CY 2021 Final Hospice Capitation Payment Rate Actuarial Methodology

Value-Based Insurance Design Model: Incorporation of the Medicare Hospice Benefit into Medicare Advantage

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1. Background and General Information

Beginning in Calendar Year (CY) 2021, within the Value-Based Insurance Design (VBID) Model under the hospice benefit component, the Centers for Medicare & Medicaid Services (CMS) will test the impact on payment and service delivery of incorporating the Medicare Part A hospice benefit with the goal of creating a seamless continuum of care in the Medicare Advantage (MA) program for Part A and Part B services. In participating in this component of the Model, Medicare Advantage Organizations (MAOs) will incorporate the current Medicare hospice benefit into MA covered benefits while offering palliative care services outside the hospice benefit for enrollees with serious illness. In addition, MAOs will be able to provide individualized transitional concurrent care services and hospice-specific supplemental benefits. The hospice benefit component will be tested over four performance years. Participation in the Model is voluntary for eligible MAOs.

On February 26, 2020, CMS released for comment the CY 2021 proposed payment rate actuarial methodology for the hospice benefit component of the Model. Comments were received from professional organizations, MAOs, advocacy groups, and hospice and palliative care providers. CMS is finalizing the CY 2021 hospice payment rate actuarial methodology as described in this updated methodology paper with (i) technical adjustments responsive to stakeholder comments and (ii) final adjustment factors. The updates made reflect CMS's continued commitment to maintaining the full Medicare hospice benefit while providing MAOs with the flexibility to develop and implement innovative approaches to serious illness care. CMS expects that uptake of the hospice benefit component will result in improvements in financial accountability and timely access to high quality palliative and hospice care for Medicare beneficiaries. CMS is looking forward to continuing to work with stakeholders to achieve shared goals around transforming and improving serious illness care for Medicare beneficiaries. Comments or questions regarding the payment rate actuarial methodology of the hospice benefit component may be sent by email to VBID@cms.hhs.gov.

1.1. Executive Summary of the CY 2021 Hospice Capitation Payment Rate Actuarial Methodology

This actuarial methodology paper for the hospice capitation payment rate paid to MAOs participating in the voluntary hospice benefit component of the Model includes a review of the key changes from the CY 2021 proposed methodology (Section 1.2), current payment structure of the FFS Medicare hospice benefit (Section 1.3), and detailed technical specifications around payments made under the hospice benefit component of the Model including the rate determination process for the CY 2021 national monthly hospice capitation rate and applied rating factors (Sections 2-4) as well as next steps (Section 5).

Payment Structure of the Hospice Benefit Component

On behalf of their enrollees who have elected hospice care under 42 CFR § 418.24, participating MAOs will be paid per the following payment structure:

- For the first month of hospice election ("Month 1"), the basic benefit capitation rate (also known as the "A/B capitation rate") will only be paid if as of the first of the month, an enrollee is not under hospice election status consistent with 42 CFR § 422.320(c).
- For all calendar months in which an enrollee elects hospice care, including the first month of hospice election, a participating MAO will receive the following:
    - a monthly hospice capitation rate for all months that a beneficiary elects hospice;

- consistent with 42 CFR § 422.320(c)(2), the beneficiary rebate amount (as described in 42 CFR§ 422.304(a)); and
- consistent with 42 CFR § 422.320(c), the monthly prescription drug payment described in 42 CFR § 423.315 (if any).

MAOs participating in this Model component will be paid consistent with current law for their enrollees who do not elect hospice.

Hospice Capitation Rate Development

CMS developed a national monthly hospice capitation rate. The rate determination process for the CY 2021 national monthly hospice capitation rate is described in Section 2. This rate reflects FFS-paid hospice experience for care related[1] to the terminal condition and related conditions during a hospice stay ("Hospice FFS Payment") and FFS-paid non-hospice experience ("Non-Hospice FFS Payments"), which consists of two parts: (1) FFS-paid non-hospice care provided by non-hospice providers during a hospice stay, and (2) other FFS-paid non-hospice care provided after a hospice stay ends (in the event of a live discharge, including non-hospice care provided on the last day of the stay and through the end of the calendar month that the stay ends) for all Medicare beneficiaries (both enrolled in Original Medicare and MA) who elected hospice. CMS followed a standard rate development process, which consisted of three parts: (1) as described in Section 2.3, base data appropriate to the population and benefits being priced (e.g., use of three years of complete data for Hospice and Non-Hospice FFS-paid Part A and Part B claims from CY 2016 to CY 2018); (2) as described in Section 2.4 through 2.8, retrospective adjustments to the base data to adjust the base data for known changes that have occurred since the base data was incurred (e.g., taking into account repricing to reflect FY 2020 per diem payment rates and FY 2020 Hospice Wage Index); and (3) as described in Section 2.9, prospective adjustments for changes that are anticipated to occur between the base data incurred period and the period being priced (e.g., trending Hospice and Non-Hospice FFS-paid claims from CY 2020 to CY 2021).

This national monthly hospice capitation rate will be adjusted by two rating factors: an area factor, as described in Section 3, and a monthly rating factor, as described in Section 4. The national monthly hospice capitation rate will be adjusted for each county by a hospice-specific average geographic adjustment similar to the MA Average Geographic Adjustment ("area factor") to result in an adjusted monthly hospice capitation rate. Of note, beneficiary-specific risk adjustment will not be applied to the hospice capitation rate payment.[2] Additionally, the national monthly hospice capitation rate will be adjusted by a monthly rating factor for the first month only to better reflect the first month beneficiary experience in hospice, as described in Section 4. The hospice capitation rate paid for the first month will vary based on the number of days of hospice benefit occurring in the first calendar month of a hospice stay in a three-tiered structure (days 1-6, 7-15, 16+), as summarized in the next table. The rates are shown in the last column gross of sequestration.

[1] Actual hospice FFS payments for hospice care and services; hospice stay refers to the overall period between an election and discharge, which may include multiple 90-day or 60-day periods.

[2] CMS reviewed the need for a risk mitigation program and found the variation in FFS payment by stay month to be relatively low (see Section 3.2 on credibility), because the majority of the FFS payments (approximately 92%) are comprised of per diems with a small range of values.

Table 1. National Average Values for 2021 Capitation Rates

	Hospice Enrollment in Month 1	Average Monthly Service Days	Distribution of Stay Months	Monthly Rating Factor[1]	2021 Gross Monthly Base Rate
Month 1	1-6 Days	3.28	16%	**0.34**	$1,784
	7-15 Days	10.52	12%	**0.64**	$3,359
	16+ Days	22.62	11%	**1.02**	$5,353
Month 1 Composite[2]		10.90	39%	0.62	$3,262
Month 2+		26.17	61%	**1.00**	$5,248[3]
CY 2021 Composite National Hospice Capitation Rate[2]		20.17	100%	0.85	$4,468

[1] Bold numbers are the monthly rating factors used

[2] Values are based on the distribution of stay months

[3] This represents the National Hospice Capitation Base Rate

First month hospice capitation payments will be made in a lump-sum retrospectively to participating MAOs on a quarterly basis for all enrollees who have a first calendar month hospice experience. Consistent with current law, as applicable, the A/B capitation rate, beneficiary rebate amount and monthly prescription drug payment will be paid prospectively for Month 1. For any future calendar month experience, a participating MAO will prospectively receive a flat hospice capitation rate, the beneficiary rebate amount, and the monthly prescription drug payment, if applicable, for an enrollee that continues hospice. For Months 2+, the monthly rating factor is 1.00 and the base rate gross sequestration is $5,248.

