CHAPTER 1

Context for Medicare payment policy

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Chapter summary

Medicare is the single largest health insurer in the U.S., covering one in five Americans. As such, the Medicare program has great influence on the health care sector: It covers a substantial share of many health care providers' patients and influences the payment policies of other payers. Yet external forces in the environment can also have a substantial impact on the Medicare program, as seen most recently with the coronavirus pandemic.

Coronavirus disease 2019 (COVID-19) has had a disproportionate effect on Medicare beneficiaries. Individuals ages 65 and older have made up only 13 percent of reported COVID-19 cases but have constituted 75 percent of COVID-19 deaths. The risk of severe illness and death has been especially high for Medicare beneficiaries with disabilities and those with end-stage renal disease, who are one-and-a-half times and six times, respectively, more likely to be hospitalized for COVID-19 than beneficiaries who qualify for Medicare due to age alone. The coronavirus pandemic also has prompted many Medicare beneficiaries to adjust their health care utilization patterns. To minimize their risk of contracting COVID-19, some beneficiaries delayed seeking nonurgent health care at times; other beneficiaries may have had difficulty obtaining care as health care providers prioritized resources for the most severely ill.

In this chapter

The Congress appropriated several hundred billion dollars in relief funds to health care providers to offset lost revenues and ensure that they remained viable sources of care during the pandemic. The Congress and CMS also temporarily changed some payment policies, many of which are still in effect as of the date of publication of this report. These developments resulted in a doubling of the rate of growth in national health care spending in 2020. By 2021, relief funds tapered off, resulting in lower growth in national health care spending that year. By contrast, Medicare spending grew by a relatively modest 3.6 percent in 2020, then surged 8.4 percent in 2021 as patients resumed care; the suspension of a 2 percent payment sequester and a temporary 3.75 percent increase to clinician payment rates (unrelated to the pandemic) also contributed to Medicare spending growth in 2021. CMS actuaries estimate that Medicare spending grew at a more typical rate in 2022, 7.5 percent, and project that Medicare spending will grow by about 6 percent to 7 percent per year in 2023 through 2030. Medicare spending is expected to double over the next 10 years—rising from $875 billion in 2021 to $1.8 trillion in 2031. Medicare's projected spending growth is driven by growth in the number of beneficiaries (projected to increase from 63 million to 78 million over this period, as the baby-boom generation continues to age into Medicare) and continued growth in the volume and intensity of services delivered per beneficiary (as opposed to price increases).

Despite the projected growth in Medicare spending, the Medicare program finds itself—at least temporarily—in a somewhat better position financially than it was a year ago. After an initial economic slowdown at the start of the pandemic, the U.S. economy subsequently experienced strong growth, yielding higher-than-expected Medicare payroll tax revenues. This economic growth has contributed to a delay in the projected insolvency of Medicare's Hospital Insurance (HI) Trust Fund by a few years—to 2028, according to CMS's actuaries. However, to keep the HI Trust Fund solvent over the next 25 years, the Trustees estimate that the Medicare payroll tax would need to be raised immediately from its current rate of 2.9 percent to 3.66 percent or Part A spending would need to be permanently reduced by 16.9 percent. Alternatively, some combination of smaller spending reductions and smaller tax increases could be pursued.

Medicare payroll taxes are used to pay for Part A services (inpatient hospital stays and post-acute care following those hospital stays) and constitute only a portion of total Medicare spending (36 percent). The rest of Medicare's spending is largely funded by beneficiary premiums (which finance 17 percent

of Medicare spending) and general revenues (which finance 44 percent). As Medicare spending increases, it consumes growing shares of the budgets of Medicare beneficiaries and the federal government.

Trends in beneficiaries' health status have the potential to impact Medicare program spending. In recent decades, the share of people ages 65 and over who report being in only "fair" or "poor" health has declined. And the share of workers who gain eligibility for Social Security Disability Insurance (SSDI) payments each year has also been declining, falling from nearly 6.5 recipients per 1,000 workers in 2010 to 3 recipients per 1,000 workers in 2021. Research suggests that a number of factors likely influence the disability incidence rate, including the general health of the country's population, the social environment that leads a person with an impairment to become disabled, social mores, the unemployment rate (which tends to rise and fall in tandem with the disability incidence rate), financial incentives (such as the value of SSDI payments relative to wages), and policy changes. There has been little to no growth in the number of beneficiaries who have Medicare coverage as a result of disability in recent years, while the number of beneficiaries who qualify due to old age has been growing; as a result, a declining share of the Medicare population is now disabled.

The most prevalent chronic conditions among Medicare beneficiaries in 2020 were high blood pressure, high cholesterol, arthritis, diabetes, and enlarged prostate. Two other conditions—heart disease and cancer—have been the first and second most common causes of death among people ages 65 and over for years. In 2020, COVID-19 became the third-leading cause of death among Medicare beneficiaries and was ranked third in 2021 and 2022 as well. CMS actuaries have found that the Medicare beneficiaries who died of COVID-19 in 2020 tended to be high-cost beneficiaries with multiple medical conditions; CMS estimates that the remaining beneficiary population was 2 percent less costly than previously expected.

One of the most powerful ways that the Medicare program can control spending growth is by setting prices. Our annual March reports recommend updates to Medicare payment rates for various types of providers, which can be positive or negative depending on our assessment of the adequacy of Medicare payments for each sector. Over the last 10 years, spending per Medicare beneficiary has grown more slowly than spending per privately insured enrollee. Increasing prices have been the main cause of spending growth for the privately insured. From 2011 to 2021, annual per enrollee

spending on private health insurance grew 2.9 percent, driven in part by increased provider consolidation that has led to high levels of provider market power. By comparison, Medicare spending per enrollee increased by 2.4 percent per year, on average—closer to the general inflation rate of 2.0 percent over this period. Our annual June reports to the Congress typically present broader recommendations aimed at restructuring the way Medicare's payment systems work. For example, the Commission has recommended incorporating value-based insurance design into traditional Medicare's benefit design and changing the formula used to set payments for Medicare Advantage plans. The Commission's full inventory of recommendations, with links to relevant report chapters, is available at medpac.gov/recommendation/. The Commission's recommendations are based on our review of the latest available data and are aimed at obtaining good value for the Medicare program's expenditures—which means maintaining beneficiaries' access to high-quality services while encouraging efficient use of resources. ■

Introduction

Each March, the Commission reports to the Congress on traditional Medicare's various fee-for-service (FFS) payment systems, the Medicare Advantage (MA) program, and the Medicare Part D prescription drug program. To place the information presented in those chapters in context, this chapter highlights key national trends in health care spending for the country as a whole and for the Medicare program in particular. We also review the factors that contribute to Medicare spending growth—including trends in demographics and the volume and intensity of services delivered per beneficiary. Before considering the long-term financial context for the Medicare program, however, we first describe the short-term context: the coronavirus pandemic.

COVID-19 has had a disproportionate impact on Medicare beneficiaries

Medicare beneficiaries have been disproportionately affected by coronavirus disease 2019 (COVID-19). By the end of 2022, data from the Centers for Disease Control and Prevention (CDC) indicated that individuals ages 65 and older had made up only 13 percent of reported COVID-19 cases but had constituted 75 percent of reported COVID-19 deaths (Centers for Disease Control and Prevention 2022a). Medicare beneficiaries with disabilities have had a 50 percent higher risk of having a COVID-19 hospitalization compared with beneficiaries who qualify for Medicare due to old age (Yuan et al. 2022). And beneficiaries with end-stage renal disease have been six times more likely to be hospitalized for COVID-19 than beneficiaries who qualify for Medicare due to old age (Centers for Medicare & Medicaid Services 2022b).

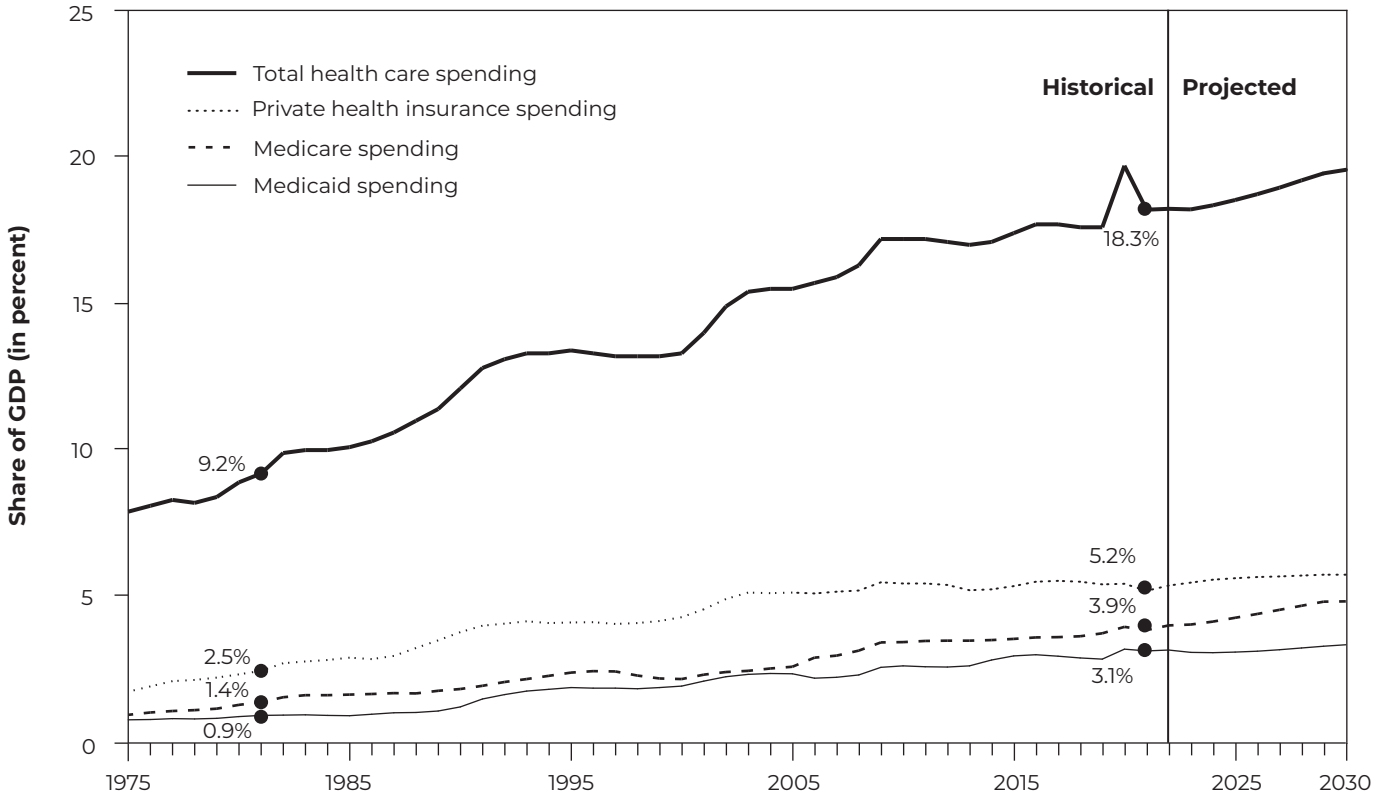
Clinicians have had to adjust to new care delivery approaches and priorities during the coronavirus pandemic—at times switching from providing in-person services to delivering them via telehealth and delaying elective procedures to preserve resources for the most severely ill. In the Commission's 2021 survey of Medicare beneficiaries ages 65 and over, 47 percent of beneficiaries reported having had a telehealth visit in the past year, either using video or an audio-only telephone call. In our 2022 survey (conducted in August 2022), that share had dropped to 35 percent, as access to in-person care was restored. Audio-only telephone visits were used somewhat more often (by 25 percent of beneficiaries) than video visits (which were used by 19 percent of beneficiaries in our 2022 survey). High shares of beneficiaries (92 percent) were satisfied with their telehealth visits, but less than half of telehealth users wanted to continue using telehealth after the pandemic ended.[1]

Despite the availability of telehealth, some services could not be provided through this medium and needed to be postponed in the early months of the pandemic. According to CMS's Medicare Current Beneficiary Survey, 21 percent of beneficiaries reported forgoing care during the first few months of the pandemic (Centers for Medicare & Medicaid Services 2020). By summer 2020, access had largely been restored: only 7 to 8 percent of Medicare beneficiaries surveyed in fall 2020 and spring 2021 reported forgoing care in the prior few months (Centers for Medicare & Medicaid Services 2021a, Centers for Medicare & Medicaid Services 2021b, Centers for Medicare & Medicaid Services 2020). The most common types of care that Medicare beneficiaries reported forgoing were dental care, regular check-ups, treatment for an ongoing condition, and diagnostic or medical screening tests (Centers for Medicare & Medicaid Services 2021a, Centers for Medicare & Medicaid Services 2021b, Centers for Medicare & Medicaid Services 2020). Consistent with this finding, a CDC survey fielded near the start of the pandemic found that 30 percent of respondents ages 65 and over reported delaying or avoiding routine care in the past few months, but only 4 percent reported delaying or avoiding urgent or emergency care (Czeisler et al. 2020).

To keep health care providers financially stable and ensure they remained viable sources of care during the coronavirus pandemic, the Congress appropriated several hundred billion dollars in relief funds and changed certain payment policies. The rate of growth in national health care spending doubled as a result, with 10.3 percent spending growth observed in 2020 compared with 4 percent or 5 percent in prior years (Martin et al. 2023).[2,3] In 2021, much smaller amounts of relief funds were paid to providers as the provision of in-person services increased. That year, national health care spending increased by a more modest 2.7 percent (Martin et al. 2023).

