month supply. Those participating PDPs enroll 6.1 million beneficiaries (32 percent of all PDP enrollees), compared with 5.4 million SSM enrollees in 2021.

Chart 10-11. Characteristics of general MA–PDs, 2021–2022

	2021				2022			
	Plans		Enrollees as of February 2021		Plans		Enrollees as of February 2022	
	Number	Percent	Number (in millions)	Percent	Number	Percent	Number (in millions)	Percent
Total	3,133	100%	16.9	100%	3,365	100%	18.1	100%
Type of organization								
Local HMO	2,007	64	11.3	67	2,052	61	11.7	64
Local PPO	1,072	34	4.9	29	1,261	37	6.0	33
PFFS	21	1	0.0	0	19	1	0.0	0
Regional PPO	33	1	0.6	3	33	1	0.4	2
Type of benefit								
Defined standard	31	1	0.1	1	25	1	0.1	0
Actuarially equivalent	66	2	0.1	1	51	2	0.1	1
Enhanced	3,036	97	16.6	99	3,289	98	17.9	99
Type of deductible								
Zero	1,582	50	9.1	54	1,900	56	11.3	63
Reduced	1,317	42	7.2	43	1,229	37	6.2	34
Defined standard*	234	7	0.5	3	236	7	0.6	3
Some formulary tiers not subject to a deductible	1,497	48	7.6	45	1,415	42	6.7	37
Participate in SSM	1,045	33	8.0	48	1,512	45	10.5	58

Note: MA–PD (Medicare Advantage–Prescription Drug [plan]), HMO (health maintenance organization), PPO (preferred provider organization), PFFS (private fee-for-service), SSM (Senior Savings Model). The MA–PDs and enrollment described here exclude employer-only plans, plans offered in U.S. territories, 1876 cost plans, special needs plans, 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 $445 in 2021 and is $480 in 2022.

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

- Sponsors are offering 3,365 MA–PDs in 2022 compared with 3,133 in 2021 (7 percent more). Enrollment in MA–PDs grew 7.3 percent from 16.9 million in 2021 to 18.1 million in 2022—a deceleration from more than 10 percent growth in the prior two years (data not shown).

- Between 2021 and 2022, the number of drug plans offered by HMOs grew slightly from 2,007 to 2,052; HMO drug plans remain the dominant type of MA–PD, making up 61 percent of all offerings. But local PPOs are growing in popularity. Over the same period, the number of drug plans offered by local PPOs increased nearly 18 percent from 1,072 plans to 1,261 plans, and their enrollees grew from 4.9 million to 6.0 million.

- In 2022, 98 percent of MA–PDs have enhanced benefits compared with 54 percent of PDPs (see Chart 10-10). In 2022, those MA–PDs enrolled 99 percent of all MA–PD beneficiaries.

- Fifty-six percent of MA–PDs have no deductible in 2022, and those plans attracted 63 percent of all MA–PD enrollees. In addition, 37 percent of enrollees are in plans that designate certain cost-sharing tiers of their formularies that are not subject to a deductible.

- In 2022, 10.5 million MA–PD enrollees (58 percent) participate in the Part D Senior Savings Model that covers certain insulins at cost sharing of no more than $35 per one-month supply.

Chart 10-12. Characteristics of SNPs, 2021–2022

	2021				2022			
	Plans		Enrollees as of February 2021		Plans		Enrollees as of February 2022	
	Number	Percent	Number (in millions)	Percent	Number	Percent	Number (in millions)	Percent
Total	949	100%	3.5	100%	1,130	100%	4.3	100%
Type of SNP								
Chronic condition	200	21	0.4	11	267	24	0.4	9
Dual eligible	575	61	3.1	87	679	60	3.8	89
Institutionalized	174	18	0.1	2	184	16	0.1	2
Type of benefit								
Defined standard	307	32	1.9	53	347	31	2.0	46
Actuarially equivalent	103	11	0.4	11	68	6	0.5	11
Enhanced	539	57	1.3	37	715	63	1.8	43
Type of deductible								
Zero	194	20	0.2	6	241	21	0.2	5
Reduced	136	14	0.4	10	140	12	0.4	9
Defined standard*	619	65	3.0	84	749	66	3.7	86
Some formulary tiers not subject to a deductible	399	42	1.3	36	377	33	1.4	33
Participate in SSM	133	14	0.2	7	190	17	0.3	6

Note: SNP (special needs plan), HMO (health maintenance organization), PPO (preferred provider organization), PFFS (private fee-for-service), SSM (Senior Savings Model). The SNPs and enrollment described here exclude plans offered in U.S. territories. 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 $445 in 2021 and is $480 in 2022.

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

- The number of SNPs (MA–PDs designed for certain groups of beneficiaries) has grown rapidly; in 2022, there are 19 percent more than in 2021. Enrollment in SNPs grew 21.7 percent from 3.5 million in 2021 to 4.3 million in 2022—continuing the trend of double-digit growth that has occurred since 2017.

- SNPs for individuals dually eligible for Medicare and Medicaid (D–SNPs) are the most popular type. In 2022, 60 percent of SNPs were D–SNPs, and they enrolled 89 percent of all SNP enrollees. Other types of SNPs include those for individuals who have certain chronic conditions and those for institutionalized beneficiaries.

- Compared with PDPs and MA–PDs, SNPs are more likely to offer a defined standard benefit, with 31 percent of SNPs offering such coverage in 2022. These plans enrolled 46 percent of SNP beneficiaries. While 63 percent of all SNPs provide enhanced coverage in 2022, they enrolled just 43 percent of all SNP enrollees.

- Dually eligible beneficiaries automatically receive Part D's low-income subsidy, which means that most recipients pay nominal copayments while the subsidy pays the remainder of their plan's cost sharing. Because nominal copayments limit the effectiveness of a formulary with tiered cost sharing, sponsors of D–SNPs more frequently use Part D's defined standard benefit design. For the same reason, D–SNPs are also less likely to have some formulary tiers not subject to a deductible and are less likely to participate in the Part D's Senior Saving Model.

Chart 10-13. Change in average Part D premiums, 2018–2022

	Average monthly premium weighted by enrollment					Cumulative change in weighted average premium, 2018–2022
	2018	2019	2020	2021	2022	
All plans	**$32**	**$29**	**$27**	**$26**	**$26**	**–17 %**
Basic plans	30	32	30	32	34	14
Enhanced plans						
Basic benefits	26	22	20	18	15	–41
Supplemental benefits	7	6	6	6	8	15
Total premium	33	28	26	24	23	–29
All basic coverage	28	25	23	22	21	–25
PDPs	**41**	**40**	**38**	**38**	**40**	**–3**
Basic plans	31	32	30	32	35	14
Enhanced plans						
Basic benefits	42	35	33	29	23	–45
Supplemental benefits	15	15	15	16	21	42
Total premium	57	50	48	45	44	–22
All basic coverage	35	33	31	30	28	–19
MA–PDs, including SNPs	**18**	**16**	**15**	**15**	**15**	**–19**
Basic plans	28	28	26	31	33	19
Enhanced plans						
Basic benefits	15	13	12	12	11	–25
Supplemental benefits	1	1	1	1	1	–41
Total premium	17	14	13	13	12	–27
All basic coverage	17	15	14	14	14	–18
Average MA–PD buy-down of basic premium	16	16	15	19	22	40
Average MA–PD buy-down of supplemental benefits	16	17	20	21	26	59
Base beneficiary premium	35.02	33.19	32.74	33.06	33.37	–5

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.

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Chart 10-13. Change in average Part D premiums, 2018–2022 (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 https://www.medpac.gov/wp-content/uploads/2021/11/medpac_payment_basics_21_partd_final_sec.pdf.)

- The overall average premium paid by enrollees for any type of Part D coverage declined only slightly in 2022 from 2021, rounding to $26 per month in both years. Over the period from 2018 to 2022, 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 $28 in 2018 to $21 per month in 2022, a cumulative decline of 25 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 13 of the Commission's March 2022 report to the Congress at https://www.medpac.gov/wp-content/uploads/2022/03/Mar22_MedPAC_ReportToCongress_Ch13_SEC.pdf.)

- Over the five-year period, the average enrollee premium for basic coverage in PDPs ranged between a low of $30 in 2020 and a high of $35 per month in 2022. Between 2018 and 2022, the average premium for such plans increased by a cumulative 14 percent. Among enhanced plans offered by PDPs, the average enrollee premium has ranged from $44 in 2022 to $57 in 2018. Over the five-year period, the average premium for these plans decreased by a cumulative 22 percent. Of the $44 average premium in 2022 among enhanced PDPs, $23 was for basic benefits and $21 was for supplemental benefits. The portion of enhanced premiums attributable to supplemental benefits has grown, 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 $26 in 2020 and a high of $33 per month in 2022. From 2018 to 2022, the average premium for such plans increased by a cumulative 19 percent. The average premium paid by beneficiaries enrolled in MA–PDs offering enhanced coverage has decreased from $17 in 2018 to $12 in 2022, a cumulative 27 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 2022, MA–PD enrollees avoided having to pay $22 per month in basic premiums and an additional $26 per month for supplemental coverage, on average.

Chart 10-14. Part D benchmarks for LIS premiums and number of qualifying PDPs, by region

		2007		2022		Cumulative change, 2007–2022	
Region	State(s)	Benchmark amount	Number of PDPs	Benchmark amount	Number of PDPs	Benchmark amount	Number of PDPs
1	ME, NH	$36	18	$31	5	–15%	–72%
2	CT, MA, RI, VT	30	15	36	6	20	–60
3	NY	30	13	42	4	42	–69
4	NJ	31	19	37	6	18	–68
5	DC, DE, MD	33	16	37	6	10	–63
6	PA, WV	33	20	41	7	25	–65
7	VA	34	17	35	7	2	–59
8	NC	36	14	36	6	–1	–57
9	SC	35	16	31	5	–11	–69
10	GA	33	16	32	6	–2	–63
11	FL	29	5	34	4	18	–20
12	AL, TN	32	14	33	7	1	–50
13	MI	33	15	31	7	–5	–53
14	OH	31	13	34	4	9	–69
15	IN, KY	36	17	30	6	–17	–65
16	WI	31	19	42	7	35	–63
17	IL	32	17	29	7	–8	–59
18	MO	31	10	33	5	7	–50
19	AR	35	18	27	5	–25	–72
20	MS	36	15	29	6	–20	–60
21	LA	34	8	36	6	6	–25
22	TX	32	12	25	5	–21	–58
23	OK	35	14	31	7	–12	–50
24	KS	33	16	33	5	–2	–69
25	IA, MN, MT, ND, NE, SD, WY	33	16	39	6	17	–63
26	NM	26	9	34	6	32	–33
27	CO	29	15	40	5	38	–67
28	AZ	25	8	40	9	63	13
29	NV	23	7	32	5	35	–29
30	OR, WA	31	16	40	7	32	–56
31	ID, UT	34	18	43	7	28	–61
32	CA	23	9	33	5	43	–44
33	HI	27	13	36	5	31	–62
34	AK	35	15	33	4	–6	–73

Note: LIS (low-income subsidy), PDP (prescription drug plan). All calculations exclude plans offered in U.S. territories.

Source: MedPAC analysis of CMS benchmark amounts and plan report data.

