April 4, 2022

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

Announcement of Calendar Year (CY) 2023 Medicare Advantage (MA) Capitation Rates and Part C and Part D Payment Policies

In accordance with section 1853(b)(1) of the Social Security Act, we are notifying you of the annual capitation rate for each Medicare Advantage (MA) payment area for CY 2023 and the risk and other factors to be used in adjusting such rates.

CMS received many submissions, including several letter writing campaigns, in response to our request for comments on the Advance Notice of Methodological Changes for CY 2023 MA Capitation Rates and Part C and Part D Payment Policies (CY 2023 Advance Notice), published on February 2, 2022. Commenters included professional organizations, MA and Part D sponsors, advocacy groups, state Medicaid agencies, pharmaceutical manufacturers, pharmacy benefit managers, pharmacies, and interested persons. After considering all comments received, we are finalizing payment policies in the Announcement of CY 2023 MA Capitation Rates and Part C and Part D Payment Policies (CY 2023 Rate Announcement). Our priorities reflect CMS's commitment to protecting our programs' sustainability for future generations and advancing health equity by addressing the health disparities that underlie our health system.

In the CY 2023 Advance Notice, CMS described agency efforts to advance health equity including 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. CMS solicited feedback on these efforts and the role plans can play in meeting these challenges. Commenters expressed support for CMS's focus on promoting health equity. We appreciate the positive comments and feedback and plan to conduct a thorough review of comments to examine further actions CMS might take, including coordinating across programs that CMS oversees, to reduce barriers to health equity.

Additionally, as part of our commitment to advance health equity in the Medicare Advantage Program, we requested input on specific topics. CMS requested input on how to improve Medicare Advantage and Part D Star Ratings, the quality ratings system for Medicare Advantage and Part D plans. CMS also requested feedback on incorporation of factors related to health equity and social determinants of health into risk adjustment models. Finally, we solicited input on considerations when assessing the geographic level of rate setting for End-Stage Renal Disease (ESRD) beneficiaries and potential implications for health equity.

The capitation rate tables for CY 2023 and supporting data are posted on the CMS Ratebooks and Supporting Data website. The statutory component of the regional benchmarks, qualifying counties, and each county's applicable percentage are also posted on this section of the CMS website.

Attachment I of the Rate Announcement shows the final estimates of the National Per Capita MA Growth Percentage for CY 2023 and the National Medicare Fee-for-Service (FFS) Growth Percentage for CY 2023, used to calculate the CY 2023 capitation rates. As discussed in Attachment I, the final estimate of the National Per Capita MA Growth Percentage for combined aged and disabled beneficiaries is 4.89 percent, and the final estimate of the FFS Growth Percentage is 4.75 percent. Attachment II provides a set of tables that summarizes many of the key Medicare assumptions used in the calculation of the growth percentages.

Section 1853(b)(4) of the Social Security Act requires CMS to release county-specific per capita FFS expenditure information on an annual basis, beginning with March 1, 2001. In accordance with this requirement, FFS data for CY 2020 were posted on the above website with the Advance Notice.

Attachment II details the key assumptions and financial information behind the growth percentages presented in Attachment I.

Attachment III presents responses to Part C payment-related comments on the CY 2023 Advance Notice.

Attachment IV presents responses to Part D payment-related comments on the Advance Notice.

Attachment V provides the final Part D benefit parameters and details how they are updated.

Attachment VI presents responses to comments on updates for MA and Part D Star Ratings.

Attachment VII contains economic information for significant provisions in the CY 2023 Rate Announcement.

Attachment VIII shows the 2023 CMS-HCC ESRD and the 2023 RxHCC risk adjustment model relative factors.

Key Updates from the Advance Notice

Growth Percentages: Attachment I provides the final estimates of the National Per Capita MA Growth Percentage and the FFS Growth Percentage, upon which the capitation rates are based, and information on deductibles for MSAs.

Calculation of FFS Costs: The Secretary has directed the CMS Office of the Actuary to adjust the FFS experience for beneficiaries enrolled in Puerto Rico to reflect the propensity of "zero–dollar" beneficiaries nationwide.

Policies Adopted as Described

As in past years, policies in the Advance Notice that are not modified or retracted in the Rate Announcement become effective for the upcoming payment year. Clarifications in the Rate Announcement supersede information in the Advance Notice and prior Rate Announcements as they apply for CY 2023.

MA Benchmark, Quality Bonus Payments, and Rebate: We will continue to implement the methodology, as described in the CY 2023 Advance Notice, used to derive the benchmark county rates, how the qualifying bonus counties are identified, and the applicability of the Star Ratings.

Location of Network Areas for Private Fee-for-Service (PFFS) Plans in Plan Year 2024: The list of network areas for plan year 2024 is available on the CMS Network Requirements website.

Direct Graduate Medical Education (DGME) Carve-out: CMS is finalizing the methodological change for the development of DGME amounts for CY 2023. CMS will use the provider specific file data to estimate county-level amounts instead of the inpatient Medicare cost reports.

