

CHAPTER

4

**Estimated association
between Medicare Advantage
enrollment and hospitals'
and post-acute care
providers' finances**

Estimated association between Medicare Advantage enrollment and hospitals' and post-acute care providers' finances

Chapter summary

Medicare's capitated payments to Medicare Advantage (MA) plans create incentives for plans to find lower-cost ways to provide care. When used appropriately, these practices have the potential to promote more efficient care. Indeed, research shows that, on average, MA plans spend less on medical care compared with fee-for-service (FFS) Medicare while maintaining broadly similar levels of access to and satisfaction with care. That evidence suggests that, though heterogeneity across plans exists, at least some of MA plans' lower medical spending is attributable to appropriate reductions and that FFS spending on medical care might be higher than needed to maintain access and satisfaction.

To reduce medical spending, MA plans typically have flexibility to use alternative payment arrangements, negotiate with individual providers, coordinate care to fill potential gaps in care delivery, manage the use of some services through tools such as prior authorization, and provide incentives for beneficiaries to seek care from lower-cost providers. Broadly, MA plans' flexibility and use of enhanced tools may alter providers' patient volume, the revenues that providers receive per patient, and providers' costs of furnishing care. While plans' actions may be consistent with efficient care, providers have raised concerns about detrimental effects of these activities on their finances and potential

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impacts on patient care. These concerns have intensified as enrollment in MA has grown such that MA enrollees now make up a substantial share of many providers' patients and revenues.

To analyze the relationship between MA enrollment changes and providers' finances, we conducted several complementary analyses, focusing on hospitals, skilled nursing facilities (SNFs), and home health agencies (HHAs), along with descriptive analyses of inpatient rehabilitation facility (IRF) volume and patient mix. Although our analysis is subject to limitations and cannot isolate causal effects, we do not find evidence of a statistically significant association between MA penetration and hospital, SNF, or HHA margins, on average. Margins changed by similar amounts for providers located in markets that experienced greater increases in MA enrollment relative to providers located in markets that experienced smaller increases in MA enrollment over the study period.

There could be several reasons for the lack of association between MA penetration and providers' margins, on average, even if MA plans have exerted financial pressure in the areas identified by providers in our interviews. First, for some providers, the effects of increases in MA enrollment might be relatively modest (on average) in the context of providers' all-payer revenues and costs. Second, because MA has been growing consistently for a long time and most provider costs are variable, providers might have responded to financial pressures from MA by reducing staffing or other costs (and therefore maintaining margin levels). Third, while MA plans might reduce revenues to providers, providers might benefit from higher payments that could partially offset those reductions, such as through higher uncompensated care (UC) payments (for hospitals with a high share of their Medicare patients from MA) or payments from MA plans for meeting certain quality benchmarks. Finally, there may be other factors that affect providers' finances that are correlated with (but not caused by) changes in MA penetration but that we were not able to measure in our analysis.

MA enrollment and hospital finances

In interviews conducted by MedPAC staff, hospital representatives reported that increases in MA enrollment have negatively affected their hospitals' finances. Concerns frequently raised during these interviews included that MA plans denied or downgraded claims at a higher rate than FFS Medicare, made discharging MA enrollees to post-acute care (PAC) more difficult, and paid lower effective rates than FFS and/or did not match certain FFS

payments in the prices they paid hospitals (e.g., FFS Medicare's UC payments that are made to certain hospitals in the form of dollar add-ons to payments for inpatient hospital services provided to FFS beneficiaries). From MA plans' perspective, tools such as prior authorization can prevent inappropriate, wasteful, or fraudulent care from being delivered; some providers may be inappropriately billing higher-level visits than warranted; MA plans often match FFS payment rates on average; and MA plans often make payments above and beyond FFS rates for activities including increased diagnostic coding and meeting certain quality metrics.

Our empirical analyses focused on comparing MA and FFS beneficiaries' average hospital length of stay, the implications of MA enrollment growth on Medicare's UC payments, and the association between MA enrollment and hospitals' all-payer operating margins, revenues, and costs. We found that:

- MA enrollees had a longer average hospital length of stay compared with FFS beneficiaries. After controlling for the hospital used, services received, comorbidities, and intended discharge destination, we found that MA enrollees had an average length of stay in fiscal year 2024 that was 11.2 percent longer than that of FFS beneficiaries. The difference in the average length of stay between MA and FFS beneficiaries was similar at hospitals paid under the inpatient prospective payment systems (IPPS) and at critical access hospitals (CAHs) but varied by intended discharge destination. For example, the difference in the average length of stay was 4.9 percent for beneficiaries who were intended to be discharged home (under self-care) but was 19.6 percent for those seeking care at a SNF and 32.3 percent for those seeking care at an IRF. Longer lengths of stay can increase costs for hospitals and cost sharing for beneficiaries and have other effects.
- The structure of FFS Medicare's UC payments may benefit hospitals with more MA patients, leading to mistargeted UC payments to the extent that MA plans match FFS UC add-ons. We estimated that, all else equal, if a hospital's MA share of Medicare inpatients were 10 percentage points higher, the hospital would have had a 15 percent higher estimated FFS UC add-on per stay. UC payments become mistargeted when UC dollars are shifted to hospitals with a higher share of their Medicare patients from MA (and away from those with lower shares from MA patients) rather than being targeted to hospitals on the basis of furnishing UC.
- We did not estimate a statistically significant association, on average, between market-level MA penetration and all-payer operating margins, revenues, and costs for IPPS hospitals or CAHs, using data from 2013

to 2024 (excluding 2020 and 2021 due to the coronavirus pandemic). Our estimates are consistent with aggregate trends that show that IPPS hospitals' and CAHs' all-payer operating margins have remained relatively flat or increased slightly from 2013 to 2024, a period during which MA penetration increased substantially. The overall effects are an average over many different types of hospitals, but MA may affect some types of hospitals differently. Although we attempted to control for potential confounding factors, this analytic framework cannot isolate causal effects, and estimates should therefore be interpreted as associations. In addition, our analysis uses all-payer hospital financial metrics in part because current hospital cost reports do not allow us to directly examine the extent to which treating MA patients is profitable.

MA enrollment and post-acute care providers' finances

PAC representatives we interviewed identified similar channels in which MA enrollment may affect providers' finances as noted by acute care hospital representatives. Interviewees told us that MA plans' use of prior authorization to initiate and extend PAC services can reduce PAC volume relative to FFS Medicare. IRF representatives stated that prior authorization is the most significant MA-related challenge they face. SNF and HHA interviewees noted that MA plans typically had lower payment rates than FFS, whereas IRF providers told us that they received payments comparable to FFS. Across the three PAC settings, interviewees consistently reported higher administrative costs associated with obtaining authorization to start or extend care and to appeal denials. MA plans told us that they apply prior-authorization tools in settings such as IRFs where there is wide variation in use and that they tend to pay FFS prices (or more), though they may pay for a different unit of service (e.g., payments per visit for home health care instead of payment per 30-day period as in FFS Medicare).

Increases in MA enrollment might have different effects on PAC providers' finances compared with acute care hospitals for a number of reasons. For example, there is potential substitutability across PAC settings for some patients, which may enable plans to shift some PAC use to lower-cost settings. In addition, FFS payments to PAC providers tend to be high relative to costs, and some MA plans may be able to negotiate lower-than-FFS payment rates with PAC providers. For many IRFs and HHAs, Medicare payments account for a relatively large share of all-payer revenue. To the extent that MA payment rates differ from FFS rates, expanded MA enrollment may have implications for these providers' overall financial performance.

For freestanding SNFs and HHAs, we estimated the association between changes in market-level MA penetration and providers' finances using the same regression-based approach applied to acute care hospitals. We found that:

- Increases in MA penetration were associated with small declines in total facility days at SNFs but with no statistically significant declines in HHA total visits or patients.
- Increases in MA penetration were associated with small declines in revenue and costs among SNFs and HHAs. However, we did not find statistically significant effects on all-payer margins, on average. These results do not rule out meaningful effects of increases in MA penetration on the finances of specific providers.
- Changes in MA penetration may affect subgroups of SNFs and HHAs differently. We found differences in the estimates by size and time period and weaker evidence of differences by the extent to which providers were vertically integrated with MA plans (either by MA plans purchasing providers or by providers initiating MA plans). Further research is needed to better understand the underlying mechanisms for these differences, especially for smaller versus larger providers.

Since only about a third of IRFs are freestanding and we are only able to calculate all-payer margins for freestanding providers, we instead show that the MA share of IRF days is substantially lower than overall MA penetration in the IRF markets and that the clinical conditions differ between MA and FFS beneficiaries admitted to IRFs.

We note that lower PAC provider volume and revenues under MA relative to FFS Medicare should not be interpreted as evidence of inappropriate reductions in care. The Commission has long documented persistently high FFS Medicare margins across the three PAC settings, reflecting payment levels that create strong financial incentives to furnish a higher volume and intensity of services. Thus, lower utilization under MA may reflect active care management that improves PAC efficiency rather than diminished access to clinically appropriate care. At the same time, reductions in use do not automatically imply improvements in efficiency, and it is essential to ensure that beneficiaries have timely access to medically necessary PAC services. Ongoing monitoring of access, outcomes, and beneficiary experience is therefore critical as MA enrollment continues to grow.

Appropriate caution in attributing estimates using changes in MA penetration to the causal effects of MA

We urge caution in attributing the estimated associations between providers' all-payer profit margins, revenues, and costs to the causal effect of greater MA penetration. Our regression approach compared providers in markets with larger changes in MA penetration to providers in markets with smaller changes in MA penetration to estimate the associations between MA enrollment and providers' finances. Some of the associations estimated in this analysis may reflect factors other than MA that were changing over the study period but that we were unable to control for. A particular concern for our analysis is that there may be different underlying trends in providers' revenues or costs in markets with larger changes in MA penetration relative to other markets. We conducted several analyses that suggest that this concern may be material both for our study and other analyses that use market-level changes in MA penetration to estimate the effect of MA enrollment. For example, markets with larger changes in MA penetration over the study period had higher baseline levels of hospital utilization, suggesting that those markets may have been on different spending trajectories for reasons unrelated to MA.

Concerns about differential trends confounding the interpretation of our results were less salient for the estimated associations between MA penetration and margins, meaning that it may be appropriate to place more weight on estimates for margins than on estimates of revenues, costs, and volume. Because both the revenue and cost components of the calculation of margins would be affected by concerns about differential trends in utilization, any effect of those trends may largely balance out when estimating associations between changes in MA penetration and margins. The estimated association of MA penetration and all-payer margin was consistently small and not statistically distinguishable from zero over many alternative specifications and sensitivity analyses. By contrast, associations of MA penetration with revenues, costs, and volume varied in their size over different specifications. ■

The Medicare Advantage (MA) program allows Medicare beneficiaries enrolled in both Part A and Part B to receive benefits from private plans rather than from the traditional fee-for-service (FFS) program. Medicare's capitated payments to MA plans create incentives for plans to find lower-cost ways to provide care. Indeed, research shows that, on average, MA plans spend less on medical care compared with FFS Medicare while maintaining broadly similar levels of access to and satisfaction with care. That evidence suggests that, though heterogeneity across plans exists, at least some of MA plans' lower medical spending is attributable to appropriate reductions and that FFS spending on medical care might be higher than needed to maintain access and satisfaction (Medicare Payment Advisory Commission 2026, Medicare Payment Advisory Commission 2023b).

MA plans typically have flexibility to use alternative payment approaches, negotiate with individual providers, coordinate care to fill potential gaps in care delivery, manage the use of some services through tools such as prior authorization, and provide incentives for beneficiaries to seek care from lower-cost providers. When used appropriately, these practices have the potential to promote more efficient care that reduces costs for MA plans and their enrollees. Some of those tools (such as alternative payment models) may provide an opportunity for providers to share in the financial gains from enhanced diagnostic coding and share in any efficiencies from care management that MA plans generate, while other tools (such as prior authorization) could financially disadvantage providers. Broadly, MA plans' activities may alter providers' patient volume, the revenues that providers receive per patient, and providers' costs of furnishing care. While plans' actions may be consistent with efficient care that maintains quality, providers have raised concerns about detrimental effects on their finances and on beneficiaries.

Providers' concerns have intensified as enrollment in MA has grown. From 2013 to 2025, the share of all beneficiaries with Part A and Part B coverage who were enrolled in MA rose from 30 percent to 55 percent (Figure 4-1, p. 138). Both the Boards of Trustees of the Medicare program and the Congressional Budget Office project that MA's share of overall Medicare enrollment will grow in the future. Understanding the effects of MA on providers (and the beneficiaries they serve) is

thus critical (Boards of Trustees 2025, Congressional Budget Office 2026).

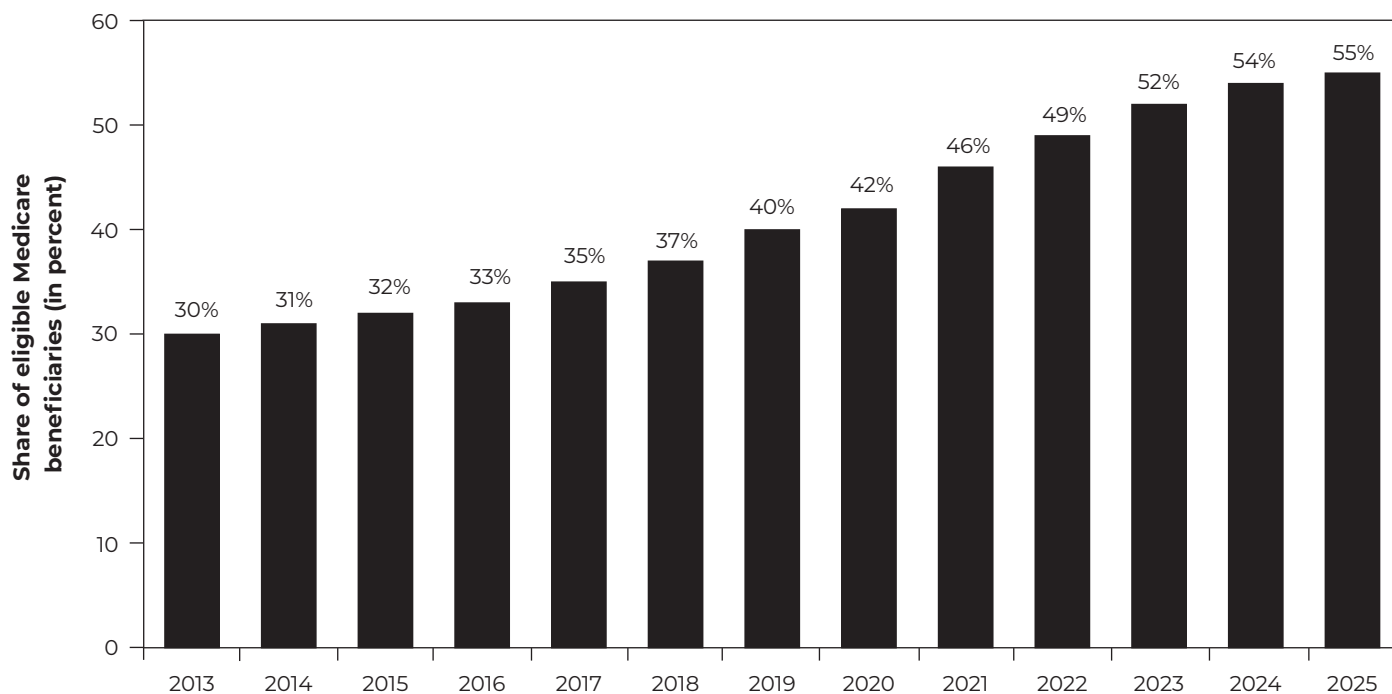
In this chapter, we first review the theoretical ways in which MA plans could impact providers' finances. Next, we analyze differences in average hospital lengths of stay between MA and FFS beneficiaries, the implications of MA enrollment growth on Medicare's uncompensated care (UC) payments, and the association between MA enrollment and hospitals' all-payer operating margins, revenues, and costs. We then examine the association between MA enrollment and these all-payer financial metrics for skilled nursing facilities (SNFs) and home health agencies (HHAs). Finally, because we could not calculate these all-payer financial metrics for hospital-based inpatient rehabilitation facilities (IRFs) (which represent the majority of IRFs), we present descriptive information on IRF MA volume that is available for both freestanding and hospital-based IRFs and compare the clinical conditions of FFS and MA enrollees. We focus in this chapter on the effects of MA on providers, but the Commission also continues to explore the effects of MA on beneficiaries (including the impact of provider networks on MA enrollees' access to care and enrollees' use of MA supplemental benefits).

Potential effects of MA on providers' finances

As MA enrollment increases, providers are treating growing shares of MA patients. The implications of this growth for providers' finances may vary depending on the sector (e.g., hospitals, SNFs, dialysis providers), and providers can be affected through multiple channels. In theory, higher MA enrollment could affect providers' patient volume, the revenues that providers receive per patient, and providers' costs of furnishing care to Medicare beneficiaries. The impacts on providers may differ by the type of MA plan. For example, HMOs may have a greater ability to affect volume compared with preferred provider organizations, and issues such as prior authorization or claims denials (which can affect provider volume, revenues, and costs) may be of greater financial concern when the MA plan (the payer) is not vertically integrated with the provider (the payee).

**FIGURE
4-1**

Share of Medicare-eligible beneficiaries enrolled in Medicare Advantage grew rapidly, 2013–2025



Note: Beneficiaries must have both Part A and Part B coverage to enroll in a Medicare Advantage plan; therefore, beneficiaries who have Part A only or Part B only are not included in this figure.

Source: MedPAC analysis of CMS enrollment files.

Potential effects of MA on providers' patient volume

Although MA enrollment now makes up over half of eligible Medicare beneficiaries, the share of providers' Medicare volume attributable to MA enrollees can vary widely for multiple reasons. In general, relative to FFS Medicare, MA plans may reduce overall patient volume or shift the volume of care, both within a sector (e.g., shifting volume from one hospital to another hospital) or across sectors (e.g., shifting SNF volume to HHAs).

MA plans may shift or reduce volume using a variety of tools, including prior authorization, benefit design, and certain network strategies. When used appropriately, utilization-management tools have the potential to promote more efficient care, including better quality outcomes. However, misapplication of

these tools could lead to beneficiaries struggling with delays or denials of needed care (Medicare Payment Advisory Commission 2024b).

Plans' utilization-management tools may be applied more for some types of services than for others, and the exact mechanisms that MA plans employ may vary. For example, a study of prior authorization and utilization management in HHAs found that MA plans used mixed approaches—whether prior authorization was required for the initial start of care, only to extend the length of coverage, or for the number of visits approved (Thomas et al. 2025). Some plans contract with a company to manage their enrollees' post-acute care (PAC), and these companies may use algorithms to speed up the approval process and otherwise ease the burdens associated with prior authorization.

Those algorithms may present their own challenges to beneficiaries' access to care.

Plans may shift patient volume within or across provider sectors for multiple reasons. For example, plans' strategies to limit their provider networks may affect the volume and MA share of any given provider in that market. MA plans may limit the inclusion of IRFs or SNFs in their networks to those that agree to receive rates below a certain level or to those that meet certain levels of performance on measures that plans find desirable. Not only may limited networks result in shifts in volume toward certain providers or lower-cost sites of care, they may also have effects on MA volume in the other sectors (e.g., limited SNF networks may delay hospital discharge, increasing the lengths of stay for some MA enrollees).

Plans may also shift volume to certain providers based on ownership relationships. Plans that are vertically integrated with providers (e.g., an MA plan that owns physician practices or HHAs) have an incentive to direct patients to their vertically integrated providers for clinical reasons (e.g., improved care coordination or quality) and financial reasons (e.g., enhanced diagnostic coding, increasing their providers' profits). For example, a recent study found that an MA plan's acquisition of physician practices led to a substantial increase in diagnostic coding (Marr et al. 2026b).

Potential effects of MA on providers' revenues per patient

MA could affect providers' revenues per patient through the prices that plans negotiate with providers for a given service; additional revenues received from MA plans that are not tied to a particular service (e.g., incentive bonuses); the ways in which plans classify patients or services (e.g., classifying a hospital patient's stay as an observation stay rather than an inpatient admission); and the extent to which plans deny payments for services rendered to their enrollees.

MA plans negotiate prices with providers with whom they contract; those prices can be higher or lower than FFS prices. However, FFS prices tend to act as an important reference point in price negotiations between MA plans and providers (Berenson et al. 2015, Mackleby et al. 2025, Maeda and Nelson 2017, Medicare Payment Advisory Commission 2023b, Xu and Polsky 2023). The importance of FFS prices is partly

attributable to the fact that, when establishing MA, the Congress stipulated that when MA enrollees receive care from providers outside of a plan's network (i.e., a provider that does not have a contract with the plan), the provider is required to accept FFS rates. These statutes protect MA plans—and MA enrollees—from being charged high rates by providers in emergency situations.¹ CMS provided the following guidance in interpreting the FFS price cap from which MA plans and beneficiaries benefit:

Non-contract providers must accept as payment in full payment amounts applicable in Original Medicare. Thus, this provision of law imposes a cap on payment to non-contract providers of provider payment amounts plus beneficiary cost-sharing amounts applicable in Original Medicare, and ensures that non-contract providers not balance bill MA plan enrollees for other than MA plan cost-sharing amounts. (Centers for Medicare & Medicaid Services 2025b)

While the statute provides support for using FFS prices in out-of-network situations, negotiations between MA plans and providers can differ substantially when discussing in-network prices, but FFS prices still remain important when negotiating in-network prices. For example, if providers in a sector are substantially consolidated or an MA plan needs a particular provider to meet its network-adequacy requirements, providers may have leverage to negotiate higher-than-FFS prices. The Commission has found that the dialysis sector is highly consolidated, and MA plans paid rates that were, on average, 22 percent above FFS rates in 2022 (Medicare Payment Advisory Commission 2026). However, if providers negotiate rates that are too high, MA plans may struggle to offer supplemental benefits and remain competitive with FFS, beneficiaries might choose to enroll in FFS rather than MA, and providers would not receive the higher-than-FFS rates. In that way, FFS payment rates continue to act as an important reference point even for in-network providers. In contrast, if FFS prices are well above providers' costs and the supply of providers is not concentrated (as is the case for SNFs in some markets), MA plans may be able to negotiate prices below FFS rates.