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Chart 10-14. Part D benchmarks for LIS premiums and number of qualifying PDPs, by region (continued)

- Part D's LIS covers most premiums and cost sharing for enrollees with low incomes and assets. The LIS's coverage of premiums has a dollar limit, known as the benchmark, that encourages beneficiaries to enroll in lower-cost PDPs. Beneficiaries who enroll in plans with premiums that are less than the benchmark do not pay a premium; those who enroll in plans with higher premiums pay the difference. The PDPs for which LIS beneficiaries do not pay a premium are known as benchmark plans. When LIS beneficiaries do not select a PDP, Medicare automatically enrolls them in benchmark plans.

- The LIS benchmark equals the average premium for basic coverage in a region. CMS calculates it using a weighted average of both PDP and MA–PD premiums. For plans that offer enhanced coverage, CMS uses the portion of the plan's premium that reflects the cost of basic coverage only. For MA–PDs, CMS uses the amount of the premium for basic coverage before the plan sponsor has used any Part C (Medicare Advantage) rebates to reduce or eliminate the premium. The weight for each plan equals its share of LIS enrollment. CMS calculates separate benchmarks for each Part D region and updates them annually.

- In 2022, the lowest benchmark premium was $25 in Region 22 (Texas). This region also had the lowest benchmark premium in 2020 and 2021. Region 31 (Idaho and Utah) had the highest benchmark premium in 2022 at $43 per month.

- The average benchmark premium across regions (not weighted by numbers of enrollees) has been relatively stable over the years, rising from $32 per month in 2007 to $35 in 2022, an increase of 9 percent over 15 years (data not shown).

- In 2007, the average number of benchmark plans in a region was 14; by 2022, that figure had dropped to 6, a decline of 59 percent (data not shown). The number of benchmark plans has declined between 2007 and 2022 in every region except 28 (Arizona), which has 13 percent more plans in 2022 than in 2007. Several factors explain this decline, particularly (1) a change in policy in 2010 under which CMS only permitted plan sponsors to offer one basic plan (because any additional basic plan would have the same actuarial value) and (2) mergers and acquisitions among plan sponsors. The maximum number of benchmark plans in any region in 2022 is 9, compared with 20 in 2007.

Chart 10-15. In 2022, about one in two listed drugs is subject to some utilization management

	Benchmark PDPs	PDP enrollees	MA–PD enrollees
5-tier formulary structure* (in percent)	100%	100%	99%
Drugs on formulary as % of all Part D drugs**	69%	71%	77%
Median cost-sharing amounts			
Tier 1: generic drugs	$0	$0	$0
Tier 2: other generic drugs	5	5	10
Tier 3: preferred brand-name drugs	38	42	47
Tier 4: nonpreferred drugs	38%	40%	$100
Tier 5: specialty-tier drugs	25%	25%	33%
Drugs with utilization management requirement (in percent)			
Prior authorization	31%	31%	27%
Step therapy	0	1	1
Quantity limits	38	40	42
Any utilization management	51	52	54

Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]). Figures 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. Generic drugs placed on Tier 1 are "preferred" (i.e., lowest cost sharing) relative to generic drugs placed on higher tiers, including Tier 2.
* Includes formularies with an additional (sixth) tier used for certain types of drugs, such as over-the-counter medications.
** Number of all Part D drugs is based on the counts of unique chemical entities listed on CMS's formulary reference file for the 2022 benefit year.

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 2022, nearly all enrollees are enrolled in plans with this five-tier structure, including plans with an additional (sixth) tier for certain types of drugs (for example, vaccines), typically with no cost sharing.
- The number of drugs listed on a plan's formulary affects a beneficiary's access to medications. In 2022, on average, PDP enrollees have access to 71 percent of all Part D–covered drug products compared with 77 percent among MA–PD enrollees. That share was lower (69 percent) for beneficiaries enrolled in benchmark plans—basic PDPs for which LIS enrollees do not have to pay a premium (see Chart 10-14 for information about benchmark plans).

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Chart 10-15. In 2022, about one in two listed drugs is subject to some utilization management (continued)

- For enrollees in PDPs with a five-tier structure, the median copay in 2022 is $0 for a generic drug on a lower tier and $5 for other generic drugs. The median copay is $42 for a preferred brand-name drug and 40 percent coinsurance for a nonpreferred drug. Average cost-sharing amounts for benchmark plans are generally similar to other PDPs, with somewhat lower cost sharing for brand-name drugs. For MA–PD enrollees, in 2022, the median copays for generic drugs are $0 and $10 for the two generic tiers, respectively. The median copay is $47 for a preferred brand and $100 for a nonpreferred drug. About 15 percent of MA–PDs use coinsurance (median is 44 percent) for nonpreferred drugs. Both PDPs and MA–PDs use coinsurance (25 percent and 33 percent, respectively) for specialty-tier drugs.

- 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 2022, the use of some form of utilization management, on average, increased to 52 percent of drugs listed on a plan's formulary in stand-alone PDPs and 54 percent in MA–PDs. Use of utilization management among benchmark plans is similar to that of other PDPs. 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 2022 increased for both stand-alone PDPs and MA–PDs (to 31 percent and 27 percent, respectively) (2021 data not shown). The share with quantity limits increased for both types of plans. In 2022, on average, quantity limits apply to 40 percent and 42 percent of drugs listed on formularies of stand-alone PDPs and MA–PDs, respectively. The share of drugs listed on plan formularies that require the use of step therapy remains very low for both stand-alone PDPs and MA–PDs.

Chart 10-16. Components of Part D spending growth, 2009–2020

	2009	2020	Average annual growth 2009–2020
Total gross spending (in billions)	$73.7	$198.6	9.4%
High-cost beneficiaries	29.2	122.8	14.0%
Lower-cost beneficiaries	44.6	75.8	4.9%
Number of beneficiaries using a Part D drug (in millions)	26.5	46.3	5.2%
High-cost beneficiaries	2.4	3.8	4.4%
Lower-cost beneficiaries	24.1	42.4	5.3%
Amount per beneficiary who used Part D drugs			
Gross drug spending per year	$2,781	$4,294	4.0%
Average price per 30-day prescription	$55	$75	2.9%
Number of 30-day prescriptions	50.4	57.0	1.1%
Amount per high-cost beneficiary who used Part D drugs			
Gross drug spending per year	$12,294	$32,108	9.1%
Average price per 30-day prescription	$110	$276	8.7%
Number of 30-day prescriptions	111.4	116.2	0.4%
Amount per lower-cost beneficiary who used Part D drugs			
Gross drug spending per year	$1,846	$1,786	–0.3%
Average price per 30-day prescription	$42	$35	–1.7%
Number of 30-day prescriptions	44.5	51.7	1.4%

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 common Medicare environment file from CMS.

- Between 2009 and 2020, gross spending on drugs under the Part D program grew by an annual average rate of 9.4 percent. The annual growth in spending was considerably higher (14 percent) among high-cost beneficiaries (individuals who incurred spending high enough to reach the catastrophic phase of the benefit) compared with 4.9 percent for lower-cost beneficiaries.

- During the 2009 through 2020 period, the number of beneficiaries who used Part D drugs grew by an annual average rate of 5.2 percent. The number of high-cost beneficiaries grew more slowly (4.4 percent) compared with lower cost beneficiaries (5.3 percent). The slower growth in the number of high-cost beneficiaries reflects the 25 percent increase ($1,250) in the out-of-pocket (OOP) threshold between 2019 and 2020. As a result, the number of high-cost enrollees fell by more than 11 percent from 4.3 million to 3.8 million (data not shown). (For more information about the impact of the increase in the OOP threshold in 2020, see Chapter 13 of the Commission's March 2022 report to the Congress at https://www.medpac.gov/wp-content/uploads/2022/03/Mar22_MedPAC_ReportToCongress_Ch13_SEC.pdf.)

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Chart 10-16. Components of Part D spending growth, 2009–2020 (continued)

- The average price per 30-day prescription covered under Part D rose from $55 in 2009 to $75 in 2020. Overall, growth in price per prescription accounted for more than two-thirds (2.9 percentage points) of the 4.0 percent average annual growth in spending per beneficiary among beneficiaries who used Part D drugs. Growth in prices per prescription reflects increases in the prices of existing drugs and changes in the mix of drugs, including the adoption of new, higher-priced 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 (8.7 percent) accounted for nearly all of the spending growth (9.1 percent) during this period. In contrast, among lower-cost beneficiaries, the average annual decrease in prices (–1.7 percent) resulted in an overall decrease in spending (–0.3 percent annually), despite an increase in the number of prescriptions filled during the same period.

Chart 10-17. Distribution of annual gross Part D drug spending for EGWP and other plan enrollees by percentile, 2020

		Enrollees in all plans other than EGWPs		
	EGWP enrollees	All	LIS	Non-LIS
Number of beneficiaries, in millions	7.6	42.5	14.1	28.4
Share of beneficiaries with no drug use	5%	8%	9%	8%
Mean annual gross drug spending	$4,391	$3,889	$6,565	$2,556
Distribution of annual gross drug spending, by percentile				
10th	$41	$12	$9	$13
30th	299	215	374	181
50th	791	590	1,409	447
70th	2,767	2,003	4,943	1,162
90th	8,975	8,050	15,221	5,646
95th	14,722	14,414	26,409	8,170
98th	31,332	30,783	50,430	15,331
99th	65,424	53,884	78,267	28,815

Note: EGWP (employer group waiver plan), LIS (low-income subsidy). Figures include all beneficiaries with at least one month of enrollment. A beneficiary was classified as "LIS" if that individual received Part D's LIS at some point during the year. "Gross drug 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.

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

- In 2020, annual gross Part D spending averaged $4,391 among beneficiaries in Part D plans operated by employers (EGWPs) compared with $3,889 among beneficiaries in other plans. EGWPs have distinct characteristics from other Part D plans. For example, in 2020, only 2 percent of EGWP enrollees received Part D's LIS, compared with 33 percent of enrollees in other plans (data not shown). EGWPs also tend to offer more generous benefits that supplement the standard Part D benefit (see Chart 10-7 for more information on EGWP plans). Among beneficiaries enrolled in non-EGWPs, 8 percent did not have any Part D claims. That share was 5 percent among beneficiaries enrolled in EGWPs.
- Based on annual gross spending, about 9 percent of EGWP enrollees and 8 percent of non-EGWP enrollees would have reached the catastrophic phase of the benefit (at about $9,000 and $9,700 in gross spending for beneficiaries with and without the LIS, respectively). However, the actual shares of beneficiaries who reach the catastrophic phase of the benefit are lower than the numbers estimated using gross drug spending because, under Part D's "true out-of-pocket (OOP)" provision, supplemental benefits that reduce an enrollee's OOP costs delay the point at which the individual reaches the OOP threshold.
- Among beneficiaries enrolled in plans other than EGWPs, beneficiaries who received the LIS were more likely to incur higher gross spending (with average annual spending of $6,565) compared with beneficiaries without the LIS ($2,556). About 10 percent of beneficiaries with the LIS had annual gross spending of more than $15,000 ($15,221 at the 90th percentile of the distribution) compared with just under 2 percent among beneficiaries without the LIS ($15,331 at the 98th percentile of the distribution).

Chart 10-18. Part D spending and use per enrollee, 2020

		Plan type		LIS status	
	Part D	PDP	MA–PD	LIS	Non-LIS
Total gross spending (billions)*	$198.6	$113.6	$85.0	$92.8	$105.8
Above OOP threshold (billions)	83.1	48.6	34.5	47.3	35.9
Share above OOP threshold	*42%*	*43%*	*41%*	*51%*	*34%*
Total number of prescriptions (millions)	2,638	1,400	1,238	907	1,731
Average spending per prescription	$75	$81	$69	$102	$61
Per enrollee per month					
Total spending	$349	$376	$318	$588	$257
OOP spending	31	36	24	5	40
Manufacturer gap discount	22	26	18	N/A	31
Plan liability	230	243	215	396	166
Low-income cost-sharing subsidy	52	53	50	186	N/A
Number of prescriptions	4.6	4.6	4.6	5.8	4.2

Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]), LIS (low-income 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. Components may not sum to totals due to rounding.
* "Total gross spending" includes $12.6 billion in manufacturer discounts for brand-name drugs and biologics filled by non-LIS enrollees during the coverage gap.