Organ Acquisition Costs for Kidney Transplants: CMS is finalizing the methodological change for the development of kidney acquisition carve-out estimates for CY 2023. Similar to the methodology proposed and finalized for the DGME carve-out, the estimates for kidney acquisition costs will rely on the provider specific file data instead of the inpatient Medicare cost reports.

Indirect Medical Education (IME) Phase Out: We will continue phasing out IME amounts from the MA capitation rates.

MA ESRD Rates: We will continue to set MA ESRD rates at the state level and continue to consider options for sub-state rates based on comments received.

MA Employer Group Waiver Plans (EGWPs): We will continue to use the payment methodology as described in the CY 2023 Advance Notice, but with the following finalized bid-to-benchmark ratios for CY 2023 MA EGWP Payment rates, calculated as described in the Advance Notice:

Table 1: Bid-to-Benchmark Ratio Table

Applicable Percentage	Bid to Benchmark Ratio
0.95	80.7%
1	79.8%
1.075	79.7%
1.15	79.8%

CMS-Hierarchical Condition Categories (CMS-HCC) Risk Adjustment Model: For CY 2023, CMS will continue to calculate 100 percent of the risk score for non-ESRD MA enrollees using the 2020 CMS-HCC model, as proposed in the CY 2023 Advance Notice. For CY 2023, CMS will continue to use the 2017 CMS-HCC risk adjustment model and associated frailty factors to calculate risk scores for participants in PACE organizations, as proposed in the CY 2023 Advance Notice.

End Stage Renal Disease (ESRD) Risk Adjustment Models for CY 2023: For CY 2023, CMS will implement updated versions of the CMS-HCC ESRD risk adjustment models to calculate risk scores for MA enrollees with ESRD, as proposed in the CY 2023 Advance Notice. The updated models are segmented by dual status and calibrated using an updated clinical version as well as updated data years. For CY 2023, CMS will continue to use the 2019 CMS-HCC ESRD risk adjustment models to calculate risk scores for participants in PACE organizations with ESRD.

Medicare Secondary Payer (MSP): For CY 2023, CMS will implement an updated MSP factor of 0.136 for working aged/disabled and ESRD functioning graft beneficiaries, and an updated MSP factor of 0.135 for ESRD dialysis/transplant beneficiaries. CMS will continue to apply the MSP adjustment to beneficiary-level payments.

Frailty Adjustment for PACE Organizations and Fully Integrated Dual Eligible Special Needs Plans (FIDE SNPs): For CY 2023, CMS will continue to use the frailty factors associated with the 2017 CMS-HCC model (as displayed in Table II-5 of the CY 2023 Advance Notice) to calculate frailty scores for PACE organizations. We will continue to use the updated frailty factors associated with the 2020 CMS-HCC model (as displayed in Table II-6 of the CY 2023 Advance Notice), which were recalibrated by non-dual, partial-dual, and full-dual eligible status, to calculate frailty scores for FIDE SNPs.

Medicare Advantage Coding Pattern Adjustment: For CY 2023, CMS will continue to apply the statutory minimum MA coding pattern adjustment of 5.90 percent.

Final 2023 Normalization Factors: For CY 2023, CMS will calculate normalization factors for the CMS-HCC and CMS-HCC ESRD risk adjustment models using the same five years of historical risk scores that were used to develop the CY 2022 normalization factor (2016-2020). For CY 2023, CMS will calculate normalization factors for the RxHCC models using updated years in the slope (2016-2020).

- 2020 CMS-HCC model for organizations other than PACE: 1.127
- 2017 CMS-HCC model for PACE organizations: 1.140
- 2023 CMS-HCC ESRD dialysis model for organizations other than PACE: 1.034
- 2019 CMS-HCC ESRD dialysis model for PACE organizations: 1.088
- 2023 CMS-HCC ESRD functioning graft model for organizations other than PACE: 1.048
- 2019 CMS-HCC ESRD functioning graft model for PACE organizations: 1.138
- 2023 RxHCC model for organizations other than PACE: 1.050
- 2020 RxHCC model for PACE organizations: 1.073

Sources of Diagnoses for Part C and ESRD Risk Score Calculation 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 CMS-HCC 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.

RxHCC Risk Adjustment Model: For CY 2023, CMS will implement an updated version of the RxHCC risk adjustment model for organizations other than PACE that includes a clinical update to the RxHCCs based on International Classification of Diseases 10th Revision, Clinical Modification (ICD-10-CM) diagnosis codes, and an update to the data years used to calibrate the model. For PACE organizations, CMS will continue to use the 2020 RxHCC risk adjustment model to calculate Part D risk scores for CY 2023.

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 same method of calculating risk scores under the RxHCC model 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.

Annual Adjustments to Medicare Part D Benefit Parameters for CY 2023: We will update 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) by multiplying the CY 2022 amounts by the CY 2023 annual percentage increase (API) and rounding as specified by the statute.

Reduced Coinsurance for Applicable Beneficiaries in the Coverage Gap: 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-low-income subsidy [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.

Dispensing Fee and Vaccine Administration Fees for Applicable Drugs in the Coverage Gap: For 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.

