February 2, 2022

NOTE TO: Medicare Advantage Organizations, Prescription Drug Plan Sponsors, and Other Interested Parties

SUBJECT: Advance Notice of Methodological Changes for Calendar Year (CY) 2023 for Medicare Advantage (MA) Capitation Rates and Part C and Part D Payment Policies

In accordance with section 1853(b)(2) of the Social Security Act (the Act), we are notifying you of planned changes in the Medicare Advantage (MA) capitation rate methodology and risk adjustment methodology applied under Part C of the Medicare statute for CY 2023. Also included with this notice is a discussion of the annual adjustments for CY 2023 to the Medicare Part D benefit parameters for the defined standard benefit. CMS will announce the MA capitation rates and final payment policies for CY 2023 no later than Monday, April 4, 2022, in accordance with section 1853(b) of the Act, as established in the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) (Pub. L. 108-173) and amended by the Securing Fairness in Regulatory Timing Act of 2015 (Pub. L. 114-106). The Advance Notice of Methodological Changes is published no fewer than 60 days before the publication of the Rate Announcement and provides a minimum 30-day period for public comment.

Attachment I of this document shows the preliminary estimates of the national per capita MA growth percentage and the national Medicare fee-for-service growth percentage, which are key factors in determining the MA capitation rates. Attachment II sets forth changes in the Part C payment methodology for CY 2023. Attachment III presents the annual adjustments to the Medicare Part D benefit parameters for the defined standard benefit, and sets forth the changes in the Part D payment methodology for CY 2023. Attachment IV contains updates for the MA and Part D Star Ratings and solicits input on potential measure topics, measures, and methodological enhancements for future rating years. Attachment V contains economic information for significant provisions in the Advance Notice. Attachment VI presents the preliminary risk adjustment factors.

Consistent with the Executive Order On Advancing Racial Equity and Support for Underserved Communities Through the Federal Government (EO 13985), CMS is committed to advancing equity in health and healthcare for all individuals and addressing inequities that exist in our policies and programs that serve as barriers to equal opportunity. As noted in EO 13985, “The term ‘equity’ means the consistent and systematic fair, just, and impartial treatment of all individuals, including individuals who belong to underserved communities that have been denied such treatment.”

For MA and Part D, we are exploring ways to advance equity that include:

- collecting more and improved data on beneficiaries’ race, ethnicity and social determinants of health;

- developing quality measures and methodological enhancements that better measure, and strengthen methods of addressing, health disparities; and
- driving value in the Medicare program to make sure that the Medicare dollar is spent effectively and efficiently on programmatic changes that will close health equity gaps.

MA organizations and Part D sponsors have a key role to play in advancing health equity. Plans can meet this challenge by driving value in care delivery, developing qualitative and quantitative metrics to ensure accountability and transparency and equitable delivery of preventive and medical benefits, and taking other concrete steps to address disparities. This includes not only offering supplemental benefits, but making sure that these benefits address the most critical care gaps and barriers to care while complying with the requirements for supplemental benefits.

Please visit the CMS OMH Health Equity Technical Assistance Program webpage for additional resources to support your organization's health equity initiatives. https://www.cms.gov/About-CMS/Agency-Information/OMH/equity-initiatives/Health-Equity-Technical-Assistance.

We welcome your comment on these efforts to pursue health equity in the MA and Part D programs.

To submit comments or questions electronically, go to https://www.regulations.gov, enter the docket number "CMS-2022-0021" in the "Search" field, and follow the instructions for "submitting a comment."

Comments will be made public, so submitters should not include any confidential or personal information. In order to receive consideration prior to the release of the final Announcement of CY 2023 Medicare Advantage Capitation Rates and Part C and Part D Payment Policies (Rate Announcement), comments on this Advance Notice must be received by 6:00 PM Eastern Time on Friday, March 4, 2022.

/ s /

Meena Seshamani, M.D., Ph.D.
Director, Center for Medicare

I, Jennifer Wuggazer Lazio, am a Member of the American Academy of Actuaries. I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained in this Advance Notice. My opinion is limited to the following sections of this Advance Notice: The growth percentages and United States per capita cost estimates provided in Attachment I; the qualifying county determination, calculations of Fee for Service cost, direct graduate medical education carve-out, kidney acquisition cost carve-out, IME phase out, MA benchmarks, EGWP rates, and ESRD rates discussed in Attachment II; Medicare Part D Benefit Parameters: Annual Adjustments for Defined Standard Benefit in 2023 described in Attachment III; and the economic information contained in Attachment V.

/ s /
Jennifer Wuggazer Lazio, F.S.A., M.A.A.A.
Director
Parts C & D Actuarial Group
Office of the Actuary

Attachments

2023 ADVANCE NOTICE
TABLE OF CONTENTS

Attachment I. Preliminary Estimates of the National Per Capita Growth Percentage and the National Medicare Fee-for-Service Growth Percentage for Calendar Year 2023

Each year in the Advance Notice, CMS updates its historical estimates of per capita Medicare costs based on recent data, and provides an estimate for an additional projection year. Specifically, CMS provides estimates of three separate United States Per Capita Costs (USPCCs) for each calendar year:

- Total USPCC: the USPCC for Medicare Part C and Medicare Fee-for-Service (FFS) beneficiaries except those beneficiaries who are in End Stage Renal Disease (ESRD) status for payment purposes, i.e., those beneficiaries who are in dialysis, transplant, or functioning graft status
- FFS USPCC: the USPCC for FFS aged/disabled beneficiaries except those beneficiaries with ESRD
- FFS Dialysis ESRD USPCC: the USPCC for beneficiaries in FFS with ESRD who are in dialysis status (i.e., "Dialysis ESRD")[1]

Based on these estimates, CMS calculates the change, or growth, in each of the USPCCs for the upcoming year. In this Notice, we provide growth percentages from 2022 to 2023. These growth percentages represent the year-over-year changes to the factors used to calculate the MA payment rates, or benchmarks, as discussed below. Throughout this document, we use the terms "benchmark" and "county rate" interchangeably, and the term "service area benchmark" indicates the bidding benchmark for an MA plan based on its specific service area.

The MA county rates are based on the specified amount as described in Attachment II Section A2 below. Section 1853(n)(2)(A) of the Social Security Act ("the Act") defines the specified amount as the base amount multiplied by the applicable percentage for the area (set under section 1853(n)(2)(B) through (D)). Section 1853(n)(4) requires that the benchmark for an area for a year (including increases for quality bonus percentages) be capped at the level of the applicable amount, as defined at section 1853(k)(1) and described in Attachment II Section A1.

The PACE county rates are established using the applicable amount as determined under section 1853(k)(1). This amount is calculated without excluding indirect medical education (IME) amounts under section 1853(k)(4) (as required by section 1894(d)(3)), or organ acquisition costs for kidney transplants, as discussed in Attachment II Section C of this document.

[1] Dialysis ESRD USPCCs are trended from a base year using the trend in total ESRD net of an adjustment factor for dialysis-only.

Section A. Data and Assumptions Supporting USPCCs

Background

In this section of the CY 2023 Advance Notice, we provide additional details and descriptions regarding the development of the USPCCs, in response to previous requests for such information. Unless otherwise stated, the data and methodologies described in this section are past and present practice. The historical and projected USPCC baseline is based on the most recent program experience and actuarial projections prepared by the Office of the Actuary (OACT). The data is tabulated and projected separately for Medicare Part A and Medicare Part B on a quarterly basis. Enrollment and expenditures are summarized on an incurred basis.

Historical Enrollment

Historical total Medicare enrollment is developed from CMS' administrative records. Historical Medicare Advantage enrollment is tabulated from the Monthly Membership Report (MMR[2]) data files.

The enrollment and expenditures are summarized separately for total Medicare and Medicare Advantage and apportioned to non-ESRD and ESRD categories based on Medicare status code (MSC):

- Non-ESRD: MSC 10 (aged without ESRD) and MSC 20 (disabled without ESRD)
- ESRD: MSC 11 (aged with ESRD), MSC 21 (disabled with ESRD), and MSC 31 (ESRD only)

Historical Medicare FFS enrollment is calculated as the difference between total Medicare enrollment and Medicare Advantage enrollment.

Projected Enrollment

Total Medicare enrollment projections are generally based on certain percentages of the Social Security Administration's (SSA's) population projections. These percentages have been very stable over time. For Part A, the projected number of aged beneficiaries averages 93 percent of the Social Security area population aged 65 and older. The disabled enrollment projection is slightly more than the portion of SSA's disabled beneficiary population that has been on the rolls for at least 2 years, because an individual is eligible for Part A even if they have had 2 non-consecutive years of disability. For Part B, the aged enrollment averages 87 percent of the Social

---

[2] For more information on the MMR, refer to the Plan Communication User Guide available at https://www.cms.gov/Research-Statistics-Data-and-Systems/CMS-Information-Technology/mapdhelpdesk/Plan_Communications_User_Guide.

Security area population aged 65 and older. The Part B disabled enrollment is 89 percent of the Part A disabled enrollment.

The increase in the Medicare Advantage projected enrollment is based on an enrollment model which incorporates the historical growth in penetration rates to estimate the MA enrollment growth rates for future years. Projected Medicare FFS enrollment is calculated as the difference between projected total Medicare enrollment and projected Medicare Advantage enrollment.

Historical Benefit Expenditures

The primary source for historical FFS claims is the National Claims History (NCH) file[3]. Additional sources of FFS expenditures include payments to providers based on cost reports, payments for pass through costs, and payment adjustments authorized by law or in connection with participation in innovation model programs. Using completion factors developed from recent program experience, historical experience for more recent years is grossed up to account for claims incurred but not paid.

Historical MA expenditures are tabulated from the Monthly Membership Report (MMR) files, which contain enrollment and plan payment information. The historical experience for more recent years is grossed up to reflect estimated outstanding risk adjustment reconciliations.

Projected Benefit Expenditures

Projected expenditures for FFS beneficiaries are developed separately for each type of service reflected in the National Claims History file, cost report settlements, pass through costs, and innovation model bonuses and penalties.

The projection of NCH costs is based on reimbursements or allowed charges incurred per beneficiary during the base calendar year (CY). For the 2023 Advance Notice USPCCs, the base year was CY 2019 for most services.

The projections take into account various trends including:

- Unit cost changes tied to market baskets and productivity adjustments, fee schedule updates, or the consumer price index (CPI). These updates are based on economic assumptions provided by the Office of Management and Budget (OMB).
- Utilization and intensity of services, which are generally based on historical trends.
- Impact of changes in population mix as measured by age, sex, and time-to-death.
- Changes in Medicare coverage due to legislation, regulation, and national coverage decisions.

[3] For more information on the NCH, refer to the System of Records Notice available at https://www.hhs.gov/foia/privacy/sorns/09700558/index.html.

Projected cost report settlements and pass through costs are developed as a percentage add on basis to the NCH costs and are projected to remain at the same percentage level throughout the projection.

Innovation model payments are projected based on the estimates developed for each individual CMMI demonstration and any historical experience of each demonstration.

Medicare Advantage per capita historical bids, rebates, and benchmarks are summarized on an incurred basis by Medicare Status Code, insurance market (EGWP, individual/non-EGWP), and coverage type (HMO, LPPO, RPPO, SNP, etc.). Projections are performed separately for payments from the Part A and Part B Trust Funds. Aggregate projected payments are calculated as the projected per capita costs times the projected enrollment.

CY 2020 is the base year for the MA experience reflected in the Advance Notice 2023 baseline. The 2021 and 2022 benchmarks, bids, and rebates are estimated based on the growth rates that are derived from the summarized 2021 and 2022 bids and using plans' projections of enrollment and risk scores. Trends in per capita bids for 2023 and later are tied to the per capita FFS growth rates, or the non-ESRD FFS United States per capita cost (USPCC) and the per capita benchmark increases. Trends in the MA benchmarks reflect the FFS growth rates, adjustment to MA risk scores for differences in diagnosis coding between MA and fee-for-service beneficiaries, projected changes in ACA quality bonus (county-specific), and projected phase-out of IME (county-specific).

The Medicare FFS unit cost increases supporting the USPCCs for 2021–2023 will be available on the CMS website at: https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/FFS-Trends.

Adjustments from the Baseline to Develop the USPCC Baseline

There are several adjustments made to the baseline to develop the USPCC projection. Given that MA bids do not include coverage for hospice, expenditures to hospices are excluded from the USPCCs. Also, per section 1853(c)(1)(D)(i) of the Act, incentive payments under sections 1848(o) and 1886(n)[4] for adoption and meaningful use of certified EHR technology are not

[4] Sections 1848(o) and 1886(n) of the Act provide for incentive payments under the Medicare FFS program for eligible professionals and eligible hospitals, respectively, for meaningful use of certified EHR technology (CEHRT). 2016 was the final year that eligible professionals, as well as eligible hospitals outside of Puerto Rico, could earn incentive payments under these provisions; eligible hospitals in Puerto Rico could earn incentive payments for meaningful use of CEHRT through 2021. Sections 1848(a)(7) and 1886(b)(3)(B)(ix) require a reduction in Medicare FFS payments for eligible professionals and eligible hospitals that are not meaningful users of certified EHR technology, starting in 2015 for eligible professionals and eligible hospitals outside of Puerto Rico and in 2022 for eligible hospitals in Puerto Rico. 2018 was the final year that eligible professionals who were not meaningful users of CEHRT could be subject to negative payment adjustments under section 1848(a)(7).

included in the USPCCs. Additionally, claim expenditures in the NCH for cost plan enrollees are removed from the non-ESRD FFS USPCC. Finally, the MA ratebook and MA bids are presented on a pre-sequestration basis and, accordingly, the historical and projected sequestration reduction is added back to the USPCC baseline.

Section B. 2023 Growth Percentage Estimates

The MA growth percentage, as defined at section 1853(c)(6), reflects the growth in per capita costs for non-ESRD beneficiaries enrolled in either FFS or MA, excluding expenditures attributable to sections 1848(a)(7), 1848(o), 1886(b)(3)(B)(ix), and 1886(n) of the Act, based upon estimates of the Total USPCC. The MA growth percentage is also referred to as the total growth percentage and the National Per Capita MA Growth Percentage. The MA growth percentage is used in calculating the applicable amount for a county, as required under section 1853(k)(1).

The non-ESRD FFS growth percentage reflects the growth in per capita costs based upon estimates of the FFS USPCC. As required by section 1853(n)(2)(E)(ii)(II) of the Act, the FFS USPCC calculated under section 1853(c)(1)(D) is used to calculate the specified amount in years in which CMS elects to rebase the adjusted average FFS per capita cost. CMS intends to rebase as part of the calculation of the rates for 2023.

The ESRD growth percentage reflects the growth in per capita costs based on the ESRD FFS USPCC. MA ESRD rates are determined by applying an historical average geographic adjustment to a projected FFS dialysis-only ESRD USPCC.

Table I-1 below provides the current estimate of the change in the three USPCC estimates. The percentage change in each USPCC is shown as the current projected USPCC for 2023 divided by the prior projected USPCC for 2022.

Table I-1. Increase in the USPCC Growth Percentage for CY 2023

	Total USPCC – Non-ESRD	FFS USPCC – Non-ESRD	FFS Dialysis-only ESRD USPCC
Current projected 2023 USPCC	$1,132.48	$1,078.12	$8,990.48
Prior projected 2022 USPCC	$1,086.33	$1,028.38	$8,515.64
Percent increase	4.25%	4.84%	5.58%

The current estimate of the MA growth percentage[1] (or change in the Total USPCC non-ESRD) for aged and disabled enrollees combined in CY 2023 is 4.25 percent. This estimate reflects an underlying trend change for CY 2023 in per capita cost of -1.52 percent and, as required under section 1853(c)(6)(C) of the Act, adjustments to the estimates for prior years as indicated in the table below.

Table I-2 below provides additional detail on the estimates for the change in the Total USPCC or national per capita MA growth percentage for aged/disabled beneficiaries.

Table I-2. Increase in the MA Growth Percentage for 2023

	Prior Increases	Current Increases			MA Growth Percentage for 2023 with §1853(c)(6)(C) Adjustment[2]
	2003 to 2022	2003 to 2022	2022 to 2023	2003 to 2023	
Aged+Disabled	99.752%	96.714%	5.858%	108.238%	4.25%

[1] The MA growth percentage is also known as the National Per Capita MA Growth Percentage and is equal to change in the Total USPCC.

[2] (1 + current increases for 2003 to 2023) divided by (1 + prior increases for 2003 to 2022) minus 1.

Section C. USPCC Estimates

Table I-3 compares last year's estimate of the total non-ESRD USPCC with current estimates for 2003 to 2025; Table I-4 compares last year's FFS non-ESRD USPCC estimates with current estimates; and Table I-5 compares last year's dialysis-only ESRD USPCC estimates with current estimates. In addition, these tables show the current projections of the USPCCs through 2025. Caution should be employed in the use of this information. It is based upon nationwide averages, and local conditions can differ substantially from conditions nationwide. None of the data presented here pertain to the Medicare prescription drug benefit.

The tabulation of FFS costs supporting the USPCCs includes payments made outside the Medicare FFS claim systems, such as provider settlements via cost reports, Innovation Center model payments, Medicare Shared Savings Program shared savings settlements, and other adjustments. Also included in the USPCCs are the cost impacts of program changes enacted through known legislation, regulation, and national coverage determinations (NCDs) applicable for the contract year (2023). Attachment II Section B contains additional information regarding the calculation of FFS costs.

Our estimates for the USPCCs for 2020 and subsequent years reflect the projected cost impacts related to the COVID-19 pandemic, including estimates for applicable costs related to COVID-19 vaccination and changes in utilization of health care services. These USPCCs also reflect estimated cost impacts of changes in MA coverage created by recent legislation. Section 6003 of the Families First Coronavirus Response Act (FFCRA) (Pub. L. 116-127), which amended section 1852(a)(1)(B) of the Act, prohibits MA organizations from requiring cost-sharing in excess of Medicare FFS cost-sharing for testing for COVID-19 and specified testing-related

services during the public health emergency. This, in effect, eliminates MA cost-sharing for COVID-19 testing for that period because there is no cost-sharing under Medicare FFS for the testing and there is no cost sharing for the specified testing-related services during the same period. Section 6003 also prohibits MA plans from applying prior authorization or any other utilization management requirement with respect to COVID-19 clinical diagnostic laboratory tests and specified COVID-19 testing-related services furnished during the COVID-19 PHE. In addition, Section 3713 of the CARES Act, which amended section 1852(a)(1)(B) of the Act, prohibits MA organizations from requiring cost-sharing in excess of Medicare FFS cost-sharing (which is zero) for a COVID-19 vaccine and its administration described in section 1861(s)(10)(A) of the Act; this limitation on cost sharing is not limited to the public health emergency and, therefore, will apply in 2023 regardless whether the public health emergency declaration is still in place.

Our estimates for the USPCCs reflect the final rule (CMS-5528-F) (86 FR 73986-73990) titled "Most Favored Nation (MFN) Model" which rescinds the Most Favored Nation Model Interim Final Rule with Comment Period (CMS-5528-IFC) (85 FR 76180-76259) effective February 28, 2022, and thus the impact of the MFN model is not included in the growth rate estimates.

Table I-3. Comparison of Current & Previous Estimates of the Total USPCC – Non-ESRD

	Part A		Part B		Part A + Part B		
Calendar Year	Current Estimate	Last Year's Estimate	Current Estimate	Last Year's Estimate	Current Estimate	Last Year's Estimate	Ratio
2003	$296.18	$296.18	$247.66	$247.66	$543.84	$543.84	1.000
2004	314.08	314.08	271.06	271.06	585.14	585.14	1.000
2005	334.83	334.83	292.86	292.86	627.69	627.69	1.000
2006	345.30	345.30	313.70	313.70	659.00	659.00	1.000
2007	355.44	355.44	330.68	330.68	686.12	686.12	1.000
2008	371.90	371.90	351.04	351.04	722.94	722.94	1.000
2009	383.91	383.91	367.35	367.35	751.26	751.26	1.000
2010	383.93	383.93	376.12	376.12	760.05	760.05	1.000
2011	387.73	387.73	385.12	385.19	772.85	772.92	1.000
2012	377.37	377.37	391.76	391.82	769.13	769.19	1.000
2013	380.03	380.03	398.54	398.60	778.57	778.63	1.000
2014	370.23	370.40	418.17	418.40	788.40	788.80	0.999
2015	373.99	373.99	434.95	435.00	808.94	808.99	1.000
2016	378.11	377.98	444.14	444.17	822.25	822.15	1.000
2017	383.42	383.60	459.09	459.15	842.51	842.75	1.000
2018	388.61	388.62	489.44	489.65	878.05	878.27	1.000
2019	400.83	400.53	521.84	521.81	922.67	922.34	1.000
2020	403.27	400.32	522.73	523.63	926.00	923.95	1.002
2021	407.69	426.59	579.86	574.69	987.55	1,001.28	0.986
2022	444.44	458.19	625.37	628.14	1,069.81	1,086.33	0.985
2023	464.54	464.49	667.94	652.39	1,132.48	1,116.88	1.014
2024	481.96	482.83	705.10	689.40	1,187.06	1,172.23	1.013
2025	501.79		742.10		1,243.89		

Table I-4. Comparison of Current & Previous Estimates of the FFS USPCC – Non-ESRD

	Part A		Part B		Part A + Part B		
Calendar Year	Current Estimate	Last Year's Estimate	Current Estimate	Last Year's Estimate	Current Estimate	Last Year's Estimate	Ratio
2010	$371.20	$371.20	$373.99	$373.99	$745.19	$745.19	1.000
2011	371.15	371.15	382.92	383.01	754.07	754.16	1.000
2012	356.97	356.97	390.45	390.54	747.42	747.51	1.000
2013	363.75	363.75	394.24	394.32	757.99	758.07	1.000

	Part A		Part B		Part A + Part B		
Calendar Year	Current Estimate	Last Year's Estimate	Current Estimate	Last Year's Estimate	Current Estimate	Last Year's Estimate	Ratio
2014	364.24	364.24	408.87	408.91	773.11	773.15	1.000
2015	369.37	369.36	427.72	427.79	797.09	797.15	1.000
2016	372.32	372.11	433.37	433.39	805.69	805.50	1.000
2017	374.41	374.66	448.08	448.16	822.49	822.82	1.000
2018	378.70	378.69	473.81	474.12	852.51	852.81	1.000
2019	384.03	383.40	500.88	500.57	884.91	883.97	1.001
2020	374.48	364.08	474.16	468.10	848.64	832.18	1.020
2021	389.40	397.12	549.83	532.57	939.23	929.69	1.010
2022	423.94	434.65	598.13	593.73	1,022.07	1,028.38	0.994
2023	447.27	440.27	630.85	616.33	1,078.12	1,056.60	1.020
2024	463.63	456.98	665.60	650.46	1,129.23	1,107.44	1.020
2025	482.08		699.79		1,181.87		

Table I-5. Comparison of Current & Previous Estimates of the ESRD Dialysis-only FFS USPCC

	Part A		Part B		Part A + Part B		
Calendar Year	Current Estimate	Last Year's Estimate	Current Estimate	Last Year's Estimate	Current Estimate	Last Year's Estimate	Ratio
2010	$2,952.75	$2,952.75	$3,881.39	$3,881.39	$6,834.14	$6,834.14	1.000
2011	2,862.38	2,862.38	3,908.01	3,908.01	6,770.39	6,770.39	1.000
2012	2,774.49	2,774.49	3,944.59	3,944.59	6,719.08	6,719.08	1.000
2013	2,794.19	2,794.19	4,088.66	4,088.66	6,882.85	6,882.85	1.000
2014	2,784.52	2,784.52	4,115.70	4,115.70	6,900.22	6,900.22	1.000
2015	2,775.84	2,775.84	4,060.87	4,060.87	6,836.71	6,836.71	1.000
2016	2,895.91	2,895.91	4,081.27	4,081.27	6,977.18	6,977.18	1.000
2017	2,883.27	2,883.27	4,102.66	4,102.66	6,985.93	6,985.93	1.000
2018	2,952.21	2,952.21	4,526.09	4,526.09	7,478.30	7,478.30	1.000
2019	3,040.74	3,040.51	4,617.29	4,606.77	7,658.03	7,647.28	1.001
2020	2,928.26	2,876.72	4,486.45	4,491.12	7,414.71	7,367.84	1.006
2021	3,104.57	3,109.31	4,859.20	4,788.33	7,963.77	7,897.64	1.008
2022	3,460.26	3,407.39	5,116.68	5,108.25	8,576.94	8,515.64	1.007
2023	3,701.34	3,444.09	5,289.14	5,251.79	8,990.48	8,695.88	1.034
2024	3,859.27	3,579.68	5,485.21	5,445.43	9,344.48	9,025.11	1.035

	Part A		Part B		Part A + Part B		
Calendar Year	Current Estimate	Last Year's Estimate	Current Estimate	Last Year's Estimate	Current Estimate	Last Year's Estimate	Ratio
2025	4,033.24		6,231.04		10,264.28		

These estimates are preliminary and could change when the final rates are announced in the Announcement of CY 2023 Medicare Advantage Capitation Rates and Medicare Advantage and Part D Payment Policies. Further details on the derivation of the national per capita MA growth percentage and the FFS growth percentage will also be presented in the Rate Announcement.

Section D. Loading for Claims Processing Costs

Section 1853(c)(1)(D) of the Act provides that the adjusted average per capita cost (AAPCC) for the year involved, which is the basis for the calculation of the USPCC, is determined under section 1876(a)(4) of the Act. As defined in section 1876(a)(4) of the Act, the AAPCC (and accordingly the USPCCs) include administrative costs incurred by the Medicare Administration Contractors (MACs) described in sections 1816 and 1842, which is incorporated into the calculation as an adjustment. Consistent with past practice, this "loading" adjustment is developed as the ratio of MAC administrative costs to Medicare benefit payments for the most recent completed fiscal year. Consistent with past years, we will continue the methodology that the loading for the total non-ESRD USPCC include both FFS and Part C expenditures in the denominator of the calculation. In order to better align the costs included in the numerator and denominator, we are proposing for 2023 to include only FFS expenditures (as opposed to both FFS and Part C expenditures) in the denominator of the loading adjustment calculation for the FFS non-ESRD and FFS ESRD USPCCs. Table I-6 contains the proposed 2023 USPCC loading adjustment for claims processing costs.

Table I-6. Proposed USPCC Loading Adjustment for Claims Processing Costs

Expenditure Category	Cash Benefits FY 2021 (000)	MAC Expenses FY 2021 (000)	Claims Processing Loading	USPCC basis
PART A				
FFS	$201,333,581	$209,068	0.001038	FFS USPCC
Part C	$147,160,830	n/a	n/a	n/a
Total	$348,494,411	$209,068	0.000600	Total USPCC
PART B				
FFS	$212,076,926	$574,267	0.002708	FFS USPCC
Part C	$198,446,691	n/a	n/a	n/a
Total	$410,523,617	$574,267	0.001399	Total USPCC

Attachment II. Changes in the Payment Methodology for Medicare Advantage and PACE for CY 2023

Section A. MA Benchmark, Quality Bonus Payments, and Rebate

Section 1853(n)(2) of the Act requires that, in determining the specified amount, CMS use as the base amount the amount described in section 1853(c)(1)(D) for a rebasing year or, for years that are not a rebasing year, the base amount from the previous year increased by the national per capita MA growth percentage. Section 1853(c)(1)(D)(ii) requires CMS to rebase the county FFS rates, which form the basis of the specified amount described in Section A2 below, periodically but not less than once every three years. When the rates are rebased, CMS updates its estimate of each county's FFS costs using more current FFS claims information. CMS intends to rebase the county FFS rates for 2023 using FFS claims data from 2016 through 2020. CMS has rebased the rates every year since 2012, and has discussed in previous Rate Announcements that we anticipate rebasing the rates each year. Given that MA rates are based on FFS costs, CMS believes it is important to update the FFS per capita cost estimates using the most current FFS data available. (Please note that throughout this document, the terms "benchmark" and "county rate" are used interchangeably, and the term "service area benchmark" indicates the bidding target for an MA plan based on its specific service area.) Section 1853(n)(4) requires that the benchmark for an area for a year (including increases for quality bonus percentages) be capped at the level of the applicable amount, as defined at section 1853(k)(1).

Rates for the Programs of All-Inclusive Care for the Elderly (PACE) plans are not developed using the specified amount, per section 1853(n)(5) of the Act, but are developed using the applicable amount, as defined at section 1853(k)(1), as discussed below.

A1. Applicable Amount

The applicable amount is the rate established under section 1853(k)(1) of the Act. As CMS intends to rebase the rates in 2023, the applicable amount for 2023 is the greater of: (1) the county's 2023 FFS cost or (2) the 2022 applicable amount increased by the CY 2023 National Per Capita Medicare Advantage Growth Percentage. As discussed in Section A5, section 1853(n)(4) of the Act requires that the benchmark (determined taking into account the quality bonus percentage increase) for each county must be capped at the county's applicable amount.

A2. Specified Amount

Under section 1853(n)(2)(A) of the Act, the specified amount is based upon the following formula:

(2023 FFS cost minus (IME phase-out amount and kidney acquisition costs)) × (applicable percentage + applicable percentage quality increase)

Where:

FFS cost is adjusted to exclude costs attributable to payments under sections 1848(o), 1886(n), and 1886(h), as described in more detail below in section B;

IME phase-out amount is the amount of indirect costs of medical education that is required to be phased out as specified at section 1853(k)(4) and section 1853(n)(2)(A)(i) and (F);

Kidney acquisition costs are the standardized costs for payments for organ acquisitions for kidney transplants that are required to be excluded, beginning 2021, as specified at section 1853(k)(5) and section 1853(n)(2)(A)(i) and (G);

Applicable percentage is a statutory percentage applied to the county's base payment amount, as described at section 1853(n)(2)(B); and

Applicable percentage quality increase, referred to in this document as the quality bonus payment (QBP) percentage, is a percentage point increase to the applicable percentage for a county in a qualifying plan's service area as provided in section 1853(o).

Section 1853(n)(2)(B) and (C) of the Act requires CMS to determine applicable percentages for a year based on county FFS rate rankings for the most recent year that was a rebasing year. To determine the CY 2023 applicable percentages for counties in the 50 States and the District of Columbia, CMS will rank counties from highest to lowest based upon their 2022 average per capita FFS rate adjusted to exclude the IME phase out and payments for kidney acquisition. The 2022 rates are used because 2022 is the most recent rebasing year prior to 2023. CMS will then place the rates into four quartiles. For the territories, CMS will assign an applicable percentage to each territory county based on where the territory county rate falls in the quartiles established for the 50 States and the District of Columbia.

CMS is publishing the 2023 applicable percentages by county with the Advance Notice at https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Announcements-and-Documents.html. Each county's applicable percentage is assigned based upon its quartile ranking, as follows:

Table II-1. FFS Quartile Assignment

Quartile	Applicable Percentage
4th (highest)	95%
3rd	100%
2nd	107.5%
1st (lowest)	115%

Section 1853(n)(2)(D) of the Act provides that, beginning in 2013, if there is a change in a county's quartile ranking for a payment year compared to the county's ranking in the previous year, the applicable percentage for the area for the year shall be the average of: (1) the applicable percentage for the previous year and (2) the applicable percentage for the current year. For both years, CMS will calculate the applicable percentage that would otherwise apply for the area for the year in the absence of this transitional provision. For example, if a county's ranking changed from the second quartile to the third quartile, the applicable percentage would be 103.75 percent for the year of the change – the average of 107.5 percent and 100 percent.

A3. Quality Bonus Payment Percentage

The Act provides for CMS to make quality bonus payments to MA organizations that meet quality standards measured under a five-star quality rating system. In this document, we refer to this quality bonus as the *quality bonus payment (QBP) percentage* instead of using the statutory term *applicable percentage quality increase*. The QBP percentage is a percentage point increase to the applicable percentage for each county in a qualifying plan's service area, before multiplying the percentage by the FFS rate for the year to determine the specified amount.

Table II-2 shows the QBP percentage for each Star Rating. Plans with fewer than four stars will not receive a QBP percentage increase to the county rates, and plans with four or more stars will receive a QBP percentage increase in the calculation of the county rates, as set forth in sections 1853(n) and 1853(o) of the Act. See Section A6 for rebate percentages.

Table II-2. Percentage Add-on to Applicable Percentage for Quality Bonus Payments

Star Rating	QBP Percentage
Fewer than 4 stars	0%
4 stars	5%
4.5 stars	5%
5 stars	5%

An MA plan's Star Rating is the rating assigned to its contract applying the 5-star rating system (based on the data collected under section 1852(e) of the Act) specified in subpart D of this part 422, specifically §§ 422.160 through 422.166. The contract rating is applied to each plan under that contract. MA plans with a Star Rating of four or more stars will bid against their service area benchmarks that include the 5-percentage point QBP add-on to the applicable percentage for the benchmark in each county in the service area. MA plans with a Star Rating of fewer than four stars will bid against service area benchmarks that do not include QBP add-ons to the county rates, with the exceptions of new MA plans and low enrollment plans. As discussed below, all benchmarks (determined after application of the QBP percentage) are capped at the section 1853(k)(1) applicable amount per section 1853(n)(4) of the Act.

New MA Plans

New MA plans are treated as qualifying plans that are eligible to receive a QBP percentage increase to the county rates, except that the QBP percentage will be 3.5 percentage points, per section 1853(o)(3)(A)(iii)(I)(cc) of the Act and §§ 422.166(d)(2)(v) and 422.258(d)(7)(v)(C).[5] That is, new MA plans will bid against a service area benchmark that reflects a 3.5 percentage point increase to the applicable percentage used to set the benchmark for each county in the plan's service area. Per section 1853(o)(3)(A)(iii)(II) of the Act and § 422.252, for the purpose of determining a QBP percentage, the term "new MA plan" refers to an MA plan offered by a parent organization that has not had another MA contract in the preceding three-year period.

CMS intends to continue the longstanding policy, recently finalized at § 422.166(d)(2)(vi), that for a parent organization that has had a contract with CMS in the preceding three-year-period, any new MA contract under that parent organization will receive an enrollment-weighted average of the Star Ratings earned by the parent organization's existing MA contracts. This policy was codified in the CY 2022 final rule (86 FR 5929–31) and addressed in a rulemaking for CY 2012 (75 FR 71190, 71219; 76 FR 21432, 21486–90). Such plans under the new MA contract may qualify for a QBP increase based on the enrollment-weighted average rating of the parent organization.

Low Enrollment Plans

Low enrollment plans do not receive a quality Star Rating under the 5-star rating system (specified in subpart D of this part 422) but are treated as qualifying plans for purposes of the QBP. *See* 42 CFR §§ 422.166(d)(v) and 422.258(d)(7)(iv). Section 1853(o)(3)(A)(ii)(II) of the Act, as implemented at § 422.258(d)(7)(iv)(B), provides that for 2013 and subsequent years, CMS shall develop a method for determining whether an MA plan with low enrollment is a qualifying plan for purposes of receiving an increase in payment under section 1853(o). We apply this determination at the contract level, and thus determine whether a contract (meaning all plans under that contract) is a qualifying contract. Pursuant to § 422.252, a low enrollment contract is one that could not undertake Healthcare Effectiveness Data and Information Set (HEDIS) and Health Outcome Survey (HOS) data collections because of a lack of a sufficient number of enrollees (that is, fewer than 500 enrollees) to reliably measure the performance of the health plan.

Section 1853(o)(3)(A)(ii) of the Act does not address the amount of the increase for low enrollment contracts. We intend to continue the current policy that low enrollment contracts be included as qualifying contracts that receive the QBP percentage of 3.5 percentage points, similar to the QBP percentage increase applied to new MA plans. We discussed the basis of this

[5] All regulatory cites are to Title 42 of the Code of Federal Regulations unless otherwise noted.

policy in detail in the 2018 Advance Notice (pages 12-13) (https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Downloads/Advance2018.pdf).

Contract Consolidations and QBP

Section 1853(o)(4) of the Act was amended by the Bipartisan Budget Act of 2018 to add subsection (D) regarding the determination of star ratings for consolidating MA plans, which is implemented for MA plans at § 422.162(b)(3) for contract consolidations approved on or after January 1, 2019. When two or more contracts for health and/or drug services of the same plan type under the same legal entity are combined into a single contract at the start of a contract year, the rating used to determine QBP status ("QBP rating") for the first year following the consolidation will be the enrollment weighted average of what would have been the QBP ratings of the surviving and consumed contracts, using the contract enrollment in November of the year the Star Ratings were released.

A4. Qualifying County Bonus Payment

Beginning with contract year 2012, pursuant to section 1853(o)(2) of the Act and § 422.258(d)(7)(ii), the QBP percentage is doubled for a qualifying plan located in a "qualifying county." A qualifying county is a county that meets the following three criteria:

(1) has an MA capitation rate that, in 2004, was based on the amount specified in section 1853(c)(1)(B) for a Metropolitan Statistical Area with a population of more than 250,000;

(2) as of December 2009, had at least 25 percent of MA-eligible beneficiaries residing in the county enrolled in a MA plan; and

(3) has per capita FFS County spending for the year (2023) that is less than the national monthly per capita cost for FFS for the year (2023).

See section 1853(o)(3)(B) of the Act and § 422.258(d)(7)(ii).

Example: As described in Section A3, a plan with a rating of 4.5 stars will have 5 QBP percentage points added to the applicable percentage of each county in its service area. For each county that meets the three criteria stated above in that plan's service area, that percentage will be doubled so that an additional 5 percentage points will be added to that county's applicable percentage for a total increase of 10 percentage points. If this qualifying county otherwise has an applicable percentage of 95 percent, this is increased to 105 percent to reflect the quality bonus payment percentage for that county. As discussed in section A5 below, all benchmarks are capped at the section 1853(k)(1) applicable amount (determined after application of the QBP percentage) per section 1853(n)(4) of the Act.

CMS will publish a complete list of qualifying counties with the final 2023 Rate Announcement. The listing will contain all counties that meet all three criteria stated above. Two of the three

elements for determining a qualifying county (2004 urban floors (Y/N) for each county, and 2009 Medicare Advantage penetration rates) can be found in the 2022 Rate Calculation Data file (columns AC and AE) on the CMS website at https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Ratebooks-and-Supporting-Data.html. The 2023 FFS rates, which are necessary for the third criterion, are not available at the time this Advance Notice is published. The FFS rates and the national average FFS spending amount will be published in the final 2023 Rate Announcement.

A5. Cap on Benchmarks

Section 1853(n)(4) of the Act requires that the benchmark (determined by taking into account the application of the QBP percentage) for a county must be capped at the level of the county's applicable amount determined under section 1853(k)(1). This provision requires that the QBP increase be included in the benchmark before the comparison is made to determine if the cap is applied. Thus, for all counties, post-QBP percentage rates are capped at the section 1853(k)(1) applicable amount.

While we appreciate the concerns stakeholders have raised in connection with the cap on benchmarks, CMS believes that section 1853(n)(4) of the Act prevents elimination of the rate cap or excluding the bonus payment from the cap calculation.

A6. Rebate

Under section 1854(b)(1)(C)(v) of the Act, except for MSA plans, the level of rebate for each plan is based on the plan's Star Rating. Rebates for each plan are calculated as a percentage of the amount by which the risk-adjusted service area benchmark exceeds the risk-adjusted bid. Under § 422.266(b), plans may use rebates to pay for mandatory supplemental benefits and/or to buy down beneficiary premiums for Part B and/or Part D prescription drug coverage. Pursuant to section 1854(b)(1)(C)(v), which is implemented in § 422.266(a)(2)(ii), the rebate percentages apply based on a plan's Star Rating, as shown in Table II-3.

Table II-3. MA Rebate Percentages

Star Rating	Rebate Percentage
4.5+ Stars	70%
3.5 to < 4.5 stars	65%
< 3.5 stars	50%

Section 1854(b)(1)(C)(vi)(II) of the Act requires that, for purposes of determining the rebate percentage, a new MA contract under a new parent organization will be treated as having a Star Rating of 3.5 stars for 2012 and subsequent years. *See* also § 422.266(a)(2)(iv). The statute is

silent on the rebate percentage to assign to low enrollment plans in years after 2012. We view this as a gap in the statute, particularly in light of the direction in section 1853(o)(3)(A)(ii) to treat low enrollment plans as qualifying plans for purposes of the quality bonus payment percentage. As we have in prior years, CMS intends to treat low enrollment plans as having a Star Rating of 3.5 stars for purposes of determining the rebate percentage.