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

- In 2020, gross spending on drugs for the Part D program totaled $198.6 billion, with about 57 percent ($113.6 billion) accounted for by Medicare beneficiaries enrolled in stand-alone PDPs. Part D enrollees receiving the LIS accounted for about 47 percent ($92.8 billion) of the total. Manufacturer discounts for brand-name drugs filled by non-LIS enrollees while they were in the coverage gap accounted for 6.3 percent of the total, or 11.9 percent of the gross spending by non-LIS enrollees (up from 5.5 percent and 10.5 percent, respectively, in 2019; data not shown).

- Overall, 42 percent of gross spending was incurred after a beneficiary reached the annual OOP threshold ($6,350 in 2020). That share was higher among those who received the LIS (51 percent) compared with other enrollees (34 percent).

- The number of prescriptions filled by Part D enrollees totaled over 2.6 billion, with 53 percent (1.4 billion) accounted for by PDP enrollees. The 28 percent of enrollees who received the LIS accounted for about 34 percent (907 million) of the total number of prescriptions filled.

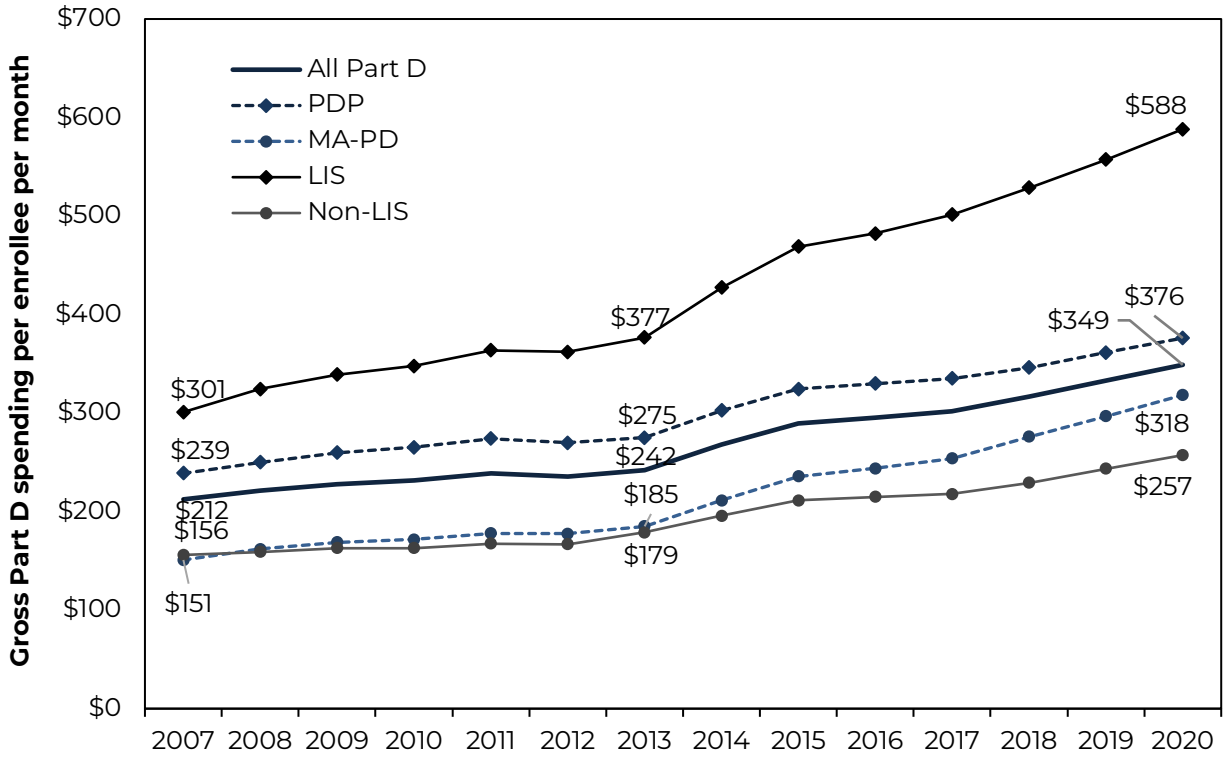
(Chart continued next page)

Chart 10-18. Part D spending and use per enrollee, 2020 (continued)

- In 2020, Part D enrollees filled 4.6 prescriptions at $349 per month on average, an increase from $333 per month (for 4.6 prescriptions) in 2019 (2019 data not shown). The average monthly plan liability for PDP enrollees ($243) was considerably higher than that of MA–PD enrollees ($215), who were more likely to receive supplemental benefits under enhanced benefit plans (see Chart 10-11). The average monthly OOP spending was smaller for MA–PD enrollees than PDP enrollees ($24 vs. $36, respectively). The difference in average monthly low-income cost-sharing subsidy between PDP enrollees MA–PD enrollees narrowed in 2020 to just $3 ($53 vs. $50), a decrease from a difference of about $7 ($50 vs. $43) in 2019 (2019 data not shown).

- Average monthly spending per LIS enrollee ($588) was more than double that of a non-LIS enrollee ($257), and the average number of prescriptions filled per month by an LIS enrollee was 5.8 compared with 4.2 for a non-LIS enrollee. LIS enrollees had much lower monthly OOP spending, on average, than non-LIS enrollees ($5 vs. $40, respectively). Part D's LIS pays for most of the cost sharing for LIS enrollees, averaging $186 per month in 2020.

Chart 10-19. Trends in Part D spending and use per enrollee per month, 2007–2020



Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]), LIS (low-income subsidy). "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 2020, average per capita spending per month for Part D–covered drugs grew from $212 to $349, an average growth rate of 3.9 percent annually, or about 64 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 other new expensive therapies in subsequent years.

- Between 2007 and 2020, monthly per capita spending for LIS enrollees grew faster than that for non-LIS enrollees, increasing from $301 to $588 (a cumulative growth of over 95 percent) compared with an increase from $156 to $257 for non-LIS enrollees (a cumulative growth of 65 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 2020 period (annual average growth of 5.9 percent and 3.6 percent, respectively). The average per capita spending for MA–PD enrollees continued to be lower than that of PDP enrollees (by $58 per month in 2020); however, that difference has been declining since 2014.

Chart 10-20. Top 15 therapeutic classes of drugs covered under Part D, by spending, 2020

	Gross spending		Negotiated rebates as a share of gross spending	Coverage-gap discount (billions)
	Billions	Percent		
Diabetic therapy	$34.5	17.4%	≥50%	$4.2
Antineoplastics	25.6	12.9	<10%	0.7
Anticoagulants	15.5	7.8	40% to 49%	2.5
Asthma/COPD therapy agents	14.6	7.4	40% to 49%	1.3
Disease-modifying anti-rheumatoid drugs	9.1	4.6	20% to 29%	0.3
Antipsychotics (neuroleptics)	7.1	3.6	10% to 19%	0.1
Antiretrovirals	7.0	3.5	<10%	0.2
Antihypertensive therapy agents	6.4	3.2	<10%	0.3
Ophthalmic agents	5.3	2.7	30% to 39%	0.4
multiple sclerosis agents	5.1	2.6	<10%	0.1
Antihyperlipidemics	4.7	2.4	10% to 19%	0.2
Anticonvulsants	4.1	2.1	<10%	0.1
Antidepressants	2.9	1.4	<10%	0.1
Analgesics (opioid)	2.7	1.3	10% to 19%	0.1
Dermatological (antipsoriatics)	2.6	1.3	<10%	0.1
Subtotal, top 15 drug classes	**147.2**	**74.1**	**25%**	**10.7**
Total all drug classes	**198.6**	**100.0**	**22%**	**12.6**

Note: COPD (chronic obstructive pulmonary disease). "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. Therapeutic classification is based on the First DataBank Enhanced Therapeutic Classification System. Components may not sum to totals due to rounding.

Source: MedPAC analysis of Medicare Part D prescription drug event and direct and indirect remuneration data from CMS.

- In 2020, the top 15 therapeutic classes by spending accounted for more than 74 percent of the $198.6 billion spent on prescription drugs covered by Part D plans.
- In 2020, total manufacturer rebates as a share of gross spending ranged from less than 10 percent to more than 50 percent. Some of that variation likely reflects the degree of competition within each therapeutic class. Overall, rebates for the top 15 classes averaged 25 percent of gross spending, higher than the average of 22 percent for all Part D spending. Rebates were the highest (greater than or equal to 50 percent) for diabetic therapies, which accounted for about 17 percent of total gross spending in Part D.
- In addition to negotiated rebates, manufacturers must provide discounts for brand-name drugs and biologics filled by non-LIS enrollees when they fill prescriptions in the coverage-gap phase of the benefit. In 2020, these top 15 classes accounted for 85 percent ($10.7 billion) of all coverage-gap discounts. Diabetic therapies alone accounted for roughly one-third of all coverage-gap discounts.

Chart 10-21. Despite high generic use, brand-name drugs accounted for the majority of spending in the top 15 therapeutic classes by spending, 2020

	Prescriptions*		Generic dispensing rate	Brand share of gross spending	LIS share of prescriptions
	Millions	Percent			
Diabetic therapy	184.6	7.0%	63%	97%	31%
Antineoplastics	14.6	0.6	87	95	21
Anticoagulants	52.0	2.0	30	98	26
Asthma/COPD therapy agents	80.3	3.0	47	92	44
Disease modifying anti-rheumatoid drugs	2.6	0.1	35	99	48
Antipsychotics (neuroleptics)	34.1	1.3	90	80	69
Antiretrovirals	3.3	0.1	16	98	70
Antihypertensive therapy agents	270.6	10.3	99	78	19
Ophthalmic agents	57.1	2.2	77	79	28
Multiple sclerosis agents	0.8	<0.1	24	93	51
Antihyperlipidemics	294.3	11.2	98	39	19
Anticonvulsants	102.2	3.9	98	49	46
Antidepressants	169.5	6.4	99	26	32
Analgesics (opioid)	63.9	2.4	97	43	44
Dermatological (antipsoriatics)	0.6	<0.1	45	97	56
Subtotal, top 15 drug classes	**1,330.7**	**50.5**	**86**	**89**	**29**
Total, all drug classes	**2,637.1**	**100.0**	**90**	**80**	**28**

Note: COPD (chronic obstructive pulmonary disease). "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. Therapeutic classification is based on the First DataBank Enhanced Therapeutic Classification System. Components may not sum to totals due to rounding.