Part D Calendar Year Employer Group Waiver Plans Prospective Reinsurance Amount: We are maintaining the Part D Calendar Year EGWP prospective reinsurance policy as discussed in the CY 2023 Advance Notice. The average PMPM actual reinsurance amount paid to Part D Calendar Year EGWPs for the most recently reconciled payment year, which for CY 2023 is CY 2020 was $67.56.

Part D Risk Sharing: We will apply no changes to the current threshold risk percentages for CY 2023.

Retiree Drug Subsidy Amounts: We will use the same methodology as in prior years to update the cost threshold and cost limit for qualified retiree prescription drug plans.

/ 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 Rate Announcement. My opinion is limited to the following sections of this Rate Announcement: The growth percentages and United States per capita cost estimates provided and discussed in Attachments I, II and III; the qualifying county determination, calculations of FFS cost, DGME carve-out, kidney acquisition cost carve-out, IME phase out, MA benchmarks, EGWP rates, and ESRD rates discussed in Attachment III; the Medicare Part D Benefit Parameters: Annual Adjustments for Defined Standard Benefit in 2023 described in Attachments IV and V; and the economic information contained in Attachment VII.

/ s /
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Director
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Office of the Actuary
Attachments

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

Table I-1 below shows the National Per Capita MA Growth Percentage (NPCMAGP) for 2023. An adjustment of -1.33 percent for the combined aged and disabled cohort is included in the NPCMAGP to account for corrections to prior years' estimates as required by section 1853(c)(6)(C). The combined aged and disabled change is used in the development of the ratebook.

Table I-1. Increase in the National Per Capita MA Growth Percentages (NPCMAGP) for 2023

	Prior increases	Current increases			NPCMAGP for 2023 with §1853(c)(6)(C) adjustment[1]
	2003 to 2022	2003 to 2022	2022 to 2023	2003 to 2023	
Aged + Disabled	99.752%	97.100%	6.158 %	109.238%	4.75%

[1] Current increases for 2003-2023 divided by the prior increases for 2003-2022.

Table I-2 below provides the change in the FFS United States Per Capita Cost (USPCC), which was used in the development of the county benchmarks. The percentage change in the FFS USPCC is shown as the current projected FFS USPCC for 2023 divided by projected FFS USPCC for 2022 as estimated in the CY 2022 Rate Announcement released on January 15, 2021.

Table I-2. FFS USPCC Growth Percentage for CY 2023

	Aged + Disabled	*Dialysis–only ESRD*
Current projected 2023 FFS USPCC	$1,078.63	$9,332.69
Prior projected 2022 FFS USPCC	1,028.38	8,515.64
Percent change	4.89%	9.59%

Table I-3 below shows the monthly actuarial value of the Medicare deductible and coinsurance for 2022 and 2023. In addition, for 2023, the actuarial value of deductibles and coinsurance is being shown for non-ESRD only, since MA plan bids for 2023 exclude costs for ESRD enrollees. These data were furnished by the Office of the Actuary.

Table I-3. Monthly Actuarial Value of Medicare Deductible and Coinsurance for 2022 and 2023

	2022	2023	Change	2023 non-ESRD
Part A Benefits	$38.58	$38.18	–1.0%	$36.54
Part B Benefits[1]	150.66	154.95	2.8	146.25
Total Medicare	189.24	193.13	2.1	182.79

[1] Includes the amounts for outpatient psychiatric charges.

Medical Savings Account (MSA) Plans. The maximum deductible for MSA plans for CY 2023 is $15,750.

Attachment II. Key Assumptions and Financial Information

The USPCCs are the basis for the National Per Capita MA Growth Percentage. Below is a table that compares last year's estimates of USPCCs with current estimates for 2003 to 2024. In addition, this table shows the current projections of the USPCCs through 2025. We are also providing a set of tables that summarize many of the key Medicare assumptions used in the calculation of the USPCCs. Most of the tables include information for the years 2003 through 2025.

Most of the tables in this attachment present combined aged and disabled non-ESRD data. The ESRD information presented is for the combined aged-ESRD, disabled-ESRD, and ESRD only.

All of the information provided in this attachment applies to the Medicare Part A and Part B programs. 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 Part D prescription drug benefit.

Table II-1. 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	418.18	418.40	788.41	788.80	1.000
2015	373.99	373.99	434.95	435.00	808.94	808.99	1.000
2016	377.61	377.98	444.14	444.17	821.75	822.15	1.000
2017	382.91	383.60	459.08	459.15	841.99	842.75	0.999
2018	388.06	388.62	489.43	489.65	877.49	878.27	0.999
2019	400.21	400.53	521.77	521.81	921.98	922.34	1.000
2020	402.19	400.32	522.62	523.63	924.81	923.95	1.001
2021	412.79	426.59	573.53	574.69	986.32	1,001.28	0.985
2022	447.39	458.19	624.52	628.14	1,071.91	1,086.33	0.987
2023	469.56	464.49	668.36	652.39	1,137.92	1,116.88	1.019
2024	488.33	482.83	707.07	689.40	1,195.40	1,172.23	1.020
2025	509.50		744.57		1,254.07		