FIGURE 1–1

Health care spending has grown as a share of the country's GDP



Note: GDP (gross domestic product). First projected year in graph is 2022. Beginning in 2014, private health insurance spending includes federal subsidies for both premiums and cost sharing for the health insurance marketplaces created by the Affordable Care Act of 2010. Health care spending also includes the following expenditures (not shown): out-of-pocket spending; spending by other health insurance programs (the Children's Health Insurance Program, the Department of Veterans Affairs, and the Department of Defense); and other third-party payers and programs (including Indian Health Service; Substance Abuse and Mental Health Services Administration; maternal and child health; school health; workers' compensation; worksite health care; vocational rehabilitation; other federal programs; other state and local programs; other private revenues; and general assistance) and public health activity. Pandemic relief funds are not considered Medicare spending since they are meant to offset pandemic-related revenue losses from all payers, not just Medicare.

Source: MedPAC analysis of CMS's National Health Expenditure Data (projected data released in April 2022 and historical data released in December 2022), https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/index.html.

Despite its current and future challenges, the Medicare program finds itself in a better position financially than it was a year ago. After initially contracting at the start of the coronavirus pandemic, the U.S. economy subsequently experienced strong growth, yielding higher-than-expected Medicare payroll tax revenues. This contributed to a delay in the projected insolvency of Medicare's Hospital Insurance Trust Fund by a few years—to 2028, according to CMS's actuaries.

National health care spending has grown faster than GDP

Historically, national health care spending has grown faster than the U.S. gross domestic product (GDP) in most years, causing national health care spending as a share of GDP to increase over time (Figure 1-1). For example, from 1981 to 2021, national health care spending as a share of GDP doubled, increasing from 9.2 percent to 18.3 percent. The rate of growth

Rapid price growth in the private sector has not affected Medicare beneficiaries' access to care

Spending per enrollee on health care in the private sector has grown faster than spending per enrollee in the Medicare program. Between 2011 and 2021, private health insurance spending per enrollee grew by an average of 2.9 percent annually, while Medicare spending per enrollee grew by an average of 2.4 percent—closer to the general inflation rate of 2.0 percent per year (Bureau of Labor Statistics 2022, Centers for Medicare & Medicaid Services 2022a).

The difference between private sector spending growth and Medicare spending growth becomes more stark once patient cost sharing is taken into account. Between 2014 and 2020, total health care spending per capita (including cost sharing, but not including spending on retail prescription drugs) grew 21 percent for the privately insured, compared with 8 percent for beneficiaries in traditional fee-for-service (FFS) Medicare (Figure 1-2, p. 10). (Actual spending amounts are lower for the privately insured, who tend to be younger and healthier than Medicare beneficiaries.) In 2020, health care utilization declined among both the privately insured and the Medicare population due to the coronavirus pandemic.

Increased prices were largely responsible for this faster private spending growth, which occurred at a time of low growth in private sector health care utilization (Health Care Cost Institute 2022, Health Care Cost Institute 2020). Our analysis of payer data and review of the literature suggest that, although there is wide variation geographically and by service, private insurers generally pay rates about twice as high as Medicare for hospital services and almost one and a half times Medicare rates for physician services (Chernew et al. 2020, Kaiser Family Foundation 2020, Medicare Payment Advisory Commission 2017, Whaley et al. 2022).

One key driver of the private sector's higher prices is provider market power (Baker et al. 2014a, Baker et al. 2014b, Cooper et al. 2015, Curto et al. 2022, Gaynor and Town 2012, Medicare Payment Advisory Commission 2020b, Medicare Payment Advisory Commission 2017, Robinson and Miller 2014, Scheffler et al. 2018, Whaley et al. 2022). Hospitals and physician groups have increasingly consolidated, in part to gain leverage in negotiating higher payment rates with private insurers. Other motivations include gaining economies of scale, access to capital, improved coordination, relieving physicians of practice management duties, and adopting common electronic medical records (Medicare Payment Advisory Commission 2017). Meanwhile, commercial insurance markets are themselves concentrated and have grown more so. One study found that in 2021, commercial health plans were highly concentrated in 75 percent of local markets, up from 71 percent in 2014 (Guardado and Kane 2022).

Hospitals have consolidated steadily over the past several decades. From 2003 to 2017, the share of hospital markets that were "super-concentrated" (with a single dominant system that accounts for a majority of hospital discharges) rose from 47 percent to 57 percent.[4] Hospital consolidation can influence prices because hospital systems with larger market shares are in a stronger bargaining position to negotiate higher payment rates from commercial insurers (Abelson 2018, Department of Justice and the Federal Trade Commission 1996, Federal Trade Commission 2016a, Federal Trade Commission 2016b).

(continued next page)

has varied by type of coverage, with private health insurance spending as a share of GDP more than doubling over this period and Medicare spending nearly tripling.

Different spending trends have been observed during the coronavirus pandemic, however. In 2020, national health care spending as a share of GDP increased sharply (to 19.7 percent of GDP or $4.1 trillion) due

Rapid price growth in the private sector has not affected Medicare beneficiaries' access to care (cont.)

Hospitals and their advocacy organizations may assert that losses on Medicare patients force them to increase private prices or force them to merge into larger systems with pricing power (Dobson et al. 2006, Fox and Pickering 2008, Frakt 2015). However, in contrast with this assertion, a Congressional Budget Office analysis and literature review finds: "The share of providers' patients who are covered by Medicare and Medicaid is not related to higher prices paid by commercial insurers. That finding suggests that providers do not raise the prices they negotiate with commercial insurers to offset lower prices paid by government programs (a concept known as cost shifting)" (Congressional Budget Office 2022b).

The market for physician services is also changing, through both horizontal consolidation among practices and vertical integration between practices and health systems. In turn, these changes can also

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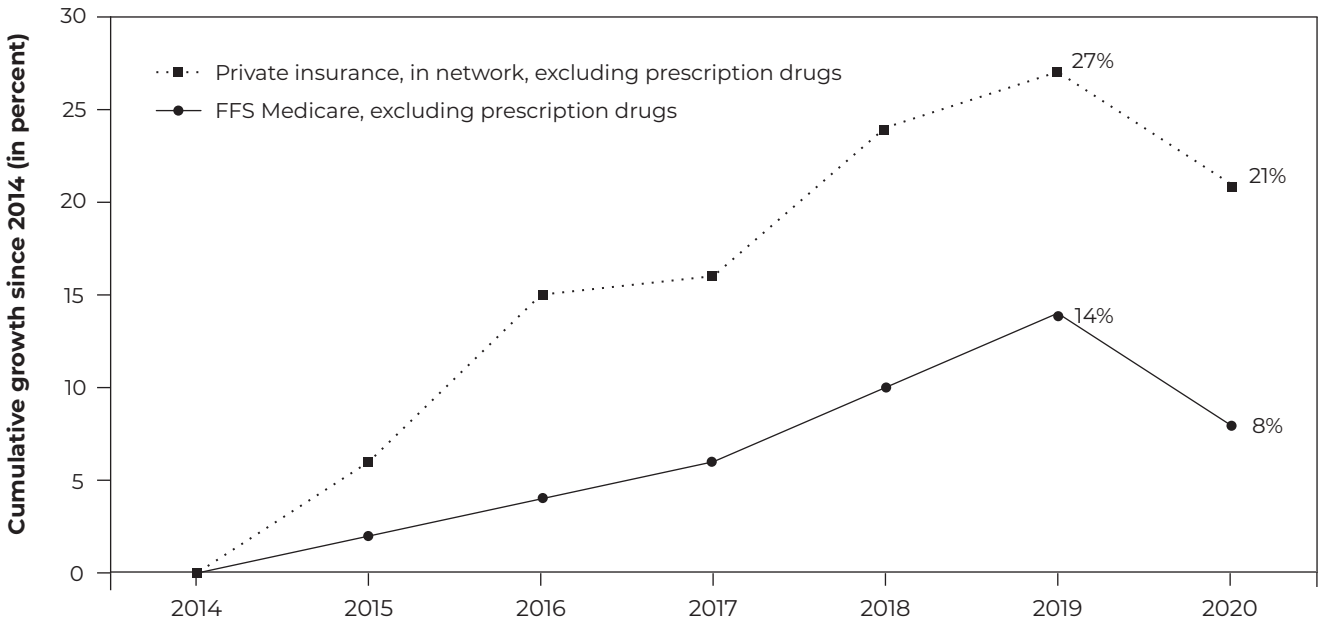
FIGURE 1–2

Health care spending per enrollee has grown faster for the privately insured than for beneficiaries in traditional FFS Medicare, 2014–2020



Note: FFS (fee-for-service). Spending in figure includes 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). 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 disabled individuals under the age of 65. 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.

Rapid price growth in the private sector has not affected Medicare beneficiaries' access to care (cont.)

affect commercial prices. The American Medical Association's survey of physicians indicates that, over time, physicians have shifted from smaller to larger practices or have become practice employees rather than owners (Kane 2021).[5] Between 2016 and 2018, the share of all physicians affiliated with health systems grew from 40 percent to 51 percent (Furukawa et al. 2020).[6] After controlling for the level of horizontal concentration of physician services, three studies found that hospital–physician integration led to commercial price increases ranging from 3 percent to 14 percent (Capps et al. 2018, Medicare Payment Advisory Commission 2017, Neprash et al. 2015). Some of Medicare's policies may have created incentives for physicians to consolidate into larger organizations—through higher payment rates for hospital-owned physician practices and the Merit-based Incentive Payment System's burdensome reporting requirements, for example (Gaynor et al. 2017). Other factors likely also play a role, such as the desire to join a larger provider organization that has more leverage when negotiating payment rates with commercial insurers and a desire by a growing number of physicians to have the lifestyle of an employee rather than an independent practitioner.

As hospitals have acquired increasing numbers of physician practices, over the past two decades, many of the nation's largest health plans have become vertically integrated entities, acquiring physician groups, medical centers, and urgent care facilities as well as their own pharmacy benefit managers, pharmacies, and data analytic firms (Herman 2022). Companies that have not traditionally participated in health care, such as Amazon, have more recently acquired primary care practices (Landi 2022). In addition, although just 4 percent of physicians reported private equity ownership in their practice in 2020 (Kane 2021), private equity funds compete with health systems and plans for physician practices and may contribute to the increasing pace of consolidation (Medicare Payment Advisory Commission 2021).[7] The Federal Trade Commission has observed that "providers increasingly pursue alternatives to traditional mergers such as affiliation arrangements, joint ventures, and partnerships, all of which could also have significant implications for competition" (Federal Trade Commission 2016b).

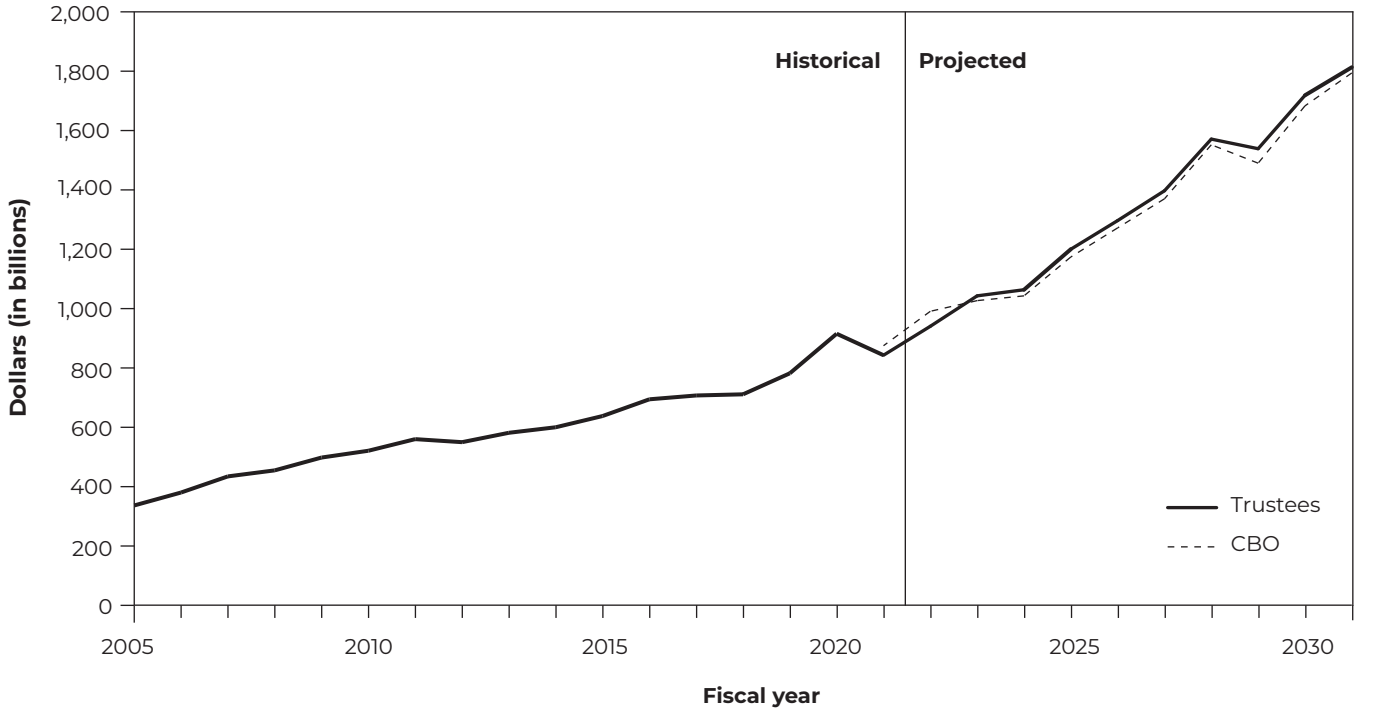
There is limited information on the effects of horizontal and vertical consolidation on quality. However, most of the literature suggests that consolidation increases prices without an improvement in quality (Schwartz et al. 2020).

