CY 2021 Hospice Capitation Payment Rate Actuarial Methodology

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

Table of Contents

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 care continuum in the Medicare Advantage (MA) program for Part A and Part B services. In participating in this component of the Model, participating Medicare Advantage Organizations (MAOs) will incorporate the current Medicare hospice benefit into MAO covered benefits in combination with offering palliative care services outside the hospice benefit for enrollees with serious illness and providing individualized transitional concurrent care services and hospice-specific supplemental benefits. The hospice benefit component will be tested over four performance years, and participation in the Model is voluntary for eligible MAOs.

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

This payment rate actuarial methodology paper includes a review of the current payment structure of the FFS Medicare hospice benefit (Section 1.2), and detailed technical specifications around payments made under the hospice benefit component including the rate determination process for the CY 2021 national monthly hospice capitation rate and applied rating factors (Sections 2-4).

MAOs participating in this Model component will be paid consistent with current law for their enrollees who do not elect hospice. For beneficiaries who elect hospice, MAOs participating in this component of the VBID Model will be paid per the following payment structure:

- Consistent with 42 CFR § 422.320(c), the basic benefit capitation rate (also known as the "A/B capitation rate") will be paid consistent with current law for the month an enrollee elects hospice under 42 CFR § 418.24. In other words, a risk-adjusted A/B capitation rate will only be paid in Month 1, where Month 1 reflects the month that an enrollee elects hospice, and will not be paid effective from the first day of the month following the month of election to receive hospice care, until the first day of the month following the month in which the election is terminated.
- For all calendar months that a beneficiary elects hospice, including the initial month, the MAO will receive the following:
    - a monthly hospice capitation rate, described in detail in this payment rate actuarial methodology paper, will be paid to the MAO for all months that a beneficiary elects hospice, including the initial month;
    - 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).

Hospice Capitation Rate Payment

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. In essence, this rate reflects FFS-paid hospice experience for care related[1] to the terminal condition and related conditions during a hospice

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

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, 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 2.5, 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 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 as summarized below (days 1-6, 7-15, 16+). The rates are shown in the last column gross of sequestration.[3]

	Hospice Enrollment in Month 1	Average Monthly Service Days	Distribution of Stay-months	Monthly Rating Factor[1]	Gross Monthly Base Rate
Month 1	1-6 Days	3.28	17%	**0.34**	$1,764
	7-15 Days	10.51	12%	**0.64**	$3,320
	16+ Days	22.58	11%	**1.02**	$5,291
Month 1 Composite[2]		10.85	40%	0.62	$3,217
Month 2+		26.09	60%	**1.00**	$5,187[3]
CY 2021 Composite National Hospice Capitation Rate[2]		20.06	100%	0.85	$4,409

[1] Bold numbers are the monthly rating factors used

[2] Values based on the distribution of Stay-Months

[3] National Hospice Capitation Base Rate

[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.

[3] The estimates shown in the table are subject to revision in the final rates.

First month 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. 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 $5,187.

Of importance, the rates are cost neutral, meaning that for CY 2021, the 2021 capitation equals the aggregate estimated 2021 Medicare FFS payments, plus an administrative load and a small adjustment for the National Medicare Education Campaign (NMEC) user fee. No discounts are applied.

In April 2020, CMS will release county-level rate book for the CY 2021 Hospice Benefit Component. Comments or questions regarding the payment rate actuarial methodology of the hospice benefit component may be sent by email to VBID@cms.hhs.gov. While CMS will not share the sources of the questions, CMS may publicly share questions and responses or compile them into a Frequently Asked Questions compendium to ensure that all applicants have access to information regarding the payment rate actuarial methodology of the hospice benefit component.

1.2. 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 compassionate 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.

[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

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 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, including maintaining the initial four levels of hospice care. 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 table below. 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.