Table II-2. 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
2014	364.24	364.24	408.89	408.91	773.13	773.15	1.000
2015	369.37	369.36	427.73	427.79	797.10	797.15	1.000
2016	371.57	372.11	433.36	433.39	804.93	805.50	0.999
2017	373.64	374.66	448.06	448.16	821.70	822.82	0.999
2018	377.84	378.69	473.79	474.12	851.63	852.81	0.999
2019	383.05	383.40	500.77	500.57	883.82	883.97	1.000
2020	372.68	364.08	473.99	468.10	846.67	832.18	1.017
2021	388.34	397.12	546.76	532.57	935.10	929.69	1.006
2022	424.46	434.65	598.85	593.73	1,023.31	1,028.38	0.995
2023	448.03	440.27	630.60	616.33	1,078.63	1,056.60	1.021
2024	465.39	456.98	666.68	650.46	1,132.07	1,107.44	1.022
2025	484.86		701.28		1,186.14		

Table II-3. 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	4,614.18	4,606.77	7,654.92	7,647.28	1.001
2020	3,082.55	2,876.72	4,542.51	4,491.12	7,625.06	7,367.84	1.035
2021	3,264.12	3,109.31	5,025.52	4,788.33	8,289.64	7,897.64	1.050
2022	3,646.65	3,407.39	5,279.76	5,108.25	8,926.41	8,515.64	1.048
2023	3,890.68	3,444.09	5,442.01	5,251.79	9,332.69	8,695.88	1.073
2024	4,057.82	3,579.68	5,648.71	5,445.43	9,706.53	9,025.11	1.076
2025	4,242.66		6,426.56		10,669.22		

Table II-4. Basis for ESRD Dialysis-only FFS USPCC Trend

	Part A			Part B			Part A & Part B		
Calendar year	All ESRD cumulative FFS trend	Adjustment factor for dialysis-only	Adjusted dialysis-only cumulative trend	All ESRD cumulative FFS trend	Adjustment factor for dialysis-only	Adjusted dialysis-only cumulative trend	All ESRD cumulative FFS trend	Adjustment factor for dialysis-only	Adjusted dialysis-only cumulative trend
2021	1.05691	1.00188	1.05890	1.10677	0.99960	1.10633	1.08661	1.00050	1.08716
2022	1.17855	1.00377	1.18300	1.16323	0.99920	1.16230	1.16942	1.00106	1.17067
2023	1.25506	1.00566	1.26216	1.19945	0.99881	1.19802	1.22193	1.00165	1.22395
2024	1.30651	1.00756	1.31638	1.24551	0.99841	1.24352	1.27017	1.00221	1.27298
2025	1.36345	1.00946	1.37635	1.41758	0.99801	1.41476	1.39570	1.00253	1.39923

Table II-5. Summary of Key Projections

Part A[1]

Year	Calendar year CPI percent change	FY inpatient PPS update factor	FY Part A total reimbursement (incurred)
2003	2.2%	3.0%	3.5%
2004	2.6	3.4	8.4
2005	3.5	3.3	8.8
2006	3.2	3.7	5.9
2007	2.9	3.4	5.7
2008	4.1	2.7	7.6
2009	–0.7	2.7	6.7
2010	2.1	1.9	3.0
2011	3.6	−0.6	4.5
2012	2.1	−0.1	0.4
2013	1.4	2.8	4.7
2014	1.5	0.9	0.6
2015	–0.4	1.4	3.3
2016	1.0	0.9	4.3
2017	2.1	0.2	3.9
2018	2.5	1.8	4.0
2019	1.7	1.9	5.5
2020	1.2	3.1	2.9
2021	5.3	2.9	5.5
2022	4.5	2.5	8.3
2023	2.3	3.2	7.7
2024	2.4	2.9	6.9
2025	2.4	3.0	7.0

Part B[2]

Calendar year	Physician fee schedule		Outpatient hospital	ESRD dialysis update factor[5]	Total
	Fees[3]	Residual[4]			
2003	1.4%	4.5%	4.4%		6.8%
2004	3.8	5.9	11.1		9.8
2005	2.1	3.2	10.8		7.0
2006	0.2	4.6	5.1		6.1
2007	-1.4	3.5	8.2		4.3
2008	-0.3	4.0	6.3		4.8
2009	1.4	2.3	5.4		3.9
2010	2.3	2.1	6.6		2.4
2011	0.8	2.3	7.1	2.5%	2.3
2012	-1.2	0.8	7.2	2.1	1.7
2013	-0.1	0.2	7.2	2.3	0.8
2014	0.4	0.6	12.6	2.8	3.4
2015	-0.3	-0.3	7.4	0.0	2.7
2016	-0.4	-0.3	5.2	0.15	1.8
2017	0.1	1.1	7.4	0.55	2.8
2018	0.5	1.1	8.4	0.3	5.8
2019	1.2	2.8	5.4	1.3	5.8
2020	0.2	-11.5	-6.3	1.7	-1.2
2021	4.8	12.3	20.1	1.6	10.0
2022	-1.1	4.2	13.4	1.9	7.2
2023	-2.9	3.5	8.9	1.9	5.7
2024	-0.5	2.8	8.3	2.0	5.5
2025	-0.7	2.2	8.2	2.0	5.5

[1] Percent change over prior year.

[2] Percent change in charges per aged Part B enrollee.