Differences in Medicare network-adequacy policies may also play a role in MA price negotiations. MA plans are required to demonstrate the adequacy of their contracted networks for each of 29 clinician specialty types (e.g., primary care physicians, dermatologists)

and 14 facility types (e.g., acute care hospitals, SNFs), for every county in which they operate (Medicare Payment Advisory Commission 2024b).² Network adequacy must be demonstrated in terms of both a minimum number of providers per 1,000 beneficiaries and a maximum time and/or distance that a beneficiary must travel to reach a provider of each type. The thresholds to meet network adequacy are less strict in rural areas. For instance, the maximum time and distance can be up to 155 minutes/140 miles in counties with extreme access considerations for some facilities, compared with a maximum of 20 to 30 minutes/10 to 15 miles in large metropolitan counties.³ However, these network-adequacy thresholds do not need to be met for some providers such as IRFs and HHAs. The lack of network-adequacy standards may provide MA plans with greater leverage in negotiating rates with certain types of providers, especially when they can substitute alternative providers in their network.

Factors beyond negotiated prices can also affect revenues per patient. For example, MA may be more likely than FFS Medicare to deny claims for lack of medical necessity (or other reasons) or downgrade claims to lower-paid services. In these cases, a provider may receive less than 100 percent of FFS prices, on a realized basis, even if the contract between the MA plan and the provider stipulates payment at FFS rates. In contrast, MA plans may pay providers additional revenues that are not tied to a particular service. For example, as part of plans' overall investment in patient care, plans may give clinicians additional payments for meeting certain quality benchmarks that are important to the plan quality rating.

Potential effects of MA on providers' costs per patient

Providers' cost per patient may also vary across MA and FFS patients. Hospitals might incur higher costs to treat MA patients because of longer lengths of stay before initiating PAC and because of administrative costs associated with obtaining prior authorization approvals, following various billing requirements, and appealing claims denials. Providers' cost per patient may also be higher (or lower) to the extent that MA alters volume (either overall or at a particular provider), resulting in fixed costs being spread over fewer (or more) patients.

Over time, providers might also adapt to the different patient volume and revenue from their MA patients by modifying their cost structures to reduce the costs they incur. For example, providers may reduce their staffing hours to align with lower patient volume or reduce the intensity of treatment for particular types of patients (e.g., fewer visits per home health episode). While the ability to reduce their costs may be limited over very short periods, the fact that MA enrollment has been increasing consistently for two decades suggests that providers likely have had time to change their cost structures to adapt to the expansion of MA.

MA enrollment and hospital finances

To provide evidence on the relationship between MA and hospital finances, the Commission conducted several complementary analyses, including a series of site visits and interviews; analyses of MA and FFS beneficiaries' lengths of stay and UC payments; and an analysis of the association between changes in MA penetration and hospitals' all-payer operating revenues, all-payer costs, and all-payer operating margin.⁴

Hospital representatives reported that the growth of MA has negatively affected their hospitals' finances. We estimate that MA patients had longer average lengths of stay than FFS beneficiaries, driven by patients intended to be discharged to PAC. We found that the structure of UC payments benefits hospitals with a higher share of their Medicare stays for MA patients, leading to mistargeted UC payments to the extent that MA plans match FFS UC add-ons. On average, we found that changes in MA penetration were not associated with changes in hospitals' profit margins, although different effects were noted for certain hospital subgroups.

Hospital representatives expressed their perspective that MA growth has negatively affected hospital finances

To obtain hospitals' perspectives on the extent to which increases in MA enrollment have affected them, we spoke with representatives of the hospital industry and conducted multiple site visits across different regions of the country. For context, we also spoke with MA plan representatives and other MA plan stakeholders. These interviews were not intended to be representative of all providers' or MA plans' experiences.

Hospital representatives expressed their perspective that the growth of MA has negatively affected their hospitals' finances. Several key themes that were commonly raised by hospital representatives included:

- **Higher rates of denied claims relative to FFS:** Hospital stakeholders reported that, compared with FFS, MA plans denied payment for more claims after a service had already been provided. Acute hospital inpatient claims were reportedly targeted more frequently for denials, and a lack of medical necessity was often the stated reason. Hospital representatives said that a high percentage of denials were eventually overturned, often citing 80 percent or 90 percent overturn rates. (Similar to what we heard on our site visits, one recent paper found that 17 percent of inpatient claims were initially denied but that 60 percent of those denials were later overturned (Vabson et al. 2025).) Nevertheless, the process of challenging denials reportedly increased administrative spending, detracted from patient care, and increased clinician burnout since physicians working in hospitals are often tasked with liaising with MA plans to overturn denials. Hospital representatives expressed frustration that, in their opinion, MA plans often failed to provide clear, prospective guidelines that would allow them to determine medical necessity, did not clearly detail why certain claims were denied as medically unnecessary, and did not adhere to FFS guidelines for medical necessity.
- **Greater difficulty discharging MA enrollees to PAC:** Hospital representatives we interviewed said that MA plans often delayed beneficiaries from being discharged to PAC in a timely manner. Hospital representatives said that PAC providers were less likely to accept MA patients and that the process of receiving a prior authorization from MA plans for a PAC stay can take multiple days. These reports are consistent with some academic and industry research suggesting that MA enrollees have longer hospital stays compared with FFS beneficiaries when beneficiaries are discharged to PAC settings, such as SNFs (McGarry et al. 2025, NORC at the University of Chicago 2025).⁵ MA plan representatives said that delays in discharging beneficiaries to PAC can often be due to issues related to PAC capacity. For example, they noted

that securing a SNF bed in certain markets can be difficult regardless of the type of insurance the patient has.

- **Higher rates of downgraded claims:** Hospital representatives said MA plans frequently downgrade claims, resulting in lower payments to hospitals. Interviewees noted several types of downgrades—reclassifying a hospital inpatient stay as a hospital outpatient observation stay, changing the Medicare severity diagnosis-related group (MS-DRG) on the claim to a lower-paying one, and changing the level of emergency department (ED) visit (e.g., a hospital submits a claim with a Level 5 ED evaluation and management code and the MA plan pays it as a Level 4). Consistent with these reports, one recent study found that, for ambulatory care-sensitive conditions, MA enrollees had slightly lower hospitalization rates but much higher rates of observation stays and direct discharges from the ED (Beckman et al. 2023). From MA plans' perspective, providers may be inappropriately billing higher-level visits than warranted or billing for short hospital inpatient stays when an observation stay is more appropriate. For example, an HHS Office of Inspector General (OIG) report identified 2.5 million short inpatient stays from 2016 to 2020 and recommended a series of reforms to better monitor the extent to which such stays comply with Medicare policy (Office of Inspector General 2024).
- **Increased administrative burden:** Hospital representatives said that MA plans impose substantial administrative burdens on hospitals, which raises their costs. These extra burdens are a result of multiple factors, including the difficulty of contracting with multiple payers (each with their own set of distinct policies and procedures); prior authorizations; additional approvals (e.g., multiple approvals for one swing-bed stay); and managing denials and downgrades. (A recent KFF analysis found that, in 2024, there were about 1.7 prior-authorization requests per MA beneficiary compared with 0.02 per FFS Medicare beneficiary (Fuglesten Biniek et al. 2026).) In response to this administrative burden, hospitals reported hiring additional staff and asking existing staff (e.g., clinicians) to take on additional duties.

Representatives from MA plans we spoke with acknowledged that tools such as prior authorization can create administrative burden but can also be useful to prevent inappropriate, wasteful, or fraudulent care from being delivered and/or billed. One MA plan said their prior-authorization program was designed by their employed clinicians and was focused on preventing inappropriate clinical care from being delivered. Another plan noted that their prior-authorization program was focused on services such as high-cost imaging, where conservative management might be more appropriate in certain circumstances, and Part D specialty drugs, where less expensive therapeutic equivalents might exist and beneficiaries are not price sensitive (because of a \$2,000 out-of-pocket cap that was introduced in 2025).

- **Did not match certain FFS payments:** Hospital representatives we spoke with generally said that MA plans matched FFS rates for hospital inpatient and outpatient services, with some receiving slightly less than FFS and some receiving slightly more. While not necessarily true for other services (e.g., SNF, dialysis) or for particular hospitals, research suggests that MA payment rates for hospital inpatient and outpatient services tend to be, on average, similar to FFS rates (Mackleby et al. 2025, Maeda and Nelson 2017, Xu and Polsky 2023). However, in addition to the reasons discussed above (e.g., denials and downgrades), hospital representatives said that effective payment rates were often lower than FFS because MA plans are less likely to match non-claims-based payments and other add-ons. For example, FFS Medicare pays 65 percent of bad debts—deductible and coinsurance amounts from FFS beneficiaries that hospitals could not collect—while hospitals reported that MA plans generally had no payments for bad debts. Multiple hospital representatives also noted that MA plans do not pay health professional shortage area bonuses to their employed physicians, whereas FFS Medicare makes 10 percent lump-sum payments on a quarterly basis. Some hospital representatives also noted that MA plans might not match UC add-on payments per discharge if the add-ons are too high. In contrast, some hospital representatives also mentioned

receiving additional sources of revenue from MA plans, including payments for increased diagnostic coding and meeting certain quality metrics. In addition, MA plan representatives noted that, while they do not directly match all FFS add-ons or non-claims-based payments, the goal of their plan is to approximate the magnitude of those special payments and pay providers an equivalent rate. They said that doing so reduces administrative expenses for the plan (e.g., not going through cost-report reconciliation) while still paying providers roughly 100 percent of FFS rates.

MA patients had longer average hospital lengths of stay than FFS beneficiaries

In this chapter, we expand on our previous work to further explore two issues raised by hospital representatives—the differences in hospital inpatient lengths of stay for MA enrollees versus FFS beneficiaries and UC payments.⁶

We examine the extent to which MA enrollees had longer lengths of stay compared with FFS beneficiaries at IPPS hospitals and critical access hospitals (CAHs) using fiscal year (FY) 2024 Medicare Provider Analysis and Review data. We first examined the unadjusted differences in lengths of stay between MA and FFS beneficiaries. Then, because of potential differences between the MA and FFS populations, we ran claim-level regressions to control for the fact that MA enrollees might visit different hospitals, receive different services, have different comorbidities, or have different discharge destinations.

Consistent with our previous work on the topic and other research, we found that MA enrollees had a longer average length of stay compared with FFS beneficiaries in FY 2024 (Medicare Payment Advisory Commission 2024a, NORC at the University of Chicago 2025). Across all hospitals in our analysis (hospitals paid through the IPPS and CAHs), we found that MA enrollees had an average length of stay of about 5.7 days compared with 5.2 days for FFS beneficiaries, a difference of about 0.4 days or 8.6 percent (Table 4-1). After controlling for hospital and beneficiary differences in our regression analyses, we found that the difference in the average length of stay between MA and FFS beneficiaries increased to 11.2 percent (Table 4-1).

**TABLE
4-1**

MA enrollees had a longer average hospital length of stay than FFS beneficiaries, driven by patients who were referred to post-acute care, FY 2024

Category	Unadjusted averages				Regression-based estimates	
	MA LOS (days)	FFS LOS (days)	Difference (days)	Difference (percent)	Difference (days)	Difference (percent)
All	5.7	5.2	0.4	8.6%	0.6***	11.2%
Type of hospital						
IPPS	5.7	5.3	0.4	8.1	0.6***	11.2
CAH	3.8	3.5	0.3	9.7	0.4***	11.8
Discharge destination						
Home	3.8	3.5	0.3	7.6	0.2***	4.9
HHA	5.8	5.3	0.5	9.5	0.4***	8.4
SNF	8.9	7.2	1.6	22.3	1.4***	19.6
IRF	9.9	7.0	2.9	40.9	2.3***	32.3

Note: MA (Medicare Advantage), FFS (fee-for-service), FY (fiscal year), LOS (length of stay), IPPS (inpatient prospective payment systems), CAH (critical access hospital), HHA (home health agency), SNF (skilled nursing facility), IRF (inpatient rehabilitation facility). "Discharge destination" reflects the intended discharge destination (and may not reflect the actual destination); not all discharge destinations are shown. The "home" category reflects patients with an intended discharge location that was home under self-care. We estimated stay-level regressions of length of stay on the following variables: an indicator for whether the stay was for a FFS or MA patient; fixed effects for the hospital; the patient's Medicare severity diagnosis-related group (MS-DRG); the discharge destination; and an interaction of MS-DRG and destination. (The latter two controls were omitted in the regressions limited to a single destination.) Standard errors were clustered at the hospital level. Differences are calculated from unrounded data. Statistical significance is shown for *p*-values less than the 10 percent (*), 5 percent (**), and 1 percent (***) significance levels.

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

The difference in the average length of stay between MA and FFS beneficiaries occurred at both IPPS hospitals and CAHs, despite differences in payment systems. In our regression analyses, MA enrollees had an average length of stay that was 11.2 percent longer than FFS beneficiaries' stays at IPPS hospitals and 11.8 percent longer at CAHs (Table 4-1).⁷

The longer average length of stay for MA enrollees compared with FFS beneficiaries was primarily driven by patients with intended discharge destinations to certain PAC settings. In our regression analyses, MA enrollees' average length of stay for patients who were discharged home (under self-care) was 4.9 percent longer than that of FFS beneficiaries. However, the difference in lengths of stay between MA and FFS

beneficiaries increased substantially for patients with an intended discharge to certain PAC settings: 8.4 percent longer for MA enrollees discharged to home health, 19.6 percent longer for MA beneficiaries discharged to a SNF, and 32.3 percent longer for MA enrollees discharged to an IRF (Table 4-1). The greater difference in lengths of stay among beneficiaries who were discharged to these PAC settings suggests that MA plans, through activities such as prior authorizations, could slow beneficiary discharges to PAC and therefore increase the average amount of time that beneficiaries stay in hospitals.

Comprehensively examining the financial effects of longer lengths of stays on hospitals and beneficiaries is difficult due to limited data on costs and payments

from MA plans (for more information, see the text box on calculating MA margins, pp. 148–149). However, we believe that a longer average length of stay increases hospitals’ costs.⁸

While longer lengths of stay may increase costs for all hospitals, the effect on hospitals’ profitability depends on whether revenues from MA plans increase proportionately to costs. MA plans commonly pay IPPS hospitals in the same way that FFS Medicare does—on a per stay basis, using MS–DRGs. As a result, longer lengths of stay do not typically result in extra payments from MA plans to IPPS hospitals. Therefore, longer lengths of stay for MA enrollees likely reduce profit margins for IPPS hospitals since costs increase without a concomitant increase in revenues. In contrast, MA plans commonly pay CAHs a per diem amount for acute inpatient hospital stays based on the previous year’s Medicare cost report.⁹ Thus, longer lengths of stay may result in higher revenues for CAHs, making it unclear the extent to which longer lengths of stays financially harm CAHs.

Regardless of the effect on hospital finances, longer lengths of stay can also increase costs for beneficiaries depending on the cost sharing charged by their MA plans for hospital and PAC providers. MA plans commonly employ per diem copayments for acute hospital inpatient stays (e.g., \$200 per day) (Medicare Payment Advisory Commission 2023a). Therefore, longer lengths of stay can increase beneficiary cost sharing (as beneficiaries pay more per diem copayments) and reduce costs for MA plans (because the fixed MS–DRG payment made to the hospital does not change but the share paid by the MA plan is reduced as beneficiaries pay more).

Longer lengths of stay can also create issues related to capacity. For example, if patients are delayed in being discharged from the hospital, that could affect the ability of hospitals to accept new patients, such as those in the ED waiting for an inpatient bed.

Structure of UC payments may benefit hospitals with more MA patients, leading to mistargeted UC payments

Our second analysis reviews the effect of changes in MA enrollment on UC payments. Certain hospitals (known as disproportionate share, or DSH, hospitals)

receive FFS UC payments in the form of a fixed dollar add-on to their FFS Medicare payment per stay.

To compute the amount that each hospital is owed in total FFS UC payments in a year, CMS first has hospitals report their UC costs (bad debt and charity care) related to all patients on cost reports. Then, CMS aggregates UC costs across all DSH hospitals. It then computes each hospital’s share of UC costs among all DSH hospitals.¹⁰ Each hospital then receives its share of the pool of FFS UC payments (which totals \$7.713 billion in FY 2026). (For more information on how the pool of UC payments is calculated, see the Commission’s June 2022 report to the Congress.)

To calculate the per stay add-on, CMS takes the hospital’s total FFS UC payments and divides it by an average of the hospital’s historical three-year average FFS inpatient stays. This calculation yields a per stay add-on payment for FFS stays. Through cost-report reconciliation at the end of the year, CMS makes a one-time payment adjustment if the interim add-on payments summed up across all FFS stays result in payments being higher or lower than the UC payment that CMS is obligated to pay the hospital for that year. Because reconciliation ensures that each hospital gets its full FFS UC payment, the formula for FFS patients’ aggregate UC payments is as follows:

Formula for FFS UC payments for a DSH hospital:

$$\frac{\text{UC costs at the DSH hospital}}{\text{Sum of UC costs at all DSH hospitals}} \times \text{Total dollars in the national UC pool}$$

Medicare does not make UC payments directly to hospitals for their MA patients. Instead, CMS includes FFS UC payments in the calculation of MA plan benchmarks. While MA plans have the ability to negotiate payment rates that deviate from FFS rates, they often set prices at or near FFS payment rates (using the IPPS pricer) and include the FFS UC add-on per stay in the MA price. MA plans using the IPPS pricer to set MA payment rates would compute the amount of UC payments as follows:

Formula for MA UC payments for a DSH hospital, if MA plans use the IPPS pricer:

$$\text{MA stays} \times \frac{\text{FFS UC payments}}{\text{Historical average of FFS stays}}$$

As a result of this process, hospitals that have a higher share of their Medicare inpatient stays from MA patients rather than FFS patients benefit financially relative to other hospitals. All else equal, a hospital with a higher share of their Medicare stays from MA patients has fewer FFS stays. Therefore, the FFS UC add-on per stay is higher (because the same pool of dollars is divided by a smaller number of stays). The higher FFS UC add-on does not affect total FFS UC payments (because of the cost-report reconciliation process described above). However, total MA UC payments are higher because MA plans are paying a larger UC add-on for a higher volume of cases.

Large increases in MA penetration over time do not necessarily result in higher UC payments going to hospitals (on a national aggregate basis) because the national UC pool is reduced to account for the fact that there are fewer FFS stays. Rather, hospitals that have a higher mix of MA stays (among their Medicare inpatients) relative to other hospitals disproportionately benefit, while those with a lower mix of MA stays are disadvantaged.

To demonstrate this concept, Table 4-2 (p. 146) shows an illustrative example of two hospitals that are identical except that 25 percent of Hospital A's Medicare inpatient stays are for MA patients and 75 percent of Hospital B's Medicare inpatient stays are for MA patients. As Table 4-2 shows, assuming that MA plans match the FFS UC add-on per stay, Hospital A ("low MA") receives \$4 million less (\$2.0 million vs. \$6.0 million) in total UC payments compared with Hospital B ("high MA"), and the difference is entirely due to higher UC payments for MA patients (\$0.5 million vs. \$4.5 million).

In practice, the level of UC add-on payments per inpatient stay varies widely across hospitals. Hospitals can have very large add-ons if they furnish a very large amount of UC (across all their patients), have very few FFS IPPS stays (e.g., because most of their

Medicare patients have MA or their hospital does not treat many Medicare patients), or both. For example, in FY 2026, about three-quarters of the roughly 3,100 IPPS hospitals were eligible to receive UC payments. Of the eligible hospitals, the median UC add-on per FFS stay was about \$1,000 in FY 2026 but with substantial variation across hospitals (Table 4-3, p. 147). At the high end, about 30 hospitals had an add-on per stay over \$20,000, up to a maximum of over \$300,000 (data not shown). Large variations in prices (due to differences in UC add-ons) for the same service across hospitals could create an incentive for MA plans to shift volume away from hospitals with high UC add-ons.

To empirically analyze the effect of MA growth on interim FFS UC add-ons, we ran a hospital-level regression that estimated the relationship between the share of a hospital's Medicare inpatient stays that were for MA patients and FFS UC add-ons per stay. We found that a 10 percentage point higher share of a hospital's Medicare inpatient stays that were for MA patients in FY 2024 was associated with a 15 percent higher FY 2026 estimated FFS UC add-on per stay, after accounting for each hospital's share of UC costs.¹¹ Similar to the illustrative example above, our regression results suggest that hospitals with a higher share of their Medicare inpatient stays for MA patients may benefit financially under the current UC formula (and, inversely, hospitals with lower shares of MA patients may be disadvantaged). Our results also suggest that the targeting of current UC payments could be improved because the mix of FFS and MA patients affects the amount of UC payments hospitals receive instead of that funding being solely determined by more appropriate factors, such as the amount of care furnished to individuals who cannot afford it.

The implications of both our illustrative table and regression analysis depend on the extent to which MA plans match hospitals' FFS UC add-ons per stay. We spoke with multiple stakeholders (including hospitals and organizations representing groups of hospitals) to qualitatively assess the manner in which MA plans address UC add-ons.

Consistent with research suggesting that MA plans set their hospital inpatient rates at or near FFS payment rates, our interviews suggest that MA plans typically match FFS UC add-ons per stay. However, for hospitals with extremely high UC add-ons, hospital

**TABLE
4-2**

Illustrative example of how hospitals with a higher share of their Medicare inpatient stays from MA may benefit from the current uncompensated-care structure

	Hospital A (low MA)	Hospital B (high MA)
Factors used to calculate the FFS UC add-on (before the payment year)		
FFS UC payments (calculated by CMS based on estimated DSH payments, uninsured rate, and UC costs reported by hospitals)	\$1.5 million	\$1.5 million
Historical average FFS stays (used to calculate interim FFS add-on)	1,500	500
FFS add-on per stay (FFS UC payments / historical average FFS stays)	\$1,000	\$3,000
Number of stays and UC payments (from the payment year)		
Medicare stays (FFS + MA)	2,000	2,000
FFS stays	1,500	500
MA stays	500	1,500
FFS UC payments (FFS stays × FFS add-on per stay) (with reconciliation, as needed)	\$1.5 million	\$1.5 million
MA UC payments (MA stays × FFS UC add-on per stay)	\$0.5 million	\$4.5 million
Total UC payments (FFS + MA)	\$2.0 million	\$6.0 million

Note: MA (Medicare Advantage), FFS (fee-for-service), UC (uncompensated care), DSH (disproportionate share). In this example, we assume that MA plans match FFS UC add-ons per stay. For simplicity, we assume that the number of FFS stays in the payment year was the same as the historical average number of stays used to calculate the FFS add-on payment. In practice, those numbers vary, and hospitals would go through reconciliation to ensure they receive an appropriate amount of total UC payments, which is \$1.5 million in this example.