[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

Hospice Average Costs per Day versus Per Diem Payment Rates in FY 2019 and FY 2020[1]				
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

[1] 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

Further, 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.[6] 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.[7] 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). This is effective from the first day of the month following the month of election to receive hospice care, until the first day of the month following the month in which the election is terminated.

[6] 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

[7] 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.

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, where capitation offers opportunities for improved quality management;
- Primarily measure accuracy on an aggregate basis by Core Based Statistical Areas (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;
- 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:

$$Monthly\ capitation\ payment = national\ base\ rate\ \times\ area\ factor\ \times\ monthly\ factor$$

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:

$$\begin{aligned} &Capitation\ Rate_{CBSA_{State}\ ,Month\ 1} \\ &\quad = (National\ Base\ Rate) \times (Month\ 1\ Factor\ for\ Covered\ Days\ in\ Month\ 1) \\ &\quad \times (Hospice\ Average\ Geographic\ Adjustment_{CBSA_{State}\ ,Month\ 1}) \end{aligned}$$

$$\begin{aligned} &Capitation\ Rate_{CBSA_{State}\ ,Month\ 2+} \\ &\quad = (National\ Base\ Rate)\ \times (Month\ 2+\ Factor) \\ &\quad \times (Hospice\ Average\ Geographic\ Adjustment_{CBSA_{State}\ ,Month\ 2+}) \end{aligned}$$

Other rating factors were considered[8] but analysis showed they were not significant, after accounting for the area factor and monthly rating factor. The area factor and monthly rating factor account for the following, all of which persist over years by area:

[8] 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.

- 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);
- 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, months 2+ all have significant and consistent FFS-paid claim differences), 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 91.7% Hospice FFS-paid claims and 8.3% Non-Hospice FFS-paid claims. RHC represents the vast majority of all per diems (97.5%).

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 rate development under the hospice benefit component.

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	FFS Medicare experience	FFS paid Medicare experience reflect Hospice FFS payments and Non-Hospice FFS payments
Rating factors	County benchmark and plan design as described 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	National rate x area factor x policy adjustments	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. The following table provides the development of the CY 2021 Composite National Hospice Capitation Rate for illustrative purposes. Descriptions of each part follows the exhibit.

		2016	2017	2018
	Stay Months[1]	3,043,655	3,209,859	3,396,175
CY 2021 Hospice FFS Payments				
(a)	Actual Per Member Per Month (PMPM)	$3,565	$3,604	$3,655
(b)	Calculated Using Service Days & Historical Per Diems	$3,532	$3,579	$3,635
(c) = (a) / (b)	True-up Adjustment	1.009	1.007	1.006
(d)	Calculated Using Service Days and FY 2020 Per Diems	$3,898	$3,868	$3,865
(e)	Claim Completion Adjustment[2]	1.000	1.000	1.000
(f) = (d) x (c) x (e)	Calculated FY 2020 x True-up x Claim Completion	$3,937	$3,898	$3,890
(g) = (f) x 0.98	Calculated FY 2020 x True-up x Claim Completion x Sequestration[3]	$3,858	$3,820	$3,812
(h)	Per Diem Trend from FY 2020 to CY 2021[4]	1.038	1.038	1.038
(i)	Service Mix Change[5]	1.000	1.000	1.000
(j)	Hospice Provider Aggregate Cap Adjustment[5]	0.990	0.990	0.990
(k) = (j) x (i) x (h) x (g)	CY 2021 Hospice FFS Payment	$3,964	$3,925	$3,917
CY 2021 Non-Hospice FFS Payments				
(l)	Actual PMPM	$321	$324	$331
(m)	Non-ESRD PMPM United States per capita cost (USPCC) Trend to CY 2021	1.200	1.176	1.140
(n) = (l) x (m)	CY 2021 Non-Hospice FFS Payments	$385	$381	$378
CY 2021 Hospice FFS Payments + Non-Hospice FFS Payments				
(o) = (k) + (n)	CY 2021 Hospice FFS Payments + Non-Hospice FFS Payments	$4,349	$4,306	$4,294
(p)	Straight Average[6]			$4,316
Top Side Adjustments				
(q)	Administrative Load Factor			1.0009
(r) = [(p) x (q)]	CY 2021 National Composite Hospice Capitation Rate			$4,320
(s) = (r) / 0.98	CY 2021 Gross Composite National Capitation Rate[7]			$4,409