[3] Reflects the physician update and legislation affecting physician services—for example, the addition of new preventive services enacted in 1997, 2000, and 2010.

[4] Residual factors are factors other than price, including volume of services, intensity of services, and age/sex changes.

[5] The ESRD Prospective Payment System was implemented in 2011.

Table II-6. Medicare Enrollment Projections (In millions)

Non-ESRD Total

	Part A		Part B	
Calendar year	Aged	Disabled	Aged	Disabled
2003	34.437	5.961	33.038	5.215
2004	34.849	6.283	33.294	5.486
2005	35.257	6.610	33.621	5.776
2006	35.795	6.889	33.975	6.017
2007	36.447	7.167	34.465	6.245
2008	37.378	7.362	35.140	6.438
2009	38.257	7.574	35.832	6.664
2010	39.091	7.832	36.516	6.938
2011	39.950	8.171	37.247	7.254
2012	41.687	8.411	38.546	7.502
2013	43.087	8.629	39.779	7.732
2014	44.533	8.776	41.063	7.894
2015	45.911	8.853	42.311	7.977
2016	47.370	8.862	43.623	7.990
2017	48.893	8.940	44.944	8.008
2018	50.457	8.696	46.310	7.862
2019	52.120	8.530	47.766	7.735
2020	53.690	8.304	49.220	7.571
2021	54.822	8.030	50.512	7.345
2022	56.320	7.755	51.786	7.105
2023	57.979	7.671	53.359	7.037
2024	59.651	7.726	54.955	7.094
2025	61.312	7.719	56.544	7.087

Non-ESRD Fee-for-Service

	Part A		Part B	
Calendar year	Aged	Disabled	Aged	Disabled
2003	29.593	5.628	28.097	4.875
2004	29.946	5.931	28.300	5.128
2005	30.014	6.178	28.287	5.339
2006	29.362	6.149	27.459	5.270
2007	28.838	6.225	26.782	5.297
2008	28.613	6.241	26.301	5.311
2009	28.563	6.288	26.071	5.374
2010	28.903	6.455	26.261	5.556
2011	29.210	6.659	26.440	5.736
2012	29.960	6.693	26.744	5.779
2013	30.330	6.691	26.948	5.790
2014	30.603	6.618	27.060	5.732
2015	30.947	6.490	27.274	5.610
2016	31.630	6.379	27.815	5.504
2017	31.916	6.300	27.882	5.362
2018	32.168	5.869	27.927	5.029
2019	32.467	5.467	28.018	4.668
2020	32.228	4.940	27.661	4.203
2021	31.214	4.388	26.809	3.699
2022	30.628	3.789	25.973	3.133
2023	30.667	3.483	25.936	2.848
2024	31.152	3.370	26.338	2.733
2025	31.688	3.191	26.800	2.555

ESRD

	ESRD - Total		ESRD - Fee-for-Service	
Calendar year	Total Part A	Total Part B	Total Part A	Total Part B
2003	0.340	0.331	0.319	0.309
2004	0.353	0.342	0.332	0.321
2005	0.366	0.355	0.344	0.332
2006	0.382	0.370	0.353	0.340
2007	0.396	0.383	0.361	0.347
2008	0.411	0.397	0.367	0.353
2009	0.426	0.412	0.374	0.360
2010	0.442	0.428	0.388	0.373
2011	0.429	0.416	0.371	0.358
2012	0.441	0.429	0.379	0.366
2013	0.454	0.441	0.385	0.372
2014	0.469	0.456	0.390	0.377
2015	0.482	0.468	0.393	0.379
2016	0.496	0.481	0.400	0.384
2017	0.511	0.494	0.403	0.386
2018	0.524	0.507	0.404	0.387
2019	0.537	0.518	0.405	0.387
2020	0.538	0.521	0.394	0.376
2021	0.537	0.521	0.334	0.318
2022	0.541	0.527	0.285	0.270
2023	0.550	0.535	0.273	0.258
2024	0.560	0.546	0.269	0.253
2025	0.570	0.555	0.266	0.250

Table II-7. Part A Projections for non-ESRD (Aged+Disabled)*

Calendar year	Inpatient hospital	SNF	Home health agency	Managed care	Hospice: Total reimbursement (in millions)
2003	2,594.78	370.63	124.28	457.87	5,733
2004	2,714.57	413.44	133.89	500.73	6,832
2005	2,818.21	450.54	140.87	602.29	8,016
2006	2,764.82	475.07	141.30	757.25	9,368
2007	2,707.49	504.24	143.72	905.73	10,518
2008	2,695.88	536.68	151.00	1,074.98	11,404
2009	2,651.47	551.67	153.86	1,246.02	12,274
2010	2,627.03	571.74	155.18	1,249.70	13,126
2011	2,585.95	623.31	138.31	1,299.28	13,897
2012	2,489.44	541.69	130.82	1,360.09	15,068
2013	2,485.37	540.47	128.47	1,399.68	15,263
2014	2,424.42	534.37	123.89	1,353.89	15,346
2015	2,408.25	530.99	126.08	1,416.93	16,159
2016	2,426.29	504.84	121.44	1,474.83	17,128
2017	2,403.09	484.69	117.35	1,586.01	18,252
2018	2,378.26	465.66	113.87	1,695.04	19,576
2019	2,337.67	444.43	108.45	1,909.02	21,201
2020	2,149.53	450.88	95.41	2,127.60	22,342
2021	2,128.60	430.92	92.94	2,298.01	23,049
2022	2,218.60	426.07	105.97	2,614.78	24,472
2023	2,260.85	432.13	119.50	2,818.84	26,120
2024	2,303.60	447.80	126.49	2,978.53	28,055
2025	2,359.63	464.81	132.63	3,153.24	30,252

*Average reimbursement per enrollee on an incurred basis.