Section B. Calculation of Fee for Service Cost

B1. Introduction

The FFS per capita cost for each county is the product of (1) the national FFS per capita cost, or United States per-capita cost (USPCC), and (2) a county-level geographic index called the average geographic adjustment (AGA). Each year, CMS strives to improve the development of the AGAs and estimated FFS per capita costs with refinements to how these figures are calculated.

We will continue to incorporate refinements developed and used in prior years to update the claims data used to calculate the AGAs and to continue the repricing of historical data in the AGA calculation to reflect changes in FFS payment rules. CMS will reprice historical hospital inpatient, hospital outpatient, skilled nursing facility, and home health claims to reflect the most currently available wage indices, and re-tabulate physician claims with the most currently available Geographic Practice Cost Index. We will also reprice historical claims to account for legislative and regulatory changes made to uncompensated care payments. Repricing historical claims used for the AGAs, in conjunction with rebasing rates, ensures that the FFS rates for each county reflect the most current FFS fee schedules and payment rules.

We will continue a refinement to the methodology used in the ratebook development to include Health Professional Shortage Areas (HPSAs) bonus payments. Specifically, we will tabulate the HPSA bonuses by county of residence for years 2016–2020 and add these values to our ratebook FFS expenditures. The HPSA bonuses are disbursed quarterly to providers and are not reflected in the standard claim files.

With this Advance Notice, we are releasing the 2020 FFS cost data by county used in the development of the 2023 ratebook. This data is available on the CMS website at https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/FFS-Data.html. These data do not reflect adjustments for Innovation Center Models and Demonstration Programs and the Medicare Shared Savings Program, and do not reflect adjustments for claim repricing for the most current available Medicare FFS payment rules and parameters.

B2. AGA Methodology

We are aware of concerns regarding the 2020 FFS data used to establish the MA benchmarks nationally, with particular regard to the impact of the COVID-19 pandemic. We have reviewed

the trends in the 2020 FFS data, and found that some specific regions did experience decreased per-capita costs while other regions experience increased per-capita costs when compared to the 2019 national average per-capita costs. For ratebook development, we use an average of five years of FFS experience for each county, which mitigates annual fluctuations and anomalies in the data that may occur for a variety of reasons. This methodology provides for stability in the rates despite local or regional events, such as natural or weather-related disasters, and varying impacts from nationwide events, such as pandemics. We have not made ratebook adjustments in prior years for select events in specific areas, such as for other natural disasters which may have impacted FFS experience.

In the first step of the AGA methodology, CMS will add the 2020 cost and enrollment data to, and drop the 2015 cost and enrollment data from, the historical claims experience used to develop new geographic cost indices for each county. As a result, the five-year rolling average will be based on non-hospice Medicare FFS claims data from 2016–2020. CMS will then perform a series of adjustments to the Medicare FFS data to estimate FFS rates per county, explained below as successive steps.

For Puerto Rico, CMS will continue to include five years (2016–2020) of historical claims and enrollment only for beneficiaries with Part A and Part B enrollment at the time of the dates of service for the FFS claim. While most Medicare beneficiaries are automatically enrolled in Part B and must opt out to decline it, beneficiaries in Puerto Rico must take affirmative action to opt-in to Part B coverage. CMS continues to believe it is appropriate to adjust the FFS rate calculation in Puerto Rico used to determine MA rates so that it is based on beneficiaries who are enrolled in both Part A and Part B in order to produce a more accurate projection of FFS costs per capita in Puerto Rico.

In the second step, CMS will reprice the historical inpatient, hospital outpatient, skilled nursing facility, and home health claims from 2016–2020 to reflect the most current (i.e., FY 2022) wage indices, re-tabulate physician claims with the most current Geographic Practice Cost Indices, and reprice Medicare Durable Medical Equipment, Prosthetics, Orthotics, and Supplies (DMEPOS) claims to reflect updated methodologies in accordance with the final rule[6] which appeared in the Federal Register on December 28, 2021 which consolidates CMS-1687-F, CMS-1738-F and CMS-5531-F. The single payment amount schedules to be used for repricing off-the-shelf knee and back braces are available on the CMS website at: https://dmecompetitivebid.com/cbic/cbicr2021.nsf/DocsCat/84U18RR1ER and the January 2022 fee schedules for repricing other DMEPOS items are available on the CMS website at: https://www.cms.gov/medicaremedicare-fee-service-paymentdmeposfeescheddmepos-fee-schedule/dme22.

[6] The final rule is available at: https://www.federalregister.gov/d/2021-27763/.

We will continue to adjust the uncompensated care payments (UCP) represented in the 2016–2020 claims to reflect the requirements of the most recent final rule (here, the FY 2022 Inpatient Prospective Payment System (IPPS) final rule). Repricing for Puerto Rico inpatient claims will continue to reflect the Consolidated Appropriations Act, 2016 (Pub. L. 114-113, Division O, section 601), which amended section 1886(d)(9)(E) of the Act.

We will continue to use, as the source of the county designation of beneficiaries used in the summarization of the risk scores, the county assignment used for the ratebook FFS claims and enrollment. For contract years 2016 and earlier, the county assignment for each FFS beneficiary was based on the ZIP code associated with the beneficiary's mailing address. Beginning with the 2017 ratebook, we used the county of residence provided by the Social Security Administration, which is the same county assignment as the ratebook FFS claims and enrollment.

The statutory component of the Regional MA benchmarks for RPPOs will also continue to be based on this county designation of beneficiaries. Under our implementation of section 1858(f)(2) of the Act, the standardized RPPO benchmark for each MA region includes a statutory component consisting of the weighted average of the county capitation rates across the region for each appropriate level of star rating. The enrollment weights for the statutory component will reflect the proposed county designation of beneficiaries.

As in prior years, (1) CMS will make additional adjustments to the FFS costs described below, and (2) the average of each county's five year geographic indices, based on the adjusted claims data, will be divided by the county's average five-year risk score in order to develop the AGA for that county. Consistent with the development of prior years' ratebooks, the risk scores used to standardize the non-ESRD and ESRD ratebooks will be based on the risk adjustment model used for the applicable contract year (2023) payment.

B3. Adjustments for Medicare Shared Savings Program and Innovation Center Models and Demonstration Programs

As indicated in Table B3-1, we will continue to adjust historical FFS experience to incorporate shared savings and losses or episode savings and losses experienced under the Medicare Shared Savings Program and Innovation Center models and demonstration programs. We will update the experience years used for this adjustment as noted on Table B3-1. All adjustments of this type apply to only the non-ESRD ratebook except the model(s) noted as ESRD in Table B3-1.

Table B3-1. The Medicare Shared Savings Program and Innovation Center Models and Demonstration Programs with Ratebook Adjustments

Program/Models and Demonstration Programs	Experience Years		Payment Type
	2022 Ratebook	2023 Ratebook	
Medicare Shared Savings Program	2015–2019	2016–2020	Shared savings / losses
Pioneer ACO	2015–2016	2016	Shared savings / losses
Comprehensive Care for Joint Replacement (CJR)	2016–2018	2016–2020	Episode savings / losses
Next Generation ACO (NGACO)	2016–2019	2016–2020	Shared savings / losses
Oncology Care Model (OCM)	7/1/2016–2018	7/1/2016–2020	Episode savings / losses
Comprehensive Primary Care (CPC)	2015–2016	2016	Shared savings / losses
Bundled Payment for Care Improvement (BPCI)	2015–2018	2016–2018	Episode savings / losses
Bundled Payment for Care Improvement Advanced (BPCI Advanced)	10/1/2018–2019	10/1/2018–2020	Episode savings / losses
Medicare-Medicaid Financial Alignment Initiative Managed FFS Model	2015–2018	2016–2019	Shared savings
Vermont Medicare ACO Initiative	2018–2019	2018–2020	Shared Savings / losses
Maryland Primary Care Program	None	2019	Performance Payment
Pioneer ACO	2015–2016	2016	Population-based payment
Next Generation ACO (NGACO)	2016–2019	2016–2020	Population-based payment
Vermont Medicare ACO Initiative	2018–2019	2018–2020	Population-based payment
Maryland Primary Care Program	None	2019–2020	Population-based payment
Comprehensive Primary Care Plus (CPC+)	2017–2019	2017–2020	Comprehensive Primary Care Payments
Comprehensive Primary Care Plus (CPC+)	2017–2019	2017–2020	Performance Payment
Comprehensive Primary Care Plus (CPC+)	2017–2019	2017–2020	Care Management Fees

Program/Models and Demonstration Programs	Experience Years		Payment Type
	2022 Ratebook	2023 Ratebook	
Maryland Primary Care Program	None	2019–2020	Care Management Fees
ESRD			
Comprehensive ESRD Care (CEC)	2016–2018	2016–2019	Shared savings / losses
Next Gen ACO (NGACO)	None	2016–2020	Population-based payment
Vermont Medicare ACO Initiative	None	2018–2020	Population-based payment

Notes:

- 2018–2019 shared savings payments for "Vermont Medicare ACO Initiative" is included with Next Generation ACO
- In the 2021 Rate Announcement, "Vermont Medicare ACO Initiative" was labeled "Vermont All-Payer ACO", and payments were not actually made in 2017 but began in 2018 and were reported under the program "Next Generation ACO."

The key aspects of these adjustments are:

- The adjustments reflect an allocation of the savings and losses based on the distribution of the participating entity's enrollment by county of residence. The adjustments applied to the non-ESRD ratebook exclude experience for beneficiaries in ESRD status as of July 1 of the experience year. (The adjustments for the model(s) noted as ESRD in Table B3-1, which are applied to the ESRD ratebook in a similar manner as the non-ESRD cohort, include experience for beneficiaries in ESRD status.)
- Under the models noted as using "population-based payments" in Table B3-1, participants receive a monthly fee that ultimately offsets a percentage reduction in FFS payments to certain providers and suppliers aligned with participants over the same year. For each affected claim, the reduction amount represents the portion of the fee associated with that particular claim and is therefore added back to the reduced FFS amount so that the total reimbursement amount is represented.
- Under the CPC+ models, participants receive quarterly payments that replace a percentage of FFS claim amounts for each affected claim. The "comprehensive primary care payments" are included with claim costs to compile the total reimbursement amount.
- In the ratebooks for contract years 2020 and earlier, the allocation of the Medicare Shared Savings Program and Innovation Center model and demonstration payment adjustments between the Part A and Part B Trust Funds was based on the Part A and Part B proportion of the FFS USPCC for each calendar year. Consistent with the actual payments by the Trust Fund, we intend to continue with the approach started for CY 2021 ratebook to

allocate the entire amount of the following payments for all experience years to the Part B Trust Fund: (i) Oncology Care Model episode savings / losses, (ii) Comprehensive Primary Care shared savings / losses, and (iii) Comprehensive Primary Care Plus primary care payments, performance payments, and care management fees. The remaining Medicare Shared Savings Program and Innovation Center model and demonstration payment adjustments will continue to be allocated in the MA ratebook calculations between the Part A and Part B Trust Funds based on the Part A and Part B proportion of the FFS USPCC for each calendar year.

Further information on the Medicare Shared Savings Program may be found at: https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/sharedsavingsprogram. Further information on the Innovation Center models and demonstrations may be found at: https://innovation.cms.gov/index.

Although we considered whether to adjust the FFS claims experience for care management fees, per-beneficiary-per-month fees, and/or advance payment of shared savings paid to providers for other Innovation Center models conducted in 2016–2020 period,[7] we intend to continue prior policy and will not take fees of this type into account in our adjustments to historical FFS experience when such fees or payments were not funded from Medicare Parts A or B Trust Funds. We have determined that the fees paid under the Multi-Payer Advanced Primary Care Practice Demonstration are already reflected in historical FFS claims, and therefore, no adjustment is warranted. We plan to monitor certain programs operating under the Pennsylvania Rural Health Model, notably the global budgets that began in 2019 for certain rural hospitals in Pennsylvania, and in the future will consider potentially including adjustments if data become available for attribution at a county level.

B4. Additional Adjustment to FFS per Capita Costs in Puerto Rico

For the past six years, the Secretary has directed the Office of the Actuary to adjust the fee-for-service experience for beneficiaries enrolled in Puerto Rico to reflect the nationwide propensity of beneficiaries with zero claims. For the CY 2017–2022 Rate Announcements, the Office of the Actuary evaluated experience exclusively for beneficiaries who were enrolled in both Parts A and B ("A&B beneficiaries") and were not dually eligible for Veterans Affairs (VA) coverage. The study for setting the CY 2022 rates analyzed experience for calendar years 2015 through 2019 and only considered FFS beneficiaries enrolled mid-year. On average, 15.0 percent of A&B Puerto Rico FFS beneficiaries were found to have no Medicare Part A or Part B claim reimbursements per year. This compares to a nationwide, non-territory, proportion of 6.1 percent of A&B FFS beneficiaries found to have no Medicare Part A claim reimbursements and no

[7] Information about the various innovation models is available in the Report to Congress available at: https://innovation.cms.gov/data-and-reports/2021/rtc-2020.

Medicare Part B claim reimbursements per year. Based on the Secretary's direction, the Puerto Rico FFS weighting of enrollment and risk scores for the zero-claim cohort was adjusted to reflect the nationwide proportion of zero-claim beneficiaries. The resulting impact was measured as an average increase in the standardized per-capita FFS costs in Puerto Rico of 4.6 percent for 2015 through 2019. Accordingly, a 4.6 percent adjustment was then applied to the pre-standardized Puerto Rico FFS rates supporting the CY 2022 ratebook development.

We are considering whether a similar adjustment should be applied for 2023. The Office of the Actuary will perform an analysis that is similar to the prior analysis but with an updated five years of data: 2016–2020. We welcome comments regarding a similar update to Puerto Rico's experience in the development of the 2023 FFS rates. We will review the results of this study and any comments that we receive, and we will specify in the final Rate Announcement any adjustment that we determine may be necessary based on those results and comments.

We are aware of concerns raised by stakeholders regarding the FFS data used to establish MA benchmarks in Puerto Rico. As discussed in the CY 2017 Advance Notice, the law requires that MA benchmarks be based on a county's average Medicare FFS per-capita cost, and there is no evidence that FFS costs in Puerto Rico are higher than the costs observed in the FFS claims data, and thus no basis for overhauling Puerto Rico's Medicare Advantage benchmarks. As we stated in the CY 2017 and CY 2018 Rate Announcements, we believe that the FFS data in Puerto Rico is sufficient for establishing accurate MA benchmarks. The CY 2020 Advance Notice (page 21) and Rate Announcement (pages 27 and 28) included discussion and analysis of trends in the FFS data, and concluded that our methodology of using five years of FFS experience mitigates annual fluctuations and anomalies in the data that may occur for a variety of reasons and provides for stability in the rates.

B5. Additional Adjustments

The following adjustments are made after the AGA is calculated:

- Direct Graduate Medical Education: removed from FFS county costs (as directed by section 1853(c)(1)(D)(i) of the Act), described in more detail in Section C1.
- Credibility: for counties with fewer than 1,000 members, blend county experience with that of others in the market area.
- Veterans Affairs (VA) and Department of Defense (DoD): apply an adjustment to FFS per capita costs for beneficiaries dually enrolled in VA and/or the DoD health programs (the Uniformed Services Family Health Plan (USFHP) and/or the Veterans Health Administration (VHA)) pursuant to section 1853(c)(1)(D)(iii) of the Act. The VA/DoD adjustment for the 2023 rates will be based upon an updated study that uses FFS data from calendar years 2015–2019. The methodology for the study and adjustment is described in more detail in the CY 2022 Advance Notice Part II (pages 27–28).

- Organ Acquisition Costs for Kidney Transplants: removed from FFS costs, described in more detail in Section C2.
- Indirect Medical Education: removed from FFS county costs (sections 1853(n)(2)(E) and (F) of the Act), described in more detail in Section C3.

Note that incentive payments for adoption and meaningful use of certified electronic health record (EHR) technology are not included in the claims used to develop the FFS costs and therefore no explicit adjustment is needed to exclude these payments from the FFS costs to comply with section 1853(c)(1)(D) of the Act.

Section C1. Direct Graduate Medical Education

Section 1853(c)(1)(D)(i) requires the exclusion of costs attributable to payments under section 1886(h) of the Act, that is payments for direct graduate medical education (DGME), from the FFS per capita costs used for developing the Medicare Advantage ratebooks.

Please note that some ratebook files and other CMS data reference graduate medical expenses, or GME. In the context of the MA ratebooks, DGME and GME refer to the same item and are used interchangeably.

For the CY 2022 ratebook and prior contract years, a two-step process had been used to exclude, or carve-out, DGME from the MA ratebooks consistent with statute. The first step was to tabulate estimated pass through payments to hospitals, which include DGME, and the second step was to reduce the tabulated FFS costs by the estimated DGME amounts.

DGME is paid to inpatient hospitals based on amounts reflected on the Medicare Cost Reports (Form CMS-2552-10). The ultimate amount paid to an inpatient hospital is based on its final cost report, which is prepared by each hospital at the close of each fiscal year. Interim DGME amounts are paid bi-weekly to hospitals using estimates developed by the Medicare Administrative Contractors (MACs). Corresponding to the bi-weekly calculations, the MACs tabulate an estimate of the DGME amount per inpatient day. The interim amount for DGME is included in the Medicare inpatient provider specific file (PSF).

The inpatient provider specific file includes four fields with per diem estimates of cost report "pass through" amounts for:

- Direct Graduate Medical Education
- Capital
- Organ Acquisition
- Total, including miscellaneous

The per diem field "total including miscellaneous" is included on the inpatient claim record in the National Claims History file. This total per diem amount was multiplied by the Medicare utilization day count on the claim to derive the pass through estimate for the inpatient admission.

For purposes of MA ratebook FFS tabulations, these pass-through estimates were totaled at the county level. This development of the county-level pass through amounts was the first step in the process used for MA rates for CY 2022 and earlier to carve out DGME costs.

In the second step in the DGME carve-out process for those prior years, we estimated the county-level pass through claims for DGME. The basis of the exclusion of DGME from Medicare FFS experience used for the MA ratebook was a per discharge DGME amount for each provider and calendar year that OACT tabulated from the inpatient Medicare cost reports. The per discharge DGME amounts were totaled by county of residence. The county-level total DGME amounts were divided by total reimbursements in the county to derive a DGME carve-out percentage. These county-level percentages were then applied to reduce the FFS costs used for the MA ratebook by the estimated DGME amounts.

Since the release of the CY 2022 ratebook, we have requested and received from the MACs the data and methodology used by the MACs to develop the DGME per diem amounts actually paid under section 1886(h) of the Act by the MACs. Our review of these materials revealed that there are different formulas used by different MACs and that some of the MACs used a formula that was not the same as the methodology used to tabulate the DGME exclusion amounts for purposes of the MA ratebooks.

To address these differences, we are proposing a new approach for CY 2023 for the development of the DGME amounts to be excluded from the MA ratebooks. This process will replace the prior second step and will involve use of the provider specific file (PSF), which is the source for the pass-through per diem amounts on the claim.

The steps involved in this proposed calculation of the DGME carve-out for CY 2023 are as follows:

a. Identify on the cost report those expenditures to be excluded from the MA ratebooks (that is, those costs on the report that are attributable to payments made under section 1886(h)):
    1. Part A DGME: Cost report worksheet E-4, line 49, column 1
    2. Part B DGME: Cost report worksheet E-4, line 50, column 1

b. Identify cost report fields reflected on the Direct Medical Education per diem field on the PSF for each Provider State based on each MACs' jurisdiction (this data is available on the CMS website at: https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Announcements-and-Documents). The two digit state code corresponds to the first two digits of the inpatient provider ID.

c. Using the information from "a" and "b", tabulate for each provider and calendar year:
    1. Expenditures to be removed from MA rates (item a)
    2. Expenditures represented in DGME field in provider specific file (item b)
    3. Proportion of DGME PSF values to be excluded from rates (c1 / c2)

d. Accumulate DGME PSF values by county and calendar year:

1. Multiply the DGME per diem amount on PSF times the number of covered days for each inpatient admission.
2. Accumulate d1 by county of beneficiary residence

e. Calculate DGME exclusion for each county and calendar year: d2 × c3

The impact of revising the DGME carve-out as described above varies by jurisdiction, with a FFS enrollment weighted average impact of about $2 PMPM for the MA (i.e., non-PACE) non-ESRD county rates, and a MA enrollment weighted average impact of about $2 PMPM for the MA (i.e., non-PACE) ESRD rates. For the MA (i.e., non-PACE) county rates the largest positive impact is estimated to be about $47 PMPM, and the largest negative impact is estimated to be -$26 PMPM. For the MA (i.e., non-PACE) ESRD rates the largest positive impact is estimated to be about $154 PMPM, and the largest negative impact is estimated to be -$38 PMPM. With this Advance Notice, we are releasing the impact of the proposed DGME carve-out methodology on the 2022 MA rates available on the CMS website at: https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Announcements-and-Documents. The DGME carve-out factors for the 2023 rates will be published with the 2023 Rate Announcement.

Section C2. Organ Acquisition Costs for Kidney Transplants

Section 17006(b) of the 21st Century Cures Act amended section 1853(k) and (n) of the Act to exclude CMS' estimate of the standardized costs for payments for organ acquisition for kidney transplants from MA benchmarks starting in 2021. Section 1853(k)(5) of the Act, implemented in § 422.306(d), provides for the exclusion of these costs from the applicable amount and section 1853(n)(2)(A)(i), implemented in § 422.258(d), provides for the exclusion from the base amount (used to calculate the specified amount). Further, section 17006(c) of the 21st Century Cures Act amended sections 1851(i) and 1852(a)(1)(B); the amendments, implemented in § 422.100(c)(1) and § 422.322 in the CY 2021 final rule (CMS-4190-F) (85 FR 33796, 33824–26) titled "Medicare Program; Contract Year 2021 Policy and Technical Changes to the Medicare Advantage Program, Medicare Prescription Drug Benefit Program, and Medicare Cost Plan Program", require FFS coverage of organ acquisition costs for kidney transplants incurred by MA beneficiaries and exclude coverage of organ acquisitions for kidney transplants from the benefits that MA plans must provide to their enrollees. As discussed in the CY 2021 final rule (85 FR 33825) and 2021 Advance Notice, we apply the carve-out from the FFS costs to how ESRD MA rates are developed as well.

The 21st Century Cures Act did not require Medicare FFS coverage of organ acquisition costs for kidney transplants incurred by PACE participants. Therefore, as noted in the CY 2021 final rule (85 FR 33824–25), PACE organizations must continue to cover organ acquisition costs for kidney transplants consistent with the requirement in section 1894(b)(1)(A)(i) of the Act that PACE organizations provide all Medicare-covered items and services. Accordingly, CMS will continue to include the costs for kidney acquisitions in PACE payment rates–both the PACE county rates and the PACE ESRD rates–unlike for MA benchmarks.

We are proposing a new approach for CY 2023 for the development of the KAC amounts to be excluded from the MA ratebooks that, similar to that proposed for the DGME carveout, uses the inpatient provider specific file (PSF).

The steps involved in this proposed calculation of the KAC carve-out for CY 2023 are as follows:

a. Identify on the Medicare Cost Reports (Form CMS-2552-10) those expenditures that are related to organ acquisition costs. This will be used in the next step to calculate the proportion of organ acquisition costs that are applicable to kidneys, in order to be excluded from the MA ratebooks (that is, those costs on the report that are attributable to payments made under section 1881(d)):
    1. Cost report worksheet D-4 (Heart), line 69, column 1
    2. Cost report worksheet D-4 (Intestine), line 69, column 1
    3. Cost report worksheet D-4 (Islet), line 69, column 1
    4. Cost report worksheet D-4 (Kidney), line 69, column 1
    5. Cost report worksheet D-4 (Liver), line 69, column 1
    6. Cost report worksheet D-4 (Lung), line 69, column 1
    7. Cost report worksheet D-4 (Pancreas), line 69, column 1

b. Using information from "a", tabulate for each provider and calendar year the proportion of organ acquisition costs that are applicable to kidneys: a4 / (a1 + a2 + a3 + a4 + a5 + a6 + a7)

c. Identify the Organ Acquisition Cost (OAC) per diem field on the inpatient PSF for each Provider State based on each MACs' jurisdiction (this data is available on the CMS website at: https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Announcements-and-Documents) and date of admission. The two digit state code corresponds to the first two digits of the inpatient provider ID.

d. Accumulate KAC PSF values by county and calendar year:
    1. Calculate the per admission KAC carveout as the OAC per diem amount on PSF (item "c") × KAC proportion of OAC's (item "b") × number of covered days for each inpatient admission.
    2. Accumulate d1 by county of beneficiary residence

The impact of revising the KAC carve-out as described above varies by jurisdiction, with a FFS enrollment weighted average impact of about $1 PMPM for the MA (i.e., non-PACE) non-ESRD county rates, and a MA enrollment weighted average impact of about $1 PMPM for the MA (i.e., non-PACE) ESRD rates. For the MA county rates, the largest positive impact is estimated to be about $14 PMPM, and the largest negative impact is estimated to be about -$5 PMPM. For the MA ESRD rates, the largest positive impact is estimated to be about $33 PMPM and the largest negative impact is estimated to be about -$11 PMPM. With this Advance Notice, we are releasing the impact of the proposed KAC carve-out methodology on the 2022 MA rates available on the CMS website at: https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Announcements-and-Documents. The KAC carve-out factors for the 2023 rates will be published with the 2023 Rate Announcement.

As described above, the proposed approach to exclude costs for kidney acquisitions from MA benchmarks by county and from MA ESRD rates, utilizes data from the Medicare cost reports and the inpatient provider specific file. These data sources do not include Section 1881(d) expenditures for coverage of living donor expenses beyond what is reflected in the kidney acquisition cost center and paid on a pass-through basis in the Medicare FFS program. Per section 1853(k)(5) and (n)(2)(G) of the Act, the 1881(d) expenses should be included in the carve out of kidney acquisition costs from the benchmark amounts. Accordingly, we will tabulate from the FFS claim records the living donor expenses associated with kidney transplants and add the amounts to the KAC amounts derived from the cost reports. The living donor expenses are relatively small and are expected to impact the average FFS rate by less than -$0.01 PMPM. Per statute and as codified in §§ 422.100(c)(1) and 422.322(d), beginning in 2021, MAOs will not be responsible for coverage of organ acquisition costs for kidney transplants incurred by MA beneficiaries, including coverage under section 1881(d) of living kidney donor expenses, which will be reimbursed by the Medicare FFS program.

When developing the CY 2023 rates, we will continue to apply the KAC adjustment subsequent to the application of the IME adjustment, consistent with the adjustment order that was used for the CY 2022 rates.

Section C3. IME Phase Out

Section 161 of the Medicare Improvements for Patients and Providers Act of 2008 (MIPPA) (Pub. L. 110-275) amended section 1853(k)(4) of the Act to require CMS to phase out IME amounts from MA capitation rates. Sections 1853(n)(2)(E) and (F) apply the same phase-out to FFS costs in the calculation of the specified amount in setting MA rates. Payment to teaching facilities for IME expenses for MA plan enrollees will continue to be made under FFS Medicare. Section 1894(d)(3) of the Act provides that the IME payment phase-out does not apply to PACE capitation rates.

For purposes of making this adjustment, we will first calculate the FFS rates including the IME amount. This initial amount will serve as the basis for calculating the IME reduction that we will carve out of the rates. The absolute effect of the IME phase-out on each county will be determined by the amount of IME included in the initial FFS rate. Under section 1853(k)(4)(B)(ii) of the Act, the maximum reduction for any specific county in 2023 is 8.4 percent of the FFS rate. To help plans identify the impact, CMS will separately identify the amount of IME for each county rate in the 2023 MA ratebook. We will continue to publish the rates with and without the IME reduction for the year.

Section D. MA ESRD Rates

Pursuant to section 1853(a)(1)(H) of the Act, CMS establishes “separate rates of payment” with respect to ESRD beneficiaries enrolled in MA plans. As we stated in the 2012 Rate Announcement (page 32), it is in keeping with our understanding of the legislative intent to more

closely align MA payment rates with FFS costs that the MA ESRD rates are also based on FFS costs. We currently set MA ESRD rates on a state basis (that is, at the state level instead of the county level), using updated FFS costs each year, and intend to continue that policy and our existing methodology for setting MA ESRD rates.

We will use the 2016–2020 FFS reimbursement and enrollment data for beneficiaries in dialysis status for each state to develop the CY 2023 MA ESRD rates. For each year, we compute the FFS dialysis per capita costs (for Part A and Part B items and services for beneficiaries in dialysis status) by state. The geographic indices for each year are calculated by dividing the state per capita cost by the total per capita cost of the nation. The five-year weighted average of the geographic indices is standardized by dividing by the five-year average risk scores (calculated using the risk adjustment model for CY 2023 payment). This standardized five-year weighted average is the average geographic adjustment (AGA), which represents the ratio of historical FFS dialysis per capita costs by state to national FFS dialysis per capita costs. We calculated the 2020 FFS ESRD dialysis United States per capita cost (ESRD dialysis USPCC) based on the 2020 data above, and, using trend factors, develop the prospective 2023 FFS ESRD dialysis USPCC. The 2023 MA ESRD rates are determined by multiplying the 2023 FFS ESRD dialysis USPCC by the state AGA.

We will continue to incorporate refinements developed and used in prior years regarding the repricing of historical data in the AGA calculation for the MA ESRD rates. Similar to the non-ESRD rate methodology, we intend to reprice the ESRD historical inpatient, hospital outpatient, skilled nursing facility, and ESRD PPS claims from 2016–2020 to reflect the most current (i.e., FY 2022) wage indices, and re-tabulate physician claims with the most current (i.e., CY 2022) Geographic Practice Cost Indices. We will continue to adjust the uncompensated care payments (UCP) represented in the 2016–2020 claims to reflect the requirements of the most recent final rule. The adjustments will also include shared savings and shared losses performance-based payments made under the Comprehensive ESRD Care (CEC) model, and population-based payments under the Next Gen ACO and Vermont Medicare ACO Initiative as described in Section B3 of this document. Pursuant to section 1853(k)(5), (n)(2)(A)(i) and (n)(2)(G), MA benchmarks for 2021 and subsequent years exclude organ acquisition costs for kidney transplants (described in detail in Section C above). As noted in the CY 2021 final rule (CMS-4190-F) (85 FR 33796, 33825) and in the CY 2021 Rate Announcement, the exclusion of kidney acquisition costs (KACs) is also applied to the MA ESRD rates for 2021 and subsequent years. In addition, the 2023 MA ESRD rate is adjusted by removing the direct graduate medical education (GME) expenses and the gradual phase-out of IME expenses, consistent with adjustments made for the non-ESRD MA rates that are discussed in Section B of this document.

We will publish a file with the CY 2023 Rate Announcement that includes the key components of the rate development, similar to the rate calculation data supporting the MA non-ESRD county rates.

As stated in Section C, CMS will continue to include organ acquisition costs for kidney transplants in the PACE rates, including PACE ESRD rates. As stated in Section C, the IME payment phase-out does not apply to PACE capitation amounts. Therefore, for 2023 the ESRD rates for PACE organizations will continue to include KACs and IME amounts.

CMS is aware of concerns raised by stakeholders regarding ESRD payment adequacy and accuracy in recent years, in light of the expected increase in ESRD enrollment in MA plans as a result of the 21st Century Cures Act, which allows beneficiaries with ESRD to enroll in MA plans starting in 2021. More specifically, MAOs have expressed concerns that MA ESRD rates are inadequate to cover the costs of ESRD beneficiaries enrolled in MAOs. Stakeholders have encouraged CMS to exercise its authority to adjust the MA ESRD rates, in order to more accurately reflect the costs to MAOs to cover this population. We stated in the CY 2022 Rate Announcement that "we do not find [a number of the] … specific suggestions to be consistent with our interpretation of section 1853 of the Act as a whole—that the legislative intent is for us to more closely align MA payment rates with FFS costs—and the statutory requirements for MA ESRD rate calculation." However, we also stated that we would "continue to analyze these issues and consider whether, consistent with the statutory requirements for setting MA ESRD rates in section 1853(a)(1)(H) of the Act, any refinements to the methodology may be warranted in future years to ensure appropriate ESRD payment rates." One recommendation suggested by a number of commenters was to develop MA ESRD rates at a geographic level that was smaller than state level, in order to address geographic differences in costs, and we have conducted an analysis to explore this recommendation.

As part of this analysis, we calculated ESRD dialysis rates for Core-Based Statistical Areas (CBSAs) while continuing to use the same data and methodology currently used for MA ESRD statewide rates. We determined which counties are part of each CBSA (either Metropolitan or Micropolitan Statistical Area), and calculated a new ESRD CBSA rate based on the data of all of the counties in that CBSA in the same state. Similar to the state designation with the current MA ESRD rates, the CBSA was based on the beneficiary's residence. For counties that are not part of a CBSA, the new ESRD CBSA rate was calculated based on the data of all of the non-CBSA counties in the state. We also applied a credibility adjustment to account for CBSAs with small ESRD enrollment, fewer than 2,700 member months, and restandardized the CBSA rates so that each state's share of the average geographic adjustment (AGA) remains constant.

When comparing the new CBSA rates to the published state rates, we found that, on average, the MA ESRD rates for rural CBSAs decreased by 2.6% and increased for urban CBSAs by 0.5%. A preliminary analysis of changes in rates for medically underserved urban areas suggested that rates for these areas may also decrease relative to the current state-level MA ESRD rates. Further exploration is needed to better determine specific impacts and CMS will continue our analyses.

Given our preliminary findings, and the need for further analyses of possible changes in MA ESRD rates, we are not proposing to change our methodology for updating the MA ESRD rates

for CY 2023, and plan to continue our use of statewide MA ESRD rates. In order to learn more about potential impacts of changing MA ESRD rates to a sub-state level, where some area rates will increase and others decrease, we are asking for input from stakeholders regarding potential impacts. We welcome comments regarding the use of sub-state rates and, in particular, input regarding the impact of MA payment on care provided to rural and urban underserved populations and how such payment changes may have health equity impacts.

Section E. Location of Network Areas for Private Fee-for-Service (PFFS) Plans in Plan Year 2024

Section 1852(d)(4) of the Act requires MA organizations offering certain non-employer MA PFFS plans in network areas to enter into signed contracts with a sufficient number of providers to meet the access standards applicable to coordinated care plans. Specifically, non-employer MA PFFS plans that are offered in a network area (as defined in section 1852(d)(5)(B)) must meet the access standards described in section 1852(d)(4)(B) through written contracts with providers. These PFFS plans may not meet access standards by establishing payment rates that are at least the rates that apply under Medicare FFS and having providers deemed to be contracted as described in § 422.216(f).

Network area is defined in section 1852(d)(5)(B) of the Act, for a given plan year, as an area that the Secretary identifies (in the announcement of the proposed payment rates for the previous plan year under section 1853(b)(1)(B)) as having at least two network-based plans (as defined in section 1852(d)(5)(C)) with enrollment as of the first day of the year in which the Announcement is made. We intend to publish the list of network areas for plan year 2024 with the CY 2023 Rate Announcement. We will make this list available on the CMS website at https://www.cms.gov/Medicare/Health-Plans/PrivateFeeforServicePlans/NetworkRequirements.

Section F. MA Employer Group Waiver Plans

We intend to continue to waive the Bid Pricing Tool bidding requirements for all MA employer/union-only group waiver plans (EGWPs) for 2023. As a condition of the waiver of the bidding requirements and the waivers otherwise provided to EGWPs, CMS will establish payment amounts using the same methodology for 2023 as was used for 2022. As has been the case since 2017, for 2023, Part C entities offering EGWPs will not be required to submit Part C bid pricing information in the Part C Bid Pricing Tool. CMS has authority under section 1857(i) of the Act to waive or modify requirements that hinder the design of, the offering of, or the enrollment in employment-based Medicare plans offered by employers and unions to their members. Waiving the requirement to submit 2023 Part C bid pricing information will facilitate the offering of Part C plans for employers and unions seeking to establish high quality coverage for their Medicare-eligible retirees by avoiding the cost and administrative burden of submitting the complex bids required from non-EGWPs. We refer the reader to the detailed discussion of our rationale and responses to commenters' questions in the CY 2017 Rate Announcement,

Attachment III, Section F (pages 27–44) for additional information, and to the responses to questions received by the Office of the Actuary that are available at https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/ActuarialBidQuestions.

In connection with the continuation of this waiver, for 2023, CMS will continue to use generally the payment methodology for MA EGWPs that was finalized in the CY 2022 Rate Announcement. For 2023, we propose to use bid-to-benchmark ratios based on 2022 bids and weighted by February 2022 enrollment, which is consistent with how we developed these EGWP payments for years prior to 2022.

New for 2023, as a result of feedback from the industry on the CY 2022 bid cycle, CMS is publishing preliminary bid-to-benchmark ratios for EGWPs in the Advance Notice. MA organizations have indicated that having this information early will provide valuable information in their negotiations with employer/union groups to create more accurate benefit and premium quotes for their MA EGWP enrollees. However, these ratios are based on 2022 bids and weighted by January 2022 enrollment instead of the February 2022 enrollment that we intend to use for the final ratios; these preliminary ratios are not final and could differ from the ratios that are ultimately published in the Rate Announcement so we recommend that caution be used in reviewing them. The preliminary bid-to-benchmark ratios are as follows:

Applicable Percentage	Bid to Benchmark Ratio
0.95	80.8%
1	79.9%
1.075	79.9%
1.15	79.9%

The payment methodology for MA EGWPs relies on bid-to-benchmark ratios, as described below, that reflect average bid amounts, weighted by plan enrollment. The calculations for the bid-to-benchmark (B2B) ratios for CY 2023 would therefore be as follows:

> First: [(Weighted Average of the Intra-Service Area Rate Adjustment (ISAR) Adjusted County Bid Amounts for 2022 Individual Market Plan Bids by February 2022 Actual Enrollment)/(Weighted Average of the County Standardized Benchmarks for 2022 Individual Market Plans by February 2022 Actual Enrollment)] = 2022 Individual Market B2B Ratios by Quartile.[8]

[8] As in prior years, territories will not be included in the weighted average B2B ratios, but they will be assigned the weighted average of the quartile within which their counties fall. To determine the CY 2023 applicable percentages, CMS ranks counties from highest to lowest based on their 2022 average per capita FFS costs and places the rates

Second: The 2022 individual market B2B ratios will be calculated separately for HMO plan types and PPO plan types by quartile.[9] The PPO B2Bs by quartile will be weighted by the total proportion of EGWP PPO plan type enrollment, and the HMO B2Bs by quartile will be weighted by the total proportion of EGWP HMO plan type enrollment to result in the final B2B ratios for 2023 by quartile.

As has been in effect since 2017, for 2023:

- The B2B ratios will be applied to each of the published 5%, 3.5%, and 0% bonus county ratebook rates for the payment year to establish Part C base payment amounts for EGWPs based on their Star Rating, for each county.
- In order to calculate a county rebate payment, each county-level EGWP Part C base payment amount will be compared to the corresponding published 5%, 3.5%, and 0% bonus county benchmarks for the payment year (2023), which include adjustments for qualifying counties, to determine the amount of savings. The savings amount will be multiplied by the corresponding rebate percentage to determine the Part C EGWP county-level rebate amount.
- The EGWP Part C base payment amount will be added to the Part C EGWP rebate amount to establish the county-level local EGWP total payment amount.
- The total payment amount will be risk adjusted using beneficiary-specific risk scores. Therefore, the formula applied for local EGWP payment on a per-beneficiary basis would be: (Base County Payment Rate + County Rebate) × Beneficiary-Level Risk Score.

For RPPO EGWPs, the weighted-average B2B ratios will continue to be calculated as described above. To establish the Part C base RPPO EGWP payment amount, we will then also continue to apply the same methodology as described above.

In order to calculate the RPPO EGWP rebate amounts, these percentages will continue to be applied for each county within a region to the published payment year regional benchmarks to establish the savings amount and rebate amounts by Star Rating and quartile.

The RPPO EGWP Payment Formula continues to be (Base County Payment Rate + Regional Rebate) × Beneficiary-Level Risk Score, where each is calculated as follows:

---

into four quartiles. When calculating the 2022 B2B ratios, CMS will group counties by the 2022 unblended quartiles and will then apply these B2B ratios to the 2023 unblended quartiles.