To date, the rise in commercial prices has had little direct impact on the Medicare program because of Medicare's ability to administratively set prices for most health care services. Even as commercial prices have risen relative to Medicare payments, most clinicians continue to participate in the Medicare program. From 2012 to 2019, the share of non-pediatric office-based physicians accepting new Medicare patients and the share accepting new commercially insured patients was nearly identical—hovering around 90 percent despite the discrepancy in Medicare and commercial payment rates (Kaiser Family Foundation 2022).

That said, there is a long-term risk of private sector consolidation influencing Medicare prices and patients' access to care. In the case of hospitals, higher private prices enabled by consolidation result in less pressure for providers to constrain costs and higher costs per case (Medicare Payment Advisory Commission 2009, Stensland et al. 2010, White and Wu 2014). These higher costs are then reported on hospitals' cost reports, resulting in lower Medicare profit margins and pressure to increase provider payment rates. If Medicare payment rates do not keep pace with these higher costs, eventually the difference between commercial rates and Medicare rates could grow so large that providers have an incentive to focus primarily on patients with commercial insurance. Thus, in the long term, Medicare beneficiaries' access to care may in part depend on restraining commercial payer rates.■

FIGURE 1–3

Medicare spending is expected to double in the next 10 years



Note: CBO (Congressional Budget Office). First projected year in graph is 2022. The sharp increase in spending in 2020 includes $103.9 billion in Medicare Accelerated and Advance Payments paid to providers that year; these payments were expected to be repaid to the Medicare program in 2021 and 2022.

Source: 2022 annual report of the Boards of Trustees of the Medicare trust funds, Table V.H4; CBO's May 2022 baseline projections for the Medicare program.

to one-time spending by the federal government on pandemic relief funds for health care providers and public health activities at a time when the country's GDP was shrinking (Figure 1-1, p. 8). The two main sources of pandemic relief funds were the Paycheck Protection Program (which paid health care providers $53.3 billion in 2020) and the Provider Relief Fund (which paid providers $121.6 billion that year) (Poisal et al. 2022). (CMS also paid health care providers $103.9 billion in 2020 through the COVID-19 Accelerated and Advance Payments Program; the agency was scheduled to recoup these funds in 2021 and 2022. These short-term loans are not captured in CMS's national health expenditures data, which we rely on for Figure 1-1 and this passage of our chapter, but they are included in the Medicare Trustees' spending tallies and Figure 1-3.)

In 2021, the federal government continued to distribute pandemic relief funds, but at much lower levels (paying out $22 billion through the Paycheck Protection Program and $28.3 billion through the Provider Relief Fund). Meanwhile, payers' spending on health care increased as patients resumed receiving health care (Martin et al. 2023, Poisal et al. 2022), and GDP expanded rapidly (by 10.7 percent in 2021). The net effect of these forces was a sharp decline in national health care spending as a share of GDP (to 18.3 percent of GDP) (Figure 1-1, p. 8).

In 2022, national health care spending is estimated to have grown by 4.6 percent, driven by continued high demand for health care services and price growth caused by high inflation (Poisal et al. 2022). (Although the current growth in health care prices is partly a result of high economy-wide inflation, it is also a result of increasing provider consolidation, which we discuss in an accompanying text box, pp. 9–11.)

By 2024, more historical spending trends are expected to return, with national health care spending growing faster than GDP (Poisal et al. 2022).

Medicare spending is projected to double in the next 10 years

Medicare spending grew by a relatively modest 3.6 percent in 2020. Total Medicare spending increased in 2020, despite a decrease in spending in traditional FFS Medicare, because capitated payments to Medicare Advantage plans were set before the coronavirus pandemic began and assumed prepandemic utilization trends would continue in 2020, and because rapid growth in beneficiary enrollment in these private plans continued in 2020 (Hartman et al. 2022, Martin et al. 2023).

Medicare spending then grew at an accelerated rate in 2021 (by 8.4 percent), as patients resumed care. The suspension of a 2 percent payment sequester and a temporary 3.75 percent increase to clinician payment rates (unrelated to the pandemic and described in Chapter 4) also contributed to spending growth in 2021 (Martin et al. 2023).

Medicare spending is estimated to have grown at a more typical rate in 2022 (7.5 percent) as the 2 percent sequester was reinstated and patient demand for health care services eased (Poisal et al. 2022).

Medicare's Trustees project that Medicare spending will grow in 2023 through 2030 by more typical rates of about 6 percent to 7 percent per year (Poisal et al. 2022). Such rates will result in Medicare spending doubling over the next 10 years—rising from $875 billion in 2021 to $1.8 trillion in 2031 (Figure 1-3). (These amounts include Medicare program spending and beneficiaries' premiums but not beneficiaries' cost sharing.)

Several factors drive the projected growth in Medicare's spending. The annual report produced by Medicare's Trustees decomposes projected Medicare spending growth into different explanatory factors, and we have augmented their analysis by removing the effects of economy-wide inflation (Table 1-1, p. 14). We find that Medicare spending is projected to grow 4.7 percent faster than inflation over the next 10 years, despite Medicare prices growing slower than inflation. The two factors driving Medicare's spending growth are the projected increase in the number of beneficiaries (which is expected to grow by a little more than 2 percent per year, as the baby-boom generation continues to age into Medicare) and the projected increase in the volume and intensity of services delivered per beneficiary (which is expected to grow by 3.3 percent per year) (Table 1-1, p. 14).[8] Increasing the "intensity" of services refers to using more complex, expensive services or medical technologies in the place of older, less expensive options—for example, a computed tomography (CT) scan rather than an X-ray, or a new drug with a high launch price rather than an older, less expensive drug. In particular, Medicare spending on drugs administered by physicians and hospital outpatient departments (which are paid for under Part B) has grown rapidly in recent years—increasing by an average of 10 percent per year from 2009 to 2019—due in large part to an increase in the average price Medicare paid for these drugs (Medicare Payment Advisory Commission 2022b). This growth in the average price per drug reflects increased prices for existing products, the introduction of new higher-priced drugs, and shifts in the mix of drugs. (Spending on prescription drugs obtained through retail pharmacies, which are covered under Part D, is discussed in Chapter 12.)

Table 1-1 (p. 14) indicates that the changing demographic mix of beneficiaries in the program is not expected to cause increased spending in the next 10 years. Beneficiaries have been getting healthier in recent decades (as we discuss later in this chapter), and the average age of Medicare beneficiaries is currently declining. Shifting demographics are not expected to cause an increase in spending per beneficiary until the 2030s, when baby boomers will begin to reach older ages (Boards of Trustees 2022). This aging will have cost implications for the Medicare program because average spending per beneficiary rises with age (Figure 1-4, p. 14).

Medicare Advantage costs 6 percent more per beneficiary than traditional FFS Medicare

Medicare spending can be divided into three program components: 48 percent of Medicare spending pays for traditional FFS Medicare coverage, 41 percent pays

TABLE 1–1

Factors contributing to Medicare's projected spending growth, 2022–2031 (after subtracting economy-wide inflation)

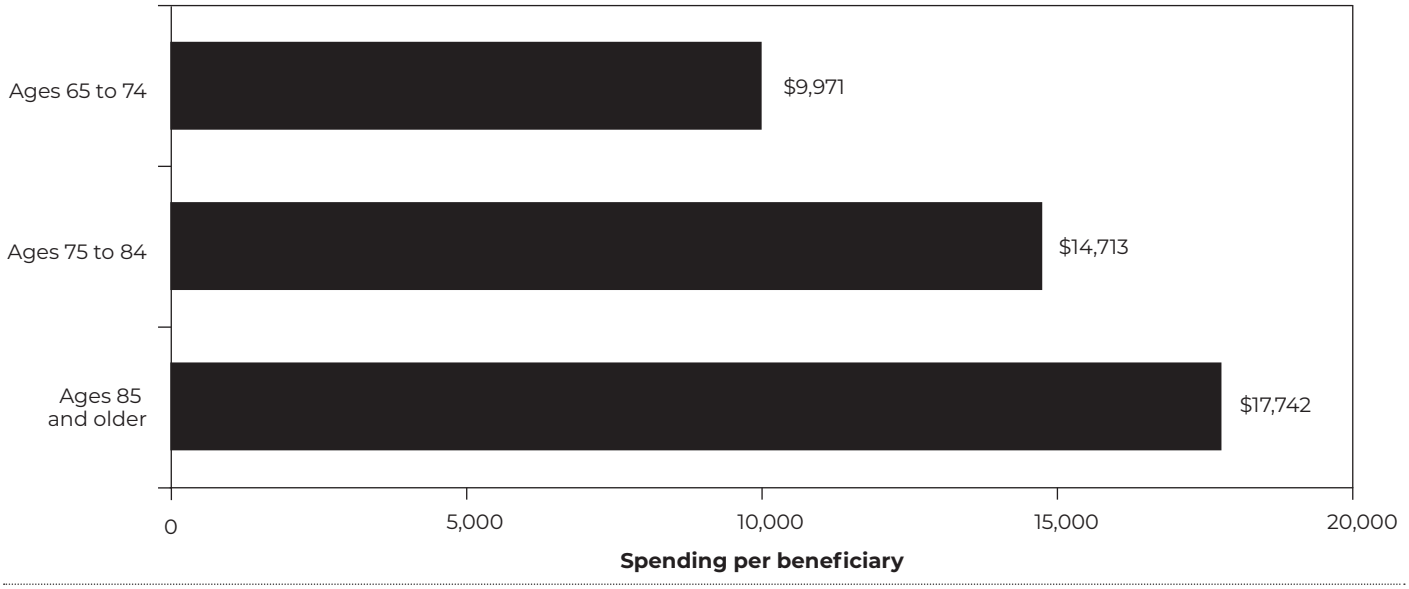
Medicare Part	Average annual percent change in: Medicare prices (minus inflation)	Number of beneficiaries	Beneficiary demographic mix	Volume and intensity of services used	Medicare's projected spending (minus inflation)
Part A	–0.3%	2.1%	–0.3%	2.5%	4.0%
Part B	–1.1	2.2	0.0	4.5	5.7
Part D	–0.4	2.5	–0.2	1.5	3.4
Total*	–0.7	N/A**	–0.1	3.3	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), total factor 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 fiscal years 2022 and 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. The projected increase in "Volume and intensity" reflects the development of new expensive drugs, the new costs associated with new laboratory tests, growth in outpatient procedures, as well as actuaries' expectation that inpatient volume will rebound in 2022 after declining during the pandemic; over the long run, we expect FFS inpatient volume per capita to continue its decades-long downward trend. The "Medicare's projected spending" column is 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 2021 (as measured by shares of GDP).
**We are unable to calculate the total contribution of the growth in "Number of beneficiaries" to projected spending growth because there is beneficiary overlap in enrollment in Part A, Part B, and Part D.

Source: MedPAC analysis of data from the 2022 annual report of the Boards of Trustees of the Medicare trust funds.

FIGURE 1–4

Spending per beneficiary increased with age in 2019



Note: Includes beneficiaries in fee-for-service Medicare and Medicare Advantage dwelling in the community and in institutions. Spending per beneficiary for enrollees under the age of 65 (who are eligible for Medicare due to disability or end-stage renal disease) was $16,289 (not shown). 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.

for Medicare Advantage (MA) and other private plans, and 11 percent pays for Medicare Part D drug coverage (including for beneficiaries enrolled in MA plans) (Figure 1-5).

For beneficiaries in FFS Medicare, Medicare pays health care providers directly for health care goods and services that beneficiaries obtain at prices set through legislation and regulation.

As an alternative to traditional Medicare, beneficiaries can enroll in a private MA plan. Such plans receive monthly capitated payments from the Medicare program and in turn pay health care providers using payment rates negotiated with providers. For beneficiaries, differences between MA and FFS Medicare include the fact that MA plans typically incorporate Part D coverage for prescription drugs and have a cap on beneficiaries' total annual out-of-pocket spending. In addition, most MA plans offer lower cost sharing for many services and/or cover supplemental benefits (e.g., vision, dental, and hearing benefits). In exchange for these benefits, beneficiaries in MA generally agree to a narrower network of providers than beneficiaries in traditional FFS Medicare, the potential use of utilization management (e.g., prior authorization or required referrals) for certain services, and potentially higher cost sharing or no coverage for services sought outside of a plan's network. The share of beneficiaries enrolled in MA plans has grown rapidly over the past two decades.

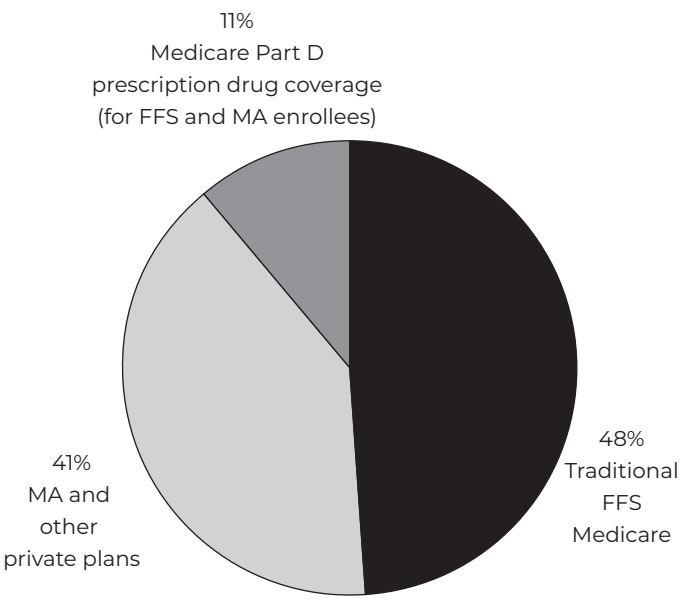
In addition to MA, other types of private health plans are available to Medicare beneficiaries: Medicare–Medicaid Plans, Program of All-Inclusive Care for the Elderly (PACE) plans, and cost-based (as opposed to capitated) plans. Only about 3 percent of the beneficiaries in private plans are in one of these types of non-MA plans (Boards of Trustees 2022).