Overall, the hospice capitation rates are cost neutral, meaning that for CY 2021, the total CY 2021 capitation amounts equal the aggregate estimated CY 2021 Medicare FFS payments, plus an administrative load. In other words, no discounts are applied to estimated CY 2021 Medicare FFS payments.

1.2. Key Changes from the CY 2021 Proposed Actuarial Methodology

On February 26, 2020, CMS released the CY 2021 proposed payment rate actuarial methodology for the hospice benefit component and a supporting data book. This document is an update to the February 26th proposed methodology and includes the key changes described below in response to comments from stakeholders, the availability of additional data and refinements to the pricing calculations to enhance the accuracy of the rates.

- The CY 2021 Gross National Composite Rate increased by 0.6% (see Table 4b in Section 2 for changes by line item);
- In the proposed methodology, CMS included a placeholder for a year-over-year service mix change as its need and magnitude were being investigated. After additional analysis, CMS found that an adjustment accounting for changes in service day utilization and levels of care was needed to account for observed changes from 2016 to 2018 (see description of Service Day Utilization and Intensity Adjustment in Section 2.6);
- CMS built into the rates the impact that the recoveries of the hospice provider inpatient and aggregate caps have on the 2016 to 2018 experience (see Section 2.7);

- CMS determined the claim completion factors (see Section 2.8);
- The trend factors for the Non-Hospice FFS-paid claims were updated using the FFS United States per capita cost (USPCC) – Non-ESRD trends from the CY 2021 Rate Announcement (see Section 2.9);
- The administrative load was updated using the figures from the CY 2021 Rate Announcement (see Section 2.9);
- CMS corrected an error in the credibility calculation and is now using the Standard Normal variable for a one-tailed test. This increased the 100% credibility threshold from 162 to 230. As a result, several low volume Core-Based Statistical Areas (CBSAs) were identified and two approaches were taken as described in Section 3.2;
- To account for CBSA differences in the distribution of stay months by Month 1 tier compared to the national distribution, CMS added a Month 1 Tier Adjustment to each CBSA (see Section 4.2);
- In order to more accurately account for the number of stay months across stay gaps,[3] CMS incorporated two operational rules in pricing (see Section 4.3); and
- CMS has determined not to implement the Month 1 Utilization Outlier adjustment proposed as a possibility in the CY 2021 proposed methodology. CMS may revisit this adjustment in future rate years.

1.3. Background: Payment Structure of the Current FFS Medicare Hospice Benefit

Hospice care is a holistic, comprehensive approach to treatment that recognizes that the impending death of an individual with terminal illness warrants a change in focus from curative care to palliative care for symptom management and relief of pain. Palliative care is at the core of hospice philosophy and care practices, and is a critical component of the Medicare hospice benefit, with the goal of hospice care to help terminally ill individuals remain primarily in the home environment and continue life with minimal disruption to normal activities.[4] A hospice uses an interdisciplinary approach to deliver medical, social, nursing, emotional, psychological, and spiritual services through a collaboration of professionals and other caregivers, with the goal of making the beneficiary as physically and emotionally comfortable as possible. This beneficiary and family/caregiver-centered care for those who are terminally ill is supported through a per diem payment that allows for the provision of a bundle of comprehensive services.

Part 418, subpart G provides for a per diem payment in one of four prospectively-determined rate categories of hospice care (routine home care (RHC), continuous home care (CHC); general inpatient care (GIP); and inpatient respite care (IRC)), based on each day a qualified Medicare beneficiary is under hospice care (once the individual has elected). This per diem payment is to include all of the hospice services and items needed for the palliation and management of a beneficiary's terminal condition, as required by section 1861(dd)(1) of the Social Security Act (the Act). These four levels of hospice care are distinguished by the intensity and location of the services provided.

A CMS review of claims over the last 10 years shows that RHC, which is the basic level of care under the hospice benefit, remains the highest utilized level of care, accounting for an average of 97.6 percent of total hospice days; GIP accounting for 1.7 percent of total hospice days; CHC accounting for 0.4 percent

[3] A stay month reflects the calendar month of coverage for a beneficiary enrolled in Medicare. A stay gap is the period of time between a live discharge from hospice care and re-election of hospice care.

[4] Proposed Rule CMS-1714-P. CMS FY 2020 Hospice Wage Index and Payment Rate Update and Hospice Quality Reporting Requirements. Retrieved from https://www.federalregister.gov/documents/2019/04/25/2019-08143/medicare-program-fy-2020-hospice-wage-index-and-payment-rate-update-and-hospice-quality-reporting

of total hospice days; and IRC accounting for 0.3 percent of total hospice days.[5] If, in the judgment of the hospice interdisciplinary team, the patient's symptoms cannot be effectively managed at home, then the patient is eligible for GIP, a more medically intense level of care. GIP must be provided in a Medicare-certified hospice freestanding facility, skilled nursing facility, or hospital. GIP is provided to ensure that any new or worsening symptoms are intensively addressed so that the beneficiary can return to his or her home and continue to receive RHC. Limited, short-term, intermittent IRC is also available because of the absence or need for relief of the family or other caregivers. Additionally, an individual can receive CHC during a period of crisis in which an individual requires continuous care to achieve palliation or management of acute medical symptoms so that the individual can remain at home. For any given patient, the type of care can vary throughout the hospice stay, as the patient's needs change.

CMS has noted on multiple occasions that there has been little change in the hospice payment structure since the benefit's inception. Today, this original per diem payment structure largely remains the same with some adjustments; a few are noted below:

- Beginning January 1, 2016, using the hospice payment reform authority under section 1814(i)(6) of the Act, Medicare changed how it pays for RHC. There are now two RHC base payment rates: a higher rate for days 1 to 60 and a lower rate for days 61 and beyond. In addition, Medicare makes additional payments for registered nurse and social worker visits that are provided during the last seven days of life, which are made above and beyond the RHC per diem amount.
- Using the hospice payment reform authority under section 1814(i)(6) of the Act, section III.A.3 of the FY 2020 Hospice Final Rule (84 FR 38484, August 6, 2019), Medicare rebased the FY 2020 per diem payment rates for CHC, IRC, and GIP levels of care and reduced RHC payment amounts for FY 2020 in order to maintain overall budget neutrality. This rebasing was done to adequately cover the costs of providing higher intensity levels of care – given that providing CHC, IRC and GIP have been significantly higher than the payment amounts for these three levels of care, as highlighted in the next table. Of note, the rebasing also ensures that hospices have access to the providers needed to comply with hospice Conditions of Participation (CoPs), and promote patient access to all levels of care.