[1] The stay month reflects the calendar month of coverage for a beneficiary enrolled in Medicare

[2] CY 2018 completion factor set to 1.00 as a placeholder until data becomes available

[3] FY 2020 Per Diems used in the repricing were gross sequestration; multiplied by the 0.98 factor to net out the sequestration

[4] Related trend a placeholder from the CMS inpatient hospital market basket data and Bureau of Labor Statistics (BLS) multifactor productivity (MFP) adjustment

[5] Placeholder assumption; the need for and the magnitude of the assumption under investigation

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

[7] Grossed up for sequestration by 0.98 factor; final rates will reflect small adjustment for NMEC user fee

CMS plans to follow a similar process for setting rates for CY 2022 and CY 2023 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 would use full year experience instead of first year experience to recognize the Model component is no longer in its first year.

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 claims for beneficiaries who are enrolled in the FFS program or an MA plan). 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.

The base data includes both Hospice FFS Payments and Non-Hospice FFS Payments, as defined in Section 1. Because the Medicare hospice benefit does not cover Part D benefits, these were excluded in the national hospice capitation rate. Of note, paid claims reflect a net of the 2% sequestration reduction.

2.4. Retroactive Adjustments

Three retroactive adjustments were made, including:

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;
2. 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); and
3. 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 (i.e., completion factor). A placeholder of 1.00 was included for this adjustment until data becomes available.

Repricing

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

Step 1: The first step was to 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, some physician services, and the fact that some hospice providers receive lower per diems for not reporting quality data.[9] 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 ratioed to this calculated paid amount to develop an adjustment factor.

[9] 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.

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

The results of this repricing is provided in the data book "CY 2021 *VBID Hospice Benefit Component Data Book.*"

2.5. Prospective Adjustments

The following prospective adjustments were made to the repriced Hospice FFS-paid base data and the Non-Hospice FFS-paid base data.

Trending Hospice FFS-Paid Claims from 2020 to 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 United States per capita cost (USPCC) – Non-ESRD trends (presented in the Advance Notice of Methodological Changes for CY 2021 for MA Capitation Rates and Part C and Part D Payment Policies, Part II)[10] were used to trend the Non-Hospice FFS-paid claims from the 2016, 2017, and 2018 base data to CY 2021. The following table shows the trend rates by year.

Year	Trend
2016 to 2017	2.11%
2017 to 2018	3.14%
2018 to 2019	4.17%
2019 to 2020	4.68%
2020 to 2021	4.53%

[10] CMS. Advance Notice of Methodological Changes for Calendar Year (CY) 2021 for MA Capitation Rates and Part C and Part D Payment Policies – Part II. Feb 5, 2020. Retrieved from https://www.cms.gov/files/document/2021-advance-notice-part-ii.pdf

Prospective Assumptions

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

Assumption	Note	Assumption
Hospice FFS Payment		
2020 to 2021 per diem change	From CMS IHS market basket data and BLS MFP adjustment. The MLF is a placeholder from the FY 2020 Hospice Wage Index Final Rule (CMS-1714-F)	For FY 2020 to FY 2021, 2.6%; for FY 2021 to FY 2022, 3.5%
2020 to 2021 Hospice Wage Index change by CBSA	Placeholder, No change	0%
Change in mix of CBSAs from base period to 2020	Placeholder, No change	1.00
Change in mix of CBSAs from 2020 to 2021	Placeholder, No change	1.00
Change in utilization and mix of services from base years to 2021	Placeholder, No change	1.00
Non-Hospice FFS Payment		
2016 to 2021	FFS USPCC – Non-ESRD growth rate; the assumption is the trend factor from base year to 2021.	1.20
2017 to 2021		1.18
2018 to 2021		1.14
Other		
Hospice Provider Aggregate Cap	Placeholder assumption (historical results are -1% to -1.4%)	-1%
Managed Care Savings	Not used	0%
Non-Benefit Expense Load	Claims processing cost load	0.09%
Sequestration	Base data and repricing of Hospice FFS-paid base data with discounted per diems include the impact of sequestration. A final step of the national hospice capitation rate development is grossing up the rates for sequestration by dividing by 0.98.	