Through Medicare Part D, beneficiaries can obtain subsidized prescription drug coverage from private insurers by purchasing a stand-alone drug plan or by enrolling in an MA plan that includes prescription drug coverage.

Growth in spending per beneficiary differs across Medicare's three program components (Table 1-2, p. 16). From 2013 to 2021, spending per beneficiary on MA and other private plans grew by 3.0 percent, while spending per beneficiary in traditional FFS Medicare grew by 2.3 percent and spending on Medicare Part D (including MA enrollees' prescription drug costs) grew by 1.9 percent.

We estimate that in 2023, the Medicare program will spend 6 percent more per beneficiary for MA enrollees compared with traditional FFS beneficiaries (see Chapter 11). The Commission has identified a number of factors that contribute to high MA spending. Payments to MA plans are inflated because plans pay providers to maximize the diagnoses they report for their MA enrollees, which garners higher overall payments for

FIGURE 1–5 **Share of Medicare spending on different program components, 2021**



Note: FFS (fee-for-service), MA (Medicare Advantage). Figure shows percentages of aggregate reimbursement amounts on an incurred basis. Includes spending for all FFS Medicare beneficiaries, including those with only Part A or Part B coverage. MA spending does not include medical education, hospice, and nonhospice Part A and Part B services received by hospice enrollees; when these services are furnished to MA enrollees, FFS Medicare incurs the spending.

Source: MedPAC analysis of Tables IV.A3, IV.B6, and IV.B10 in the 2022 annual report of the Boards of Trustees of the Medicare trust funds.

TABLE 1–2

Spending per beneficiary on FFS Medicare, MA, and Medicare Part D has grown at different rates over time

	Annual percent change in spending per beneficiary		
Year	**FFS Medicare**	**MA and other private plans**	**Medicare Part D**
2013	0.2%	–1.4%	0.3%
2014	1.3	–1.1	8.2
2015	1.7	1.8	6.2
2016	1.2	2.9	–0.9
2017	1.7	2.8	–2.4
2018	3.8	4.7	0.5
2019	3.6	7.7	3.0
2020	–2.4	6.1	2.1
2021	10.0	3.6	0.5
Average over this period	**2.3**	**3.0**	**1.9**

Note: FFS (fee-for-service), MA (Medicare Advantage). Percent change is calculated using annual spending on an incurred basis that is not risk standardized. Spending per beneficiary is not adjusted for health status or coding differences between MA and FFS. Private plans include MA plans, Medicare–Medicaid plans, Program of All-Inclusive Care for the Elderly (PACE) plans, and cost-based (as opposed to capitated) plans. Spending per beneficiary on MA and other private plans is calculated by summing Part A spending on private health plans and Part B spending on private health plans, then dividing that by the number of enrollees in Part C (in private health plans). FFS Medicare spending per beneficiary is calculated by summing (1) Part A FFS spending divided by Part A FFS enrollees and (2) Part B FFS spending divided by Part B FFS enrollees. Part D spending (which includes MA enrollees' outpatient prescription drug costs) is calculated by taking total Part D spending, subtracting premiums (mostly paid by enrollees), then dividing that by the number of enrollees in Part D.

Source: MedPAC analysis of data from the 2022 annual report of the Boards of Trustees of the Medicare trust funds.

MA plans. MA plans also receive quality bonuses that increase Medicare spending for the majority of MA enrollees, yet the Commission has found that the MA quality rating system does not provide meaningful information about plans' quality of care (Medicare Payment Advisory Commission 2020a, Medicare Payment Advisory Commission 2019b). MA spending is also driven up by plan benchmarks that are set so high that the Medicare program (and its beneficiaries, through higher Part B premiums) ends up subsidizing the substantial extra benefits that MA plans offer to their enrollees—benefits that are not available to FFS enrollees. Over the past few years, the Commission has recommended policies to address each of these issues (Medicare Payment Advisory Commission 2021, Medicare Payment Advisory Commission 2020a, Medicare Payment Advisory Commission 2016). Implementing these recommendations would have a meaningful impact on Medicare spending.

Medicare faces a financing challenge

The entire baby-boom generation will be eligible for Medicare by 2029 (Poisal et al. 2022).[9] By that point, Medicare is projected to have 76 million beneficiaries—up from 63 million beneficiaries in 2021 (Figure 1-6a). Meanwhile, the ratio of workers helping to finance Medicare through their taxes relative to the number of Medicare beneficiaries is expected to continue to decline. Around the time of Medicare's inception, there were 4.6 workers for each Medicare beneficiary, but by 2021 there were only 2.9 workers per beneficiary, and by 2031 there are expected to be only 2.5 workers per beneficiary (Figure 1-6b).

These demographics create a financing challenge for the Medicare program. Medicare Part A (which covers inpatient hospital stays and post-acute care

FIGURE 1–6

Medicare enrollment is rising, while number of workers per beneficiary is declining

Figure 1-6a. Medicare enrollment

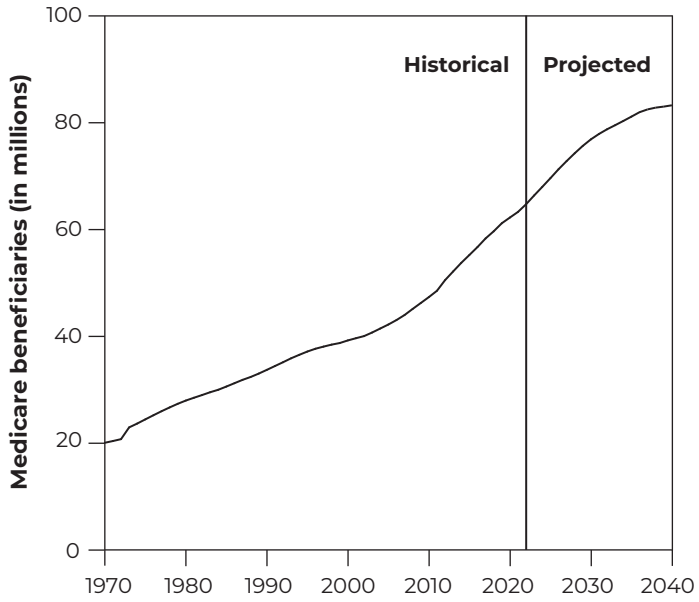
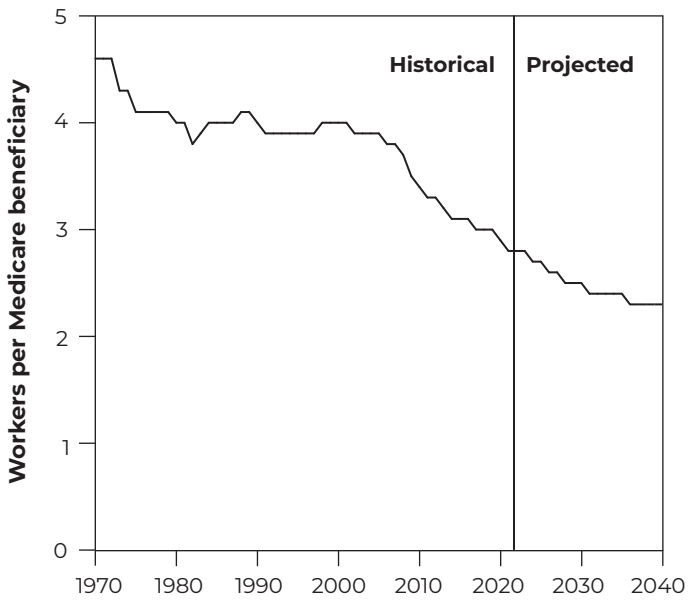


Figure 1-6b. Workers per Medicare beneficiary



Note: "Beneficiaries" referenced in these graphs are beneficiaries enrolled in Medicare Part A (including beneficiaries in Medicare Advantage). First projected year is 2022. Part A services are financed by Medicare's Hospital Insurance Trust Fund and beneficiary cost sharing.

Source: 2022 annual report of the Boards of Trustees of the Medicare trust funds.

following those hospital stays) is mainly financed through workers' payroll taxes, which are deposited into Medicare's Hospital Insurance (HI) Trust Fund. In some recent years, Medicare has spent more on Part A services than it has collected through HI Trust Fund revenues—creating annual deficits.[10] In other years, trust fund revenues have exceeded Part A spending (including in 2021 and 2022)—creating annual surpluses.[11] Medicare's Trustees currently estimate that the trust fund will experience annual deficits from 2023 on and its accumulated surplus will be exhausted by 2028 (Boards of Trustees 2022). The Congressional Budget Office (CBO) also tracks the trust fund's financial status and projects a similar trust fund depletion date of 2030 (Congressional Budget Office 2022a).

According to Medicare's Trustees, if Medicare's HI Trust Fund balance is depleted, "Medicare could pay health plans and providers of Part A services only to the extent allowed by ongoing tax revenues—and these revenues would be inadequate to fully cover costs," which they warn could rapidly curtail beneficiary access to care. However, the Trustees note that lawmakers have never allowed the HI Trust Fund assets to be depleted (Boards of Trustees 2022).

To keep the HI Trust Fund solvent over the next 25 years, the Trustees estimate that the Medicare payroll tax would need to be raised immediately from its current rate of 2.9 percent to 3.66 percent or Part A spending would need to be permanently reduced by 16.9 percent (Table 1-3, p. 18), which is equivalent to a reduction in spending of about $69 billion in 2023 (Boards of Trustees 2022).[12] Reducing Part A spending by $69 billion in a single year would require major structural changes to the Medicare program and is not likely to be achieved through narrow payment policy changes. For example, CBO has estimated that one of the Commission's more financially impactful recommendations—replacing the MA quality bonus

TABLE 1–3

Higher Medicare payroll tax or lower Medicare Part A spending needed to maintain solvency of the 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 (2022–2046)	3.66%	16.9%

Note: Part A spending includes spending on inpatient hospital, skilled nursing facility, home health agency, and hospice services and includes spending for beneficiaries in fee-for-service Medicare and Medicare Advantage.

Source: MedPAC analysis of Table III.B8 in 2022 annual report of the Boards of Trustees of the Medicare trust funds.

program with a redesigned value incentive program—would have saved $10 billion in 2022 through a mix of Part A and Part B savings (Congressional Budget Office 2018)—but that amount is only a fraction of the $69 billion in Part A savings needed to extend the solvency of the trust fund. Given the large amount of money needed to extend the life of the trust fund, a combination of smaller spending reductions and smaller tax increases is another option that could be pursued.

The rest of Medicare spending, under Part B (which covers clinician and outpatient services) and Part D (which covers prescription drugs), is financed through the Supplementary Medical Insurance (SMI) Trust Fund. The SMI Trust Fund is funded by premiums paid by beneficiaries and transfers from the general fund of the Treasury.[13] Since premiums and transfers are intentionally set to grow at the same rate as Part B and Part D spending, the SMI Trust Fund automatically remains solvent. However, as Part B and Part D spending rises, so too do premiums and transfers from the Treasury—putting pressure on the budgets of Medicare beneficiaries and the U.S. government (Figure 1-7).