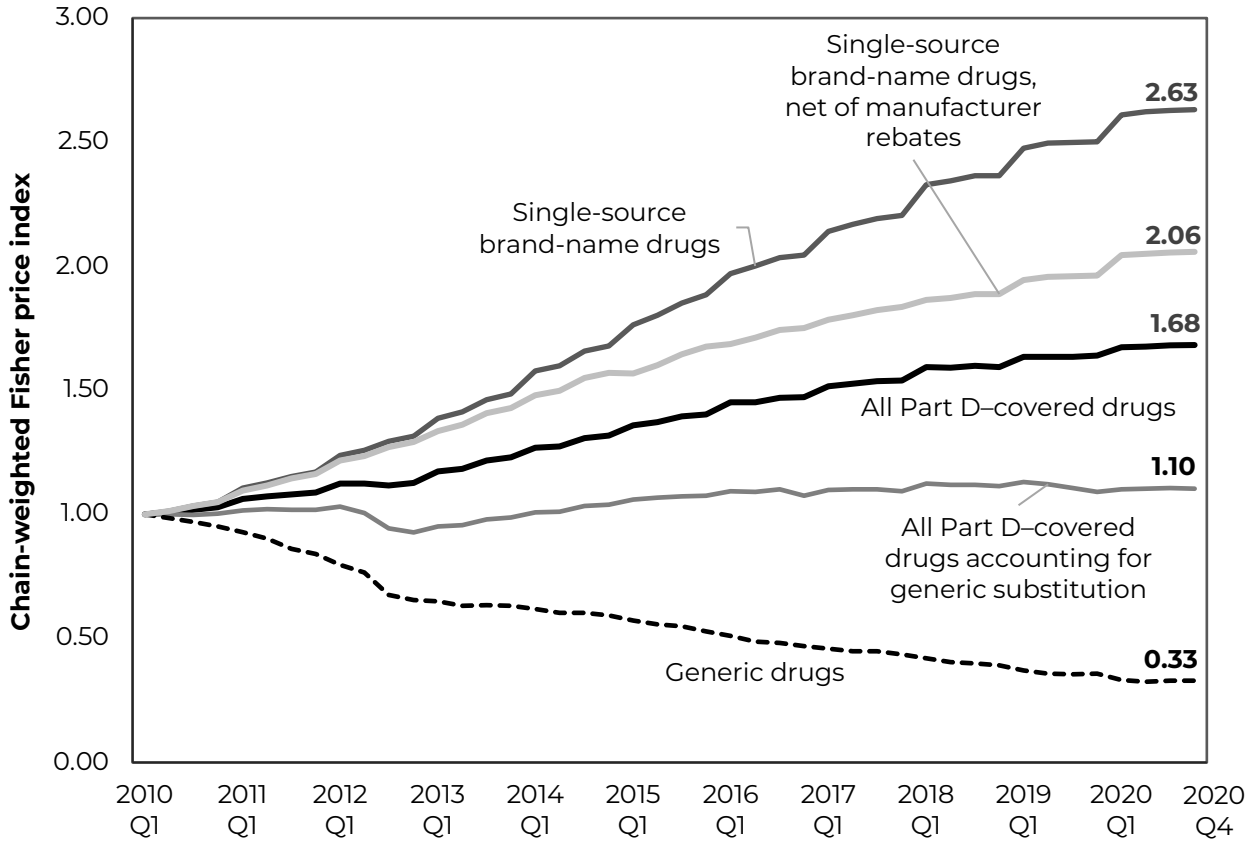
Source: MedPAC analysis of Medicare Part D prescription drug event and direct and indirect remuneration data from CMS.

- Prescriptions filled by Part D enrollees in the top 15 therapeutic classes by spending in 2020 (from Chart 10-20) totaled more than 1.3 billion prescriptions, accounting for about 50 percent of all prescriptions filled in Part D. While 86 percent of these prescriptions were for generic drugs, brand-name products accounted for 89 percent of the gross spending for these products in 2020.

- In 2020, LIS beneficiaries filled 29 percent of total prescriptions for products in these 15 classes, roughly equal to their share of prescriptions among all Part D drugs (28 percent). Nevertheless, LIS enrollees accounted for a disproportionate share of prescriptions in a few classes such as antiretrovirals (70 percent) and antipsychotics (69 percent).

- Even when generic drugs are widely used by Part D beneficiaries, for some therapeutic classes, brand-name drugs may still account for the vast majority of spending. For example, in 2020, generic drugs accounted for 87 percent of prescriptions for antineoplastics, but brand-name drugs accounted for 95 percent of gross spending for that class.

Chart 10-22. Price growth for Part D–covered drugs, 2010–2020



Note: Q1 (first quarter), Q4 (fourth quarter). Unless noted otherwise, Part D indexes reflect total amounts paid to pharmacies and do not reflect retrospective rebates or discounts from manufacturers and pharmacies.

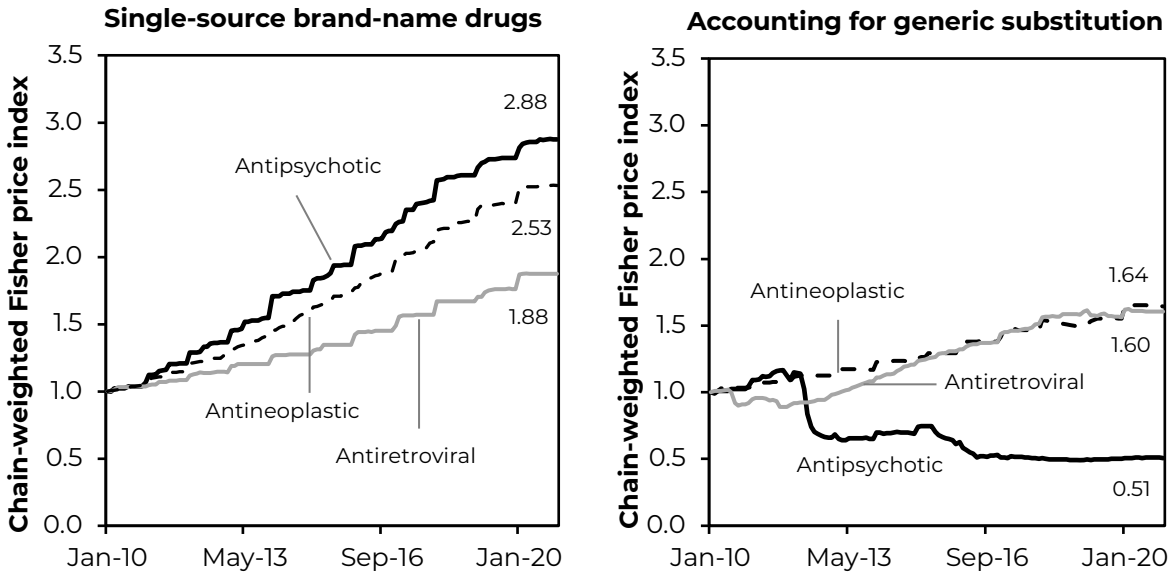
Source: Acumen LLC analysis for MedPAC.

- Measured by individual national drug codes, prices of drugs and biologics covered under Part D rose 68 percent cumulatively between 2010 and 2020 (an index of 1.68). (Prices reflect total amounts paid to pharmacies and do not reflect retrospective rebates or discounts from manufacturers and pharmacies.)

- Overall, between 2010 and 2020, prices of generic drugs covered under Part D decreased to 33 percent of the average price observed at the beginning of 2010. As a result, when measured by a price index that takes generic substitution into account, Part D prices have remained relatively flat since 2016, with cumulative increase in prices at the end of 2020 at 10 percent above the prices at the beginning of 2010 (an index of 1.10). New and increased generic competition for selected therapeutic classes, such as anticonvulsants, antineoplastics, and drugs for multiple sclerosis, played a key role in slowing the growth in overall Part D prices during this period.

- Between 2010 and 2020, prices for all single-source, brand-name drugs (drugs with no generic substitutes) grew by a cumulative 163 percent (an index value of 2.63), compared with 106 percent (an index value of 2.06) for prices net of manufacturer rebates.

Chart 10-23. Price growth for therapeutic classes with protected status under Part D, 2010–2020



Note: Price indexes reflect total amounts paid to pharmacies and do not reflect retrospective rebates or discounts from manufacturers and pharmacies.

Source: Acumen LLC analysis for MedPAC.

- Medicare Part D designates six “protected classes" for which plan sponsors must include “all or substantially all” available drugs on their formularies: antidepressants, antipsychotics, anticonvulsants, immunosuppressants for treatment of transplant rejection, antiretrovirals, and antineoplastics. This policy provides patients with broader access to products, but it may also give manufacturers greater market power to raise prices for drugs already on the market or set high prices for new drugs. However, there are considerable differences in the competitive pressures within each drug class that can affect pricing trends. Here we illustrate that variation with three of the protected classes that fall within Part D's top 15 therapeutic classes by gross spending (see Chart 10-20).

- Measured by individual national drug codes, between 2010 and 2020, cumulative price growth for single-source brand-name drugs in the three protected classes ranged from 88 percent (an index of 1.88) for antiretroviral therapies and 188 percent for antipsychotics (an index of 2.88). (Prices reflect total amounts paid to pharmacies and do not reflect retrospective rebates or discounts from manufacturers and pharmacies.)

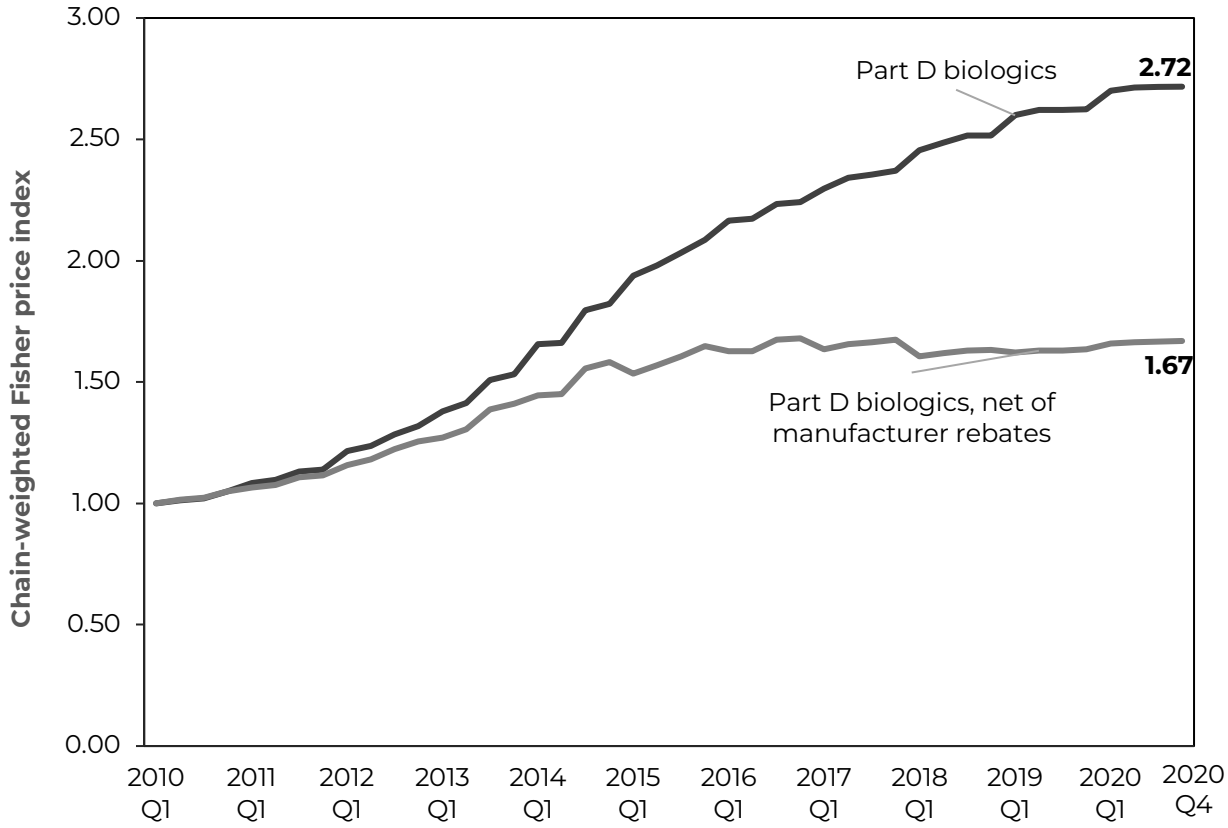
- The availability of generics varies considerably across the protected classes, and widespread use of generics can influence overall price growth. Antipsychotics are one such class. Despite 188 percent growth over the 10-year period in the price index for brand-name antipsychotics, an index for that class that accounts for generic substitution fell to roughly half of its 2010 level (index value of 0.51).