Source: MedPAC analysis of inpatient prospective payment systems final-rule files.

representatives expressed concerns that MA plans have sought to exclude such hospitals from their networks, negotiate lower UC add-ons per stay, and/or shift volume to hospitals with lower UC add-ons. For example, one hospital with an extremely high FFS UC add-on per stay said that nearly all MA plans have excluded the hospital from their networks due to their high UC add-on.

The intent of UC payments is to direct additional funding toward hospitals that disproportionately provide care to individuals who cannot afford it.

However, the interaction of the growth of MA and the current structure of UC payments partially undermines that goal for a few key reasons:¹²

- UC payments become mistargeted when UC dollars are shifted to hospitals on the basis of their shares of Medicare patients in MA or FFS rather than being targeted to hospitals on the basis of furnishing UC; and
- MA plans have an incentive to reduce medical spending by paying less than the FFS UC add-on amounts and/or shifting care from hospitals with

**TABLE
4-3**

FFS uncompensated-care payments per stay varied substantially across hospitals, FY 2024–2026

Interim FFS uncompensated-care payments per stay	FY 2024	FY 2025	FY 2026
1st percentile	\$90	\$80	\$50
10th percentile	290	280	360
25th percentile	460	450	580
50th percentile	770	770	1,010
75th percentile	1,440	1,480	2,010
90th percentile	2,580	2,780	3,710
99th percentile	14,670	16,730	22,030

Note: FFS (fee-for-service), FY (fiscal year). Data limited to hospitals that are projected to receive FFS uncompensated-care payments in the year, exclusive of sole community hospitals projected to be paid their hospital-specific rate and inclusive of Puerto Rico and Indian Health Services hospitals that receive supplemental FFS uncompensated-care payments. Results are rounded to the nearest \$10. Dollars are nominal, not adjusted for inflation.

Source: MedPAC analysis of inpatient prospective payment systems final-rule files.

high UC add-ons to those with lower ones, which may have a negative effect on hospitals that furnish a high amount of UC. MA plans’ reducing medical spending by shifting care to a clinically appropriate, lower-cost setting can often be valuable. However, in this case, the payment differentials across hospitals do not represent underlying differences in cost or quality but rather reflect the fact that the Congress has explicitly directed supplemental funding to certain hospitals based on their role in the health care system (i.e., providing a high amount of UC).

Multiple approaches are available to reform UC payments. One possible approach would be to remove UC payments from MA plan benchmarks and require CMS to make payments directly from Medicare to hospitals for both FFS and MA patients, which is similar to the way Medicare currently pays for indirect medical education (IME).¹³ Such an approach would address the adverse incentives MA plans currently have to avoid hospitals with high FFS UC add-ons per stay, but by itself such an approach would not address the mistargeting of UC payments. One approach to address that issue as well (in a budget-neutral manner) would be to increase the UC pool to account for the fact that it would now represent UC payments for

both FFS and MA patients. UC payments could then be paid directly to hospitals via a per stay add-on calculated using a combination of FFS and MA inpatient stays (rather than only FFS stays, as is currently the case). Under such a process, CMS could reconcile total interim UC payments (FFS + MA) through the cost-reporting process rather than only FFS UC payments, as is currently done. The Commission has also recommended removing UC payments from MA benchmarks and paying hospitals directly for all Medicare patients (FFS and MA) as part of a larger reform of hospital safety-net payments in the Medicare Safety-Net Index (Medicare Payment Advisory Commission 2023b).

Data limitations undermine policymakers’ ability to understand MA’s effect on hospital finances

Our analyses of beneficiary length of stay and UC payments suggest that increases in MA penetration may affect hospitals’ finances. While these analyses may be useful to inform policymakers about potential issues, they capture only a few limited impacts. To better understand the effect of MA on hospital finances, one possible next step would be to calculate hospitals’ MA margin, similar to the way the Commission calculates hospitals’ FFS margin. While

Requiring better cost-report data for services furnished to Medicare Advantage enrollees would facilitate calculation of hospitals' Medicare Advantage margins

Medicare's hospital cost reports currently allow researchers to calculate hospitals' fee-for-service (FFS) Medicare margin (with some limitations), but they do not currently contain parallel data that would allow for a similar estimate of hospitals' Medicare Advantage (MA) margin. Policymakers could require additional information to be reported on hospital cost reports in order to calculate hospitals' MA margin, although such data collection would create additional administrative burden. Policymakers should weigh that burden carefully against the benefits of the information collected.

How hospital cost reports enable the calculation of hospitals' FFS Medicare margin

Hospital cost reports have worksheets that estimate a hospital's costs of providing FFS Medicare services and the hospital's revenues from the FFS Medicare program and its beneficiaries for providing these services. Using these data, researchers can calculate hospitals' FFS Medicare margin.

FFS Medicare costs

One set of worksheets (the D series) estimates hospitals' FFS Medicare costs by service line. Each service line contains a range of possible cost centers, and the hospital's FFS costs for each cost center are estimated through one of two methods:

- *FFS days multiplied by a cost per diem.* To estimate a hospital's FFS Medicare costs for a cost center using this method, the worksheet multiplies the hospital's FFS Medicare days by a per diem calculated as (the hospital's all-payer costs in that cost center) / (all-payer days in that cost center). Examples of cost centers using this method are inpatient routine costs (e.g., room and board) for general adult inpatient beds and routine costs for beds in intensive care units (ICUs).

- *FFS charges multiplied by a cost-to-charge ratio.* To estimate a hospital's FFS Medicare costs for a cost center using this method, the worksheet multiplies the hospital's FFS Medicare charges for the cost center by a cost-to-charge ratio calculated as (the hospital's all-payer costs in that cost center) / (all-payer charges in that cost center). Examples of cost centers using this method are drugs, labs, and operating rooms.

To facilitate hospitals' completion of these worksheets, CMS and its contractors produce a Provider Statistical & Reimbursement (PS&R) report that summarizes FFS Medicare claims data (and, where appropriate, shadow claims for MA enrollees) over the hospital's cost-reporting period, including volume and charge breakouts by cost center.

FFS Medicare revenues

Another set of worksheets (the E series) captures hospitals' FFS Medicare revenues by service line. Most of these lines can be filled out using the same PS&R report, which includes FFS revenues broken out by different types of payments (e.g., base payments, disproportionate share hospital payments, interim uncompensated-care payments). However, some lines that reflect a hospital's postclaim experience need to be supplied by the hospital (e.g., bad debt from uncollected beneficiary cost-sharing requirements).

Modifying hospital cost reports to enable a calculation of hospitals' MA margin

More complete encounter data and sources of postclaim payments would enable a parallel calculation of hospitals' MA margin. In another sector (skilled nursing facilities), CMS has begun to implement some changes to collect more data on MA volume and revenues (but not costs).

MA Medicare costs

A new set of worksheets could be added to hospital cost reports to calculate MA costs using the same

(continued next page)

Requiring better cost-report data for services furnished to Medicare Advantage enrollees would facilitate calculation of hospitals' Medicare Advantage margins (cont.)

hospital cost-reporting principles as used for FFS (in the D series). Following the same cost-reporting principles, some cost centers would use existing all-payer per diems and others all-payer cost-to-charge ratios. What would be needed are:

- MA inpatient days over the cost-reporting period, by type of day (e.g., general, ICU, rehabilitation unit). These data are already partially reported on the S-3 series but not by type of day.
- MA charges by cost center over the cost-reporting period. This information is at least partially reported in current MA encounter data, but there are questions about its completeness, reliability, and consistency.

These data points could be compiled by CMS and its contractors (such as by using encounter data to create parallel MA PS&R reports) and/or calculated directly by hospitals.

MA Medicare revenues

Similarly, a new set of worksheets could be added to hospital cost reports to capture the revenues hospitals receive for furnishing hospital care to MA enrollees. These data would reflect actual payments received by hospitals, including beneficiary cost sharing, claims-based payments, and any non-claims-based payments. The claims-based component of MA payments could be derived from encounter data and/or calculated directly by hospitals. The hospitals would need to directly report other components of revenues, such as those

not tied to a specific service (e.g., partial capitation, payments for diagnostic coding, or year-end bonus payments), and what portion of beneficiary cost-sharing liabilities hospitals actually collected in a given time period.

Limitations

Creating additional cost-report worksheets for MA costs and revenues would allow researchers to calculate hospitals' MA margin and compare it with their FFS Medicare margin. However, hospital cost-reporting principles have limitations, which would confound the comparison of hospitals' FFS Medicare and MA margins.

One key limitation of Medicare cost-reporting principles is the use of all-payer per diems and cost-to-charge ratios to estimate costs. For example, to the extent that hospitals incur higher administrative costs for MA patients than FFS patients, that would not be captured. A second limitation in comparing these FFS Medicare and MA margins is that the two populations differ. Therefore, cost reports would not capture the counterfactual of what a hospital's margin would have been if an MA patient had instead had FFS Medicare. A third limitation is that MA data sources (most notably encounter data) are currently incomplete, and even complete encounter data would not be sufficient to capture MA revenues that are not tied to a specific service. It would therefore take time and additional administrative burden (on some combination of hospitals, MA plans, and CMS) to collect and ensure the accuracy of these new hospital cost-report worksheets. ■

hospitals already separately track and report some information on MA enrollees (e.g., shadow claims), all the data needed to calculate MA-specific profit margins are not currently available.

One key data source that policymakers and researchers use to calculate hospitals' FFS Medicare margin is Medicare hospital cost-report data; requiring hospitals

to complete similar information on their MA revenues and costs would facilitate a comparable calculation of hospitals' MA margin but would still have limitations (see text box on the data that would be needed). Any additional information on cost reports would not replace data that MA plans are already required to report, such as MA encounter records.

Prior research on the effects of MA enrollment on hospital finances is limited and mixed

Researchers have examined MA's effects on providers by comparing FFS with MA prices and differences in volume trends and by examining the effect of MA on all-payer hospital margins.

The literature on the extent to which MA affects hospitals' financial performance is limited and mixed. Hospital industry research suggests that MA plans pay hospitals slightly less than FFS rates, while the peer-reviewed literature suggests that MA plans usually pay close to FFS rates. The research that examines MA's effects on hospitals' overall profitability is limited, mostly focused on rural hospitals, and finds that MA growth has had a statistically insignificant, slightly positive effect or slightly negative effect, depending on the specific metric used and methodology employed. The effect of MA may also vary by hospitals' characteristics, such as the extent to which a hospital is vertically integrated with an MA plan, but even less research has been done on this topic.

The American Hospital Association (AHA) released a report that compared payment-to-cost ratios for MA and FFS patients at rural hospitals. The report found that, from 2019 to 2023, rural hospitals' average MA payment-to-cost ratios were between 89 percent and 94 percent of their FFS payment-to-cost ratios (American Hospital Association 2025). According to the report, the ratio of MA-to-FFS rates was higher for certain types of hospitals and lower for others; for example, the ratio for CAHs was 95 percent, while the ratio for Medicare-dependent hospitals and low-volume hospitals was 85 percent. In contrast, one academic study using 2013 data for hospitals in urban areas found that MA prices for hospital inpatient services were, on average, roughly equal to FFS Medicare prices (Maeda and Nelson 2018). A more recent paper that used 2024 national price-transparency data found that MA prices for three common DRGs at the average hospital were 97 percent of FFS rates, with an interquartile range of 90 percent to 104 percent (Mackleby et al. 2025). Another study using the price-transparency data found that median MA prices were equal to FFS payment rates for ED visits and medicine and surgery, but the median MA price for radiology was slightly higher (4 percent) than FFS payment rates (Xu and Polsky 2023).

Two recent descriptive analyses from the University of North Carolina's Rural Health Research Program found that an increasing share of Medicare inpatient days attributable to MA patients was associated with no change in hospital financial performance or slightly improved financial performance. In one study, the authors found that a higher share of MA inpatient days relative to FFS days was negatively associated with their measure of hospital financial distress (i.e., hospitals with more MA patients performed better financially), but the effect was not significant (Malone et al. 2025). A second study, using data from 2022 to 2023, concluded that rural hospitals with a higher share of MA patients for Medicare inpatient days tended to have slightly higher operating margins, but there was no correlation for urban hospitals. For their rural analyses, the authors cautioned that the positive correlation could partially be attributed to the fact that rural hospitals with higher MA shares had characteristics that could independently be associated with better financial performance. For example, rural hospitals with higher shares of MA patients for their Medicare inpatient days tended to be substantially larger in terms of beds, net patient revenues, and average daily census (Kim et al. 2025).

Two recent academic papers used regression analyses to examine the effect of MA after controlling for some potentially confounding factors. One study examined 2008 to 2019 Healthcare Cost and Utilization Project data from 14 states and concluded that increasing MA penetration was associated with improved financial conditions for rural hospitals and reduced risks of closure (Henke et al. 2023). The second study, using AHA survey data and Medicare cost-report data, examined changes in county-level MA penetration and hospitals' Medicare inpatient days and all-payer inpatient revenues (Cataife and Liu 2025). That study concluded that increasing MA penetration from 2014 to 2020 was associated with a decrease in rural hospitals' Medicare inpatient days and all-payer inpatient revenues but an increase in urban hospitals' Medicare inpatient days and all-payer inpatient revenues.

While there has generally been limited research on the effects of MA growth on hospitals' finances, there has been even less research on MA's effect on specific types of hospitals, which may be of interest to policymakers. For example, we are not aware of any published studies that attempt to understand whether the effect of MA

on hospital financial performance varies by whether a hospital and MA plan are vertically integrated. Vertically integrated hospitals and MA plans likely face a different set of incentives, and some research suggests that vertically integrated hospitals perform better on certain clinical and patient-satisfaction measures (Bejarano et al. 2025, Bejarano et al. 2024). In addition, related research suggests that MA plans pay their vertically integrated physician groups substantially higher prices, suggesting that MA plans could face different incentives to reduce spending for vertically integrated and non-vertically integrated providers (Arnold and Fulton 2025).

Methods for analyzing the association between changes in MA penetration and changes in all-payer hospital finances

Given the lack of conclusive evidence on this topic, we added to the empirical literature by conducting a regression analysis to estimate the association between changes in market-level MA penetration and changes in hospital finances from 2013 to 2024 (excluding 2020 and 2021 due to the coronavirus pandemic). We separately examined IPPS hospitals and CAHs because the financial incentives for MA plans may differ for the two types of hospitals.¹⁴ CAHs also tend to be more financially vulnerable because of their smaller size and greater dependence on Medicare, so additional scrutiny on how MA penetration affects them is warranted.

Empirical strategy relies on comparing providers in markets with larger changes in MA penetration to providers in markets with smaller changes in MA penetration

We used linear regression models with hospital and year fixed effects to estimate the association between changes in MA enrollment and changes in hospitals' all-payer profit margins, revenues, and costs. Our main explanatory variable of interest is the share of Medicare beneficiaries in the hospital's market who are enrolled in MA in the year (referred to as "MA penetration").

This empirical strategy has been used in previous studies and has several advantages. First, estimating the association between MA and hospitals' all-payer margins allows us to capture the net effect of MA penetration on hospital finances from all the potential mechanisms discussed earlier. Second, the use of

hospital fixed effects controls for all hospital and market-level factors that are constant over the study period. For example, some hospitals may be located in areas with more intensive practice patterns or consistently have patient populations with more complex health care needs. Third, this approach also allows us to control for some factors that were changing over the study period using year fixed effects (controls for national changes common to all hospitals), state-level time trends (controls for state-level changes common to hospitals in a state over time), and variables that control for market-level population characteristics in each year.

However, interpreting the estimated associations of changes in market-level MA penetration and changes in hospital finances as causal requires a key assumption: that without differential changes in MA penetration, changes in hospital finances would be similar across markets, after adjusting for observable factors. To help assess that assumption, we compared the baseline characteristics of markets with different changes in MA penetration over the study period.

Markets with larger and smaller changes in MA penetration appear different in some ways, even in the first year of our study, which raises the concern that underlying differences in the markets themselves, rather than changes in MA penetration, could account for some of the estimated associations with changes in MA penetration and in hospital finances. For example, the quartile of markets that experienced the largest percentage point increase in MA penetration from 2013 to 2024 had the highest median per capita rate of all-payer inpatient stays in hospitals in 2013 (Table 4-4, p. 153). This quartile also experienced the largest decline in all-payer inpatient stays from 2013 to 2024. While this pattern may reflect a partially causal relationship, it is also possible that both inpatient stays declined and MA penetration increased more rapidly in these areas for a different, unobserved reason. In that case, our model would identify an association between decreases in inpatient stays (and lower costs and revenues associated with those stays) and increases in MA penetration even though the relationship is not entirely causal.

In addition, the population size, uninsured rate, unemployment rate, median income, and Medicare population demographics also differed for markets

that experienced smaller changes in MA penetration compared with markets that experienced larger changes (Table 4-4). Our analysis controlled for those and other observable factors; however, we cannot be sure that we controlled for all factors that impact hospital finances and are correlated with changes in MA penetration. Therefore, our estimates should be interpreted as associations that may reflect a combination of effects due to MA and other factors.

Data and main specification used to estimate regression models

We calculated all-payer operating revenues, all-payer costs, and all-payer operating margins from 2013 to 2024 for both IPPS hospitals and CAHs using Medicare cost reports (see Appendix 4-A, p. 176, for more details). We regressed these three outcome variables on market-level MA penetration (i.e., the share of Medicare beneficiaries in a health service area (HSA) with Part A and Part B coverage who were enrolled in MA) as the main variable of interest. We defined markets using HSAs, which are clusters of counties representing relatively self-contained hospital areas (National Cancer Institute 2023).¹⁵ There are approximately 945 HSAs with Medicare beneficiaries nationwide. We included provider fixed effects to control for non-time-variant characteristics of the provider (such as geographic location); year fixed effects to control for factors that affect all providers nationally; state-level time trends to control for differential state policies that change over time; and a set of market-level time-varying characteristics to control for changes in population and other factors that could affect the outcomes of interest.^{16,17} The inclusion of provider fixed effects means that the estimates reflect the association between changes in MA penetration and changes in finances within hospitals over time.

We report the estimated coefficient on market-level MA share as the association between a 10 percentage point increase in MA penetration and the outcomes of interest. The all-payer revenue and cost variables were logged, so the coefficients can be interpreted as the percentage change in each of the outcomes from a 10 percentage point increase in MA penetration. We also show the outcome variables' median values over the 2013 to 2024 period to provide context on the size of the estimate.

We estimated the following linear regression model:

$$Y_{ht} = \beta MA_{mt} + X'_{mt}\gamma + \alpha_h + \delta_t + \lambda_s \cdot t + \varepsilon_{ht}$$

where:

Y_{ht} is all-payer revenues, all-payer costs, or all-payer profit margins for hospital h in year t .

β is the coefficient of interest—the association between changes in MA penetration and the outcome.

MA_{mt} is MA penetration in market m (of hospital h) and year t .

X_{mt} is a vector of time-varying, market-level controls, and γ is the vector of coefficients.

α_h are provider fixed effects.

δ_t are year fixed effects.

$\lambda_s \cdot t$ is a linear state-specific time trend where λ_s is the state, s , where the hospital is located, and t is set to 0 to 9 for the year 2013 to the year 2024, excluding 2020 and 2021.¹⁸

ε_{ht} is the error term.

To determine how the relationship differs for subgroups of hospitals (such as size groups and system-affiliation groups), we ran the same regression model shown above with an interaction for MA_{mt} and the subgroup. The coefficients on each of the interacted subgroups then represent the association between changes in MA penetration and the outcome of interest for the hospitals within the subgroup.

We used a weighted least-squares linear regression, in which hospitals were weighted by the number of beds they reported in their first cost report in the sample. Standard errors were clustered at the market level.

Changes in MA penetration not found to be associated with changes in IPPS hospitals' profit margin on average, 2013–2024

To provide context for our regression analyses, we first report descriptive statistics for the IPPS hospitals included in our analysis. Consistent with the overall national trend, the median MA penetration rate increased from 26 percent to 55 percent in the markets for the IPPS hospitals in our analysis from 2013 to 2024 (Table 4-5, p. 154). Over the same period, hospitals'

**TABLE
4-4**

Markets with smaller changes in MA penetration differed in some ways from markets with larger changes, 2013–2024

Quartiles of HSA-level MA penetration change between 2013 and 2024

Median characteristic, 2013 (unless otherwise noted)	1st quartile N = 236	2nd quartile N = 236	3rd quartile N = 236	4th quartile N = 237
MA penetration change, 2013–2024 (percentage point)	13	23	30	38
MA penetration	12%	21%	18%	17%
Population characteristics				
Population (thousands)	51	157	137	107
Share unemployed	6%	7%	7%	8%
Share uninsured	15%	15%	18%	18%
Share enrolled in Medicare	18%	18%	18%	19%
Median income (thousands)	\$81	\$80	\$73	\$68
Medicare population characteristics				
Share under age 65	14%	17%	20%	22%
Share ages 85 and over	12%	11%	10%	9%
Share dually eligible or LIS	14%	15%	18%	22%
Share of FFS beneficiaries enrolled in MSSP	1%	4%	2%	2%
Share of FFS beneficiaries enrolled in MSSP (2024)	30%	38%	41%	39%
Total all-payer inpatient stays per thousand residents				
2013	69	82	81	91
2024	54	72	71	71
Percent change	–18%	–12%	–15%	–21%
Market characteristics				
MAO HHI (hundreds)	47	38	39	43
Health-system HHI (hundreds)	50	47	51	52
State-level Medicaid MCO penetration	67%	62%	63%	52%

Note: MA (Medicare Advantage), HSA (health service area), LIS (low-income subsidy), MSSP (Medicare Shared Savings Program), MAO (Medicare Advantage organization), HHI (Herfindahl–Hirschman Index), MCO (managed care organization). HSAs were divided into quartiles based on MA-penetration changes. Values are median market-level characteristics in each HSA subgroup in 2013 unless otherwise noted. Median income was inflated to 2024 dollars using the Consumer Price Index for All Urban Consumers. Because the MSSP was relatively new in 2013, we provide MSSP penetration in 2013 and 2024 for additional context. The change in total all-payer inpatient stays per thousand residents represents the median percent change from 2013 to 2024 for each quartile. Our analysis includes 945 HSAs. The table values were very similar when we included the roughly 900 HSAs with hospitals in them. All differences were statistically significant at the 0.01 level, except the percentage of the populations enrolled in Medicare, the health-system HHIs, and the Medicaid MCO penetration, according to Kruskal–Wallis rank sum tests.