Table 2. Hospice Average Costs per Day versus Gross Per Diem Payment Rates in FY 2019 and FY 2020[6]

Code	Description	Estimated FY 2019 Average Costs per Day	FY 2019 Per Diem Payment Rates	FY 2020 Per Diem Payment Rate
651	Routine Home Care (Days 1 – 60)	$160.80	$196.25	$194.50
651	Routine Home Care (Days 61+)	$124.43	$154.21	$153.72
652	Continuous Home Care Full Rate = 24 hours of care	$1,363.26/ $56.80 per hour	$997.38/ $41.57	$1,395.63/ $58.15
655	Inpatient Respite Care	$459.75	$176.01	$450.10
656	General Inpatient Care	$992.99	$758.07	$1,021.25

Further, to ensure that hospice care does not exceed the cost of conventional care, there are two annual limits to hospice payments: the inpatient cap and the aggregate cap. The hospice inpatient cap limits the

[5] Medicare Program; FY 2020 Hospice Wage Index and Payment Rate Update and Hospice Quality Reporting Requirements. (CMS-1714-F). https://www.govinfo.gov/content/pkg/FR-2019-08-06/pdf/2019-16583.pdf

[6] Medicare Program; FY 2020 Hospice Wage Index and Payment Rate Update and Hospice Quality Reporting Requirements. (CMS-1714-F). https://www.govinfo.gov/content/pkg/FR-2019-08-06/pdf/2019-16583.pdf

total number of Medicare inpatient days (for both general inpatient and inpatient respite care) to no more than 20 percent of a hospice's total Medicare hospice days. Any excess reimbursement must be refunded by the hospice. The hospice aggregate cap limits the total aggregate payments any individual hospice can receive in a cap year to an allowable amount, based on an annual per beneficiary cap amount and the number of beneficiaries served. Any actual Medicare payments in excess of the aggregate cap must be refunded by the hospice. CMS found that the Inpatient cap repayment amounts to about 0.02% of hospice claims and the aggregate cap repayment is about 1% of claims.

While hospice care is a covered Medicare Part A benefit, the MA program – formerly known as Medicare+Choice program – does not include risk or financial accountability for providing the Medicare hospice benefit as part of MA plan obligations.[7] Specifically, the Balanced Budget Act (BBA) of 1997 provided that if an individual enrolled in a Medicare+Choice program elected to receive hospice care from a particular hospice program, payment for that hospice care is made to the hospice program by the Secretary, while payment for services not related to the individual's terminal illness and related conditions may be made by the Secretary to the Medicare+Choice organization or the provider or supplier of the service.[8] As codified at 42 CFR § 422.320(c)(2) and (3), during the time the hospice election is in effect, CMS' monthly capitation payment to the MAO is reduced to the sum of (i) an amount equal to the beneficiary rebate for the MA plan, as described in § 422.304(a)(3) or to zero for plans with no beneficiary rebate, described at § 422.304(a)(2); and (ii) the amount of the monthly prescription drug payment described in § 423.315 (if any). The A/B capitation rate will only be paid if as of the first of the month, an enrollee is not under hospice election status.

2. Rate Determination Process for the CY 2021 Hospice Capitation Rates under the Model

2.1. Introduction

This section describes the process used to develop the national hospice capitation rates for CY 2021. In developing the CY 2021 national hospice capitation rates, the following policy objectives were considered:

- Ensure rates are cost neutral so that for CY 2021 the aggregate 2021 capitation equals the aggregate estimated 2021 Medicare FFS payment (plus an administrative load);
- Ensure accuracy of rates to the extent possible while moving from a granular four-level per diem payment structure, which automatically adjusts for length of stay and service intensity, to a monthly capitation rate, where capitation offers opportunities for improved quality management;
- Primarily measure accuracy on an aggregate basis by CBSA;
- To the extent possible and appropriate, develop rates consistent with how MA benchmarks are developed, following actuarial guidance and practices in developing the rates;
- To the extent possible, create a simple, transparent and clear payment structure; and

[7] Section 1852(a) of the Act carves hospice out of the services MA plans must cover. See also H.R. 2015. Balanced Budget Act (BBA) of 1997. Retrieved from https://www.congress.gov/105/plaws/publ33/PLAW-105publ33.pdf

[8] The specific statutory provisions added by the BBA of 1997 that address this include § 1852(a) which provides that MA plans do not cover hospice and § 1853(h)(2) which provides the payment rules for hospice services provided to MA enrollees.

- Align payment structure with policy objectives to (1) promote hospice enrollment early enough in the disease trajectory to allow delivery of the range of services necessary to promote comfort, while also discouraging very short stays, when an enrollee with a terminal illness has little time to benefit from hospice services and after significant costs with acute medical care have often been incurred; and (2) reduce the financial incentive around very long stays present in the current FFS payment system to align with the intent of the Medicare hospice benefit.

The basic rating structure under the Model is similar to the MA approach for setting benchmarks:

$$Monthly\ Capitation\ Payment\ =\ National\ Base\ Rate\ x\ Area\ Factor\ x\ Monthly\ Factor$$

The rating structure under the hospice benefit component only has two rating factors: (1) the area factor to account for all regional variation in claims to the extent possible and (2) monthly rating factor to better match capitation with the durational claim pattern, as further described in Sections 3 and 4, respectively. Under the Model component, the rating structure, which is detailed in this payment methodology, is:

$$Capitation\ Rate_{\ CBSA,Month\ 1} = (National\ Rate)x\ (Month\ 1\ Factor\ for\ Covered\ Days\ in\ Month\ 1)\ x\ (Hospice\ Average\ Geographic\ Adjustment_{CBSA,Month\ 1}$$

$$Capitation\ Rate_{CBSA,Month\ 2+} = (National\ Rate)\ x\ (Month\ 2^{+}\ Factor)\ x\ (Hospice\ Average\ Geographic\ Adjustment)_{CBSA,Month\ 2+}$$

Other rating factors were considered[9] but analysis showed they were not significant, after accounting for the area factor and monthly rating factor, or were administratively too complex to implement. The area factor and monthly rating factor account for the following, all of which persist over years by area:

- Claim unit cost differences (e.g., labor cost differences which vary by CBSA);
- Mix of services (e.g., more use of intense hospice services: CHC, GIP and IRC, and spending for non-Hospice FFS-paid care);
- Mix of condition categories that are persistent in the experience (e.g., in comparison to the national average, New York has a much higher proportion of beneficiaries who elect hospice with cancer conditions, and New Jersey a much higher proportion of beneficiaries who elect hospice with dementia conditions); and
- Stay month mix (i.e., short, mid- and long stays in month 1), where the stay month reflects the calendar month of coverage for a beneficiary enrolled in Medicare.

In aggregate, FFS payments related to a hospice experience are composed of 91.8% Hospice FFS-paid claims and 8.2% Non-Hospice FFS-paid claims. RHC represents the vast majority of all per diems (97.5%) for hospice claims.

[9] The other rating factors identified as drivers of hospice and non-hospice FFS payments include discharge status of hospice beneficiaries, i.e., continue (those who continue from one month to the next), death, or discharge (those who have a live discharge); terminal condition of a hospice beneficiary; aged versus disabled status; and dual versus non-dual status.

Comparing the MA Part C Benchmark Rate Development to Rate Development under the Hospice Benefit Component

The following table provides a high-level comparison between the MA benchmark rate development and the hospice capitation rate development under the Model.

Table 3. Comparison of Hospice and MA Rate Development

Characteristic	CY 2021 Medicare Advantage, Non-ESRD, Non-Hospice	CY 2021 Hospice Benefit Component
Payment	Calendar month capitation based on MAO bid relative to CMS determined benchmark	Calendar month capitation (stay month) determined by CMS
Basis of Benchmark/ Capitation	Based on statute, which is largely tied to FFS Medicare experience	FFS paid Medicare experience reflect Hospice FFS payments and Non-Hospice FFS payments
Rating factors	County benchmark and plan design as captured in the bid	Area factor (CBSA) and monthly rating factor
Risk adjustment	Member level HCC	None
Provider network	MAO defined with adequacy requirements	MAO defined with open network access
Enrollment	Enrollment limited to Annual Election Period (AEP) and first of the month; Special enrollment opportunities beyond AEP for dual-eligibles and those enrolling in a 5-star plan	Hospice election can occur at any time, voluntarily chosen by enrollees
Benefits	Comprehensive medical coverage no less than what is provided by Original Medicare	Original Medicare Hospice Benefit
Benchmark/ Capitation Calculation	Based on statute	National rate x area factor x monthly rating factor

2.2. Process for Developing Rates

A standard rate development process was followed, which consisted of three parts:

1. Base data appropriate to the population and benefits being priced;
2. Retrospective adjustments to the base data to adjust the base data for known changes that have occurred since the base data was incurred; and
3. Prospective adjustments for changes that are anticipated to occur between the base data incurred period and the period being priced.