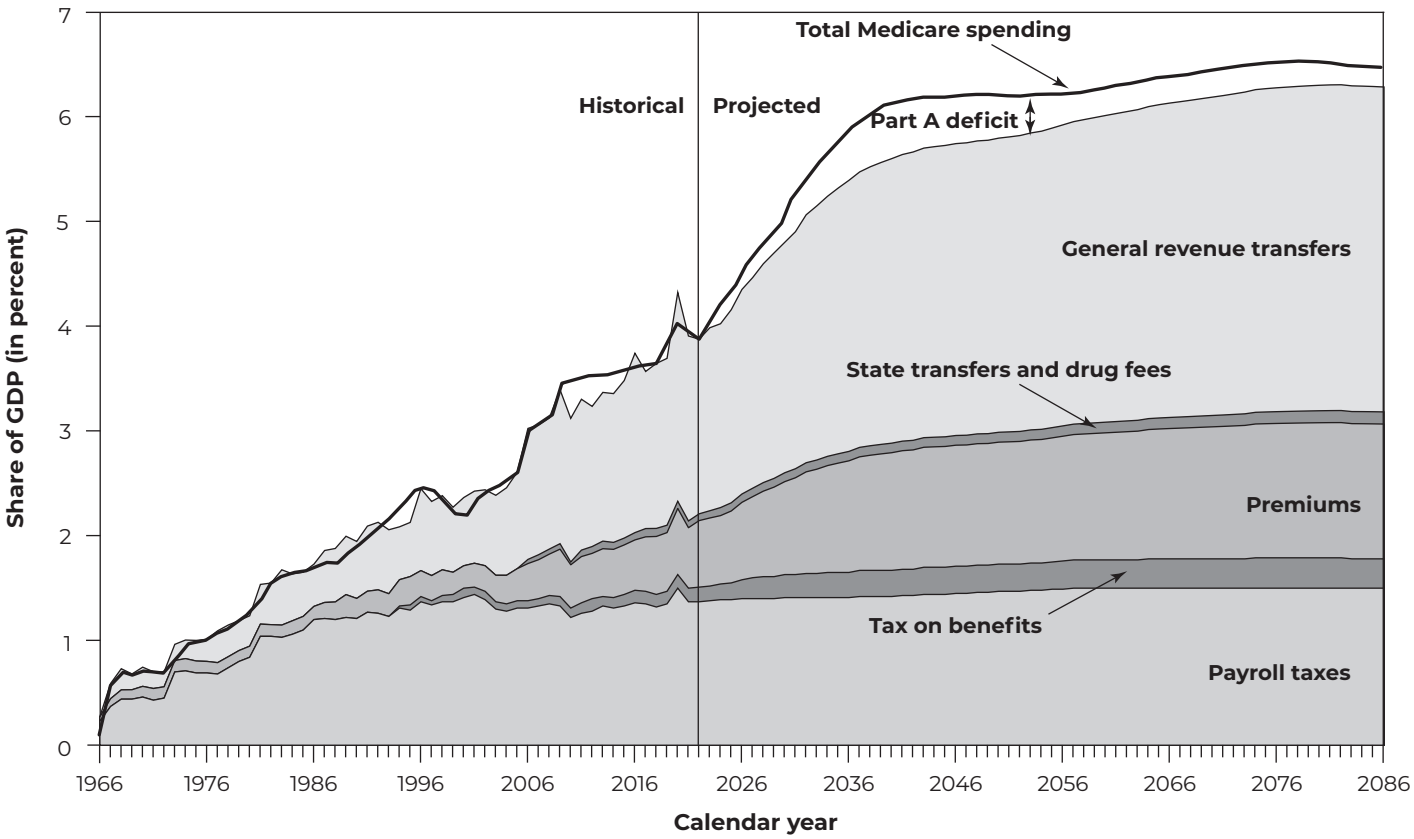
The large and growing share of Medicare spending funded through general revenues (shown in Figure 1-7) is a financing challenge. As the amount of general revenues needed to finance Medicare increases, it reduces government resources available for other priorities, such as investments that could expand future economic output (e.g., federal investments in education, transportation, and research and development).[14]

The increasing expenditure of general revenues on Medicare is also a problem because the federal government already spends more than it collects in revenues each year (Figure 1-8, p. 20). The gray line at the top of Figure 1-8 represents total federal spending as a share of GDP; the black line below it represents total federal revenues. The difference between these two lines represents the budget deficit, which must be covered by federal borrowing. The stacked layers in Figure 1-8 depict federal spending by program. By 2041, spending on Medicare, the other mandatory programs shown in the figure, and net interest payments are projected to reach 18.7 percent of the nation's GDP and, by themselves, will exceed total federal revenues. At that point, every dollar spent on programs funded through annual discretionary appropriations will need to be financed through federal borrowing.

While these projections are sobering enough in and of themselves, CMS actuaries caution that they may actually be "overly optimistic" (Office of the Actuary 2022). Medicare spending is projected to grow rapidly through the mid-2030s, then grow at a slower rate in subsequent decades due to various cost-reduction measures specified in current law.[15] CMS actuaries note that if these cost-reduction measures are replaced with more generous payment policies, Medicare spending from the mid-2030s on will increase at a higher rate that is more in line with past spending growth. This higher rate of growth would mean that, by 2046, instead of Medicare spending constituting 6.2 percent of GDP (as shown in

FIGURE 1–7

General revenues have overtaken Medicare payroll taxes as the largest source of Medicare funding



Note: GDP (gross domestic product). First projected year is 2022. 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" 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 interest earned on trust fund investments (which makes up 1 percent of the HI Trust Fund's income and is expected to decline in coming years as trust fund assets decline).

Source: 2022 annual report of the Boards of Trustees of the Medicare trust funds.

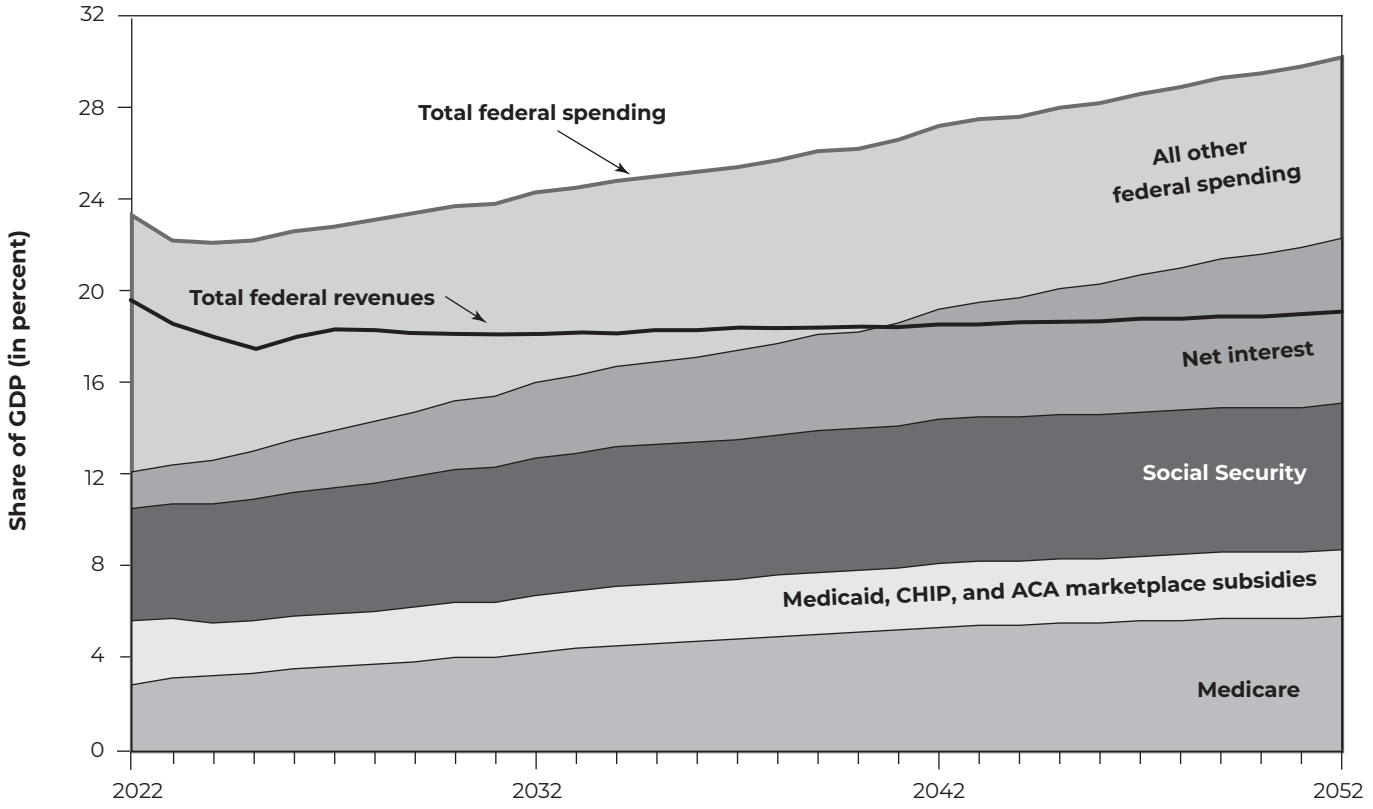
Figure 1-8, p. 20), Medicare spending could constitute 6.5 percent of GDP. It would also mean that the payroll tax increase or Part A spending decrease needed to maintain the solvency of Medicare's HI Trust Fund (shown earlier in Table 1-3) would need to be much larger (Office of the Actuary 2022, Spitalnic 2022). The Medicare Trustees' long-term spending projections should therefore be viewed as a lower bound of what future Medicare spending could look like and "should not be interpreted as the most likely expectation of actual Medicare financial operations in the future," according to CMS actuaries (Boards of Trustees 2022, Office of the Actuary 2022).

As Medicare spending increases, so too do premiums and cost sharing

Medicare's spending growth affects beneficiaries' ability to afford health care through higher premiums and cost sharing. Medicare beneficiaries typically do not

FIGURE 1–8

Spending on Medicare, other major health programs, Social Security, and net interest is projected to exceed total federal revenues by 2041



Note: GDP (gross domestic product), CHIP (Children's Health Insurance Program), ACA (Affordable Care Act of 2010).

Source: Congressional Budget Office's long-term budget projections, published July 2022.

pay premiums for Part A (Hospital Insurance) coverage, but the annual cost of Part B (Supplementary Medical Insurance) standard premiums was $2,041 in 2022, and the average annual cost of Part D prescription drug plan premiums was $480 (Medicare Payment Advisory Commission 2022a). In addition, cost sharing for beneficiaries in traditional FFS Medicare averaged $383 for Part A services, $1,469 for Part B services, and $432 for beneficiaries with Part D coverage in 2020 (Medicare Payment Advisory Commission 2022a). (Beneficiaries' Part D cost sharing is likely to decline in future years due to new limits on cost sharing that were included in the Inflation Reduction Act of 2022.[16]) The typical Medicare beneficiary has relatively modest resources to draw on when paying for premiums and cost sharing: Researchers estimate that Medicare beneficiaries' median per capita income in 2019 was $29,650 and their median savings was $73,800 (Koma et al. 2020).

A small share of Medicare beneficiaries receive help with their Part A and Part B out-of-pocket costs by concurrently enrolling in their state's Medicaid program: 9 percent of noninstitutionalized Medicare beneficiaries were eligible for both Medicare and Medicaid benefits (dual-eligible beneficiaries) in 2019 (Figure 1-9). In addition, 21 percent of Medicare beneficiaries had low enough income and assets that they received help with their out-of-pocket drug costs through the Part D low-income subsidy in 2021 (Medicare Payment Advisory Commission 2022a).

Among beneficiaries with modest incomes and assets that are nevertheless too high to allow them to qualify for Medicaid or the Part D low-income subsidy, high medical prices can be a barrier to obtaining needed medications. One study found that among Medicare beneficiaries not receiving the low-income subsidy who were prescribed high-priced specialty drugs, one in three did not fill prescriptions for anticancer drugs, one in five did not fill prescriptions for hepatitis C curative therapies, and well over half did not fill prescriptions for drugs for immune system disorders and high cholesterol (Dusetzina et al. 2022).

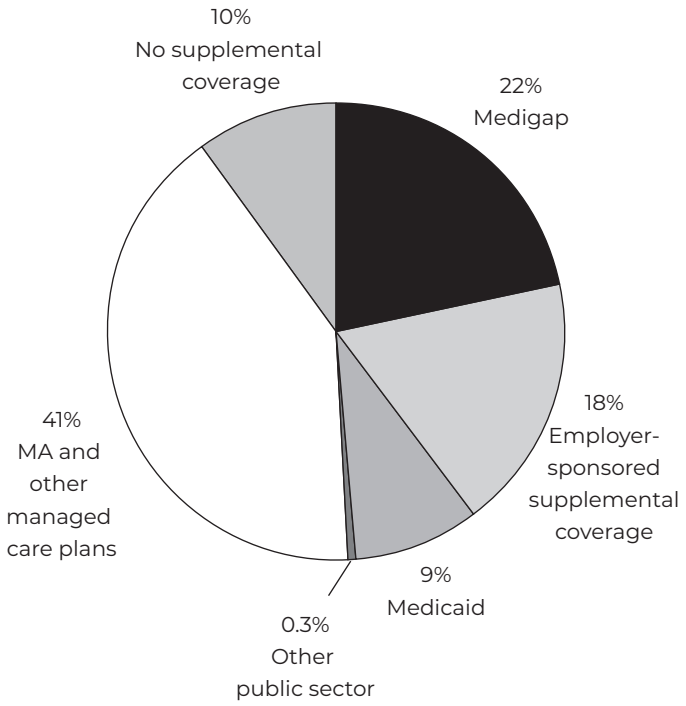
Most beneficiaries reduce their out-of-pocket spending by obtaining supplemental insurance coverage or by opting out of FFS Medicare and into an MA plan. In 2019, half of all noninstitutionalized beneficiaries had FFS Medicare plus supplemental coverage (commonly obtained through Medicaid, a former employer, and/or a Medigap plan they purchased themselves). Another 41 percent were enrolled in an MA plan or other managed care plan.[17] The remaining 10 percent of beneficiaries had FFS Medicare without any supplemental coverage to reduce their cost sharing (equivalent to 17 percent of FFS beneficiaries) (Figure 1-9).[18]

Taken together, beneficiary spending on Medicare Part B and Part D premiums and cost sharing consumed 28 percent of the average Social Security benefit in 2022, up from 16 percent 20 years earlier; in another 20 years, Part B and Part D premiums and cost sharing are expected to consume 36 percent of the average Social Security benefit (Boards of Trustees 2022).[19] (As a point of reference, Social Security benefits accounted for 50 percent or more of household income for half of all seniors in 2015 and for 90 percent or more of household income for one in four seniors that year (Dushi and Trenkamp 2021).)