[9] Consistent with how we have developed EGWP payments since 2019, HMO and HMOPOS plans have been combined into an "HMO plan type" and LPPO and RPPO plans have been combined into a "PPO plan type." "HMO" Health Maintenance Organization, "HMOPOS" Health Maintenance Organization Point of Service, "PPO" Preferred Provider Organization, "LPPO" Local Preferred Provider Organization, "RPPO" Regional Preferred Provider Organization. "PFFS" Private Fee-for-Service individual market plans are excluded from these calculations.

- Base County Payment Rate = Bid to Benchmark Ratio × 2023 MA Monthly Capitation Rate
- Regional Rebate = (1 − Bid to Benchmark Ratio) × 2023 Regional Rate × Rebate Percentage
- The 2023 Regional rate is based on a blend of the statutory and bid component. As with non-EGWPs, if there is no bid component of the 2023 Regional rate (i.e., no individual bids in a region), then the EGWP rate will be based solely on the statutory component.

As has been the case since 2017, for 2023, there will be no Part C Regional PPO EGWP bids to include in the calculation of the MA regional benchmarks. The statutory components of the regional standardized A/B benchmarks will continue to be published each year as part of the Announcement of Medicare Advantage Payment Rates. CMS will also continue to publish the final MA regional standardized A/B benchmarks in late summer, which will reflect the average bid component of the regional benchmark based on non-EGWP bid submissions.

For 2023, we will also continue the existing policy permitting MA EGWPs to buy down Part B premiums for their enrollees using a portion of the Part C payment. A detailed discussion of this policy appears in the CY 2020 Advance Notice Part II, Attachment II, Section F (pages 26–27).

We will continue to collect a Part B premium buy-down amount in the EGWP's Plan Benefit Package (PBP) submission to CMS. Any MA EGWP that chooses to use a portion of its payment to buy down the Part B premium must apply such Part B premium buy-down amount consistently to every beneficiary enrolled in the EGWP, in accordance with uniformity of benefit rules, which are not waived in connection with buy-downs of Part B premiums. Those MA EGWPs that choose to use a portion of their payment to buy down the Part B premium for their enrollees will have that amount reduced from their capitated payment. For example, if an MA EGWP determines that under its benefit offering there will be a $5 reduction to each enrollee's Part B premium, $5 per member per month will be entered into the requisite field in the PBP, and then $5 will be subtracted from the monthly capitated amount. For local MA EGWPs, this will be reflected in the proposed payment formula described above as follows:

Total Payment = (Base County Payment Rate + County Rebate) × Beneficiary Level Risk Score - *Part B Buy Down Amount*.

MA EGWPs will continue to be prohibited from separately refunding Part B premiums for their enrollees outside of this process.

As in 2020 through 2022, MA EGWPs will be subject to the same maximum CY 2023 Part B buy-down amount as non-EGWP plans. That is, EGWPs may only buy down the Part B premium up to the maximum amount displayed in the CY 2023 MA Bid Pricing Tool Worksheet 6. Additionally, as with non-EGWP plans, the Part B premium buy-down amount cannot vary among beneficiaries enrolled in an EGWP. The Part B buy-down amount applies to every beneficiary under the plan ID. Therefore, if an EGWP would like to reduce the Part B premium

for one employer group under the plan ID by $5 and reduce the Part B premium for another employer group by $10, then the MA organization must establish two separate EGWP plan IDs, each with the specific amount to buy-down the Part B premium. As an example, the PBP for plan 801 would contain a $5 buy-down amount, and the PBP for plan 802 would contain a $10 buy-down amount.

The following rules will continue to apply as they have since 2017 under the EGWP payment methodology:

- CMS will continue to waive the requirement that MA EGWPs must specify how they are allocating MA rebate dollars (other than the buy-down of the Part B premium) for 2023. However, the limits in § 422.266 on how the MA rebate may be used have not been waived and therefore continue to apply for EGWPs.
- MA EGWPs will not receive capitation payments for members that elect Hospice.
- MA EGWPs will continue to be paid using the ESRD ratebook for their ESRD beneficiaries in Transplant and Dialysis status and the individual market MA ratebook for those beneficiaries in Functioning Graft status, in keeping with the current payment policy for non-EGWP MA organizations.
- Consistent with how CMS pays capitation for Part B-only enrollees in the non-EGWP context, Part B-only MA EGWPs will continue to receive only the Part B portion of the EGWP payment amount, which is determined by multiplying it by the Part B percentage of the MA rate.
- MA EGWP MSA plans will continue not to submit Bid Pricing Tools for 2023, but the 2023 local EGWP payment rates will continue to not be applied to EGWP MSA plans. The monthly prospective payments for EGWP MSAs will be based on the following formula: 2023 MA Monthly Capitation County Rate × beneficiary risk score – 1/12 of the Annual MSA Deposit Amount. The 2023 Annual MSA Deposit Amount must be submitted in the appropriate Plan Benefit Package field. Consistent with individual market MSA plans, MA EGWP MSA plans are not able to use a portion of the Part C payment to buy down the Part B premium.
- Notwithstanding the payment policies described above, entities offering MA EGWPs must continue to meet all of the CMS requirements that are not otherwise specifically waived or modified, including, but not limited to, submitting information related to plan service areas, plan benefit packages, and formularies in accordance with the rules for 2023. MA organizations must continue to make a good faith effort in projecting CY 2023 member months for each plan and place the amount in the appropriate section of the 2023 Plan Benefit Package (PBP) submissions to CMS.

Section G. CMS-HCC Risk Adjustment Model for CY 2023

For CY 2023, CMS will continue to calculate 100 percent of the risk score using the 2020 CMS-HCC model, which we began phasing in with CY 2020 payment as described in Part I of the CY

2020 Advance Notice.[10] The 2020 CMS-HCC model complies with the revisions to the risk adjustment for MA payments required by section 1853(a)(1)(I) of the Act, as amended by the 21st Century Cures Act.

For CY 2023 payment to PACE organizations, we will continue to use the 2017 CMS-HCC model to calculate risk scores, which we began using for CY 2020 payment as described in the CY 2020 Advance Notice Part II[11] and the CY 2021 Advance Notice Part I.[12]

Consistent with the Executive Order on Advancing Racial Equity and Support for Underserved Communities Through the Federal Government (EO 13985), and our commitment to continuously explore ways to revise the risk adjustment model in order to more appropriately pay for subgroups of Medicare beneficiaries, CMS is soliciting comment on whether enhancements can be made to the CMS-HCC risk adjustment model to address the impacts of social determinants of health on beneficiary health status by incorporating additional factors that predict the relative costs of MA enrollees. We solicit comment on what data CMS should focus on collecting more completely that may provide more complete information when calibrating the risk adjustment model, and we welcome suggestions on how we could improve collection of this data. Further, we solicit comment on additional factors that we could include to the risk adjustment model, for example geographic residence, e.g., ZIP codes, that may serve to improve payment accuracy in an effort to advance health equity.

Refer to Section M for information on encounter data as a source of diagnoses for CY 2023 risk score calculation.

Section H. End Stage Renal Disease (ESRD) Risk Adjustment Models for CY 2023

Background on the ESRD model

CMS uses a separate model to calculate the risk scores applied in payment for the Part A and Part B benefits provided to beneficiaries in ESRD status when enrolled in MA plans, PACE organizations, and certain demonstrations, including Medicare-Medicaid Plans (MMPs). For CY 2019, CMS recalibrated the ESRD risk adjustment model with more recent data and updated the Medicaid factors to be concurrent with the payment year (refer to the 2019 Advance Notice and Rate Announcement for more information regarding these updates). For CY 2020, CMS continued improving the ESRD model by implementing a revised model that included adjustments for the functioning graft new enrollee, functioning graft long term institutional

---

[10] CY 2020 Advance Notice Part I: https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Downloads/Advance2020Part1.pdf.

[11] CY 2020 Advance Notice Part II: https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Downloads/Advance2020Part2.pdf.

[12] CY 2021 Advance Notice Part I: https://www.cms.gov/files/document/2021-advance-notice-part-i.pdf.

(LTI), and dialysis new enrollee populations to address the over-prediction or under-prediction for these unique subpopulations. For CY 2023, we are proposing to implement a revised model with updates that more closely align the ESRD risk adjustment model with the Part C risk adjustment model, and will result in overall risk adjustment payment that is more accurate for MA organizations that enroll ESRD beneficiaries.

Starting with CY 2017, CMS updated the Part C CMS-HCC model by creating model segments based on dual eligibility and aged/disabled status to improve the model prediction for these subpopulations.[13] For CY 2019 and CY 2020, CMS updated the clinical version of the Part C CMS-HCC model to include additional conditions.[14] For CY 2023, CMS is proposing the implementation of an updated ESRD model for payment to MA organizations[15] (but not to PACE organizations) that is calibrated on more recent data, using diagnoses filtered using the approach we currently use to filter encounter data records. It also incorporates improvements made to the Part C CMS-HCC model, specifically the clinical updates and revised segmentation, which accounts for the differential cost patterns of dual eligible beneficiaries.

Proposed Updates to the ESRD Risk Adjustment Model for MA Organizations for CY 2023:

The CY 2020 Advance Notice Part II[16] includes information on the structure of the current ESRD model. Details on the structure of the proposed 2023 ESRD model are described in more detail later in this section.

While the basic structure of the proposed ESRD model is the same as that of the 2020 ESRD model, CMS proposes the following updates to the ESRD model for CY 2023:

- Updating the clinical version of the ESRD model from version 21 to version 24. See the table below (Table II-4) for comparison of the two model versions.
- Update the data years used for model calibration from 2014 diagnoses to predict 2015 costs to 2018 diagnoses to predict 2019 costs.
- Accounting for differences in cost patterns for dual eligible beneficiaries by:
    - Breaking out the single functioning graft community model into four separate model segments (non-dual / partial benefit dual aged, non-dual / partial benefit dual non-aged, full benefit dual aged, and full benefit dual non-aged) with relative factors that are independently developed for each segment, reflecting the specific relative costs for an HCC for that subgroup;

---

[13] CY 2017 Advance Notice (Section H): https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Downloads/Advance2017.pdf.

[14] The CY 2019 Advance Notice and CY 2020 Advance Notice Part I are available at: https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Announcements-and-Documents

[15] Certain demonstrations, including MMPs, use the same risk adjustment models as the MA program.

[16] CY 2020 Advance Notice Part II: https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Downloads/Advance2020Part2.pdf.

    - Updating interaction terms; and
    - Including the following add-on factors for certain segments:
        - Partial benefit dual factors for the functioning graft non-dual /partial benefit dual aged, functioning graft non-dual / partial benefit dual non-aged, and functioning graft LTI segments; and
        - Institutional add-on factors for the dialysis continuing enrollee and functioning graft LTI models
- Updating model adjustments:
    - Removing the actuarial adjustment from the functioning graft LTI segment since it is no longer needed;
    - Applying separate aged and non-aged adjustments to costs of the continuing enrollees in the dialysis new enrollee modeling sample to make them more comparable to true new enrollees and to better target cost differences between the subsamples; and
    - Adjusting the functioning graft model new enrollee coefficients separately for the beneficiaries who are 4–9 months and 10+ months post-transplant.

Model Recalibration

Clinical version

CMS has incorporated updates to the risk adjustment models over the years and each model is identified by a version number. The version of the model indicates the clinical classification of the conditions (HCCs), which may be redefined to make condition categories more clinically meaningful, improve the degree to which they predict medical expenditures, or increase the specificity of the diagnoses included in the category. When the diagnosis classifications change, the version number changes to indicate a new clinical specification.

For CY 2023, CMS proposes to no longer use clinical version 21 (V21) in the ESRD risk adjustment model. For CY 2023, we are proposing to use clinical version 24 (V24) to calibrate the ESRD model, which is the same clinical version as that used in the 2020 CMS-HCC model. Distinct from the CMS-HCC model, the ESRD model excludes HCCs for kidney conditions. The reason for the exclusion from the ESRD dialysis model is that beneficiaries in dialysis status have disease severity beyond kidney disease, while for the ESRD functioning graft model, beneficiaries have a functioning kidney, and therefore these conditions are not coded consistently. Other key differences between the V21 ESRD model and the V24 ESRD model are noted in Table II-4 below.

	Table II-4. Key Differences Between the V21 and V24 ESRD Risk Adjustment Models	
	V21	**V24**
Classification of Payment HCCs	• 79 payment HCCs included in the ESRD models • V21 includes more diagnoses in *HCC 75 Polyneuropathy* than V24 counterpart *HCC 75 Myasthenia Gravis…Toxic Neuropathy*	• 81 payment HCCs included in the ESRD models
	• V21 has two payment substance use disorder HCCs 54–55	• V24 has three payment substance use disorder HCCs 54–56, reconfigured differently from V21 with an expanded set of diagnosis codes
	• V21 has two payment psychiatric disorder HCCs 57–58	• V24 has four payment psychiatric disorder HCCs 57–60, adding *HCC 58 Reactive and Unspecified Psychosis* and *HCC 60 Personality Disorders*; HCC *59 Major Depressive, Bipolar, and Paranoid Disorders* was renumbered (had been HCC 58) and moved down in the payment hierarchy below V24 HCC 58
	• V21 has four payment pressure ulcer HCCs (157–160), including *HCC 160 Pressure Pre-Ulcer Skin Changes or Unspecified Stage*	• V24 has three payment pressure ulcer HCCs (157–159)
	• V21 disease-disease interaction *Sepsis*Cardiorespiratory Failure* is not in V24; all others are the same conceptually, although the group definition differs for this group:	• V24 community non-aged segments have an additional disease-disease interaction, *Substance Use Disorder* Psychiatric*, which will be used in the functioning graft community non-aged

Table II-4. Key Differences Between the V21 and V24 ESRD Risk Adjustment Models

V21	V24
○ V21 COPD group has HCCs 110–111	segments. In the continuing enrollee dialysis model, it will be applied as a non-aged interaction. • V24 disease-disease interaction *Congestive Heart Failure*Specified Heart Arrhythmias* is not in V21; all others are the same conceptually, although the group definition differs for this group: ○ V24 COPD group has HCCs 110–112
• V21 has seven non-aged disease interactions for these HCCs: ○ HCC 6 Opportunistic Infections ○ HCC 34 Chronic Pancreatitis ○ HCC 46 Severe Hematological Disorders ○ HCC 54 Drug/Alcohol Psychosis ○ HCC 55 Drug/Alcohol Dependence ○ HCC 110 Cystic Fibrosis ○ HCC 176 Complications of Specified Implanted Device or Graft	• Because V24 community has segment breakouts for the non-aged, it does not have non-aged-disease interactions. The non-segmented continuing enrollee dialysis model will have non-aged disease interactions for five HCCs: 6, 34, 46, 110, and 176.
• V21 institutional disease-disease and non-aged-disease interactions are the same as in V24 except for the definition of these two groups: ○ V21 COPD group has HCCs 110–111 ○ V21 Pressure Ulcer group has HCCs 157–160	• V24 institutional disease-disease and non-aged-disease interactions are the same as V21 except for the definition of these two groups: ○ V24 COPD group has HCCs 110–112 ○ V24 Pressure Ulcer group has HCCs 157–159

	Table II-4. Key Differences Between the V21 and V24 ESRD Risk Adjustment Models	
	V21	**V24**
Segments	• V21 continuing enrollee dialysis: combined community and institutional sample is large enough to estimate a stable single segment model.	• V24 continuing enrollee dialysis: propose to continue using a single combined community and institutional segment, adding two institutional status variables to better distinguish costs for that subpopulation.
	• V21 functioning graft: the functioning graft population's combined community and institutional sample is not large enough to estimate a stable single segment model; the underlying aged/non-aged models are used and four functioning graft factors are independently estimated.	• V24 functioning graft community: The underlying models for the non-ESRD population segments are used with functioning graft factors that are independently estimated using the functioning graft population. We propose to break out the functioning graft community model into four segments, using the non-ESRD population segments as a base, as listed below o Non-dual / partial benefit dual aged o Non-dual / partial benefit dual non-aged o Full benefit dual aged o Full benefit dual non-aged

Model Specifications: Data Year Update, Filtering of Diagnoses, and Denominator

CMS recalibrated all of the components of the ESRD risk adjustment model for 2023 using data from FFS claims: we used 2018 diagnoses to predict 2019 expenditures. The model sample comprises ESRD beneficiaries who have at least one month in FFS in the prediction year (2019) and all twelve months of FFS in the prior year (2018). We selected 2018 diagnoses that met CMS's encounter data filtering criteria:[17] diagnoses submitted on professional claims were selected if the claim contained at least one risk adjustment allowable CPT/HCPCS code;[18] diagnoses submitted on outpatient claims were selected if the claim contained at least one risk adjustment allowable CPT/HCPCS code and a risk adjustment allowable type of bill; and diagnoses submitted on inpatient claims were selected if the claim had a risk adjustment eligible type of bill.[19]

For the dialysis component of the model, we estimated the coefficients for the condition categories by regressing the total expenditure for A/B benefits for each FFS ESRD beneficiary onto their demographic factors and condition categories, as indicated by their reported diagnoses.

For the functioning graft component of the model, we estimated coefficients in two steps:

- First, we estimated the coefficients for most of the demographic categories and HCCs on the non-ESRD aged-disabled population;
- Then, we estimated additional HCCs and add-on factors on the functioning graft population.

The resulting dollar coefficients represent the marginal (additional) cost of the condition or demographic factor (e.g., age/sex group, Medicaid status, disability status).

To calculate ESRD risk scores for payment, the dollar coefficients must be denominated to create relative factors. To create the relative factors for the proposed CY 2023 ESRD model, we used a 2019 denominator. Note, the CY 2020 ESRD model used a 2015 denominator. We divided the dollar coefficient for each demographic factor and HCC in the model by the average predicted per capita expenditure in 2019 for the proposed ESRD model. The resulting relative factors for the model finalized for 2023 will be used to calculate risk scores for individual beneficiaries in the payment year.

We calculated the denominators for the proposed CY 2023 ESRD model using the average predicted cost across the FFS dialysis population for the dialysis component of the ESRD model

---

[17] *Final Encounter Data Diagnosis Filtering Logic*, HPMS memo, December 22, 2015.

[18] For the list of allowable CPT/HCPCS codes, see https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Risk-Adjustors-Items/CPT-HCPCS.html.

[19] See *Final Encounter Data Diagnosis Filtering Logic*, HPMS memo, December 22, 2015, for the list of risk adjustment allowable types of bills.

and FFS aged-non-aged population for the functioning graft component of the ESRD model. For the proposed ESRD model, the denominator for the dialysis component of the model is $87,250.85 and the denominator for the functioning graft component of the model is $10,493.74.

The denominator sets the average FFS risk score to 1.0 in the year of the denominator. We note that, in setting the average risk score at 1.0 in a year, all risk scores are relative to this average. In other words, if, in updating the model, some beneficiaries' risk scores increase to reflect a higher predicted relative risk, other beneficiaries' risk scores will decrease to reflect a lower predicted relative risk.

Medicare-Medicaid Dual Eligibility

For all applicable model segments, dual status designation in the recalibrated 2023 ESRD model is based on payment year status, which is a continuation of how we treat dual status in the CY 2020 CMS-HCC model. Dual status will be identified using the same methodology that is used for the Part C model.[20] For payment purposes, we will use Medicaid data from three sources to identify dual eligibility status when calculating risk scores with the 2023 ESRD model:

- the MMA State files;
- the Point of Sale data; and
- the monthly Medicaid file that the Commonwealth of Puerto Rico submits to CMS.

We will identify full benefit dual status for a month using dual status codes 02, 04, and 08, and presence on the Puerto Rico file to indicate full dual status. We will identify partial benefit dual status for a month using dual codes 01, 03, 05, and 06.

Recalibrating a model on an updated clinical classification version and with more recent data can change the marginal cost attributed to each HCC. Because of changes in the coefficient estimates and relative factors, individual risk scores and plan risk scores may change, depending on each individual's combination of diagnoses.

Structure of ESRD Model

The ESRD risk adjustment model that we are proposing for CY 2023 is structurally the same ESRD model that we have used since CY 2020 in that it retains separate model components for dialysis, transplant, and functioning graft beneficiaries.

The components of the ESRD model used to pay for populations with different ESRD statuses are:

---

[20] CY 2017 Rate Announcement (Attachment III, Section G), available at https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Downloads/Announcement2017.pdf.

1. Dialysis: The ESRD dialysis component of the ESRD model is used to pay for beneficiaries who are in dialysis status. Payment for Medicare beneficiaries in dialysis status is made using the ESRD State ratebook, where the risk score is multiplied by the appropriate State rate.
2. Transplant: Transplant factors are used to pay for beneficiaries who have a kidney transplant and are used in conjunction with the ESRD dialysis ratebook to pay for the month in which a transplant occurred (month 1) and the following two months.
3. Functioning graft: The functioning graft component of the ESRD model is used to pay for beneficiaries starting with the fourth month of having a kidney transplant, for as long as they have a functioning graft (i.e., do not return to dialysis status). For enrollees in functioning graft status, CMS pays the county capitation rate for the enrollee county of residence, adjusted by the enrollee's risk score, minus the amount of any rebate dollars (if any) allocated to reduce plan enrollees' Part B premium and/or Part D basic premium.

The components of the ESRD model are described in more detail below.

Dialysis component

The dialysis component of the ESRD risk adjustment model comprises the following characteristics:

- Dialysis Continuing Enrollee: A single set of coefficients for both community and institutional enrollees in dialysis status. The dialysis component of the ESRD model is calibrated using diagnoses and expenditure data for all beneficiaries in FFS who are in dialysis status. We constrain to zero the relative factors for kidney-related HCCs and interaction terms because all of the beneficiaries in this model are in dialysis status.
    - ***Updates for CY 2023***
        - *Institutional (LTI) Add-On Variables*: Since the dialysis community segment is estimated on a combined community and institutional sample, we are proposing to include the two new add-on variables listed below related to LTI status to better differentiate the LTI subpopulation's costs.
            - Institutional Status_Aged
            - Institutional Status_NonAged
        - *Medicaid Interaction Variables*: We are proposing to include in the 2023 dialysis component of the ESRD model the eight Medicaid interaction variables listed below. Note that since the mean actual expenditures for the partial benefit dual sample are lower than those for the non-dual sample, the coefficients for some partial benefit dual Medicaid variables were negative; rather than have negative coefficients in the model, we constrained these coefficients to zero.
            - FBDual_Female_Aged
            - FBDual_Female_NonAged (Age <65)
            - FBDual_Male_Aged
            - FBDual_Male_NonAged (Age <65)
            - PBDual_Female_Aged
            - PBDual_Female_NonAged (Age <65)

- PBDual_Male_Aged
- PBDual_Male_NonAged (Age <65)

▪ *Disease and Non-Aged Disease Interaction Variables*: We are proposing to retain most of the non-aged disease interactions from the V21 ESRD model in the V24 ESRD model (note that these interaction terms are not in the V24 CMS-HCC community model segments). These interaction variables capture the additional costs for the non-aged population in HCCs that have large differential costs from the non-aged group compared to the aged group. We are also proposing to replace the two V21 ESRD non-aged disease interactions for the substance use disorder HCCs 54 and 55 with the V24 Substance Use Disorder*Psych disease-disease interaction that is specific to the non-aged segments.

- Dialysis New Enrollee: For new enrollees in dialysis status, beneficiaries' projected spending is based on demographic factors. The demographic-only new enrollee factors are applied to beneficiaries in dialysis status who do not have 12 months of Part B in the data collection year.
  - The dialysis new enrollee factors are estimated using data from:
    - New enrollees with dialysis months in the payment year;
    - Continuing enrollees with dialysis months in the payment year with up to three years of dialysis and no history of kidney transplant.
  - Dialysis new enrollee segment adjustment: As described in the CY 2020 Advance Notice Part II and Rate Announcement,[21] we applied an adjustment to address the over-prediction for this unique subpopulation that is too small to independently estimate a model on. We propose to revise the method used to address the over-prediction for this subpopulation.
  - ***Updates for CY 2023***:
    - *Multipliers*: For CY 2023, we examined the ratios of average costs of true new enrollees to the continuing enrollees used to supplement the sample and analyzed the over-prediction by demographic age/sex variable. There were distinct differences in costs between the two subsamples based on aged versus non-aged status. Therefore, we are proposing to apply two separate adjustments to adjust the continuing enrollee costs to be comparable to those for the true new enrollees. Specifically, multipliers (0.827 for non-aged; 0.900 for aged) were applied to the continuing enrollee subsample before modeling. This adjusts each demographic age/sex coefficient separately, taking into account the proportion of continuing enrollees in that category; the overall adjustment that was applied starting in CY 2020 is no longer necessary.

[21] The CY 2020 Advance Notice and Rate Announcement are available at: https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Announcements-and-Documents.

- *Medicaid*: To address differential cost patterns of beneficiaries based on dual status, we are proposing to group partial benefit duals with the non-duals. We are proposing to change the Medicaid variable creation from an annual "ever Medicaid / never Medicaid" marker to an annual marker based on highest dual eligibility status (full benefit dual > partial benefit dual > non-dual). The proposed V24 dialysis new enrollee model would have the following four mutually-exclusive assignments with age-sex breakouts:
    - Non-dual or Partial Benefit Dual & Non-Originally Disabled
    - Full Benefit Dual & Non-Originally Disabled
    - Non-dual or Partial Benefit Dual & Originally Disabled
    - Full Benefit Dual & Originally Disabled

Transplant factors

Transplant factors are estimated for the first three months of having a transplant. To accommodate the high one-time cost of a transplant, CMS makes payments over three months to cover the transplant and immediate subsequent services. The first month's factor is the largest, as that is the month within which the transplant takes place, while the factors for months 2 and 3 are smaller for post-transplant recovery. CMS calibrated the payments by using fee-for-service hospital stay payments for the transplant, and physician and other services rendered for the hospital stay and the two months after discharge. The national average was converted to a relative factor by dividing by the predicted national average expenditures for dialysis patients. This allows CMS to use the ESRD dialysis ratebook to make payments for beneficiaries who have a kidney transplant.

Most of the costs of a transplant accrue during the transplant hospital stay, which may vary in length, and the ESRD transplant factors account for this fact. By paying the transplant stay cost in one month, CMS is ensuring that plans are not disadvantaged if the enrollee dies in the month of transplant.

Functioning graft component

To estimate the coefficients for the functioning graft component of the ESRD model, CMS starts by calibrating both a single community and a single institutional model segment for the general FFS population, using the FFS aged/disabled, non-ESRD, model sample. Taking the resulting coefficients and holding them constant, we then use the functioning graft population (the population of beneficiaries who are in the fourth or later month after kidney transplant) to calibrate coefficients for additional variables, as described below. In this second calibration step, the following adjustments are made:

- Kidney-related conditions are constrained to zero. The kidney disease HCCs and the Congestive Heart Failure*Renal interaction are constrained to zero because this is a population defined by having a functioning kidney and not in dialysis status.

Furthermore, these conditions are not coded consistently within the functioning graft population.

- The following HCCs were not estimated using the aged/disabled, non-ESRD population, but were instead estimated specifically using the functioning graft population because the predicted expenditures for these HCCs are systematically different for the functioning graft population:
    - HCC 176: Complications of Specified Implanted Device or Graft
    - HCC 186: Major Organ Transplant or Replacement Status
- There is a set of functioning graft "add on" factors, which vary depending on the amount of time that has elapsed since kidney transplant. These "add on" factors take into account the additional cost of immunosuppressant drugs, as well as health status differences between the functioning graft population and the non-ESRD population. There are separate factors for beneficiaries during the 4–9 months after a transplant and 10+ months after a transplant. Note that payment for the functioning graft population is dependent on when a kidney transplant occurred, and not on Medicare entitlement due to ESRD status. Therefore, risk adjusted payments for a beneficiary who has had a kidney transplant and remains in functioning graft status will be calculated based on the functioning graft model.
- Functioning graft new enrollee segment adjustment: As described in the CY 2020 Advance Notice Part II and Announcement,[22] we applied an adjustment to address the under-prediction for this unique subpopulation that is too small to independently estimate a model on.

- ***Updates for CY 2023***:

    - The costs of the full dual population are significantly different from those of the partial dual and non-dual subgroups. For CY 2023, we are proposing to combine the non-dual and partial dual subgroups, which have similar costs, and create a separate full dual subgroup.

    - *Functioning Graft Continuing Enrollee Community:*

        - *Community segment breakout:* For CY 2023, we are proposing to include four functioning graft community segments as listed below using four of the V24 CMS-HCC model segments as the bases for these functioning graft segments. There will be two new partial benefit dual add-on factors and no other Medicaid related add-ons are needed because the proposed model will have separate segments for full benefit dual status.

[22] The CY 2020 Advance Notice and Rate Announcement are available at: https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Announcements-and-Documents.

- Non-Dual / Partial Benefit Dual Aged (combined sample) – The underlying model is the V24 CMS-HCC non-dual aged model segment and we will estimate three additional variables:
  - NonDual/PBDual, Age 65+, duration since transplant of 4–9 months
  - NonDual/PBDual, Age 65+, duration since transplant of 10+ months
  - Partial Benefit Dual_Aged, applied in addition to the appropriate duration factor.
- Non-Dual / Partial Benefit Dual Non-Aged (combined sample) – The underlying model is the V24 CMS-HCC non-dual disabled model segment and we will estimate three additional variables:
  - NonDual/PBDual, Age < 65, duration since transplant of 4–9 months
  - NonDual/PBDual, Age < 65, duration since transplant of 10+ months
  - Partial Benefit Dual_NonAged, applied in addition to the appropriate duration factor.
- Full Benefit Dual Aged – The underlying model is the V24 CMS-HCC full benefit dual aged model segment and we will estimate two additional variables:
  - FBDual, Age 65+, duration since transplant of 4–9 months
  - FBDual, Age 65+, duration since transplant of 10+ months
- Full Benefit Dual Non-Aged – The underlying model is the V24 CMS-HCC full benefit dual disabled model segment and we will estimate two additional variables:
  - FBDual, Age < 65, duration since transplant of 4–9 months
  - FBDual, Age < 65, duration since transplant of 10+ months

▪ *Interaction Variables*: V24 kidney disease HCCs and renal interactions will continue to be constrained to zero. HCC 186 (Major Organ Transplant or Replacement Status) will be constrained to zero because its coefficient is much lower in the functioning graft population; its costs will be captured in the functioning graft factors. HCC 176 will use the coefficient values from the corresponding V24 CMS-HCC model segment because its coefficient is similar to the value in the functioning graft population.

o *Functioning Graft Institutional (LTI) Enrollee:*

▪ *Institutional Add-On Variables*: Because of this population's small sample size, none of the variables within this segment are estimated solely on the true functioning graft institutional sample, but instead are estimated on the Part C non-ESRD LTI sample. The resulting coefficients under-predict for this population and, therefore, we have applied an actuarial adjustment in the CY 2020 model. For CY2023, we recommend including two new add-on variables related to institutional status that would be estimated on the true functioning graft LTI sample:

- Institutional Status_Aged
- Institutional Status_NonAged

We believe including these new variables will capture the differential costs of this subgroup and eliminate the need for an actuarial adjustment for this model segment.

- *Medicaid:* In order to improve the prediction of the functioning graft LTI model for beneficiaries of different dual status or aged/non-aged status, for CY 2023, we are proposing to include ten functioning graft factor / Medicaid variables (carried forward from the functioning graft community models), using the V24 CMS-HCC institutional model as the underlying model:

    - NonDual/PBDual, Age 65+, duration since transplant of 4–9 months
    - FBDual, Age 65+, duration since transplant of 4–9 months
    - NonDual/PBDual, Age < 65, duration since transplant of 4–9 months
    - FBDual, Age < 65, duration since transplant of 4–9 months
    - NonDual/PBDual, Age 65+, duration since transplant of 10+ months
    - FBDual, Age 65+, duration since transplant of 10+ months
    - NonDual/PBDual, Age < 65, duration since transplant of 10+ months
    - FBDual, Age < 65, duration since transplant of 10+ months
    - Partial Benefit Dual_Aged, applied in addition to the appropriate duration factor
    - Partial Benefit Dual_NonAged, applied in addition to the appropriate duration factor

- *Functioning Graft New Enrollee:*

    - *Medicaid:* As described above for the dialysis new enrollee segment, for CY 2023, we are proposing to group functioning graft partial benefit duals with the functioning graft non-duals using the V24 CMS-HCC new enrollee model as the underlying model. The proposed V24 functioning graft new enrollee model would have the following mutually-exclusive assignments with age-sex breakouts distinguished by 4–9 months since a graft and 10+ months since a graft:

        - Non-dual or Partial Benefit Dual & Non-Originally Disabled
        - Full Benefit Dual & Non-Originally Disabled
        - Non-dual or Partial Benefit Dual & Originally Disabled
        - Full Benefit Dual & Originally Disabled

The proposed V24 functioning graft new enrollee model would have eight functioning graft factors (carried forward from the functioning graft community models):

- NonDual/PBDual, Age 65+, duration since transplant of 4–9 months
- FBDual, Age 65+, duration since transplant of 4–9 months
- NonDual/PBDual, Age < 65, duration since transplant of 4–9 months
- FBDual, Age < 65, duration since transplant of 4–9 months
- NonDual/PBDual, Age 65+, duration since transplant of 10+ months
- FBDual, Age 65+, duration since transplant of 10+ months
- NonDual/PBDual, Age < 65, duration since transplant of 10+ months
- FBDual, Age < 65, duration since transplant of 10+ months

- *Actuarial Adjustments:* In the CY 2020 ESRD model, we applied one actuarial adjustment to the functioning graft new enrollee segment to address the under-prediction for this subpopulation. For CY 2023, we examined the under-prediction of functioning graft new enrollees for beneficiaries in 4–9 month post-transplant status versus 10+ months post-transplant status. The 10+ months sample has higher underprediction than the 4–9 month sample. To address this differential underprediction between the two subpopulations, CMS proposes to apply separate adjustments to the 4–9 month sample (by dividing all relative factors by 0.905) and the 10+ months sample (by dividing all relative factors by 0.698).

ESRD Risk Adjustment Model for PACE Organizations for CY 2023

For PACE organizations, CMS began using 2019 ESRD models, which are described in Part II of the CY 2019 Advance Notice,[23] to calculate risk scores for ESRD beneficiaries in CY 2019 and continues to use the 2019 ESRD models for CY 2021 and CY 2022. For CY 2023, CMS proposes to continue to use the 2019 ESRD dialysis and ESRD functioning graft models as well as the 2019 transplant factors to calculate ESRD risk scores for PACE participants. Refer to Section M for information on encounter data as a source of diagnoses for CY 2023 ESRD risk score calculation.

[23] The CY 2019 Advance Notice Part II is available at: https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Downloads/Advance2019Part2.pdf.

Section I. Medicare Secondary Payer (MSP)

Section 1862(b) of the Act precludes Medicare from paying for health care services when certain types of other health care coverage are available.[24] The provisions stipulate that Medicare is the secondary payer to employer group health plans that provide coverage to beneficiaries who are working aged or working disabled, and group health plans that provide coverage for beneficiaries with ESRD. The MSP statutory and regulatory provisions aim to ensure that Medicare does not pay for items and services that certain health insurance or coverage is primarily responsible for paying.

To adjust payment when Medicare is the secondary payer, CMS applies an MSP adjustment factor to beneficiary-level monthly capitated payments. First, MA capitation payments are calculated as if Medicare is the primary payer. Second, the MSP adjustment is applied to beneficiary-level payment as a reduction to payment when a beneficiary is working aged, working disabled, or ESRD functioning graft beneficiaries to account for the lower expenditures faced by the MA organization, given the coverage that the primary plan provides. A separate MSP adjustment factor is applied to the beneficiary-level payments for ESRD dialysis or transplant beneficiaries.

CMS calculates the MSP factor as the ratio of the actual Medicare spending for all MSP beneficiary months in a year to the amount of Medicare spending that the model predicts for Parts A and B coverage for these MSP beneficiary months. CMS is updating the underlying data and CMS-HCC models used to calculate updated MSP factors, but is not changing the methodology from prior years.

The current MSP factors, which are based on 2008–2009 data, are 0.173 for working aged/disabled and ESRD functioning graft beneficiaries, and 0.215 for ESRD dialysis/transplant beneficiaries. For CY 2023, CMS recalculated the MSP factor using diagnoses from 2014 and the 2020 CMS-HCC model to predict total A and B costs of the MSP beneficiaries for the denominator, and used actual FFS costs of these beneficiaries from 2015 for the numerator of the ratio. The same process is used for the general population and the ESRD population. The proposed CY 2023 MSP factor for working aged/disabled and ESRD functioning graft beneficiaries is 0.136, and the proposed factor for ESRD dialysis/transplant beneficiaries is 0.135. CMS will continue to apply the MSP adjustment to beneficiary-level payments.

Section J. Frailty Adjustment for PACE Organizations and FIDE SNPs

While the CMS-HCC model predicts the future Medicare expenditures of individuals based on their demographic and clinical characteristics, the model may not explain all of the variation in expenditures for frail community populations. The purpose of frailty adjustment is to predict the

[24] *See also* 42 CFR Part 411

Medicare expenditures of community populations with functional impairments that are unexplained by the diagnoses in the CMS-HCC model.

Section 1894(d)(2) of the Act requires CMS to take into account the frailty of the PACE population when establishing the capitated payment amounts for PACE organizations. In addition, section 1853(a)(1)(B)(iv) of the Act allows CMS to make an additional payment adjustment that takes into account the frailty of beneficiaries enrolled in Fully Integrated Dual Eligible Special Needs Plans (FIDE SNPs), if the average level of frailty in the FIDE SNP is similar to that in the PACE program. For PACE organizations and eligible FIDE SNPs, we make this adjustment by adding a frailty score to a beneficiary's risk score.

CMS calibrates the frailty factors by regressing the residual, or unexplained, costs from the CMS-HCC risk adjustment model onto counts of activities of daily living (ADLs). Residual costs are unique to each version of the CMS-HCC model, and consequently, so are the frailty factors. For this reason, CMS must update the frailty factors whenever the CMS-HCC model changes.

For CY 2023, CMS will continue calculating risk scores for beneficiaries enrolled in PACE organizations using the 2017 CMS-HCC model, and will use the frailty factors associated with the 2017 CMS-HCC model (Table II-5) to calculate frailty scores for PACE organizations in CY 2023.

Table II-5. Frailty Factors Associated with the 2017 CMS-HCC Model – PACE Organizations

ADL	Non-Medicaid	Medicaid
0	-0.083	-0.093
1-2	0.124	0.105
3-4	0.248	0.243
5-6	0.248	0.420

For CY 2022, CMS implemented the updated frailty factors for the 2020 CMS-HCC model.[25] Consistent with the policy noted in Section G to continue calculating risk scores for beneficiaries enrolled in a FIDE SNP using the 2020 CMS-HCC model, we will continue to use the frailty factors associated with the 2020 CMS-HCC model (Table II-6) to calculate frailty scores for FIDE SNPs in CY 2023.

[25] The recalibrated frailty factors for the 2020 CMS-HCC model were proposed and finalized in the CY 2022 Advance Notice and Rate Announcement: https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Announcements-and-Documents.

Table II-6. Frailty Factors Associated with the 2020 CMS-HCC Model – FIDE SNPs

ADL	Non-Medicaid	Partial Medicaid	Full Medicaid
0	-0.066	-0.140	-0.082
1-2	0.102	0.000	0.217
3-4	0.227	0.142	0.282
5-6	0.227	0.142	0.282

MA organizations that are planning to sponsor a FIDE SNP and wish to be considered for frailty payments in 2023 must contract with a CMS-approved survey vendor to field the 2022 Health Outcomes Survey (HOS) or the 2022 Modified Health Outcomes Survey (HOS-M), at the PBP level. For FIDE SNPs, CMS uses plan-level ADL information obtained from the HOS or HOS-M in one year to calculate frailty scores for the following year by applying the frailty factors that correspond to the ADL information gathered from the HOS or HOS-M data.

Section K. Medicare Advantage Coding Pattern Adjustment

To meet the requirements of section 1853(a)(1)(C)(ii) of the Act, each year, CMS has implemented an across-the-board adjustment to offset the effects on MA risk scores of higher levels of coding intensity in MA relative to FFS. Per the statute, the minimum adjustment factor for 2019 and each subsequent year is 5.90 percent.