Table 4a provides an illustrative[10] development the CY 2021 Composite National Hospice Capitation Rate. Table 4b shows the changes in values from the CY 2021 proposed methodology.

[10] The actual rate development for the most part was done at a beneficiary level. Table 4a. shows the rate development at an aggregate level.

Table 4a. CY 2021 National Hospice Capitation Composite Rate Development

		2016	2017	2018
	Stay Months	2,986,637	3,145,845	3,324,822
CY 2021 Hospice FFS Payments				
(a)	Actual Net Per Member Per Month	$3,590	$3,630	$3,683
(b)	Calculated Using Service Days & Historical Per Diems	$3,548	$3,595	$3,652
(c) = (a) / (b)	True-up Adjustment	1.012	1.010	1.009
(d)	Calculated Using Service Days and FY 2020 Per Diems (Gross)	$3,916	$3,887	$3,885
(e)	Claim Completion Adjustment	1.0002	1.0002	1.0025
(f) = (d) x (c) x (e)	Calculated FY 2020 x True-up x Claim Completion	$3,966	$3,928	$3,930
(g)	Per Diem Trend from FY 2020 to CY 2021	1.038	1.038	1.038
(h)	Service Day Utilization and Mix Change	0.9909	0.9998	1.0000
(i) = (f) x (g) x (h)	CY 2021 Hospice FFS Payment (Gross)	$4,079	$4,076	$4,080
CY 2021 Non-Hospice FFS Payments				
(j)	Actual Net PMPM	$316	$320	$327
(k)	Claim Completion Adjustment	0.9969	0.9970	0.9972
(l)	Non-ESRD PMPM USPCC Trend to CY 2021	1.211	1.186	1.149
(m)	Sequestration Gross Up	0.98	0.98	0.98
(n) = (j) x (k) x (l) / (m)	CY 2021 Non-Hospice FFS Payments (Gross)	$390	$386	$383
CY 2021 Hospice FFS Payments + Non-Hospice FFS Payments				
(o) = (i)) + (n)	CY 2021 Hospice + Non-Hospice FFS Payments	$4,469	$4,462	$4,463
(p)	Straight Average[1]			$4,465
Top Side Adjustments				
(q)	Administrative Load Factor			1.0007
(r) = (p) x (q)	CY 2021 National Composite Gross Capitation Rate (prior to Provider Cap Adj)			$4,468
(s)	Hospice Providers Caps			0.9926
(t) = (r) x (s)	CY 2021 National Composite Gross Capitation Rate after Provider Caps			$4,435

[1] Calculated as the simple average of CY 2016-2018 consistent with the approach used in the MA benchmark development

Table 4b. Changes from Equivalent Figures Presented in the CY 2021 Proposed Methodology

		2016	2017	2018
	Stay Months	(57,018)	(64,014)	(71,353)
CY 2021 Hospice FFS Payments				
(a)	Actual PMPM	$24	$26	$28
(b)	Calculated Using Service Days & Historical Per Diems	$16	$17	$18
(c)	True-up Adjustment	0.002	0.003	0.003
(d)	Calculated Using Service Days and FY 2020 Per Diems (Gross)	$19	$19	$19
(e)	Claim Completion Adjustment	0.0002	0.0002	0.0025
(f)	Calculated FY 2020 x True-up x Claim Completion	$29	$30	$41
(g)	Per Diem Trend from FY 2020 to CY 2021	-	-	-
(h)	Service Day Utilization and Mix Change	(0.0091)	(0.0002)	-
(i)	CY 2021 Hospice FFS Payment (Gross)	-$7	$31	$43
CY 2021 Non-Hospice FFS Payments				
(j)	Actual Net PMPM	-$5	-$4	-$4
(k)	Claim Completion Adjustment	(0.0031)	(0.0030)	(0.0028)
(l)	Non-ESRD PMPM USPCC Trend to CY 2021	0.011	0.011	0.009
(n)	CY 2021 Non-Hospice FFS Payments	-$3	-$3	-$2
Top Side Adjustments				
(q)	Administrative Load Factor			(0.0002)
(s)	Hospice Provider Inpatient and Aggregate Cap Adjustment			0.0015
(t)	CY 2021 National Composite Gross Capitation Rate after Provider Caps			$25

2.3. Base Data

The base data used reflects three years of complete data for Part A and Part B claims from CY 2016 to CY 2018 (i.e., 100% of Medicare final action Hospice FFS-paid and Non-Hospice FFS-paid claims, as defined in Section 1, for beneficiaries enrolled in the FFS program or an MA plan). Because the Medicare hospice benefit does not cover Part D benefits, these were excluded in the national hospice capitation rate. Of note, the base data which is derived from paid claims, reflects a net of the 2% sequestration reduction and do not include the hospice provider inpatient and aggregate caps.

Additionally, the base data only uses hospice benefit periods that begin in each of the calendar years ("first year data") to emulate the impact of not having carryover from prior years that MAOs participating in the hospice benefit component in CY 2021 will experience ("start year" experience). In other words, hospice benefit periods that spanned calendar years were excluded to align the base data with the expected rating period duration.

2.4. Retrospective Adjustments

As described in greater detail below, five retrospective adjustments were made:

1. Repricing of the Hospice FFS-paid claims using the FY 2020 per diem payment rates for RHC, CHC, IRC and GIP levels of care and the FY 2020 Hospice Wage Index (see Section 2.5);
2. Adjusting for changes in service day utilization and mix of levels of care to account for observed changes from 2016 to 2018 (see Section 2.6);
3. Recognizing the impact of the hospice provider inpatient and aggregate caps, which are not included in the claims data (see Section 2.7);
4. Making an adjustment to the CY 2018 experience for claims that were incurred but paid after the preparation of this payment rate actuarial methodology paper (see Section 2.8); and
5. Adjusting the CBSAs for the two changes in the mapping of counties to CBSAs that occurred during and after the base experience period (described in Section 3).

2.5. Repricing

CMS performed three steps to reprice the CY 2016 – 2018 historical Hospice FFS-paid claims experience to FY 2020:

Step 1: Reprice the data using the FY 2020 per diem payment rates for RHC, CHC, IRC and GIP levels of care and the FY 2020 Hospice Wage Index. This repricing used the 2020 per diems by type of service (RHC days 1-60, RHC days 61+, CHC, GIP, and IRC) multiplied by a wage index adjustment and by the number of services days by stay month for each beneficiary within the base data. The 2020 Hospice Wage Index was based on the beneficiary's CBSA listed within CMS data.

Step 2: In addition to services covered by the standard per diems, CMS also considered additional items that were not accounted for in the per diems. Examples of such items include service intensity add-ons, physician services covered under the hospice benefit but not provide by hospice provider, and the fact that some hospice providers receive lower per diems for not reporting quality data.[11] To account for such items, CMS performed a second repricing, identical to the first except using per diems and wage indices specific to the incurred time period and the beneficiary's CBSA. The actual paid amount in the base data was then compared to this calculated paid amount to develop an adjustment factor.