A few subpopulations of beneficiaries have reported experiencing problems obtaining health care due to high costs at notably higher rates than other beneficiaries, according to our analysis of CMS's 2020 Medicare Current Beneficiary Survey. Among non-elderly beneficiaries (who are disabled or have end-stage renal disease), 20 percent reported problems getting health care due to cost. Among beneficiaries with different types of primary and supplemental coverage, the two groups with the highest share of beneficiaries reporting trouble obtaining care due to cost were FFS beneficiaries with no supplemental coverage and partial-benefit dual-eligible beneficiaries: 15 percent of beneficiaries with these types of coverage reported this difficulty. (Partial-benefit dual-eligible beneficiaries receive Medicaid assistance with out-of-pocket costs but do not qualify for additional Medicaid benefits that full-benefit dual-eligible beneficiaries receive, such as dental care and nonemergency medical transportation.) And among beneficiaries with

FIGURE 1–9

Most Medicare beneficiaries reduced their cost sharing through supplemental coverage or enrollment in a Medicare Advantage plan in 2019

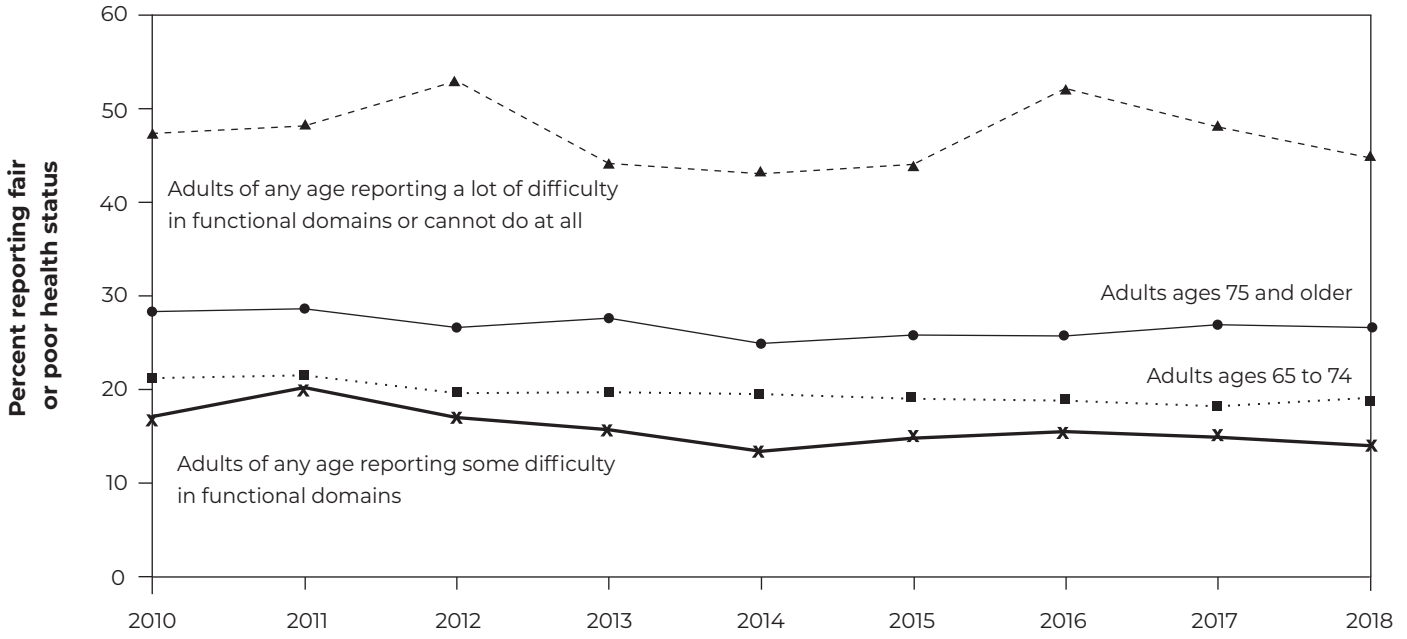


Note: MA (Medicare Advantage). Our analysis assigned beneficiaries to the supplemental coverage category they were in for the most time in 2019; beneficiaries could have had coverage in other categories during 2019. "Medicare Advantage and other managed care plans" includes beneficiaries with employer-subsidized MA coverage and MA enrollees dually enrolled in Medicaid. The analysis includes only beneficiaries not living in institutions such as nursing homes. It excludes beneficiaries who were not in both Part A and Part B throughout their enrollment in 2019 or who had Medicare as a secondary payer.

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

FIGURE 1–10

The share of various subgroups of Medicare eligibles who reported being in fair or poor health declined from 2010 to 2018



Note: "Adults of any age reporting a lot of difficulty in functional domains or cannot do at all" are people ages 18 and over who reported that for at least one of six functional domains (e.g., mobility, communication, self-care) they had a lot of difficulty or could not do the activity at all. Similarly, "Adults of any age reporting some difficulty in functional domains" are people ages 18 and over who reported that for at least one of six functional domains, they had some difficulty doing the activity.

Source: National Center for Health Statistics, *Health, United States, 2019*, Table 16, released 2021. https://www.cdc.gov/nchs/hus/contents2019.htm#Table-016.

annual household incomes of less than $25,000, 13 percent reported trouble getting health care due to cost. By comparison, among all noninstitutionalized beneficiaries in CMS's 2020 survey, only 8 percent reported trouble getting care due to cost.[20]

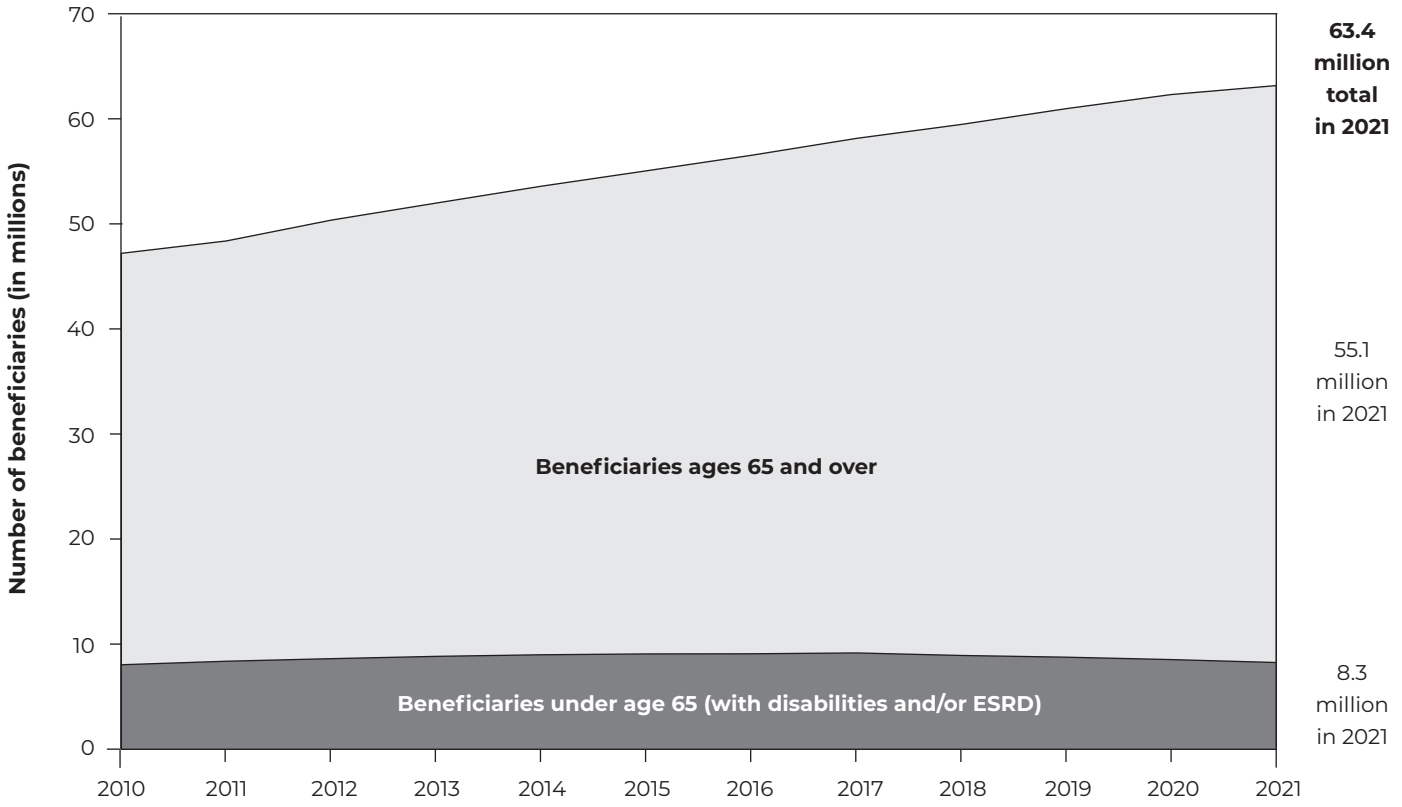
Medicare beneficiaries' health status has been improving

Trends in beneficiaries' health status have the potential to impact Medicare program spending. In recent decades, the reported health status of people who are likely eligible for Medicare has improved. For example, between 2010 and 2018, the share of people ages 65 to 74 reporting being in only "fair" or "poor" health fell from 21.2 percent to 19.1 percent. Among people ages 75 and older, the share who reported "fair" or "poor" health fell from 28.3 percent to 26.6 percent. Among adults of any age who reported some difficulty in a functional domain (and thus may serve as a proxy for disabled Medicare beneficiaries), the share reporting being in "fair" or "poor" health fell from 17.1 percent to 14.0 percent. And among adults of any age who reported a lot of difficulty or an inability to complete an activity in a functional domain, the share reporting "fair" or "poor" health fell from 47.3 percent to 44.7 percent (Figure 1-10).

The share of Medicare beneficiaries who gain eligibility for the program due to disability has also been declining (Figure 1-11). According to the Social Security Administration, the share of workers who gain eligibility for Social Security Disability Insurance (SSDI)

FIGURE 1–11

Over the past decade, the share of Medicare beneficiaries who are disabled has declined



Note: ESRD (end-stage renal disease). The vast majority of Medicare beneficiaries under the age of 65 gain eligibility for the program due to disability (98%) as opposed to ESRD (2%).

Source: Annual data provided by CMS Office of the Actuary using information from the 2022 annual report of the Boards of Trustees of the Medicare trust funds.

payments each year fell from nearly 6.5 recipients per 1,000 workers in 2010 to 3 recipients per 1,000 workers in 2021 (Goss and Glenn 2022). The agency does not have a definitive explanation for the marked decline in the rate of disability incidence; its prior research has suggested that a number of factors likely influence the SSDI disability incidence rate, including the general health of the country's population, the social environment that leads a person with an impairment to become disabled, social mores, the unemployment rate (which tends to rise and fall in tandem with the disability incidence rate), financial incentives (such as the value of SSDI payments relative to wages), and policy changes (Goss and Glenn 2022, Social Security Administration 2006).

The most common chronic conditions are high blood pressure and high cholesterol

The most prevalent chronic conditions among Medicare beneficiaries are high blood pressure, high cholesterol, arthritis, diabetes, and enlarged prostate (Table 1-4, p. 24). These conditions may persist for years and can lead to other chronic conditions. Spending per beneficiary per year is highest for those recently diagnosed with a heart attack, lung cancer, a stroke, heart failure, or colon cancer.[21]

TABLE 1–4 **The most prevalent and costly chronic conditions in FFS Medicare, 2020**

	Prevalence among beneficiaries in FFS Medicare	Spending per beneficiary for those with the specified condition
Most prevalent chronic conditions		
Hypertension (high blood pressure)	67%	$16,240
Hyperlipidemia (high cholesterol)	63	15,570
Rheumatoid arthritis / osteoarthritis	35	17,190
Diabetes	27	18,012
Benign prostatic hyperplasia (enlarged prostate)	27	N/A
Most costly conditions		
Acute myocardial infarction (heart attack)	1	58,691
Lung cancer	1	42,374
Stroke / transient ischemic attack	6	37,097
Heart failure	12	31,305
Colorectal (colon) cancer	2	30,384

Note: FFS (fee-for-service), N/A (not available). Beneficiaries may be counted in more than one chronic condition category. The information should not be used to attribute utilization or payments strictly to the condition selected because beneficiaries with any of the conditions presented could have other health conditions that contribute to their Medicare utilization and spending amounts. Spending per beneficiary reflects Medicare payments only, and not beneficiary cost sharing, and is actual spending, as opposed to age- or risk-standardized spending. Prevalence data for chronic conditions are not directly comparable to prevalence data reported in prior years' Commission reports due to a change in our data source's methodology.

Source: Centers for Medicare & Medicaid Services' Chronic Conditions Warehouse (CCW), Table B.2a. Medicare beneficiary prevalence for 30 CCW chronic conditions using fee-for-service (FFS) claims, 2017–2020, May 2022, https://www2.ccwdata.org/documents/10280/19096644/ccw-website-table-b2a.pdf; Centers for Medicare & Medicaid Services' Mapping Medicare Disparities by Population interactive tool, October 12, 2022, https://data.cms.gov/tools/mapping-medicare-disparities-by-population.

Until the coronavirus pandemic, there was little change in the leading causes of death in the U.S., with the CDC finding that heart disease and cancer were the first and second most common causes of death, both among people ages 65 and over (Table 1-5) and among the general population (Centers for Disease Control and Prevention 2022b). However, since the start of the coronavirus pandemic in March 2020, COVID-19 has been one of the leading causes of death in the U.S., with its rank relative to other causes of death rising and falling during the pandemic's various peaks and valleys—briefly ranking as the leading cause of death from December 2020 through February 2021 and falling to the second- or third-leading cause of death in most other months (Ortaliza et al. 2022). When looking at annual totals, COVID-19 was the third-leading cause of death in 2020, 2021, and 2022, both among people ages 65 and over and among the general population (data not shown) (Ortaliza et al. 2022).[22]

CMS actuaries have found that the Medicare beneficiaries who died of COVID-19 in 2020 tended to be high-cost beneficiaries with multiple medical conditions; the remaining beneficiaries were estimated to be 2 percent less costly, on average (Spitalnic 2022). By 2028, actuaries project that this effect will subside and beneficiary case mix will return to a more typical composition (Boards of Trustees 2022).