Table II-8. Part B Projections for non-ESRD (Aged+Disabled)*

Calendar year	Physician fee schedule	Outpatient hospital	Durable medical equipment
2003	1,226.51	364.77	196.96
2004	1,344.01	418.85	195.61
2005	1,397.43	477.65	196.83
2006	1,396.40	497.47	197.78
2007	1,368.35	526.92	195.68
2008	1,367.83	555.09	200.92
2009	1,386.03	587.61	183.61
2010	1,429.74	623.13	183.76
2011	1,459.64	662.97	175.84
2012	1,412.74	697.86	173.70
2013	1,369.67	735.35	152.53
2014	1,351.36	823.34	128.57
2015	1,336.28	876.01	132.77
2016	1,313.76	911.03	120.73
2017	1,293.55	952.81	112.30
2018	1,285.52	999.10	127.14
2019	1,301.26	1,022.44	129.57
2020	1,112.49	915.59	124.16
2021	1,235.71	1,030.84	118.77
2022	1,203.26	1,098.86	119.33
2023	1,161.71	1,156.29	121.92
2024	1,170.57	1,232.65	126.40
2025	1,165.86	1,314.30	130.55

Calendar year	Carrier lab	Physician administered drugs	Other carrier	Intermediary lab
2003	73.73	182.58	147.21	75.18
2004	78.48	195.20	158.78	80.47
2005	82.71	178.77	184.02	84.16
2006	85.59	185.41	175.66	84.51
2007	90.65	186.97	176.55	84.38
2008	94.50	184.43	182.19	85.78
2009	101.60	196.19	176.69	79.19
2010	103.81	196.41	176.03	80.23
2011	103.85	209.50	177.27	83.31
2012	111.73	209.34	183.09	84.64
2013	111.79	216.91	174.96	81.74
2014	117.60	224.56	171.32	55.45
2015	113.99	252.11	172.68	55.26
2016	100.91	271.45	170.66	56.21
2017	100.65	280.51	175.13	54.99
2018	107.29	304.40	173.56	52.85
2019	108.73	326.59	171.44	49.38
2020	107.60	325.40	164.14	51.85
2021	117.62	343.32	161.17	53.94
2022	109.62	376.65	158.77	47.81
2023	107.82	391.22	160.12	45.35
2024	107.45	420.58	163.46	44.36
2025	111.09	444.69	167.09	44.96

*Average reimbursement per enrollee on an incurred basis.

Calendar year	Other intermediary	Home health agency	Managed care
2003	113.99	136.75	421.40
2004	119.58	156.45	471.37
2005	139.78	179.44	560.31
2006	142.09	202.88	769.94
2007	151.16	232.33	931.18
2008	158.20	252.43	1,104.26
2009	187.44	282.09	1,203.79
2010	193.08	283.25	1,221.29
2011	198.15	254.42	1,276.29
2012	205.08	239.36	1,368.13
2013	194.43	234.07	1,497.49
2014	200.51	227.73	1,703.31
2015	210.22	224.84	1,831.10
2016	214.01	219.63	1,938.79
2017	220.81	209.49	2,097.07
2018	228.80	206.98	2,376.04
2019	236.52	202.07	2,703.67
2020	210.75	188.03	3,062.73
2021	221.89	181.82	3,407.72
2022	237.56	206.70	3,925.27
2023	237.41	232.45	4,394.80
2024	245.56	245.69	4,716.27
2025	255.56	257.19	5,031.07

* Average reimbursement per enrollee on an incurred basis.

Table II-9. 2023 Projections by Service Category for non-ESRD (Aged+Disabled)*

Service type	Current estimate	Last year's estimate	Ratio
Part A			
Inpatient hospital	2,260.85	2,353.60	0.961
SNF	432.13	462.12	0.935
Home health agency	119.50	115.96	1.031
Managed care	2,818.84	2,638.66	1.068
Part B			
Physician fee schedule	1,161.71	1,241.48	0.936
Outpatient hospital	1,156.29	1,234.10	0.937
Durable medical equipment	121.92	116.66	1.045
Carrier lab	107.82	100.68	1.071
Physician Administered Drugs	391.22	430.52	0.909
Other carrier	160.12	163.70	0.978
Intermediary lab	45.35	45.56	0.995
Other intermediary	237.41	246.54	0.963
Home health agency	232.45	210.54	1.104
Managed care	4,394.80	4,026.87	1.091

* Average reimbursement per enrollee on an incurred basis.