(Chart continued next page)

Chart 10-23. Price growth for therapeutic classes with protected status under Part D, 2010–2020 (continued)

- However, in other protected classes such as antineoplastics, the availability of generics does not necessarily constrain price growth. Despite a generic dispensing rate (GDR) of 87 percent, the price index for antineoplastics that accounts for generic substitution grew by 64 percent (an index value of 1.64), similar to growth in prices of antiretrovirals (1.60), which consists mostly of brand-name drugs (a GDR of just 16 percent) (see Chart 10-21 for GDR data). Generic use may not constrain overall prices for antineoplastic products because patients may use a generic product initially and then move to other brand-name products if their disease progresses, or the patient may take a combination of generic and brand-name products.

Chart 10-24. Price growth for biologics covered under Part D, 2010–2020



Note: Q1 (first quarter), Q4 (fourth quarter). Part D biologics indexes were constructed using total amounts paid to pharmacies with and without retrospective rebates and discounts from manufacturers. The indexes do not reflect retrospective fees and discounts from pharmacies.

Source: Acumen LLC analysis for MedPAC.

- Measured by individual national drug codes, prices of biologics (without retrospective rebates, fees, or discounts) covered under Part D rose 172 percent cumulatively between 2010 and 2020 (an index of 2.72). This increase is similar to the growth in prices for all single-source drugs and biologics (163 percent, or an index value of 2.63). (See Chart 10-22 for index measuring prices of all single-source drugs and biologics.)
- In comparison, between 2010 and 2020, prices of biologics net of retrospective rebates and discounts from manufacturers grew by a cumulative 67 percent (an index value of 1.67). The effect of manufacturer rebates on the prices of biologics was greater than that for all single-source drugs and biologics, which grew by a cumulative 106 percent (an index value of 2.06) for prices net of manufacturer rebates. (See Chart 10-22 for index measuring prices of all single-source drugs (including biologics) net of manufacturer rebates.)
- Prices of biologics are highly influenced by prices of insulins. In 2020, insulins accounted for about 40 percent of total gross spending on biologics. Insulins and other antidiabetic therapies had some of the highest rebates, totaling more than 50 percent of gross spending for therapies in that class (see Chart 10-20).

Chart 10-25. Potential impact of biosimilars and certain follow-on biologics on Part B and Part D spending

Brand name	Earliest biosimilar launch date (expected)	Number of biosimilars: Approved	Number of biosimilars: In pipeline	2020: Part B spending on originator product (billions)	2020: Part D spending on originator product (billions)	2020: Total Part B and Part D spending on biosimilars (billions)
Products with an approved biosimilar on the market						
Neupogen	2015	3	1–3	$0.02	$0.02	$0.08
Remicade	2016	4	1–3	0.66	0.10	0.13
Procrit/Epogen	2018	1	1–3	0.10	0.16	0.09
Neulasta	2018	5	4–6	0.90	0.07	0.33
Humalog	2018	2*	1–3	**	1.66	0.21
Rituxan	2019	3	4–6	1.30	0.05	0.27
Avastin	2019	3	7+	0.68	0.02	0.34
Herceptin	2019	5	4–6	0.46	0.01	0.22
Lantus	2020	3*	1–3	-	3.72	0.69
Novolog	2020	1*	1–3	-	2.44	0.04
Novolog Mix	2020	1*	0	-	0.53	0.01
Subtotal				***4.12***	***8.80***	***2.42***
Products with a biosimilar approved but not yet on the market						
Lucentis	2022	1	1–3	1.11	0.00	-
Humira	(2023)	7	4–6	-	4.17	-
Enbrel	(2028)	2	1–3	-	2.15	-
Subtotal				***1.11***	***6.32***	***-***
Products with a biosimilar in development but none approved						
Stelara			7+	0.30	1.11	-
Toujeo			1–3	-	0.78	-
Soliris			1–3	0.61	0.21	-
Cimzia			1–3	0.51	0.20	-
Actemra			4–6	0.28	0.18	-
Simponi			1–3	0.36	0.16	-
Xolair			4–6	0.40	0.15	-
Tysabri			1–3	0.22	0.04	-
Eylea			7+	3.01	0.03	-
Prolia/Xgeva			7+	1.63	-	-
Subtotal				***7.32***	***2.85***	***-***
TOTAL		**41**	**87**	**12.55**	**17.97**	**2.42**

Note: Products included in this analysis include those approved or known to be in development as of May 2022.
* Authorized generics and follow-on insulins are included as biosimilars for purposes of this analysis. While the biosimilar approval pathway was created in 2010 following passage of the Biologics Price Competition and Innovation Act (included in the Affordable Care Act of 2010), biosimilar insulin products were unable to use this pathway until March 2020. For a list of biosimilars currently on the market and available under Part B, refer to Chart 10-5. Others included in this analysis: Avastin: Alymsys; Enbrel: Erelzi, Eticovo; Humalog: Admelog, insulin lispro AG; Humira: Amjevita, Cyltezo (INT), Hyrimoz, Hadlima, Abrilada, Hulio, Yusimry; Lantus: Basaglar, Semglee (INT), Rezvoglar; Lucentis: Byooviz; Neulasta: Fylnetra; Neupogen: Releuko; Novolog: insulin aspart AG; Novolog Mix: insulin aspart protamine AG.
** Not able to distinguish spending on Humalog from other insulin lispro products in Part B.

Source: MedPAC analysis of CMS Drug Spending Dashboard.

(Chart continued next page)

Chart 10-25. Potential impact of biosimilars and certain follow-on biologics on Part B and Part D spending (continued)

- The first biosimilar product licensed under the Public Health Service Act was launched in the U.S. in 2015. As of May 2022, the Food and Drug Administration (FDA) has approved 41 biological products to compete with innovator biologics (36 biosimilars and 5 follow-on or authorized generic insulin products). As of May 2022, manufacturers have launched 21 biosimilars in the U.S. and another 88 are in development.

- While most of the biosimilars launched so far have been for top-selling products primarily covered under Part B (including Rituxan, Neulasta, Remicade, and Avastin), several recently approved biosimilars are for originator products with some of the highest spending in Part D, including Humira, Lantus, and Enbrel. Humira and Lantus are the first two products for which a biosimilar has been designated as interchangeable, which in some states allows a pharmacist to substitute it for the originator product without the prescribing doctor's approval. This option may help increase the biosimilar's market share more rapidly.

- In 2020, Medicare spent $13.1 billion ($4.12 billion in Part B and $8.80 billion in Part D) on originator drugs for which biosimilars were available. Medicare spent another $7.4 billion ($1.11 billion in Part B and $6.32 billion in Part D) on drugs for which the FDA has approved biosimilars but manufacturers have not yet launched their products on the market. Spending on products for which biosimilars are in development but none are yet approved equaled $10.2 billion ($7.32 billion in Part B and $2.85 billion in Part D). In 2020, these products combined accounted for 14 percent of all Medicare spending for separately payable drugs in Part B and Part D.

- In 2020, $2.42 billion was spent on biosimilars, with 57 percent of that spending (data not shown) occurring in Part B.

SECTION 11

Other services

Dialysis
Hospice
Clinical laboratory

Chart 11-1. Growth in the number of dialysis facilities slowed in 2020; most facilities are for profit and freestanding

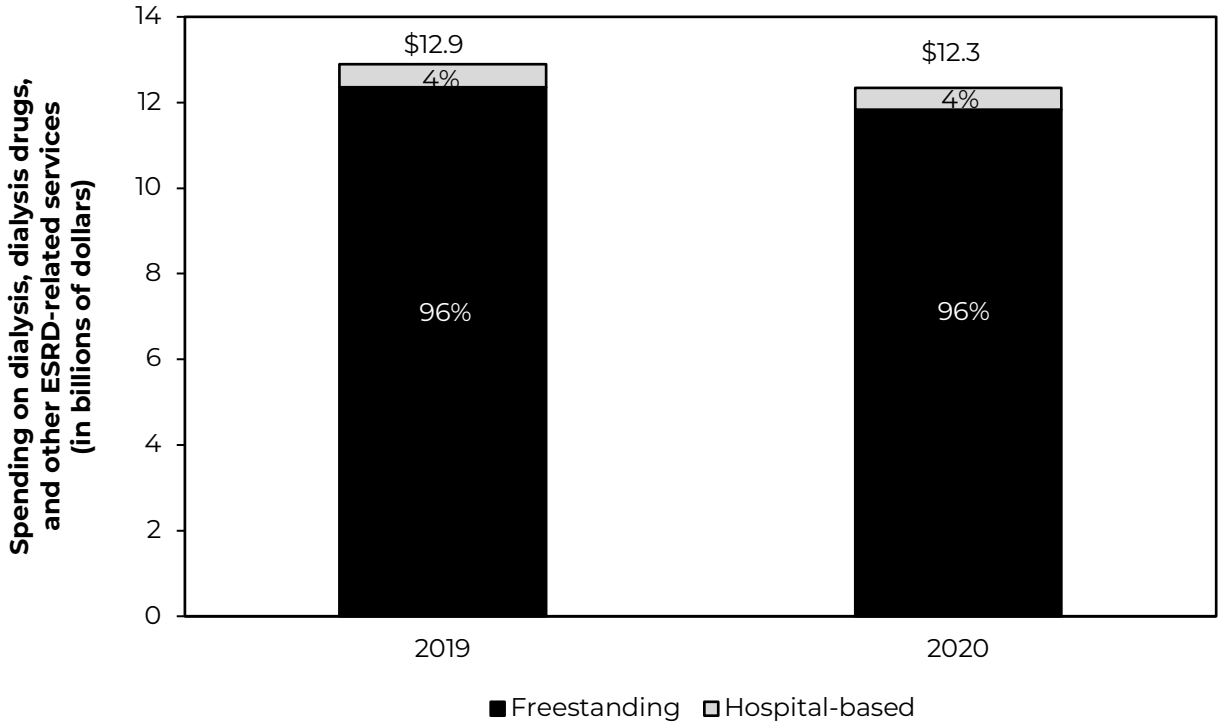
	2020	Average annual percent change 2015–2019	2019–2020
Total number of:			
Dialysis facilities	7,800	4%	1%
Hemodialysis stations	135,900	4	1
Mean number of hemodialysis stations per facility	18	–0.1	–0.1
	Share of total facilities		
Hospital based	5%	–3	–2
Freestanding	95	4	2
Urban	84	5	2
Rural, micropolitan	10	2	–1
Rural, adjacent to urban	4	2	–3
Rural, not adjacent to urban	2	0.4	–2
Frontier	0.4	1	–3
For profit	89	4	2
Nonprofit	11	2	–1

Note: "Nonprofit" includes facilities designated as either nonprofit or government. "Average annual percent change" is based on comparing 2015, 2019, and 2020 end-of-year files. Provider location reflects the county where the provider is located, in one of four categories (urban, micropolitan, rural adjacent to urban, and rural nonadjacent to urban) based on an aggregation of the Urban Influence Codes. Frontier counties have six or fewer people per square mile. 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 2015 and 2019, the number of facilities increased, on average, 4 percent per year, while between 2019 and 2020, the number of facilities increased on average by 1 percent. Likewise, facilities' capacity to provide care—as measured by hemodialysis treatment stations—grew more slowly between 2019 and 2020 compared with growth from 2015 through 2019 (1 percent per year vs. 4 percent per year, respectively).
- The recent decline in the growth of the total number of dialysis facilities and in-center capacity is likely attributable in part to coronavirus pandemic–related restrictions that may have affected the development of new facilities in 2020. The decline may also be linked to the growing trend toward home dialysis under the end-stage renal disease prospective payment system and the Center for Medicare & Medicaid Innovation's new model that aims to encourage greater use of home dialysis.
- The decline in rural capacity between 2019 and 2020 is also linked to facility size. Rural facilities are, on average, smaller than urban facilities. Also, compared with facilities that treated beneficiaries in 2019 and 2020, facilities that closed in 2019 were more likely to be small (as measured by the number of in-center hemodialysis treatment stations) (data not shown). The Commission's recommendation to replace the current low-volume payment adjustment and rural adjustment with a single low-volume and isolated adjustment would better protect isolated low-volume rural facilities that are necessary for beneficiary access.
- Since 2015, the number of freestanding and for-profit facilities increased, while hospital-based facilities decreased. Between 2015 and 2019, the number of freestanding and for-profit facilities each increased by 4 percent per year. The average size of a facility has remained relatively constant, averaging nearly 18 dialysis treatment stations per facility.