For CY 2023, CMS will continue to apply the statutory minimum MA coding pattern adjustment of 5.90 percent.

Section L. Normalization Factors

The CMS-HCC risk adjustment models are calibrated with diagnostic and cost information for beneficiaries enrolled in Medicare FFS. The CMS-HCC risk adjustment model is prospective in that it uses health status in a base year (i.e., data collection year) to estimate incremental costs for a variety of beneficiary characteristics (e.g., age and gender) and health conditions in the following year (i.e., the payment year). Each model variable's incremental cost estimate, referred to as a dollar coefficient, is divided by the predicted average per capita expenditure for beneficiaries in the Medicare FFS program in a given year (i.e., the denominator year) to create relative factors. Risk scores are the sum of relative factors assigned to each beneficiary based on their demographic characteristics and health status from the prior year. For FFS beneficiaries, the average risk score is 1.0 in the denominator year.

When a risk adjustment model predicts expenditures in years other than the denominator year (prior or future years), the average risk score for FFS beneficiaries may no longer be 1.0 due to an underlying trend that reflects changes, such as those in coding and population characteristics, between the denominator year and other years. CMS applies a normalization factor to risk scores in the payment year to account for this trend in the average FFS risk score between the denominator year risk score (1.0) and the payment year. The normalization factor is a projection

of this trend, and applying the factor is designed to effectively keep the average risk score at 1.0 in the payment year for beneficiaries in FFS.[26]

In determining the CMS-HCC models' normalization factors, we use the observed historical trend to predict the average risk score of FFS beneficiaries in the payment year, calculated using the model for the applicable population that will be used in the payment year. In determining the RxHCC model normalization factor, we use the observed historical trend to predict the average risk score of beneficiaries enrolled in Part D plans, including MA-PD plans and standalone plans (PDPs), in the payment year. As with the CMS-HCC model normalization factors, the RxHCC model normalization factor is calculated using the model that will be used in the payment year.

CMS calculates each normalization factor annually using historical risk score data and the payment year risk adjustment model. This annual update serves two purposes. First, when paying plans for Part A and B benefits, it is important to keep the average risk score at 1.0 for beneficiaries in FFS so that risk scores in the payment year align with the rates, which are standardized to an average risk score of 1.0. A risk score accounts for the degree to which a beneficiary's risk status results in expected costs that are more or less than the expected cost of the average beneficiary in FFS. The rates, which are the benchmarks for Part C bidding, represent the expected cost of an average beneficiary in FFS in the payment year. Normalization helps to ensure that risk adjusted payments account for the underlying trend in the FFS risk score.

Second, updating the normalization factor annually stabilizes payments between model calibrations. Periodically, CMS updates the risk adjustment model with more current data and resets the year that the average risk score is 1.0 (i.e., the denominator year). Because there is a trend between the denominator year and the payment year, applying a normalization factor to risk scores provides year-over-year stability and avoids the volatility that would otherwise occur when the model is updated with a more recent denominator.

Since 2007, CMS has largely used the same methodology for calculating normalization factors, which is to project the slope calculated using five years of FFS risk scores calculated using the payment year model, from the denominator year to the payment year. CMS typically uses the most recent years of available FFS risk scores to calculate the slope; each year we update the data points in the trend by dropping the earliest year's FFS risk score and adding the most recent year so that the slope used for projection is based on the most recent risk scores available. After calculating the slope, we apply the equation (1+X)^n – where X is the slope calculated from the five-year trend of historical FFS risk scores, and the exponent, n, is the number of years between

---

[26] *See* section 1853(a)(1)(C)(ii)(I) of the Act, which requires that the risk adjustment used in MA payment reflects changes in treatment and coding practices in the fee-for-service sector.

the denominator year and the payment year – to calculate the normalization factor. The normalization factor is thus a projection of the average risk score in the payment year.

In applying this methodology to calculate the CY 2023 normalization factors CMS would typically remove the earliest year's risk score (2016 for the CMS-HCC models) and add the most recent year's (2021 for the CMS-HCC models). However, for CY 2023 CMS is proposing to change this approach in order to calculate a normalization factor that better projects CY 2023 risk scores.

CMS carefully considered the use of the 2021 FFS risk score in the calculation of the slope used to project the normalization factors for the CMS-HCC risk adjustment models for CY 2023. The most recent historical risk score – the 2021 risk score, which is based on diagnoses from 2020 dates of service – is lower than the 2020 risk score, which was based on diagnoses from 2019 dates of service. Prior to 2021, risk scores progressively increased in the years used to identify the trend in risk scores. We believe that the decrease in the 2021 risk score is driven by reduced utilization in 2020 due to the pandemic. Using the 2021 risk score and applying our typical methodology yields a CY 2023 normalization factor that is lower than the CY 2022 normalization factor. However, it is unlikely that the 2023 risk score will be lower than the 2022 risk score. While there is inherent uncertainty with any prediction of future values, risk scores progressively increased in all of the years used to identify the trend in risk scores prior to 2021 and the decreases in utilization in 2020 due to the pandemic were irregular. Therefore, CMS believes that the inclusion of the 2021 risk score in the slope calculation will result in a projected risk score (i.e., normalization factor) that is significantly below what the actual average FFS risk score is likely to be in 2023.

For CY 2023 risk adjustment, CMS is proposing to calculate the normalization factors for the CMS-HCC risk adjustment models using the same five years of historical risk scores used to calculate the slope for developing the CY 2022 normalization factor (2016–2020). This is a modification of our typical calculation of the normalization factor (in which we would update the slope using a more recent risk score trend) because we would not include the most recently available average risk score data (that is 2021 risk scores based on 2020 diagnosis data). CMS will apply the same equation used in the current methodology (which has typically been used since 2007) to project the slope to the payment year, (1+X)^n, where X is the historical slope calculated from the five-year trend of historical FFS risk scores, and the exponent, n, is the number of years between the denominator year and the payment year.

In making this decision to update the methodology for CY 2023, CMS took into consideration the expectation that utilization in 2022 will rebound and comments raised by plans about the impact of COVID on the accuracy of the normalization factor for CY 2022. In projecting the CY

2022 risk score and developing the CY 2022 normalization factor,[27] the most recent risk score in the trend was for CY 2020 (2019 dates of service), and CMS did not have the FFS risk score for 2021 (2020 dates of service) to assess potential impacts from the pandemic on the calculation of the normalization factor. A number of stakeholders suggested various methodological changes to account for the impact of the pandemic on the normalization factor projection for CY 2022. At that point CMS did not have data to assess potential impacts from the pandemic. We now have the data and are better informed about the impact of the pandemic on the risk scores used for the trend. To account for the impact, CMS carefully considered the best way to calculate the 2023 normalization factors. We again note that our normalization factors are projections of the payment year FFS risk scores, and any projection can be imprecise; however, the approach CMS is proposing maintains the stability of using our longstanding five-year linear slope methodology (using 2016–2020 FFS risk scores for the CY 2023 calculations) and balances the impact of the pandemic on the normalization factor projection and the progressive increase in risk scores evident in the historical trend prior to 2021.

While CMS is proposing to not include the 2021 risk score (based on diagnoses from 2020 dates of service) for normalization calculation because of concerns that the lower than expected 2021 risk score will result in a projection that significantly underestimates what the 2023 risk score is likely to be, the 2020 utilization and cost data may be used in other CMS calculations for MA and Part D payment policies where appropriate. For example, as discussed in Attachment II Section A, annual rebasing will use FFS costs from 2016–2020. Differences in the treatment of the 2020 data between these two policies is due to how the 2020 data is used. For purposes of risk score normalization factors, historical data is used to create a trended value where one anomalous data point can have a large impact on this projected value, in this case yielding an unreasonable normalization adjustment, particularly where that data point is the last value used for projecting the trend. This is not the case with rebasing, where the same trending issue does not apply. Rather, a five-year rolling average is used in the AGA calculation for ratebook development, so the impact of any one year of anomalous utilization is moderated by four other years of data and there is not the same impact as when an anomalous data point is used to create a trend to project forward.

Distinct from the CMS-HCC risk adjustment models, which only use FFS risk scores to calculate the normalization factor, the normalization factor for the RxHCC risk adjustment model includes MA and FFS risk scores. Because of the inclusion of MA risk scores, the Part D risk scores are lagged one year and the 2021 risk score is not available to be included in the calculation of the RxHCC normalization factor for CY 2023. Using CMS's typical methodology of updating the risk scores by removing the earliest year (2015 for Part D) and adding the most recent year (2020

[27] See the CY 2022 Advance Notice and Rate Announcement: https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Announcements-and-Documents.

for Part D) projects a reasonable estimate of the average Part D risk score in CY 2023. CMS will, therefore, continue with its typical methodology for the calculation of the Part D normalization factor for CY 2023.

Normalization factors for the CMS-HCC and RxHCC risk adjustment models used to calculate risks scores for PACE organizations will be estimated using the same methodology as the non-PACE risk adjustment models. The preliminary normalization factors for each of the risk adjustment models and the annual risk scores are in subsections L1 through L4.

L1. Normalization for the Part C CMS-HCC Models

For Part C, the proposed 2023 normalization factor estimated for the 2020 CMS-HCC risk adjustment model is 1.127. The 2020 CMS-HCC model has a 2015 denominator, meaning there are eight years of trend between the denominator year and the payment year.

For PACE organizations, the proposed 2023 normalization factor estimated for the 2017 CMS-HCC risk adjustment model is 1.140. The 2017 CMS-HCC model has a 2015 denominator, meaning there are eight years of trend between the denominator year and the payment year.

The normalization factors for both of the CMS-HCC risk adjustment models are applied to the community non-dual aged, community non-dual disabled, community full benefit dual aged, community full benefit dual disabled, community partial benefit dual aged, community partial benefit dual disabled, institutional, new enrollee, and C-SNP new enrollee risk scores.

The risk scores used to calculate the proposed 2023 normalization factors for the 2020 CMS-HCC model and the 2017 CMS-HCC model (years 2016–2020) are included in Table II-7 Part C Normalization Factor Risk Scores. The 2021 risk score is provided for informational purposes only and was not used to calculate the proposed 2023 normalization factors.

Table II-7. Part C Normalization Factor Risk Scores

Year	2020 CMS-HCC Model	2017 CMS-HCC Model
2016	1.019	1.020
2017	1.030	1.034
2018	1.048	1.053
2019	1.063	1.069
2020	1.078	1.085
2021	1.051	1.057

L2. Normalization for the CMS-HCC ESRD Dialysis Model

For MA organizations,[28] CMS is proposing to update the ESRD dialysis risk adjustment model for CY 2023. See Attachment II, Section H for more details. The proposed 2023 normalization factor for the recalibrated ESRD dialysis model (the 2023 ESRD dialysis model) is 1.034. The 2023 ESRD dialysis model has a 2019 denominator and there are four years of trend between the denominator year and the payment year. If we do not update the ESRD dialysis model for CY 2023, the proposed normalization factor for the 2020 ESRD dialysis model is 1.088. The 2020 ESRD dialysis model has a 2015 denominator, and there are eight years of trend between the denominator year and the payment year.

For PACE organizations, the proposed 2023 normalization factor for the 2019 ESRD dialysis model is 1.088. The 2019 ESRD dialysis model has a 2015 denominator, and there are eight years of trend between the denominator year and the payment year.

The normalization factor for the ESRD dialysis model is applied to the risk scores for enrollees in the dialysis, dialysis new enrollee, and transplant segments. The risk scores in the trend used to calculate the proposed normalization factors for the ESRD dialysis model (years 2016–2020) are included in Table II-8 ESRD Dialysis Normalization Factor Risk Scores. The 2021 risk score is provided for informational purposes only and was not used to calculate the proposed 2023 normalization factors.

Table II-8 ESRD Dialysis Normalization Factor Risk Scores

Year	2023 ESRD Dialysis Model	2019 and 2020 ESRD Dialysis Model
2016	0.974	1.014
2017	0.983	1.029
2018	0.991	1.040
2019	1.000	1.051
2020	1.007	1.056
2021	0.999	1.048

L3. Normalization for the CMS-HCC ESRD Functioning Graft Model

For MA organizations,[27] CMS is proposing to update the ESRD functioning graft risk adjustment model for CY 2023. See Attachment II, Section H for more details. The proposed 2023 normalization factor for the recalibrated ESRD functioning graft model (the 2023 ESRD functioning graft model) is 1.048. The 2023 ESRD functioning graft model has a 2019

[28] Certain demonstrations, including MMPs, use the same risk adjustment models as the MA program.

denominator and there are four years of trend between the denominator year and the payment year. If we do not update the ESRD functioning graft model for CY 2023, the proposed normalization factor for the 2020 ESRD functioning graft model is 1.138. The 2020 ESRD functioning graft model has a 2015 denominator, and there are eight years of trend between the denominator year and the payment year.

For PACE organizations, the proposed 2023 normalization factor for the 2019 ESRD functioning graft model is 1.138. The 2019 ESRD functioning graft model has a 2015 denominator, and there are eight years of trend between the denominator year and the payment year.

The trend for the ESRD functioning graft models is calculated using FFS beneficiaries who are entitled to Part A, enrolled in Part B, and who do not have ESRD, or who are not in hospice status. The normalization factor for the ESRD functioning graft model is applied to the risk scores for enrollees in the functioning graft community, functioning graft institutional, and functioning graft new enrollee segments. The risk scores in the trend used to calculate the proposed normalization factors for the ESRD functioning graft model (years 2016–2020) are included in Table II-9 ESRD Functioning Graft Normalization Factor Risk Scores. The 2021 risk score is provided for informational purposes only and was not used to calculate the proposed 2023 normalization factors.

Table II-9. ESRD Functioning Graft Normalization Factor Risk Scores

Year	2023 ESRD Functioning Graft Model	2019 and 2020 ESRD Functioning Graft Model
2016	0.966	1.023
2017	0.974	1.038
2018	0.988	1.058
2019	1.000	1.073
2020	1.012	1.087
2021	0.980	1.057

L4. Normalization for the RxHCC Model

For organizations other than PACE, CMS is proposing to update the RxHCC risk adjustment model for CY 2023. See Attachment III, Section A for more details. The proposed 2023 normalization factor for the recalibrated RxHCC model (the 2023 RxHCC model) is 1.050. The recalibrated RxHCC model has a 2019 denominator and there are four years of trend between the denominator year and the payment year. If we do not update the RxHCC model for CY 2023, the proposed normalization factor for the 2022 RxHCC model is 1.053. Like the 2023 RxHCC model, the 2022 RxHCC model has a 2019 denominator, and there are four years of trend between the denominator year and the payment year.

For PACE organizations, the proposed 2023 normalization factor for the 2020 RxHCC model is 1.073. The 2020 RxHCC model has a 2015 denominator, and there are eight years of trend between the denominator year and the payment year.

The normalization factor for the RxHCC model is applied to all Part D risk scores for beneficiaries enrolled in an MA-PD or PDP plan. The risk scores in the trend used to calculate the proposed normalization factors for the RxHCC model are calculated using beneficiaries enrolled in both MA-PDs and PDPs, and are included in Table II-10 RxHCC Normalization Factor Risk Scores.

Table II-10. RxHCC Normalization Factor Risk Scores

Year	2023 RxHCC Model	2022 RxHCC Model	2020 RxHCC Model
2016	0.962	0.958	1.015
2017	0.972	0.972	1.023
2018	0.986	0.986	1.034
2019	1.000	1.000	1.043
2020	1.009	1.009	1.049

Section M. Sources of Diagnoses for Risk Score Calculation for CY 2023

For non-PACE organizations, for CY 2023, CMS will continue the policy adopted in the CY 2022 Rate Announcement to calculate risk scores for payment to MA organizations and certain demonstrations using only risk adjustment-eligible diagnoses from encounter data and FFS claims.

For PACE organizations, for CY 2023, we will continue using the same method of calculating risk scores under the CMS-HCC and ESRD models that we have been using since CY 2015, which is to pool risk adjustment-eligible diagnoses from the following sources to calculate a single risk score (with no weighting): (1) encounter data, (2) RAPS data, and (3) FFS claims.

Attachment III. Benefit Parameters for the Defined Standard Benefit and Changes in the Payment Methodology for Medicare Part D for CY 2023

Section A. RxHCC Risk Adjustment Model

For CY 2023, we are proposing to implement an updated version of the RxHCC risk adjustment model used to adjust direct subsidy payments for Part D benefits offered by stand-alone Prescription Drug Plans (PDPs) and Medicare Advantage-Prescription Drug Plans (MA-PDs). The proposed 2023 model encompasses the following changes:

- Clinical update to the prescription drug hierarchical condition categories (RxHCCs) so that RxHCCs are based on ICD-10-CM diagnosis codes rather than ICD-9 codes used in the prior models; and
- Update to the data years used to calibrate the model to reflect more current trends in utilization and spending.

A1. Clinical update to the prescription drug hierarchical condition categories (RxHCCs)

For CY 2023, CMS is proposing a recalibrated RxHCC model that includes a clinical update to the RxHCCs. A clinical update entails reviewing the ICD diagnosis codes based on current clinical rationality and cohesion within the RxHCC mapping, updated prescription drugs and drug regimens in relation to the disease conditions and severity, and their implications for predicted costs. The last clinical revision of the RxHCC model was implemented in CY 2015 and was based on ICD-9-CM diagnosis codes, an older version of the ICD diagnostic classification system. Changes to the model in subsequent years reflected only changes to the Part D benefit structure and the inclusion of more recent utilization data. The proposed 2023 model is recalibrated using a revised clinical classification system based on ICD-10-CM diagnosis codes.

The revised RxHCC risk adjustment model is the result of clinical input from an external panel of physicians regarding the composition of each RxHCC and its contribution to total plan liability for prescription drug costs. As a result of the clinical revision, the 2023 model has 84 payment RxHCCs, compared with the 76 payment RxHCCs in the previous model. Table VI-8 in Attachment VI compares the current and proposed RxHCC risk adjustment models' condition categories by body system.

The changes to some of the RxHCCs are a result of changes underlying the transition from ICD-9 to ICD-10 diagnoses codes. The changes also reflect more current Part D prescription drug utilization and spending patterns related to the continual introduction of new drugs, diffusion of use of recently approved drugs, approval of generic drugs, approval of new labels for existing drugs, and changes in the off-label use of drugs. Changes were made to the assignments of underlying conditions within the RxHCCs to improve predictive accuracy when spending for that condition was underpredicted (actual expenditures are more than predicted) or overpredicted

(predicted expenditures are more than actual). In exploratory recalibrations in the reclassification process, we reviewed all condition categories. Those that did not predict costs well because the condition was predictive of low or negative marginal costs or the number of beneficiaries was too small for the coefficient to be stable are not included in the model. Additionally, based on clinician input, conditions with high variability in coding were excluded. The updates to the RxHCCs improve the model's ability to predict drug spending.

A2. Update to the data years used to calibrate the model

For CY 2022, the RxHCC model was recalibrated on 2017 diagnoses from FFS claims and MA-PD encounter data submissions, using the HCPCS-based filtering logic to filter diagnoses from encounter data records,[29,30] and 2018 expenditure data from the PDE records. For CY 2023, we use the same HCPCS-based filtering logic, and updated the underlying data using 2018 FFS claims and MA-PD encounter data submissions and expenditure data from 2019 PDE records. The 2023 coverage gap parameters remain the same as 2022, with plan liability at 75 percent for non-applicable drugs and 5 percent for applicable drugs.

A3. Model Recalibration

Coefficients for condition categories were estimated by regressing the plan liability for the Part D defined standard benefit for each beneficiary onto their demographic factors and condition categories, as indicated by their diagnoses. Resulting dollar coefficients represent the marginal (additional) cost of the condition or demographic factor (for example, age and sex groups). Beneficiaries are segmented based on low-income status, disability status, and residence setting (community vs. institutional).

In order to calculate risk scores for payment, the dollar coefficients must be denominated to create relative factors. To create the relative factors, we used a 2019 denominator. We divided the dollar coefficient for each demographic factor and RxHCC in the model by the average predicted per capita expenditure in 2019. The resulting relative factors for the model finalized for CY 2023 will be used to calculate risk scores for individual beneficiaries in the payment year. We developed the denominator for the recalibrated RxHCC risk adjustment model using data from Medicare beneficiaries enrolled in both MA-PDs and PDPs, which results in an average risk score of 1.0 for the enrolled Part D population in the denominator year. The denominator

---

[29] Final Encounter Data Diagnosis Filtering Logic HPMS Memo: https://www.csscoperations.com/internet/cssc3.nsf/files/Final%20Industry%20Memo%20Medicare%20Filtering%20Logic%2012%2022%2015.pdf/$FIle/Final%20Industry%20Memo%20Medicare%20Filtering%20Logic%2012%2022%2015.pdf.

[30] List of allowable CPT/HCPCS codes available at https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Risk-Adjustors-Items/CPT-HCPCS.

used to create relative factors for all segments of the 2018/2019 RxHCC model is $1,137.46. The segments in the RxHCC model are unchanged and continue to include separate segments based on low-income or non-low-income status, aged (age 65 and older) or non-aged (age < 65) status, and community vs. institutional status.

In a final step, hierarchies were imposed on the condition categories, ensuring that more advanced and costly forms of a condition are reflected in a higher coefficient. In Attachment VI of this Notice, we provide draft relative factors for the 2018/2019 calibration for each segment of the model.

For PACE organizations, CMS began using the 2020 RxHCC model, which is described in the CY 2020 Advance Notice Part II,[31] to calculate Part D risk scores for beneficiaries for CY 2020, and continued to use the 2020 RxHCC model for CY 2021 and 2022. For CY 2023, CMS proposes to continue to use the 2020 RxHCC model to calculate Part D risk scores for PACE enrollees. Refer to Section B for information on encounter data as a source of diagnoses for CY 2023 risk score calculation.

A4. Renumbering RxHCCs

As part of our revision, some of the RxHCCs in the Part D risk adjustment model were renumbered. As we did for the last clinical revision, in order to avoid having to undertake a comprehensive renumbering as the result of any future model changes, we incorporated a series of gaps in the numbering of the RxHCCs between disease groups. These gaps will continue to allow future changes in the classifications without requiring the renumbering of the entire set of RxHCCs. For a list of RxHCCs in the proposed model, please see Table VI-9 in Attachment VI.

Section B. Source of Diagnoses for Part D Risk Score Calculation for CY 2023

For non-PACE organizations, for CY 2023, we will continue to calculate Part D risk scores using only risk adjustment-eligible diagnoses from encounter data and FFS claims.

For PACE organizations, for CY 2023, we will continue using the 2020 RxHCC model to calculate Part D risk scores using the same method we have been using since CY 2015, which is to pool risk adjustment-eligible diagnoses from the following sources to calculate a single risk score (with no weighting): (1) encounter data, (2) RAPS data, and (3) FFS claims.

[31] Refer to Attachment III Section A for information on the 2020 RxHCC model: https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Downloads/Advance2020Part2.pdf.

Section C. Annual Adjustments to Medicare Part D Benefit Parameters in 2023

C1. Updating the Medicare Part D Benefit Parameters

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) (Pub. L. 108-173) directs CMS to update the statutory parameters for the defined standard Part D drug benefit each year. These annual adjustments ensure that the actuarial value of the drug benefit remains consistent with changes in Part D drug expenses. These statutory parameters include the defined standard benefit deductible, initial coverage limit, out-of-pocket threshold, and maximum cost sharing for costs above the out-of-pocket threshold. In addition, CMS is required by statute to update the parameters for the low-income subsidy (LIS) benefit. Section C of Attachment III provides the methodologies used to update these statutory parameters for CY 2023.

All of the Part D benefit parameters are updated using one of two indexing methods, as specified by statute:

(i) the annual percentage increase in average expenditures for Part D drugs per eligible beneficiary (API); or
(ii) the annual percentage increase in the Consumer Price Index (CPI) (all items, U.S. city average).

Annual Percentage Increase in Average Expenditures for Part D Drugs per Eligible Beneficiary (API)

Section 1860D-2(b)(6) of the Act defines the API as "the annual percentage increase in average per capita aggregate expenditures for covered Part D drugs in the United States for Part D eligible individuals, as determined by the Secretary for the 12-month period ending in July of the previous year using such methods as the Secretary shall specify." The following defined standard Part D prescription drug benefit parameters are updated using the API: deductible; initial coverage limit; out-of-pocket threshold; and maximum cost sharing for costs above the annual out-of-pocket (OOP) threshold. The following LIS cost-sharing parameters are also updated using the API: maximum copayments below the out-of-pocket threshold for certain low-income full subsidy eligible enrollees; the deductible for partial LIS-eligible enrollees; and maximum copayments above the out-of-pocket threshold for partial LIS-eligible enrollees.

The CY 2022 annual percentage trend in the API can be found in Table III-1 below. The percent increase in the benefit parameters indexed to the API for CY 2023 is 5.08 percent. This increase reflects the CY 2022 annual percentage trend of 5.8 percent in the API as well as a multiplicative update of -0.68 percent for prior year revisions. See Section C2 for additional information on the calculation of the API.

Annual Percentage Increase in Consumer Price Index, September (CPI)

Section 1860D-14(a)(4) of the Act requires CMS to use the annual percentage increase in the CPI for the 12-month period ending in September 2022 to update the maximum copayments up to the out-of-pocket threshold for full benefit dual eligible enrollees with incomes not exceeding 100 percent of the FPL for CY 2023. CMS uses an estimate of the September 2022 CPI based on projections from the President's FY2023 Budget for this purpose.

The CY 2022 annual percentage trend in the CPI can be found in Table III-1 below. The percent increase in the maximum copayments indexed to the CPI for CY 2023 is 7.44 percent. The CY 2023 increase reflects the CY 2022 annual percentage trend in the CPI of 4.17 percent as well as a multiplicative update of 3.13 percent for prior year revisions.

See Section C2 for additional information on the calculation of the annual percentage increase in the CPI.

Table III-1. Updated API and CPI for 2023

	Annual percentage trend for 2022	Prior year revisions	API for 2023
API	5.80%	-0.68%	5.08%
September CPI (all items, U.S. city average)	4.17%	3.13%	7.44%

For ease of reference, we provide Table III-2 below which summarizes the Part D benefit parameters along with the cost threshold and cost limit of the Retiree Drug Subsidy program (discussed in more detail in Section H) that are required by statute to be updated with either the API or CPI each year. Table III-2 also includes estimates of the total gross covered prescription drug costs at the OOP threshold for both applicable and non-applicable beneficiaries (discussed further in subsection "Determining Total Gross Covered Drugs Costs at Out-of-Pocket Threshold" of Section C3). Table III-2 reflects only the CY 2022 values for the Part D benefit parameters that are required by statute to be updated each year. The CY 2023 values updated using either the CY 2023 API or CPI of 5.08 percent or 7.44 percent respectively. For completeness, we also provide in Table III-2 the Part D benefit parameters that remain constant from year-to-year.

Table III-2. Updated Part D Benefit Parameters for Defined Standard Benefit, Low-Income Subsidy, and Retiree Drug Subsidy

	2022	2023
Standard Benefit		
Deductible	$480	$505
Initial Coverage Limit	$4,430	$4,660
Out-of-Pocket Threshold	$7,050	$7,400

	2022	2023
Total Covered Part D Spending at Out-of-Pocket Threshold for Non-Applicable Beneficiaries (1)	$10,012.50	$10,516.25
Estimated Total Covered Part D Spending for Applicable Beneficiaries (2)	$10,690.20	$11,206.28
Minimum Cost-Sharing in Catastrophic Coverage Portion of the Benefit		
Generic/Preferred Multi-Source Drug	$3.95	$4.15
Other	$9.85	$10.35
Full Subsidy-Full Benefit Dual Eligible (FBDE) Individuals (3)		
Deductible	$0.00	$0.00
Copayments for Institutionalized Beneficiaries [category code 3]	$0.00	$0.00
Copayments for Beneficiaries Receiving Home and Community-Based Services] [category code 3] (4)	$0.00	$0.00
Maximum Copayments for Non-Institutionalized Beneficiaries		
Up to or at 100% FPL [category code 2]		
Up to Out-of-Pocket Threshold		
Generic/Preferred Multi-Source Drug (5)	$1.35	$1.45
Other (5)	$4.00	$4.30
Above Out-of-Pocket Threshold	$0.00	$0.00
Over 100% FPL [category code 1]		
Up to Out-of-Pocket Threshold		
Generic/Preferred Multi-Source Drug	$3.95	$4.15
Other	$9.85	$10.35
Above Out-of-Pocket Threshold	$0.00	$0.00
Full Subsidy-Non-FBDE Individuals (3)		
Applied or eligible for QMB/SLMB/QI or SSI, income at or below 135% FPL and resources ≤ $9,900 (individuals, 2022) or ≤ $15,600 (couples, 2022) [category code 1] (6)		
Deductible	$0.00	$0.00
Maximum Copayments up to Out-of-Pocket Threshold		
Generic/Preferred Multi-Source Drug	$3.95	$4.15
Other	$9.85	$10.35
Maximum Copayments above Out-of-Pocket Threshold	$0.00	$0.00
Partial Subsidy (3)		
Applied and income below 150% FPL and resources below $15,510 (individual, 2022) or $30,950 (couples, 2022) [category code 4] (5)		
Deductible (5)	$99.00	$104
Coinsurance up to Out-of-Pocket Threshold	15%	15%
Maximum Copayments above Out-of-Pocket Threshold		
Generic/Preferred Multi-Source Drug	$3.95	$4.15
Other	$9.85	$10.35
Retiree Drug Subsidy Amounts		
Cost Threshold	$480	$505
Cost Limit	$9,850	$10,350

(1) For a beneficiary who is not considered an "applicable beneficiary," as defined at section 1860D-14A(g)(1) of the Act, and is not eligible for the Medicare Coverage Gap Discount Program, this is the

amount of total drug spending required to reach the out-of-pocket threshold in the defined standard benefit.

(2) For a beneficiary who is an "applicable beneficiary," as defined at section 1860D-14A(g)(1) of the Act, and is eligible for the Medicare Coverage Gap Discount Program, this is the estimated average amount of total drug spending required to reach the out-of-pocket threshold in the defined standard benefit.

(3) The LIS eligibility categories and corresponding cost-sharing benefits are sometimes referred to using category codes as follows:

- Category Code 1 – Non-institutionalized FBDE individuals with incomes above 100% of the FPL and full-subsidy-non-FBDE individuals
- Category Code 2 – Non-institutionalized FBDE individuals with incomes below or up to 100% of the FPL
- Category Code 3 – FBDE individuals who are institutionalized or would be institutionalized if they were not receiving home and community-based services
- Category Code 4 – Partial subsidy individuals

(4) Per section 1860D-14(a)(1)(D)(i) of the Act, full-benefit dual eligible beneficiaries who are receiving home and community-based services qualify for zero cost-sharing if the individuals (or couple) would have been institutionalized otherwise.

(5) The partial LIS deductible is increased from the unrounded 2022 value of $98.76. Increases to the maximum copayments for non-institutionalized FBDE individuals with incomes not greater than 100% of the FPL are applied to the unrounded 2022 values of $1.34 for generic/preferred multi-source drugs and $4.01 for all other drugs.

(6) These resource limit figures will be updated for CY 2023. Additionally, these amounts include $1,500 per person for burial expenses.

C2. Calculation methodologies for the Annual Percentage Increase (API) and Consumer Price Index (CPI)

Annual Percentage Increase in Average Expenditures for Part D Drugs per Eligible Beneficiary (API) Calculation Methodology

For contract years 2006 and 2007, the APIs, as defined in section 1860D-2(b)(6) of the Act, were based on the National Health Expenditure (NHE) prescription drug per capita estimates because sufficient Part D program data was not available. Beginning with contract year 2008, the APIs are based on Part D program data. For the CY 2023 benefit parameters, Part D program data will be used to calculate the annual percentage trend as follows:

$$\frac{August\ 2021–July\ 2022}{August\ 2020–July\ 2021} = \$4{,}552.16 / \$4{,}302.67 = 1.0580$$

In the formula, the average per capita cost for August 2020 – July 2021 is calculated from actual Part D PDE data, and the average per capita cost for August 2021 – July 2022 is calculated based

on actual Part D PDE data for prescription drug claims with service dates from August 2021 – December 2021 and projected through July 2022.

The annual percentage trend in table III-3 based on updated NHE prescription drug per capita costs and PDE data. The years in this table refer to the trend observed in the period of the August of the prior year to July of that year relative to the same interval in preceding years. For example, year 2021 represents the trend observed in August 2020 to July 2021 relative to August 2019 to July 2020.

Table III-3. Revised Prior Years' Annual Percentage Trends

Year	Prior Estimates of Annual Percentage Trend	Revised Annual Percentage Trend
2006	7.30%	7.30%
2007	5.92%	5.92%
2008	4.69%	4.69%
2009	3.14%	3.14%
2010	2.36%	2.36%
2011	2.15%	2.15%
2012	2.53%	2.53%
2013	-3.14%	-3.14%
2014	10.12%	10.12%
2015	9.89%	9.89%
2016	4.02%	4.02%
2017	1.88%	1.87%
2018	4.06%	4.05%
2019	4.92%	4.92%
2020	5.09%	5.06%
2021	5.36%	4.69%

Accordingly, the CY 2023 benefit parameters will reflect the 2022 annual percentage trend and a multiplicative update for prior year revisions. The CY 2022 annual percentage trend can be found in Table III-4. The CY 2023 API are updated by -0.68 percent.

Table III-4. Annual Percentage Increase

Annual percentage trend for July 2022	5.80%
Prior year revisions	-0.68%
Annual percentage increase for 2023	5.08%

Note: Percentages are multiplicative, not additive. Values are carried to additional decimal places and may not agree to the rounded values presented above.

Annual Percentage Increase in Consumer Price Index, September (September CPI) Calculation Methodology

To ensure that plan sponsors and CMS have sufficient time to incorporate cost-sharing requirements into the development of the benefit, any marketing materials, and necessary systems, CMS includes in its methodology to calculate the annual percentage increase in the CPI for the 12-month period ending in September 2022, an estimate of the September 2022 CPI based on projections from the President's FY2023 Budget.

The September 2021 value is from the Bureau of Labor Statistics. The annual percentage trend in the September CPI for CY 2023 is calculated as follows:

$$\frac{\text{Projected September 2022 CPI}}{\text{Actual September 2021 CPI}} \text{ or } \$285.8 / \$274.3 = 1.0417$$

(Source: President's FY2023 Budget and Bureau of Labor Statistics, Department of Labor)

The CY 2023 benefit parameters reflects the CY 2022 annual percentage trend in the September CPI of 4.17 percent, as well as a revision to the prior estimate for the 2021 CPI increase over the 12-month period ending in September 2021. The previously estimated September 2021 CPI increase will be updated based on the actual reported CPI for September 2021 of 5.39 percent. Accordingly, the CY 2023 update reflects a 3.13 percent multiplicative correction for the revision to last year's estimate. The CY 2022 annual percentage trend in the CPI can be found in Table III-5 below.

Table III-5. Cumulative Annual Percentage Increase in September CPI

Annual percentage trend for September 2022	4.17%
Prior year revisions	3.13%
Annual percentage increase for 2023	7.44%

Note: Percentages are multiplicative, not additive. Values are carried to additional decimal places and may not agree to the rounded values presented above.

C3. Annual Adjustments for Part D Benefit Parameters in 2023

Defined Standard Part D Prescription Drug Benefit Parameters

In accordance with section 1860D-2(b) of the Act, CMS updates the statutory parameters for the defined standard Part D prescription drug benefit each year. As mentioned previously, these annual adjustments ensure that the actuarial value of the drug benefit remains consistent with changes in Part D drug expenses.

As described in section 1860D-2(b) of the Act and § 423.104(d), the defined standard Part D prescription drug benefit is composed of the four sequential coverage phases: deductible, initial coverage phase, coverage gap, and catastrophic coverage. Progression through the first two coverage phases is based on total gross covered prescription drug costs, as defined in § 423.308, which refers to spending on covered Part D drugs by beneficiaries or on their behalf by any third party as well as the Part D sponsor. Therefore, once total gross covered prescription drug costs for a beneficiary reach the deductible amount under the defined standard benefit, the beneficiary transitions into the initial coverage phase. Similarly, when total gross covered prescription drug costs for a beneficiary reach the initial coverage limit, the beneficiary transitions into the coverage gap.

In contrast, progression through the coverage gap is determined by accumulated True Out-of-Pocket (TrOOP) spending. TrOOP is spending on covered Part D drugs by the beneficiary or on his/her behalf by certain third parties (*see* sections 1860D-2(b)(4)(C)(iii) and (E) of the Act and the definition of incurred costs in § 423.100). Once accumulated TrOOP for a beneficiary reaches the OOP threshold, the beneficiary enters the catastrophic coverage phase.

Cost-sharing for beneficiaries varies by coverage phase, by LIS status, and whether the drug is applicable or non-applicable.[32] See Table III-6 below for non-LIS beneficiary cost-sharing, the next section for discussion of cost-sharing requirements for LIS beneficiaries, and Section E for additional information on cost-sharing in the coverage gap for applicable and non-applicable drugs.

We note that the term applicable beneficiary, as defined in 1860D-14A(g)(1) and § 423.100, refers to a non-LIS beneficiary enrolled in a stand-alone prescription drug plan or Medicare Advantage prescription drug plan and who is not enrolled in a retiree prescription drug plan. Therefore, an LIS beneficiary is a non-applicable beneficiary. We use the phrase, “non-LIS

[32] An applicable drug is defined in section 1860D-14A(g)(2) of the Act and § 423.100 as a covered Part D drug that is either approved under a new drug application (NDA) under section 505(c) of the Federal Food, Drug, and Cosmetic Act or licensed under section 351 of the Public Health Service Act (PHSA), including biosimilar or interchangeable biosimilar biological products licensed under section 351(k) of the PHSA. Non-applicable drugs are covered Part D drugs that do not meet the definition of an applicable drug, such as generic drugs.

beneficiary," throughout the rest of Attachment III interchangeably with "applicable beneficiary."

For CY 2023, the defined standard benefit deductible amount, initial coverage limit, out-of-pocket threshold, and minimum cost-sharing after the out-of-pocket threshold (i.e., in the catastrophic phase) are updated by multiplying the CY 2022 amounts by the CY 2023 API and rounding as specified by the statute:

Deductible: From $480 in 2022 and rounded to the nearest multiple of $5.

Initial Coverage Limit: From $4,430 in 2022 and rounded to the nearest multiple of $10.

Out-of-Pocket Threshold: From $7,050 in 2022 and rounded to the nearest multiple of $50.

Minimum Cost-Sharing after the Out-of-Pocket Threshold (i.e., in the catastrophic phase): From $3.95 per generic or preferred drug that is a multi-source drug and $9.85 for all other drugs in 2022, rounded to the nearest multiple of $0.05.

Table III-6 below summarizes the defined standard benefit parameters and provides the CY 2022 parameter values. The updated parameter values for CY 2023 obtained by applying the 2023 API and rounding to a specified amount and are summarized in Table III-6.

Table III-6. Part D Benefit Parameters for Defined Standard Benefit for 2022 and 2023 for Non-LIS Beneficiaries

	2022		2023	
Deductible Phase	Cost-sharing: 100%		Cost-sharing: 100%	
	Deductible: $480		Deductible: $505	
Initial Coverage Phase	Cost-sharing: 25%		Cost-sharing: 25%	
	Initial Coverage Limit: $4,430		Initial Coverage Limit: $4,660	
Coverage Gap	Applicable Drugs: Cost-sharing: 25% (1)	Non-applicable Drugs Cost-sharing: 25%	Applicable Drugs Cost-sharing: 25% (1)	Non-applicable Drugs Cost-sharing: 25%
	Out-of-Pocket Threshold: $7,050		Out-of-Pocket Threshold: $7,400	
Catastrophic Coverage	Cost-sharing: Greater of 5% or $3.95 (Generic/Preferred Multi-Source Drug) / $9.85 (Other)		Cost-sharing: Greater of 5% or $4.15 (Generic/Preferred Multi-Source Drug) / $10.35 (Other)	

(1) The 25% coinsurance for applicable drugs for non-LIS beneficiaries during the coverage gap reflects the application of the 70% Medicare Coverage Gap Discount Program discount.