TABLE 1–5

Leading causes of death at ages 65 and older, 2019

	Cause of death	Share of deaths
1.	Heart disease	25%
2.	Cancer	21
3.	Chronic lower respiratory diseases (breathing disorders)	6
4.	Cerebrovascular diseases (conditions that affect blood flow to the brain)	6
5.	Alzheimer's disease	6
6.	Diabetes	3
7.	Unintentional injuries	3
8.	Nephritis, nephrotic syndrome, nephrosis (kidney disorders)	2
9.	Influenza and pneumonia (lung infections)	2
10.	Parkinson's disease	2

Note: "Chronic lower respiratory diseases" were formerly known as "chronic obstructive pulmonary diseases."

Source: National Center for Health Statistics, *Health, United States, 2020–21*, Table LCODAge, released 2022. https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/Health_US/hus20-21tables/lcodage.xlsx.

Certain subgroups of Medicare beneficiaries have less longevity and worse access to care than others

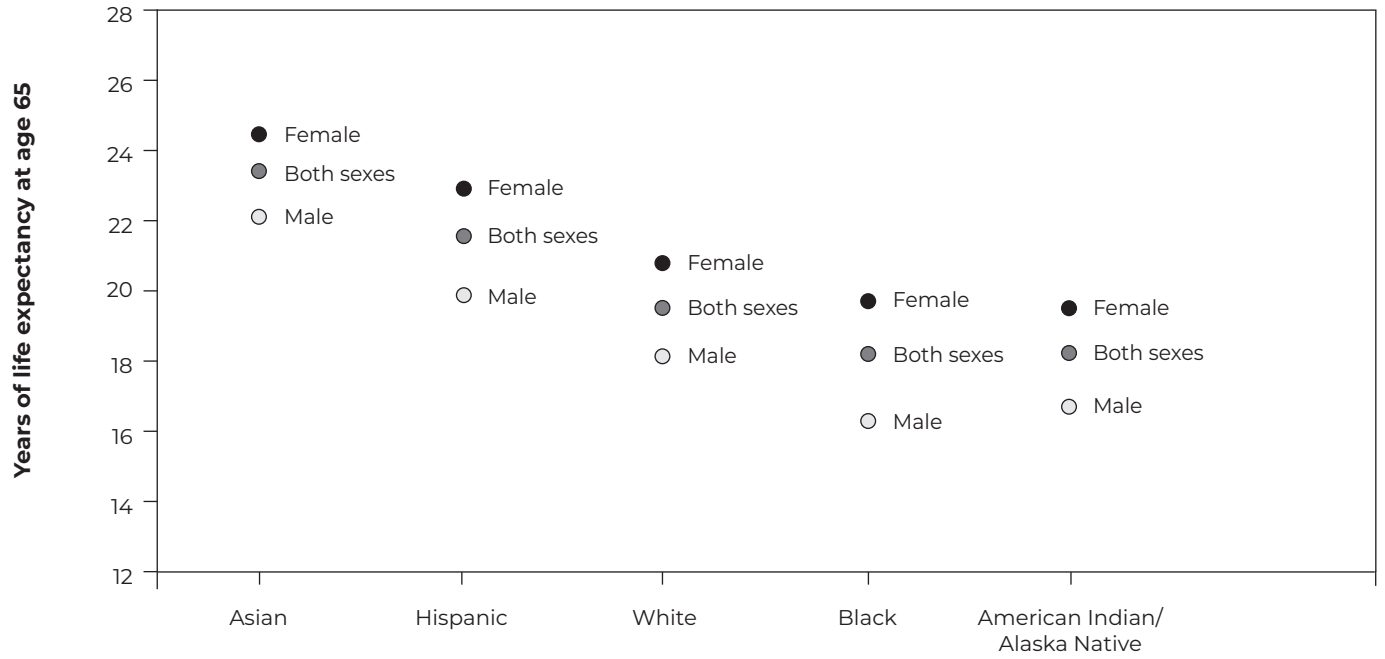
Life expectancy at age 65 varies by race, ethnicity, and sex. In 2019, among individuals who lived to age 65, Black and American Indian or Alaska Native individuals could expect to live an additional 18 years, White individuals could expect an additional 19.5 years, Hispanic individuals could expect another 21.6 years, and Asian individuals could expect another 23.4 years (Figure 1-12, p. 26).[23] Across all race and ethnicity groups, women tend to live longer than men.

Recent data indicate that life expectancy declined in 2020, largely due to the coronavirus pandemic, with people age 65 losing an average of 1.1 years of life expectancy (Murphy et al. 2021). Life expectancy at age 65 declined by an additional 0.1 years in 2021, as the pandemic continued (Xu et al. 2022). (These data have not yet been analyzed to identify differences by race, ethnicity, or sex.)

To examine whether beneficiaries of different races and ethnicities have different access to care, we analyzed CMS's 2020 Medicare Current Beneficiary Survey, which was fielded among 14,000 Medicare beneficiaries, and the Commission's 2022 access-to-care survey, which was fielded among 4,000 Medicare beneficiaries. For most questions related to accessing care, the share of beneficiaries of different race and ethnicity groups who reported a particular care experience varied by no more than a few percentage points. But some more substantive differences did emerge. For example, CMS's survey found that 16 percent of Black beneficiaries and 10 percent of Hispanic beneficiaries reported having problems paying a medical bill, compared with 6 percent of White beneficiaries. CMS's survey also found that Hispanic beneficiaries were 4 percentage points more likely to delay care due to cost and to lack a usual care provider compared with White beneficiaries.[24] The Commission's survey found that 39 percent of Hispanic beneficiaries and 36 percent of Black beneficiaries reported seeing no specialists in the past year, while only 23 percent of White beneficiaries reported this.[25] And CMS's survey found that only 90 percent of Black beneficiaries and 91 percent of Hispanic beneficiaries

FIGURE 1–12

Years of life expectancy at age 65, by race/ethnicity and sex, 2019



Note: Figure shows most recent available data for different combinations of race/ethnicity and sex.

Source: National Center for Health Statistics, *Health, United States, 2020–21*, Table LExpMort, released 2022. https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/Health_US/hus20-21tables/lexpmort.xlsx.

reported feeling that their usual care provider spent enough time with them, compared with 96 percent of White beneficiaries.

The Commission's recommendations would slow the growth in Medicare spending and improve beneficiary access to care

Several aspects of Medicare's payment systems hamper the program's ability to maximize program efficiencies and beneficiaries' access to care. The Commission regularly makes recommendations to address these issues. Our annual March reports recommend updates to Medicare payment rates for various types of providers, which can be positive or negative depending on our assessment of the adequacy of Medicare payments for each sector. Our annual June reports typically offer broad recommendations aimed at restructuring the way Medicare's payment systems work. For example, we have recommended incorporating value-based insurance design into FFS Medicare's benefit design and changing the formula used to set payments for MA plans. A list of the Commission's recommendations, with links to relevant report chapters, is available at medpac.gov/recommendation/. The Commission's recommendations are based on our review of the latest available data and are aimed at obtaining good value for the Medicare program's expenditures—which means maintaining beneficiaries' access to high-quality services while encouraging efficient use of resources. ■

Endnotes

1 The Commission's annual access-to-care survey is completed by approximately 4,000 Medicare beneficiaries ages 65 and over in traditional FFS Medicare or Medicare Advantage and produces nationally representative results.

2 Expenditures for prescription drugs, physician-administered drugs, durable medical equipment, and hospice were not materially affected by the pandemic (Boards of Trustees 2022).

3 Examples of pandemic payment policies that increased spending on certain types of services include the waiver of the requirement for a three-day inpatient stay prior to skilled nursing facility services, the 20 percent increase to payments for COVID-19 inpatient admissions, and temporarily allowing beneficiaries residing in any part of the U.S. to access telehealth services from their home.

4 The most concentrated markets have a Herfindahl–Hirschman Index above 5,000, meaning that in a market with two systems, one of the systems has more than a 50 percent market share; these have been referred to as "super-concentrated" markets (Fulton et al. 2018).

5 In 2020, 50 percent of physicians reported that they were employees, up from 42 percent in 2012, and the share with an ownership stake in their practice fell to 44 percent from 53 percent over the same period (Kane 2021).

6 Health systems are defined here as organizations that had at least one acute care hospital and one physician group and that were connected through common ownership or joint management.

7 While the share of surveyed physicians who reported private equity ownership in their practices in 2020 was well below 10 percent for most specialties, it was between 10 percent and 15 percent for emergency medicine and anesthesiology (Kane 2021).

8 It should be noted that the 3.3 percent expected average annual growth in volume and intensity from 2022 to 2031 in Table 1-1 (p. 14) is higher than historical volume and intensity growth and higher than CMS's long-term projections of growth because it reflects CMS's assumption that volumes in 2022 and 2023 will bounce back from unusually low volumes that occurred during the pandemic year of 2021. In other words, part of the expected growth in volume and intensity reflects a recovery relative to the decrease in volume that occurred from 2019 to 2021 during the pandemic.

9 Baby boomers are people born in the period between the end of World War II and the mid-1960s.

10 The HI Trust Fund's income is derived from several sources, including payroll taxes (which made up 90 percent of the trust fund's income in 2021), taxation of Social Security benefits (7 percent), interest earned on trust fund investments (1 percent), and premiums collected from voluntary participants (1 percent) (Boards of Trustees 2022).

11 HI Trust Fund surpluses are a result of several factors. In late 2021 and 2022, health care providers were expected to fully repay the Medicare program for $107.2 billion in accelerated and advance payments paid to them in 2020 and early 2021 (some of these funds were expected to be repaid to the HI Trust Fund specifically). Part A spending in 2021 and 2022 is also now projected to be lower than previously projected due to the pandemic lasting longer than initially expected. In addition, both the number of workers paying the Medicare payroll tax and the size of their average wages are now estimated to be higher than previously projected (Boards of Trustees 2022).

12 Workers and their employers split the cost of the payroll tax (workers pay 1.45 percent and employers pay the remaining 1.45 percent). Meanwhile, self-employed people pay both the worker's and the employer's share of this tax, totaling 2.9 percent of their net earnings. High-income workers pay an additional 0.9 percent of their earnings above $200,000 for single workers or $250,000 for married couples filing joint income tax returns.

13 For Part D, the beneficiary premium share is based on 25.5 percent of the average cost of the basic benefit.

14 General revenues primarily consist of individual and corporate taxes but also include customs duties, leases of government-owned land and buildings, the sale of natural resources, usage and licensing fees, and payments to agencies (Department of Treasury 2022).

15 For example, Medicare's Trustees assumed that starting in 2026, clinicians who are not in advanced alternative payment models (A–APMs) will receive lower annual updates to their Medicare physician fee schedule payment rates (0.25 percent per year) than clinicians who are in A–APMs (0.75 percent per year)—and that these updates will not be replaced with updates that are more reflective of medical inflation (which is projected to average 2 percent per year in the long range). Medicare's Trustees also assumed that bonuses clinicians currently receive for participating in A–APMs or for

demonstrating "exceptional" performance under the Merit-based Incentive Payment System will end in 2025—and not be extended through legislative intervention.

16 The Inflation Reduction Act of 2022 specified that in 2024, beneficiaries will no longer be required to pay cost sharing upon reaching the catastrophic phase of the Part D benefit, and in 2025, out-of-pocket costs in Part D will be capped at $2,000. (In 2021, roughly 1.5 million beneficiaries reached the catastrophic phase and would have benefited from this cap.)

17 Among Medicare beneficiaries with both Part A and Part B, 49 percent were enrolled in an MA plan in 2022 (see Chapter 11).

18 The share of community-dwelling Medicare beneficiaries who report having traditional FFS coverage with public or private supplemental coverage has declined from nearly three-quarters of beneficiaries in 2000 to about half of beneficiaries in 2019, according to our analyses of CMS's Medicare Current Beneficiary Survey data (Medicare Payment Advisory Commission 2022a, Medicare Payment Advisory Commission 2019a, Medicare Payment Advisory Commission 2018, Medicare Payment Advisory Commission 2003).

19 These estimates do not reflect the new limits on Part D cost sharing that were included in the Inflation Reduction Act of 2022, described in endnote 16.

20 The Medicare Current Beneficiary Survey results reported in this paragraph reflect the experiences of noninstitutionalized beneficiaries with Part A and/or Part B coverage. When we instead restricted our sample to noninstitutionalized beneficiaries who had both Part A and Part B, our results changed by negligible amounts (0 percentage point to 1 percentage point).

21 Although a stroke can be a one-time event, it can cause ongoing health problems such as paralysis, seizures, and difficulty communicating.

22 COVID-19's rank as the third-leading cause of death in 2022 is based on data for January–September of 2022.

23 Hispanic individuals' superior longevity despite worse profiles on some social determinants of health has puzzled demographers for decades and has been referred to as the Hispanic health paradox. A definitive explanation for this paradox has yet to be identified, but researchers hypothesize that Hispanic individuals' longevity may be due to immigration dynamics (with Hispanics who enter the U.S. tending to be relatively healthy, and Hispanics who leave the U.S. to return to their home countries tending to be older and less healthy), low rates of cigarette smoking, and high levels of family support (Dominguez et al. 2015).

24 We also observe some substantive differences in the experiences of Multiracial versus White beneficiaries and Native American/Alaska Native/Native Hawaiian/Pacific Islander beneficiaries versus White beneficiaries, but not Asian versus White beneficiaries.