Source: MedPAC analysis of CMS Medicare enrollment, American Community Survey, Bureau of Labor Statistics unemployment, Small Area Health Insurance Estimates, hospital cost-report, American Hospital Association survey, Medicaid and Children’s Health Insurance Payment and Access Commission MCO, and National Cancer Institute HSA data.

all-payer operating margin remained relatively flat except for variations during the coronavirus pandemic. This aggregate view suggests little correlation at the national level between growth in MA penetration and

hospitals’ all-payer operating margin, but it does not control for possible confounding factors or examine subgroups, which our regression analysis seeks to do.

**TABLE
4-5**

Limited correlation at the national level between IPPS hospitals' all-payer margin and changes in MA penetration rates, FY 2013-2024

Fiscal year	Number of hospitals	MA penetration in market	IPPS median			
			All-payer operating revenues (millions)	All-payer costs (millions)	All-payer operating margin	Aggregate all-payer operating margin
2013	3,150	26%	\$184.4	\$172.1	3.6%	6.1%
2014	3,180	28	185.4	174.7	3.8	6.1
2015	3,120	30	194.4	182.0	4.4	6.5
2016	3,110	31	197.1	183.7	4.0	6.1
2017	3,070	33	197.1	188.2	3.5	6.1
2018	3,020	36	203.3	192.5	3.6	6.0
2019	2,980	39	210.5	197.8	4.3	6.7
2020	2,930	43	203.4	197.6	0.9	2.1
2021	2,920	46	218.0	206.1	4.5	7.3
2022	2,900	50	216.0	211.7	0.3	1.7
2023	2,880	53	224.7	215.5	2.5	4.8
2024	2,760	55	239.1	226.4	4.1	6.3

Note: IPPS (inpatient prospective payment systems), MA (Medicare Advantage), FY (fiscal year). "Number of hospitals" is rounded to the nearest 10. See Appendix 4-A (p. 176) for hospitals included in our sample. "MA penetration in market" refers to the share of Medicare beneficiaries in a health service area (HSA) with Part A and Part B coverage who were enrolled in MA and is rounded to the nearest percent. Revenues and costs are inflated to 2024 dollars using the hospital market basket and rounded to the nearest hundred thousand. "All-payer operating margin" excludes reported investment and donation income, is reported exclusive of federal or other coronavirus relief funds, and is rounded to the nearest 0.1 percent. Despite differences in the hospitals included, the aggregate all-payer operating margin for hospitals in our analysis is similar to the one we reported in our March 2026 report to the Congress (Medicare Payment Advisory Commission 2026).

Source: MedPAC analysis of hospital cost-report, CMS market basket, Medicare enrollment, provider of services file, and National Cancer Institute HSA data.

In our regression analysis, we did not estimate a statistically significant association between market-level MA penetration and all-payer operating revenues, all-payer costs, or all-payer operating margins for IPPS hospitals (Table 4-6, p. 156).

Estimated associations varied for some subgroups of hospitals

While we estimated no statistically significant relationship between changes in MA penetration and IPPS hospitals' finances overall, our analyses of the underlying costs and revenues for subgroups of hospitals suggest that MA may differentially affect different types of hospitals. The growth of different types of MA plans (e.g., HMO vs. preferred provider

organization and provider sponsored or not) may also affect hospitals differently, but examining this issue is beyond the scope of this chapter.

To examine whether the results differed by type of hospital, we estimated four additional specifications, in which the coefficient of interest is the interaction term between market-level MA penetration and an indicator for each type of subgroup. Specifically, we examined the extent to which changes in MA penetration affected hospitals: of various sizes (based on bed counts), with different system membership, in markets with different levels of 2013 market MA penetration, or in different study periods. For one of these study periods, we also examined how the extent of vertical integration between hospitals and MA plans affected our analysis.

First, for small hospitals (1–100 beds) and medium hospitals (101–250 beds), an increase in MA penetration was negatively associated with all-payer revenues and all-payer costs. For example, for small IPPS hospitals, a 10 percentage point increase in market-level MA penetration was associated with a 1.7 percent decrease in all-payer operating revenues and a 2.3 percent decrease in costs (Table 4-6, p. 156). In contrast, for large hospitals (more than 250 beds), an increase in MA was positively associated with all-payer revenues, and we did not estimate a statistically significant association with all-payer costs. An increase in MA penetration was not associated with hospitals' margins for medium and large hospitals but was positively associated with small hospitals' margins.

Second, we estimated the association between market-level MA penetration changes and hospital finances for hospitals that were part of a system for at least one year in the study period and those that were not. Because the vast majority of hospitals (97 percent) were classified as part of a system, the estimated associations for system-affiliated hospitals were very similar to the overall estimates.¹⁹ For the small share of hospitals that were not part of a system, we found that a 10 percentage point increase in market-level MA penetration was associated with a 3.1 percent decline in all-payer operating revenues and a 3.0 percent decline in costs.

These analyses suggest that smaller hospitals and the small share of hospitals that were never part of a system experienced larger associations between changes in MA penetration and revenues and costs. There are multiple possible explanations for such differences. For example, larger hospitals or those that are part of a system could have greater negotiating leverage with MA plans, which could result in securing better contract terms with regard to prices, non-claims-based payments, or utilization-management practices.

Third, we stratified hospitals by 2013 market MA penetration quartiles (less than 9.3 percent, 9.3 percent to 17.6 percent, 17.6 percent to 26.2 percent, and more than 26.2 percent). IPPS hospitals in markets with a lower baseline MA penetration generally showed a more negative association between MA penetration and revenues and costs compared with hospitals in markets with higher baseline penetration, although results varied in their statistical significance (data not shown). The margin associations ranged between not statistically significant to positive across baseline MA

penetration groups, with no clear relationship between baseline MA penetration group and margin outcomes.

Fourth, we estimated the association between MA penetration changes and hospital finances for different study periods. We did not find a statistically significant association between MA penetration changes and IPPS hospitals' all-payer operating revenues or all-payer costs in any of the split study periods. For hospitals in the 2022 to 2024 study period, we found that a 10 percentage point increase in MA penetration was associated with a 0.70 percentage point increase in all-payer operating margins.

We further analyzed the hospitals in the 2022 to 2024 study period, stratifying by the extent to which they were vertically integrated with an MA plan in 2021. Hospitals were grouped into four categories: no MA inpatient encounter volume from an affiliated MA plan, less than 5 percent, 5 percent to 20 percent, and more than 20 percent.

For hospitals with higher levels of vertical integration, a 10 percentage point increase in market-level MA penetration was more commonly associated with increases in all-payer revenues, costs, and margin. In contrast, we did not find a statistically significant association for hospitals with no volume coming from a vertically integrated plan.

Our results suggest that MA's effects on providers could vary based on the extent to which they are vertically integrated with an MA plan. This finding is consistent with the theoretical incentives and the limited research on the topic to date. MA plans have less incentive to implement utilization-management practices (e.g., denials, downgrades, prior authorization) on their own providers. Vertically integrated hospitals also have an incentive to act in a manner that increases overall revenues for the hospital plus the MA plan (e.g., increased diagnostic coding) or reduce overall costs (e.g., better coordination) rather than only hospital-specific revenues and costs.

Estimated associations of MA penetration and margins were consistently near zero under multiple sensitivity analyses, while estimates with revenues and costs varied in size

We estimated several additional model specifications to assess the sensitivity of our results to alternative specifications for hospitals paid under the IPPS. The

**TABLE
4-6**

No statistically significant association found between MA penetration changes and all-payer margin for IPPS hospitals on average, FY 2013–2024

Change estimated from a 10 percentage point increase in market-level MA penetration

Group	Share of sample	All-payer operating revenues	All-payer costs	All-payer operating margin (in percentage points)
Overall	100%	-0.5%	-0.9%	0.39
Bed size				
1–100 beds	10	-1.7**	-2.3***	0.62*
101–250 beds	30	-2.3***	-2.7***	0.39
>250 beds	60	1.3**	1.0	0.32
System				
In a system	97	-0.3	-0.8	0.42
Never in a system	3	-3.1***	-3.0***	-0.17
Years				
2013–2016	41	-0.5	-0.9	0.38
2017–2019	30	-0.3	-0.8	0.46
2022–2024	29	0.1	-0.6	0.70**
Median outcome value		\$489.3 million	\$460.4 million	4.3%

Note: MA (Medicare Advantage), IPPS (inpatient prospective payment systems), FY (fiscal year). See p. 152 describing how the regression was defined and Appendix 4-A (p. 176) describing how the study sample was defined. Revenues and costs were inflated to 2024 dollars using the hospital market basket. “All-payer operating margin” excludes reported investment and donation income. All-payer revenues and margin exclude federal or other coronavirus relief funds. All-payer revenues and all-payer costs were logged in the regression analysis, and results represent the percentage change in the outcome associated with a 10 percentage point increase in the MA penetration of the hospital’s health service area. Median outcomes and shares of sample were weighted by the number of beds the hospital had in the first year they were in the sample. The number of hospital-year records in our sample was 30,246. Statistical significance is shown for p-values less than the 10 percent (*), 5 percent (**), and 1 percent (***) significance levels.

Source: MedPAC analysis of hospital cost-report, market basket, and Medicare enrollment data from CMS, as well as supplemental data sources (see Appendix 4-A, p. 176).

results of these supplemental analyses show that the associations between market-level MA penetration and all-payer hospital margins are not sensitive to the particular specification that we used. In general, associations between MA penetration and all-payer hospital operating revenues and costs were directionally consistent with our main specification, but they were more variable in that the magnitude of the parameter results and the extent to which they were statistically significant were more prone to change compared with our analysis of margins.

First, we conducted several analyses that were motivated by the concern that the estimated associations may in part reflect preexisting differences in markets with lower relative to higher changes in MA penetration. When we excluded hospitals in the lowest quartile of HSAs in terms of changes in MA penetration over the study period and then subsequently hospitals in the lowest or highest quartile of HSAs, we did not find a statistically significant association between changes in MA penetration and hospital margins

(similar to our base model); revenues and costs, however, did have a significant negative association with increases in MA enrollment (data not shown). When we excluded hospitals in the highest quartile of HSAs, we did not find a statistically significant association between changes in MA penetration and any of our outcomes of interest. Because base-period inpatient hospital use appeared different across quartiles of HSAs with different levels of changes in MA penetration (see Table 4-4, p. 153), we also reran our regression three times: after dropping hospitals in the lowest quartile, after dropping those in the highest quartile, and after dropping both those in the lowest and those in the highest quartile of HSAs in terms of all-payer inpatient hospital stays per capita in 2013. We again found no statistically significant association between changes in MA penetration and hospital margins, and we found a limited number of significant associations between MA penetration and all-payer costs and all-payer revenues.

Second, we assessed the importance of adjusting for state time trends. In our interviews with hospital representatives, we consistently heard that state-level policies (such as trends in Medicaid managed care penetration, Medicaid payment rates, and state-directed payments) can have a material impact on hospital finances. Therefore, in our main model, we use state-specific linear time trends to control for differential state policies that change over time and to partially adjust for underlying trends in factors that we were unable to include as separate control variables. To assess the importance of state time trends, we estimated a specification that did not include those adjustments. We found that increases in MA penetration had a statistically significant and positive relationship with hospitals' all-payer margins but no significant relationship with all-payer costs or all-payer revenues. This specification is the only one that we ran in which an increase in MA penetration had a statically significant positive association with all-payer margins across our entire study period and sample of IPPS hospitals, which highlights the importance of accounting for state trends. We therefore also conducted a sensitivity analysis that more precisely controls for state time trends by replacing the state-specific linear time trends with state-by-year fixed effects. State-by-year fixed effects are a more precise way of accounting for trends because they can capture

trends that are not linear. However, state-by-year fixed effects can lead to imprecisely estimated associations when there are a small number of markets in a state. Nonetheless, our overall results did not materially change with state-by-year fixed effects.

Third, we also tested the association between hospital finances and county-level MA penetration (rather than HSA-level MA penetration). In this specification, we did not find a statistically significant association between changes in MA penetration and hospitals' all-payer margins. We did, however, find a statistically significant and negative association between MA penetration and all-payer revenues and all-payer costs.

Fourth, we conducted multiple sensitivity analyses regarding how we weighted our regressions. We weighted our base regressions by the number of beds the hospital had in the first year it appeared in our study sample. To assess the extent to which hospitals with a large number of beds were driving the results, we conducted a sensitivity analysis that excluded the 50 largest hospitals. Excluding these hospitals did not materially change most of our results. However, small hospitals and large hospitals exhibited different associations between MA penetration and revenues and costs (Table 4-6). Therefore, to assess a specification that placed more weight on smaller hospitals, we ran our regression weighted by the natural logarithm of the number of beds in the hospital in the first year it entered the study sample. In this specification, we did not find a statistically significant association between changes in MA penetration and hospitals' margins. However, we did find a significant and negative association between MA penetration and all-payer revenues and all-payer costs.

In addition to these four tests, we also conducted other, more minor sensitivity analyses that did not have material effects on our findings.²⁰

Limitations of this analysis indicate caution is warranted when interpreting estimated associations between MA penetration and hospitals' finances

The key limitation of our analysis is that markets that experienced larger changes in MA penetration during the study period may systematically differ from markets that experienced smaller changes. Although

**TABLE
4-7**

Limited correlation at the national level between CAHs' all-payer margin and changes in MA penetration, FY 2013-2024

Fiscal year	CAH median					
	Number of hospitals	MA penetration in market	All-payer operating revenues (millions)	All-payer costs (millions)	All-payer operating margin	Aggregate all-payer operating margin
2013	1,290	16%	\$24.9	\$24.0	1.6%	2.8%
2014	1,300	17	25.0	24.4	1.1	2.4
2015	1,300	18	26.3	25.7	2.2	3.5
2016	1,290	18	26.8	26.3	1.7	3.2
2017	1,300	20	27.2	26.8	0.9	2.6
2018	1,280	21	27.0	26.9	0.6	2.0
2019	1,290	26	28.2	27.7	1.4	2.6
2020	1,280	30	27.4	27.8	-0.6	0.5
2021	1,280	34	30.0	29.0	3.8	5.9
2022	1,300	38	29.8	29.6	0.6	2.2
2023	1,300	42	30.7	30.0	1.2	3.6
2024	1,270	45	32.2	30.7	2.8	5.3

Note: CAH (critical access hospital), MA (Medicare Advantage), FY (fiscal year). Number of hospitals was rounded to the nearest 10. See Appendix 4-A (p. 176) for hospitals included in our sample. "MA penetration in market" refers to the share of Medicare beneficiaries in a health service area (HSA) with Part A and Part B coverage who were enrolled in MA and is rounded to the nearest percent. Revenues and costs are inflated to 2024 dollars using the hospital market basket and rounded to the nearest hundred thousand. "All-payer operating margin" excludes reported investment and donation income, is reported exclusive of federal or other coronavirus relief funds, and is rounded to the nearest 0.1 percent. Despite our exclusions, the aggregate all-payer operating margin for hospitals in our analysis (rounded to the nearest 0.1 percent) is similar to the one we reported in our July 2025 data book.

Source: MedPAC analysis of hospital cost-report, CMS market basket, Medicare enrollment, provider of services file, and National Cancer Institute HSA data.

we controlled for some market-level factors that were changing over the study period, there are other factors we did not control for or were unable to measure. If those factors are associated with both changes in a market's MA penetration and hospital finances, that could result in changes in MA enrollment being associated with changes in hospital finances in ways that do not reflect the underlying causal relationship. In addition, if MA plans disproportionately entered markets because of their different spending trajectories, a portion of our estimates could reflect a reverse causality bias.

An analysis we conducted suggests that this concern may be material both for our study and other analyses that use market-level changes in MA penetration.

When we applied our fixed-effect regression models to estimate the relationship between changes in MA penetration and hospital inpatient stays, we estimated a negative and implausibly large association between MA penetration and total Medicare (MA and FFS) inpatient stays. Furthermore, we estimated a negative and implausibly large association between MA penetration and all-payer (Medicare and non-Medicare) stays. These analyses of volume suggest that markets that experienced greater changes in MA penetration were likely experiencing different trends in volume that were at least in part unrelated to MA. Since volume affects both hospitals' revenues and their costs, differential trends in volume would create a directionally similar bias in interpreting the

estimated associations of MA penetration with both revenues and costs. (Previous analyses indicate that roughly 75 percent to 85 percent of hospitals' costs are variable as hospitals adjust to different levels of volume from year to year) (Medicare Payment Advisory Commission 2025c). Table 4-4 (p. 153), which shows substantially different rates of hospital inpatient use in the beginning of our study period across areas that experienced different changes in MA enrollment from 2013 to 2024, reinforces the concern that changes in MA enrollment were systematically associated with certain characteristics.

Concerns about differential trends confounding the interpretation of our results were less salient for the estimated associations between MA penetration and margins, meaning it may be appropriate to place more weight on estimates of profit margins than for estimates of revenues and costs. Because both the revenue and cost components of the calculation of margins would be affected by concerns of differential trends in utilization, any effect of those trends may largely balance out when estimating associations between changes in MA penetration and margins. The estimated association of MA penetration and all-payer margins was consistently small and not statistically distinguishable from zero over many alternative specifications and sensitivity analyses, indicating the robustness of those results. By contrast, associations of MA penetration with revenues, costs, and volume varied in their size over different specifications. While these analyses indicate fewer concerns about the interpretation of the estimated associations of MA penetration with margins relative to revenues and costs, the estimates for margins should still be viewed as associations rather than precisely estimated causal effects.²¹

Changes in MA penetration not associated with changes in CAHs' profit margin on average, 2013 to 2024

As in our analysis of IPPS hospitals, we first report descriptive statistics for CAHs included in our analysis. The median MA penetration rate increased from 16 percent to 45 percent in the markets for CAHs in our analysis from 2013 to 2024 (Table 4-7). Over the same period, our CAHs' all-payer operating margin showed no clear correlation with MA penetration trends. This

aggregate view suggests little correlation between increases in MA penetration and CAHs' all-payer operating margin at the national level but does not control for possible confounding factors, which our regression analysis sought to do.

Our regression analysis did not estimate a statistically significant association between market-level MA penetration changes and all-payer operating revenues, all-payer costs, or all-payer operating margins for CAHs on average (Table 4-8, p. 160). However, when we estimated the association between MA penetration changes and hospital finances for different study periods, we found that a 10 percentage point increase in MA penetration was associated with a 1.8 percent increase in all-payer operating revenues from 2013 to 2016 and a 0.56 percentage point increase in all-payer operating margin from 2022 to 2024. Otherwise, we did not find a statistically significant association between MA penetration changes and CAH finances during the different study periods.

Lack of associations could reflect several factors, including some that may not be related to MA enrollment

Taken together, our analyses provide little support for the argument that increases in MA enrollment have had a substantial negative (or positive) net effect on hospitals' profitability. One possible explanation is that the lack of any substantial relationship reflects the reality of the situation on average. For example, hospitals could have responded to revenue reductions associated with increases in MA penetration by lowering their cost structures such that overall profitability remained largely unchanged. Such behavior would be consistent with the Commission's longtime observation that hospitals under fiscal pressure tend to have higher FFS Medicare margins and the academic literature, which suggests that hospitals tend to lower their costs in response to lower payments (Baker 2025). Alternatively, some of the reductions in revenues that hospitals reported experiencing could have been partially offset by other payments, such as higher UC payments or additional payments from MA plans to hospitals (such as additional payments to increase diagnostic coding, especially among hospitals that employ clinicians, or incentive payments for performance on certain quality

**TABLE
4-8**

No statistically significant association found between MA penetration changes and all-payer margin for CAHs on average, FY 2013–2024

Change estimated from a 10 percentage point increase in market-level MA penetration

Group	Share of sample	All-payer operating revenues	All-payer costs	All-payer operating margin (in percentage points)
Overall	100%	0.7%	0.3%	0.38
Years				
2013–2016	40	1.8*	1.5	0.29
2017–2019	30	0.7	0.5	0.10
2022–2024	30	0.53	–0.1	0.56*
Median outcome value		\$29.5 million	\$28.8 million	1.5%

Note: MA (Medicare Advantage), CAH (critical access hospital), FY (fiscal year). See p. 152 describing how the regression was defined and Appendix 4-A (p. 176) describing how the study sample was defined. Revenues and costs are inflated to 2024 dollars using the hospital market basket. All-payer revenues and margin exclude federal or other coronavirus relief funds. All-payer revenues and all-payer costs were logged in the regression analysis, and results represent the percentage change in the outcome associated with a 10 percentage point increase in the MA penetration of the hospital's health service area. Median outcomes and shares of sample are weighted by the number of beds that the hospital had in the first year they were in the sample. The number of hospital-year records in our sample is 12,945. Statistical significance is shown for p-values less than the 10 percent (*), 5 percent (**), and 1 percent (***) significance levels.

Source: MedPAC analysis of hospital cost-report, market basket, and Medicare enrollment data from CMS, as well as supplemental data sources (see Appendix 4-A, p. 176).

metrics). While our work on UC and our interviews with hospitals suggest some offsetting effects are likely, quantifying the precise mechanisms that led to no association between MA penetration and hospital profitability (and how that may affect beneficiaries) is beyond the scope of this chapter. Alternatively, as discussed above, the estimates could in part reflect unrelated factors that were changing in markets that experienced more changes in MA penetration that we were unable to control for in our analysis.

Our analysis of the relationship between MA penetration and hospitals' finances (and other similar work) also has a number of limitations. We therefore caution against overinterpreting the results. Instead, the estimates in this report should be interpreted as associations rather than estimates of causal effects of how MA penetration affects hospital finances.