Annual Adjustments for Low-income Subsidy (LIS) Beneficiary Cost-sharing Parameters

The low-income subsidy benefit provides Part D cost-sharing assistance to certain low-income Medicare Part D beneficiaries across the same coverage phases described above. Medicare Part D beneficiaries who are eligible for full Medicaid benefits (full benefit dual eligible (FBDE) individuals, as defined in § 423.772), recipients of Supplemental Security Income (SSI) benefits (*see* § 423.773(c)(1)(ii)), or eligible for a Medicare Savings Programs as a Qualified Medicare Beneficiary (QMB), Specified Low-income Medicare Beneficiary (SLMB), or Qualifying Individual under a State's Medicaid plan (*see* § 423.773(c)(1)(iii)) are deemed automatically eligible for the full subsidy and do not have to separately apply for the LIS. Other Medicare Part D beneficiaries must apply for the LIS and may receive the partial or full subsidy if they meet certain income and asset requirements, as described in § 423.773(b) and (d).

The cost-sharing benefits for LIS beneficiaries are described in § 423.782(a) and (b). Full subsidy FBDE individuals who are institutionalized or receiving certain home and community-based services, as defined in § 423.772, have a $0 deductible and $0 copayments for all covered Part D drugs, regardless of the defined standard benefit phase. Other full subsidy (both FBDE and non-FBDE) individuals also have a $0 deductible but pay nominal copayments for all covered Part D drugs below the OOP threshold as described in § 423.782(a). Copayments for these other full subsidy individuals are reduced to $0 for all covered Part D drugs above the out-of-pocket threshold. In accordance with § 423.782(b), partial subsidy individuals receive the following cost-sharing benefits: reduced deductible, 15% coinsurance below the out-of-pocket threshold, and nominal copays above the out-of-pocket threshold. The following LIS cost-sharing parameters are updated each year by multiplying the prior year's value by the API and rounding as specified by the statute:

Maximum Copayments up to the Out-of-Pocket Threshold for Certain Low-Income Full Subsidy Eligible Enrollees: From $3.95 per generic, preferred drug that is a multi-source drug, or biosimilar and $9.85 for all other drugs in 2022, rounded to the nearest multiple of $0.05.

Deductible for Low-Income (Partial) Subsidy Eligible Enrollees: From $99.00[33] in 2022 and rounded to the nearest $1.

Maximum Copayments above the Out-of-Pocket Threshold for Low-Income (Partial) Subsidy Eligible Enrollees: From $3.95 per generic, preferred drug that is a multi-source drug, or biosimilar and $9.85 for all other drugs in 2022, rounded to the nearest multiple of $0.05.

[33] Per section 1860D-14(a)(4)(B) of the Act, the update for the deductible for partial low-income subsidy eligible enrollees is applied to the unrounded 2022 value of $98.76.

Section 1860D-14(a)(4) of the Act specifies that CMS use the annual percentage increase in the CPI, All Urban Consumers (all items, U.S. city average) as of September of the previous year to update the:

Maximum Copayment Amounts up to the Out-of-Pocket Threshold for Full Benefit Dual Eligible Enrollees with Incomes Not Exceeding 100 Percent of the Federal Poverty Level: These copayments are increased from $1.35 per generic, preferred drug that is a multi-source drug, or biosimilar, and from $4.00 for all other drugs in 2022 and rounded to the nearest multiple of $0.05 and $0.10 respectively.[34]

Please see Table III-7 below for complete information on the different LIS benefit categories and cost-sharing parameters for CY 2022. The LIS cost-sharing parameters updated for CY 2023 by either using the 2023 API or CPI are summarized below in Table III-7.

Table III-7. Updated Part D Low-income Cost-Sharing Parameters for 2023

	2022	2023
Full Subsidy-Full Benefit Dual Eligible (FBDE) Individuals (1)		
Deductible	$0.00	$0.00
Copayments for Institutionalized Beneficiaries [category code 3]	$0.00	$0.00
Copayments for Beneficiaries Receiving Home and Community-Based Services] [category code 3] (2)	$0.00	$0.00
Maximum Copayments for Non-Institutionalized Beneficiaries		
Up to or at 100% FPL [category code 2]		
Up to Out-of-Pocket Threshold		
Generic/Preferred Multi-Source Drug (3)	$1.35	$1.45
Other (3)	$4.00	$4.30
Above Out-of-Pocket Threshold	$0.00	$0.00
Over 100% FPL [category code 1]		
Up to Out-of-Pocket Threshold		
Generic/Preferred Multi-Source Drug	$3.95	$4.15
Other	$9.85	$10.35
Above Out-of-Pocket Threshold	$0.00	$0.00

[34] Per section 1860D-14(a)(4)(A) of the Act, the copayments are increased from the unrounded 2022 values of $1.34 for multi-source generic or preferred drugs, and $4.01 for all other drugs.

	2022	2023
Full Subsidy-Non-FBDE Individuals (1)		
Applied or eligible for QMB/SLMB/QI or SSI, income at or below 135% FPL and resources ≤ $9,900 (individuals, 2022) or ≤ $15,600 (couples, 2022) [category code 1] (5)		
Deductible	$0.00	$0.00
Maximum Copayments up to Out-of-Pocket Threshold		
Generic/Preferred Multi-Source Drug	$3.95	$4.15
Other	$9.85	$10.35
Maximum Copayments above Out-of-Pocket Threshold	$0.00	$0.00
Partial Subsidy (1)		
Applied and income below 150% FPL and resources below $15,510 (individual, 2022) or $30,950 (couples, 2022) [category code 4] (5)		
Deductible (3)	$99.00	$104
Coinsurance up to Out-of-Pocket Threshold	15%	15%
Maximum Copayments above Out-of-Pocket Threshold		
Generic/Preferred Multi-Source Drug	$3.95	$4.15
Other	$9.85	$10.35

(1) The LIS eligibility categories and corresponding cost-sharing benefits are sometimes referred to using category codes as follows:

- Category Code 1 – Non-institutionalized FBDE individuals with incomes above 100% of the FPL and full-subsidy-non-FBDE individuals
- Category Code 2 – Non-institutionalized FBDE individuals with incomes below or up to 100% of the FPL
- Category Code 3 – FBDE individuals who are institutionalized or would be institutionalized if they were not receiving home and community-based services
- Category Code 4 – Partial subsidy individuals

(2) Per section 1860D-14(a)(1)(D)(i) of the Act, full-benefit dual eligible beneficiaries who are receiving home and community-based services qualify for zero cost-sharing if the individuals (or couple) would have been institutionalized otherwise.

(3) The partial LIS deductible is increased from the unrounded 2022 value of $98.76. Increases to the maximum copayments for non-institutionalized FBDE individuals with incomes not greater than 100% of the FPL are applied to the unrounded 2022 values of $1.34 for generic/preferred multi-source drugs and $4.01 for all other drugs.

(4) These resource limit figures will be updated for contract year 2023. Additionally, these amounts include $1,500 per person for burial expenses.

Determining Total Gross Covered Drugs Costs at Out-of-Pocket Threshold

As noted above, while the deductible and ICL thresholds are determined based on total gross covered prescription drug costs, as defined at 42 CFR § 423.308, the OOP threshold is determined based on TrOOP. Each year, for informational purposes, CMS calculates an estimate

of the total gross covered prescription drug costs (also referred to as total covered Part D spending elsewhere) at the OOP threshold. This amount reflects the estimated total drug spending, regardless of payer, that is projected to occur when a beneficiary reaches the OOP threshold under the defined standard benefit.

Total gross covered prescription drug costs at the OOP threshold differs for LIS and non-LIS beneficiaries due to differences in beneficiary cost-sharing for drugs in the coverage gap phase for the two types of beneficiaries (*see* sections 1860D-2(b)(2)(C) and (D) of the Act and § 423.104(d)(4)). For LIS beneficiaries, the calculation of total gross covered prescription drug costs reflects 100 percent cost-sharing in the coverage gap for all covered Part D drugs. For non-LIS beneficiaries, the calculation of total gross covered prescription drug costs reflects 25 percent cost-sharing, after the application of the 70 percent discount from the Medicare Coverage Gap Discount Program on ingredient costs, for applicable drugs, and reflects 25 percent cost-sharing for non-applicable drugs. This difference in cost-sharing between LIS beneficiaries and non-LIS beneficiaries in the coverage gap generally leads to TrOOP accumulating more quickly for LIS beneficiaries compared to non-LIS beneficiaries. Therefore, non-LIS beneficiaries can be generally expected to have higher total gross covered drug costs at the out-of-pocket threshold than LIS beneficiaries.

In addition, we note that the total gross covered prescription drug cost estimate at the OOP threshold will vary across both LIS and non-LIS beneficiaries because of other types of additional drug coverage that beneficiaries may have through third party arrangements. The following third-party arrangements contribute to both TrOOP and the total gross covered prescription drug cost estimate (*see* sections 1860D-2(b)(4)(C)(iii) and (E) of the Act and the definition of incurred costs in § 423.100): LIS cost-sharing support, State Pharmacy Assistance Programs, Indian Health Service and certain other Native American organizations, AIDS Drug Assistance Program, or by a manufacturer as payment under the Medicare Coverage Gap Discount Program. Any spending on covered Part D drugs under any other third-party arrangement does not count toward TrOOP but is captured in the total gross covered prescription drug cost estimate. Therefore, if the beneficiary has additional prescription drug coverage through third party arrangements that do not count toward TrOOP, the total gross covered prescription drug cost estimate at the OOP threshold would generally be higher.

CMS is providing the two 2022 values of total gross covered prescription drug costs at the OOP threshold for applicable and non-applicable beneficiaries that take into account additional drug coverage in Table III-8 below. The updated 2023 total gross covered prescription drug cost estimates at the OOP threshold for applicable and non-applicable beneficiaries are summarized in Table III-8.

Table III-8. Updated Total Gross Covered Drug Costs at the Out-of-Pocket Threshold for Applicable and Non-Applicable Beneficiaries in 2023

	2022	2023
Total Gross Covered Drug Costs at Out-of-Pocket Threshold for Non-Applicable Beneficiaries (1)	$10,012.50	$10,516.25
Estimated Total Gross Covered Drug Costs for Applicable Beneficiaries (2)	$10,690.20	$11,206.28

(1) For a beneficiary who is not considered an "applicable beneficiary," as defined at section 1860D-14A(g)(1) of the Act, and is not eligible for the Medicare Coverage Gap Discount Program, this is the amount of total drug spending required to reach the out-of-pocket threshold in the defined standard benefit.

(2) For a beneficiary who is an "applicable beneficiary," as defined at section 1860D-14A(g)(1) of the Act, and is eligible for the Medicare Coverage Gap Discount Program, this is the estimated average amount of total drug spending required to reach the out-of-pocket threshold in the defined standard benefit.

Calculation Methodology for Estimated Total Gross Covered Drug Costs at Out-of-Pocket Threshold for Applicable Beneficiaries

For CY 2023, the estimated total gross covered prescription drug costs at the out-of-pocket threshold for applicable beneficiaries will be calculated given the following basic assumptions:

- 100 percent beneficiary cost-sharing in the deductible phase.
- 25 percent beneficiary cost-sharing in the initial coverage phase.
- 25 percent beneficiary cost-sharing for non-applicable drugs purchased in the coverage gap phase of the benefit.
- 95 percent cost-sharing for the ingredient cost and sales tax for applicable drugs purchased in the coverage gap phase of the benefit—consisting of 25 percent beneficiary coinsurance and 70 percent Medicare Coverage Gap Discount Program discount.
- 25 percent cost-sharing for the dispensing and vaccine administration fees for applicable drugs purchased in the coverage gap phase of the benefit.

In this estimate, it is assumed that the dispensing and vaccine administration fees account for 0.045 percent of the gross covered brand drug costs used by non-LIS beneficiaries in the coverage gap. Therefore, a 75 percent reduction in cost-sharing for dispensing and vaccine administration fees results in an overall reduction of 0.031 percent to 94.969 percent in cost-sharing for applicable (brand) drugs in the coverage gap.

The CY 2023 calculation of the estimated total gross covered prescription drug costs at out-of-pocket (OOP) threshold for applicable beneficiaries is as follows:

$$\text{ICL} + \frac{\text{100\% beneficiary cost-sharing in the gap}}{\text{weighted gap coinsurance factor}} \; \textit{or} \; \$4{,}660 + \frac{\$5{,}856.25}{89.459\%} = \$11{,}206.28$$

- *ICL* is the Initial Coverage Limit equal to $4,660.
- *100 percent beneficiary cost-sharing in the gap* is the estimated total drug spending in the gap assuming 100 percent coinsurance and is equivalent to:

  *(*OOP threshold) – (OOP costs up to the ICL) *or* $7,400 − $1,543.75 = $5,856.25

  Weighted gap coinsurance factor is calculated as follows:

  (Brand Gross Drug Cost Below Catastrophic [GDCB] % for non-LIS × gap cost-sharing for applicable drugs) + (Generic GDCB % for non-LIS × 25% gap cost-sharing for non-applicable drugs)

  or

  (92.13% × 94.969%) + (7.87% × 25%) = 89.4592%

  - *Brand GDCB % for non-LIS* is the percentage of gross covered drug costs below the OOP threshold for applicable beneficiaries (i.e., non-LIS) attributable to applicable drugs, as reported on the 2021 PDEs.
  - *Gap cost-sharing for applicable drugs* is the coinsurance incurred by applicable beneficiaries (i.e., non-LIS) for applicable drugs in the coverage gap, where:
    - *Coinsurance for applicable drugs* = is calculated as follows:
      - [(percentage of gross covered brand drug costs attributable to ingredient cost and sales tax) × (cost-sharing percentage)] + [(percentage of gross covered brand drug costs attributable to dispensing and vaccine administration fees) × (cost-sharing coinsurance percentage)]

        or

        94.969% = [(99.955% × 95%) + (0.045% × 25%)]
  - *Generic GDCB % for non-LIS* is the percentage of gross covered drug costs below the OOP threshold for applicable beneficiaries (i.e., non-LIS) attributable to non-applicable drugs as reported on the 2021 PDEs.

    Gap cost-sharing for non-applicable drugs is the coinsurance incurred by applicable beneficiaries (i.e., non-LIS) for non-applicable drugs in the coverage gap.

Section D. Reduced Coinsurance for Applicable Beneficiaries in the Coverage Gap

The law required a phased reduction in applicable beneficiary cost-sharing for drugs in the coverage gap phase of the Medicare Part D benefit which, prior to CY 2011, was set at 100 percent. This gradual reduction in cost-sharing began in 2011 and continued through CY 2019 for applicable drugs and through CY 2020 for non-applicable drugs, ultimately resulting in 25 percent cost-sharing for applicable drugs, after the application of the 70 percent manufacturer discount required by statute, and 25 percent cost-sharing for other, non-applicable Part D covered drugs. As a result, from CY 2020 onward, after applying the 70 percent manufacturer discount, the beneficiary coinsurance for non-LIS beneficiaries under basic prescription drug coverage is 25 percent for applicable covered Part D drugs purchased during the coverage gap phase of the Part D benefit.

The reductions in cost-sharing, in conjunction with the Medicare Coverage Gap Discount Program, effectively served to close the Medicare Part D coverage gap for applicable (i.e., non-LIS) beneficiaries by extending the 25 percent coinsurance for non-LIS beneficiaries from the initial coverage phase into the coverage gap phase for both applicable and non-applicable drugs. For a detailed description of how cost-sharing was gradually reduced year-by-year during the CY 2011 to CY 2020 time period, see Tables III-2 and III-3 of the Advance Notice of Methodological Changes for Calendar Year (CY) 2021 for Medicare Advantage (MA) Capitation Rates and Part C and Part D Payment Policies – Part II.[35]

Section E. Dispensing Fee and Vaccine Administration Fees for Applicable Drugs in the Coverage Gap

Consistent with our policy on liability for dispensing and vaccine administration fees, as described in the Announcement of Calendar Year (CY) 2013 Medicare Advantage Capitation Rates and Medicare Advantage and Part D Payment Policies and Final Call Letter, applicable beneficiaries will pay a portion of the dispensing fee (and vaccine administration fee, if any) that is commensurate with their coinsurance in the coverage gap, after the application of the coverage gap discount program discount (if applicable). The Part D sponsor will pay the remainder of the dispensing fee and vaccine administration fee, if any.

In CY 2023, applicable beneficiaries will pay 25 percent and plans will pay 75 percent of dispensing fees and vaccine administration fees for applicable drugs in the coverage gap.

---

[35] CY 2021 Advance Notice Part II: https://www.cms.gov/files/document/2021-advance-notice-part-ii.pdf.

Section F. Part D Calendar Year Employer Group Waiver Plans Prospective Reinsurance Amount

CMS makes prospective reinsurance payments to all Part D Calendar Year EGWP sponsors based on the average per member-per month (PMPM) actual (final) reinsurance amounts paid to Part D Calendar Year EGWP sponsors for the most recently reconciled payment year, which for CY 2023 is CY 2020. The average PMPM actual reinsurance amount paid to Part D Calendar Year EGWPs for CY 2020 was $67.56.

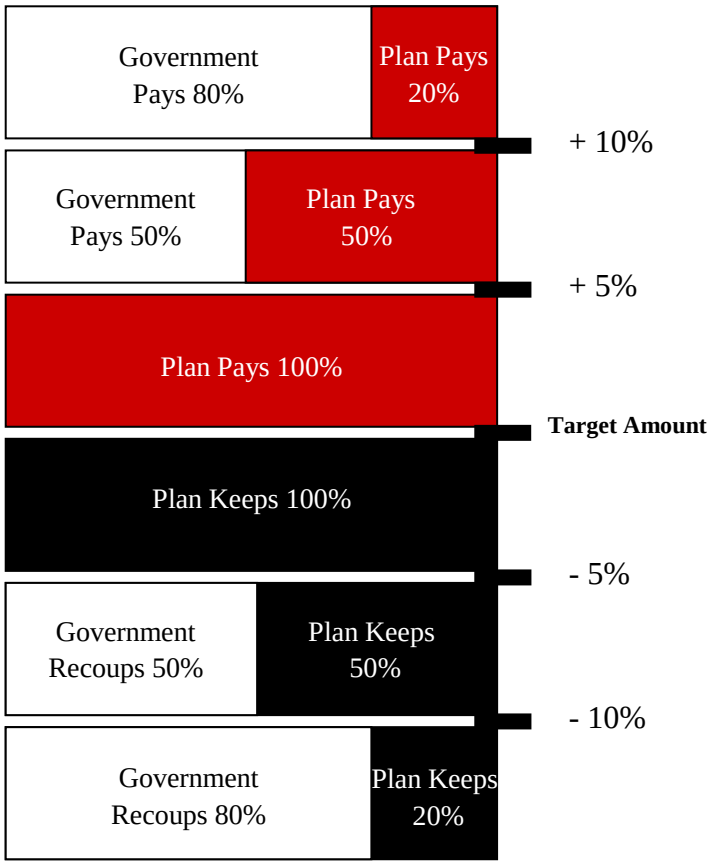
Section G. Part D Risk Sharing

The risk sharing payments provided by CMS limit Part D sponsors' exposure to unexpected drug expenses. Pursuant to section 1860D-15(e)(3)(C) of the Act and § 423.336(a)(2)(ii), CMS may establish a risk corridor with higher threshold risk percentages for Part D risk sharing beginning in CY 2012. Widening the risk corridor would increase the risk associated with providing the Part D benefit and reduce the risk sharing amounts provided (or recouped) by CMS. While CMS may widen the risk corridors, the statute does not permit CMS to narrow the corridors relative to the CY 2011 thresholds.

CMS has evaluated the risk sharing amounts for CYs 2008–2018 to assess whether they have decreased or stabilized. A steady decline or stabilization in the Part D risk sharing amounts would suggest that Part D sponsors have significantly improved their ability to predict Part D expenditures. However, CMS has found that risk sharing amounts continue to vary significantly in aggregate from year to year and among Part D sponsors in any given year. Therefore, we do not believe it is appropriate to adjust the parameters at this time, and we will apply no changes to the current threshold risk percentages for CY 2023. We will continue to evaluate the risk sharing amounts each year to determine if wider corridors should be applied for Part D risk sharing.

Thus, the risk percentages and payment adjustments for Part D risk sharing are unchanged from CY 2022. The risk percentages for the first and second thresholds remain at +/- 5 percent and +/- 10 percent of the target amount, respectively, for CY 2023. The payment adjustments for the first and second corridors are 50 percent and 80 percent, respectively. Figure III-1 below illustrates the risk corridors for 2023.

Figure III-1. Part D Risk Corridors for 2023



G1. Risk sharing when a plan's adjusted allowable risk corridor costs (AARCC) exceed the target amount

For the portion of a plan's adjusted allowable risk corridor costs (AARCC[36]) that is between the target amount and the first threshold upper limit (105 percent of the target amount), the Part D sponsor pays 100 percent of this amount. For the portion of the plan's AARCC that is between the first threshold upper limit and the second threshold upper limit (110 percent of the target amount), the government pays 50 percent and the plan pays 50 percent. For the portion of the plan's AARCC that exceeds the second threshold upper limit, the government pays 80 percent and the plan pays 20 percent.

Example: If a plan's AARCC is $120 and its target amount is $100, the Part D sponsor and the government cover $9.50 and $10.50, respectively, of the $20 in unanticipated costs. The sponsor's responsibility is calculated as follows:

[36] Per § 423.336(a), the "adjustment allowable risk corridor costs" for a Part D plan are the allowable risk corridor costs for a Part D plan for the coverage year, reduced by the sum of the total reinsurance payments and total low-income cost-sharing subsidies paid to the sponsor of the Part D plan for the coverage year.

100% of ($105 − $100) + 50% of ($110 − $105) + 20% of ($120 − $110).

G2. Risk sharing when a plan's adjusted allowable risk corridor costs (AARCC) are below the target amount

If a plan's AARCC is between the target amount and the first threshold lower limit (95 percent of the target amount), the plan keeps 100 percent of the difference between the target amount and the plan's AARCC. If a plan's AARCC is between the first threshold lower limit and the second threshold lower limit (90 percent of the target amount), the government recoups 50 percent of the difference between the first threshold lower limit and the plan's AARCC. The plan would keep 50 percent of the difference between the first threshold lower limit and the plan's AARCC, as well as 100 percent of the difference between the target amount and first threshold lower limit. If a plan's AARCC is less than the second threshold lower limit, the government recoups 80 percent of the difference between the plan's AARCC and the second threshold lower limit, as well as 50 percent of the difference between the first and second threshold lower limits. In this case, the plan would keep 20 percent of the difference between the plan's AARCC and the second threshold lower limit, 50 percent of the difference between the first and second threshold lower limits, and 100 percent of the difference between the target amount and the first threshold lower limit.

Example: If a plan's AARCC is $80 and its target amount is $100, of the $20 in unexpected savings generated, the Part D sponsor keeps $9.50, and the government recoups $10.50. The sponsor's share is calculated as follows:

100% of ($100 − $95) + 50% of ($95 − $90) + 20% of ($90 − $80).

Section H. Retiree Drug Subsidy Amounts

Per § 423.886(b)(3), the cost threshold and cost limit for qualified retiree prescription drug plans are updated using the API, as defined previously in this document. The updated cost threshold is rounded to the nearest multiple of $5 and the updated cost limit is rounded to the nearest multiple of $50. The cost threshold and cost limit are defined as $480 and $9,850, respectively, for plans that end in CY 2022, and as $505 and $10,350 for plans that end in CY 2023, as noted in Table III-9.

Table III-9 Updated Retiree Drug Subsidy Amounts in 2023

	2022	2023
Retiree Drug Subsidy Amounts		
Cost Threshold	$480	$505
Cost Limit	$9,850	$10,350

Attachment IV. Updates for Part C and D Star Ratings

Part C and D Star Ratings and Future Measurement Concepts

The Part C and D Star Ratings measure the quality of and reflect the experiences of beneficiaries in Medicare Advantage (MA) and Prescription Drug Plans (PDPs or Part D plans), assist beneficiaries in finding the best plan for their needs, and determine MA Quality Bonus Payments. The Star Ratings support CMS' efforts to make the patient the focus in all of our programs and to create incentives to eliminate health disparities.

The methodology for the Star Ratings system for the MA and Part D programs is codified at §§ 422.160 - 422.166 and 423.180 - 423.186. In the Advance Notice, we are providing information and updates as required by §§ 422.164(c)(2), (d), (e)(2) and (f)(1); 422.166(f)(2); 423.184(c)(2), (d), (e)(2), and (f)(1); and 438.186(f)(2). In addition, we are soliciting input on future measures and concepts as we continue to enhance the Star Ratings over time.

Reminders for 2023 Star Ratings

CMS finalized an increase in the weight of patient experience/complaints and access measures from 2 to 4 for the 2023 Star Ratings at §§ 422.166(e)(1)(iii) and (iv) and 423.186(e)(1)(iii) and (iv) in the CY 2021 final rule (85 FR 33796). We also finalized in that CY 2021 final rule the removal of the Rheumatoid Arthritis Management measure and updated the Part D Statin Use in Persons with Diabetes measure weighting category (from an intermediate outcome measure with a weight of 3 to a process measure with a weight of 1) for the 2021 measurement year and the 2023 Star Ratings. As adopted in the CY 2020 and 2021 final rule (CMS-4185-F) at 84 FR 15765, the Controlling Blood Pressure (Part C) measure was re-specified and will be transitioned off the display page and into the 2023 Star Ratings as a new measure. This measure will have a weight of 1 for the first year (2023 Star Ratings) and a weight of 3 thereafter. The COVID-19 interim final rule (IFC) (CMS-1744-IFC), issued on March 31, 2020, delayed the application of guardrails described in §§ 422.166(a)(2)(i) and 423.186(a)(2)(i) until the 2023 Star Ratings. Please see these final rules and the IFC for further information on these changes for the 2023 Star Ratings, as well as in the "Medicare Program; Contract Year 2023 Policy and Technical Changes to the Medicare Advantage and Medicare Prescription Drug Benefit Programs" proposed rule (CMS-4192-P) which appeared in the Federal Register on January 12, 2022[37] (hereinafter referred to as the 2023 Part C and D proposed rule) where we have proposed to amend § 422.166(i) to specifically address the 2023 Star Ratings for HEDIS measures derived from the 2021 HOS survey only.

[37] Available at https://www.federalregister.gov/d/2022-00117/.

We provide various datasets and reports to plan sponsors throughout the year. Part C and D sponsors should regularly review their underlying measure data that are the basis for the Star Ratings and immediately alert CMS if errors or anomalies are identified so any issues can be resolved prior to the first plan preview period.

As described at §§ 422.164(h) and 423.184(h), CMS annually sets and announces a deadline for MA and Part D organizations to request that CMS or the Independent Review Entity (IRE) review its Part C appeals data or CMS review its Complaints Tracking Module (CTM) data. CMS is announcing a deadline of June 30, 2022 for all contracts to make their requests for review of the 2023 Star Rating appeals and CTM measure data. Sponsoring organizations can view and monitor their Part C appeals timeliness and effectuation compliance data on the website medicareappeal.com/AppealSearch. Sponsoring organizations should refer to the May 10, 2019 HPMS memorandum, "Complaints Tracking Module (CTM) File Layout Change and Updated Standard Operating Procedures," for instructions on how to request a review of CTM data.

Measure Updates for 2023 Star Ratings

Improvement Measures (Part C & D). Under §§ 422.164(f) and 423.184(f), improvement measures are calculated using performance measures that meet specific conditions. The measures that will be used to calculate the 2023 Star Ratings are listed in Table IV-1. As stated in §§ 422.164(f)(4)(i) and 423.184(f)(4)(i), CMS will only include measures in the improvement calculations at the contract level if numeric value scores are available for both the current and prior years.

Table IV-1: Measures Included in 2023 Star Ratings Improvement and 2023 CAI Values

Part C or D	Measure	Measure Type	Weight	Improvement Measure	Included in the 2023 CAI Values
C	Breast Cancer Screening	Process Measure	1	Yes	Yes
C	Colorectal Cancer Screening	Process Measure	1	Yes	Yes
C	Annual Flu Vaccine	Process Measure	1	Yes	Yes
C	Controlling Blood Pressure	Intermediate Outcome Measure	1	No	No
C	Monitoring Physical Activity	Process Measure	1	Yes	Yes
C	Special Needs Plan (SNP) Care Management	Process Measure	1	Yes	No
C	Care for Older Adults – Medication Review	Process Measure	1	Yes	No
C	Care for Older Adults – Pain Assessment	Process Measure	1	Yes	No
C	Osteoporosis Management in Women	Process Measure	1	Yes	Yes

Part C or D	Measure	Measure Type	Weight	Improvement Measure	Included in the 2023 CAI Values
	who had a Fracture				
C	Diabetes Care – Eye Exam	Process Measure	1	Yes	Yes
C	Diabetes Care – Kidney Disease Monitoring	Process Measure	1	Yes	Yes
C	Diabetes Care – Blood Sugar Controlled	Intermediate Outcome Measure	3	Yes	Yes
C	Reducing the Risk of Falling	Process Measure	1	Yes	Yes
C	Improving Bladder Control	Process Measure	1	Yes	Yes
C	Medication Reconciliation Post-Discharge	Process Measure	1	Yes	Yes
C	Getting Needed Care	Patients' Experience and Complaints Measure	4	Yes	No
C	Getting Appointments and Care Quickly	Patients' Experience and Complaints Measure	4	Yes	No
C	Customer Service	Patients' Experience and Complaints Measure	4	Yes	No
C	Rating of Health Care Quality	Patients' Experience and Complaints Measure	4	Yes	No
C	Rating of Health Plan	Patients' Experience and Complaints Measure	4	Yes	No
C	Care Coordination	Patients' Experience and Complaints Measure	4	Yes	No
C	Complaints about the Health Plan	Patients' Experience and Complaints Measure	4	Yes	No
C	Members Choosing to Leave the Plan	Patients' Experience and Complaints Measure	4	Yes	No

Part C or D	Measure	Measure Type	Weight	Improvement Measure	Included in the 2023 CAI Values
C	Health Plan Quality Improvement	Improvement Measure	5	No	No
C	Plan Makes Timely Decisions about Appeals	Measures Capturing Access	4	Yes	No
C	Reviewing Appeals Decisions	Measures Capturing Access	4	Yes	No
C	Call Center – Foreign Language Interpreter and TTY Availability	Measures Capturing Access	4	Yes	No
C	Statin Therapy for Patients with Cardiovascular Disease	Process Measure	1	Yes	Yes
D	Call Center – Foreign Language Interpreter and TTY Availability	Measures Capturing Access	4	Yes	No
D	Complaints about the Drug Plan	Patients' Experience and Complaints Measure	4	Yes	No
D	Members Choosing to Leave the Plan	Patients' Experience and Complaints Measure	4	Yes	No
D	Drug Plan Quality Improvement	Improvement Measure	5	No	No
D	Rating of Drug Plan	Patients' Experience and Complaints Measure	4	Yes	No
D	Getting Needed Prescription Drugs	Patients' Experience and Complaints Measure	4	Yes	No
D	MPF Price Accuracy	Process Measure	1	Yes	No
D	Medication Adherence for Diabetes Medications	Intermediate Outcome Measure	3	Yes	Yes
D	Medication Adherence for Hypertension (RAS antagonists)	Intermediate Outcome Measure	3	Yes	Yes
D	Medication Adherence for Cholesterol (Statins)	Intermediate Outcome Measure	3	Yes	Yes

Part C or D	Measure	Measure Type	Weight	Improvement Measure	Included in the 2023 CAI Values
D	MTM Program Completion Rate for CMR	Process Measure	1	Yes	Yes
D	Statin Use in Persons with Diabetes	Process Measure	1	Yes	Yes

2023 Star Ratings Program and the Categorical Adjustment Index

The methodology for the Categorical Adjustment Index (CAI) is described at §§ 422.166(f)(2) and 423.186(f)(2), as well as in the annual Medicare Part C & D Star Ratings Technical Notes available on the CMS webpage at https://go.cms.gov/partcanddstarratings. As finalized at §§ 422.166(f)(2) and 423.186(f)(2), all measures identified as candidate measures will be included in the determination of the 2023 CAI values. The measure set for the 2023 CAI (for both Part C and D) is identified in Table IV-1.

In keeping with our commitment to transparency, a summary of the analysis of the candidate measure set that includes the minimum, median, and maximum values for the within-contract variation for the low-income subsidy (LIS)/dual eligible (DE) differences are posted with the 2023 CAI values at https://go.cms.gov/partcanddstarratings.

Extreme and Uncontrollable Circumstances Policy

Extreme and uncontrollable circumstances such as natural disasters can directly affect Medicare beneficiaries and providers, as well as the Parts C and D organizations that provide beneficiaries with important medical care and prescription drug coverage. An affected contract is identified based on whether its service area is within an "emergency area" during an "emergency period" as defined in section 1135 of the Act and within a geographic area designated in a major disaster declaration under the Stafford Act and the Secretary exercised authority under section 1135 of the Act based on the same triggering event(s). We use the start date of the incident period to determine which year of Star Ratings could be affected, regardless of whether the incident period extends to another calendar year (§§ 422.166(i) and 423.186(i)). Under the 25 percent rules at §§ 422.166(i)(2)–(6) and 423.186(i)(2)–(5), contracts with at least 25 percent of their service area in a FEMA-designated Individual Assistance area in 2021 will receive the higher of their measure-level rating from the current and prior Star Ratings years for purposes of calculating the 2023 Star Ratings (thus, for 2023 Star Ratings, affected contracts will receive the higher of their measure-level ratings from 2022 or 2023 for the applicable measures following the rules described at 84 FR 15770–77). The numeric scores for contracts with 60 percent or more of their enrollees living in FEMA-designated Individual Assistance areas at the time of the extreme and uncontrollable circumstance are excluded from: (1) the measure-level cut point calculations for non-CAHPS measures; and (2) the performance summary and variance thresholds for the reward factor as described at §§ 422.166(i)(9)(i) and (i)(10)(i), and

423.186(i)(7)(i) and (i)(8)(i). As part of the 2023 Part C and D proposed rule, we have proposed to amend § 422.166(i) to specifically address the 2023 Star Ratings for HEDIS measures derived from the 2021 HOS survey only by adding § 422.166(i)(12) to remove the 60 percent rule for affected contracts. This would ensure that we are able to calculate the Star Ratings cut points for the three HEDIS measures derived from the HOS survey and are able to include these measures in the determination of the performance summary and variance thresholds for the reward factor for the 2023 Star Ratings since the disaster adjustment due to COVID-19 for measures from the HOS survey is delayed one year given timing of survey administration and recall periods. Table IV-2 lists the emergency areas affected by emergency declarations first issued in 2021, as defined in section 1135 of the Act, and the exercise of the Secretary's authority under section 1135 of the Act.

Table IV-2: List of Section 1135 Waivers Issued in Relation to the FEMA Major Disaster Declarations

Section 1135 Waiver Date Issued	Waiver or Modification of Requirements Under Section 1135 of the Social Security Act	FEMA Incident Type	Affected State	Incident Start Date
2/17/2021	Texas Severe Winter Storms	Winter Storms	Texas	2/11/2021
8/30/2021	Hurricane Ida	Hurricane	Louisiana and Mississippi	8/26/2021
9/3/2021	Remnants of Hurricane Ida	Hurricane	New York and New Jersey	9/1/2021

Table IV-3 lists the states and territories with Individual Assistance designations from the FEMA major disaster declarations.

Table IV-3: Individual Assistance Counties and County-Equivalents in FEMA Major Disaster Declared States/Territories

FEMA Declaration	State	FEMA Individual Assistance Counties or County-Equivalents
4586-DR-TX	Texas	Anderson, Angelina, Aransas, Atascosa, Austin, Bandera, Bastrop, Bee, Bell, Bexar, Blanco, Bosque, Bowie, Brazoria, Brazos, Brooks, Brown, Burleson, Burnet, Caldwell, Calhoun, Cameron, Chambers, Cherokee, Collin, Colorado, Comal, Comanche, Cooke, Coryell, Dallas, DeWitt, Denton, Duval, Eastland, Ector, Ellis, Erath, Falls, Fannin, Fort Bend, Freestone, Galveston, Gillespie, Goliad, Gonzales, Grayson, Gregg, Grimes, Guadalupe, Hardin, Harris, Harrison, Hays, Henderson, Hidalgo, Hill, Hood, Houston, Howard, Hunt, Jackson, Jasper, Jefferson, Jim Hogg, Jim Wells, Johnson, Jones, Karnes, Kaufman, Kendall, Kerr, Kleberg, Lamar, Lavaca, Leon, Liberty, Limestone, Llano, Lubbock, Madison, Matagorda, Maverick, McLennan, Medina, Milam, Montague, Montgomery, Nacogdoches, Navarro, Newton, Nueces, Orange, Palo Pinto, Panola, Parker, Polk, Robertson, Rockwall,

FEMA Declaration	State	FEMA Individual Assistance Counties or County-Equivalents
		Rusk, Sabine, San Jacinto, San Patricio, Scurry, Shackelford, Shelby, Smith, Stephens, Tarrant, Taylor, Tom Green, Travis, Trinity, Tyler, Upshur, Val Verde, Van Zandt, Victoria, Walker, Waller, Washington, Webb, Wharton, Wichita, Willacy, Williamson, Wilson, Wise, and Wood.
4611-DR-LA	Louisiana	Ascension, Assumption, East Baton Rouge, East Feliciana, Iberia, Iberville, Jefferson, Lafourche, Livingston, Orleans, Plaquemines, Pointe Coupee, St. Bernard, St. Charles, St. Helena, St. James, St. John the Baptist, St. Martin, St. Mary, St. Tammany, Tangipahoa, Terrebonne, Washington, West Baton Rouge, and West Feliciana.
4626-DR-MS	Mississippi	Amite, Hancock, Harrison, Jackson, Pearl River, Pike, Walthall, and Wilkinson
4615-DR-NY	New York	Bronx, Dutchess, Kings, Nassau, Orange, Queens, Richmond, Rockland, Suffolk, and Westchester.
4614-DR-NJ	New Jersey	Bergen, Essex, Gloucester, Hudson, Hunterdon, Mercer, Middlesex, Morris, Passaic, Somerset, Union, and Warren.

Changes to Existing Star Ratings Measures in 2023 and Future Years

CMS solicits feedback on new measure concepts as well as updated measures through the annual Advance Notice and Rate Announcement. We also provide advance notice regarding measures considered for implementation as future Star Ratings measures. As codified at §§ 422.164(c)(2)–(4), 423.184(c)(2)–(4), 422.164(d)(2), and 423.184(d)(2), new measures and measures with substantive specification changes must remain on the display page for at least two years prior to becoming a Star Ratings measure. In addition, CMS uses the Advance Notice and Rate Announcement process to announce non-substantive specification changes as described at §§ 422.164(d)(1) and 423.184(d)(1).

We welcome comments on the potential measure specification updates described below.

Statin Use in Persons with Diabetes (SUPD) Measure (Part D). The Pharmacy Quality Alliance (PQA) recently modified several exclusions related to the SUPD measure in their draft 2022 measure manual:

- Refined the liver disease exclusion to include only beneficiaries with a diagnosis of cirrhosis during the measurement year since liver disease without cirrhosis is not contraindicated in recent guidelines.

- Removed dapagliflozin and empagliflozin single ingredient from the measure National Drug Code (NDC) medication list because dapagliflozin and empagliflozin are sodium-glucose

cotransporter 2 (SGLT2) inhibitors, which were recently approved for use in reducing the risk of cardiovascular death and hospitalization for heart failure in adults with heart failure (New York Heart Association class II-IV) with reduced ejection fraction. In the SUPD measure, the denominator includes beneficiaries with diabetes mellitus (DM), which is determined by prescription claims for DM. Therefore, dapagliflozin and empagliflozin cannot be used as a proxy for DM diagnosis since they are now indicated for the use in heart failure without DM.

These changes would be non-substantive updates under § 423.184(d)(1) because they are updates with no change to the intent of the measure or the target population. If adopted by PQA (the measure steward), CMS will implement these updates for the 2022 measurement year (2024 Star Ratings).