25 The small sample size of the Commission's access-to-care survey (approximately 4,000 Medicare beneficiaries) means that the only statistically significant differences by race/ethnicity that we can detect are those that are quite large.

References

Abelson, R. 2018. When hospitals merge to save money, patients often pay more. *New York Times*, November 14.

Baker, L. C., M. K. Bundorf, and D. P. Kessler. 2014a. Vertical integration: Hospital ownership of physician practices is associated with higher prices and spending. *Health Affairs* 33, no. 5 (May): 756–763.

Baker, L. C., M. K. Bundorf, A. B. Royalty, et al. 2014b. Physician practice competition and prices paid by private insurers for office visits. JAMA 312, no. 16 (October 22–29): 1653–1662.

Boards of Trustees, Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds. 2022. *2022 annual report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds.* Washington, DC: Boards of Trustees.

Bureau of Labor Statistics, Department of Labor. 2022. CPI for all urban consumers (CPI–U). https://data.bls.gov/timeseries/CUUR0000SA0?years_option=all_years.

Capps, C., D. Dranove, and C. Ody. 2018. The effect of hospital acquisitions of physician practices on prices and spending. *Journal of Health Economics* 59 (May): 139–152.

Centers for Disease Control and Prevention. 2022a. Demographic trends of COVID-19 cases and deaths in the U.S. reported to the CDC. https://covid.cdc.gov/covid-data-tracker/#demographics.

Centers for Disease Control and Prevention. 2022b. Table LCODRace. Leading cases of death and number of deaths, by sex, race, and Hispanic origin: United States, 1980 and 2019. https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Publications/Health_US/hus20-21tables/lcodage.xlsx.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2022a. *National health expenditure data: Historical.* Baltimore, MD: CMS. https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsHistorical.

Centers for Medicare & Medicaid Services. 2022b. Preliminary Medicare COVID-19 data snapshot: Medicare claims and encounter data: January 1, 2020 to November 20, 2021, received by December 17, 2021. Fact sheet. https://www.cms.gov/files/document/medicare-covid-19-data-snapshot-fact-sheet.pdf.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2021a. COVID-19 experiences among the Medicare population: Fall 2020. https://www.cms.gov/files/document/medicare-current-beneficiary-survey-covid-19-data-snapshot-infographic-fall-2020.pdf.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2021b. COVID-19 experiences among the Medicare population: Winter 2021. https://www.cms.gov/files/document/medicare-current-beneficiary-survey-covid-19-data-snapshot-infographic-winter-2021.pdf.

Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2020. COVID-19 experiences among the Medicare population: Summer 2020. https://www.cms.gov/files/document/medicare-current-beneficiary-survey-summer-2020-covid-19-data-snapshot.pdf.

Chernew, M. E., A. L. Hicks, and S. A. Shah. 2020. Wide state-level variation in commercial health care prices suggests uneven impact of price regulation. *Health Affairs* 39, no. 5 (May): 791–799.

Congressional Budget Office. 2022a. *The budget and economic outlook: 2022 to 2032.* Washington, DC: CBO. https://www.cbo.gov/system/files/2022-05/57950-Outlook.pdf.

Congressional Budget Office. 2022b. *The prices that commercial health insurers and Medicare pay for hospitals' and physicians' services.* Washington, DC: CBO. https://www.cbo.gov/publication/57422.

Congressional Budget Office. 2018. *Options for reducing the deficit: 2019 to 2028.* Washington, DC: CBO.

Cooper, Z., S. V. Craig, M. Gaynor, et al. 2015. *That price ain't right? Hospital prices and health spending on the privately insured.* NBER working paper no. 21815. Cambridge, MA: National Bureau of Economic Research.

Curto, V., A. D. Sinaiko, and M. B. Rosenthal. 2022. Price effects of vertical integration and joint contracting between physicians and hospitals in Massachusetts. *Health Affairs* 41, no. 5 (May): 741–750.

Czeisler, M. E., K. Marynak, K. E. N. Clarke, et al. 2020. Delay or avoidance of medical care because of COVID-19-related concerns: United States, June 2020. *Morbidity and Mortality Weekly Report* 69, no. 36 (September 11): 1250–1257.

Department of Justice and the Federal Trade Commission. 1996. *Statements of antitrust enforcement policy in health care.* Washington, DC: DOJ/FTC. https://www.ftc.gov/sites/default/files/attachments/competition-policy-guidance/statements_of_antitrust_enforcement_policy_in_health_care_august_1996.pdf.

Department of Treasury. 2022. How much revenue has the U.S. government collected this year? https://fiscaldata.treasury.gov/americas-finance-guide/government-revenue/#:~:text=This%20comparison%20provides%20a%20sense,States%20that%20year%20%2425.02%20trillion.

Dobson, A., J. Davanzo, and N. Sen. 2006. The cost-shift payment "hydraulic": Foundation, history, and implications. *Health Affairs* 25, no. 1 (January–February): 22–33.

Dominguez, K., A. Penman-Aguilar, M. H. Chang, et al. 2015. Vital signs: Leading causes of death, prevalence of diseases and risk factors, and use of health services among Hispanics in the United States: 2009–2013. *Morbidity and Mortality Weekly Report* 64, no. 17 (May 8): 469–478.

Dusetzina, S. B., H. A. Huskamp, R. L. Rothman, et al. 2022. Many Medicare beneficiaries do not fill high-price specialty drug prescriptions. *Health Affairs* 41, no. 4 (April): 487–496.

Dushi, I., and B. Trenkamp. 2021. *Improving the measurement of retirement income of the aged population*. ORES working paper no. 116. Washington, DC: Social Security Administration. https://www.ssa.gov/policy/docs/workingpapers/wp116.html.

Federal Trade Commission. 2016a. *The accuracy of hospital merger screening methods*. Working paper no. 326. Washington, DC: FTC. https://www.ftc.gov/sites/default/files/attachments/competition-policy-guidance/statements_of_antitrust_enforcement_policy_in_health_care_august_1996.pdf.

Federal Trade Commission. 2016b. Keynote address of FTC Chairwoman Edith Ramirez at the Antitrust in Healthcare Conference, May 12. https://www.ftc.gov/system/files/documents/public_statements/950143/160519antitrusthealthcarekeynote.pdf.

Fox, W., and J. Pickering. 2008. *Hospital & physician cost shift: Payment level comparison of Medicare, Medicaid, and commerical payers*. New York: Milliman.

Frakt, A. 2015. Hospitals are wrong about shifting costs to private insurers. *New York Times*, March 23.

Fulton, B., D. Arnold, and R. M. Scheffler. 2018. Market concentration variation of health care providers and health insurers in the United States. *To the Point* blog. Commonwealth Fund. July 30. https://www.commonwealthfund.org/blog/2018/variation-healthcare-provider-and-health-insurer-market-concentration.

Furukawa, M. F., L. Kimmey, D. J. Jones, et al. 2020. Consolidation of providers into health systems increased substantially, 2016-18. *Health Affairs* 39, no. 8 (August): 1321–1325.

Gaynor, M., F. Mostashari, and P. B. Ginsburg. 2017. Making health care markets work: Competition policy for health care. JAMA (published online March 2).

Gaynor, M., and R. Town. 2012. *The impact of hospital consolidation: Update*. The Synthesis Project, policy brief no. 9. Princeton, NJ: Robert Wood Johnson Foundation.

Goss, S., and K. Glenn. 2022. Social Security and Medicare trustees reports—A deep dive discussion with the programs' chief actuaries. June 17. Webinar hosted by the American Academy of Actuaries. https://www.ssa.gov/oact/presentations/ocact_20220617.pdf.

Guardado, J. R., and C. Kane. 2022. *Competition in health insurance: A comprehensive study of U.S. markets*. Chicago, IL: American Medical Association. https://www.ama-assn.org/system/files/competition-health-insurance-us-markets.pdf.

Hartman, M., A. B. Martin, B. Washington, et al. 2022. National health care spending in 2020: Growth driven by federal spending in response to the COVID-19 pandemic. *Health Affairs* 41, no. 1 (January): 13–25.

Health Care Cost Institute. 2022. *2020 health care cost and utilization report*. Washington, DC: HCCI. https://healthcostinstitute.org/images//pdfs/HCCI_2020_Health_Care_Cost_and_Utilization_Report.pdf.

Health Care Cost Institute. 2020. *2018 health care cost and utilization report*. Washington, DC: HCCI.

Herman, B. 2022. The health insurer will see you now: How UnitedHealth is keeping more profits, as your doctor. *Stat News*, December 5. https://www.statnews.com/2022/12/05/unitedhealth-keeping-profits-as-your-doctor-insurer/.

Kaiser Family Foundation. 2022. Most office-based physicians accept new patients, including patients with Medicare and private insurance. https://www.kff.org/medicare/issue-brief/most-office-based-physicians-accept-new-patients-including-patients-with-medicare-and-private-insurance/.

Kaiser Family Foundation. 2020. *How much more than Medicare do private insurers pay? A review of the literature*. Washington, DC: KFF.

Kane, C. 2021. *Policy research perspectives. Recent changes in physician practice arrangements: Private practice dropped to less than 50 percent of physicians in 2020*. Chicago, IL: American Medical Association.

Koma, W., T. Newman, G. Jacobson, et al. 2020. *Medicare beneficiaries' financial security before the coronavirus pandemic*. Washington, DC: Kaiser Family Foundation. https://www.kff.org/medicare/issue-brief/medicare-beneficiaries-financial-security-before-the-coronavirus-pandemic/.

Landi, H. 2022. Amazon scoops up primary care company One Medical in deal valued at $3.9B. *Fierce Healthcare*, July 21. https://www.fiercehealthcare.com/health-tech/amazon-shells-out-39b-primary-care-startup-one-medical.

Martin, A., M. Hartman, J. Benson, et al. 2023. National health care spending in 2021: Decline in federal spending outweighs greater use of health care. *Health Affairs* 42, no. 1.

Medicare Payment Advisory Commission. 2022a. *A data book: Health care spending and the Medicare program*. Washington, DC: MedPAC. https://www.medpac.gov/wp-content/uploads/2022/07/July2022_MedPAC_DataBook_SEC_v2.pdf.

Medicare Payment Advisory Commission. 2022b. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2021. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2020a. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2020b. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2019a. *A data book: Health care spending and the Medicare program*. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2019b. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2018. *A data book: Health care spending and the Medicare program*. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2017. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2016. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2009. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.

Medicare Payment Advisory Commission. 2003. *A data book: Healthcare spending and the Medicare program*. Washington, DC: MedPAC.

Murphy, S. L., K. Kochanek, J. Q. Xu, et al. 2021. *Mortality in the United States, 2020*. NCHS data brief, no. 427. Hyattsville, MD: National Center for Health Statistics.

Neprash, H. T., M. E. Chernew, A. L. Hicks, et al. 2015. Association of financial integration between physicians and hospitals with commercial health care prices. *JAMA Internal Medicine* 175, no. 12 (December): 1932–1939.

Office of the Actuary. 2022. *Memorandum from John D. Shatto and M. Kent Clemens regarding projected Medicare expenditures under an illustrative scenario with alternative payment updates to Medicare providers*. June 2. Baltimore, MD.

Ortaliza, J., K. Amin, and C. Cox. 2022. COVID-19 leading cause of death ranking. Peterson-KFF Health System Tracker. https://www.healthsystemtracker.org/brief/covid-19-leading-cause-of-death-ranking/.

Poisal, J. A., A. M. Sisko, G. A. Cuckler, et al. 2022. National health expenditure projections, 2021-30: Growth to moderate as COVID-19 impacts wane. *Health Affairs* 41, no. 4 (April): 474–486.

Robinson, J. C., and K. Miller. 2014. Total expenditures per patient in hospital-owned and physician-owned physician organizations in California. *JAMA* 312, no. 16 (October 22–29): 1663–1669.

Scheffler, R. M., D. R. Arnold, and C. M. Whaley. 2018. Consolidation trends in California's health care system: Impacts on ACA premiums and outpatient visit prices. *Health Affairs* 37, no. 9 (September): 1409–1416.

Schwartz, K., M. Rae, and T. Neuman. 2020. *What we know about provider consolidation*. Washington, DC: Kaiser Family Foundation.

Social Security Administration. 2006. *Trends in the Social Security and Supplemental Security Income disability programs*. Washington, DC: SSA. August. https://www.ssa.gov/policy/docs/chartbooks/disability_trends/trends.pdf.

Spitalnic, P. 2022. The financial status of Medicare: A summary of the 2022 Trustees Report. Presentation at an event sponsored by the American Enterprise Institute, June 6. https://www.aei.org/wp-content/uploads/2022/05/AEI-TR22.pptx?x91208.

Stensland, J., Z. R. Gaumer, and M. E. Miller. 2010. Private-payer profits can induce negative Medicare margins. *Health Affairs* 29, no. 5 (May): 1045–1051.

Whaley, C. M., B. Briscombe, R. Kerber, et al. 2022. *Prices paid to hospitals by private health plans*. Santa Monica, CA: RAND. https://www.rand.org/pubs/research_reports/RRA1144-1.html.

White, C., and V. Y. Wu. 2014. How do hospitals cope with sustained slow growth in Medicare prices? *Health Services Research* 49, no. 1 (February): 11–31.

Xu, J., S. Murphy, K. Kochanek, et al. 2022. Mortality in the United States, 2021. *NCHS Data Brief*, no. 456 (December).

Yuan, Y., J. M. Thierry, L. Bull-Otterson, et al. 2022. COVID-19 cases and hospitalizations among Medicare beneficiaries with and without disabilities: United States, January 1, 2020 to November 20, 2021. *Morbidity and Mortality Weekly Report* 71, no. 24 (June 17): 791–796.