Step 3: CMS multiplied the calculated 2020 claims (from step 1) with the factor from Step 2 to recognize the items that were not accounted for in the FY 2020 per diems.

2.6. Service Day Utilization and Intensity Adjustment

As part of ongoing analysis of hospice utilization trends, CMS observed that both the number of service days per stay month and RHC 61+ days increased, while the use of higher intensity levels of care (GIP and CHC) decreased. The next table shows these changes and their impact. Given the impact of changes in number of service days and intensity of services between 2016 to 2018, CMS made an adjustment to bring the 2016 and 2017 Hospice FFS-paid claims cost to the 2018 level. This adjustment was applied at an aggregate level. Of note, CMS did not project future changes in service days per stay month or mix of

[11] This adjustment factor also accounts for situations where the hospice provider is in a different CBSA than the beneficiary's CBSA listed in the CMS data. Based on analysis of the beneficiary's CBSA and the provider location, approximately 4% of 2017 payments were to providers in states different from the beneficiary's location.

service days because of limited data. The combined impact for all three experience years (straight average divided by three) was -0.31%.

Table 5. Service Day Utilization and Intensity Adjustment

	Service Days per Stay Month (a)	Mix of Service Days RHC 1-60 (b)	RHC 61+ (c)	IRC (d)	GIP (e)	CHC (f)	Weighted per Diem (g)	Combined Impact [(1+a)x(1+g)]-1
2020 per Diem		$194.50	$153.72	$450.10	$1,021.25	$1,395.63		
2016	19.90	51.9%	45.2%	0.3%	2.3%	0.4%	$200.01	
2017	19.93	51.7%	45.5%	0.3%	2.1%	0.3%	$197.93	
2018	20.17	51.0%	46.5%	0.3%	1.9%	0.3%	$195.54	
Change from 2016 to 2018	1.4%	-1.7%	2.9%	4.0%	-16.0%	-22.8%	-2.2%	-0.91%
Change from 2017 to 2018	1.2%	-1.4%	2.1%	2.3%	-9.9%	-7.9%	-1.2%	-0.02%

2.7. Recognition of the Hospice Provider Inpatient and Aggregate Caps[12]

As noted in Sections 1.3 and 2.3, any actual Medicare payments made in excess of the inpatient cap and the aggregate cap to a hospice provider must be refunded; these amounts were not reflected in the base data (i.e., within the 100% Medicare final action hospice claims for beneficiaries who are enrolled in the FFS program or an MA plan). In order to ensure cost neutrality, CMS considered two options: (1) a reduction reflecting the projected impact of the caps within the national hospice payment rate pricing or (2) a reduction reflecting the impact of the hospice provider inpatient and aggregate cap regionally through an adjustment to the area factor for those regions who have been historically impacted by the hospice provider inpatient and/or aggregate cap. Based on comments received and additional analysis, CMS determined the below approach for the CY 2021 hospice capitation methodology. The combined impact of both provider caps on the final rates for CY 2021 was a 0.74% reduction (the median impact is 0.07%).

Hospice Provider Inpatient Cap

The hospice provider inpatient cap excess reimbursements for 2016-2018 were relatively small ($7.1 million total) compared to the total hospice payment. However, these amounts were limited to ten hospice providers during that three-year period, with three hospice providers responsible for 90% ($6.4 million total) of the overpayment. CMS reduced the Hospice FFS-paid claims in the three CBSAs that showed year-over-year consistency both in amount and in the providers that had these recoveries. Furthermore, CMS reduced the experience by approximately 36.4% to adjust the full year experience to a first year basis (i.e., start year experience, as described in Section 2.3). The next table shows the reductions by CBSA by year.

[12] For a detailed description, refer to https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Downloads/bp102c09.pdf

Table 6. Hospice Provider Inpatient Cap Experience Adjustment (First Year Basis)

CBSA	CBSA Description	2016	2017	2018	Total
22744-FL	Fort Lauderdale-Pompano Beach-Deerfield Beach, FL	$112,316	$97,035	$57,643	$266,994
25060-MS	Gulfport-Biloxi-Pascagoula, MS	$157,294	$233,391	$350,025	$740,710
32820-TN-MS-AR	Memphis, TN-MS-AR	$1,039,669	$947,651	$1,080,181	$3,067,501
Total	No data	$1,309,279	$1,278,078	$1,487,849	$4,075,205

Hospice Provider Aggregate Cap

To calculate the hospice provider aggregate cap, CMS modelled the hospice aggregate cap calculation using the proportional approach at a provider level. Then, CMS allocated any calculated overpayment to beneficiaries using that provider based on hospice FFS payments by member. This allowed the allocation of the overpayments to beneficiary CBSAs. CMS calculated the overpayments as a percentage of Hospice FFS-paid claims for Month 2+ and applied that reduction to all experience years for the given CBSA. This inherently recognized that CY 2021 rate year was based on first year experience.

Because (1) the annual limit for the aggregate cap is not adjusted for regional labor cost differences and (2) 68% of the per diems are adjusted for regional labor cost, CMS expected that areas with a higher Hospice Wage Index would have higher aggregate cap overpayments. However, because beneficiaries can seek hospice services outside of their home CBSA, the Hospice Wage Index is not a perfect predictor of the aggregate cap recovery. The following table summarizes the distribution of CBSA count by the percentage of the hospice provider aggregate cap reduction to the Month 2+ Hospice Average Geographic Adjustment (AGA) (see Section 3 for detail on the Hospice AGA). On an aggregate basis, the reduction is approximately 0.8% of Hospice-FFS payments (0.7% of total payments).

Table 7. Distribution of Hospice Provider Aggregate Cap Reductions to Month 2+ Hospice AGAs

Month 2+ Reduction	Count of CBSAs
<1%	420
1-3%	48
3-5%	9
>5%	4

2.8. Claim Completion

CMS used historical experience consistent with the process used to develop claim completion factors for Medicare Advantage, to develop the Hospice claim completion factors.

Table 8. Claim Completion Multiplicative Factors

Claim Type	2016	2017	2018
Hospice FFS-paid claims	1.0002	1.0002	1.0025
Non-Hospice FFS-paid claims	0.9969	0.9970	0.9972

These are multiplicative factors which recognize the National Claims History (NCH) claim runout and the outside of system payments including cost report settlements but do not include Hospice Cap settlements.

2.9. Prospective Adjustments

The following table provides a high-level summary of prospective adjustments and respective assumptions.

Table 9. Summary of Prospective Adjustments and Respective Assumptions

Prospective Adjustment	Note	Assumption
Hospice FFS Payment		
2020 to 2021 per diem change	From CMS IHS market basket data and BLS MFP adjustment.	FY 2020 to FY 2021, 2.6%; FY 2021 to FY 2022, 3.5%
2020 to 2021 Hospice Wage Index change by CBSA	No change	0%
Change in mix of market share by CBSAs from base period to 2021	No change	1.000
Change in utilization and mix of services from 2018 to 2021	No change	1.000
Non-Hospice FFS Payment		
2016 to 2021	FFS USPCC – Non-ESRD growth rate from the Medicare Advantage 2021 Announcement	1.211
2017 to 2021		1.186
2018 to 2021		1.149
Other		
Managed Care Savings	Not used	0%
Non-Benefit Expense Load	Claims processing cost load	0.07%
Sequestration	Base data is net of sequestration. Repricing of Hospice FFS-paid base data used per diem gross of sequestration. The non-Hospice FFS-paid base data was divided by 0.98 to make it gross of sequestration.	