Chart 11-2. Medicare spending for outpatient dialysis services furnished by freestanding and hospital-based dialysis facilities, 2019 and 2020



Note: ESRD (end-stage renal disease).

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

- In 2020, total spending for dialysis, dialysis drugs, and ESRD-related clinical laboratory tests was $12.3 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.

- Six percent of total spending in 2020 consisted of payments for two calcimimetics paid under the ESRD PPS's transitional drug add-on payment adjustment (TDAPA) (data not shown); this policy pays providers according to the number of units of a drug and the drug's average sales price (ASP).

- Between 2019 and 2020, total ESRD expenditures decreased by 4 percent. The spending decline is partly attributable to the coronavirus pandemic, which resulted in slowing the initiation of dialysis by new patients and in excess mortality. Sadly, patients with ESRD are at increased risk for COVID-19-associated morbidity and mortality. Between 2019 and 2020, the number of FFS dialysis beneficiaries and the total number of treatments each declined by 3 percent (data not shown). A change in Medicare's TDAPA in 2020, from 106 percent of ASP to ASP with no percentage add-on, also contributed to the decline in spending.

- Freestanding dialysis facilities treated most dialysis beneficiaries and accounted for 96 percent of expenditures in 2019 and 2020.

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

	2009		2015		2019	
	Patients (thousands)	Percent	Patients (thousands)	Percent	Patients (thousands)	Percent
Total	573.6	100%	714.4	100%	809.1	100%
Dialysis	403.0	70	507.9	71	569.7	70
In-center hemodialysis	365.8	64	446.8	63	492.1	61
Home hemodialysis*	5.3	1	8.7	1	12.2	2
Peritoneal dialysis*	30.3	5	50.0	7	62.3	8
Unknown	1.7	0.3	2.3	0.3	3.1	0.4
Functioning graft and kidney transplant	170.6	30	206.5	29	239.4	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 had a functioning graft at the start of the year in question (i.e., 2009, 2015, or 2019), or who received a transplant during the year in question.
* Home dialysis methods.

Source: Compiled by MedPAC from the U.S. Renal Data System.

- People with ESRD require either dialysis or a kidney transplant to live. The total number of ESRD patients increased on average by 3.5 percent annually between 2009 and 2019.
- 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 their abdomen as a filter. Peritoneal dialysis is the most common form of home dialysis.
- Most people with ESRD undergo hemodialysis administered in a dialysis facility three times a week. Between 2009 and 2019, the total number of in-center hemodialysis patients grew on average by 3.0 percent annually, while the total number of peritoneal dialysis patients increased on average by 7.5 percent annually. Although a smaller proportion of all dialysis patients undergo home hemodialysis, the number of these patients grew on average by nearly 9 percent per year during this period.
- Patients with functioning grafts have had a successful kidney transplant. Patients undergoing a kidney transplant may receive either a living kidney or a cadaveric kidney donation. In 2019, 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 2019	Average annual percent change 2014–2019
Total (*N* = 809,103)	100%	3%
Age (years)		
0–17	1	1
18–44	14	1
45–64	42	2
65–79	34	5
80+	9	4
Sex		
Male	58	4
Female	42	3
Race/ethnicity		
White	43	3
Black	29	2
Native American	1	2
Asian American	6	6
Hispanic	19	5
Underlying cause of ESRD		
Diabetes	39	4
Hypertension	26	4
Glomerulonephritis	15	2
Other causes	20	3

Note: ESRD (end-stage renal disease). Totals may not equal the 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 U.S. Renal Data System.

- Among patients with ESRD, nearly 43 percent are over age 65. About 43 percent are White.
- Diabetes is the most common cause of renal failure.
- The number of patients with ESRD increased by 3 percent annually between 2014 and 2019. Among the fastest growing groups are patients between the ages of 65 and 79 and patients of Asian and Hispanic origins.

Chart 11-5. Characteristics of Medicare fee-for-service dialysis patients, 2020

	Share of all FFS dialysis patients
Age (years)	
Under 45	10%
45–64	37
65–74	29
75–84	18
85+	6
Sex	
Male	57
Female	43
Race	
White	46
Black	35
All other	19
Residence	
Urban county	83
Rural county, micropolitan	10
Rural county, adjacent to urban	5
Rural county, not adjacent to urban	2
Frontier county	1
Prescription drug coverage status	
Enrolled in Part D plan	83*
LIS	57
Dually eligible for Medicare and Medicaid	51

Note: FFS (fee-for-service), LIS (low-income 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. Components may not sum to 100 percent due to rounding.
* Data do not account for FFS beneficiaries with other sources of creditable coverage.

Source: MedPAC analysis of dialysis claims files and denominator files from CMS.

- Compared with all Medicare patients (see Chart 2-5), FFS dialysis patients are disproportionately younger and Black.
- In 2020, about 17 percent of FFS dialysis patients resided in a rural county.
- Half of all dialysis patients were dually eligible for Medicare and Medicaid services.
- In 2020, 83 percent of FFS dialysis patients were enrolled in Part D plans.

Chart 11-6. Aggregate margins varied by type of freestanding dialysis facility, 2020

Type of facility	Share of freestanding dialysis treatments	Aggregate margin
All facilities	100%	2.7%
Urban	88	3.5
Rural	12	–1.5
Treatment volume (quintile)		
Lowest	7	–20.2
Second	13	–8.2
Third	18	0.3
Fourth	24	4.8
Highest	39	10.1

Note: Pandemic-related federal relief funds are not accounted for in the data presented in this table. Margins include payments and costs for dialysis services commonly provided under treatment, including injectable drugs and laboratory tests that were separately paid before 2011. The Commission's longstanding approach to calculating the Medicare end-stage renal disease (ESRD) prospective payment system (PPS) margin uses only Medicare-allowable costs for ESRD services. Such an approach is consistent with the methods we use to calculate the Medicare margin for other fee-for-service sectors. Our ESRD margin analysis relies on the cost data that freestanding dialysis facilities report on the cost reports that they submit to CMS. In 2019, there was an anomalous increase in non-ESRD drug costs compared with prior years. Consistent with our longstanding approach, non-ESRD drug costs are not included in the Commission's analysis of ESRD PPS costs incurred by freestanding dialysis facilities or in our calculation of the ESRD PPS margin. Components may not sum to 100 percent due to rounding.

Source: Compiled by MedPAC from 2020 cost reports and the 2020 institutional outpatient file from CMS.

- For 2020, the aggregate Medicare margin for dialysis-related services, including ESRD-related drugs and laboratory tests that were separately paid before 2011, was 2.7 percent.
- Including a portion of the congressional pandemic relief funds (based on fee-for-service Medicare's share of 2019 all-payer operating revenue) in our aggregate Medicare margins would raise the 2020 aggregate Medicare margin to 3.7 percent (data not shown).
- Between 2019 and 2020, the aggregate Medicare margin decreased (from 8.4 percent to 2.7 percent) due to increasing cost per treatment for all cost categories with the exception of erythropoietin-stimulating agents and labs and due to the transitional drug add-on payment adjustment declining from 106 percent of average sales price (ASP) to ASP without an add-on.
- 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 in-center hemodialysis treatment stations and Medicare treatments provided. Some rural facilities have benefited from the ESRD PPS's low-volume adjustment.

Chart 11-7. Dialysis quality of care: Some measures show progress, others need improvement, 2014–2019

Outcome measure	2014	2018	2019
Share of in-center hemodialysis patients:			
Receiving adequate dialysis	97%	98%	98%
Dialyzed with an AV fistula	66	66	65
Share of peritoneal dialysis patients receiving adequate dialysis	91	92	91
Share of all dialysis patients managing anemia			
Mean hemoglobin <10 g/dL	27	29	30
Mean hemoglobin 10 to <12 g/dL	68	66	65
Mean hemoglobin ≥12 g/dL	5	5	5
Share of all dialysis patients wait-listed for a kidney	17.3	13.7	13.1
Renal transplant rate per 100 patient years	3.3	3.6	3.9
Annual mortality rate per 100 patient years*	16.7	16.4	16.0
Total hospital admissions per patient year*	1.7	1.7	1.7
Hospital days per patient year*	11.3	11.3	11.3

Note: AV (arteriovenous), g/dL (grams per deciliter [of blood]). The rate per patient year is calculated by dividing the total number of events by the fraction of the year that patients were followed. Analysis of data on dialysis adequacy is based on measures used by CMS in its ESRD Quality Incentive Program. The U.S. Renal Data System (USRDS) adjusts hospitalization and mortality measures by age, gender, race, and primary diagnosis of end-stage renal disease.
* 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 USRDS. 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 2014 and 2019, overall adjusted mortality rates decreased from 16.7 percent to 16.0 percent. During this period, the proportion of hemodialysis patients receiving adequate dialysis remained high, and rates of hospitalization have held steady.
- 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, remained steady between 2014 and 2019.
- Other measures suggest that improvements in dialysis quality are still needed. We look at access to kidney transplantation because it is widely believed to be the best treatment option for individuals with end-stage renal disease. Between 2014 and 2019, the share of dialysis patients accepted on the kidney transplant waiting list declined from 17.3 to 13.1, and the renal transplant rate per 100 dialysis-patient years increased modestly from 3.3 to 3.9.

Chart 11-8. Hospice spending and use increased in 2020

	2010	2019	2020	Average annual change, 2010–2019	Change, 2019–2020
Medicare payments (in billions)	$12.9	$20.9	$22.4	5.5%	7.4%
Beneficiaries in hospice (in millions)	1.15	1.61	1.72	3.8%	6.6%
Number of hospice days for all hospice beneficiaries (in millions)	81.6	121.8	127.8	4.6%	4.9%
Average length of stay among decedents (in days)	87.0	92.5	97.0	0.7%	4.8%
Median length of stay among decedents (in days)	18	18	18	0 days	0 days

Note: Lifetime 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 their lifetime. Total payments, number of hospice users, number of hospice days, and average length of stay displayed in the table are rounded; the percentage change for number of users and total spending is calculated using unrounded data.

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

- Total Medicare payments to hospices were about $22.4 billion in 2020, about 7.4 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 2020.