Table II-10. Claims Processing Costs as a Fraction of Benefits

Calendar year	FFS Part A	FFS Part B	Total Part A	Total Part B
2003	0.001849	0.011194	0.001849	0.011194
2004	0.001676	0.010542	0.001676	0.010542
2005	0.001515	0.009540	0.001515	0.009540
2006	0.001245	0.007126	0.001245	0.007126
2007	0.000968	0.006067	0.000968	0.006067
2008	0.000944	0.006414	0.000944	0.006414
2009	0.000844	0.005455	0.000844	0.005455
2010	0.000773	0.005055	0.000773	0.005055
2011	0.000749	0.004396	0.000749	0.004396
2012	0.001008	0.003288	0.001008	0.003288
2013	0.000994	0.002846	0.000994	0.002846
2014	0.001003	0.002884	0.001003	0.002884
2015	0.000952	0.002730	0.000952	0.002730
2016	0.000852	0.002348	0.000852	0.002348
2017	0.000833	0.002111	0.000833	0.002111
2018	0.000836	0.001953	0.000836	0.001953
2019	0.000699	0.001644	0.000699	0.001644
2020	0.000625	0.001536	0.000625	0.001536
2021	0.001038	0.002708	0.000600	0.001399
2022	0.001038	0.002708	0.000600	0.001399
2023	0.001038	0.002708	0.000600	0.001399
2024	0.001038	0.002708	0.000600	0.001399
2025	0.001038	0.002708	0.000600	0.001399

Approximate Calculation of the USPCC, the National MA Growth Percentage for Combined (Aged+Disabled) Beneficiaries, and the FFS USPCC (Aged+Disabled)

The following procedure will approximate the actual calculation of the USPCCs from the underlying assumptions for the contract year for both Part A and Part B.

Part A: The Part A USPCC can be approximated by using the assumptions in the tables titled "Part A Projections for non-ESRD (Aged+Disabled)" and "Claims Processing Costs as a Fraction of Benefits." Information in the "Part A Projections" table is presented on a calendar year per capita basis. First, add the per capita amounts over all types of providers (excluding hospice). Next, multiply this amount by 1 plus the loading factor for administrative expenses from the "Claims Processing Costs" table. Then, divide by 12 to put this amount on a monthly basis.

Part B: The Part B USPCC can be approximated by using the assumptions in the tables titled "Part B Projections for non-ESRD (Aged+Disabled)" and "Claims Processing Costs as a Fraction of Benefits." Information in the "Part B Projections" table is presented on a calendar year per capita basis. First, add the per capita amounts over all types of providers. Next, multiply by 1 plus the loading factor for administrative expenses from the "Claims Processing Costs" table and then divide by 12 to put this amount on a monthly basis.

The National Per Capita MA Growth Percentage: The National Per Capita MA Growth Percentage for CY 2023 (before adjusting for prior years' over/under estimates) is calculated by adding the USPCCs for Part A and Part B for CY 2023 and then dividing by the sum of the current estimates of the USPCCs for Part A and Part B for CY 2022.

The FFS USPCC: The tables used to calculate the total USPCC can also be used to approximate the calculation of the FFS USPCC. The per capita data presented by type of provider in the projections tables for both Part A and Part B are based on total enrollment. To approximate the FFS USPCCs, first add the corresponding provider types under Part A and Part B separately. For the FFS calculations, do not include the managed care provider type. Next, rebase the sum of the per capita amounts for FFS enrollees, i.e., multiply the sum by total enrollees and divide by FFS enrollees. (The enrollment tables in this attachment now also include FFS enrollment). Then, multiply by 1 plus the loading factor for administrative expenses and divide by 12. The result will only be approximate because there is an additional adjustment to the FFS data which accounts for cost plan data which comes through the FFS data system. This cost plan data is in the total per capita amounts by type of provider, but it is removed for the FFS calculations.

Attachment III. Responses to Public Comments on Part C Payment Policy

Section A. Estimates of the MA and FFS Growth Percentages for CY 2023

Comment: One commenter requested additional information on projected CY 2023 inpatient treatment costs (except for testing) including utilization and unit cost assumptions. The commenter requested that CMS provide more detail around how CMS adjusted COVID-19 treatment claims in 2020 as part of the CY 2023 estimated growth rate, if the inpatient costs could not be split out.

Response: Approximately 0.46 percent of the 2023 USPCC in the Advance Notice of $1,078.12 is estimated to be for COVID-19 related inpatient spending. Similarly, about 3.20 percent of the 2020 FFS USPCC of $848.65 is attributed to COVID-related inpatient spending. We do not have available the corresponding utilization and unit cost assumptions for the COVID-related inpatient admissions. The above impacts are similar based on the USPCCs supporting the CY 2023 Rate Announcement.

Comment: Several commenters asked for additional detail and transparency regarding CMS's COVID-19 model assumptions including the number of inpatient hospitalizations subject to the 20 percent COVID-19 payment bump; ongoing COVID-19 testing and treatment costs; future COVID-19 vaccine costs, including projections for when the government-purchased vaccine and COVID-19 therapeutics will be exhausted; and the expected impact of COVID-19 on utilization of health care services in Medicare more broadly.