Per Diem Trend from FY 2020 to CY 2021

After repricing the base data to 2020, an adjustment was made to the Hospice FFS-paid claims to reflect an estimated increase in per diems from FY 2020 to FY 2021 (for the period January 1, 2021 to September 30, 2021) and from FY 2020 to FY 2022 for the period October 1, 2021 to December 31, 2021). An annual trend of 2.6% for FY 2020 to FY 2021 and 3.5% for FY 2021 to FY 2022 was applied, based on the CMS inpatient hospital market basket data and Bureau of Labor Statistics (BLS) multifactor productivity (MFP) adjustment.

Trending Non-Hospice FFS-Paid Claims from the Experience Period to 2021

The FFS USPCC–Non-ESRD trends that were presented in the CY 2021 Rate Announcement were used to trend the Non-Hospice FFS-paid claims from the 2016, 2017, and 2018 base data to CY 2021.[13] The next table shows the trend rates by year.

[13] CMS. Announcement of Calendar Year (CY) 2021 Medicare Advantage (MA) Capitation Rates and Part C and Part D Payment Policies. Apr 6, 2020. Retrieved from https://www.cms.gov/files/document/2021-announcement.pdf

Table 10. USPCC – Non-ESRD Trends

Year	Trend
2016 to 2017	2.11%
2017 to 2018	3.25%
2018 to 2019	4.47%
2019 to 2020	5.17%
2020 to 2021	4.58%

Administrative Expense

The national hospice capitation rate includes the same administrative load as a percentage of benefits as the MA benchmark, as noted in the table below.[14]

Table 11. Administrative Expense

	Hospice FFS Payment	Non-Hospice FFS Payment		Total
Claims Processing Costs a Fraction of Benefits	Part A	Part A	Part B	
	0.00070	0.00070	0.00164	0.00073
% of Total	91.83%	4.86%	3.31%	100.00%

Sequestration

Consistent with MA capitation rates, the final hospice capitation rates under the hospice benefit component are presented gross of sequestration in the CY 2021 hospice capitation ratebook for the Model (i.e., without the application of the 2% sequestration reduction). The following describes how sequestration is handled in the rate development process:

- *Hospice FFS-Paid Claims:* Repriced the 2016-2018 experience using 2020 per diems by CBSA (see Repricing under Section 2.4)
    - The per diems reflect Tables 10 and 11 of the FY 2020 Hospice Wage Index Final Rule.[15] This resulted in an estimate of 2020 claims gross of sequestration.
- *Non-Hospice FFS-Paid Claims:* Used 2016-2018 Non-Hospice FFS-paid claims which reflect paid amount, net of sequestration. The projected Non-Hospice claims are divided by 0.98 to make them gross of sequestration, consistent with the Hospice claims.

3. Area Factor

3.1. Background and Development of the Area Factor

FFS-paid hospice per diem payment rates vary by CBSA[16] with the variation driven by the Hospice Wage Index. The Hospice Wage Index is based on the CMS Inpatient Prospective Payment System (IPPS) Hospital

[14] CMS. Announcement of Calendar Year (CY) 2021 Medicare Advantage (MA) Capitation Rates and Part C and Part D Payment Policies. Apr 6, 2020. Retrieved from https://www.cms.gov/files/document/2021-announcement.pdf
[15] Medicare Program; FY 2020 Hospice Wage Index and Payment Rate Update and Hospice Quality Reporting Requirements. (CMS-1714-F). https://www.govinfo.gov/content/pkg/FR-2019-08-06/pdf/2019-16583.pdf
[16] CBSAs are collections of counties within states, and in 47 CBSAs, are collections of counties that cross state lines.

Wage Index, which measures the relative difference in hourly wages for certain health care professionals across areas based on an annual survey of hospitals. The Hospice Wage Index measures the difference in labor cost by CBSA. In total, there are 460 CBSAs in the FY 2020 Hospice Wage Index (449 in FY 2018).

The Hospice Wage Index is applied only to the labor portion of the per diem, which varies by hospice service type. In aggregate, the labor portion accounts for about 68% (specifically 68.71% for RHC) of the hospice per diems. The Non-Hospice FFS services paid by FFS are reimbursed using the prevailing area-specific CMS fee schedules. CMS combined some of the CBSAs for credibility purposes. CMS developed 507 CBSA-State areas and then combined several of the smaller CBSAs to come up with the final list of 481 areas (referred to as CBSAs in this document) for the area factor development.

The MA Average Geographic Adjustment (AGA) is the area factor used to develop county level benchmarks for enrollees in non-hospice status. The AGA reflects FFS Medicare county variation in claim cost due to cost of services and variation in utilization of comprehensive medical services. The following exhibit shows the range of the Hospice Wage Index and approximated range of the impact on the per diems for FY 2018 and FY 2020; this exhibit demonstrates why an area factor is needed.

Table 12. Hospice Wage Index and Per Diem Ranges

	Hospice Wage Index		Approximate Per Diem Range	
	FY 2018	FY 2020	FY 2018	FY 2020
Lowest	0.409	0.369	0.596	0.570
Highest	1.876	1.913	1.599	1.623

Several approaches were considered for the area factor, including:

- Splitting an area factor for Hospice FFS Payment and Non-Hospice FFS Payment where Hospice FFS-paid claims were adjusted by the Hospice Wage Index and Non-Hospice FFS-paid claims were adjusted by the MA AGA. There were several CBSAs with significant mismatches when looking at 2018 Hospice FFS-paid claims, and there was a weak correlation between the MA AGA and the Non-Hospice FFS-paid claims by CBSA, due to the difference in the mix of services for comprehensive medical care, which the AGA is based on, and the Non-Hospice FFS-paid services used by hospice beneficiaries;
- Creating a three-part area factor for Hospice FFS-paid claims to adjust for (1) Hospice Wage Index area factor, (2) service intensity factor (i.e., the mix of service days by area weighted by their relative per diem compared to the national average mix of services); and (3) relative length of stay by stay month. While the three-part area factor was a good fit and showed correlation with Hospice FFS-paid claims, in combination with the Non-Hospice FFS-paid claims, which were adjusted using the AGA, there was still a mismatch. The greatest variation occurred within CBSAs with 2,000 or less beneficiaries, which was expected.

The approach that best accounted for all regional variation in claims was emulating the MA AGA, which is the ratio of the area-specific spending to the national average (referred to as the hospice average geographic adjustment or Hospice AGA under the Model).

