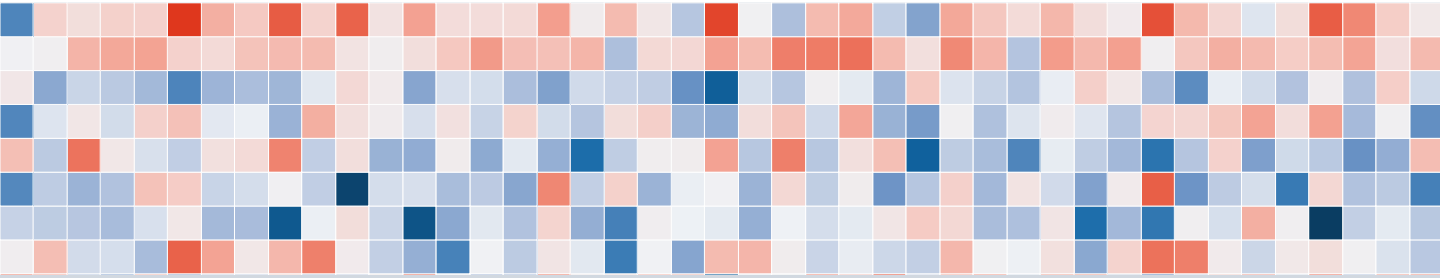




# HEALTH CARE COST INSTITUTE



## Comparing Post-Acute Care Use and First Site of Care Among Medicare Advantage Enrollees and Medicare Fee-for-Service Beneficiaries



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# Medicare Advantage Enrollees Used Post-Acute Care Less Often than Medicare Fee-for-Service Beneficiaries between 2012 and 2016

Following an inpatient hospital stay, some patients require ongoing health care services to continue their recovery and rehabilitation. These post-acute care (PAC) services are provided in a range of settings of varying intensity and cost, and are delivered by home health agencies (HHA), skilled nursing facilities (SNFs), inpatient rehabilitation facilities (IRFs), and long-term care hospitals (LTCHs).

Spending on post-acute care is both high and variable across geographic regions. In 2017, spending on PAC services provided for Medicare fee-for-service (FFS) beneficiaries totaled [\\$58.9 billion](#). A recent analysis by the Medicare Payment Advisory Commission found that [PAC use varies](#) more than inpatient or ambulatory care. There has been little examination of PAC use among Medicare Advantage (MA) enrollees, despite approximately one-third of Medicare beneficiaries choosing to enroll in MA.

## In This Brief

Using data from the Health Care Cost Institute (HCCI) and Centers for Medicare & Medicaid Services (CMS), we examined trends in inpatient hospital admissions and PAC utilization among Medicare Advantage (MA) enrollees and fee-for-service (FFS) beneficiaries. Specifically, we compared how frequently individuals in each group were discharged from the hospital, whether they had evidence of PAC use following discharge from an inpatient stay, and if so, where they first received these services. Between 2012 and 2016, across 28 conditions, we found:

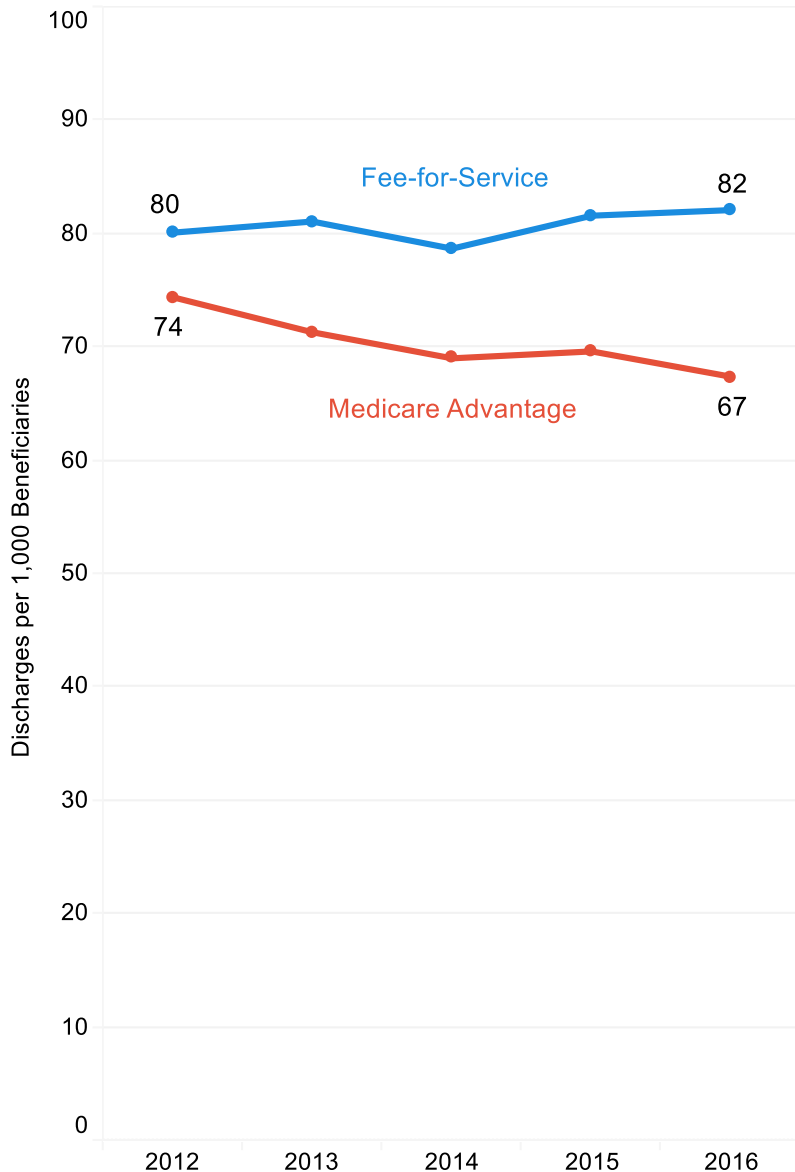
- MA enrollees had fewer inpatient hospital stay discharges than FFS beneficiaries;
- Upon discharge, MA enrollees were less likely to have a claim for any PAC use; and
- For both groups, use of skilled nursing facilities as the first site of PAC use declined, while home health use increased.

# Inpatient Stay Discharges for Selected Conditions were Higher in Medicare FFS

We examined discharges from short-term, acute care hospitals for a set of 28 conditions between 2012 and 2016. Figure 1 presents trends by payer type.



**Figure 1. Discharges from Short-Term, Acute Care Hospitals for Selected DRGs, 2012-2016**



## Main Findings:

- Across all years of our analysis, the number of inpatient hospital discharges per 1,000 beneficiaries was higher in Medicare FFS.
- From 2012 to 2016, the discharge rate moved in opposite directions for the two payer types.
  - There were 80 discharges per 1,000 FFS beneficiaries in 2012, increasing to 82 per 1,000 in 2016.
  - Among MA enrollees, the rate fell from 74 per 1,000 in 2012 to 67 per 1,000 in 2016.