Administrative Expense

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

	Hospice FFS Payment	Non-Hospice FFS Payment[2]		Total
Claims Processing Costs a Fraction of Benefits[1]	Part A	Part A	Part B	
	0.0008	0.0008	0.0020	0.00090
% of Total	0.9132	0.0256	0.0612	1.0000

[1] Source: CMS. Announcement of Calendar Year (CY) 2020 MA Capitation Rates and MA and Part D Payment Policies and Final Call Letter. April 1,2019.

[2] Distribution of Hospice FFS and Non-Hospice FFS payments based on 2018 base data repriced to 2020. Distribution of Parts A and B in Non-Hospice FFS payments based on claim payment amounts by claim type in 2018 base data.

Recognition of the Hospice Provider Aggregate Cap

To ensure that hospice care does not exceed the cost of conventional care, there are two annual limits to FFS hospice payments. The statute requires that FFS hospice payments be limited by an inpatient cap and by an aggregate cap in any given cap year. The FFS cap determinations are calculated on an annual basis. Any amounts in excess of either FFS cap are considered to be overpayments, and must be repaid to Medicare. The FFS hospice inpatient cap limits the total number of Medicare inpatient days to no more than 20 percent of a hospice's total Medicare hospice days. The FFS hospice aggregate cap limits the total aggregate FFS payments any individual hospice can receive in a FFS cap year to an allowable amount, based on an annual per beneficiary cap amount and the number of beneficiaries served (in other words, the FFS hospice aggregate cap is at the provider level, not at a beneficiary level). Medicare contractors complete the FFS hospice cap determinations for the inpatient cap after the end of the FFS cap year. Hospices must file their self-determined FFS-paid aggregate cap determination notice with their Medicare contractor no later than five months after the end of the FFS cap year and remit any overpayment due at that time. The Medicare contractor then reconciles all payments at the final FFS-paid cap determination.

Of note, the hospice provider aggregate cap is 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 is considering a 1% reduction[11] reflecting the projected impact of the FFS hospice aggregate cap within the national hospice payment rate pricing. Another consideration is reflecting the impact of the hospice provider aggregate cap regionally through an adjustment to the area factor for those regions who have been historically impacted by the hospice provider aggregate cap. CMS welcomes comment on the final approach for CY 2021.

Sequestration

Consistent with MA capitation rates, the final hospice capitation rates under the hospice benefit component will be presented gross of sequestration (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 in the FY 2020 Hospice Wage Index Final Rule. This resulted in an estimate of 2020 claims gross of sequestration, which was multiplied by 0.98 to produce a result net of sequestration and thus comparable to the base data.
- *Non-Hospice FFS-Paid claims:* Used 2016-2018 Non-Hospice FFS-paid claims which reflect paid amount, net of sequestration
- *Final Step of Rate Development:* the national hospice capitate rate will be increased by dividing it by 0.98 to make the final rate gross of sequestration

[11] MedPAC. Report to Congress: Medicare Payment Policy Chapter 12: Hospice Services. March 2019. Retrieved from http://www.medpac.gov/docs/default-source/reports/mar19_medpac_ch12_sec.pdf

3. Area Factor

3.1. Background and Development of the Area Factor

FFS-paid hospice per diem payment rates vary by CBSA with the variation driven by the Hospice Wage Index. The Hospice Wage Index is based on the CMS Inpatient Prospective Payment System (IPPS) Hospital 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. There are 461 CBSAs in the FY 2020 wage index (460 in FY 2018). CBSAs are collections of counties within states (and in 47 CBSAs are collections of counties that cross state lines). The Hospice Wage Index is applied 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.