The general formula is as follows:

$$Hospice\ AGA_{CBSA} = \frac{Historical\ Claim\ Cost\ PMPM_{CBSA}}{Historical\ Claim\ Cost\ PMPM_{National}}$$

There are separate Hospice AGAs for Month 1 and Month 2+ because of the differences in utilization of services and length of stay by CBSA. This results in the following general formula:

$$Hospice\ AGA_{CBSA,Month} = \frac{Historical\ Claim\ Cost\ PMPM_{CBSA,Month}}{Historical\ Claim\ Cost\ PMPM_{National\ ,Month}}$$

The 2021 Hospice AGA is calculated using the 2021 projected cost for each of the three experience years. This results in the following general formula:

$$2021\ Hospice\ AGA_{CBSA,Year\ ,Month} = \frac{2021\ Projected\ Cost\ PMPM_{CBSA,Year\ ,Month}}{2021\ Projected\ Cost\ PMPM_{National\ ,Year\ ,Month}}$$

The Month 1 Hospice AGA is adjusted to account for the difference is the mix of stay months by rating tier between the CBSA and the National distribution. The factor used to account for this difference is termed *Month 1 Hospice AGA Tier Adjustment* (see Section 4 for more detail). This leads to the following formula for Month 1.

$$Adjusted\ Hospice\ AGA_{CBSA,Year\ ,Month\ 1} = \frac{2021\ Hospice\ AGA_{CBSA,Year\ ,Month\ 1}}{Month\ 1\ Hospice\ AGA\ Tier\ Adjustment_{CBSA,Year}}$$

The Month 2+ Hospice AGA is adjusted to recognize the impact by CBSA of the Hospice Provider Inpatient and Aggregate Caps (see Section 2.7 for more detail). This leads to the following formula for Month 2+.

$$Adjusted\ Hospice\ AGA_{CBSA,Year\ ,Month\ 2+} = 2021\ Hospice\ AGA_{CBSA,Year\ ,Month\ 2+}\ x\ Hospice\ Provider\ Cap\ Adjustment_{CBSA}$$

The 2021 Hospice AGA is the average of the three yearly Hospice AGAs:

$$2021\ Hospice\ AGA_{CBSA,Month} = Average\ (2021\ Hospice\ AGA_{CBSA,2016,Month}, 2021\ Hospice\ AGA_{CBSA,2017,Month}, 2021\ Hospice\ AGA_{CBSA,2018,Month})$$

3.2. Credibility for the CBSA Level Experience

This section describes the analysis conducted of the level of historical exposure to consider the Hospice AGA 100% credible for a CBSA.[17] Typically, in health claim credibility analysis, the unit of measurement is claim cost per member per month, with the objective to determine the number of members needed for full credibility. For the hospice benefit component of the Model, the unit of measurement is FFS payments

[17] The principle references for credibility theory are the "Proposed Guidelines for Full Credibility to be used in the MA and Prescription Drug Bid Pricing Tools," issued on February 15, 2018 found at https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Downloads/ProposedCredibilityGuidelines.pdf and the Credibility Practice Note of the American Academy of Actuaries found at https://www.actuary.org/sites/default/files/files/publications/Practice_note_on_applying_credibility_theory_july2008.pdf.

per stay month. In this analysis, the statistics used in the credibility calculation, (i.e., the standard deviation and mean) are calculated using the CY 2018 data set for hospice stays that began in 2018 on a stay month level, not a beneficiary level. In other words, there is no need to do a beneficiary to stay month conversion similar to the member to member-month conversion in typical health claim credibility analysis.

Description of the Credibility Methodology

Based on an application of classical credibility theory, the determination of full credibility depends on the assumed variation in the claim experience. CMS' goal is to determine the number of stay months in a CBSA that are needed to have a probability, P = 95%, of being within a percentage, k = 10%, relative to the expected claim amount. These parameters are consistent with the MA credibility methodology, details of which can be found in the Proposed Guidelines for Full Credibility to be used in the MA and Prescription Drug Bid Pricing Tools.[18]

The following table summarizes the experience data used in the analysis. It also shows the coefficient of variation (the ratio of the standard deviation to the mean). The coefficient of variation (COV) is used in the analysis to allow comparison across different types of claims.

Table 13a. Credibility Calculation

	Stay Months	Standard Deviation	Mean	Coefficient of Variation
Hospice FFS Payments	3,396,175	$2,019	$3,655	0.55
Non-Hospice FFS Payments During a Hospice Election Period	3,396,175	$970	$136	7.14
Non-Hospice FFS Payments After Live Discharge	3,396,175	$2,164	$195	11.08
Total Hospice and Non-Hospice FFS Payments	**3,396,175**	**$3,083**	**$3,986**	**0.77**
The Following is provided for comparison to Medicare Advantage experience				
2016 MA non-ESRD Experience				2.36
2016 Part D Experience				3.58

The hospice benefit has a relatively low COV because the FFS payment related to a hospice experience are dominantly Hospice FFS-paid claims (91.7% of the total) and has a COV of 0.55. The low variation in the Hospice FFS-paid claims is because 98% of the Hospice FFS payments comes from the RHC per diem which have a small range of costs and, on average 20 units of service per stay month. The following table shows the stay months for 100% credibility for CY 2018 data.

Table 13b. Credibility Calculation

Probability Result is within k% of Actual (a)	Standard Normal Variable Z (b)	Coefficient of Variation (Std dev / mean) (c)	k% (d)	Stay Months for 100% Credibility e = (b * c/d)
0.95	1.96[1]	0.77	0.10	230

[1] Because this is a one-tailed test, the z-value for $p_{0.975}$ is used.

[18] CMS. Office of the Actuary. Proposed Guidelines for Full Credibility to be used in the MA and Prescription Drug Bid Pricing Tools. February 15, 2018. Retrieved from: https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Downloads/ProposedCredibilityGuidelines.pdf

Because of observed regional difference in the use of hospice (for example, the members' apparent acuity on enrollment as seen in the average length of stay in month 1) and the mix of type of service days, our preference was to combine low volume CBSAs with adjacent CBSAs where practicable instead of using a partial credibility approach.

Partial Credibility

Initially there were some CBSAs with insufficient stay months to be 100% credible. CMS used two approaches to address this. The first was to combine low volume CBSAs with adjacent CBSAs with a similar Hospice Wage Index and similar historical utilization and cost. The second was specific to low volume CBSAs without adjacent CBSAs: Guam, US Virgin Islands, American Samoa, and Northern Mariana Islands. For these four areas CMS used a partial credibility approach. For those CBSAs with a Hospice Wage Index (Virgin Islands and Guam), CMS credibility weighted the year-by-year tier mix adjusted Month 1[19] and Month 2+ Hospice AGAs with the Hospice Wage Index Area Factor for the CBSA. The 2021 Hospice AGAs for these two CBSAs is the average of the credibility-adjusted factors. American Samoa and Northern Mariana Islands do not have a Hospice Wage Index, so any historical experience (there was none for Northern Mariana Islands) was credibility weighted with the national Hospice Wage Index area factor which is 1.000.

4. Monthly Rating Factor

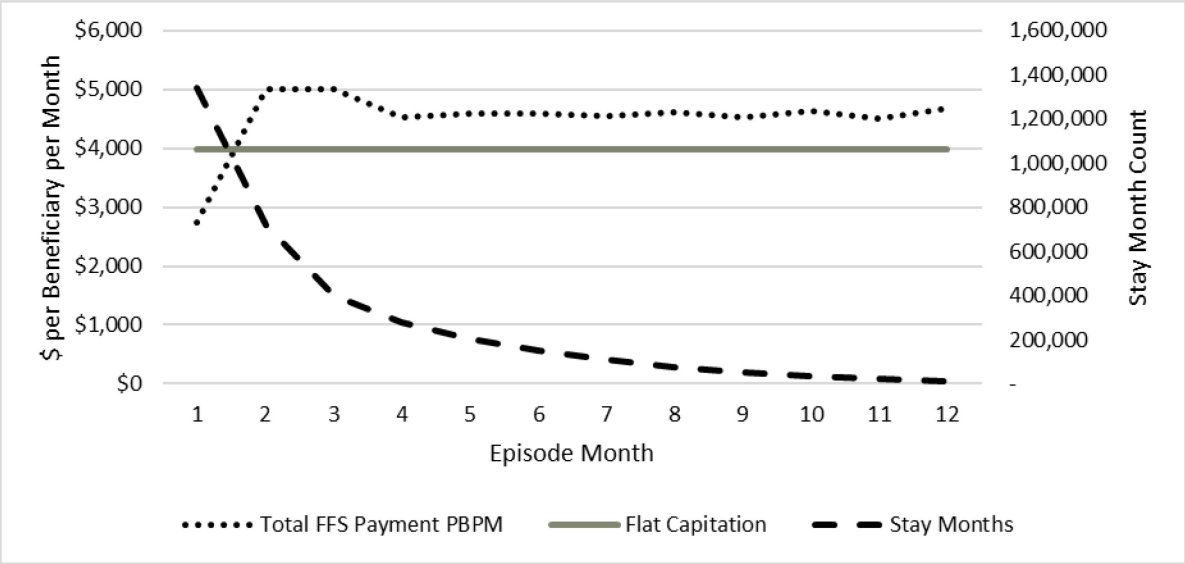
4.1. Background and Development of the Monthly Rating Factor