MA enrollment and PAC providers' finances

Similar to our methods for examining MA and hospital finances, to provide evidence on the relationship between MA and PAC providers' finances, we conducted interviews with skilled nursing facilities (SNFs), inpatient rehabilitation facilities (IRFs), and home health agencies (HHAs) and with MA plans, and we analyzed the association between changes in MA penetration and PAC providers' all-payer operating revenues, all-payer costs, all-payer operating margin, and volume when data were available.²²

PAC provider interviewees reported that the growth of MA has negatively affected their finances. IRFs emphasized that MA plans' use of prior authorization to initiate services reduced PAC volume relative to FFS Medicare, while several SNF and HHA interviewees noted

that MA plans typically had lower payment rates than FFS. Across the three PAC settings, providers that we interviewed consistently reported higher administrative costs associated with obtaining authorization to start or extend care and to appeal denials.

For freestanding SNFs and HHAs, we estimated the association between changes in market-level MA penetration and providers' finances using the same regression-based approach we applied to acute care hospitals. We found that increases in MA penetration were associated with small declines in all-payer revenue and costs among SNFs and HHAs, on average. However, we did not find statistically significant effects on their all-payer margins, on average. These results do not rule out meaningful effects of increases in MA penetration on the finances of specific providers. Moreover, changes in MA penetration had different effects on subgroups of SNFs and HHAs. Since only about a third of IRFs are freestanding and we were able to calculate all-payer margins only for freestanding providers, we instead show that the MA share of IRF days is substantially lower than overall MA enrollment in the IRF markets and that the clinical conditions differ between MA and FFS beneficiaries admitted to IRFs.

MA penetration could have different effects on PAC providers' finances than on hospitals'

PAC providers deliver recuperative care generally (but not always) after a patient leaves the acute care hospital. The goal is to help patients recover or regain function, prevent patients' loss of function, or safely transition back to the community after illness, surgery, or hospitalization. SNFs, HHAs, and IRFs all provide rehabilitation, skilled nursing, and personal care, but the level of care varies, with each having distinct features.²³ HHAs care for beneficiaries who can be safely treated at home and do not require facility-based care. SNFs provide facility-based care to beneficiaries who require daily skilled care but do not need the intensity of rehabilitation care offered in IRFs or cannot meet IRF admission criteria.²⁴ IRFs offer the most intensive rehabilitation services, and care must be supervised by a rehabilitation physician. The Commission has discussed the overlap in some of the types of patients treated in the different PAC settings (Medicare Payment Advisory Commission 2026).

MA enrollment may have larger effects on PAC providers' finances compared with acute care hospitals for several reasons. First, given the potential substitutability across PAC settings for some patients and the large price differences among the settings, MA plans have a financial incentive to seek lower-cost settings for PAC placement when possible.²⁵ Shifting use would affect providers' revenues and costs (though the effects on costs would depend on the extent to which they are variable vs. fixed). In contrast, acute hospital care is generally less substitutable with care delivered in other settings.

Second, FFS payments to PAC providers tend to be high, and the Commission has for years recommended reducing the levels of payments in these sectors to achieve greater value for the program.²⁶ Given the high payments relative to costs, some MA plans may be able to negotiate lower payment rates with PAC providers. Higher FFS payments relative to MA for SNF care have been reported by the National Investment Center for Seniors Housing & Care and by some publicly traded nursing home companies (Medicare Payment Advisory Commission 2025b, Medicare Payment Advisory Commission 2023b). Depending on the source, the ratio of FFS to MA payments ranged from 1.21 to 1.38, though these differences did not account for differences in service intensity and were available for only a subset of SNFs; we do not know whether they are representative of other SNFs.

Third, Medicare revenues likely account for a relatively large share of all-payer revenues for HHAs and IRFs, given their high share of Medicare volume (90 percent and 67 percent, respectively).²⁷ If MA payment rates differ from those for FFS Medicare, expanded MA enrollment may have material implications for these providers' overall financial performances.

Last, FFS incentives may encourage unnecessary volume—either longer stays in SNFs, additional 30-day periods in HHAs, or admissions to IRFs that could have been treated in a lower-cost setting (Medicare Payment Advisory Commission 2026). Cost-sharing rules may also shape utilization. For example, as long as beneficiaries continue to require skilled care, home health stays may be extended because there is no cost sharing. In contrast, studies have found patterns suggesting that some SNF stays extend to Day 21, the day that beneficiary cost sharing begins (Chatterjee

et al. 2019, McGarry et al. 2021). Studies by CMS and OIG raise questions about IRF use. In 2025, CMS found that the improper-payment rate for IRF FFS claims was over three times the average (21.5 percent compared with 6.55 percent) and that the vast majority of the randomly selected FFS claims it reviewed (362 from freestanding IRFs and 172 from IRF units) did not support medical necessity (Centers for Medicare & Medicaid Services 2025a). OIG found that the documentation for the majority of the 220 randomly selected FFS IRF stays it reviewed did not support that the IRF care was reasonable and necessary (Office of Inspector General 2018). Thus, we might expect growth in MA penetration to be associated with lower Medicare volume if MA plans employ management tools to curb overutilization. However, it is not clear whether a lower level of services indicates more appropriate use or unmet needs among some enrollees. CMS is currently conducting a demonstration aimed at reducing improper payments to IRFs in states with high rates of such payments. The demonstration began in 2023 in Alabama and extended to Pennsylvania in 2024; CMS plans to expand the program in 2026 to Texas and California. Of the 15 participating IRFs in Alabama and 52 IRFs in Pennsylvania, CMS reported high rates of compliance with Medicare documentation standards (over 80 percent) for the first six months of 2025 (Centers for Medicare & Medicaid Services 2025d).

Most PAC providers we interviewed reported that increases in MA penetration have negatively affected their finances

We conducted semistructured interviews with representatives from several SNFs, IRFs, and HHAs to hear their perspectives on payment rates, differences in patient characteristics by payer, and cost implications associated with growth in Medicare beneficiaries enrolled in MA. We sought to include providers that were independent and those that were part of a chain and those located in various geographical areas. However, these interviews were not intended to be representative of all providers in their industries. Interviews focused on providers' perspectives on how growth in MA enrollment has affected volume, patient case mix, and services offered, as well as beneficiaries' access to care and providers' payments and financial performance. Our HHA interviews took place in late 2024 and early 2025 and included interviews with both providers and plans (Medicare Payment Advisory Commission 2025b). Our SNF and IRF interviews took

place in early 2026. We also spoke with several MA plans regarding their perspectives on providing PAC benefits and working with PAC providers. In earlier work, we interviewed hospital discharge planners' decisions to place beneficiaries in IRFs and SNFs (L & M Policy Research 2024). In a separate set of interviews, we talked with a variety of stakeholders about institutional special-needs plans (I-SNPs) (Medicare Payment Advisory Commission 2025b).

The interviews yielded several common themes, including:

- **MA plans denied claims, delayed care, and shortened stays:** IRF representatives said that MA plans' use of prior authorization reduced enrollees' access to IRF care. They reported that MA plans tended to use the 13 compliance conditions as admission criteria (even though IRFs may admit patients with other conditions as long as they meet coverage rules).²⁸ Some hospital-discharge planners we spoke with reported that while some MA plans limited IRF admissions, others rarely or never authorized IRF admissions. One interviewee told us that some MA plans told her that IRF care was not part of the benefit (L & M Policy Research 2024). Because plans often took longer to approve IRF care or to work through the denial and appeal process, the delays could mean that some beneficiaries' functional status deteriorated such that they no longer qualified for care in IRFs (beneficiaries must be able to actively participate in intensive therapy, typically defined as three hours a day). To expedite PAC placement, some hospital-discharge planners had concurrently sought prior authorization for SNF and IRF care, but when they realized that this approach generally resulted in IRF care being denied, they dropped pursuing SNF placements to improve the chances of an IRF placement. One MA plan told us that IRFs are eager to admit more of their enrollees; however, after evaluation, some of these patients are determined to be more appropriately treated in SNFs.

SNF representatives said that some MA plans denied care outright or shortened stays by authorizing care for 7 to 14 days at a time. Some interviewees worried that MA enrollees were prematurely discharged from the SNF, when the patients and their families were not ready to manage the care at home, and that some MA

enrollees ended up being readmitted to the hospital. One SNF representative mentioned changes to MA rules that might ease enrollees' access to SNF care by clarifying standards for denials and appeals.²⁹ SNF interviewees also told us that beneficiaries tend to switch out of MA and into traditional FFS Medicare when they get sick. On the other hand, one SNF reported that MA plans send letters to beneficiaries encouraging them to switch from FFS to MA.

One large HHA chain's interviewees said that their MA patients likely received fewer visits than FFS patients with similar conditions. Although they noted variation in how MA plans structured the home health benefit for their enrollees, generally, the plans they contracted with tended to require prior authorization for home health care up to a certain number of visits and require additional authorization for more visits. They noted that the prior authorization for more visits could be difficult to obtain even if the clinician assessed that the patient needed more visits.

- **Increased administrative burden:** IRFs and SNFs reported that MA plans were difficult to work with. Requests for prior authorization to admit enrollees and to extend stays were burdensome and costly to administer. SNF interviewees told us that even if the MA payment rates were close to FFS rates, they found the process of authorization for longer stays for enrollees to be challenging and administratively costly. One SNF told us that it used to avoid MA given the administrative hassles and low rates (see discussion below) but that the growth in MA made this approach less tenable.
- **Mixed approaches to managing beneficiaries' care.** In addition to approving prior authorizations for admission and continued stays in PAC settings, some SNFs reported that MA plans contract with care-management companies that assist with discharge planning and ordering durable medical equipment for patients going home. Another SNF said that some plans are not involved in care once the beneficiary is admitted except to review progress notes to estimate when a beneficiary will be discharged. An MA plan we interviewed noted that it waives the three-day hospital stay for SNF coverage (which is a requirement under FFS) and felt that plans and providers seem to be working

better together more recently. The plan noted that their value-based contracts with SNFs (through I-SNPs) better align plan and provider incentives.

- **Enrollees steered to in-network providers:** Some IRFs we spoke with told us that they struggle to be included in plans' networks, possibly because the plan has already contracted with other IRFs or because CMS's network-adequacy requirements do not set standards for the numbers of IRFs and time/distance to IRFs. Some IRFs also mentioned that it is difficult to get plans to cover out-of-network IRF care. One SNF representative said that plans steer enrollees to in-network providers. Another said that plans did not consider provider quality when selecting providers to be included in-network.
- **MA payment rates were lower than FFS's for SNFs and HHAs but not IRFs:** Unlike what we heard from acute care hospitals, the SNFs and HHAs we interviewed reported often receiving rates from MA plans that were lower than FFS. For example, HHAs receive a bundled prospective payment system (PPS) payment for an episode of care for FFS beneficiaries, while HHA interviewees reported that MA plans tend to pay per visit at lower rates than FFS Medicare (Medicare Payment Advisory Commission 2025b). On the other hand, some HHAs said they were able to obtain an episodic rate, and some plans told us that they pay 100 percent or more of FFS rates for home health visits.³⁰ Qualitative interviews reported by another study also noted the lower visit rates for MA patients compared with FFS beneficiaries (Zuckerman et al. 2020).

SNF interviewees stated that MA per diem payments tended to be lower than FFS rates, though there was variation among the interviewees. One SNF mentioned that rates were about 85 percent to 90 percent of FFS per diem rates, depending on the MA plan, and that some plans paid considerably less than FFS per diem rates—sometimes less than the cost of care. Another SNF told us they received close to 99 percent of SNF PPS per diem rates. We were told that some plans assign MA enrollees' stays to tiers (a version of a case-mix group) and that the plans try to assign the stays to the lowest tier to further lower their payments. Some interviewees noted that they need to be careful when admitting MA enrollees

since the payment can be quite low. Interviewees noted that payment rates for in-network and out-of-network use varied considerably by plan. One SNF told us that some of its MA contracts were old and their payment rates had not been updated and that it had no leverage with the plans to increase their payment rates. We were told that negotiating with new plans was especially difficult: The rates that were offered were low, and plans seemed less interested in securing contracts with higher-quality providers.

IRF representatives told us that they received payment rates from MA plans that were comparable with FFS. One MA plan emphasized that it paid 100 percent of the FFS rates for IRF, SNF, and HHA services. IRF representatives also told us that even though payment rates were comparable, they incurred higher administrative costs.

SNF interviewees mentioned another way revenues could be affected by growth in MA enrollment: inability to collect bad debt from MA plans. For example, when Medicaid does not cover the cost sharing for dually eligible patients (which varies depending on state Medicaid policy), they noted that there is no recourse for the SNF to recover any portion of the cost sharing associated with MA enrollees because there is no bad-debt policy for MA (the FFS bad-debt policy pays 65 percent of the amount owed). One SNF told us that they attempt to build the cost of any bad debt into their negotiated rate with some MA plans. In addition, when MA audits take back payments, providers cannot write off the lost revenues (as they can with audit-related reductions to FFS payments).

Prior research on MA and PAC finances is limited

There have been few studies that have examined the relationship between MA penetration and PAC providers' finances. Marr and Shen found that increased MA enrollment in a market decreased SNFs' financial performance during the 2012 to 2019 period (Marr and Shen 2024). A study by Geng and colleagues found that increased MA penetration in a market was associated with less PAC use by FFS enrollees with three conditions (stroke, hip fracture, and congestive heart failure), suggesting that MA may affect PAC providers' finances by reducing FFS volume (Geng

et al. 2023). A study examining the association of MA and the supply of HHAs between 2012 and 2022 found that counties with greater growth in MA penetration saw larger declines in the number of HHAs (Marr et al. 2026a). A larger number of studies have focused on comparing MA and FFS use of PAC, with some also examining differences in quality. Other work has analyzed the use of prior authorization and service denials by MA plans.

MA and FFS use of PAC

Many studies have examined differences in PAC volume between MA and FFS beneficiaries. A study comparing SNF, IRF, and HHA use for three common conditions (lower-extremity joint replacement, stroke, and heart failure) found that MA enrollees were less likely to use PAC (in any setting), and those who used institutional PAC (SNFs and IRFs) had shorter stays compared with FFS beneficiaries, with mixed differences in outcomes (see discussion below) (Skopec et al. 2020). The authors concluded that MA plans were not substituting HHA for institutional care but reducing PAC overall.

A study comparing SNF and HHA use found that, compared with FFS beneficiaries, MA enrollees were more likely to use SNF services but that home health use was comparable (Roy et al. 2025). In addition, MA enrollees had shorter SNF and HHA stays compared with FFS beneficiaries, yet outcomes were better. The authors concluded that some FFS beneficiaries may overuse services. Another study found that slightly lower shares of MA than FFS beneficiaries used HHAs and SNFs, with larger differences in days of care, though these analyses were not adjusted for differences in beneficiary characteristics (Burke et al. 2024). The study also found that MA used fewer providers of care.

Huckfeldt and colleagues compared MA and FFS enrollees' use of SNFs and IRFs and found MA enrollees had less intensive use of PAC: They were less likely to be admitted to an IRF compared with FFS beneficiaries and had shorter stays in SNFs (Huckfeldt et al. 2017). The lower use did not worsen the patient outcomes examined. The study also found that, compared with FFS beneficiaries, MA enrollees were concentrated in fewer SNFs. A recent paper by Lake and colleagues found that MA enrollment was associated with lower IRF use but higher mortality among patients with hip fracture and stroke, particularly in markets with high

IRF utilization (Lake et al. 2026). The authors suggested that in these markets, where IRFs tend to treat patients with more complex rehabilitation needs, MA plans may be diverting high-acuity patients to SNFs that may lack the capacity and experience to manage the patients' clinical complexity.

Studies comparing MA and FFS use of home health care have drawn mixed conclusions, in part because they used different data sources and not all studies adjusted for the characteristics of MA and FFS beneficiaries. A review of 30 studies had mixed findings regarding use, intensity of services, and outcomes, though more recent studies have generally found lower rates among MA enrollees (Ma et al. 2024). Our prior work found that the rates of home health use among MA enrollees and FFS beneficiaries were similar (Medicare Payment Advisory Commission 2025b). We also found that, conditional on using home health care, MA enrollment was associated with fewer visits received per beneficiary per year compared with FFS beneficiaries, consistent with the findings of a study conducted by Mroz and colleagues (Medicare Payment Advisory Commission 2025b, Mroz et al. 2025). A study using data from a large nonprofit HHA chain assessed whether the approaches that MA plans used to pay for home health care—per visit or per episode—affected utilization and outcomes (Prusynski et al. 2025). The study found that, compared with FFS Medicare, both MA approaches had shorter lengths of stay and higher odds of transferring patients back to an acute care hospital, though the per visit approach had the shortest home health care length of stay (and a greater share of visits from physical and occupational therapists compared with episodic MA patients). A study conducted by NORC at the University of Chicago found that, compared with FFS beneficiaries, MA enrollees were less likely to be discharged from the acute care hospital to SNFs and IRFs but more likely to be discharged to HHAs, though its analysis did not adjust for differences in patient case mix (NORC at the University of Chicago 2025). Xu et al. found that home health lengths of stay were shorter in MA than in FFS, but they also did not adjust for differences in patient case mix (Xu et al. 2026).

It is important to note that there has been an overall trend of fewer visits per home health stay among FFS home health care users. The introduction of the Patient-Driven Groupings Model payment system for FFS

home health care implemented in 2020 was associated with fewer visits per stay, particularly therapy visits (Medicare Payment Advisory Commission 2026).

Several studies have compared the quality of providers used by MA and FFS beneficiaries and found that MA enrollees tended to use slightly lower-rated SNFs and HHAs than FFS beneficiaries. One study compared outcomes for beneficiaries recovering from strokes and found that MA enrollees were less likely to be treated in high-quality HHAs and SNFs but equally likely to use high-quality IRFs (Skopec et al. 2020). Looking at all conditions, a study of SNF and HHA use found that MA enrollees used slightly lower-rated SNFs and HHAs than FFS beneficiaries (Burke et al. 2024). Two studies found that MA enrollees were less likely to enter high-quality SNFs compared with FFS beneficiaries (Meyers et al. 2018, Wang et al. 2025). A study of the quality of HHAs used by MA and FFS enrollees found that MA enrollees were less likely to use high-quality HHAs and that the likelihood was lower for those enrolled in low-quality MA plans (Schwartz et al. 2019).

Studies have examined MA plans' use of prior authorization. OIG and the Senate Permanent Subcommittee on Investigations have examined MA denials of services, with implications for beneficiaries' access to needed services. OIG found that SNF and IRF services were among the most frequently denied prior-authorization and payment requests that met Medicare coverage rules (Office of Inspector General 2022). OIG noted that the denials could delay or prevent beneficiaries from getting medically necessary care. Our previous analysis of prior-authorization appeals that were reviewed by a CMS-contracted independent review entity (IRE) found that the IRE upheld MA plans' coverage decisions in most cases; among these upheld decisions, about half involved requests to preapprove IRF admissions (Medicare Payment Advisory Commission 2024b).

A Senate investigation of three large MA plans found that, between 2019 and 2022, the use of prior authorization for PAC services increased and the denial rates for the requests were higher than for other services (U.S. Senate Permanent Subcommittee on Investigations 2024). The Senate committee reported that the companies' use of algorithms to review requests increased. In a class-action lawsuit against one large plan, plaintiffs alleged that the use of an artificial intelligence model wrongfully denied PAC by

overriding physicians' determinations about medically necessary care (U.S. District Court for the Western District of Kentucky 2023). As of February 2026, the lawsuit had not been settled. A study of a large MA plan's use of predictive algorithms resulted in shorter SNF lengths of stay without changes in outcomes (Marr 2025). An industry-sponsored survey of 441 nursing homes found that two-thirds of the respondents had experienced delays or denials of care or shortened stays associated with MA enrollees (American Health Care Association 2024).

Methods for analyzing the association between changes in MA penetration and PAC providers' finances

We applied the same regression models used for hospitals to estimate how changes in MA penetration within providers' markets over time are associated with changes in PAC providers' overall financial performance. We note that data are not currently available to directly calculate PAC providers' revenues, costs, and margins exclusively for their MA enrollees (see the text box on the data needed to better understand providers' finances related to MA, pp. 148–149). We applied this modeling approach to SNFs and HHAs.

Similar to the analysis for acute care hospitals, we used Medicare cost reports to calculate all-payer revenues, all-payer costs, all-payer margin, and volume from 2013 to 2024 (see Appendix 4-B, p. 179, on our methods for using cost reports to calculate providers' all-payer finances and volume). We regressed these outcomes on MA penetration of the provider's market as the main variable of interest. We included the same set of fixed effects and other control variables as described on p. 152, plus the number of total acute care hospitalizations per total population, which affects demand for PAC services and could help control for market-level trends in health care use.³¹ As in our analysis of acute care hospitals, we tried to control for variation in state Medicaid policies over this period (such as eligibility rules, supplemental and other targeted payments, provider taxes, payment rates, and cost-sharing and bad-debt policies) by including state-level linear time trends. Allowing for trends to vary by state is especially important for SNFs because Medicaid is the majority payer in most SNFs. We also ran the regression with state-by-year fixed effects

and reported when these results differ from our main findings.

We report the estimated coefficient on market-level MA penetration as the association between a 10 percentage point increase in MA penetration and the outcome of interest. The revenue, cost, and volume measures were logged, so the coefficient can be interpreted as the percent change in each of the outcomes from a 10 percentage point increase in MA share. Regressions for SNFs were weighted by the number of available beds in the provider's first year in the study sample, which serves as a proxy for provider size. For HHAs, size was proxied using the number of all-payer patients. Because HHA patient counts are more fluid than bed counts for SNFs and hospitals, we used the average number of all-payer patients observed over the study period to approximate HHA size.

Even with our extensive market, provider, year, and state time-trend controls, there may be unobserved factors that are correlated with changes in both MA penetration and providers' finances, which could confound the interpretation of our results. Indeed, as shown in Table 4-4 (p. 153), markets that experienced larger changes in MA penetration over the study period differed at baseline in some important ways from markets that experienced smaller changes in MA penetration. That difference suggests that the associations estimated in this analysis may in part reflect differences in underlying trends in markets with different changes in MA penetration. In addition, the inclusion of provider and year fixed effects and state-specific trends may limit our ability to detect smaller effects of MA penetration. See pp. 159–160 for further discussion of limitations in interpreting these findings.