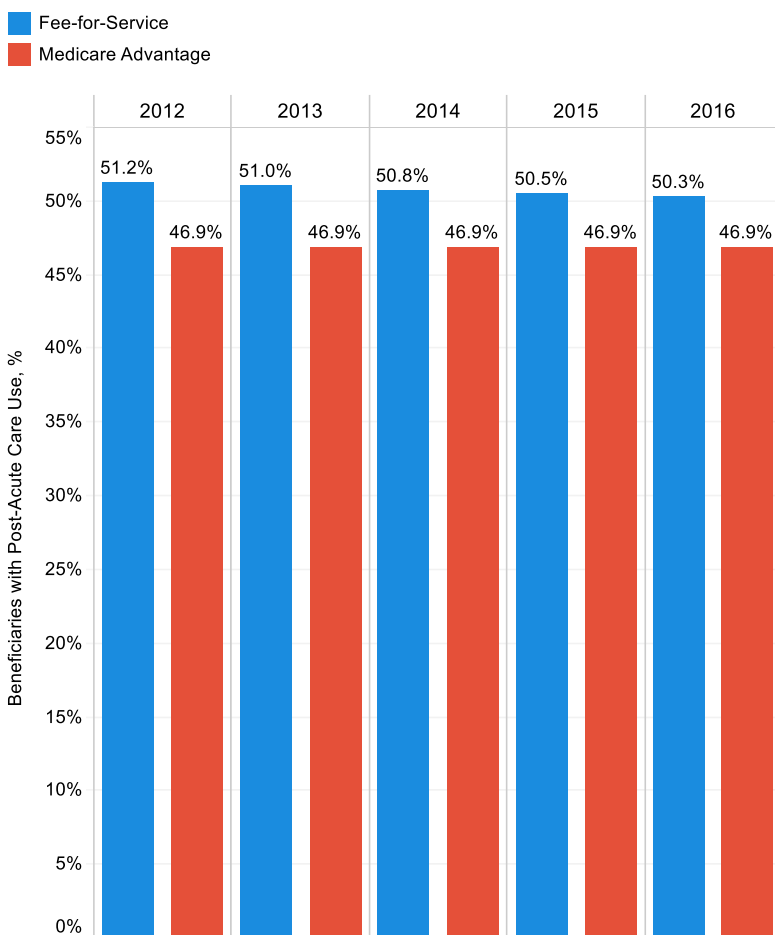


# Post-Acute Care was Used More Often in Medicare FFS than MA in Each Year from 2012 to 2016

Next, we estimated the share of discharges for MA enrollees and Medicare FFS beneficiaries that were followed by any PAC use within 90 days. The difference in discharge rates between MA and Medicare FFS could reflect differences in the distribution of conditions leading to the inpatient stay, as well as the severity of the clinical episode or health status of the beneficiaries in each payer group. To the extent these differences affect the observed frequency of inpatient admissions, they are also likely to affect whether a person receives any PAC following discharge. To account for these differences and develop comparable estimates of PAC use among MA enrollees and Medicare FFS beneficiaries over time, we used logistic regressions to model the share of beneficiaries with any PAC use, controlling for the DRG associated with the admission, length of the inpatient hospital stay, age, sex, and year.



**Figure 2. Any Post-Acute Care Use within 90 days of Discharge**



## Main Findings:

- Accounting for differences in the composition of discharges between payers and over time, use of any PAC following a discharge for a selected condition was higher for FFS beneficiaries than MA enrollees in all years.
- From 2012 to 2016, the estimated share of FFS discharges followed by any PAC use declined from 51.2 percent to 50.3 percent.
- The use of any PAC following MA discharges was flat, at 46.9 percent of discharges in each year.



# Use of Skilled Nursing Facilities Declined but They Remained the Most Common First Provider of Post-Acute Care; Home Health Use Increased

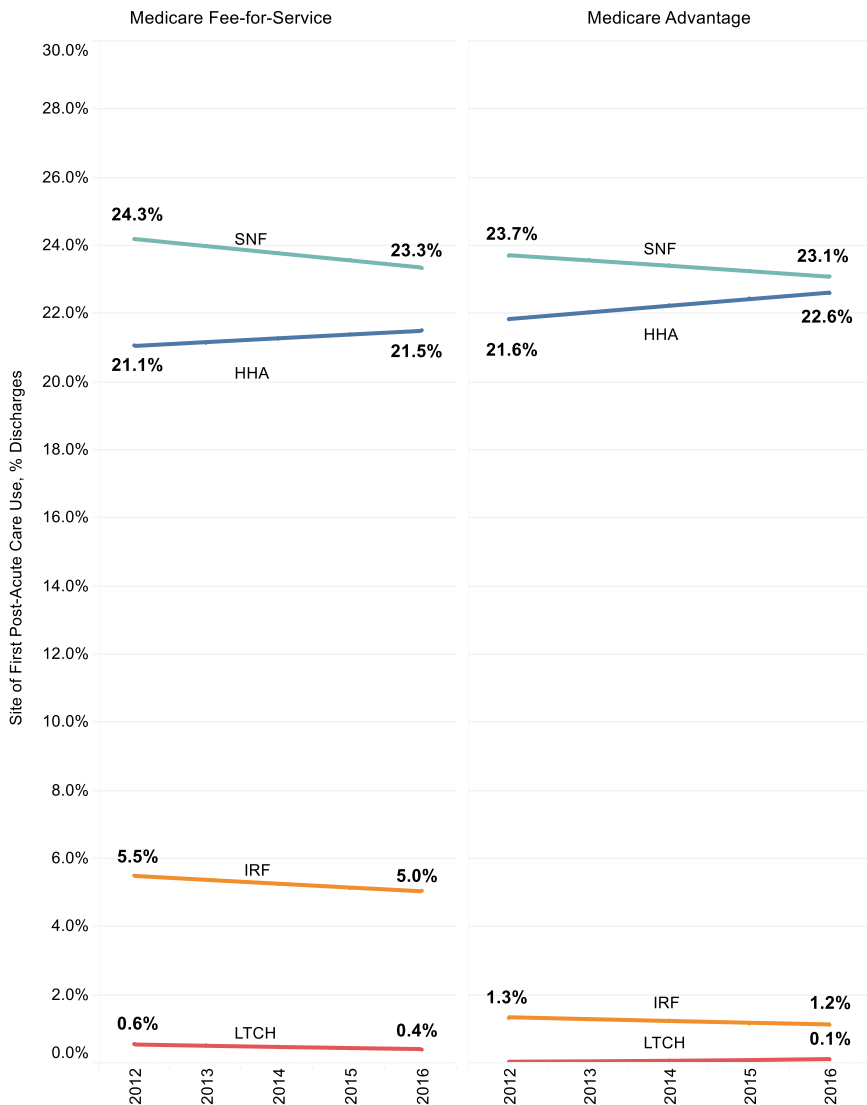
Given differences in cost across PAC settings, the type of PAC provider that delivers care is also of interest. We used multinomial logit models to estimate the share of discharges followed by each type of PAC as the first site of care. We again controlled for changes in the distribution of discharges and differences in age and gender between payers and over time.