This section describes the monthly rating factor. The monthly rating factor is applied to the base rate to adjust the capitation payment for the stay month. The purpose of the monthly rating factor is to create the best fit of monthly capitation payments to historical claims possible within the objectives for the Model.

The following exhibit shows why the monthly rating factor is needed. The dotted line shows the FFS payment pattern by stay month for CY 2018 for stays that started in 2018, where the low first month is driven by the on average mid-month entry, and large number of short stays, the higher months two and three due to the higher per diem for RHC days 1-60, and the relatively level FFS payment for months 4+. The purpose of the monthly rating factor is to improve the match of the hospice capitation rate line with the FFS Payment line.

[19] For details on the Month 1 Tier Adjustment, see Section 4.2.

Chart 1. Stay Months and FFS Payments by Stay Month (CY 2018 1st Year Data)



This chart also highlights the following:

- The dashed line shows the concentration of stay months in the first few months (39% of the total stay months occur in the first month and 72% in the first three months)
- The solid line is a "flat" capitation, which represents the average stay month FFS payment over all months which serves as a reference. A flat capitation would significantly overpay relative to the FFS per diem payment methodology in month 1 and underpay in months 2 and 3.

In recognition of the variation in FFS-payments across months within a hospice election period, CMS developed a methodology to determine the Month 1 Capitation payment based on the actual days enrolled in hospice in Month 1.

For the first month only, the monthly hospice capitation rate that will be paid will have an adjustment (i.e., the monthly rating factor) applied to better reflect actual beneficiary experience (in combination with the area factor discussed in Section 3). The hospice capitation rate paid for the first month will vary based on the number of days of hospice benefit occurring in the first calendar month of a hospice stay, split into the following three tiers:

Table 14. Month 1 Rating Factors

Days in Month 1	Monthly Rating Factor	Gross Monthly Base Rate[1]
1-6 Days	0.34	$1,784
7-15 Days	0.64	$3,359
16+ Days	1.02	$5,353

[1] Gross of sequestration

The day count is equal to the hospice discharge date (or the last day of the month if there is no discharge) minus the enrollment date plus one. If there is more than one stay month in Month 1, the days in hospice will be added together to determine rate tier.

First month payments will be made in a lump-sum retrospectively to participating MAOs on a quarterly basis for all enrollees who have first calendar month hospice experience.

For Months 2+, the monthly rating factor is 1.00 and the base rate is $5,248 (gross of sequestration).

4.2. Month 1 Tier Adjustment

The rating tier factors shown in the previous table were developed using the national distribution of days in 2018. A difference in the distribution of Month 1 stay months by rate tier between the national distribution and that by CBSA would result in the appropriate rate not being produced by the Month 1 Hospice AGA. To address this, CMS developed a Month 1 Tier Adjustment to adjust for this difference in the distribution of the Month 1 stay months by rate tier by CBSA. The following example shows how the Month 1 Tier Adjustment was calculated.

Table 15. Example of Month 1 Tier Factor Calculation

Rate Tier: Days in Month 1	Monthly Rating Factor	National Distribution of 2018 Month 1 Stay Months	CBSA 48424 Distribution of 2018 Stay Months
1-6 Days	0.3400	41.8%	51.1%
7-15 Days	0.6400	30.0%	26.9%
16+ Days	1.0200	28.2%	21.9%
Stay Month Weighted Composite Factor (Month 1 Tier Distribution Factor)		0.6215	0.5700
Month 1 Hospice AGA Tier Adjustment (CBSA Month 1 Tier Dist. Factor/National Month 1 Tier Dist. Factor)			0.9173

The following formula is used to develop the Month 1 Tier Distribution Factors:

$$Month\ 1\ Tier\ Distribution\ Factor_{CBSA,Year} = \begin{bmatrix} 0.34 \\ 0.64 \\ 1.02 \end{bmatrix} x \begin{bmatrix} Tier\ 1\ stay\ month\ \% \\ Tier\ 2\ stay\ month\ \% \\ Tier\ 3\ stay\ month\ \% \end{bmatrix}_{CBSA,Year}$$

The Month 1 Tier Adjustment is calculated as follows:

$$Month\ 1\ Hospice\ AGA\ Tier\ Adjustment_{CBSA,Year} = \frac{Month\ 1\ Tier\ Distribution\ Factor_{CBSA,Year}}{Month\ 1\ Tier\ Distribution\ Factor_{National\ ,Year}}$$

The final Adjusted Month 1 Hospice AGA is calculated in the following way:

$$Adjusted\ Hospice\ AGA_{CBSA,Year\ ,Month\ 1} = \frac{Hospice\ AGA_{CBSA,Year\ ,Month\ 1}}{Month\ 1\ Hospice\ AGA\ Tier\ Adjustment_{CBSA,Year}}$$

4.3. Operational Rules

CMS built in the operational rules outlined in Section 2.7 of the CY 2021 Request for Applications for the hospice benefit component into the final pricing of Model payments. These operational rules include:

1. *No more than one hospice capitation will be paid for an enrollee for a given month.* There are situations in the historical hospice experience where a beneficiary dis-enrolls and re-enrolls in the same month. For purposes of pricing, CMS has concatenated these stay months in calculating the capitation rates.

2. *For Month 1 (i.e., the first month in which a hospice election occurs), the sum of the days enrolled in that month will be used to determine which Month 1 tier rate will be paid.* For purposes of pricing, CMS has reviewed any live discharges and re-enrollments within Month 1 and concatenated these stay months in attributing the correct Month 1 Tier.

The impact of applying these two operational rules was a reduction in the number of stay months, which resulted in an increase of approximately 0.6% in the capitation amount per month and a 2.1% reduction in stay months.

5. Next Steps

5.1. Updated Data Book for CY 2021

CMS will release an updated version of the CY 2021 hospice benefit component data book in early May that will include the following:

- Incorporate the impact of the operational rules to result in updated values;
- Have the hospice provider inpatient and aggregate caps adjustment by CBSA; and
- Have the Month 1 Tier Adjustment distribution by CBSA.

5.2. Future Rate Setting

CMS plans to follow a similar process for setting rates for future rate setting including using the three years of the most recent available FFS-paid hospice experience and repricing the experience for any rebasing in FFS per diems. However, starting in CY 2022, CMS will use full year experience instead of first year experience to recognize the Model component is no longer in its first year.