Chart 11-9. Number of Medicare decedents and number of decedents who used hospice grew substantially in 2020

	2010	2017	2018	2019	2020	Average annual percent change 2010–2019	Percent change 2019–2020
Number of Medicare decedents (millions)	1.99	2.28	2.31	2.32	2.73	1.7%	17.6%
Number of Medicare decedents who used hospice (millions)	0.87	1.14	1.17	1.20	1.31	3.6	9.0
Share of decedents who used hospice	43.8%	49.8%	50.6%	51.6%	47.8%		

Note: The "number of Medicare decedents who used hospice" reflects hospice use in the last calendar year of life. Analysis excludes beneficiaries without Medicare Part A because hospice is a Part A benefit. Yearly figures presented in the table are rounded, but figures in the percent change columns were calculated using unrounded data.

Source: MedPAC analysis of data from the Common Medicare Enrollment file and hospice claims data from CMS.

- In 2020, with the onset of the coronavirus pandemic, deaths among Medicare beneficiaries increased, as did hospice use among Medicare decedents. Between 2019 and 2020, deaths among Medicare beneficiaries increased by nearly 18 percent and the number of Medicare decedents who used hospice in their year of death increased by 9 percent.
- Because growth in deaths outpaced growth in the number of hospice users in 2020, the share of Medicare decedents using hospice declined between 2019 and 2020, from 51.6 percent to 47.8 percent.

Chart 11-10. Share of decedents using hospice increased from 2010 to 2019 but declined in 2020 as growth in deaths outpaced growth in hospice use

	Share of decedents using hospice			Average annual percentage point change	Percentage point change
	2010	2019	2020	2010–2019	2019–2020
All	43.8%	51.6%	47.8%	0.9	–3.8
FFS beneficiaries	42.8	50.7	47.2	0.9	–3.5
MA beneficiaries	47.2	53.2	48.7	0.7	–4.5
Dual eligible	41.5	49.3	42.3	0.9	–7.0
Non–dual eligible	44.5	52.4	49.8	0.9	–2.6
Age (years)					
<65	25.7	29.5	26.5	0.4	–3.0
65–74	38.0	41.0	37.2	0.3	–3.8
75–84	44.8	52.2	48.3	0.8	–3.9
85+	50.2	62.7	59.0	1.4	–3.7
Race/ethnicity					
White	45.5	53.8	50.8	0.9	–3.0
Black	34.2	40.8	35.5	0.7	–5.3
Hispanic	36.7	42.7	33.3	0.7	–9.4
Asian American	30.0	39.8	36.1	1.1	–3.7
North American Native	31.0	38.5	33.5	0.8	–5.0
Gender					
Male	40.1	46.7	42.9	0.7	–3.8
Female	47.0	56.3	52.7	1.0	–3.6
Residence					
Urban county	45.6	52.8	48.8	0.8	–4.0
Rural county, micropolitan	39.2	49.7	46.7	1.2	–3.0
Rural county, adjacent to urban	39.0	49.5	46.1	1.2	–3.4
Rural county, nonadjacent to urban	33.8	43.8	40.6	1.1	–3.2
Frontier county	29.2	36.2	33.3	0.8	–2.9

Note: FFS (fee-for-service), MA (Medicare Advantage). For each demographic group, the share of decedents who used hospice is calculated as follows: The number of beneficiaries in the group who both died and received hospice in 2020 is divided by the total number of beneficiaries in the group who died in 2020. "Residence" reflects the beneficiary's county of residence in one of four categories (urban, micropolitan, rural adjacent to urban, or rural nonadjacent to urban) based on an aggregation of the Urban Influence Codes (UICs). This chart uses the 2013 UIC definitions. The frontier category is defined as population density equal to or less than six people per square mile and overlaps the beneficiary county of residence categories. Analysis excludes beneficiaries without Medicare Part A because hospice is a Part A benefit.

Source: MedPAC analysis of data from the Common Medicare Enrollment file and hospice claims data from CMS.

(Chart continued next page)

Chart 11-10. Share of decedents using hospice increased from 2010 to 2019 but declined in 2020 as growth in deaths outpaced growth in hospice use (continued)

- Between 2010 and 2019, the share of decedents using hospice grew across beneficiary groups. In 2020, the share of decedents using hospice declined across groups as growth in deaths outpaced growth in hospice use. While the *share* of decedents using hospice declined in 2020, the *number* of Medicare decedents receiving hospice care in each group increased in 2020 (data not shown).

- In 2020, 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 11-11. Number of Medicare-participating hospices has increased due to growth in for-profit hospices

	2010	2018	2019	2020
All hospices	3,498	4,639	4,840	5,058
For profit	1,958	3,234	3,436	3,680
Nonprofit	1,316	1,245	1,255	1,220
Government	224	159	148	147
Freestanding	2,401	3,701	3,936	4,178
Hospital based	609	453	429	415
Home health based	465	463	456	444
SNF based	23	22	19	19
Urban	2,485	3,760	3,976	4,196
Rural	950	872	859	850

Note: SNF (skilled nursing facility). Some categories do not sum to total because of missing data for some 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 5,058 Medicare-participating hospices in 2020. About 73 percent of them were for-profit hospices.
- The number of Medicare-participating hospices grew by more than 200 providers between 2019 and 2020 and has increased about 45 percent since 2010. For-profit hospices accounted for all of the net growth in providers between 2019 and 2020.
- Growth in the number of providers has occurred predominantly among freestanding providers. Between 2010 and 2020, the number of hospital-based providers declined substantially while the number of home health–based providers has oscillated over the period and declined in the last few years. The number of SNF-based providers is small and has changed little over the years. (A hospice's status as freestanding, 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 2.5 percent between 2018 and 2020. The number of providers located in rural areas is not necessarily an indicator of access to care. The share of rural decedents using hospice grew through 2019 (see Chart 11-10). In addition, the number of rural beneficiaries receiving hospice services increased in 2020 (data not shown).

Chart 11-12. Hospice cases by primary diagnosis, 2020

Diagnosis	Share of total cases
Alzheimer's, nervous system disorders, organic psychosis	24%
Cancer	24
Circulatory, except heart failure	21
Heart failure	8
Respiratory disease	6
Other	6
Chronic airway obstruction, NOS	4
Genitourinary disease	2
Digestive disease	2
COVID-19	2
All	100

Note: NOS (not otherwise specified). Cases include all patients who received hospice care in 2020, not just decedents. "Diagnosis" reflects primary diagnosis on the beneficiary's last hospice claim in 2020. Subgroups may not sum to 100 percent due to rounding.

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

- In 2020, the most common primary diagnoses among Medicare hospice patients were neurological conditions (Alzheimer's disease, nervous system disorders, and organic psychosis) and cancer (each accounted for 24 percent of cases), circulatory conditions other than heart failure (21 percent), and heart failure (8 percent).

- About 2 percent of Medicare hospice patients had COVID-19 as their hospice primary diagnosis in 2020. An additional 3 percent of hospice patients had COVID-19 as a secondary diagnosis on their hospice claims in 2020 (data not shown).

Chart 11-13. Hospice average length of stay among decedents increased in 2020

Year	Average length of stay (in days)	Percentiles of length of stay (in days)				
		10th	25th	50th	75th	90th
2010	87.0	3	6	18	78	242
2017	89.3	2	5	18	80	251
2018	90.3	2	5	18	82	255
2019	92.5	2	5	18	85	266
2020	97.0	2	5	18	87	287

Note: Lifetime 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 their lifetime.

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

- The average length of stay among decedents was 97.0 days in 2020, an increase from 2019 of over 4 days.
- There is wide variation in hospice length of stay. In 2020, hospice length of stay among decedents ranged from 2 days at the 10th percentile to 287 days at the 90th percentile.
- Between 2010 and 2020, 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 grew from 78 days to 87 days at the 75th percentile and from 242 days to 287 days at the 90th percentile.

Chart 11-14. Hospice length of stay among decedents, by beneficiary and hospice characteristics, 2020

	Average length of stay (in days)	Length-of-stay percentiles (in days)		
		10th	50th	90th
Beneficiary				
Diagnosis				
Cancer	53	3	16	129
Neurological	161	4	40	483
Heart/circulatory	109	2	19	324
COPD	135	3	32	403
Other	54	2	7	149
Site of service				
Home	90	3	23	244
Nursing facility	133	3	26	410
Assisted living facility	172	5	59	491
Hospice				
For profit	115	2	22	349
Nonprofit	73	3	13	206
Freestanding	97	2	17	288
Home health based	73	2	15	202
Hospital based	59	2	11	163

Note: COPD (chronic obstructive pulmonary disease). Length of stay is calculated for Medicare beneficiaries who died in 2020 and used hospice that year and reflects the total number of days the decedent was enrolled in the Medicare hospice benefit during their lifetime. The location categories reflect where the beneficiary spent the largest share of their days while enrolled in hospice. "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.
- For beneficiaries with a hospice primary diagnosis of COVID-19, median length of stay was 3 days and average length of stay was 26 days (data not shown).
- 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 11-15. Nearly 60 percent of Medicare hospice spending in 2020 was for patients with stays exceeding 180 days

	Medicare hospice spending, 2020 (in billions)
All hospice users in 2019	$22.4
Beneficiaries with LOS > 180 days	13.3
Days 1–180	4.2
Days 181–365	4.1
Days 366+	4.9
Beneficiaries with LOS ≤ 180 days	9.2

Note: LOS (length of stay). "LOS" reflects the beneficiary's lifetime LOS as of the end of 2020 (or at the time of death or discharge in 2020 if the beneficiary was not enrolled in hospice at the end of 2020). All spending reflected in the chart occurred only in 2020. Break-out groups do not sum to total because of rounding.

Source: MedPAC analysis of 100 percent hospice claims standard analytical file and an Acumen LLC data file on hospice lifetime length of stay (which is based on an analysis of historic claims data).

- In 2020, Medicare hospice spending on patients with stays exceeding 180 days was about $13.3 billion, nearly 60 percent of all Medicare hospice spending that year.
- About $4.9 billion, or nearly 22 percent, of Medicare hospice spending in 2020 was on hospice care for patients who had already received at least one year of hospice.