The MA Average Geographic Adjustment (AGA) is the area factor used to develop county level benchmarks. The AGA reflects FFS Medicare county variation in claim cost due to cost of services and variation in utilization of medical 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.

	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 formula is as follows:

$$Hospice\ AGA_{CBSA} = \frac{(Historical\ Claim\ Cost)_{CBSA}}{(Historical\ Claim\ Cost)_{National}}$$

Of note, a combination of CBSA and State were used to develop separate Hospice AGAs for CBSAs that cross state lines.

Under the hospice benefit component of the VBID Model, there will be a separate area factor for month 1 and months 2+, given the monthly rating factor (as discussed in Section 4) and the significant variation in utilization of services between month 1 and months 2+ by CBSA.

Hospice AGA_{CBSA_State} Month 1

The Stay Month 1 Hospice AGA uses the 2016-2018 Hospice FFS-paid month 1 base data repriced to 2020 per diems and trended to 2021, and the 2016-2018 Non-Hospice FFS-paid experience trended to 2021.

Hospice AGA_{CBSA_State} Month 2+

The Stay Month 2+ Hospice AGA uses the 2016-2018 Hospice FFS-paid month 2+ base data repriced to 2020 per diems and trended to 2021, and the 2016-2018 Non-Hospice FFS-paid experience trended to 2021.

In review of historical experience by CBSA on a year-over-year basis, stability and consistency was found in CBSA-level results.

In developing the area factor, CMS observed that in some CBSAs the Hospice AGA differed significantly from an area factor developed using the Hospice Wage Index. CMS is considering making an adjustment (that is revenue neutral to the aggregate estimated 2021 Medicare FFS payment) to these apparent outliers. CMS is inviting comments on outlier CBSAs.

3.2. Credibility for the CBSA-State Level Experience

This section describes the analysis conducted of the level of historical exposure to consider the Hospice Average Geographic Adjustment (Hospice AGA) 100% credible for a CBSA.[12] 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 VBID Model, the unit of measurement is FFS payments 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,

[12] 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.

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.[13]

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.

	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**
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.

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 $e = (b * c/d)^2$
0.95	1.64	0.77	0.10	162

The final rates will use three years of base data (2016-2018). This approximately triples the stay-months and reduces the number of CBSAs with insufficient experience to be 100% credible.

[13] 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

Partial Credibility

There are five CBSAs with insufficient stay months to be 100% credible: American Samoa, Guam, and three CBSA-state combinations where the part of the CBSA that crossed a state line was very small. CMS has excluded American Samoa and Guam from the data book because they have insufficient number of beneficiaries to publish the results. For the three CBSA-state combinations (16020-IL, 30860-ID, and 41140-KS), CMS will combine their data with their respective larger CBSAs (16020-MO, 30860-UT, and 41140-MO) to create three two-state CBSAs (16020-MO-IL, 30860-UT-ID, and 41140-MO-KS).

All the other CBSAs had at least 162 stay months in the base data (2016-2018), and thus, there is no need for partial credibility.