Our regression analyses were limited to freestanding providers because their Medicare cost reports allow for the calculation of all-payer revenues, costs, and some measures of all-payer volume. Freestanding facilities account for the vast majority of SNFs (97 percent) and HHAs (93 percent). Hospital-based providers were excluded because we cannot calculate an all-payer margin from information in the hospital cost report. Only one-third of IRFs are freestanding (though they tend to be larger and account for a larger share of stays). The remaining IRFs operate as distinct part units of acute care hospitals. Lacking margin information for the majority of the IRF industry, we did

**TABLE
4-9**

MA penetration and SNF all-payer finances and volume for SNFs in our study sample, 2013-2024

SNF median values

Year	Number of SNFs	MA penetration in market	All-payer revenues (millions)	All-payer cost (millions)	All-payer margin	All-payer resident days	FFS share of all-payer revenue	FFS share of facility days
2013	12,720	25%	\$11.1	\$10.9	1.9%	31,250	22%	12%
2014	12,580	28	11.1	11.0	1.9	30,960	21	12
2015	12,550	29	11.1	11.0	1.7	30,540	21	12
2016	12,940	30	10.9	11.0	1.0	30,110	20	11
2017	13,050	32	10.8	10.9	0.6	29,770	19	11
2018	13,190	35	10.7	10.8	0.3	29,520	18	10
2019	13,060	38	10.7	10.8	0.7	29,680	17	9
2020	13,100	41	10.6	10.7	-1.3	27,230	19	11
2021	12,820	45	9.9	10.3	-2.8	25,220	18	10
2022	12,690	48	10.0	10.4	-3.3	26,350	17	10
2023	12,380	52	10.3	10.4	-0.3	27,560	14	9
2024	12,050	54	10.8	10.6	2.1	28,510	13	8

Note: MA (Medicare Advantage), SNF (skilled nursing facility), FFS (fee-for-service). Includes only nursing facilities that provide SNF care (see Appendix 4-B (p. 179) describing how our study sample was defined). We show values for 2020 and 2021 for SNFs in our study sample in this table, but these years are excluded from the analysis in Table 4-10 (p. 169). SNF all-payer revenues and costs are inflated to 2024 dollars using the SNF market basket. "MA penetration in market" refers to the share of Medicare beneficiaries in a health service area with Part A and Part B coverage who were enrolled in MA. "All-payer revenues" and "all-payer margin" exclude federal or other coronavirus relief funds. "Facility days" includes those for short-term posthospital care and long-term care.

Source: MedPAC analysis of Medicare cost reports for freestanding SNFs, CMS market basket, Medicare enrollment, and health service area data.

not conduct the analysis of MA market penetration and financial performance. Instead, we present descriptive information on IRF MA volume that is available for all IRFs and discuss additional analyses using IRF patient-assessment data, which are collected for all Medicare patients.

Changes in MA penetration not estimated to be associated with changes in SNFs' profit margin on average from 2013 to 2024

Consistent with the overall national trend, from 2013 to 2024, the median market-level MA penetration for SNFs in our study sample steadily increased from 25 percent to 54 percent (Table 4-9) (see Appendix 4-B, p. 179, for how our SNF study sample is defined). Over this period, the number of SNFs decreased from 12,720 to 12,050

(or by about 5 percent). Median all-payer revenues declined slightly while costs remained steady over the period (both in 2024 dollars). Median all-payer margin declined over most of this period, especially during the coronavirus pandemic, but was 2.1 percent in 2024 (compared with 1.9 percent in 2013). Median total days (including short-term post-acute and long-term care days) decreased by about 9 percent. Resident days plummeted during the coronavirus pandemic but have steadily grown since then, though they remain below prepandemic levels. FFS Medicare days composed a small share of total facility days (8 percent in 2024) but a higher share of SNFs' payments (13 percent) because of the higher FFS Medicare payments for short-stay rehabilitative care (Medicare Payment Advisory Commission 2026).

Over this period, median SNF all-payer revenues slightly declined (by about 3 percent after adjusting for inflation), with larger changes during the coronavirus pandemic, when hospital admissions were down (a prior three-day hospital stay is required for Medicare coverage, though this requirement was waived during the coronavirus pandemic, but many potential patients avoided SNFs) (Table 4-9, p. 167). Because total margins include Medicaid-funded long-term care, state policies regarding the level of Medicaid payments significantly affect the overall financial performance of this setting. In 2024, 45 states raised their Medicaid payment rates to nursing homes for long-term care (Hinton et al. 2025). The higher Medicaid rates in 2024 help explain the relatively large increase in the median all-payer margin.

We estimated that a 10 percentage point increase in MA penetration was associated with small declines in all-payer revenues and costs (-0.6 percent and -0.5 percent, respectively) and resident days (-0.6 percent) (Table 4-10). Because the revenue reduction was larger than the cost reduction, there was a small estimated reduction in the all-payer margin, but it was not statistically different from zero at the standard levels of significance. While the estimates for revenues, costs, and facility days are small, they translate to a somewhat larger decline when considering that Medicare is only a minority of SNFs' revenues. For example, if we assume that Medicare accounts for about 20 percent of SNFs' all-payer revenues and that all of the estimated decline in all-payer revenues was from Medicare, then a 0.6 percent estimated decline would translate to an approximately 3 percent decline in Medicare revenues associated with a 10 percentage point increase in the market-level MA penetration (0.6 divided by 0.2). The results were directionally the same when we included state-year fixed effects instead of state linear time trends, though in general the point estimates were slightly larger for the overall results.

Generally, the findings were similar for urban and rural facilities and for different time periods. The point estimates were larger during the most recent, 2022 to 2024, period. It is not clear whether this difference is due to larger impacts of MA penetration or other unrelated factors that affected markets with larger changes in MA penetration during this period. We also observed differences by SNF size. We estimated large increases in revenues, costs, and facility days associated with an increase in market MA penetration

among the smallest SNFs (those in the bottom quartile based on bed size) (Table 4-10). In contrast, among the largest SNFs, we estimated large decreases in revenues, costs, and facility days associated with an increase in MA penetration. These size-stratified patterns warrant further analysis to better understand the underlying mechanisms driving the differential findings.

We ran several alternative specifications to examine the sensitivity of our findings. These include defining smaller markets by using counties instead of HSAs, stratifying market MA penetration by quartile of initial penetration (to test for differences between areas that had low vs. high penetration in 2013), and stratifying market MA penetration by initial quartile of hospital discharge rates. Our findings were similar across these specifications: MA penetration was associated with lower all-payer margins, but the estimates were not statistically significant.

Our overall results are directionally consistent with a study of the impact of MA on SNFs conducted by Marr and Shen (Marr and Shen 2024). During the period 2012 through 2019, they found that a 10 percentage point increase in MA penetration in a county was associated with large reductions in all-payer revenues, costs, and total margins. Although both studies analyzed all-payer finance and volume information from the Medicare cost reports and used similar regression frameworks, there were some differences in specifications that might have resulted in our study finding smaller associations during the 2013 to 2019 period.³²

A growing number of nursing homes participate in I-SNPs, a type of MA plan designed for long-stay nursing home residents (Medicare Payment Advisory Commission 2025b). Medicare beneficiaries who are long-stay residents at participating nursing homes can enroll in these plans. The I-SNP model is based on the premise that plans can improve the quality of care for long-stay residents by delivering more care in the nursing home and reducing unnecessary inpatient care and emergency room visits (which benefit the plan and the beneficiary). Changes in MA penetration among these SNFs may have different impacts on their finances than on SNFs not affiliated with I-SNPs. This difference may be especially true if the I-SNP is owned and run by the SNF (referred to as "provider-led" I-SNPs). In 2024, about 30 percent of the SNFs in our analytic sample participated in an I-SNP plan. Among

**TABLE
4-10**

Increases in MA penetration were associated with declines in SNF all-payer revenues, costs, and volume but not in all-payer margin, FY 2013–2024

Change estimated from a 10 percentage point increase in market-level MA penetration

Group	Share of sample	All-payer revenue	All-payer costs	All-payer margin (in percentage points)	Total facility days
Overall	100%	-0.6%*	-0.5%*	-0.10	-0.6%**
Geography					
Urban	73	-0.7**	-0.7**	-0.03	-0.3
Rural	27	-0.4	-0.3	-0.19	-1.2***
Years					
2013–2016	40	-0.8**	-0.7**	-0.13	-0.7**
2017–2019	31	-0.5	-0.4	-0.08	-0.6**
2022–2024	29	-1.4***	-1.0***	-0.47**	-0.7**
Bed size					
Small	25	2.5***	2.6***	-0.06	2.2***
Medium	50	-0.2	-0.2	-0.00	-0.1
Large	25	-2.7***	-2.5***	-0.26	-2.8***
Median outcome value	—	\$12.6 million	\$12.6 million	0.83	34,570

Note: MA (Medicare Advantage), SNF (skilled nursing facility), FY (fiscal year). The study cohort includes nursing facilities that provided SNF care (see Appendix 4-B (p. 179) describing how the study sample was defined). “All-payer revenue” and “all-payer costs” are inflated to 2024 dollars using the SNF market basket. “All-payer revenue” and “all-payer margin” exclude federal or other coronavirus relief funds. All-payer revenues, all-payer costs, and total resident days were logged in the regression analysis, and results represent the percentage change in the outcome associated with a 10 percentage point increase in MA share of Medicare in the SNF’s health service area. Bed-size categories were determined using the <25th (small), 25th to 75th (medium), >75th (large) percentiles of SNFs’ bed counts in the first year the SNF is in the sample. The years 2020 to 2021 were excluded from the analysis because of the coronavirus pandemic. The number of SNF-year records in our sample was 127,220. Statistical significance is shown for *p*-values less than the 10 percent (*), 5 percent (**), and 1 percent (***) significance levels.

Source: MedPAC analysis of Medicare cost reports for SNFs, enrollment and cost-report data from CMS, as well as supplemental data sources (see Appendix 4-B, p. 179).

the participating SNFs, the median share of the SNFs’ long-term residents who were enrolled in an I-SNP plan was 36 percent (ranging from 1 percent to 80 percent at the 1st and 99th percentiles, respectively).

Using available data on SNFs with long-stay patients enrolled in I-SNPs from 2018 to 2024, we examined how participation in an I-SNP affected the association between MA market share and all-payer margin using the regression model described above. We defined

participation as SNFs with more than 10 percent of their long-stay patients enrolled in an I-SNP in the year (20 percent of SNFs in the sample). SNFs with an I-SNP had a lower all-payer margin in aggregate than other SNFs, consistent with our previous findings (Medicare Payment Advisory Commission 2025b). When we regressed an interaction term between MA penetration change and I-SNP participation, the point estimates showed that SNFs with I-SNPs had a smaller decline

**TABLE
4-11**

MA market penetration and HHA all-payer finances and volume for HHAs in our study sample, 2013–2024

Year	HHA median							
	Number of HHAs	MA penetration in market	All-payer revenues (millions)	All-payer cost (millions)	All-payer margin	All-payer patients	All-payer visits	FFS share of patients
2013	6,690	29%	\$2.0	\$1.9	3.2%	260	9,380	84%
2014	7,760	32	2.1	2.0	2.9	280	9,810	82
2015	7,590	33	2.2	2.1	3.1	290	10,120	79
2016	7,380	33	2.3	2.2	2.5	310	10,480	78
2017	7,160	35	2.3	2.2	2.7	330	10,670	76
2018	6,910	39	2.4	2.3	3.1	350	11,300	74
2019	6,780	42	2.5	2.4	3.9	370	11,680	73
2020	6,570	44	2.4	2.3	4.6	380	10,480	70
2021	6,410	49	2.5	2.3	6.0	400	10,460	66
2022	6,440	52	2.4	2.2	4.3	390	9,850	65
2023	6,370	56	2.3	2.2	4.8	380	10,030	61
2024	6,050	58	2.4	2.3	4.9	400	10,750	58

Note: MA (Medicare Advantage), HHA (home health agency), FFS (fee-for-service). Includes freestanding HHAs with valid Medicare cost-report fields that treated at least 20 patients during the year. We show values for 2020 and 2021 for HHAs in our study sample in this table, but these years are excluded from the analysis in Table 4-12. "All-payer revenues" and "all-payer costs" are inflated to 2024 dollars using the HHA market basket. "MA penetration in market" refers to the share of Medicare beneficiaries in a health service area with Part A and Part B coverage who were enrolled in MA. "All-payer revenues" and "all-payer margin" exclude federal or other coronavirus relief funds.

Source: MedPAC analysis of Medicare cost reports for freestanding HHAs, CMS market basket, Medicare enrollment, and health service area data.

in margin associated with an increase in MA market penetration compared with those without I-SNPs, but the point estimates were not statistically significantly different from zero at the 10 percent significance level.

Changes in MA penetration not estimated to be associated with changes in HHAs' profit margin on average from 2013 to 2024

From 2013 to 2024, the median MA penetration in HHA markets increased from 29 percent to 58 percent (Table 4-11). During this time, median HHA all-payer revenues and costs (inflated to 2024 dollars) grew slightly (median revenues increased from \$2.0 million to \$2.4 million). Between 2013 and 2024, the median all-payer margin grew from 3.2 percent to 4.9 percent. From 2013 to 2024, as MA penetration grew, the FFS share of HHAs' all-payer patients dropped from 84 percent to 58 percent.

During the study period, the number of HHAs in our study sample declined from 6,690 HHAs to 6,050 HHAs (Table 4-11).³³ At the same time, volume (patients and visits) increased, indicating that the median HHA got bigger. From 2013 to 2024, the median HHA's number of patients increased from 260 to 400. We did not examine whether growth in MA penetration was associated with HHA closures or mergers, though our analysis would capture worsening margins that might have preceded them. Any consolidation of HHAs may have yielded economies of scale for the remaining HHAs in the market that could have increased profits, all else equal.

As shown in Table 4-12, our regression analysis estimated declines in revenues and costs associated with increases in MA penetration of 2.7 percent that

**TABLE
4-12**

Increases in MA penetration associated with decreases in HHA all-payer revenues and costs but not all-payer margin or volume, 2013-2024

Change estimated from a 10 percentage point increase in market-level MA share

Group	Share of sample	All-payer revenue	All-payer costs	All-payer margin (in percentage points)	Total visits	Total patients
Overall	100%	-2.7%*	-2.7%*	-0.12	-1.3%	-1.8%
Geography						
Urban	86	-2.7*	-2.6*	-0.23	-1.0	-1.8
Rural	14	-2.7*	-2.9*	-0.08	-2.0	-1.9
Years						
2013-2016	35	-3.8**	-3.6**	-0.27	-2.0	-2.6
2017-2019	26	-2.7*	-2.4*	-0.32	-0.9	-2.0
2022-2024	23	-4.5**	-3.2	-1.24***	-0.6	-4.1*
Size						
Small	25	-8.8***	-8.1***	-0.82**	-14.4***	-18.2***
Medium	50	-2.5*	-2.2	-0.41	-0.9	-0.9
Large	25	-1.2	-1.8	-0.51	2.2	2.0
Median outcome value	—	\$2.7 million	\$2.6 million	3.6	12,650	420

Note: MA (Medicare Advantage), HHA (home health agency). The study sample includes freestanding HHAs with valid Medicare cost-report fields that treated at least 20 patients during the year (see Appendix 4-B on p. 179 describing how the study sample was defined). Revenues and costs are inflated to 2024 dollars using the HHA market basket. All-payer revenues and margin exclude federal or other coronavirus relief funds. All-payer revenue, all-payer costs, and total visits and patient days were logged in the regression analysis, and results represent the percentage change in the outcome associated with a 10 percentage point increase in MA penetration in the HHA's health service area. Size categories were determined using the <25th (small), 25th to 75th (medium), >75th (large) percentiles of HHAs' average unique patient counts across each of the years the HHA was in the sample. The years 2020 to 2021 were excluded from the analysis because of the coronavirus pandemic. The number of HHA-year records in our sample was 69,110. Statistical significance is shown for p-values less than the 10 percent (*), 5 percent (**), and 1 percent (***) significance levels.

Source: MedPAC analysis of Medicare cost reports for freestanding HHAs, enrollment and cost-report data from CMS, as well as supplemental data sources (see Appendix 4-B, p. 179).

largely offset each other, resulting in a small decline in the all-payer margin that was not statistically significant from zero. The decline in total visits and patients associated with MA penetration increases was not statistically significantly different from zero. The estimated decline in revenues could be driven by lower payment rates received for MA enrollees, as noted above by interviewees. The decline in costs could be driven by fewer visits (though we also did not find

statistically significant declines in total visits) or other cost efficiencies that HHAs were able to achieve as MA penetration increased.

Generally, the findings were similar for urban and rural facilities and for different time periods. The point estimates were larger during the most recent, 2022 to 2024, period. It is not clear whether this difference is due to larger impacts of MA penetration or other unrelated factors that affected markets with larger

changes in MA penetration during this period. We observed differences by HHA size. We estimated large decreases in revenues, costs, and volume associated with an increase in MA penetration among the smallest HHAs (those in the bottom quartile based on average patient count) (Table 4-12, p. 171). Among larger HHAs, we found smaller declines in revenues and costs associated with an increase in market MA penetration (and increases in volume among the largest HHAs that were not statistically significant). As with SNFs, these size-stratified patterns warrant further analysis to better understand the underlying mechanisms driving the differential findings.

As with our SNF results, we ran alternative specifications that included defining smaller markets by using counties instead of HSAs, stratifying market MA penetration by quartile of initial penetration (to test for differences between areas that had low vs. high penetration in 2013), and stratifying market MA penetration by quartile of initial hospital discharge rates. Our findings were similar across these specifications: MA penetration was associated with lower all-payer HHA margins, but the estimates were generally not statistically significant.

There have been several large acquisitions of HHA chains by health insurers: Humana began its purchase of Kindred at Home in 2018; UnitedHealth Group purchased LHC Group in 2023 and Amedisys in 2025 (Kindred Healthcare 2018, Marselas 2025, Mertz-Taggart 2025). There are also health systems that include HHAs that have started MA plans. HHAs that are vertically integrated with MA plans may have different experiences of how their finances change as MA enrollment grows. For example, plans may steer patients to their vertically integrated providers and may pay them more per patient. Since some of these acquisitions are recent, we could not fully study their effects. However, using our study sample for 2022 to 2024, we examined whether the estimated association between changes in MA market penetration and all-payer margin differed for HHAs that were vertically integrated. We used information from the Agency for Healthcare Research and Quality (AHRQ) compendium of U.S. health systems and from the National Association of Insurance Commissioners (NAIC) for 2023 to identify vertically integrated HHAs.³⁴ We used Medicare enrollment and home health encounter

data to determine the share of HHAs' MA patients who were enrolled in the affiliated plan. We identified about 10 percent of HHAs in our 2022 to 2024 study sample as vertically integrated; among these HHAs, the median share of MA patients enrolled in the integrated plan was about 35 percent. In our regression, we found a positive-point estimate between market-level MA penetration and all-payer margin among vertically integrated HHAs, but the estimate was not statistically significant at the 10 percent level. Among other HHAs, the point estimate on the association between increases in market-level MA penetration and total margins was negative but also not statistically significant at standard levels of significance.

IRF use by MA enrollees is relatively low, and their mix of conditions differs from FFS beneficiaries'

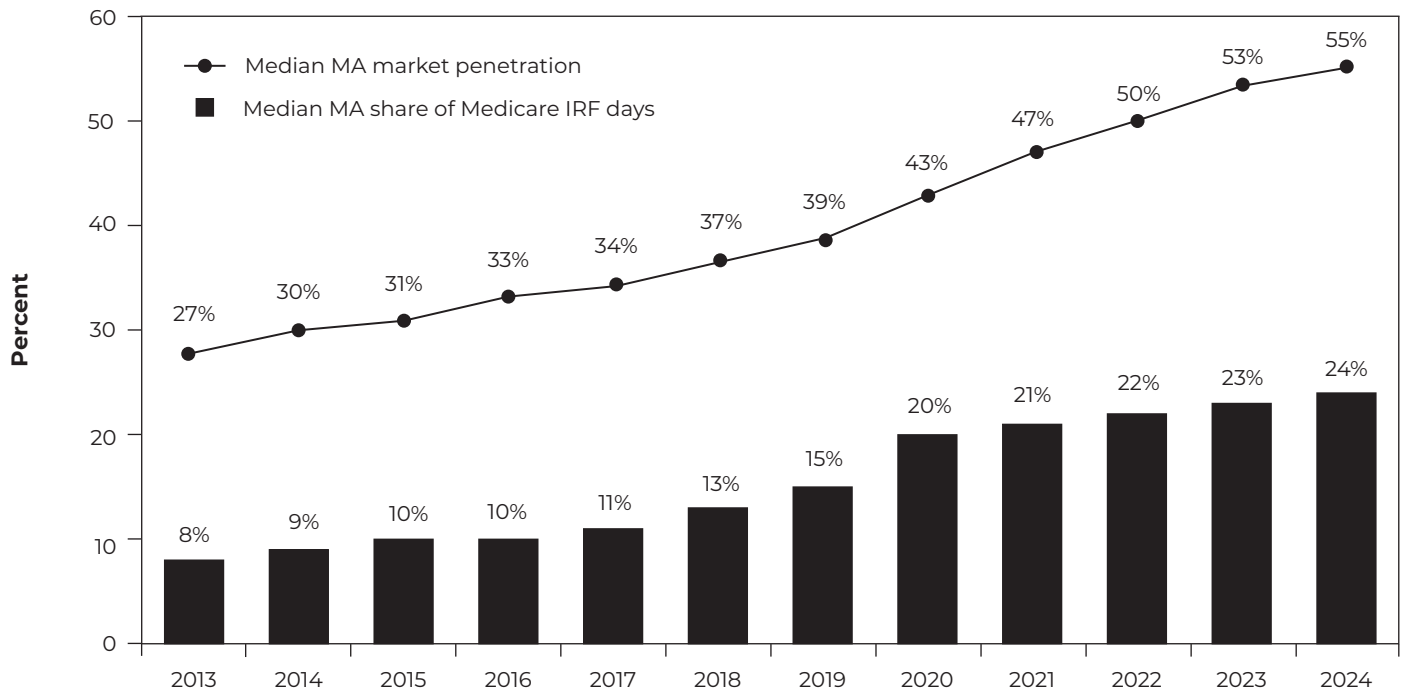
We did not analyze the association between MA penetration and IRF finances because we could not calculate all-payer finances for hospital-based IRFs, which represent the majority of IRFs. We note that across the approximately 300 freestanding IRFs, the median all-payer margin was high—consistently around 10 percent from 2013 to 2024. Below, we present descriptive information on IRF MA volume that is available for both freestanding and hospital-based IRFs and compare the clinical conditions of FFS and MA enrollees receiving IRF services.