Chart 11-16. Hospice Medicare aggregate margins, 2015–2019

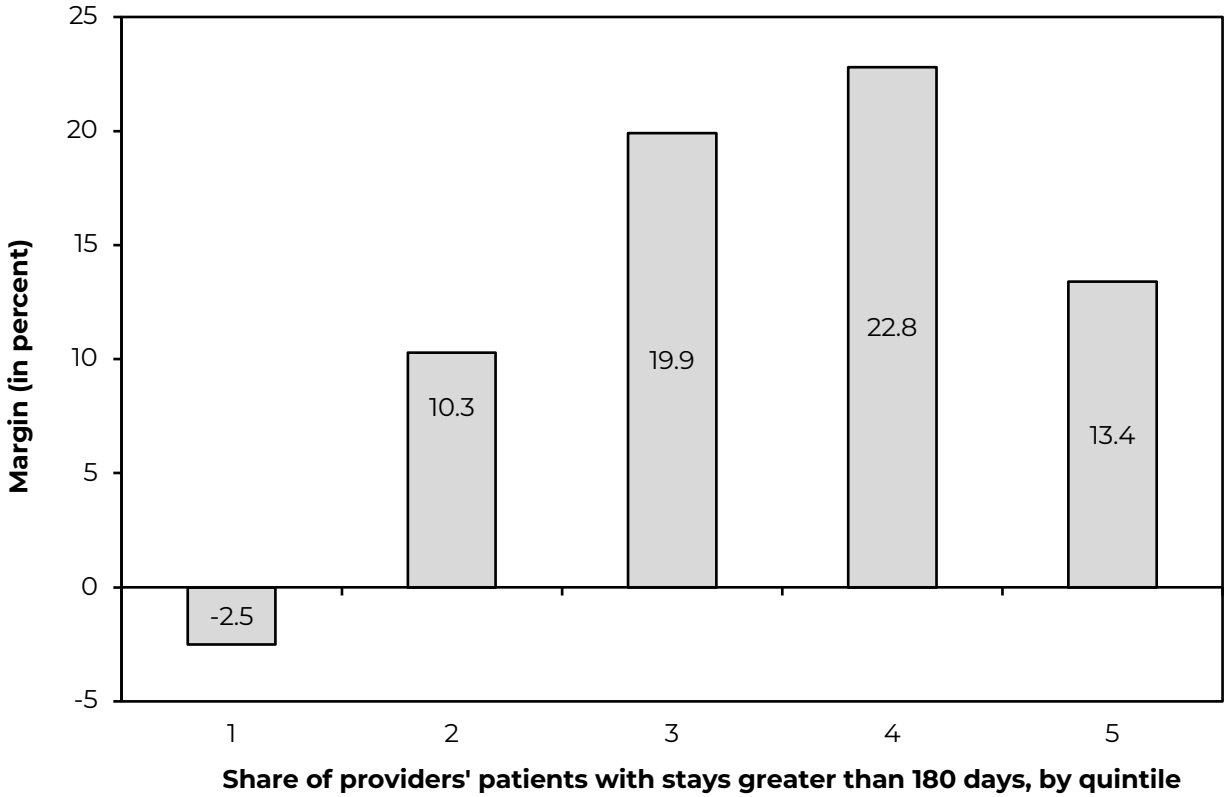
	Share of hospices (2019)	Medicare margin				
		2015	2016	2017	2018	2019
All	100%	9.9%	10.9%	12.5%	12.4%	13.4%
Freestanding	81	13.8	14.0	15.3	15.1	16.2
Home health based	9	3.3	6.2	8.1	8.4	9.6
Hospital based	9	–23.8	–16.7	–13.8	–16.5	–18.4
For profit	71	17.7	17.9	20.0	19.0	19.2
Nonprofit	26	0.1	2.2	2.5	3.8	6.0
Government	3	N/A	N/A	N/A	N/A	N/A
Urban	82	10.4	11.4	12.9	12.6	13.6
Rural	18	4.8	6.3	8.9	10.3	11.5
Below cap	81	9.9	10.7	12.6	12.5	13.8
Above cap	19	9.8	12.6	12.1	10.1	10.0
Above cap (including cap overpayments)	19	21.4	20.2	21.9	21.8	22.5

Note: N/A (not available). Medicare aggregate margins for all provider categories exclude overpayments to above-cap hospices except where specifically indicated. Medicare aggregate margins are calculated based on Medicare-allowable, reimbursable costs. Margin by hospice ownership status is based on hospices' ownership designation from the Medicare cost report. The rural and urban definitions used in this chart are based on updated definitions of the core-based statistical areas (which rely on data from the 2010 census). Components may not sum to 100 percent due to rounding.

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

- The aggregate Medicare margin was 13.4 percent in 2019, up from 12.4 percent in 2018.
- In 2019, freestanding hospices had higher margins (16.2 percent) than home health–based (9.6 percent) and hospital-based hospices (–18.4 percent).
- The 2019 margin among for-profit hospices was high at 19.2 percent. Nonprofit hospices as a group had a margin of 6.0 percent in 2019, but the subset of nonprofit hospices that were freestanding had a higher margin, 10.5 percent (latter figure not shown in chart).
- The aggregate 2019 margin was slightly higher for urban hospices (13.6 percent) than rural hospices (11.5 percent).
- Hospices that exceeded the cap (Medicare's aggregate average per beneficiary payment limit) had a 2019 margin of about 22.5 percent before the return of the cap overpayments.

Chart 11-17. Medicare aggregate margins were higher among hospices with more long stays, 2019



Note: Medicare aggregate 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 15 percent; it was between 15 percent and 22 percent in the second quintile; it was between 22 percent and 29 percent in the third quintile; it was between 29 percent and 36 percent in the fourth quintile; and it was greater than 36 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 2019. Hospices in the lowest length-of-stay quintile had a margin of –2.5 percent compared with a 22.8 percent margin for hospices in the second highest length-of-stay quintile.
- Margins were somewhat lower in the highest length-of-stay quintile (13.4 percent) compared with the second highest quintile (22.8 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 22.5 percent before the return of overpayments (see Chart 11-16).

Chart 11-18. Hospices that exceeded Medicare's annual payment cap, 2015–2019

	2015	2016	2017	2018	2019
Share of hospices exceeding the cap	12.3%	12.7%	14.0%	16.3%	19.0%
Average payments over the cap per hospice exceeding the cap (in thousands)	$316	$295	$273	$334	$384
Payments over the cap as a share of overall Medicare hospice spending in cap year	1.0%	1.0%	1.0%	1.3%	1.7%

Note: The aggregate cap statistics reflect the Commission's estimates and may differ from the CMS claims processing contractors'. Spending in cap year 2017 reflects an 11-month period from November 1, 2016, to September 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. Beginning 2018, the cap year is aligned with the federal fiscal year (October 1 to September 30 of the following year).

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

- The share of hospices exceeding the aggregate cap was 19.0 percent in 2019, up from 16.3 percent in 2018.
- On average, above-cap hospices exceeded the cap by about $384,000 per provider in 2019, up from about $334,000 per provider in 2018.
- Medicare payments over the cap represented 1.7 percent of total Medicare hospice spending in 2019.

Chart 11-19. Hospice live-discharge rates, 2018–2020

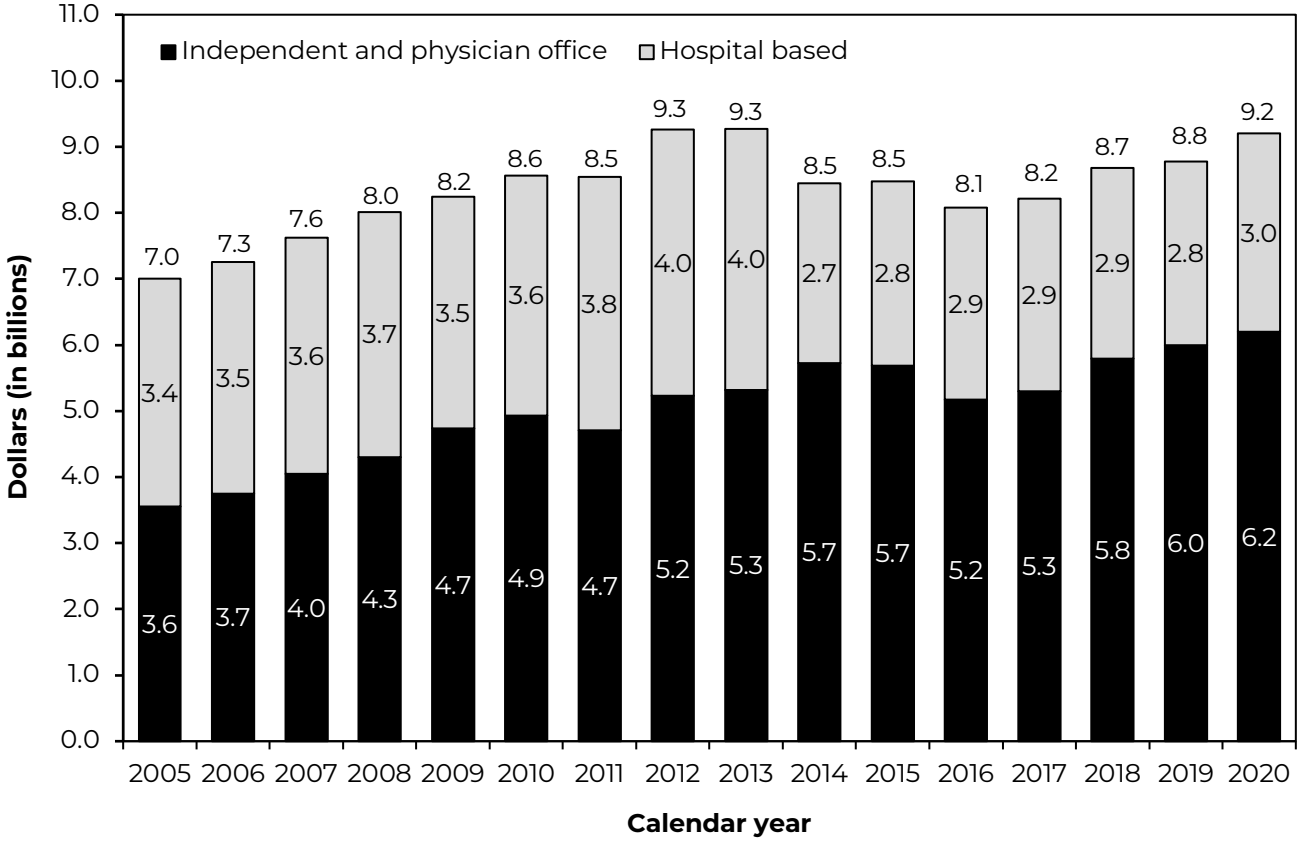
	2018	2019	2020
Live discharges as a share of all discharges, by reason for live discharge			
All live discharges	17.0%	17.4%	15.4%
No longer terminally ill	6.3	6.5	5.6
Beneficiary revocation	6.6	6.5	5.7
Transfer hospice providers	2.2	2.3	2.2
Move out of service area	1.6	1.7	1.6
Discharge for cause	0.3	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	8.5	8.6	7.5
25th percentile	12.0	12.3	10.9
50th percentile	17.9	18.9	16.9
75th percentile	27.8	29.5	26.6
90th percentile	42.5	46.6	43.3

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

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

- In 2020, the overall live-discharge rate declined from 17.4 percent to 15.4 percent, which contrasts with the prior period from 2017 to 2019 when the live discharge rate increased modestly from 16.7 percent to 17.4 percent (2017 data not shown). The decline in live-discharge rates in 2020 may reflect the effect of the pandemic and the higher beneficiary mortality rates during 2020.
- The most common reasons for live discharge were the beneficiary revoking the hospice benefit and the beneficiary no longer being terminally ill, accounting for 5.7 percent and 5.6 percent, respectively, of all discharges in 2020. 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 43 percent in 2020.
- Small hospices as a group have substantially higher live-discharge rates than larger hospices. In 2020, the aggregate live-discharge rate was 42 percent for hospices with 30 or fewer discharges, in contrast to a 15 percent aggregate live discharge rate for all hospices (data for small hospices not shown).

Chart 11-20. Medicare spending for clinical laboratory tests, 2005–2020



Note: Spending is for services paid under the clinical laboratory fee schedule. Hospital-based services are furnished in laboratories 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 laboratory tests.

Source: The annual report of the Boards of Trustees of the Medicare trust funds, 2015 and 2021.

- Medicare spending for clinical laboratory tests in all settings grew by an average of 3.6 percent per year between 2005 and 2013.
- From 2013 to 2014, Medicare spending for laboratory tests declined by about 9 percent because, beginning in 2014, many laboratory tests provided in hospital outpatient departments are no longer paid separately under the clinical laboratory 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 laboratory tests 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 2020, Medicare spending for laboratory tests grew by an average of 3.9 percent per year.

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