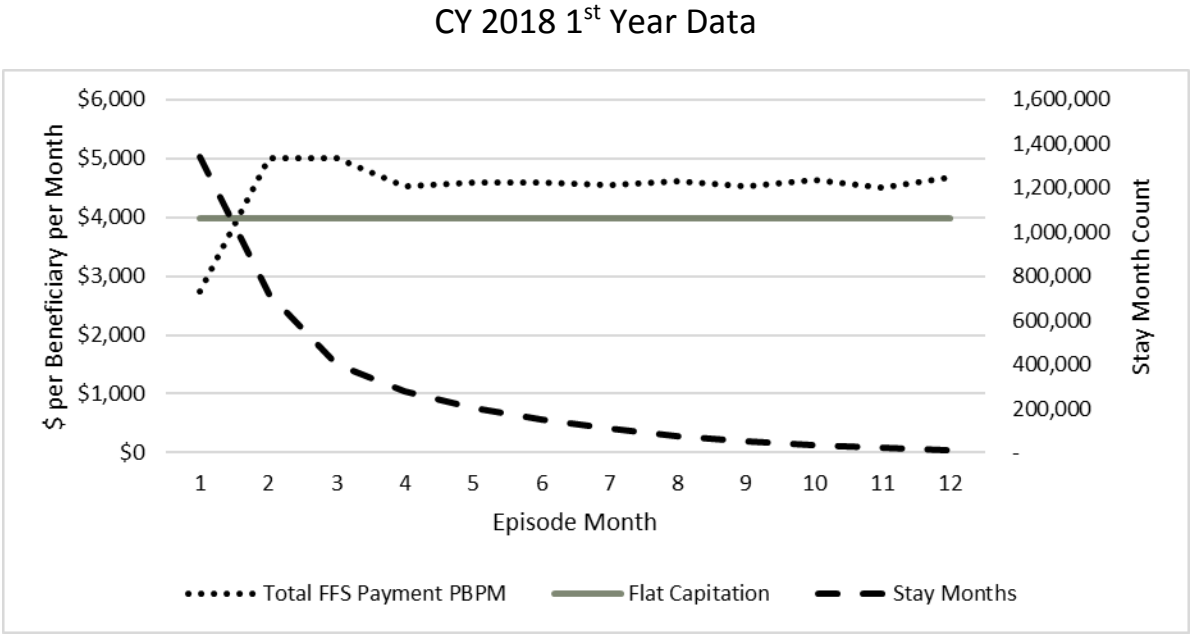
One CBSA (46300 Twin Falls, ID) was created for FY 2019. Prior to that it was included in the rural Idaho CBSA 99913. Two counties (Twin Falls (SSA County Code 13410) and Jerome (13260)) were carved out of the Rural Idaho CBSA to form the Twin Falls CBSA. Another CBSA (21420 Enid, OK) was created in FY 2018 by moving its one county (Garfield (37230)) from the Rural Oklahoma CBSA to create the Enid, OK CBSA. For both of these CBSAs, the experience by county for 2016, 2017 and 2018 was used to create three years of experience. Those counties will be excluded from the Rural CBSA experience for those two states.

No other CBSA structure changes were identified between the 2016-2018 experience period and the 2020 Hospice Wage Index.

4. 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.



This chart also highlights the following:

- The dashed line shows the concentration of stay months in the first few months (40% of the total stay months occur in the first month and 73% 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 analyzed several methodologies for an appropriate monthly rating factor. Methodologies included:

- **Flat cap:** the same monthly capitation rate across all months
- **Stay length method:** flat monthly capitation rate for months 2+ with first month having more than one rate determined by stay length regardless of the number of service days in month 1.

- **Combination method:** flat monthly capitation rate for months 2+ with first month having more than one rate determined by a combination of service days in month 1 and stay length.
- **Three monthly rates:** Rate varies by Stay Month with a rate for Month 1, Months 2 and 3 and Months 4 and after. This method was not operationally supported by the MA program and Prescription Drug system (MARx).
- **Days in month 1:** flat monthly capitation rate for months 2+ with first month having more than one rate determined by service days in the first month; this method was selected given its best fit of monthly capitation payments to historical claims and alignment with the objectives for the Model.

Thus, 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:

Days in Month 1	Monthly Rating Factor	Gross Monthly Base Rate[1]
1-6 Days	0.34	$1,764
7-15 Days	0.64	$3,320
16+ Days	1.02	$5,291

[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.

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 $5,187 (gross of sequestration).