MA enrollees' share of IRF days is lower than MA penetration in IRF markets

Between 2013 and 2024, MA penetration in IRF markets increased from 27 percent to 55 percent (similar to increases in SNF and HHA markets), but the MA share of Medicare IRF days has always been substantially lower than the MA penetration rate (Figure 4-2). In 2024, the MA share of Medicare IRF days (24 percent) was less than half of the MA market penetration (55 percent). However, between 2013 and 2024, the MA IRF share increased substantially, from 8 percent to 24 percent. The share rose during the coronavirus pandemic and has steadily grown since then. This finding aligns with financial reports from a large IRF chain: The MA share of Encompass's IRF business jumped from 10.7 percent in 2019 to 15.3 percent in 2020 and continued to rise to 16.8 percent in 2024 (Encompass Health 2024, Encompass Health 2020).³⁵

FIGURE 4-2

MA share of Medicare IRF days is substantially lower than overall MA penetration, 2013-2024



Note: MA (Medicare Advantage), IRF (inpatient rehabilitation facility). "Median MA market penetration" refers to the share of Medicare beneficiaries in a health service area with Part A and Part B coverage who were enrolled in MA for the median IRF. "Median MA share of Medicare IRF days" refers to the the number of MA-covered IRF days divided by total Medicare-covered days for the median IRF.

Source: MedPAC analysis of Medicare cost reports and enrollment data from CMS.

Across all IRFs, the MA shares varied, in part depending on the overall MA penetration in the market.

Several factors are likely to contribute to lower use of IRFs by MA enrollees. MA plans are financially incentivized to have their enrollees use lower-cost SNF services instead of the higher-cost IRFs whenever possible.³⁶ IRF representatives we interviewed stated that volume was most affected by MA plans' use of prior authorizations that can delay or deny care and by network designs. OIG found that IRF services were among the most frequently denied by MA plans, even though requests met Medicare coverage rules and MA billing rules (Office of Inspector General 2022). OIG noted that the denials could delay or prevent

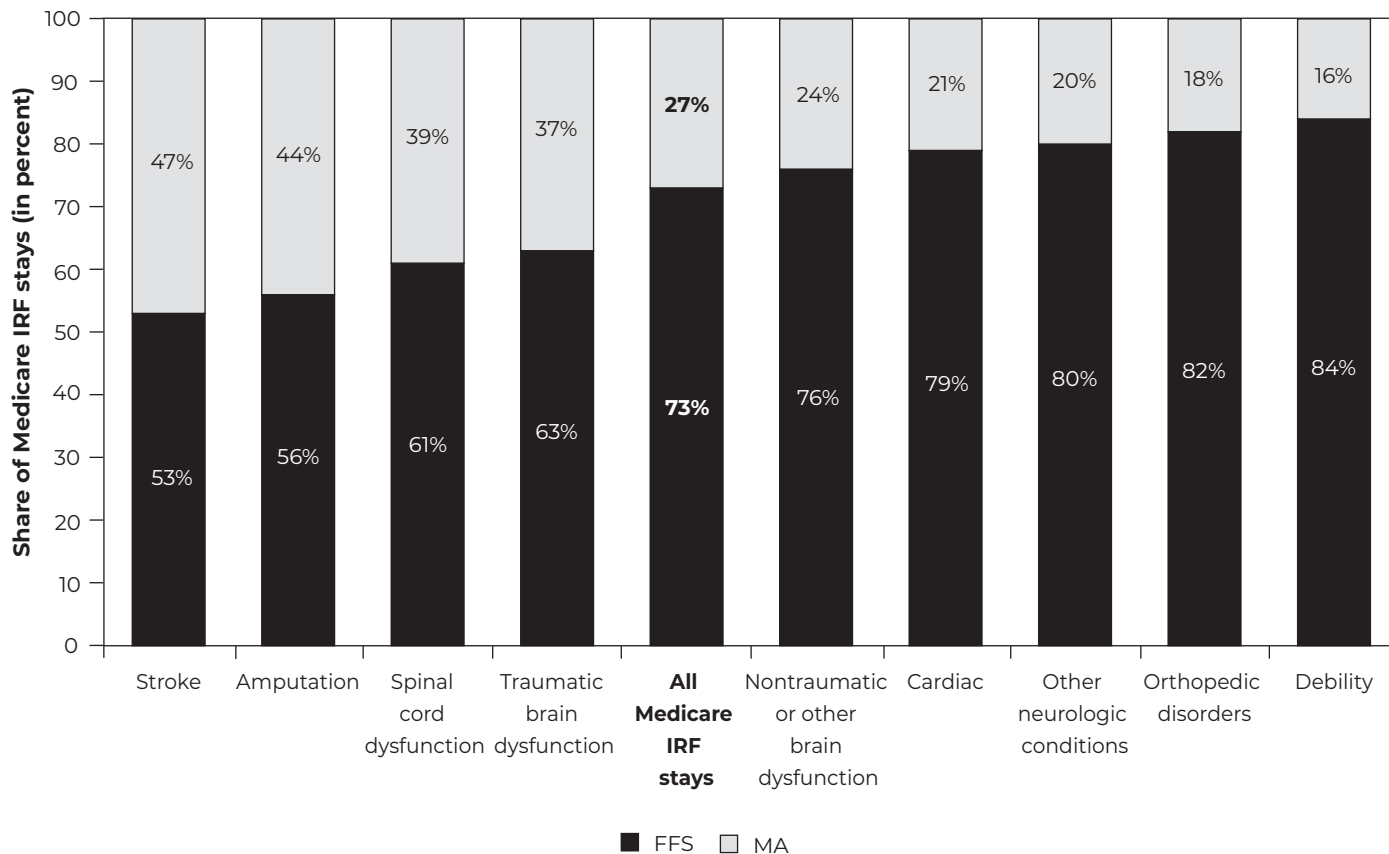
beneficiaries from getting medically necessary care. As previously mentioned, a Senate investigation of three large MA plans found that the use of prior authorization and algorithms to review requests increased between 2019 and 2022, and their denial rates of PAC were higher than for other services (U.S. Senate Permanent Subcommittee on Investigations 2024).

Mix of clinical conditions differs for FFS and MA enrollees

Using data from the IRF Patient Assessment Instrument, we found variation across IRF conditions in the share of beneficiaries enrolled in MA, with higher MA shares among IRF conditions that contribute to meeting the 60 percent threshold (see Endnote 28

FIGURE 4-3

MA enrollees tended to be treated by IRFs for strokes, amputations, spinal cord dysfunction, and traumatic brain dysfunction, 2024



Note: MA (Medicare Advantage), IRF (inpatient rehabilitation facility), FFS (fee-for-service). The figure shows the share of MA and FFS IRF stays for conditions for which there were at least 10,000 Medicare stays in the year (these conditions account for 95 percent of all Medicare stays in the year). "All Medicare IRF stays" includes stays for all conditions. Conditions are defined as the Impairment Group Code on admission.

Source: MedPAC analysis of the IRF Patient Assessment Instrument and enrollment data from CMS.

for more information on the 60 percent rule for IRFs) (Figure 4-3). For example, the share of beneficiaries recovering from strokes, amputations, spinal cord dysfunction, and traumatic brain injury (TBI) who were enrolled in MA ranged from 37 percent to 47 percent, well above the overall IRF average of 27 percent. Perhaps contributing to these relatively high uses of IRFs for stroke patients are the best-practice guidelines for treating strokes established by the American Heart Association/American Stroke Association. These guidelines state that, whenever possible, stroke patients should be treated in an

IRF rather than a SNF (Winstein et al. 2016). In 2019, Encompass began working with both organizations to develop educational tools for health care professionals, patients, and caregivers. In addition, many SNFs do not have specialized equipment or staff to treat beneficiaries with amputations, spinal cord injuries, and TBI. In contrast, only 16 percent of MA enrollees with debility were treated in IRFs—a condition that does not contribute to the 60 percent compliance threshold because it does not typically require intensive rehabilitation.³⁷

Although MA IRF volume is substantially lower than in FFS Medicare, some FFS use may not reflect clinically appropriate care. The number of IRFs and Medicare FFS volume at IRFs has steadily increased since 2021. In 2021, there were 1,118 IRFs; by 2024, the number had increased 4.5 percent to 1,169 (Medicare Payment Advisory Commission 2026). Most of the growth has been in for-profit facilities and in markets that already had an IRF, while the number of hospital-based IRFs has decreased. From 2019 to 2024, IRF stays per 10,000 beneficiaries increased by 24 percent, with a single-year increase of almost 10 percent between 2023 and 2024 (Medicare Payment Advisory Commission 2026).³⁸ We previously reported that for-profit IRFs disproportionately admit patients with other specific

myopathies and that the Department of Justice alleged that certain IRFs falsely diagnosed patients with these conditions without clinical evidence for the diagnoses (Department of Justice 2019, Medicare Payment Advisory Commission 2024b).³⁹ In 2018, OIG found that of the 220 IRF FFS claims it reviewed, two-thirds did not meet coverage requirements, meaning the patients did not have medical needs and rehabilitation goals that required IRF-level care (Office of Inspector General 2018). Similarly, CMS estimated that in 2025 the IRF improper-payment rate was 22 percent (compared with 6.6 percent for all services), and almost all were attributed to services not meeting medical-necessity rules (Centers for Medicare & Medicaid Services 2025a). ■

4 APPENDIX A

Constructing the hospital study sample and regression variables

To develop our sample of inpatient prospective payment systems (IPPS) hospitals and critical access hospitals (CAHs), we started with hospitals that had at least two Medicare cost reports between fiscal year 2013 to 2024 (excluding 2020 and 2021).

To increase the comparability across time periods and hospitals, we performed several additional data-cleaning steps. We annualized revenues and costs to standardize for differences in cost-reporting periods. We linearly imputed metrics when they were missing but did have values for a year immediately before and after. We also inflated hospital financial metrics to 2024 dollars using the hospital market basket.

We then performed multiple exclusions. First, to remove outliers and cost reports with potential data issues, we excluded cost reports in which the all-payer operating margin for the hospital was outside of a Tukey fence (below the 25th percentile less three times the interquartile range or above the 75th percentile plus three times the interquartile range), where the distribution was calculated for IPPS hospitals and CAHs separately. We excluded hospitals in Puerto Rico and Alaska because of their high and low Medicare Advantage (MA)-penetration rates and hospitals in Maryland because of the unique payment system governing hospital payments in the state. We excluded Kaiser Permanente hospitals because they rarely serve nonemergency fee-for-service (FFS) patients (however, our results were similar with Kaiser Permanente hospitals included). We also excluded cost reports from fiscal years 2020 and 2021 because hospitals were most affected by the coronavirus pandemic during those years.

Our three outcome variables were all calculated from hospital cost-report Worksheet G-3:

- all-payer operating margin (excluding coronavirus relief funds)—the percentage of revenues from all payers and sources exclusive of investments and donations (and coronavirus relief funds) that is left as profit after accounting for all costs;
- all-payer operating revenues (excluding coronavirus relief funds); and
- all-payer costs.

For our main outcome variable, MA penetration in a market (i.e., the share of Medicare beneficiaries in a health service area (HSA) with Part A and Part B coverage who were enrolled in MA), we started with county-level Medicare enrollment data. We then assigned the county-level enrollment to its corresponding HSA. We associated each hospital with its county primarily using the 2024 Provider of Services file. We used the National Cancer Institute county-to-HSA crosswalk to group enrollment into HSAs and assign hospitals their HSA (National Cancer Institute 2023).

The various market-level controls were compiled from multiple data sources. For population counts, income, uninsurance, and unemployment rates, we used the Census Bureau's American Community Survey and Small Area Health Insurance Estimates and the Bureau of Labor Statistics' Consumer Price Index and Local Area Unemployment Statistics. We used the Medicaid and Children's Health Insurance Program Payment and Access Commission's state-level Medicaid managed care data. We used the Medicare enrollment file from CMS for Medicare population demographics.

To group hospitals into "sometimes in a system" or "never in a system," we used data from the American Hospital Association (AHA) and the Agency for Health Research and Quality (AHRQ). We used AHA data from 2013 to 2015 and the AHRQ compendium of U.S. health systems from 2016, 2018, and 2020 to 2023 to determine a hospital's health system affiliation. (The AHRQ data classify joint ventures as systems.) For the years without AHRQ data, we assigned health-system groups from the prior year (e.g., we assigned 2017 hospitals to 2016 AHRQ-system groups). While commonly used to identify system membership, our use of the AHA and AHRQ data to assign system membership has limitations. For example, the two data sources assign system membership in somewhat different ways, resulting in differences in system affiliation. We also included hospitals that always were part of a system and those that were only in a system for part of our study period into one category, which makes that group heterogeneous.

We used the 2021 AHRQ compendium of health systems, CMS data, and 2021 MA inpatient encounter data to estimate the level of a hospital's vertical integration with an MA plan. We defined a hospital's

level of vertical integration based on the share of their MA inpatient encounter records that were for beneficiaries who were enrolled in an MA plan that was owned by a health system that the hospital was part of in 2021. To do so, we used AHRQ's Compendium of U.S. Health Systems and CMS data on MA plan parent organizations. This measure has limitations. For example, while relationships between hospitals and MA

plans change over time, we characterized a hospital's level of vertical integration on the basis of data from 2021 due to data-availability issues and the complexity of identifying these relationships. In addition, while this measure was intended to capture the extent of vertical integration, it could also capture other aspects of these hospitals, such as dominant market position or administrative capabilities. ■

4 - APPENDIX B

Calculating post-acute care providers' finances using Medicare cost reports

We used Medicare cost reports from 2013 to 2024 (excluding 2020 and 2021) for freestanding skilled nursing facilities (SNFs), freestanding home health agencies (HHAs), and inpatient rehabilitation facilities (IRFs) to calculate measures of all-payer revenues, all-payer costs, and volume.

Skilled nursing facilities

We applied the same method using Medicare SNF cost reports as was used in the March 2026 report to the Congress to calculate all-payer margin (Medicare Payment Advisory Commission 2026). We included only SNFs that provide Medicare-covered SNF services (i.e., we excluded nursing facilities that provide only long stays). We obtained all-payer revenues from Worksheet G3, lines 3 and 25, and subtracted coronavirus relief funds (affecting 2020 and later) using Worksheet G3 line 24.5. All-payer expenses were obtained from Worksheet G3 line 30 and Worksheet A line 100 column 3. We calculated the all-payer margin by subtracting all-payer expenses from all-payer revenues and dividing by revenues. Facility days were calculated from Worksheet S-3, Part 1, lines 1 and 2, column 7, and include days for short and long stays. We excluded facilities that provide only long stays, SNFs with reporting periods under 10 months, and SNFs with outlier revenues, expenses, margin, or total resident days. We included only freestanding SNFs, which account for 97 percent of FFS Medicare SNF stays (Medicare Payment Advisory Commission 2026). SNFs' all-payer revenue, costs, and margin include both short- and long-term stays for all payers and other businesses such as hospice and outpatient therapy.

Home health agencies

We applied the same method using Medicare HHAs' cost reports that was used in the March 2026 report to the Congress to calculate all-payer margin (Medicare Payment Advisory Commission 2026). We obtained all-payer revenues from Worksheet F1, column 4, line 3, and column 2, line 32, and subtracted coronavirus relief funds (affecting 2020 and later) using Worksheet

F1, line 31.50. All-payer expenses were obtained from Worksheet F1, column 2, line 17. We calculated the all-payer margin by subtracting all-payer expenses from all-payer revenues and dividing by revenues. The number of all-payer patients was calculated from Worksheet S-3, Part 1, column 8, line 13, and the number of all-payer visits was calculated from Worksheet S-3, Part 1, column 7, line 11. The Medicare HHA cost reports changed versions in 2020, and we mapped the appropriate fields to the prior version for years before 2020. We excluded HHAs with fewer than 20 patients in the year and those with outlier patient-count or margin values. We included only freestanding HHAs, which account for 93 percent of HHAs. The analyses include posthospital and community admissions to home health care.

We assign HHAs to health service areas (HSAs) using the physical location of the HHA that is associated with the HHA's provider number as reported in CMS's Provider of Services (POS) file. For some patients using home health care, this may differ from the HSA where the service is received, though we expect many of the HHAs' patients to be located within the same HSA.

Inpatient rehabilitation facilities

We calculated the number of Medicare FFS, MA, and all-payer days from Worksheet S3. For freestanding IRFs, we calculated all-payer margins in the same way as for the other settings, with total revenue and total costs calculated from Worksheet G on IRFs' Medicare cost reports. ■

Endnotes

- 1 High out-of-network prices have been an issue for those with commercial insurance (including integrated HMO plans such as Kaiser). These concerns have resulted in some limitations on emergency billings in the commercial sector (Adler et al. 2019, Consumer Financial Protection Bureau 2023, Kaiser Permanente 2015).
- 2 Required facility types include acute inpatient hospitals, cardiac surgery programs, cardiac catheterization services, critical care services/intensive care units, surgical services (outpatient or ambulatory surgical center), SNFs, diagnostic radiology, mammography, physical therapy, occupational therapy, speech therapy, inpatient psychiatric facility services, and outpatient infusion/chemotherapy. Beginning in 2025, a new facility-specialty type was added: outpatient behavioral health. This hybrid designation will include a range of providers, such as marriage and family therapists, mental health counselors, opioid-treatment program providers, community mental health centers, or other behavioral health and addiction medicine specialists and facilities, including addiction medicine physicians.
- 3 Counties with extreme access considerations are those with a population density of less than 10 persons per square mile and are generally counties located outside of metropolitan statistical areas.
- 4 Hospitals' all-payer operating margin is defined as the percentage of revenue from all payers and sources exclusive of investments and donations that is left as profit after accounting for all costs; it therefore includes operating revenues and costs across all service lines, including hospitals' post-acute care units.
- 5 These researchers also raised concerns that prolonged hospital stays may delay the initiation of rehabilitative care, slow patient recovery, and expose patients to additional risk of iatrogenic harm in the hospital environment (McGarry et al. 2025).
- 6 Analyzing all the ways in which the growth of MA could affect hospitals is challenging and beyond the scope of this report. The Commission has ongoing work related to denials and MA networks. Other topics are difficult to examine empirically given the relative lack of data (e.g., data on MA bad-debt payments).
- 7 The absolute (not percentage) difference in average length of stay between MA enrollees and FFS beneficiaries was smaller because the average length of stay was shorter at CAHs.
- 8 We believe it is reasonable to conclude that increases in costs per stay are likely to be somewhat lower than the increase in the length of stay for multiple reasons. For example, some hospital costs are fixed and do not increase with longer lengths of stay.
- 9 Some MA plans engage in reconciliation with CAHs while others do not. We are unaware of data that quantify the prevalence of this practice among MA plans. In our site visits with hospitals, most hospitals said that MA plans do not engage in reconciliation.
- 10 The full formula is more complicated; for example, CMS uses the 3 most recent years of audited cost reports and applies some scaling and trims. For more information on how CMS calculates DSH hospitals' UC costs and each hospital's share, see the IPPS final rules.
- 11 Results were significant at the $p < 0.001$ level. Our regression analyzed the correlation between the share of Medicare inpatient stays that were for MA patients in FY 2024 and the log of FY 2026 FFS UC add-ons per stay because CMS uses lagged historical stay data to compute the FFS add-on. For example, CMS used the average number of FFS stays from 2022, 2023, and 2024 to compute the FY 2026 FFS UC add-on per stay. As a sensitivity test, we also ran a regression that used the same year (FY 2024) for both variables of interest (the share of Medicare inpatient stays that were for MA patients and FFS UC add-ons per stay) and found similar results.
- 12 There are other potential issues as well. For example, increasing penetration in particular areas could lead to extremely high UC add-ons per stay because the number of FFS stays becomes very low; higher UC add-ons, in turn, have all the issues discussed in this section of the chapter. Extremely large UC add-ons as a result of very few FFS stays could also create relatively unstable UC add-ons per stay, as a shift in a small number of stays could translate into relatively large swings in the dollar amount of an add-on.
- 13 The Balanced Budget Act (BBA) of 1997 created the Medicare+Choice program and specified that, beginning in 1998, the Medicare program should phase in inpatient operating IME payments for the care of MA enrollees and should carve out these IME payments and direct graduate medical education payments from the calculation of MA rates. While both changes were meant to be complete by 2002, floors and minimum updates to MA rates delayed the removal

- of Medicare's medical education payments from MA rates in many areas. However, because it was not specified in statute, Medicare does not make inpatient capital IME payments to hospitals for care provided to MA enrollees (and these IME payments are not carved out from MA benchmarks).
- 14 For example, CAHs tend to have high prices due to their cost-based reimbursement from FFS Medicare, meaning MA plans have an incentive to steer their enrollees away from those hospitals if the plans are paying those higher prices.
 - 15 In this report, we used HSAs to define markets. We also ran a sensitivity analysis using counties to define markets. There are about 3,200 counties in the U.S. There are many ways to define markets, and other researchers have commonly used two additional definitions—hospital service areas and hospital referral regions. Hospital service areas are a collection of ZIP codes whose residents receive most of their hospitalizations from the hospitals in that area. Most hospital service areas contain only one hospital. There are about 3,400 hospital service areas. Hospital referral regions are much broader. Hospital referral regions represent regional health care markets for tertiary medical care. There are 306 hospital referral regions in the U.S. (Dartmouth Atlas Project 2022).
 - 16 We use a state-specific linear time trend instead of state-by-year fixed effects due to concerns about states with a small number of markets. State-by-year fixed effects rely on within-state-year variation for identification, and there are several states with a small number of markets with providers in them. At the 10th percentile, states have four markets with IPPS hospitals and three markets with CAHs.
 - 17 These time-varying characteristics included the natural logarithm of the population, the share of the population under 65 that is uninsured, the share of the population enrolled in Medicare, a categorical variable for the quartiles of median household income, the share of the population that is unemployed, the share of Medicare beneficiaries who are dually eligible for Medicaid, the share of Medicare beneficiaries who are under 65 years old, the share of Medicare beneficiaries who are 85 years old and older, the share of the state's Medicaid population that has managed care, and the MA organization concentration measured by the Herfindahl-Hirschman Index (HHI), and the health-system HHI.
 - 18 Controlling for linear state-specific time trends allows us to partially control for changes in state-level factors that impact provider finances but are unrelated to MA, such as Medicaid payment-policy changes. However, the trade-off associated with this strategy is that our estimates do not leverage the variation from some states having larger changes in MA penetration over time than other states.
 - 19 The share of hospitals that are in a system (97 percent) is weighted by the number of beds the hospital had in the first year of our study period. The unweighted share of IPPS hospitals that were classified as part of a system is 90 percent. The definition of system used included joint ventures. See Appendix 4-A, p. 176, for more details on system groupings.
 - 20 We also examined the association between MA enrollment changes and hospital finances (1) using a lagged specification (e.g., associating 2017 hospital finances with 2016 MA penetration rather than the same year for both MA penetration and hospital finances); (2) including Kaiser Permanente hospitals (which were excluded from the base model because they generally do not take nonemergency FFS patients); and (3) including 2020 and 2021 (which were excluded from our base model because those years were substantially affected by the coronavirus pandemic). Our results did not materially change for any of these three sensitivity analyses.
 - 21 One potential way to address concerns related to endogeneity is through an instrumental-variables approach. We conducted an instrumental-variables analysis by using whether a new insurer enters a county as an instrumental variable for MA penetration. We found that insurer entry is associated with increased MA penetration, but we did not find statistically significant associations with hospitals' revenues, costs, or margins. This strategy produces highly imprecise estimates, so it is not possible to rule out a wide range of effects of MA on hospital finances using this approach.
 - 22 Some chronically critically ill beneficiaries receive care in long-term care hospitals (LTCHs). Because there are few providers and beneficiaries who use this type of service, we have not included LTCHs in this chapter.
 - 23 For example, although SNFs, IRFs, and HHAs all have nurses and therapists, their skills may differ depending on the patients they treat. For example, an IRF that routinely treats spinal cord injury patients will have therapists who have the training and skills to treat this specialized population.
 - 24 A skilled service is one that requires the skills of technical or professional personnel, such as registered nurses and physical therapists. Most SNFs are part of a nursing home that also provides long-term care (which Medicare does not cover).
 - 25 The price differences across PAC settings reflect the differences in costs due to their regulatory requirements, services, and cost structures.