Medication Adherence for Diabetes Medication/Medication Adherence for Hypertension (RAS Antagonists)/ Medication Adherence for Cholesterol (Statins) Measures/ Statin Use in Persons with Diabetes (SUPD) Measure (Part D). The PQA removed the Risk Adjustment Processing System (RAPS) RxHCC codes from all of its measures, including these medication adherence and SUPD measures, in their draft 2022 measure manual for better alignment of the diagnosis codes used for exclusions and the NDC Medication Value Sets. Therefore, the RxHCC codes for identifying end stage renal disease (ESRD) will no longer be used to identify ESRD diagnosis in the PQA measures. However, PQA will maintain the diagnosis codes for the exclusions in the PQA NDC medication Value Sets. CMS will continue to use the Common Working File (CWF) and Encounter Data System (EDS) to identify diagnoses based on ICD-10 codes.

These changes would be non-substantive updates under § 423.184(d)(1) since clinical codes for quality measures are routinely revised as the value sets are updated. The updates to the clinical codes do not change the intent of the measure or the target population. Therefore, if adopted by PQA (the measure steward), the RxHCC codes will be removed from the measures for the 2022 measurement year (2024 Star Ratings).

Medicare Plan Finder (MPF) Price Accuracy (Part D). This measure evaluates the accuracy of drug prices posted on the Medicare Plan Finder (MPF) tool for beneficiaries comparing available Part D plans. In the CY 2020 and 2021 final rule (CMS-4185-F) at 84 FR 15765, measure specification changes were made to redefine a contract's score to be based on the accuracy index, or magnitude of difference, and the claim percentage index, or frequency of difference. The measure flags instances where the prescription drug event (PDE) cost exceeds the rounded MPF cost by at least a cent ($0.01) as inaccurate. (PDE costs equal to or below the MPF cost do not count against the contract's score.)

Plan sponsors have raised concerns that rounding may negatively impact measure scores; therefore, we are planning a non-substantive update to change the allowable threshold to $0.02 to account for such cases. We tested the impact of a higher threshold using 2019 MPF and PDE

data; specifically, we evaluated how many claims would no longer be flagged as inaccurate. Across MA-PDs and PDPs, we found that 2.7 percent of MPF/PDE claims currently flagged as inaccurate would be "acceptable" under the new threshold of $0.02. The change in threshold would not cause any new claims to be marked as inaccurate and maintains the intent of the measure. Individual sponsors' scores may either improve or remain the same from this adjustment. No scores would be lowered as a result.

This is a non-substantive update under § 423.184(d)(1), as it narrows the number of claims defined by the measure specifications as inaccurate, due to raising the accuracy threshold. The update impacts a small percent of claims, and would only benefit (not lower) sponsors' Star Ratings. We plan on implementing this non-substantive change for the 2022 measurement year (2024 Star Ratings).

Complaints about the Health/Drug Plan (Part C and D). Certain categories or types of complaints are excluded from the Star Ratings complaints measures as detailed in the Medicare 2022 Part C & D Star Ratings Technical Notes (https://www.cms.gov/files/document/2022-star-ratings-technical-notes-oct-4-2022.pdf). On March 10, 2019, CMS released an HPMS memorandum on the Complaints Tracking Module (CTM) Updated Standard Operating Procedures (SOP). Appendix A of the SOP - Category and Subcategory Listing - lists the subcategories that are excluded from the measures. We are soliciting feedback on including category 1.30 (CMS Lead Marketing Misrepresentation: Allegation of inappropriate marketing by plan, plan representative, or agent/broker) in the measure specifications in the future. Based on our review of past complaints, these complaints primarily originate from beneficiary confusion around misleading marketing materials and/or inadequate training of marketing personnel. We believe plans should be held accountable for these issues in the performance measures. Complaints in category 2.30 (Plan Lead Marketing Misrepresentation: Allegation of inappropriate marketing by plan, plan representative, or agent/broker) are currently included in the Complaints against Health/Drug Plan measure specifications.

The main difference between marketing misrepresentation complaints in categories 1.30 and 2.30 is that CMS may need to take action to help process retrospective disenrollments for complaints in category 1.30, whereas cases where a beneficiary wants a prospective action are categorized in 2.30. CMS expects plans to perform casework to investigate category 1.30 cases (just like category 2.30 cases), make necessary changes to their plan marketing materials, and improve training of plan representatives to avoid misinforming beneficiaries and reduce future complaints. *See* §§ 422.503(b)(4)(vi) and 423.504(b)(4)(vi) (requirements for an effective compliance program) and 422.504(i) and 423.505(i) (plan responsibility for first tier, downstream, and related entities).

We tested the change using 2019 CTM data from the 2021 Star Ratings. With the inclusion of category 1.30 complaints, there was an 11 percent increase in the complaint volumes (numerator) for calculating the performance measures overall (13 percent for MA-PDs and 6 percent for

PDPs). We further simulated star assignments. In the 2021 Star Ratings, MA-PD contracts were assigned 3, 4, and 5 stars, and PDP contracts were assigned 4 and 5 stars due to the data distribution and clustering methodology. Overall, we found a decrease in the star assignments for almost one-quarter of MA-PD contracts using the changed complaint measure specifications that include marketing misrepresentation complaints. Some movement is expected because of the 11 percent increase in complaints that were included in the modified dataset. The star assignments for most MA-PD contacts (76 percent) and all PDP contacts remained the same using the specification change.

This change would be a substantive update under §§ 422.184(d)(2) and 423.184(d)(2) because it adds a category of complaints that plans will be accountable for in the future and expands the numerator. We are considering future rulemaking to include the new complaints measures in the Star Ratings; we would propose the timeframe for the changes in that future rulemaking. Under §§ 422.164(d)(2) and 423.184(d)(2), the legacy complaints measures would remain in the Star Ratings until the updated measures have been on the display page for at least two years. Then, the legacy measures would be retired and the re-specified complaints measures would move into the Star Ratings as a new measure.

Medication Adherence for Diabetes Medication/Medication Adherence for Hypertension (RAS Antagonists)/ Medication Adherence for Cholesterol (Statins) Measures (Part D). As previously announced in the CY 2021 Rate Announcement, CMS is currently testing the risk adjustment for socioeconomic status (SES) or sociodemographic status (SDS) of the medication adherence measures according to the PQA measure specifications which were endorsed by the National Quality Forum (NQF). According to PQA, the SDS recommendations are the following:

- All three adherence measures should be risk adjusted for SDS characteristics to adequately reflect differences in patient populations.

- The measures should be adjusted for the following beneficiary-level SDS characteristics: age, gender, dual eligibility/low-income subsidy (LIS) status, and disability status.

- The measures should be stratified by the beneficiary-level SDS characteristics listed above to allow health plans to identify disparities and understand how their patient population mix is affecting their measure rates.

CMS included stratifications by age, gender, dual eligibility/LIS status, and disability status in the Medication Adherence patient safety reports to Part D sponsors beginning with the 2019 measurement year. We are soliciting initial feedback on the implementation of the SDS risk adjustment for these Star Ratings measures for consideration in developing future policy and rulemaking. Substantive measure changes must be proposed and finalized through rulemaking.

Currently, Part D enrollment used in the measure is adjusted monthly based on member-years to account for beneficiaries who are enrolled for only part of the contract year enrollment (for example, if a beneficiary is enrolled in the Part D contract for six out of 12 months of the year, the beneficiary will count as only 0.5 member-years in the rate calculation). The proportion of days (PDC) calculation is adjusted for Part D beneficiaries' stays in inpatient (IP) settings and stays in skilled nursing facilities (SNFs). However, moving forward when applying the SDS risk adjustment for the medication adherence measures, CMS is considering whether to no longer use member-years of enrollment. Instead, we would align with PQA's measure specifications of continuous enrollment as defined by the treatment period and exclude beneficiaries with more than 1-day gap in enrollment during the treatment period. According to the PQA, the treatment period begins on the earliest date of service for a target medication during the measurement year and extends through whichever comes first: the last day of the enrollment during the measurement year, death, or the end of the measurement year. The treatment period should be at least 91 days. Therefore, a beneficiary may meet the requirements of enrollment in more than one contract in a measurement year but will not be adjusted using the member-years methodology. In addition, CMS would no longer adjust for IP or SNF stays once the SDS risk adjustment is applied to the medication adherence measures if these changes are proposed and adopted.

We are still undergoing testing of the SDS risk adjustment; however, we found that applying the member-year enrollment and IP/SNF stays adjustments added a level of complexity and concerns about accuracy to the SDS risk adjustment. We intend to engage in rulemaking to fully align with the PQA-endorsed specifications which do not include these adjustments. Additional information from the testing will be provided through the rulemaking process if CMS proposes to update the measure specifications to apply SDS risk adjustment. We welcome initial feedback on this update conceptually as we continue to test and consider the risk adjustment specifications for the adherence measures. We also solicit feedback on using the continuous enrollment specifications for PQA-endorsed Part D measures, including the SUPD measure, instead of the member-years adjustment.

Colorectal Cancer Screening (Part C). For measurement year 2022, NCQA is considering adding a rate assessing screening for adults ages 45-49 based on updated guideline recommendations by the U.S. Preventive Services Task Force (USPSTF) released in May 2021 that expand the recommended ages for screening to adults 45–49 years. If NCQA expands the denominator for this measure by adding an additional age group, it would be considered a substantive measure specification change as described at § 422.164(d)(2); thus, the updated measure would need to be on the display page for two years and proposed through rulemaking prior to adding it to the Part C Star Ratings. We would still have information to calculate the legacy measure while the new measure is on display and would include it in the Star Ratings until the updated measure has been adopted through rulemaking.

NCQA is also considering removing the hybrid reporting method in measurement year 2022 or 2023 and transitioning the measure to electronic clinical data systems (ECDS) reporting only beginning in measurement year 2023 or 2024. If NCQA adopts the change in data source, we would likewise update the Star Ratings measure. Changes to the data source for this measure would be non-substantive updates as described at § 422.164(d)(1).

Statin Therapy for Patients with Cardiovascular Conditions (Part C). NCQA is reviewing their approach to identifying patients with statin intolerance and is considering an exclusion for members who cannot tolerate statins but are receiving treatment with PCSK9 inhibitors. If NCQA proceeds with this change, it would be for measurement year 2023. This would be a non-substantive specification change under § 422.164(d)(1)(i) by narrowing the population covered by the measure. As such, if NCQA proceeds, CMS will apply the update to this measure beginning with the 2023 measurement year (2025 Star Ratings).

Breast Cancer Screening (Part C). NCQA will remove the administrative reporting method and transitioning this measure to ECDS reporting for measurement year 2023. Changes to the data source for this measure would be non-substantive as described at § 422.164(d)(1)(v) because the technical measure specification would remain the same. As such, if NCQA proceeds, CMS will apply the update to this measure beginning with the 2023 measurement year (2025 Star Ratings).

Cross-Cutting: Frailty & Advanced Illness Exclusions in Various Measures (Part C). NCQA is considering clarifying what is contained within the Frailty Symptom value set which is used to determine frailty and advanced illness exclusions, including removal of non-specific codes to reduce overidentification of frailty. NCQA is also considering whether frailty should be identified using more than one frailty code in an effort to decrease overidentification of people as frail. NCQA is currently conducting testing to inform next steps. Currently, these exclusions are applicable to the following Star Ratings measures: Breast Cancer Screening, Colorectal Cancer Screening, Controlling Blood Pressure, Statin Therapy for Patients with Cardiovascular Disease, Osteoporosis Management in Women who had a Fracture, Diabetes Care –Eye Exam, and Diabetes Care – Blood Sugar Controlled. These clarifications to existing exclusions would be for measurement year 2023 and would be non-substantive under § 422.164(d)(iv) by adding clarifications for the documentation requirements. As such, if NCQA proceeds, CMS will apply the update to the measures beginning with the 2023 measurement year (2025 Star Ratings).

Diabetes Care Measures (Part C). NCQA is considering developing new measures focused on eye exams and controlling blood sugar for diabetics. They are exploring whether they can leverage electronic clinical data to better assess diabetes outcomes, including HbA1c control over time. NCQA plans to explore incorporating information from continuous glucose monitoring (CGM) and glucose management indicator (GMI) data into future specifications.

Controlling Blood Pressure (Part C). NCQA is exploring the feasibility of a new measure that leverages electronic clinical data to assess blood pressure control over time as opposed to assessing control based on the most recent blood pressure reading. If this measure is developed and implemented in the future, CMS may propose through rulemaking to retire the existing Star Ratings measure and replace it with this new measure.

Care for Older Adults (Part C). Currently, the Care for Older Adults measure, collected for SNPs, includes three indicators -- Medication Review, Functional Status Assessment (on display page for 2023 Star Ratings), and Pain Assessment. NCQA is conducting an environmental scan and is exploring the evidence to determine needed updates to the three indicators. Additionally, they are considering the feasibility of developing the indicators in a digital format in the future. Updates and implementation of any changes to one or all of the indictors would be pending rulemaking.

Adult Immunization Status (Part C). This NCQA measure assesses the receipt of influenza, Td/Tdap, zoster, and pneumococcal vaccines. This measure is specified for the HEDIS ECDS Reporting Standard and captures receipt of vaccinations using data from a variety of electronic sources such as administrative claims, immunization registries, and EHRs, among others. For HEDIS measurement year 2023, NCQA is considering several potential changes to this measure. With the release of updated pneumococcal vaccination guidelines from the Advisory Committee on Immunization Practices in November 2021, NCQA is evaluating the need for updates to the pneumococcal indicator. Additionally, NCQA is proposing to revise the measure to capture members aged 18 and older for all product lines, including Medicare (currently the measure is only reported for Medicare members aged 65 and older). With this update, influenza and pneumococcal vaccination status for all Medicare members 18 and older will be captured. For Star Ratings, influenza vaccination is currently assessed for a sample of Medicare members through the Medicare CAHPS survey and covers all Medicare members, so the update that NCQA plans to make will align with the Medicare members included in the current measure. Pneumococcal vaccine is also assessed for a sample of Medicare members through the Medicare CAHPS survey and reported on the display page. In the future, CMS may consider changing the data source used to capture influenza vaccination to use the HEDIS results for the influenza indicator of adult immunization status instead of the CAHPS survey. We may also consider using the HEDIS results for the pneumococcal indicator of adult immunization status instead of the CAHPS survey. We welcome feedback on how complete influenza and pneumococcal vaccination information is in health plan records.

In the 2022 Advance Notice we solicited comments on a potential new measure concept related to COVID-19 vaccination for the Part C and D performance measure display page on CMS.gov and for potential inclusion in the Star Ratings program based on rulemaking. Most commenters thought it was premature to develop a COVID-19 vaccination measure and consider including it in the Star Ratings program. Given how quickly this area continues to evolve including emergency use authorization versus U.S. Food and Drug Administration approval,

recommendations around timing and extra doses, and issues around availability of accurate COVID-19 vaccine data due to unique dispensing (e.g., mass vaccination sites), we welcome feedback on the utility and feasibility of a vaccination measure for MA plans.

Display Measures

Display measures on CMS.gov are published separately from the Star Ratings and include measures that are transitioned from inclusion in the Star Ratings, new or updated measures before inclusion into the Star Ratings, and informational-only measures. Organizations and sponsors have the opportunity to preview the data for their display measures prior to release on CMS' website. We anticipate all 2022 display measures will continue to be shown on CMS.gov in 2023 unless noted below.

Cardiac Rehabilitation (Part C). We are considering whether to post the HEDIS Cardiac Rehabilitation measure on the 2023 display page. It measures the percentage of members 18 years and older who attend cardiac rehabilitation following a qualifying cardiac event, including myocardial infarction, percutaneous coronary intervention, coronary artery bypass grafting, heart and heart/lung transplant or heart valve repair/replacement. Four rates are reported: members who attended 2 or more sessions of cardiac rehabilitation within 30 days after a qualifying event; members who attended 12 or more sessions of cardiac rehabilitation within 90 days after a qualifying event; members who attended 24 or more sessions of cardiac rehabilitation within 180 days after a qualifying event; and members who attended 36 or more sessions of cardiac rehabilitation within 180 days after a qualifying event.

Outpatient programs designed to improve cardiovascular health following a cardiac event or procedure help improve functional status, reduce hospital admissions, and reduce mortality. CMS is also considering proposing this measure as a Star Ratings measure in the future through rulemaking. We welcome feedback on this measure.

Physical Functioning Activities of Daily Living (PFADL) (Part C). In the CY 2021 Advance Notice we discussed posting PFADL, a longitudinal measure derived from the Medicare Health Outcomes Survey, on the 2021 and 2022 display pages. The PFADL scale combines two physical functioning questions (limitations in moderate activities and climbing stairs) with the six activities of daily living questions from the baseline and two-year follow-up data to create a Likert-type scale. The PFADL measure can be interpreted as the percent of function retained by MA beneficiaries on average over two years compared to a maximum decline.

Many commenters to the CY 2021 Advance Notice expressed support for PFADL since it is methodologically simpler than the existing Improving or Maintaining Physical Health measure. One commenter recommended CMS consider replacing the Physical Health measure with the PFADL measure. Most commenters requested additional information before the measure is proposed as an addition to the Star Ratings program and some recommended additional testing, social determinant risk adjustment, and segmented reporting by age category. CMS introduced

the PFADL measure to the 2021 display page and said we would provide additional information about the measure as it became available. Based on feedback received, we are exploring adjusting PFADL results for certain respondent characteristics not under health plans' control that may impact changes in physical functioning, including age, education, and gender. We also have explored adjusting for other characteristics such as living alone, but did not see an impact on scores. We are considering increasing sample sizes to increase the precision of the scores. We welcome feedback on these potential future enhancements.

CMS continues to explore other potential new HOS longitudinal measures beyond PFADL. We have also added new data to the Aggregate Score Analysis in the HPMS HOS module, including the percent of beneficiaries reporting BMI of 30 or greater, percent reporting 14 or more Physically Unhealthy Days, and percent reporting 14 or more Mentally Unhealthy Days. We welcome feedback on HOS measure development and the HOS data we display.

Persistence of Beta-Blocker Treatment After a Heart Attack (Part C). NCQA is re-evaluating which activities count for the numerator (beta blocker treatment) and considering broader activities that may be allowed. If NCQA does update this measure, it would not be before measurement year 2023.

Initiation and Engagement of Alcohol and Other Drug Abuse or Dependence Treatment (Part C). For measurement year 2022, NCQA is updating the measure to change it from "member-based" to "episode-based"; lengthen the negative substance use disorder (SUD) history period from 60 days to 194 days to limit the number of members receiving ongoing treatment who inadvertently fall into the denominator; remove emergency department visits and medically managed withdrawal services from the negative SUD history period; remove the requirement that a psychosocial treatment encounter accompany pharmacotherapy; split the adult age stratification between 18-64 years and 65+ years to better highlight any gaps in care between different age groups; and update the name to Initiation and Engagement of Substance Use Disorder Treatment. Since many individuals with SUD attempt treatment multiple times before they are able to successfully engage, the revision of the measure to an "episode based" framework allows for each recovery attempt to count independently, which should result in a more valid representation of SUD treatment engagement for health plan populations. Additionally, emergency department visits and withdrawal services alone are not suggestive of ongoing or planned treatment for individuals with SUD, and thus, do not signal that a member is already engaged in comprehensive care so these were removed from the measure. The requirement that psychosocial treatment accompany pharmacotherapy was also removed to align with the most current clinical practice guidelines (e.g., allowing for patients who may not accept concomitant psychosocial treatment).

Concurrent Use of Opioids and Benzodiazepines (COB)/Initial Opioid Prescribing for Long Duration (IOP-LD)/Use of Opioids at High Dosage in Persons without Cancer (OHD)/Use of Opioids from Multiple Providers in Persons without Cancer (OMP) (Part D).

The PQA updated the measure specifications in their draft 2022 measure manual to exclude beneficiaries in palliative care during the measurement period for all of the opioid measures. Excluding palliative care aligns with the Centers for Disease Control and Prevention's Guideline for Prescribing Opioids for Chronic Pain since beneficiaries receiving palliative care have unique therapeutic goals and the risks and benefits associated with opioid use in palliative care may be different from the broader population. The palliative care exclusion will be added to the opioid display measures for the 2022 measurement year (2024 display page).

Likewise, as mentioned earlier, PQA plans to remove RAPS RxHCC codes from all of its measures including the opioid measures. Therefore, the RxHCC codes for identifying cancer will no longer be used to identify cancer diagnosis in the opioid measures to better identify active cancer-related pain. However, PQA will maintain the diagnosis codes in the PQA NDC medication Value Sets for the cancer exclusions. CMS will continue to use the CWF and EDS to identify diagnoses based on ICD-10 codes. As a reminder, the RxHCC codes were removed from the Overutilization Monitoring System (OMS) starting in 2021. Therefore, if adopted by PQA (the measure steward), the RxHCC codes will be removed from all display measures for the 2022 measurement year (2024 display page).

As a reminder, starting in measurement year 2020, CMS began reporting the Initial Opioid Prescribing (IOP-LD) in the Part D Patient Safety reports. We plan to add this measure to the display page for 2023 (2021 data) and 2024 (2022 data). We will consider adding the IOP-LD measure to the Star Ratings through future rulemaking once we gain more experience with the measure.

Antipsychotic Use in Persons with Dementia, Overall (APD)/Antipsychotic Use in Persons with Dementia, in Long-Term Nursing Home Residents (APD-LTNH) (Part D). Due to draft PQA measure manual updates, we plan to no longer use the RxHCC codes in APD and APD-LTNH for identifying dementia diagnosis, similar to the code changes discussed above for all of the other Part D Patient Safety measures. However, CMS will continue to use the CWF and EDS to identify the diagnosis of dementia based on ICD-10 codes and the PQA NDC medication Value Sets. If adopted by PQA (the measure steward), we plan to remove the RxHCC codes from all display measures for the 2022 measurement year (2024 display page).

Potential New Measure Concepts and Methodological Enhancements for Future Years

Driving Health Equity (Part C and D). The National Academies of Sciences, Engineering, and Medicine (NASEM) define social risk factors (SRFs) as factors related to health outcomes that are evident before care is provided, are not the consequences of the quality of care, and are not easily modified by healthcare providers, such as DE status and income. There are often disparities in health care and outcomes between and within groups with and without SRFs. Currently, within-group SRFs are addressed in the Part C and D Star Ratings through the CAI and, in some cases, through measure-level adjustment.

While the current approach to addressing SRFs has focused on adjusting for the within-contract disparities[38] to address mis-measurement of performance in order to not inappropriately penalize or reward health and drug plans for factors that are difficult for them to control, we are currently exploring ideas on how plan sponsors can better identify and then address disparities in care provided to members with a particular SRF, with the ultimate goal of reaching equity by eliminating health disparities or differences in contract performance by SRFs, consistent with efforts under Executive Order 13895 to advance health equity.

From the research to date, we know that for certain Star Ratings measures it is more difficult for most plans to achieve the same level of care for groups that are socioeconomically disadvantaged, disabled, or more complex compared to those groups with fewer SRFs. This may be due to many factors, such as transportation issues, lower health literacy, communication challenges, discrimination, residential instability, and/or reduced compliance to medical regimens. Our work has focused on identifying within-contract differences in performance to improve accuracy of measurement to remove incentives for plans to avoid caring for particular groups of beneficiaries. As part of our current work, we are focused on creating incentives to reduce existing disparities. Below we describe our efforts related to stratified reporting and the development of a health equity index to further drive efforts to reduce disparities.

Stratified Reporting (Part C and D). We are considering expanding our efforts to report differences in contract performance on additional Star Ratings measures for subgroups of beneficiaries with SRFs, including providing stratified reporting by disability, LIS status, and DE status through confidential reports in HPMS to organizations and sponsors. Currently, contract-level HEDIS and CAHPS data stratified by race and ethnicity are publicly available on CMS's Office of Minority Health website (https://www.cms.gov/About-CMS/Agency-Information/OMH/research-and-data/statistics-and-data/stratified-reporting). There are national-level results by race/ethnicity, gender, and rural/urban status. For the three Part D Medication Adherence measures, CMS provides Part D contracts with a contract-level analysis workbook that includes stratified data by gender, LIS status, DE status, disability status, and age group. Additionally, other Part D patient safety measure reports provided to Part D contracts are stratified by beneficiary LIS status for informational purposes only.

Not all Star Ratings measures can be stratified, and we are currently exploring which additional measures could and should be stratified as well as additional variables for stratification. We are planning to stratify both process and outcome measures, as well as CAHPS measures when appropriate. For example, CAHPS measures may not be good candidates for stratification by LIS or DE status because they are already case-mix adjusted for these factors. Stratifying process

[38] Within-contract disparities are differences that may exist between subgroups of enrollees in the same contract (e.g., if LIS/DE enrollees within a contract have a different mean or average performance on a measure than non-LIS/DE enrollees in the same contract).

measures such as Breast Cancer Screening will help identify whether certain groups are not getting basic preventive care or are not getting screened for certain diseases, while stratifying outcome measures such as Controlling Blood Pressure will help identify if certain groups do better within the contract. Additionally, certain variables, like LIS or DE status, may not have enough data in a stratum (subgroup) from the sample to have sufficiently reliable estimates to provide useful information by contract. Lastly, stratification may not be appropriate for some measures that focus on evaluating plan operations and are not specific to particular beneficiaries, such as call center measures.

CMS is considering in the future including stratified reporting as part of the display measures on CMS.gov (see https://www.cms.gov/Medicare/Prescription-Drug-Coverage/PrescriptionDrugCovGenIn/PerformanceData). The stratified data could also be included on the Medicare.gov Plan Finder tool in the future to help make the data accessible to beneficiaries in their reviews and selections of plans. These data would help promote plan accountability for their enrolled populations.

We are interested in feedback related to additional measures and variables for stratification. Our goal is to help contracts identify groups of beneficiaries for which performance lags, leading to within-contract improvement and helping beneficiaries with SRFs identify the contracts that provide the best care for beneficiaries with similar needs and risk factors, which are not necessarily the same as the best plans overall.

Health Equity Index (Part C and D). We are developing a health equity index as a methodological enhancement to the Star Ratings that summarizes contract performance among those with SRFs across multiple measures into a single score. Data are readily available to include disability and LIS/DE in a health equity index. As we further explore this option, we are considering what other data are available and what other SRFs might be appropriate to include over time. For example, we are considering the feasibility and utility of incorporating the Area Deprivation Index (ADI) into the health equity index. The goal is to improve health equity by incentivizing contracts to perform well for socially at-risk beneficiaries, consistent with the objectives of Executive Order 13895. An index would provide additional incentives to plan sponsors to reduce any disparities through care improvements by focusing resources on more effective interventions for at-risk beneficiaries.

The health equity index would look at a subset of the Star Ratings measures, such as the measures included in the CAI and CAHPS measures. The distribution of contract performance on each measure for each SRF would be separated into thirds, with the top third of contracts receiving 1 point, the middle third of contracts receiving 0 points, and the bottom third of contracts receiving -1 point. The index could then be calculated as the weighted sum of points across all measures included in the index using the Star Ratings measure weights divided by the weighted sum of the number of eligible measures to calculate the index. Contract performance on the index would vary from -1.0 (performance was in the bottom third for each included

measure) to 1.0 (performance was in the top third for each included measure). A contract would need to be measured on at least half of the measures included in the index to receive an index value.

We are also considering replacing the current reward factor added to the overall or summary ratings with the health equity index. Contracts that have a minimum percentage of enrollees with SRFs, such as half the contract median percentage of enrollees with SRFs, and meet a minimum score on the index, such as a score greater than zero, could receive a reward factor that could vary with higher index scores receiving a larger reward factor. Currently, the Part C and D Star Ratings program includes a reward factor that incentivizes consistently high performance across measures. The health equity index reward factor could replace the current reward factor to incentivize contracts to reduce disparities in care. Similar to the current reward factor, the health equity index reward factor could range from 0 to 0.4 on a linear scale, with a contract receiving 0 if the contract receives 0 or less on the index and 0.4 if all measures are in the top third of performance. Some considerations in implementing an index as part of a reward factor include the minimum level of enrollment of beneficiaries with the particular SRFs and the minimum score on the index required to receive a reward factor. We welcome feedback on the utility of such an index and any considerations in its development, as well comments on the potential removal of the current reward factor for consistently high performance. The implementation of a health equity index for the Part C and D Star Ratings would need to go through the rulemaking process.

We want to note, as some of the plans may be aware, that CMS Office of Minority Health has been working to create the Health Equity Summary Score (HESS) which would be a quality improvement tool with a similar goal of improving health equity. HESS differs from the health equity index potentially being developed for the Star Ratings program in that it currently focuses on CAHPS and HEDIS measures, while the health equity index would focus on all of the Part C and D measures in the CAI and CAHPS measures. HESS examines differences by race and ethnicity and DE/LIS status and assigns each contract composite scores for CAHPS and HEDIS (translated to diamonds, ranging from 1-5, with 5 being the best) based on a combination of current performance and improvement in performance over a four-year period. CMS continues to refine the HESS and is working to provide HESS reports to help contracts focus on quality improvement efforts.

Measure of Contracts' Assessment of Beneficiary Needs (Part C). CMS could potentially develop a performance measure that assesses whether a contract's enrollees have had their health-related social needs (i.e., SRFs) assessed, using a standardized screening tool such as the one developed by CMS for use by Accountable Health Communities that includes screening for housing instability, food insecurity, transportation problems, interpersonal safety and utility help needs. This measure would relate to performance required by § 422.112(b)(3), which requires MA organizations to have arrangements that include "Programs for coordination of plan services with community and social services generally available through contracting or noncontracting

providers in the area served by the MA plan, including nursing home and community-based services" and § 422.112(b)(4)(i), which requires MA organizations to make "a "best-effort" attempt to conduct an initial assessment of each enrollee's health care needs, including following up on unsuccessful attempts to contact an enrollee, within 90 days of the effective date of enrollment." As a reminder CMS does not require a specific assessment tool to be used by MA contracts. The goal of measuring contracts' assessment of beneficiary health-related needs would be to help contracts better serve at-risk beneficiaries, improving quality of care and outcomes for these beneficiaries. Such a measure could be included as a display measure initially and then proposed as a Star Ratings measure. We welcome feedback on whether MA and Part D contracts are currently collecting information on beneficiary health-related needs and what tools they are using to collect it.

Please note in the 2023 Part C and D proposed rule, CMS is proposing to require that all SNPs include standardized questions on housing stability, food security, and access to transportation as part of their health risk assessments. Section 1859(f)(5)(A)(ii)(I) of Social Security Act, codified at § 422.101(f)(1)(i) as part of the model of care requirements for all MA SNPs, requires each SNP to conduct an initial assessment and an annual reassessment of the individual's physical, psychosocial, and functional needs. We welcome feedback on how this potential requirement may impact the development of this type of measure.

Screening and Referral to Services for Social Needs (Part C). NCQA is working to develop a new measure for measurement year 2023 that assesses screening for unmet food, housing and transportation needs, and referral to intervention for those who screened positive. This measure would be collected through ECDS and would focus on whether members were screened at least once during the measurement year. As we increase our focus on health equity, this measure would highlight potential issues related to unmet food, housing, and transportation needs. CMS welcomes feedback on this potential measure and possible future use as a display or Star Ratings measure.

Value-based Care (Part C). As we continue to drive value among MA contracts, we are interested in how MA organizations are transforming care and driving quality through value-based contracts with providers. We are considering developing a measure to capture the value-based care arrangements MA organizations have with providers based on health outcomes and quality of services provided to their patients, including how plans are aligning incentives with their providers so that they are rewarding better value and outcomes rather than the volume of services. For example, providers may share in financial risk (upside and/or downside), and may receive bonuses or penalties based on meeting performance targets. In other cases, providers may receive non-financial resources to drive improvements in outcomes and cost. We are interested in feedback on how to potentially structure a measure that focuses on how MA organizations contract with providers and, in particular, what percentage of their providers have value-based contracts and what types of arrangements these contracts entail. We are also interested in feedback on any circumstances where value-based contracts with providers may not improve

quality. We would also be interested in feedback regarding how this information could be collected and validated. If a measure is developed, it would need to be adopted through rulemaking.

Kidney Health (Part C). NCQA is exploring new measure concepts to assess appropriate kidney health evaluation and management; exploration will focus on identifying a suite of measures. Potential concepts include testing patients at risk of chronic kidney disease (CKD), management of patients with CKD (e.g., blood pressure control, blood sugar control, cholesterol control, management of Erythropoiesis-Stimulating Agents (ESA), access to medical nutrition therapy services, preparedness for kidney failure), and management of patients with end stage kidney disease (person driven outcomes, patient experience, quality of life). CMS welcomes feedback on these concepts for potential use as display or Star Ratings measures in the future.

Persistence to Basal Insulin (PST-INS) Measure (Part D). The PQA developed and endorsed a new measure, the Persistence to Basal Insulin (PST-INS), in 2021. The new PST-INS measure was developed to address the lack of quality measures to assess insulin persistence in measurement programs. Additionally, the Medication Adherence for Diabetes measure excludes insulin NDCs in the measure. This measure assesses the percentage of beneficiaries who are 18 years of age or greater who were treatment persistent to basal insulin during the measurement year. A higher rate indicates better performance.

To fully align with the PQA's PST-INS measure specifications, CMS will use the PQA's continuous enrollment specification, not member-years adjustment. According to PQA, continuous enrollment is defined as the treatment period and excludes individuals with more than a 1-day gap in enrollment during the treatment period. To be included in the denominator, beneficiaries 18 years of age or greater would have one or more prescriptions for basal insulin during the measurement year. Additionally, the earliest date of service for a basal insulin medication during the measurement year is the index prescription start date (IPSD). Therefore, a treatment period begins on the date of the IPSD and extends through whichever comes first: the last day of the measurement year, death, or disenrollment. The treatment period must be at least 91 days during the measurement period. Beneficiaries with gestational diabetes, who are in hospice, with end-stage renal disease, who have one or more prescription claim for mixed insulin, or who have one or more prescription claim for regular insulin during the measurement year are excluded from this measure. The numerator includes the number of beneficiaries with continued use of basal insulin through the treatment period (beneficiaries with all refills for basal insulin occurring on or prior to the expected refill date).

We tested the PST-INS measures using year of service 2020 PDE data based on PQA's measure specifications of continuous enrollment and with contracts greater than 30 beneficiaries. Overall, 80 percent of the eligible population for all contracts was persistent to basal insulin treatment and the rates were similar between MA-PD (80.16 percent) and PDPs (79.63 percent). There was a total of 841 Part D contracts using 2020 PDE data; however, after adjusting the measure for

contracts greater than 30 beneficiaries, there were 703 contracts that met the eligibility requirements of the denominator. At the beneficiary level, beneficiaries in the age group from 51 to 64 years old had the highest persistence rate at 82 percent for both MA-PDs and PDPs while the group of beneficiaries 85 years of age or older had the lowest persistence rate at 75 percent for MA-PDs and 74 percent or PDPs. LIS beneficiaries are slightly more persistent to treatment at around 81 percent for MA-PDs and 80 percent for PDPs compared to non-LIS beneficiaries at around 79 percent for MA-PDs and 78 percent for PDPs. Additionally, males were slightly more persistent than females at around 80 percent to 79 percent for both MA-PDs and PDPs. The mean overall rates for all contract types was 81.43 percent while the mean rate for MA-PD contracts was 81.65 percent, and the mean rate for PDP contracts was 79.06 percent.

Table IV-4: Distribution of Persistence of Basal Insulin Measure Rates by Medicare Part D Contract Type, 2020 PDE data

Part D Contracts		Percentiles							
Type	**Number of Contracts**	**Mean**	**Min**	**p25**	**p50**	**p75**	**p90**	**p95**	**Max**
All Contracts	703	81.43%	62.50%	78.68%	80.77%	83.54%	87.50%	91.16%	100.00%
MA-PDs	643	81.65%	62.50%	78.83%	80.94%	83.81%	87.75%	91.23%	100.00%
PDPs	60	79.06%	65.52%	77.41%	79.69%	81.34%	82.64%	83.57%	84.84%

CMS plans to begin reporting the PST-INS measure in the Patient Safety reports for the 2022 measurement year. We plan to add this measure to the display page for 2024 (2022 data) and 2025 (2023 data). We will consider adding the PST-INS measure to the Star Ratings in the future through the rulemaking process once we gain experience with the measure. CMS is interested in stakeholder feedback on the PST-INS measure.

Beneficiary Access and Performance Problems (Part C and D). The Beneficiary Access and Performance Problems (BAPP) measure is currently on the display page and is intended to reflect information about problematic plan performance resulting in CMS actions. This measure is currently based on CMS's Compliance Activity Module (CAM) data, which includes notices of non-compliance, warning letters (with or without business plan), and ad-hoc corrective action plans (CAP) and the CAP severity. The purpose of this measure is to determine whether members are having problems getting access to services and to be sure that plans are following all of Medicare's rules. Medicare gives the plan a ***lower*** score (from 0 to 100) when it finds problems. The score combines ***how severe*** the problems were, ***how many*** there were, and ***how much*** they affect plan members directly. A higher score is better, as it means Medicare found fewer problems.

The BAPP measure moved to the display page for the 2019 Star Ratings. Prior to this, it also included information about enforcement actions and plans placed under sanction due to an audit. We have previously received feedback from some Part C and D sponsors that they preferred the decoupling of audits and enforcement actions from Star Ratings. Beneficiary advocates, however, previously expressed concern about the increasing disconnect between the audit process and the Star Ratings program and pushed CMS to resume reducing Star Ratings for plans under sanction. Given the seriousness of enforcement actions and the potential impact on beneficiary access to care, we are soliciting feedback regarding re-introducing the BAPP measure as a Star Ratings measure, pending rulemaking. We would also be interested in feedback about any potential suggested revisions to the current display page measure and about what enforcement actions should be included in the measure, including civil monetary penalties and sanctions.

CAHPS (Part C and D). In an effort to increase response rates for the MA and PDP CAHPS surveys, CMS is testing the effects on response rates and survey scores of a web-based mode, as an addition to the current mixed mode protocol. We are testing potential revisions to the national implementation protocols. All sampled enrollees would receive a mailed pre-notification letter in advance of survey administration. Following the pre-notification letter, sampled enrollees would be sent an invitation to the web survey. The invitation would be sent by email to enrollees with email addresses, and via a letter to those for whom an email address is not available. The email or letter would be personalized to the enrollee and would include a link to the web version of the survey and a PIN code that is unique to the enrollee. A reminder invitation (email or letter) would be sent approximately one week after the initial invitation. If the enrollee does not complete the web survey approximately one week after the reminder email or letter, the secondary mode (mail) would be initiated. Thirty days after a mail survey is sent, phone administration of the survey would be attempted with all non-respondents. The field test will allow for assessment of the impact of the web mode on the current MA and PDP CAHPS survey instruments with the AHRQ's 5.1 Health Plan Survey wording clarifications for explicit references to care received via telehealth (phone or video). The results of the field test will help inform future implementation of the MA and PDP CAHPS survey via web.

We are also planning to test some additional questions for potential implementation as part of the MA and PDP CAHPS survey. The new survey items capture more detail or test new approaches to topics covered in the current MA and PDP CAHPS surveys (e.g., patient-provider communication, getting test results, communication between providers, management of different health services), and also new topics (e.g., language spoken at home, experience with video or phone visits, and perceived discrimination). The results of the field test will inform potential updates to survey content.

We welcome feedback on the introduction of a web survey and potential new content for the MA and PDP CAHPS surveys. As we expand our focus on diversity and equity, we are also exploring the feasibility and whether to add questions to the survey regarding sexual orientation and gender

identity or whether this type of information would be available through plan administrative data. We would be interested in feedback from plans about whether and how they currently collect this information.

We would like to remind MA and Part D sponsors that the current MA and PDP CAHPS surveys are available in Chinese, Korean, Tagalog, and Vietnamese in addition to English and Spanish. If additional translations are needed, please contact us at MP-CAHPS@cms.hhs.gov.

Attachment V. Economic Information for the CY 2023 Advance Notice

Below, we provide the economic information for significant provisions in the Advance Notice. Provisions not specifically addressed below are intended to represent a continuation of the policies established for CY 2022 and, as a result, do not have an impact associated with them. We note that the information provided below is likely to change as the rates and underlying assumptions are updated; we will provide revised impact estimates in the Rate Announcement that reflect the payment methodologies being finalized and the latest data available.