## Main Findings:

- Across both payer types, skilled nursing facilities (SNFs) were the most common first setting for PAC among discharges for the selected conditions, and home health was the second most common.
- Among discharges for both FFS and MA beneficiaries, the share of discharges to home health increased between 2012 and 2016.
- SNFs accounted for a declining share among FFS and MA beneficiaries.
- Among FFS beneficiaries, the decline in use of SNFs as the first setting of PAC accounts for much of the overall decline in PAC use.

**Figure 3. Site of First Post-Acute Care Use, 2012-2016**



# Data and Methods

**Data.** Medicare Advantage claims reflect data from Aetna, Humana, and UnitedHealth Group, the national payers that contributed to the Health Care Cost Institute during the study period. Medicare Fee-for-Service claims include the inpatient, skilled nursing facility, and home health agency files.

**Sample Construction.** We first identified eligible beneficiaries in both the MA and FFS data. We restricted to individuals enrolled in continuous coverage throughout the calendar year. Individuals who switched between FFS and MA in a calendar year were excluded. In addition, we restricted to individuals who were at least 65 years old and excluded those with end-stage renal disease (ESRD). The 28 conditions included in the analysis were identified by diagnosis related group (DRG) code and chosen because they define an anchor stay that triggers an episode in the inpatient setting in the Bundled Payments for Care Improvement (BPCI) Advanced initiative in Model Year 2 (3 additional inpatient clinical episodes were added for Model Year 3). Inpatient admissions were restricted to short-term, acute care hospitals. For FFS claims, eligible facilities had CMS Certification Numbers (provider numbers) where the last four digits were in the range of 0001 to 0879. For MA claims, a facility was included if the “type of bill” code was 11 and the provider zip code did not match the zip code of a critical access hospital. Finally, admissions that occurred 90 days or less from the date of a prior inpatient discharge were excluded.

**Outcome measures.** We examined claims for each beneficiary discharged from a short-term, acute care hospital and identified admissions to long-term care hospitals (LTCHs), inpatient rehabilitation facilities (IRFs), and skilled nursing facilities (SNFs), as well as the initiation of home health services in the 90 days following the discharge. In cases where a beneficiary had claims for multiple types of PAC, we report the first PAC setting for which they had a claim.

We defined the type of PAC admission as follows in the FFS claims. Claims in the SNF or Home Health claims files were considered the respective type. We identified stand-alone IRFs and LTCHs using the last four digits of the provider number, following the same process used to identify acute, inpatient hospital stays in the inpatient file. LTCH provider numbers were those that ended in the range of 2000 to 2299. We identified admissions to IRFs using the revenue code field – the revenue code 0024 indicated the claim was paid under the IRF prospective payment system.

For MA claims, we used a separate method since provider numbers are encrypted in the HCCI data. SNF claims were identified by the presence of revenue code 0022, POS code 31, and/or a TOB code of 21 or 22. Home health claims were identified by the presence of provider category code 0036 or 0037, revenue code 0023, and/or a TOB code of 32, 33, or 34. LTCHs were identified by the presence of a provider category code of 0110. IRFs were identified by the presence of POS code of 61 and/or revenue code of 0024.

# Limitations

This analysis has several limitations. First, although we controlled for the differences in the reasons for hospitalization, length of hospital stay, and patient age and sex, there may remain unobserved differences between MA enrollees and Medicare FFS beneficiaries that affect the findings.

In addition, we only examine the type of provider for first PAC received following discharge from a hospital. Many people use multiple types of PAC and the full trajectory of care is also of interest to understanding variation in spending and use. Related, the time period over which a person receives each type of PAC services is of interest.

Finally, the sample of MA enrollees reflect data from 3 national health insurers and may not be representative of the entire MA population.