- 26 In 2024, the FFS Medicare margin for SNFs was 24.4 percent, 21.2 percent for HHAs, and 17.1 percent for IRFs (Medicare Payment Advisory Commission 2026).
- 27 For HHAs, we approximated that 90 percent of HHAs' patients in 2022 were Medicare beneficiaries (MA and FFS) by using Medicare HHA cost reports to calculate the share of FFS patients out of total HHA patients and using home health encounter data and FFS claims to calculate the MA share of Medicare patients. For IRFs, we used Medicare hospital cost reports to calculate the share of total IRF days for Medicare beneficiaries (MA and FFS).
- 28 To be paid as an IRF (instead of as an acute care hospital), 60 percent of a facility's admissions must be for patients with 1 of 13 conditions that typically require intensive rehabilitation (known as the "60 percent rule" or the "compliance threshold"). IRFs consider whether a patient meets IRF-specific coverage rules and not necessarily the diagnosis for the admission criteria.
- 29 In 2025, CMS eliminated the requirement that enrollees forfeit their right to appeal denials when discharged from a SNF (Centers for Medicare & Medicaid Services 2024). In another change, in 2026, CMS restricted a plan's ability to reopen and modify a previously approved hospital admission, which otherwise could eliminate a qualifying hospital stay for SNF coverage (Centers for Medicare & Medicaid Services 2025c).
- 30 Under the FFS home health payment system, home health 30-day periods that consist of fewer visits (typically fewer than six visits) receive a per visit payment called the low-utilization payment adjustment (LUPA) that is lower than the full case-mix payment for non-LUPA periods. Some plans may refer to the LUPA payment as the full FFS payment. However, one plan did specify that they pay 100 percent of the home health bundled rate.
- 31 For each HSA, we calculated the number all-payer discharges from acute care hospitals divided by the total population. It is possible that market MA penetration affects per capita discharges (through changes in MA enrollees' hospitalizations). We also reran our main regressions without per capita discharge and the results were similar.
- 32 Marr and Shen found that from 2012 to 2019, a 10 percentage point increase in county-level MA penetration was associated with a 2.46 percent decrease in revenues, a 1.54 percent decrease in expenses, and a 57.96 percent decrease in profit margin (Marr and Shen 2024).
- 33 Our study sample includes only freestanding HHAs with valid cost reports. Freestanding HHAs accounted for over 90 percent of all HHAs in 2023. The number of HHAs differs from the number reported in the March 2026 report because we include HHAs that have a valid cost report each year and served at least 20 patients (Medicare Payment Advisory Commission 2026). See also Appendix 4-B, p. 179, for other exclusions.
- 34 Appendix 4-A, p. 176, describes how we used the AHRQ compendium to identify MA plans and providers that are vertically integrated. To determine which HHAs and MA plans are vertically integrated, we also used the NAIC Schedule Y, which is part of insurers' statutory reporting statements. Schedule Y provides information on ownership and affiliate relationship within insurance-holding company systems (National Association of Insurance Commissioners 2023). The NAIC does not endorse any analysis or conclusions based upon the use of its data.
- 35 Encompass Healthcare is the largest owner and operator of IRFs.
- 36 Compared with SNFs, IRFs have higher costs because they must meet hospital requirements in terms of staffing and services available and they provide more intensive rehabilitative therapy.
- 37 While debility is not one of the 13 qualifying conditions, the underlying condition could be. Figure 4-3 (p. 174) shows the conditions as defined in the Impairment Group Code on admission.
- 38 From 2019 to 2024, FFS IRF stays per 10,000 FFS beneficiaries increased from 107 to 132 (24 percent growth) (Medicare Payment Advisory Commission 2026). In contrast, from 2014 to 2019, IRF stays per 10,000 FFS beneficiaries rose from 99 to 107 (8 percent growth) (Medicare Payment Advisory Commission 2021, Medicare Payment Advisory Commission 2019).
- 39 CMS considered removing these conditions from meeting the compliance threshold but ultimately did not, stating it would continue to monitor the appropriate use of the diagnosis code.

References

- Adler, L., M. Fiedler, P. B. Ginsburg, et al. 2019. *State approaches to mitigating surprise out-of-network billing*. Washington, DC: Leonard D. Schaeffer Initiative for Innovation in Health Policy.
- American Health Care Association. 2024. State of the nursing home sector: Survey of 441 nursing home providers highlights persistent staffing and economic crisis. <https://www.ahcancal.org/News-and-Communications/Fact-Sheets/FactSheets/AHCA%20State%20of%20the%20Sector%202024.pdf>.
- American Hospital Association. 2025. The growing impact of Medicare Advantage on rural hospitals across America. <https://www.aha.org/guidesreports/growing-impact-medicare-advantage-rural-hospitals-across-america>.
- Arnold, D. R., and B. D. Fulton. 2025. UnitedHealthcare pays Optum providers more than non-Optum providers. *Health Affairs* 44, no. 11 (November): 1395–1403.
- Baker, L. 2025. *Does shift happen? Key concepts and evidence in the hospital cost-shifting debate*. Oakland, CA: California Health Care Foundation.
- Beckman, A. L., A. B. Frakt, C. Duggan, et al. 2023. Evaluation of potentially avoidable acute care utilization among patients insured by Medicare Advantage vs traditional Medicare. *JAMA Health Forum* 4, no. 2 (February 3): e225530.
- Bejarano, G., M. N. Dixit, A. P. Philips, et al. 2025. Hospital-Medicare Advantage vertical integration and cardiopulmonary care in integrated hospitals. *JAMA Health Forum* 6, no. 12 (December 5): e255648.
- Bejarano, G., A. Ryan, A. Trivedi, et al. 2024. Vertical integration and care experiences among Medicare Advantage beneficiaries. *JAMA Network Open* 7, no. 10 (October 1): e2438994.
- Berenson, R. A., J. H. Sunshine, D. Helms, et al. 2015. Why Medicare Advantage plans pay hospitals traditional Medicare prices. *Health Affairs* 34, no. 8 (August): 1289–1295.
- Boards of Trustees, Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds. 2025. *The 2025 annual report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds*. Washington, DC: Boards of Trustees. <https://www.cms.gov/oact/tr/2025>.
- Burke, R. E., I. Roy, F. Hutchins, et al. 2024. Trends in post-acute care use in Medicare Advantage versus Traditional Medicare: A retrospective cohort analysis. *Journal of the American Medical Directors Association* 25, no. 10 (August 15): 105202.
- Cataife, G., and S. Liu. 2025. Medicare Advantage penetration and the financial distress of rural hospitals. *Health Economics Review* 15, no. 1 (February 12): 9.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2025a. *2025 Medicare fee-for-service supplemental improper payment data*. Baltimore, MD: CMS. <https://www.cms.gov/files/document/nov-2025-medicare-ffs-supplemental-improper-payment-data-2025922.pdf>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2025b. Chapter 6: Relationships with providers. In *Medicare Managed Care Manual*. <https://www.cms.gov/regulations-and-guidance/guidance/manuals/downloads/mc86c06.pdf>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2025c. Medicare program; contract year 2026 policy and technical changes to the Medicare Advantage program, Medicare prescription drug benefit program, Medicare Cost Plan Program, and Programs of All-Inclusive Care for the Elderly. Final rule. *Federal Register* 90, no. 71 (April 15): 15792–15921.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2025d. *Review choice demonstration for inpatient rehabilitation facility services (IRF RCD) cycle 3 report*. Washington, DC: CMS. <https://www.cms.gov/files/document/alabama-irf-cycle-3-report.pdf>.
- Centers for Medicare & Medicaid Services, Department of Health and Human Services. 2024. Medicare program; changes to the Medicare Advantage and the Medicare Prescription Drug Benefit program for contract year 2024—remaining provisions and contract year 2025 policy and technical changes to the Medicare Advantage program, Medicare Prescription Drug Benefit Program, Medicare Cost Plan Program, and Programs of All-Inclusive Care for the Elderly (PACE). Final rule. *Federal Register* 89, no. 79 (April 23): 30448–30848.
- Chatterjee, P., M. Qi, N. B. Coe, et al. 2019. Association between high discharge rates of vulnerable patients and skilled nursing facility copayments. *JAMA Internal Medicine* 179, no. 9 (September 1): 1296–1298.
- Congressional Budget Office. 2026. *Baseline projections: Medicare*. Washington, DC: CBO. <https://www.cbo.gov/system/files/2026-02/51302-2026-02-medicare.pdf>.

- Consumer Financial Protection Bureau. 2023. *What is a “surprise medical bill” and what should I know about the No Surprises Act?* Washington, DC: CFPB. <https://www.consumerfinance.gov/ask-cfpb/what-is-a-surprise-medical-bill-and-what-should-i-know-about-the-no-surprises-act-en-2123/>.
- Dartmouth Atlas Project. 2022. FAQ. <https://www.dartmouthatlas.org/faq/>.
- Department of Justice. 2019. *Encompass Health Agrees to pay \$48 million to resolve False Claims Act allegations relating to its inpatient rehabilitation facilities.* Washington, DC: DOJ. <https://www.justice.gov/opa/pr/encompass-health-agrees-pay-48-million-resolve-false-claims-act-allegations-relating-its>.
- Encompass Health. 2024. 2024 annual report. https://s203.q4cdn.com/714480614/files/doc_financials/2024/ar/EHC-2024-Annual-Report-and-Proxy.pdf.
- Encompass Health. 2020. 2020 annual report. https://s203.q4cdn.com/714480614/files/doc_financials/2020/ar/Annual-Report_Interactive_Color_As-Posted-to-Website.pdf.
- Fuglesten Biniek, J., N. Sroczynski, M. Freed, et al. 2026. *Medicare Advantage insurers made nearly 53 million prior authorization determinations in 2024.* Washington, DC: KFF. <https://www.kff.org/medicare/medicare-advantage-insurers-made-nearly-53-million-prior-authorization-determinations-in-2024/#6e420acb-2fc1-4707-8689-ac19594e493a>.
- Geng, F., D. Lake, D. J. Meyers, et al. 2023. Increased Medicare Advantage penetration is associated with lower postacute care use for traditional Medicare patients. *Health Affairs* 42, no. 4 (April): 488–497.
- Henke, R. M., K. R. Fingar, L. Liang, et al. 2023. Medicare Advantage in rural areas: Implications for hospital sustainability. *American Journal of Managed Care* 29, no. 11 (November): 594–600.
- Hinton, E., E. Williams, J. Raphael, et al. 2025. *A view of Medicaid today and a look ahead: Balancing access, budgets and upcoming changes.* Washington, DC: KFF. <https://files.kff.org/attachment/report-results-from-an-annual-medicare-budget-survey-for-state-fiscal-years-2025-and-2026.pdf>.
- Huckfeldt, P. J., J. J. Escarce, B. Rabideau, et al. 2017. Less intense postacute care, better outcomes for enrollees in Medicare Advantage than those in fee-for-service. *Health Affairs* 36, no. 1 (January 1): 91–100.
- Kaiser Permanente. 2015. Kaiser Foundation Health Plan, Inc. and Prime Healthcare agree to arbitrate lawsuits over past claims. Press release. February 9.
- Kim, Y. H., K. L. Reiter, K. W. Thompson, et al. 2025. Medicare Advantage and rural hospital profitability. *Journal of Rural Health* 41, no. 1 (January): e12905.
- Kindred Healthcare. 2018. Humana, together with TPG Capital and Welsh, Carson, Anderson & Stowe, announce completion of the acquisition of Kindred Healthcare, Inc. Press release. July 2.
- L & M Policy Research. 2024. *Interviews with acute care hospital discharge planners about inpatient rehabilitation facility and skilled nursing facility placement.* Report prepared by L&M Policy Research for the Medicare Payment Advisory Commission. Washington, DC: L & M Policy Research.
- Lake, D. T., V. Mor, D. C. Grabowski, et al. 2026. Association of Medicare Advantage enrollment with post-acute care use and associated patient outcomes. *Journal of the American Geriatrics Society* (April 6).
- Ma, C., M. Rajewski, and J. M. Smith. 2024. Medicare Advantage and home health care: A systematic review. *Medical Care* 62, no. 5 (May 1): 333–345.
- Mackleby, G., G. Bejarano, D. J. Meyers, et al. 2025. Inpatient prices in Medicare Advantage vary modestly across and within hospitals. *Health Affairs* 44, no. 10 (October): 1250–1255.
- Maeda, J. L. K., and L. Nelson. 2018. How do the hospital prices paid by Medicare Advantage plans and commercial plans compare with Medicare fee-for-service prices? *Inquiry* 55 (January–December): 46958018779654.
- Maeda, J., and L. Nelson. 2017. *An analysis of private-sector prices for hospital admissions.* Congressional Budget Office working paper 2017–02. Washington, DC: CBO.
- Malone, T. L., G. H. Pink, and G. M. Holmes. 2025. An updated model of rural hospital financial distress. *Journal of Rural Health* 41, no. 2 (March): e12882.
- Marr, J. 2025. Algorithmic decision-making in health care: Evidence from post-acute care in Medicare Advantage. *Journal of Health Economics* 104 (December): 103055.
- Marr, J., and K. Shen. 2024. Medicare Advantage growth and skilled nursing facility finances. *Health Services Research* 59, no. 3 (June): e14298.
- Marr, J., J. Shroff, C. Kosar, et al. 2026a. Association of Medicare Advantage enrollment growth and changes in home health supply, 2011–2022. *Journal of the American Geriatric Society* (January 19).

- Marr, J., C. M. Whaley, and X. Zhao. 2026b. *From payer to provider: Impacts of insurer vertical expansion into physician services*. Providence, RI: Brown University.
- Marselas, K. 2025. Pennant Group completes \$146.5M purchase of 54 agencies from UnitedHealth Group, Amedisys. *McKnight's Long-Term Care News*, October 3. <https://www.mcknightsseniorliving.com/news/pennant-group-completes-146-5m-purchase-of-54-agencies-from-unitedhealth-group-amedisys/>.
- McGarry, B. E., A. D. Wilcock, A. D. Gandhi, et al. 2025. Extended hospital stays in Medicare Advantage and Traditional Medicare. *JAMA Internal Medicine* (September 8).
- McGarry, B. E., D. C. Grabowski, L. Ding, et al. 2021. Outcomes after shortened skilled nursing facility stays suggest potential for improving post-acute care efficiency. *Health Affairs* 40, no. 5 (May): 745–753.
- Medicare Payment Advisory Commission. 2026. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2025a. *A data book: Health care spending and the Medicare program*. Washington, DC: MedPAC. https://www.medpac.gov/wp-content/uploads/2025/07/July2025_MedPAC_DataBook_SEC.pdf.
- Medicare Payment Advisory Commission. 2025b. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2025c. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2024a. Differences in hospital use between Medicare Advantage and fee-for-service patients: Implications for hospitals' costs. https://www.medpac.gov/wp-content/uploads/2024/07/MedPAC-MA-FFS-hospitalization-presentation_v_final_moderator_SEC.pdf.
- Medicare Payment Advisory Commission. 2024b. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2023a. *Report to the Congress: Medicare and the health care delivery system*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2023b. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2021. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Medicare Payment Advisory Commission. 2019. *Report to the Congress: Medicare payment policy*. Washington, DC: MedPAC.
- Mertz-Taggart. 2025. Home-based care public company roundup Q2 2025. <https://www.mertztaggart.com/post/home-based-care-public-company-roundup-q2-2025>.
- Meyers, D. J., V. Mor, and M. Rahman. 2018. Medicare Advantage enrollees more likely to enter lower-quality nursing homes compared to fee-for-service enrollees. *Health Affairs* 37, no. 1 (January): 78–85.
- Mroz, T. M., L. A. Garberson, C. H. A. Andrilla, et al. 2025. *Comparing utilization of home health care between traditional Medicare and Medicare Advantage beneficiaries by rural-urban status*: WWAMI Rural Health Research Center, University of Washington.
- National Association of Insurance Commissioners. 2023. Schedule Y data.
- National Cancer Institute. 2023. Health service areas (HSA). <https://seer.cancer.gov/seerstat/variables/countyattrs/hsa.html>.
- NORC at the University of Chicago. 2025. *Analysis of hospital discharges to PAC settings among Medicare beneficiaries*. Washington, DC: NORC at the University of Chicago.
- Office of Inspector General, Department of Health and Human Services. 2024. *CMS could strengthen program safeguards to prevent and detect improper Medicare payments for short inpatient stays*. A-09-21-03022. Washington, DC: OIG.
- Office of Inspector General, Department of Health and Human Services. 2022. *Some Medicare Advantage organization denials of prior authorization requests raise concerns about beneficiary access to medically necessary care*. OEI-09-18-00260. Washington, DC: OIG.
- Office of Inspector General, Department of Health and Human Services. 2018. *Many inpatient rehabilitation facility stays did not meet Medicare coverage and documentation requirements*. A-01-15-00500. Washington, DC: OIG.
- Prusynski, R. A., A. D'Alonzo, M. P. Johnson, et al. 2025. Medicare Advantage reimbursement structures impact home health delivery and outcomes. *American Journal of Managed Care* 31, no. 11 (November): 677–685.
- Roy, I., F. Hutchins, L. Rose, et al. 2025. Postacute care use and outcomes among Medicare Advantage vs traditional Medicare beneficiaries. *JAMA Network Open* 8, no. 10 (October 1): e2540347.

- Schwartz, M. L., C. M. Kosar, T. M. Mroz, et al. 2019. Quality of home health agencies serving traditional Medicare vs Medicare Advantage beneficiaries. *JAMA Network Open* 2, no. 9 (September 4): e1910622.
- Skopec, L., P. J. Huckfeldt, D. Wissoker, et al. 2020. Home health and postacute care use in Medicare Advantage and Traditional Medicare. *Health Affairs* 39, no. 5 (May): 837–842.
- Thomas, K. S., M. Daus, C. Jones, et al. 2025. Prior authorization and utilization management for post-acute home health in Medicare Advantage. *Health Affairs Scholar* (February 4): qxaf020.
- U.S. District Court for the Western District of Kentucky. 2023. Barrows et al. v. Humana, Inc. <https://www.classaction.org/media/barrows-et-al-v-humana-inc.pdf>.
- U.S. Senate Permanent Subcommittee on Investigations. 2024. *Refusal of recovery: How Medicare Advantage insurers have denied patients access to post-acute care*. Washington, DC: Government Printing Office. <https://www.hsgac.senate.gov/wp-content/uploads/2024.10.17-PSI-Majority-Staff-Report-on-Medicare-Advantage.pdf>.
- Vabson, B., A. L. Hicks, and M. E. Chernew. 2025. Medicare Advantage denies 17 percent of initial claims; most denials are reversed, but provider payouts dip 7 percent. *Health Affairs* 44, no. 6 (June): 702–706.
- Wang, H., C. Kosar, M. Rahman, et al. 2025. Do Medicare beneficiaries under accountable care or Medicare Advantage use lower quality nursing homes? *Journal of the American Geriatric Society* 73, no. 5 (May): 1551–1557.
- Winstein, C. J., J. Stein, R. Arena, et al. 2016. Guidelines for adult stroke rehabilitation and recovery: A guideline for healthcare professionals from the American Heart Association/American Stroke Association. *Stroke* 47, no. 6 (June): e98–e169.
- Xu, J., and D. Polsky. 2023. Comparing Medicare Advantage and traditional Medicare prices for hospital outpatient services with hospital price transparency data. *Medical Care Research and Review* 80, no. 4 (August): 455–461.
- Xu, J., J. M. Smith, J. G. Burgdorf, et al. 2026. Methodological Approaches to examining home health using traditional Medicare and Medicare Advantage claim data. *Health Services Research* 61, no. 1 (February): e70088.
- Zuckerman, S., L. Skopec, J. Aarons, et al., Department of Health and Human Services. 2020. *Changes in home health care use in Medicare Advantage compared to traditional Medicare, 2011–2016*. Washington, DC: Office of the Assistant Secretary for Planning and Evaluation.