Section A. Changes in the Payment Methodology for Medicare Advantage and PACE for CY 2023

A1. Medicare Advantage and PACE non-ESRD Ratebook

The FFS growth percentage for the 2023 MA non-ESRD rates is estimated to be 4.84 percent, and the MA growth percentage for the 2023 MA non-ESRD rates is estimated to be 4.25 percent. As a result, the effective growth rate for 2023 MA non-ESRD rates is estimated to be 4.75 percent. The MA non-ESRD ratebook impact summarized here is calculated by comparing 2023 Part C expenditures reflecting these growth rate assumptions to the expected 2023 Part C expenditures assuming the MA non-ESRD ratebook remains unchanged from that finalized for 2022. The net impact on the Medicare Trust Funds for CY 2023 is expected to be $17.2 billion. This figure accounts for the impact of the benchmark rate cap, MA rebate, and MA EGWP policies, as well as the portion of the difference between benchmarks and bids that the government retains and the portion of the program costs covered by Part B premiums.

The MA growth percentage, used to calculate the 2023 PACE non-ESRD rates as well as in development of the applicable amount used in setting MA non-ESRD rates, is estimated to be 4.25 percent. The PACE non-ESRD ratebook impact is calculated by comparing the 2023 PACE expenditures reflecting this growth rate assumption to the expected 2023 PACE expenditures assuming that the PACE non-ESRD ratebook remains unchanged from the CY 2022 PACE non-ESRD ratebook. The net impact on the Medicare Trust Funds for CY 2023 for the PACE ratebook change is expected to be $60 million. This figure accounts for the portion of the program costs covered by Part B premiums.

If we continue the adjustment to the calculation of county benchmarks in Puerto Rico for the number of beneficiaries with zero claims, then the net impact on the Medicare Trust Funds for CY 2023 of implementing the zero-claims adjustment in Puerto Rico is expected to be $320 million.

The impact of excluding standardized costs for kidney acquisitions from MA benchmarks varies by jurisdiction. The KAC carve-out factors will be published with the CY 2023 Rate Announcement. For information on the impact of the FFS cost of kidney acquisitions on the Medicare Trust Funds, please refer to the CY 2021 final rule (CMS-4190-F) (85 FR 33796,

33887–90). The estimates provided in the final rule represent an analysis of national-level impacts and are based on different trending assumptions and underlying data than those used to determine county-level average impacts of excluding KACs from FFS experience on an annual basis for the ratebook. Further, because these national-level impacts in the final rule represent the impact on the Trust Funds and not the ratebook, additional adjustments were made in the CY 2021 final rule estimate to reflect the government's share of the Part B premium and gross savings due to the difference between MA bids and MA benchmarks.

The national-level impact of revising the DGME carveout and the KAC carveout as described in Section C1 and C2 above is $640 million and $480 million, respectively. These figures account for the portion of the program costs covered by the Part B premiums.

A2. Indirect Medical Education (IME) Phase Out

Section 161 of the Medicare Improvements for Patients and Providers Act of 2008 (MIPPA) (Pub. L. 110-275) amended section 1853(k)(4) of the Act to require CMS to phase out indirect medical education (IME) amounts from pre-ACA MA capitation rates, which are used to set the cap on MA benchmarks and are used as the basis for PACE non-ESRD capitation rates. Note that section 1894(d)(3) of the Act provides that the IME payment phase-out does not apply to PACE capitation rates. Section 1853(n)(2)(A)(i) and (n)(2)(F) of the Act provides that the IME phase-out is applied in developing the post-ACA MA benchmarks. Per statute, the maximum incremental IME phase-out is 0.60 percent of the FFS rate per year. We estimated the impact of the IME phase-out change between 2022 and 2023. Since the maximum IME reduction is 7.8 percent in 2022 and 8.4 percent in 2023, we calculate the impact as the difference for those counties with IME percentages of at least 7.8 percent, with the maximum impact of 0.6 percent (i.e., the difference between 8.4 and 7.8 percent). Also, since the IME reduction to MA benchmarks is increasing, the impact is considered to be a net savings to the Medicare Trust Funds.

Only two counties in payment year 2023 have IME amounts greater than 7.8 percent of the FFS rate. All other counties have IME amounts less than 7.8 percent of their respective FFS rates and are not included in this analysis since their FFS rates, for purposes of the MA ratebook, are not impacted by the change in the IME phase-out percentage in 2023. For the ESRD ratebook, all IME amounts used for MA ESRD rates are less than 7.8 percent of the FFS rate, so there is no impact from the IME phase-out change on the ESRD ratebook for 2023.

The results are a net savings of $10 million to the Medicare Trust Funds for CY 2023. This result takes into account the portion of the difference between benchmarks and bids that the government retains and the portion of the program costs covered by Part B premiums.

Note that the statutorily prescribed methodology for calculating the IME phase-out in 2023 is the same as that provided by statute for CY 2022; we are providing this impact assessment for informational purposes.

A3. Medicare Advantage and PACE ESRD Ratebooks

The FFS growth percentage for the 2023 MA ESRD rates is estimated to be 5.58 percent. The impact on the MA and PACE ESRD ratebooks is calculated by comparing projected 2023 Part C expenditures with this growth rate assumption to the expected 2023 Part C expenditures with the assumption that the MA and PACE ESRD ratebooks remain unchanged from that finalized for 2022. The net impact on the Medicare Trust Funds for CY 2023 is expected to be $1.3 billion. This figure accounts for the portion of the program costs covered by Part B premiums.

A4. ESRD Risk Adjustment

For CY 2023, CMS is proposing a revised ESRD risk adjustment model to use more recent data and an updated clinical version with dual segmentation. The overall combined impact of the dialysis, functioning graft, and transplant model updates on ESRD risk scores, relative to CY 2022, is estimated to be $470 million in net savings to the Medicare Trust Funds in 2023. There are no proposed changes to the PACE-ESRD risk model; this estimate excludes PACE-ESRD enrollees.

We note, the impact provided is the isolated overall combined model impact of model revisions, including the updated denominator. However, in payment CMS also applies a normalization factor to risk scores to account for trend in the risk scores from the denominator year to the payment year. Because the denominator update decreases the number of years between the denominator year and the payment year, the proposed normalization factors for the dialysis/transplant and functioning graft models are lower than the factors applied in CY 2022. Therefore, the lower normalization trend adjustments, relative to CY 2022, offset the average negative risk score impact.

A5. MSP

CMS is proposing to update the MSP factors for working aged/disabled and ESRD beneficiaries. The estimated impact of updating the MSP factor is $70 million in net savings to the Medicare Trust Funds in 2023.

A6. MA Coding Pattern Adjustment

For CY 2023, we will continue to apply the statutory minimum coding intensity adjustment (5.90%). There is no change in policy from CY 2022, and we applied the same factor for CY 2022, therefore the year-over-year impact is zero.

A7. Normalization

The normalization factors serve to offset the trend in risk scores and maintain a 1.0 average FFS risk score. For CY 2023, CMS is proposing to calculate the normalization factor using the same methodology as was applied for CY 2022, which is to project the slope calculated using five

years of FFS risk scores calculated using the payment year model from the denominator year to the payment year. However, rather than updating the years used in the slope, as CMS has historically done, we calculated the CY 2023 normalization factors using the same five years of historical risk scores that were used to calculate the slope for developing the CY 2022 normalization factor (2016–2020), but we projected out one more year for updated normalization factors. Since normalization is applied to risk scores to maintain the same average risk scores in each program year-over-year, the impact of normalization is zero.

Section B. Changes in the Payment Methodology for Medicare Part D for CY 2023

B1. Part D Risk Adjustment Model

For CY 2023, we are proposing to implement an updated version of the RxHCC risk adjustment model. CMS is providing for comment a model with an updated clinical structure calibrated using 2018/2019 data, as described in Attachment III Section A. In order to calculate risk scores for payment, the dollar coefficients must be denominated to create relative factors. The denominator is the average predicted per capita expenditure predicted by the payment model for a given year. To calculate the denominator, we use the recalibrated model and diagnosis data for Medicare beneficiaries enrolled in both MA-PDs and PDPs, which results in an average risk score for the enrolled Part D population in the denominator year of 1.0. Recalibration of the RxHCC model can result in changes in risk scores for individual beneficiaries and for plan level risk scores; however, the average risk score in the denominator year remains a 1.0, and the application of the normalization factor functions to maintain the 1.0 in the payment year. Since the average risk score is 1.0 under the existing model and the recalibrated model, the economic impact of the recalibrated model is zero.

B2. Annual Percentage Increase for Part D Parameters

The methodology for updating other Part D parameters for CY 2023 remains unchanged from that used for CY 2022. As a result, updating the other Part D parameters does not have an impact on the Medicare Trust Fund alone; the impact of such parameter updates is dependent on the behavior and bid assumptions of Part D plan sponsors.

Attachment VI. ESRD and RxHCC Risk Adjustment Factors

Table VI-1. ESRD Model Continuing Enrollee Dialysis Relative Factors

Variable	Description Label	Relative Factors
Female		
0-34 Years		0.644
35-44 Years		0.630
45-54 Years		0.564
55-59 Years		0.570
60-64 Years		0.569
65-69 Years		0.630
70-74 Years		0.624
75-79 Years		0.617
80-84 Years		0.661
85-89 Years		0.629
90-94 Years		0.629
95 Years or Over		0.629
Male		
0-34 Years		0.616
35-44 Years		0.604
45-54 Years		0.551
55-59 Years		0.557
60-64 Years		0.569
65-69 Years		0.577
70-74 Years		0.551
75-79 Years		0.601
80-84 Years		0.635
85-89 Years		0.635
90-94 Years		0.635
95 Years or Over		0.635
Medicaid, Originally Disabled, and Originally ESRD Interactions with Age and Sex		
FBDual_Female_Aged		0.060
FBDual_Female_NonAged (Age <65)		0.082
FBDual_Male_Aged		0.128
FBDual_Male_NonAged (Age <65)		0.076
PBDual_Female_Aged		–
PBDual_Female_NonAged (Age <65)		–
PBDual_Male_Aged		–
PBDual_Male_NonAged (Age <65)		–
Originally Disabled_Female[2]		0.024
Originally Disabled_Male[2]		–
Originally ESRD_Female[3]		-0.024
Originally ESRD_Male[3]		0.017

Variable	Description Label	Relative Factors
Institutional Status Factors		
Institutional, Aged (65+)		0.020
Institutional, NonAged (<65)		0.098
Disease Coefficients		
HCC1	HIV/AIDS	0.122
HCC2	Septicemia, Sepsis, Systemic Inflammatory Response Syndrome/Shock	0.087
HCC6	Opportunistic Infections	0.076
HCC8	Metastatic Cancer and Acute Leukemia	0.353
HCC9	Lung and Other Severe Cancers	0.181
HCC10	Lymphoma and Other Cancers	0.111
HCC11	Colorectal, Bladder, and Other Cancers	0.059
HCC12	Breast, Prostate, and Other Cancers and Tumors	0.045
HCC17	Diabetes with Acute Complications	0.084
HCC18	Diabetes with Chronic Complications	0.084
HCC19	Diabetes without Complication	0.084
HCC21	Protein-Calorie Malnutrition	0.068
HCC22	Morbid Obesity	0.081
HCC23	Other Significant Endocrine and Metabolic Disorders	0.036
HCC27	End-Stage Liver Disease	0.196
HCC28	Cirrhosis of Liver	0.069
HCC29	Chronic Hepatitis	0.061
HCC33	Intestinal Obstruction/Perforation	0.078
HCC34	Chronic Pancreatitis	0.068
HCC35	Inflammatory Bowel Disease	0.048
HCC39	Bone/Joint/Muscle Infections/Necrosis	0.092
HCC40	Rheumatoid Arthritis and Inflammatory Connective Tissue Disease	0.058
HCC46	Severe Hematological Disorders	0.223
HCC47	Disorders of Immunity	0.078
HCC48	Coagulation Defects and Other Specified Hematological Disorders	0.063
HCC51	Dementia With Complications	0.042
HCC52	Dementia Without Complication	0.042
HCC54	Substance Use with Psychotic Complications	0.111
HCC55	Substance Use Disorder, Moderate/Severe, or Substance Use with Complications	0.111
HCC56	Substance Use Disorder, Mild, Except Alcohol and Cannabis	0.111

Variable	Description Label	Relative Factors
HCC57	Schizophrenia	0.111
HCC58	Reactive and Unspecified Psychosis	0.111
HCC59	Major Depressive, Bipolar, and Paranoid Disorders	0.066
HCC60	Personality Disorders	0.066
HCC70	Quadriplegia	0.185
HCC71	Paraplegia	0.151
HCC72	Spinal Cord Disorders/Injuries	0.099
HCC73	Amyotrophic Lateral Sclerosis and Other Motor Neuron Disease	0.213
HCC74	Cerebral Palsy	0.057
HCC75	Myasthenia Gravis/Myoneural Disorders and Guillain-Barre Syndrome/Inflammatory and Toxic Neuropathy	0.074
HCC76	Muscular Dystrophy	0.136
HCC77	Multiple Sclerosis	0.111
HCC78	Parkinson's and Huntington's Diseases	0.079
HCC79	Seizure Disorders and Convulsions	0.053
HCC80	Coma, Brain Compression/Anoxic Damage	0.076
HCC82	Respirator Dependence/Tracheostomy Status	0.161
HCC83	Respiratory Arrest	0.112
HCC84	Cardio-Respiratory Failure and Shock	0.061
HCC85	Congestive Heart Failure	0.063
HCC86	Acute Myocardial Infarction	0.151
HCC87	Unstable Angina and Other Acute Ischemic Heart Disease	0.120
HCC88	Angina Pectoris	0.043
HCC96	Specified Heart Arrhythmias	0.049
HCC99	Intracranial Hemorrhage	0.062
HCC100	Ischemic or Unspecified Stroke	0.062
HCC103	Hemiplegia/Hemiparesis	0.071
HCC104	Monoplegia, Other Paralytic Syndromes	0.047
HCC106	Atherosclerosis of the Extremities with Ulceration or Gangrene	0.358
HCC107	Vascular Disease with Complications	0.144
HCC108	Vascular Disease	0.073
HCC110	Cystic Fibrosis	0.125
HCC111	Chronic Obstructive Pulmonary Disease	0.058
HCC112	Fibrosis of Lung and Other Chronic Lung Disorders	0.058

Variable	Description Label	Relative Factors
HCC114	Aspiration and Specified Bacterial Pneumonias	0.090
HCC115	Pneumococcal Pneumonia, Empyema, Lung Abscess	0.030
HCC122	Proliferative Diabetic Retinopathy and Vitreous Hemorrhage	0.006
HCC124	Exudative Macular Degeneration	0.057
HCC134	Dialysis Status	–
HCC135	Acute Renal Failure	–
HCC136	Chronic Kidney Disease, Stage 5	–
HCC137	Chronic Kidney Disease, Severe (Stage 4)	–
HCC138	Chronic Kidney Disease, Moderate (Stage 3)	–
HCC157	Pressure Ulcer of Skin with Necrosis Through to Muscle, Tendon, or Bone	0.219
HCC158	Pressure Ulcer of Skin with Full Thickness Skin Loss	0.158
HCC159	Pressure Ulcer of Skin with Partial Thickness Skin Loss	0.127
HCC161	Chronic Ulcer of Skin, Except Pressure	0.127
HCC162	Severe Skin Burn or Condition	0.155
HCC166	Severe Head Injury	0.076
HCC167	Major Head Injury	0.043
HCC169	Vertebral Fractures without Spinal Cord Injury	0.099
HCC170	Hip Fracture/Dislocation	0.063
HCC173	Traumatic Amputations and Complications	0.050
HCC176	Complications of Specified Implanted Device or Graft	–
HCC186	Major Organ Transplant or Replacement Status	0.138
HCC188	Artificial Openings for Feeding or Elimination	0.087
HCC189	Amputation Status, Lower Limb/Amputation Complications	0.081
Disease Interactions		
HCC47_gCancer	Immune Disorders*Cancer	0.048
DIABETES_CHF	Congestive Heart Failure*Diabetes	–
CHF_gCopdCF	Congestive Heart Failure*Chronic Obstructive Pulmonary Disease	0.003
HCC85_gRenal_V24	Congestive Heart Failure*Renal	–
gCopdCF_CARD_RESP_FAIL	Cardiorespiratory Failure*Chronic Obstructive Pulmonary Disease	0.029

Variable	Description Label	Relative Factors
HCC85_HCC96	Congestive Heart Failure*Specified Heart Arrhythmias	0.050
NONAGED_gSubstance_UseDs_gPsych	NonAged, Substance Use*Psychiatric	0.055
NonAged (Age <65)/Disease Interactions		
NONAGED_HCC6	NonAged, Opportunistic Infections	0.043
NONAGED_HCC34	NonAged, Chronic Pancreatitis	0.128
NONAGED_HCC46	NonAged, Severe Hematological Disorders	0.220
NONAGED_HCC110	NonAged, Cystic Fibrosis	0.657
NONAGED_HCC176	NonAged, Complications of Specified Implanted Device or Graft	0.041

NOTES:

1. The CMS ESRD Dialysis Denominator used to calculate the relative factors is $87,250.85.
2. Originally Disabled indicates beneficiary originally entitled to Medicare for reasons of disability other than ESRD.
3. Originally ESRD indicates beneficiary originally entitled to Medicare due to ESRD. Beneficiaries who are Originally ESRD cannot be Originally Disabled.
4. All HCCs in the kidney disease hierarchy (HCCs 134-138) and the disease interaction term involving renal disease (congestive heart failure*renal) are constrained to zero.
5. In the "disease interactions," the variables are defined as follows:
   Immune Disorders = HCC 47
   Cancer = HCCs 8-12
   Congestive Heart Failure = HCC 85
   Diabetes = HCCs 17-19
   Chronic Obstructive Pulmonary Disease = HCCs 110-112
   Renal = HCCs 134-138
   Cardiorespiratory Failure = HCCs 82-84
   Specified Heart Arrhythmias = HCC 96
   Substance Use = HCCs 54-56
   Psychiatric = HCCs 57-60

SOURCE: RTI International analysis of 2018/2019 Medicare 100% ESRD sample claims and enrollment data.

Table VI-2. ESRD Model Demographic Relative Factors for New Enrollees in Dialysis Status

Variable	NonDual or Partial Benefit Dual & Non-Originally Disabled	Full Benefit Dual & Non-Originally Disabled	NonDual or Partial Benefit Dual & Originally Disabled	Full Benefit Dual & Originally Disabled
Female				
0-34 Years	0.760	0.981	0.938	1.207
35-44 Years	0.747	0.944	0.938	1.207
45-54 Years	0.741	0.869	0.938	1.118
55-59 Years	0.728	0.892	0.938	1.118
60-64 Years	0.768	0.892	0.938	1.118
65-69 Years	0.936	1.094	1.049	1.217
70-74 Years	0.963	1.102	1.036	1.196
75-79 Years	0.963	1.142	1.018	1.196
80-84 Years	0.991	1.189	1.018	1.196
85 Years or Over	0.963	1.154	1.018	1.196
Male				
0-34 Years	0.720	0.883	0.944	1.074
35-44 Years	0.708	0.883	0.944	1.074
45-54 Years	0.690	0.827	0.851	1.074
55-59 Years	0.718	0.862	0.847	1.096
60-64 Years	0.755	0.881	0.859	1.126
65-69 Years	0.891	1.121	0.921	1.258
70-74 Years	0.868	1.082	0.902	1.258
75-79 Years	0.937	1.171	1.004	1.258
80-84 Years	0.982	1.181	1.004	1.258
85 Years or Over	0.978	1.181	1.004	1.258

NOTES:

1. The CMS ESRD Dialysis Denominator used to calculate the relative factors is $87,250.85.
2. Originally Disabled terms refer to beneficiaries originally entitled to Medicare for reasons of disability other than ESRD.

SOURCE: RTI International analysis of 2018/2019 Medicare 100% ESRD sample claims and enrollment data.

Table VI-3. ESRD Kidney Transplant CMS-HCC Model Relative Factors for Transplant Beneficiaries

	Beneficiaries	**Kidney Transplant** *Actual Dollars*	**Kidney Transplant Relative Risk Factor**
Month 1	11,478	$43,517.92	5.985
Months 2 and 3	22,147	$6,840.27	0.941
Total (Actual Months 1-3)		**$57,172.89**	

NOTES:

1. Kidney transplant is identified by MS-DRG 652.
2. The transplant month payments were computed by aggregating the costs for each of the three monthly payments.
3. The transplant factor is calculated in this manner: (kidney transplant month's dollars/Dialysis Denominator) x 12. The CMS ESRD Dialysis Denominator value used was $87,250.85.

SOURCE: RTI International analysis of 2018/2019 Medicare 100% ESRD claims and enrollment data.

Table VI-4. ESRD Model Functioning Graft Relative Factors for Continuing Enrollees

Variable	Description Label	Community, NonDual or Partial Benefit Dual, Aged	Community, NonDual or Partial Benefit Dual, NonAged	Community, Full Benefit Dual, Aged	Community, Full Benefit Dual, NonAged	Institutional
Functioning Graft Factors						
Aged <65, with duration since transplant of 4-9 months, NonDual and Partial Benefit Dual		–	1.737	–	–	1.737
Aged <65, with duration since transplant of 4-9 months, Full Benefit Dual		–	–	–	2.083	2.083
Aged 65+, with duration since transplant of 4-9 months, NonDual and Partial Benefit Dual		2.529	–	–	–	2.529
Aged 65+, with duration since transplant of 4-9 months, Full Benefit Dual		–	–	2.605	–	2.605
Aged <65, with duration since transplant of 10 months or more, NonDual and Partial Benefit Dual		–	0.335	–	–	0.335
Aged <65, with duration since transplant of 10 months or more, Full Benefit Dual		–	–	–	0.648	0.648
Aged 65+, with duration since transplant of 10 months or more, NonDual and Partial Benefit Dual		0.905	–	–	–	0.905
Aged 65+, with duration since transplant of 10 months or more, Full Benefit Dual		–	–	1.279	–	1.279
Partial Benefit Dual Status Factors						
Partial Benefit Dual, Aged		0.162	–	–	–	0.162
Partial Benefit Dual, NonAged		–	0.141	–	–	0.141
Originally Disabled Interactions with Age and Sex						
Originally Disabled, Female Age 65+		0.219	–	0.143	–	–
Originally Disabled, Male Age 65+		0.125	–	0.136	–	–
Institutional Status Factors						
Institutional Status, NonAged		–	–	–	–	2.146

Variable	Description Label	Community, NonDual or Partial Benefit Dual, Aged	Community, NonDual or Partial Benefit Dual, NonAged	Community, Full Benefit Dual, Aged	Community, Full Benefit Dual, NonAged	Institutional
Institutional Status, Aged		–	–	–	–	0.955
Female						
0-34 Years		–	0.198	–	0.308	1.174
35-44 Years		–	0.250	–	0.291	0.995
45-54 Years		–	0.292	–	0.328	1.199
55-59 Years		–	0.329	–	0.349	1.129
60-64 Years		–	0.373	–	0.423	1.067
65-69 Years		0.301	–	0.402	–	1.273
70-74 Years		0.359	–	0.464	–	1.202
75-79 Years		0.420	–	0.545	–	1.046
80-84 Years		0.474	–	0.608	–	0.935
85-89 Years		0.570	–	0.714	–	0.822
90-94 Years		0.678	–	0.803	–	0.700
95 Years or Over		0.686	–	0.804	–	0.560
Male						
0-34 Years		–	0.102	–	0.187	1.043
35-44 Years		–	0.155	–	0.200	0.893
45-54 Years		–	0.197	–	0.257	1.148
55-59 Years		–	0.249	–	0.350	1.143
60-64 Years		–	0.298	–	0.425	1.074
65-69 Years		0.303	–	0.486	–	1.323
70-74 Years		0.358	–	0.570	–	1.265
75-79 Years		0.451	–	0.646	–	1.353
80-84 Years		0.512	–	0.714	–	1.268
85-89 Years		0.599	–	0.825	–	1.157
90-94 Years		0.730	–	0.906	–	0.973
95 Years or Over		0.825	–	0.965	–	0.854

Variable	Description Label	Community, NonDual or Partial Benefit Dual, Aged	Community, NonDual or Partial Benefit Dual, NonAged	Community, Full Benefit Dual, Aged	Community, Full Benefit Dual, NonAged	Institutional
Disease Coefficients	**Description Label**					
HCC1	HIV/AIDS	0.292	0.331	0.381	0.319	1.302
HCC2	Septicemia, Sepsis, Systemic Inflammatory Response Syndrome/Shock	0.324	0.411	0.396	0.532	0.270
HCC6	Opportunistic Infections	0.364	0.688	0.530	0.782	0.571
HCC8	Metastatic Cancer and Acute Leukemia	3.057	3.058	2.932	3.226	1.571
HCC9	Lung and Other Severe Cancers	1.226	1.075	1.179	1.089	0.770
HCC10	Lymphoma and Other Cancers	0.608	0.595	0.628	0.780	0.467
HCC11	Colorectal, Bladder, and Other Cancers	0.312	0.257	0.325	0.362	0.346
HCC12	Breast, Prostate, and Other Cancers and Tumors	0.162	0.189	0.170	0.182	0.219
HCC17	Diabetes with Acute Complications	0.219	0.241	0.233	0.296	0.359
HCC18	Diabetes with Chronic Complications	0.219	0.241	0.233	0.296	0.359
HCC19	Diabetes without Complication	0.073	0.083	0.051	0.102	0.128
HCC21	Protein-Calorie Malnutrition	0.549	0.870	0.712	0.963	0.326
HCC22	Morbid Obesity	0.171	0.141	0.292	0.192	0.435
HCC23	Other Significant Endocrine and Metabolic Disorders	0.217	0.390	0.246	0.317	0.332
HCC27	End-Stage Liver Disease	0.886	0.920	0.985	1.149	0.764
HCC28	Cirrhosis of Liver	0.340	0.342	0.414	0.387	0.327
HCC29	Chronic Hepatitis	0.146	0.342	0.059	0.292	0.327

Variable	Description Label	Community, NonDual or Partial Benefit Dual, Aged	Community, NonDual or Partial Benefit Dual, NonAged	Community, Full Benefit Dual, Aged	Community, Full Benefit Dual, NonAged	Institutional
HCC33	Intestinal Obstruction/Perforation	0.250	0.474	0.254	0.458	0.278
HCC34	Chronic Pancreatitis	0.318	0.543	0.419	0.721	0.178
HCC35	Inflammatory Bowel Disease	0.350	0.469	0.286	0.503	0.287
HCC39	Bone/Joint/Muscle Infections/Necrosis	0.431	0.440	0.578	0.537	0.434
HCC40	Rheumatoid Arthritis and Inflammatory Connective Tissue Disease	0.414	0.353	0.313	0.299	0.284
HCC46	Severe Hematological Disorders	1.346	4.064	1.361	3.980	0.748
HCC47	Disorders of Immunity	0.640	0.803	0.539	0.656	0.523
HCC48	Coagulation Defects and Other Specified Hematological Disorders	0.192	0.319	0.240	0.358	0.226
HCC51	Dementia With Complications	0.314	0.282	0.399	0.348	–
HCC52	Dementia Without Complication	0.314	0.282	0.399	0.348	–
HCC54	Substance Use with Psychotic Complications	0.274	0.521	0.416	1.071	0.172
HCC55	Substance Use Disorder, Moderate/Severe, or Substance Use with Complications	0.274	0.256	0.416	0.355	0.172
HCC56	Substance Use Disorder, Mild, Except Alcohol and Cannabis	0.274	0.169	0.416	0.267	0.172
HCC57	Schizophrenia	0.507	0.372	0.572	0.398	0.230
HCC58	Reactive and Unspecified Psychosis	0.507	0.295	0.572	0.145	0.230

Variable	Description Label	Community, NonDual or Partial Benefit Dual, Aged	Community, NonDual or Partial Benefit Dual, NonAged	Community, Full Benefit Dual, Aged	Community, Full Benefit Dual, NonAged	Institutional
HCC59	Major Depressive, Bipolar, and Paranoid Disorders	0.225	0.145	0.259	0.129	0.133
HCC60	Personality Disorders	0.225	0.145	0.131	0.047	–
HCC70	Quadriplegia	1.126	0.906	0.964	0.892	0.645
HCC71	Paraplegia	0.925	0.605	0.786	0.760	0.511
HCC72	Spinal Cord Disorders/Injuries	0.495	0.456	0.523	0.431	0.222
HCC73	Amyotrophic Lateral Sclerosis and Other Motor Neuron Disease	1.256	1.400	1.570	1.644	0.739
HCC74	Cerebral Palsy	0.226	0.094	–	–	–
HCC75	Myasthenia Gravis/Myoneural Disorders and Guillain-Barre Syndrome/Inflammatory and Toxic Neuropathy	0.573	0.599	0.430	0.493	0.344
HCC76	Muscular Dystrophy	0.471	0.745	0.381	0.842	0.322
HCC77	Multiple Sclerosis	0.621	0.876	0.749	1.113	0.042
HCC78	Parkinson's and Huntington's Diseases	0.588	0.457	0.608	0.442	0.206
HCC79	Seizure Disorders and Convulsions	0.249	0.195	0.223	0.167	0.070
HCC80	Coma, Brain Compression/Anoxic Damage	0.542	0.277	0.679	0.289	0.063
HCC82	Respirator Dependence/Tracheostomy Status	0.830	0.946	1.874	1.476	1.449
HCC83	Respiratory Arrest	0.449	0.496	0.843	0.613	0.481
HCC84	Cardio-Respiratory Failure and Shock	0.293	0.496	0.450	0.613	0.199

Variable	Description Label	Community, NonDual or Partial Benefit Dual, Aged	Community, NonDual or Partial Benefit Dual, NonAged	Community, Full Benefit Dual, Aged	Community, Full Benefit Dual, NonAged	Institutional
HCC85	Congestive Heart Failure	0.251	0.273	0.257	0.302	0.169
HCC86	Acute Myocardial Infarction	0.219	0.252	0.419	0.534	0.280
HCC87	Unstable Angina and Other Acute Ischemic Heart Disease	0.209	0.241	0.276	0.463	0.280
HCC88	Angina Pectoris	0.136	0.135	0.071	0.152	0.280
HCC96	Specified Heart Arrhythmias	0.252	0.269	0.346	0.291	0.227
HCC99	Intracranial Hemorrhage	0.219	0.194	0.355	0.438	0.082
HCC100	Ischemic or Unspecified Stroke	0.219	0.181	0.355	0.302	0.082
HCC103	Hemiplegia/Hemiparesis	0.388	0.331	0.414	0.391	0.013
HCC104	Monoplegia, Other Paralytic Syndromes	0.311	0.162	0.274	0.353	0.013
HCC106	Atherosclerosis of the Extremities with Ulceration or Gangrene	1.344	1.397	1.740	1.665	0.873
HCC107	Vascular Disease with Complications	0.348	0.436	0.586	0.547	0.324
HCC108	Vascular Disease	0.257	0.273	0.287	0.283	0.074
HCC110	Cystic Fibrosis	0.919	2.244	1.348	3.090	0.329
HCC111	Chronic Obstructive Pulmonary Disease	0.291	0.187	0.344	0.256	0.272
HCC112	Fibrosis of Lung and Other Chronic Lung Disorders	0.201	0.187	0.147	0.256	0.080
HCC114	Aspiration and Specified Bacterial Pneumonias	0.486	0.428	0.582	0.344	0.154
HCC115	Pneumococcal Pneumonia, Empyema, Lung Abscess	0.205	0.154	0.248	0.207	0.154

Variable	Description Label	Community, NonDual or Partial Benefit Dual, Aged	Community, NonDual or Partial Benefit Dual, NonAged	Community, Full Benefit Dual, Aged	Community, Full Benefit Dual, NonAged	Institutional
HCC122	Proliferative Diabetic Retinopathy and Vitreous Hemorrhage	0.321	0.333	0.357	0.363	0.727
HCC124	Exudative Macular Degeneration	0.601	0.379	0.383	0.270	0.206
HCC134	Dialysis Status	–	–	–	–	–
HCC135	Acute Renal Failure	–	–	–	–	–
HCC136	Chronic Kidney Disease, Stage 5	–	–	–	–	–
HCC137	Chronic Kidney Disease, Severe (Stage 4)	–	–	–	–	–
HCC138	Chronic Kidney Disease, Moderate (Stage 3)	–	–	–	–	–
HCC157	Pressure Ulcer of Skin with Necrosis Through to Muscle, Tendon, or Bone	1.833	1.970	2.333	2.366	1.029
HCC158	Pressure Ulcer of Skin with Full Thickness Skin Loss	1.038	1.076	1.266	1.141	0.243
HCC159	Pressure Ulcer of Skin with Partial Thickness Skin Loss	0.795	0.946	0.940	0.894	0.243
HCC161	Chronic Ulcer of Skin, Except Pressure	0.582	0.650	0.782	0.650	0.243
HCC162	Severe Skin Burn or Condition	0.503	0.142	1.053	0.534	–
HCC166	Severe Head Injury	0.542	0.277	1.053	0.289	0.063
HCC167	Major Head Injury	0.162	0.100	0.239	0.107	–
HCC169	Vertebral Fractures without Spinal Cord Injury	0.475	0.456	0.523	0.431	0.184
HCC170	Hip Fracture/Dislocation	0.358	0.407	0.425	0.430	–

Variable	Description Label	Community, NonDual or Partial Benefit Dual, Aged	Community, NonDual or Partial Benefit Dual, NonAged	Community, Full Benefit Dual, Aged	Community, Full Benefit Dual, NonAged	Institutional
HCC173	Traumatic Amputations and Complications	0.160	0.082	0.341	0.145	–
HCC176	Complications of Specified Implanted Device or Graft	0.610	0.900	0.735	1.017	0.586
HCC186	Major Organ Transplant or Replacement Status	–	–	–	–	–
HCC188	Artificial Openings for Feeding or Elimination	0.558	0.772	0.728	0.786	0.272
HCC189	Amputation Status, Lower Limb/Amputation Complications	0.520	0.525	0.729	0.831	0.396
Disease Interactions						
HCC47_gCancer	Immune Disorders*Cancer	0.780	0.654	0.841	0.647	–
Diabetes_CHF	Congestive Heart Failure*Diabetes	0.132	0.112	0.223	0.159	0.205
CHF_gCopdCF	Congestive Heart Failure*Chronic Obstructive Pulmonary Disease	0.134	0.154	0.166	0.209	0.165
HCC85_gRenal_V24	Congestive Heart Failure*Renal	–	–	–	–	–
gCopdCF_CARD_RESP_FAIL	Cardiorespiratory Failure*Chronic Obstructive Pulmonary Disease	0.333	0.326	0.430	0.432	0.356
HCC85_HCC96	Congestive Heart Failure*Specified Heart Arrhythmias	0.109	0.308	0.194	0.467	–
gSubstanceUseDisorder_gPsych_V24	Substance Use*Psychiatric	–	0.122	–	0.205	–
SEPSIS_PRESSURE_ULCER_V24	Sepsis*Pressure Ulcer	–	–	–	–	0.196

Variable	Description Label	Community, NonDual or Partial Benefit Dual, Aged	Community, NonDual or Partial Benefit Dual, NonAged	Community, Full Benefit Dual, Aged	Community, Full Benefit Dual, NonAged	Institutional
SEPSIS_ARTIF_OPENINGS	Sepsis*Artificial Openings for Feeding or Elimination	–	–	–	–	0.496
ART_OPENINGS_PRESS_ULCER_V24	Artificial Openings for Feeding or Elimination*Pressure Ulcer	–	–	–	–	0.476
gCopdCF_ASP_SPEC_B_PNEUM	Chronic Obstructive Pulmonary Disease*Aspiration and Specified Bacterial Pneumonias	–	–	–	–	0.143
ASP_SPEC_B_PNEUM_PRES_ULC_V24	Aspiration and Specified Bacterial Pneumonias*Pressure Ulcer	–	–	–	–	0.336
SEPSIS_ASP_SPEC_BACT_PNEUM	Sepsis*Aspiration and Specified Bacterial Pneumonias	–	–	–	–	0.162
SCHIZOPHRENIA_gCopdCF	Schizophrenia*Chronic Obstructive Pulmonary Disease	–	–	–	–	0.380
SCHIZOPHRENIA_CHF	Schizophrenia*Congestive Heart Failure	–	–	–	–	0.119
SCHIZOPHRENIA_SEIZURES	Schizophrenia*Seizure Disorders and Convulsions	–	–	–	–	0.411
NonAged (Age < 65)/Disease Interactions						
NONAGED_HCC85	NonAged, Congestive Heart Failure	–	–	–	–	0.491
NONAGED_PRESSURE_ULCER_V24	NonAged, Pressure Ulcer	–	–	–	–	0.349

Variable	Description Label	Community, NonDual or Partial Benefit Dual, Aged	Community, NonDual or Partial Benefit Dual, NonAged	Community, Full Benefit Dual, Aged	Community, Full Benefit Dual, NonAged	Institutional
NONAGED_HCC161	NonAged, Chronic Ulcer of the Skin, Except Pressure Ulcer	–	–	–	–	0.271
NONAGED_HCC39	NonAged, Bone/Joint Muscle Infections/Necrosis	–	–	–	–	0.451
NONAGED_HCC77	NonAged, Multiple Sclerosis	–	–	–	–	0.484
NONAGED_HCC6	NonAged, Opportunistic Infections	–	–	–	–	0.209

NOTES:

1. The Denominator used to calculate the relative factors is $10,493.74.
2. a) For the Community models, the coefficients estimated are the Functioning Graft add-on factors and the Partial Benefit Dual add-on factors. The Functioning Graft add-on factors are for being in a month after the 3 months accounted for in the Transplant segment of the ESRD system. Early months post-transplant incur higher Medicare spending than later months. The model differentiates the six months, months 4–9, from months further from the transplant period. The Partial Benefit Dual add-on factors capture any additional costs for Partial Benefit Dual beneficiaries as the underlying model was estimated on the NonDual population.
   b) For the Institutional model, the coefficients estimated are the two Institutional Status variables differentiated by Aged and NonAged because of spending.
3. Originally Disabled terms refer to beneficiaries originally entitled to Medicare for reasons of disability other than ESRD.
4. In the "disease interactions" and "NonAged interactions," the variables are defined as follows:
   Immune Disorders = HCC 47
   Cancer = HCCs 8-12
   Congestive Heart Failure = HCC 85
   Diabetes = HCCs 17-19
   Chronic Obstructive Pulmonary Disease = HCCs 110-112
   Renal = HCCs 134-138
   Cardiorespiratory Failure = HCCs 82-84
   Specified Heart Arrhythmias = HCC 96
   Substance Use = HCCs 54-56
   Psychiatric = HCCs 57-60

Pressure Ulcer = HCCs 157–159
Chronic Ulcer of Skin, except Pressure = HCC 161
Bone/Joint/Muscle Infections/Necrosis = HCC 39
Multiple Sclerosis = HCC 77
Opportunistic Infections = HCC 6
Sepsis = HCC 2
Artificial Openings for Feeding or Elimination = HCC 188
Aspiration and Specified Bacterial Pneumonias = HCC 114
Schizophrenia = HCC 57
Seizure Disorders and Convulsions = HCC 79

SOURCE: RTI International analysis of 2018/2019 100% ESRD sample claims and enrollment data and 2018/2019 Medicare 100% sample**.**

Table VI-5. ESRD Model Demographic Relative Factors for Functioning Graft New Enrollees Duration Since Transplant of 4-9 Months

Variable	NonDual or Partial Benefit Dual & Non-Originally Disabled	Full Benefit Dual & Non-Originally Disabled	NonDual or Partial Benefit Dual & Originally Disabled	Full Benefit Dual & Originally Disabled
Female				
0-34 Years	2.698	3.424	–	–
35-44 Years	2.960	3.728	–	–
45-54 Years	3.185	3.852	–	–
55-59 Years	3.181	3.714	–	–
60-64 Years	3.248	3.831	–	–
65 Years	3.377	3.959	4.123	4.630
66 Years	3.377	3.964	4.192	4.630
67 Years	3.406	3.979	4.192	4.630
68 Years	3.434	3.979	4.192	5.093
69 Years	3.478	3.979	4.192	5.093
70-74 Years	3.555	4.021	4.192	5.093
75-79 Years	3.781	4.115	4.192	5.093
80-84 Years	3.877	4.349	4.192	5.093
85-89 Years	4.203	4.590	4.203	5.093
90-94 Years	4.203	4.754	4.203	5.093
95 Years or Over	4.203	4.754	4.203	5.093
Male				
0-34 Years	2.367	3.110	–	–
35-44 Years	2.652	3.686	–	–
45-54 Years	2.912	3.856	–	–
55-59 Years	2.998	3.919	–	–
60-64 Years	3.077	3.991	–	–
65 Years	3.415	4.172	3.952	4.769
66 Years	3.424	4.230	4.060	5.024
67 Years	3.471	4.324	4.060	5.024
68 Years	3.537	4.376	4.060	5.024
69 Years	3.544	4.473	4.215	5.024
70-74 Years	3.680	4.473	4.215	5.024
75-79 Years	3.944	4.473	4.215	5.959
80-84 Years	4.158	4.524	4.215	5.959
85-89 Years	4.454	4.720	4.454	5.959
90-94 Years	4.454	5.049	4.454	5.959
95 Years or Over	4.454	5.049	4.454	5.959

NOTES:

1. The relative factors are derived from the Functioning Graft New Enrollee model. The Denominator used to calculate the relative factors is $10,493.74.
2. Originally Disabled refers to people originally entitled to Medicare for reasons of disability other than ESRD. In this model, Originally Disabled is defined only for beneficiaries age 65 and greater.

SOURCE: RTI International analysis of 2018/2019 100% ESRD sample claims and enrollment data and 2018/2019 Medicare 100% sample.

Table VI-6. ESRD Model Demographic Relative Factors for Functioning Graft New Enrollees Duration Since Transplant of 10 Months or More

Variable	NonDual or Partial Benefit Dual & Non-Originally Disabled	Full Benefit Dual & Non-Originally Disabled	NonDual or Partial Benefit Dual & Originally Disabled	Full Benefit Dual & Originally Disabled
Female				
0-34 Years	1.490	2.384	–	–
35-44 Years	1.830	2.778	–	–
45-54 Years	2.120	2.938	–	–
55-59 Years	2.116	2.759	–	–
60-64 Years	2.202	2.911	–	–
65 Years	2.052	3.234	3.019	4.103
66 Years	2.052	3.239	3.109	4.103
67 Years	2.089	3.259	3.109	4.103
68 Years	2.126	3.259	3.109	4.703
69 Years	2.183	3.259	3.109	4.703
70-74 Years	2.282	3.314	3.109	4.703
75-79 Years	2.576	3.436	3.109	4.703
80-84 Years	2.701	3.739	3.109	4.703
85-89 Years	3.123	4.052	3.123	4.703
90-94 Years	3.123	4.264	3.123	4.703
95 Years or Over	3.123	4.264	3.123	4.703
Male				
0-34 Years	1.060	1.977	–	–
35-44 Years	1.430	2.723	–	–
45-54 Years	1.766	2.944	–	–
55-59 Years	1.878	3.026	–	–
60-64 Years	1.981	3.119	–	–
65 Years	2.102	3.510	2.798	4.284
66 Years	2.113	3.585	2.937	4.615
67 Years	2.173	3.706	2.937	4.615
68 Years	2.259	3.774	2.937	4.615
69 Years	2.268	3.900	3.139	4.615
70-74 Years	2.444	3.900	3.139	4.615
75-79 Years	2.787	3.900	3.139	5.827
80-84 Years	3.064	3.966	3.139	5.827
85-89 Years	3.448	4.221	3.448	5.827
90-94 Years	3.448	4.646	3.448	5.827
95 Years or Over	3.448	4.646	3.448	5.827

NOTES:

1. The relative factors are derived from the Functioning Graft New Enrollee model. The Denominator used to calculate the relative factors is $10,493.74.

2. Originally Disabled refers to people originally entitled to Medicare for reasons of disability other than ESRD. In this model, Originally Disabled is defined only for beneficiaries age 65 and greater.

SOURCE: RTI International analysis of 2018/2019 100% ESRD sample claims and enrollment data and 2018/2019 Medicare 100% sample.

Table VI-7. Disease Hierarchies in the ESRD Payment Model

DISEASE HIERARCHIES		
Hierarchical Condition Category (HCC)	**If the Disease Group is Listed in this column…**	**…Then drop the HCC(s) listed in this column**
	Hierarchical Condition Category (HCC) LABEL	
8	Metastatic Cancer and Acute Leukemia	9, 10, 11, 12
9	Lung and Other Severe Cancers	10, 11, 12
10	Lymphoma and Other Cancers	11, 12
11	Colorectal, Bladder, and Other Cancers	12
17	Diabetes with Acute Complications	18, 19
18	Diabetes with Chronic Complications	19
27	End-Stage Liver Disease	28, 29, 80
28	Cirrhosis of Liver	29
46	Severe Hematological Disorders	48
51	Dementia With Complications	52
54	Substance Use with Psychotic Complications	55, 56
55	Substance Use Disorder, Moderate/Severe, or Substance Use with Complications	56
57	Schizophrenia	58, 59, 60
58	Reactive and Unspecified Psychosis	59, 60
59	Major Depressive, Bipolar, and Paranoid Disorders	60
70	Quadriplegia	71, 72, 103, 104, 169
71	Paraplegia	72, 104, 169
72	Spinal Cord Disorders/Injuries	169
82	Respirator Dependence/Tracheostomy Status	83, 84
83	Respiratory Arrest	84
86	Acute Myocardial Infarction	87, 88
87	Unstable Angina and Other Acute Ischemic Heart Disease	88
99	Intracranial Hemorrhage	100
103	Hemiplegia/Hemiparesis	104
106	Atherosclerosis of the Extremities with Ulceration or Gangrene	107, 108, 161, 189
107	Vascular Disease with Complications	108
110	Cystic Fibrosis	111, 112
111	Chronic Obstructive Pulmonary Disease	112
114	Aspiration and Specified Bacterial Pneumonias	115
134	Dialysis Status	135, 136, 137, 138
135	Acute Renal Failure	136, 137, 138
136	Chronic Kidney Disease, Stage 5	137, 138
137	Chronic Kidney Disease, Severe (Stage 4)	138
157	Pressure Ulcer of Skin with Necrosis Through to Muscle, Tendon, or Bone	158, 159, 161
158	Pressure Ulcer of Skin with Full Thickness Skin Loss	159, 161
159	Pressure Ulcer of Skin with Partial Thickness Skin Loss	161
166	Severe Head Injury	80, 167

How Payments are Made with a Disease Hierarchy
EXAMPLE: If a beneficiary triggers Disease Groups 8 (Metastatic Cancer and Acute Leukemia) and 9 (Lung and Other Severe Cancers), then DG 9 will be dropped. In other words, payment will always be associated with the DG in column 1, if a DG in column 3 also occurs during the same collection period. Therefore, the organization's payment will be based on DG 8 rather than DG 9.

SOURCE: RTI International.

Table VI-8. Comparison of Current (V05) and Proposed (V08) RxHCC Risk Adjustment Models

Current RxHCC Risk Adjustment Model RxHCCs		Proposed RxHCC Risk Adjustment Model RxHCCs		
RxHCC	**Description**	**RxHCC**	**Description**	**Category Short Name**
1	HIV/AIDS	1	HIV/AIDS	Infections
5	Opportunistic Infections	5	Opportunistic Infections	
15	Chronic Myeloid Leukemia	15	Chronic Myeloid Leukemia	Neoplasm
16	Multiple Myeloma and Other Neoplastic Disorders	*16*	*Multiple Myeloma and Other Hematologic Cancers*	
17	Secondary Cancers of Bone, Lung, Brain, and Other Specified Sites; Liver Cancer	*17*	*Secondary Cancer of Bone and Kidney*	
		18	**Secondary Cancer of Lung, Liver, Brain, and Other Sites**	
		19	**Leukemias and Other Hematologic Cancers**	
18	Lung, Kidney, and Other Cancers	*20*	*Lung, Kidney, and Other Cancers; Secondary Cancer of Lymph Nodes and Other Sites*	
		21	**Lymphomas and Other Hematologic Cancers**	
19	Breast and Other Cancers and Tumors	*22*	*Prostate, Breast, Bladder, and Other Cancers and Tumors*	
30	Diabetes with Complications	30	Diabetes with Complications	Diabetes
31	Diabetes without Complication	31	Diabetes without Complication	
40	Specified Hereditary Metabolic/Immune Disorders	*40*	*Alpha-1-Antitrypsin Deficiency*	Metabolic
		41	**Lysosomal Storage Disorders**	
		42	**Acromegaly and Other Endocrine and Metabolic Disorders**	
41	Pituitary, Adrenal Gland, and Other Endocrine and Metabolic Disorders	*43*	*Pituitary, Adrenal Gland, and Other Endocrine and Metabolic Disorders*	
42	Thyroid Disorders	44	Thyroid Disorders	
43	Morbid Obesity			

Current RxHCC Risk Adjustment Model RxHCCs		Proposed RxHCC Risk Adjustment Model RxHCCs		
RxHCC	**Description**	**RxHCC**	**Description**	**Category Short Name**
45	Disorders of Lipoid Metabolism	47	Disorders of Lipoid Metabolism	
54	Chronic Viral Hepatitis C	54	Chronic Viral Hepatitis C	Liver
		55	**Acute or Unspecified Viral Hepatitis C**	
55	Chronic Viral Hepatitis, Except Hepatitis C	*56*	*Chronic Viral Hepatitis B and Other Specified Chronic Viral Hepatitis*	
		59	**Primary Biliary Cirrhosis**	
65	Chronic Pancreatitis	65	Chronic Pancreatitis	Gastrointestinal
66	Pancreatic Disorders and Intestinal Malabsorption, Except Pancreatitis	66	Pancreatic Disorders and Intestinal Malabsorption, Except Pancreatitis	
67	Inflammatory Bowel Disease	*67*	*Inflammatory Bowel Disease*	
68	Esophageal Reflux and Other Disorders of Esophagus			
80	Aseptic Necrosis of Bone	80	Aseptic Necrosis of Bone	Musculoskeletal
		81	**Psoriatic Arthropathy**	
82	Psoriatic Arthropathy and Systemic Sclerosis	*82*	*Systemic Sclerosis*	
83	Rheumatoid Arthritis and Other Inflammatory Polyarthropathy	*83*	*Rheumatoid Arthritis and Other Inflammatory Polyarthropathy*	
84	Systemic Lupus Erythematosus, Other Connective Tissue Disorders, and Inflammatory Spondylopathies	*84*	*Systemic Lupus Erythematosus and Other Systemic Connective Tissue Disorders*	
87	Osteoporosis, Vertebral and Pathological Fractures	87	Osteoporosis, Vertebral and Pathological Fractures	
95	Sickle Cell Anemia	95	Sickle Cell Anemia	Blood
96	Myelodysplastic Syndromes and Myelofibrosis			
98	Aplastic Anemia and Other Significant Blood Disorders	*96*	*Acquired Hemolytic, Aplastic, and Sideroblastic Anemias*	
		98	**Hereditary Angioedema and Other Defects in the Complement System**	
97	Immune Disorders	99	Immune Disorders	
		100	**Immune Thrombocytopenic Purpura**	
111	Alzheimer's Disease	111	Alzheimer's Disease	Cognitive

Current RxHCC Risk Adjustment Model RxHCCs		Proposed RxHCC Risk Adjustment Model RxHCCs		
RxHCC	**Description**	**RxHCC**	**Description**	**Category Short Name**
112	Dementia, Except Alzheimer's Disease	112	Dementia, Except Alzheimer's Disease	
130	Schizophrenia	*130*	*Schizophrenia and Other Psychosis*	Psychiatric
131	Bipolar Disorders	*131*	*Bipolar Disorders*	
132	Major Depression	*132*	*Depression*	
133	Specified Anxiety, Personality, and Behavior Disorders	*133*	*Anxiety and Other Psychiatric Disorders*	
134	Depression			
135	Anxiety Disorders			
145	Autism			Developmental Disorder
146	Profound or Severe Intellectual Disability/Developmental Disorder	146	Profound or Severe Intellectual Disability/Developmental Disorder	
147	Moderate Intellectual Disability/Developmental Disorder	147	Moderate Intellectual Disability/Developmental Disorder	
148	Mild or Unspecified Intellectual Disability/Developmental Disorder	148	Mild or Unspecified Intellectual Disability/Developmental Disorder	
156	Myasthenia Gravis, Amyotrophic Lateral Sclerosis and Other Motor Neuron Disease	*153*	*Myasthenia Gravis and Other Myoneural Disorders*	Neurological
		154	**Amyotrophic Lateral Sclerosis and Other Motor Neuron Disease**	
157	Spinal Cord Disorders	155	Spinal Cord Disorders	
		157	**Chronic Inflammatory Demyelinating Polyneuritis**	
159	Inflammatory and Toxic Neuropathy	158	Inflammatory and Toxic Neuropathy	
160	Multiple Sclerosis	159	Multiple Sclerosis	
		160	**Huntington Disease**	
161	Parkinson's and Huntington's Diseases	*161*	*Parkinson Disease*	
163	Intractable Epilepsy	163	Intractable Epilepsy	
164	Epilepsy and Other Seizure Disorders, Except Intractable Epilepsy	164	Epilepsy and Other Seizure Disorders, Except Intractable Epilepsy	

Current RxHCC Risk Adjustment Model RxHCCs		Proposed RxHCC Risk Adjustment Model RxHCCs		
RxHCC	**Description**	**RxHCC**	**Description**	**Category Short Name**
165	Convulsions			
166	Migraine Headaches	166	Migraine Headaches	
168	Trigeminal and Postherpetic Neuralgia	168	Trigeminal and Postherpetic Neuralgia	
185	Primary Pulmonary Hypertension	*183*	*Pulmonary Arterial Hypertension*	Heart
		184	**Pulmonary Hypertension, Except Arterial, and Other Pulmonary Heart Disease**	
186	Congestive Heart Failure	*186*	*Heart Failure*	
187	Hypertension	187	Hypertension	
188	Coronary Artery Disease	188	Coronary Artery Disease	
		191	**Ventricular Septal Defect and Major Congenital Heart Disorders**	
193	Atrial Arrhythmias	193	Atrial Arrhythmias	
206	Cerebrovascular Disease, Except Hemorrhage or Aneurysm			Cerebrovascular Disease
207	Spastic Hemiplegia	207	Spastic Hemiplegia	
215	Venous Thromboembolism	215	Venous Thromboembolism	Vascular
216	Peripheral Vascular Disease			
225	Cystic Fibrosis	225	Cystic Fibrosis	Lung
		226	**Idiopathic Pulmonary Fibrosis and Systemic Sclerosis with Lung Involvement**	
227	Pulmonary Fibrosis and Other Chronic Lung Disorders	*227*	*Pulmonary Fibrosis, Except Idiopathic*	
		228	**Severe Persistent Asthma**	
226	Chronic Obstructive Pulmonary Disease and Asthma	*229*	*Chronic Obstructive Pulmonary Disease, Bronchiectasis, and Other Asthma*	
241	Diabetic Retinopathy			Eye
243	Open-Angle Glaucoma	*243*	*Glaucoma, Open-Angle or Moderate/Severe Stage*	
		244	**Other Non-Acute Glaucoma**	

Current RxHCC Risk Adjustment Model RxHCCs		Proposed RxHCC Risk Adjustment Model RxHCCs		
RxHCC	**Description**	**RxHCC**	**Description**	**Category Short Name**
260	Kidney Transplant Status	260	Kidney Transplant Status	Kidney
261	Dialysis Status	*261*	*Dialysis Status, Including End Stage Renal Disease*	
262	Chronic Kidney Disease Stage 5	262	Chronic Kidney Disease Stage 5	
263	Chronic Kidney Disease Stage 4	263	Chronic Kidney Disease Stage 4	
311	Chronic Ulcer of Skin, Except Pressure	311	Chronic Ulcer of Skin, Except Pressure	Skin
314	Pemphigus	*314*	*Pemphigus, Pemphigoid, and Other Bullous Skin Disorders*	
316	Psoriasis, Except with Arthropathy	316	Psoriasis, Except with Arthropathy	
		317	**Discoid Lupus Erythematosus**	
355	Narcolepsy and Cataplexy	355	Narcolepsy and Cataplexy	Sleep
395	Lung Transplant Status	*395*	*Stem Cell, Including Bone Marrow, Transplant Status/Complications*	Transplant
396	Major Organ Transplant Status, Except Lung, Kidney, and Pancreas	*396*	*Heart, Lung, Liver, Intestine, or Pancreas Transplant Status*	
397	Pancreas Transplant Status			

NOTES:

1. Bolded RxHCCs in the proposed RxHCC model represent disease groups that were either added or split out from current model RxHCCs.
2. Italicized RxHCCs in the proposed RxHCC model represent disease groups that were changed from the current model.
3. Some RxHCCs were renumbered to accommodate additional disease groups but are otherwise the same. These are not explicitly called out in the table.
4. RxHCCs that are present in current model columns but are blank in the proposed model columns were removed from the payment model (RxHCCs 43, 68, 165, 206, 216, 241) or their conditions were moved to other payment RxHCCs (RxHCCs 96, 134, 135, 145, 397).
5. For two disease groups (Blood and Lung), V05 RxHCCs are listed in non-chronologic order to better align content with comparable V08 RxHCCs.

SOURCE: RTI International

Table VI-9. RxHCC Model Relative Factors for Continuing Enrollees

Variable	Description Label	Community, Non-Low Income, Age≥65	Community, Non-Low Income, Age<65	Community, Low Income, Age≥65	Community, Low Income, Age<65	Institutional
Female						
0-34 Years		-	0.186	-	0.460	1.978
35-44 Years		-	0.323	-	0.629	2.028
45-54 Years		-	0.384	-	0.680	1.705
55-59 Years		-	0.367	-	0.615	1.538
60-64 Years		-	0.328	-	0.511	1.401
65-69 Years		0.156	-	0.347	-	1.374
70-74 Years		0.166	-	0.302	-	1.226
75-79 Years		0.166	-	0.252	-	1.078
80-84 Years		0.142	-	0.216	-	0.948
85-89 Years		0.123	-	0.151	-	0.831
90-94 Years		0.084	-	0.085	-	0.688
95 Years or Over		-	-	-	-	0.489
Male						
0-34 Years		-	0.200	-	0.498	2.005
35-44 Years		-	0.253	-	0.573	1.875
45-54 Years		-	0.305	-	0.573	1.671
55-59 Years		-	0.329	-	0.532	1.460
60-64 Years		-	0.334	-	0.476	1.308
65-69 Years		0.190	-	0.319	-	1.239
70-74 Years		0.177	-	0.286	-	1.088
75-79 Years		0.180	-	0.252	-	1.021
80-84 Years		0.125	-	0.238	-	0.936
85-89 Years		0.043	-	0.171	-	0.819
90-94 Years		-	-	0.123	-	0.700
95 Years or Over		-	-	0.046	-	0.527
Originally Disabled Interactions with Sex						

Variable	Description Label	Community, Non-Low Income, Age≥65	Community, Non-Low Income, Age<65	Community, Low Income, Age≥65	Community, Low Income, Age<65	Institutional
Originally Disabled Female		0.063	-	0.206	-	0.113
Originally Disabled Male		-	-	0.139	-	0.113
Disease Coefficients						
RXHCC1	HIV/AIDS	4.759	5.738	4.549	4.793	2.773
RXHCC5	Opportunistic Infections	0.337	0.409	0.335	0.262	0.270
RXHCC15	Chronic Myeloid Leukemia	4.227	3.246	7.276	9.718	4.812
RXHCC16	Multiple Myeloma and Other Hematologic Cancers	6.793	7.563	5.853	6.233	2.065
RXHCC17	Secondary Cancer of Bone and Kidney	3.252	2.762	4.769	4.298	2.065
RXHCC18	Secondary Cancer of Lung, Liver, Brain, and Other Sites	1.202	1.097	1.595	1.569	0.527
RXHCC19	Leukemias and Other Hematologic Cancers	1.202	1.097	1.571	1.430	0.527
RXHCC20	Lung, Kidney, and Other Cancers; Secondary Cancer of Lymph Nodes and Other Sites	0.321	0.243	0.519	0.408	0.139
RXHCC21	Lymphomas and Other Hematologic Cancers	0.212	0.087	0.173	0.139	0.079
RXHCC22	Prostate, Breast, Bladder, and Other Cancers and Tumors	0.100	0.087	0.160	0.139	0.079
RXHCC30	Diabetes with Complications	0.562	0.606	0.733	0.964	0.607
RXHCC31	Diabetes without Complication	0.243	0.215	0.317	0.384	0.295
RXHCC40	Alpha-1-Antitrypsin Deficiency	2.036	4.326	3.156	4.271	0.504
RXHCC41	Lysosomal Storage Disorders	1.468	6.404	1.180	8.929	0.102
RXHCC42	Acromegaly and Other Endocrine and Metabolic Disorders	1.043	1.873	1.165	2.533	0.348
RXHCC43	Pituitary, Adrenal Gland, and Other Endocrine and Metabolic Disorders	0.062	0.165	-	0.141	0.068
RXHCC44	Thyroid Disorders	0.094	0.164	0.114	0.182	0.104

Variable	Description Label	Community, Non-Low Income, Age≥65	Community, Non-Low Income, Age<65	Community, Low Income, Age≥65	Community, Low Income, Age<65	Institutional
RXHCC47	Disorders of Lipoid Metabolism	-	0.019	0.069	0.121	0.068
RXHCC54	Chronic Viral Hepatitis C	0.317	0.363	0.453	0.359	0.434
RXHCC55	Acute or Unspecified Viral Hepatitis C	0.317	0.363	0.453	0.359	0.434
RXHCC56	Chronic Viral Hepatitis B and Other Specified Chronic Viral Hepatitis	0.307	0.443	0.748	0.446	0.170
RXHCC59	Primary Biliary Cirrhosis	1.168	1.131	0.860	1.030	0.664
RXHCC65	Chronic Pancreatitis	0.321	0.399	0.324	0.459	0.236
RXHCC66	Pancreatic Disorders and Intestinal Malabsorption, Except Pancreatitis	0.193	0.399	0.279	0.459	0.165
RXHCC67	Inflammatory Bowel Disease	0.527	0.464	0.693	1.522	0.285
RXHCC80	Aseptic Necrosis of Bone	0.150	0.155	0.104	0.180	0.092
RXHCC81	Psoriatic Arthropathy	0.598	0.446	2.668	4.203	1.374
RXHCC82	Systemic Sclerosis	0.620	0.463	0.859	1.160	0.288
RXHCC83	Rheumatoid Arthritis and Other Inflammatory Polyarthropathy	0.256	0.274	0.700	1.160	0.288
RXHCC84	Systemic Lupus Erythematosus and Other Systemic Connective Tissue Disorders	0.187	0.241	0.179	0.251	0.101
RXHCC87	Osteoporosis, Vertebral and Pathological Fractures	0.058	0.196	0.171	0.267	-
RXHCC95	Sickle Cell Anemia	-	0.296	-	0.882	-
RXHCC96	Acquired Hemolytic, Aplastic, and Sideroblastic Anemias	0.368	0.310	0.388	0.522	0.108
RXHCC98	Hereditary Angioedema and Other Defects in the Complement System	5.764	26.683	7.785	24.546	0.172
RXHCC99	Immune Disorders	0.650	0.500	0.773	0.730	0.433
RXHCC100	Immune Thrombocytopenic Purpura	0.157	0.041	0.667	0.775	0.436
RXHCC111	Alzheimer's Disease	0.096	0.038	-	-	-
RXHCC112	Dementia, Except Alzheimer's Disease	0.096	0.038	-	-	-
RXHCC130	Schizophrenia and Other Psychosis	0.285	0.297	0.435	0.826	0.193
RXHCC131	Bipolar Disorders	0.285	0.230	0.384	0.510	0.193

Variable	Description Label	Community, Non-Low Income, Age≥65	Community, Non-Low Income, Age<65	Community, Low Income, Age≥65	Community, Low Income, Age<65	Institutional
RXHCC132	Depression	0.114	0.129	0.149	0.242	0.128
RXHCC133	Anxiety and Other Psychiatric Disorders	0.061	0.110	0.083	0.187	0.054
RXHCC146	Profound or Severe Intellectual Disability/Developmental Disorder	0.342	0.187	0.470	0.374	-
RXHCC147	Moderate Intellectual Disability/Developmental Disorder	0.342	-	0.279	0.177	-
RXHCC148	Mild or Unspecified Intellectual Disability/Developmental Disorder	0.342	-	0.116	0.057	-
RXHCC153	Myasthenia Gravis and Other Myoneural Disorders	0.658	1.243	0.789	1.108	0.214
RXHCC154	Amyotrophic Lateral Sclerosis and Other Motor Neuron Disease	0.431	0.727	0.262	0.742	0.129
RXHCC155	Spinal Cord Disorders	0.094	0.080	0.053	-	0.018
RXHCC157	Chronic Inflammatory Demyelinating Polyneuritis	1.865	3.217	2.353	3.362	0.775
RXHCC158	Inflammatory and Toxic Neuropathy	-	0.055	-	0.068	0.079
RXHCC159	Multiple Sclerosis	2.185	3.075	2.195	3.908	1.122
RXHCC160	Huntington Disease	2.140	2.683	1.441	2.290	1.310
RXHCC161	Parkinson Disease	0.537	0.676	0.369	0.431	0.318
RXHCC163	Intractable Epilepsy	0.355	0.490	0.503	1.505	0.273
RXHCC164	Epilepsy and Other Seizure Disorders, Except Intractable Epilepsy	0.117	0.068	0.068	0.177	0.037
RXHCC166	Migraine Headaches	0.135	0.194	0.159	0.200	0.158
RXHCC168	Trigeminal and Postherpetic Neuralgia	0.124	0.257	0.201	0.245	0.207
RXHCC183	Pulmonary Arterial Hypertension	0.720	2.150	0.896	2.946	0.382
RXHCC184	Pulmonary Hypertension, Except Arterial, and Other Pulmonary Heart Disease	0.228	0.313	0.270	0.324	0.241
RXHCC186	Heart Failure	0.210	0.148	0.270	0.195	0.234
RXHCC187	Hypertension	0.111	0.059	0.188	0.128	0.103

Variable	Description Label	Community, Non-Low Income, Age≥65	Community, Non-Low Income, Age<65	Community, Low Income, Age≥65	Community, Low Income, Age<65	Institutional
RXHCC188	Coronary Artery Disease	0.090	0.027	0.151	-	-
RXHCC191	Ventricular Septal Defect and Major Congenital Heart Disorders	0.066	0.333	0.209	0.124	0.140
RXHCC193	Atrial Arrhythmias	0.602	0.236	0.398	0.165	0.267
RXHCC207	Spastic Hemiplegia	0.224	0.186	0.135	0.096	-
RXHCC215	Venous Thromboembolism	0.398	0.366	0.309	0.320	0.275
RXHCC225	Cystic Fibrosis	2.109	10.674	1.206	12.646	0.514
RXHCC226	Idiopathic Pulmonary Fibrosis and Systemic Sclerosis with Lung Involvement	2.616	2.097	2.556	2.101	0.748
RXHCC227	Pulmonary Fibrosis, Except Idiopathic	0.365	0.396	0.449	0.715	0.271
RXHCC228	Severe Persistent Asthma	1.027	0.679	1.216	1.136	0.616
RXHCC229	Chronic Obstructive Pulmonary Disease, Bronchiectasis, and Other Asthma	0.365	0.194	0.449	0.343	0.271
RXHCC243	Glaucoma, Open-Angle or Moderate/Severe Stage	0.304	0.251	0.430	0.384	0.320
RXHCC244	Other Non-Acute Glaucoma	0.059	-	0.104	-	0.080
RXHCC260	Kidney Transplant Status	0.208	-	0.172	-	-
RXHCC261	Dialysis Status, Including End Stage Renal Disease	0.083	0.056	0.123	0.176	0.081
RXHCC262	Chronic Kidney Disease Stage 5	0.083	0.056	0.123	0.082	0.081
RXHCC263	Chronic Kidney Disease Stage 4	0.083	0.056	0.123	0.082	0.081
RXHCC311	Chronic Ulcer of Skin, Except Pressure	0.174	0.203	0.141	0.192	0.081
RXHCC314	Pemphigus, Pemphigoid, and Other Bullous Skin Disorders	0.274	0.601	0.318	0.506	0.182
RXHCC316	Psoriasis, Except with Arthropathy	0.144	0.143	0.713	1.309	0.431
RXHCC317	Discoid Lupus Erythematosus	0.129	0.141	-	-	-
RXHCC355	Narcolepsy and Cataplexy	0.752	1.409	0.679	1.475	0.359
RXHCC395	Stem Cell, Including Bone Marrow, Transplant Status/Complications	2.111	1.083	2.846	1.748	1.120

Variable	Description Label	Community, Non-Low Income, Age≥65	Community, Non-Low Income, Age<65	Community, Low Income, Age≥65	Community, Low Income, Age<65	Institutional
RXHCC396	Heart, Lung, Liver, Intestine, or Pancreas Transplant Status	0.208	-	0.172	-	-
Non-Aged Disease Interactions						
NonAged_RXHCC1	NonAged * HIV/AIDS	-	-	-	-	1.172
NonAged_RXHCC130	NonAged * Schizophrenia and Other Psychosis	-	-	-	-	0.290
NonAged_RXHCC131	NonAged * Bipolar Disorders	-	-	-	-	0.276
NonAged_RXHCC132	NonAged * Depression	-	-	-	-	0.119
NonAged_RXHCC133	NonAged * Anxiety and Other Psychiatric Disorders	-	-	-	-	-
NonAged_RXHCC159	NonAged * Multiple Sclerosis	-	-	-	-	1.315
NonAged_RXHCC163	NonAged * Intractable Epilepsy	-	-	-	-	0.274

NOTE: The Part D denominator used to calculate relative factors is $1,137.46. This Part D Denominator is based on the combined PDP and MA-PD populations.

SOURCE: RTI Analysis of 100% 2018–2019 Medicare Enrollment Data, 2019 Prescription Drug Event (PDE) Data, 2018 Professional Claims (Carrier), 2018 Inpatient Claims, 2018 Outpatient Claims, and 2018 Medicare Advantage Encounter Data.

Table VI-10. RxHCC Model Relative Factors for New Enrollees, Non-Low Income

Variable	Not Concurrently ESRD, Not Originally Disabled	Concurrently ESRD, Not Originally Disabled	Not Concurrently ESRD, Originally Disabled	Concurrently ESRD, Originally Disabled
Female				
0-34 Years	0.857	1.295	-	-
35-44 Years	1.276	1.295	-	-
45-54 Years	1.230	1.295	-	-
55-59 Years	1.230	1.295	-	-
60-64 Years	1.230	1.295	-	-
65 Years	0.482	1.703	1.116	1.703
66 Years	0.510	1.703	1.116	1.703
67 Years	0.528	1.703	1.116	1.703
68 Years	0.559	1.703	1.116	1.703
69 Years	0.584	1.703	1.116	1.703
70-74 Years	0.630	1.703	1.174	1.703
75-79 Years	0.742	1.703	0.950	1.703
80-84 Years	0.770	1.703	0.770	1.703
85-89 Years	0.770	1.703	0.770	1.703
90-94 Years	0.581	1.703	0.581	1.703
95 Years or Over	0.581	1.703	0.581	1.703
Male				
0-34 Years	0.725	1.189	-	-
35-44 Years	1.014	1.189	-	-
45-54 Years	1.159	1.189	-	-
55-59 Years	1.159	1.636	-	-
60-64 Years	1.187	1.655	-	-
65 Years	0.571	1.776	1.041	1.776
66 Years	0.598	1.776	1.041	1.776
67 Years	0.631	1.776	1.041	1.776
68 Years	0.648	1.776	1.041	1.776
69 Years	0.665	1.776	1.041	1.776
70-74 Years	0.747	1.776	1.093	1.776
75-79 Years	0.868	1.776	0.868	1.776
80-84 Years	0.868	1.776	0.868	1.776
85-89 Years	0.868	1.776	0.868	1.776
90-94 Years	0.608	1.776	0.608	1.776
95 Years or Over	0.608	1.776	0.608	1.776

NOTES:

1. The Part D Denominator used to calculate relative factors is $1,137.46. This Part D Denominator is based on the combined PDP and MA-PD populations.
2. Originally Disabled is defined as originally entitled to Medicare by disability only (OREC = 1).
3. For new enrollees, the concurrent ESRD marker is defined as at least one month in the payment year of ESRD status—dialysis, transplant, or functioning graft.

SOURCE: RTI Analysis of 100% 2018–2019 Medicare Enrollment Data, 2019 Prescription Drug Event (PDE) Data, 2018 Professional Claims (Carrier), 2018 Inpatient Claims, 2018 Outpatient Claims, and 2018 Medicare Advantage Encounter Data.

Table VI-11. RxHCC Model Relative Factors for New Enrollees, Low Income

Variable	Not Concurrently ESRD, Not Originally Disabled	Concurrently ESRD, Not Originally Disabled	Not Concurrently ESRD, Originally Disabled	Concurrently ESRD, Originally Disabled
Female				
0-34 Years	1.237	2.141	-	-
35-44 Years	1.800	2.141	-	-
45-54 Years	1.913	2.141	-	-
55-59 Years	1.700	2.141	-	-
60-64 Years	1.645	2.141	-	-
65 Years	1.074	2.226	1.074	2.226
66 Years	0.738	2.226	1.074	2.226
67 Years	0.738	2.226	1.074	2.226
68 Years	0.738	2.226	1.074	2.226
69 Years	0.738	2.226	1.074	2.226
70-74 Years	0.761	2.226	1.074	2.226
75-79 Years	0.755	2.226	0.755	2.226
80-84 Years	0.755	2.226	0.755	2.226
85-89 Years	0.755	2.226	0.755	2.226
90-94 Years	0.561	2.226	0.561	2.226
95 Years or Over	0.561	2.226	0.561	2.226
Male				
0-34 Years	1.074	2.074	-	-
35-44 Years	1.409	2.074	-	-
45-54 Years	1.599	2.074	-	-
55-59 Years	1.457	2.074	-	-
60-64 Years	1.310	2.074	-	-
65 Years	1.008	2.077	1.310	2.077
66 Years	0.703	2.077	1.310	2.077
67 Years	0.666	2.077	1.310	2.077
68 Years	0.619	2.077	1.310	2.077
69 Years	0.619	2.077	1.310	2.077
70-74 Years	0.619	2.077	0.652	2.077
75-79 Years	0.639	2.077	0.655	2.077
80-84 Years	0.624	2.077	0.624	2.077
85-89 Years	0.624	2.077	0.624	2.077
90-94 Years	0.422	2.077	0.422	2.077
95 Years or Over	0.422	2.077	0.422	2.077

NOTES:

1. The Part D Denominator used to calculate relative factors is $1,137.46. This Part D Denominator is based on the combined PDP and MA-PD populations.
2. Originally Disabled is defined as originally entitled to Medicare by disability only (OREC = 1).
3. For new enrollees, the concurrent ESRD marker is defined as at least one month in the payment year of ESRD status—dialysis, transplant, or functioning graft.

SOURCE: RTI Analysis of 100% 2018–2019 Medicare Enrollment Data, 2019 Prescription Drug Event (PDE) Data, 2018 Professional Claims (Carrier), 2018 Inpatient Claims, 2018 Outpatient Claims, and 2018 Medicare Advantage Encounter Data.

Table VI-12. RxHCC Model Relative Factors for New Enrollees, Institutional

Variable	Not Concurrently ESRD	Concurrently ESRD
Female		
0-34 Years	2.882	2.939
35-44 Years	2.882	2.939
45-54 Years	2.882	2.939
55-59 Years	2.437	2.939
60-64 Years	2.437	2.939
65 Years	2.447	2.939
66 Years	2.061	2.939
67 Years	2.061	2.939
68 Years	2.061	2.939
69 Years	2.061	2.939
70-74 Years	1.856	2.939
75-79 Years	1.505	2.939
80-84 Years	1.461	2.939
85-89 Years	1.206	2.939
90-94 Years	0.977	2.939
95 Years or Over	0.977	2.939
Male		
0-34 Years	2.729	2.846
35-44 Years	2.586	2.846
45-54 Years	2.523	2.846
55-59 Years	2.413	2.846
60-64 Years	2.151	2.846
65 Years	2.227	2.846
66 Years	1.873	2.846
67 Years	1.873	2.846
68 Years	1.873	2.846
69 Years	1.873	2.846
70-74 Years	1.873	2.846
75-79 Years	1.699	2.846
80-84 Years	1.464	2.846
85-89 Years	1.246	2.846
90-94 Years	1.246	2.846
95 Years or Over	1.246	2.846

NOTES:

1. The Part D Denominator used to calculate relative factors is $1,137.46. This Part D Denominator is based on the combined PDP and MA-PD populations.
2. For new enrollees, the concurrent ESRD marker is defined as at least one month in the payment year of ESRD status—dialysis, transplant, or functioning graft.

SOURCE: RTI Analysis of 100% 2018–2019 Medicare Enrollment Data, 2019 Prescription Drug Event (PDE) Data, 2018 Professional Claims (Carrier), 2018 Inpatient Claims, 2018 Outpatient Claims, and 2018 Medicare Advantage Encounter Data.

Table VI-13. RxHCC Model with Disease Hierarchies

Rx Hierarchical Condition Category (RxHCC)	If the Disease Group is listed in this column…	…Then drop the RxHCC(s) listed in this column
	Rx Hierarchical Condition Category (RxHCC) LABEL	
15	Chronic Myeloid Leukemia	17, 18, 19, 20, 21 ,22
16	Multiple Myeloma and Other Hematologic Cancers	17, 18, 19, 20, 21, 22
17	Secondary Cancer of Bone and Kidney	18, 19, 20, 21, 22
18	Secondary Cancer of Lung, Liver, Brain, and Other Sites	19, 20, 21, 22
19	Leukemias and Other Hematologic Cancers	20, 21, 22
20	Lung, Kidney, and Other Cancers; Secondary Cancer of Lymph Nodes and Other Sites	21, 22
21	Lymphomas and Other Hematologic Cancers	22
30	Diabetes with Complications	31
40	Alpha-1-Antitrypsin Deficiency	43
41	Lysosomal Storage Disorders	43
42	Acromegaly and Other Endocrine and Metabolic Disorders	43
54	Chronic Viral Hepatitis C	55
65	Chronic Pancreatitis	66
81	Psoriatic Arthropathy	83, 84, 316
82	Systemic Sclerosis	83, 84
83	Rheumatoid Arthritis and Other Inflammatory Polyarthropathy	84
84	Systemic Lupus Erythematosus and Other Systemic Connective Tissue Disorders	317
111	Alzheimer's Disease	112
130	Schizophrenia and Other Psychosis	131, 132, 133
131	Bipolar Disorders	132, 133
132	Depression	133
146	Profound or Severe Intellectual Disability/Developmental Disorder	147, 148
147	Moderate Intellectual Disability/Developmental Disorder	148
157	Chronic Inflammatory Demyelinating Polyneuritis	158
163	Intractable Epilepsy	164
183	Pulmonary Arterial Hypertension	184, 186, 187
184	Pulmonary Hypertension, Except Arterial, and Other Pulmonary Heart Disease	186, 187

Rx Hierarchical Condition Category (RxHCC)	If the Disease Group is listed in this column…	…Then drop the RxHCC(s) listed in this column
186	Heart Failure	187
225	Cystic Fibrosis	229
226	Idiopathic Pulmonary Fibrosis and Systemic Sclerosis with Lung Involvement	227, 229
227	Pulmonary Fibrosis, Except Idiopathic	229
228	Severe Persistent Asthma	229
243	Glaucoma, Open-Angle or Moderate/Severe Stage	244
260	Kidney Transplant Status	261, 262, 263, 396
261	Dialysis Status, Including End Stage Renal Disease	262, 263
262	Chronic Kidney Disease Stage 5	263

How Payments are Made with a Disease Hierarchy
EXAMPLE: If a beneficiary triggers RxHCCs 163 (Intractable Epilepsy) and 164 (Epilepsy and Other Seizure Disorders, Except Intractable Epilepsy), then RxHCC 164 will be dropped. In other words, payment will always be associated with the RxHCC in column 1 if an RxHCC in column 3 also occurs during the same collection period. Therefore, the organization's payment will be based on RxHCC 163 rather than RxHCC 164.

SOURCE: RTI International