Response: For our COVID-19 modeling, we begin with the historical spending for both COVID and non-COVID costs by Medicare service type. Our costs projections are based on (i) projections of the pandemic, (ii) direct costs associated with the testing and treatment of COVID-19, (iii) projections for non-COVID costs, and (iv) costs for the vaccine. Working with the CDC and HHS, we make projections of the number of cases, hospitalizations, and deaths associated with COVID-19. These projections are used to project the direct costs for COVID-19. The 20-percent payment bump for COVID-19 hospitalizations occurs only during the public health emergency. For purposes of our COVID-19 modeling, the public health emergency (PHE) was projected to run through the first half of CY 2022. This assumption for the end of the PHE is strictly limited to the baseline projection and is not a statement of Department policy with respect to the duration of the PHE. Non-COVID costs have been significantly lower than normal and have followed a path that is inversely related to the path of the pandemic. We continue that relationship in the projections. In addition, we have assumed that a portion of the services that have been foregone are deferred until a later date, including CY 2023, and that those deferred services will be more intensive when they do occur. Health care costs associated with Medicare beneficiaries who died with a COVID-19 diagnosis tended to be much more expensive than the average Medicare beneficiary. As a result, the surviving population on average has lower projected per capita spending. We have built this reduction in the average morbidity of the

Medicare population into the estimates using the number of deaths from the projections of the path of the pandemic. We currently project that health care spending patterns will return to pre-pandemic levels in CY 2024, but that the lingering morbidity effects will continue through CY 2028.

Comment: One commenter asked for an estimate for the costs of covering COVID-19 testing, at-home over-the-counter (OTC) COVID-19 tests, and the elimination of cost-sharing for certain testing and testing-related services.

Response: COVID-19 testing given by Medicare providers is a covered Part B service reflected in the direct COVID-19 projection factors supporting the USPCC estimate. At-home OTC COVID-19 tests are not a service covered under Part A or B, and therefore are not included in the USPCC estimate, and corresponding MA ratebook growth rates, and MA organizations are not required to cover such tests. These tests will be available through the recently announced demonstration under which Original Medicare will cover the tests under the demonstration for all Medicare Part B beneficiaries, including MA enrollees. Additional information on the demonstration is available on the Medicare website.

Comment: Some commenters requested more information on the long-term costs associated with COVID-19 and for additional transparency on how the COVID-19 pandemic will impact rate development for CY 2023 and beyond.

Response: Our current projections for the path of the pandemic, which are based in part on actual experience, assume that there will be no more additional hospitalization associated with COVID-19 beginning in CY 2024. As mentioned earlier, the morbidity effect from the deaths from COVID-19 are currently projected to last until CY 2028.

Comment: Two commenters cited COVID-19 vaccine assumptions stated by CMS's Office of the Actuary during the February 4 Advance Notice stakeholder call and asked for further details and support for the assumptions. The OACT speaker had stated the following assumptions underlying the projected CY 2023 cost of a COVID-19 vaccine: 52 percent utilization, $104 per dose cost (including $40 for administration), and 1.4 doses for each utilizer. One of the commenters stated that OACT clarified that the projected vaccine costs are only intended to include the doses paid for by Medicare. The commenter assumed that for those over age 65, a very high percentage would be paid for by Medicare so the assumptions appear low compared to data that we have from the CDC that COVID-19 vaccination data for those aged 65 and over indicates that approximately 90% are fully vaccinated and 65% have received a booster vaccine.

Response: The COVID-19 vaccine costs are a covered benefit under Medicare Part B and can be broken down into the cost of the vaccine itself and the cost for the administration of the vaccine. We developed various scenarios of vaccine utilization which account for a range of assumptions for level of waning immunity, level of virus mutation, and availability of effective therapeutics. We applied weights to the scenarios which results in an estimated vaccine utilization of 52

percent in 2023. Further, we assumed that 92 percent of the vaccines would be covered by Medicare and, on average, the vaccinated beneficiaries will receive 1.4 does in 2023. Finally, we projected an average per dose vaccine cost of $64 and vaccine administration cost of $40 for CY 2023.

The vaccination rate is expected to decrease somewhat over time, reflecting the possibility that the prevalence or the seriousness of COVID-19 will decrease due to changing levels of immunity, virus mutation, and/or the availability of effective therapeutics. We project that immunity will likely last longer as time goes on, and that the frequency/severity of variants will likely decline over time.

Comment: Some commenters stated that COVID-19 had a disproportionate impact by race, ethnicity, and beneficiaries with chronic conditions. One commenter stated that studies have demonstrated higher rates of hospitalization for Medicare beneficiaries based on race and ethnicity and Medicare Advantage covers a more racially diverse population than Medicare FFS.

Response: Thank you for your comment, we appreciate the commenters sharing their concerns. Also, it is worth noting that the MA capitation rates are based largely on FFS experience, subject to certain adjustments directed by statute, and the potential for differences in utilization between the FFS and MA programs is not considered in the MA rate development.

Comment: One commenter requested additional details on how CMS has incorporated the impact of the pandemic in their estimates for the ESRD growth percentage for CY 2023. The commenter noted that COVID-19 has had a significant impact on the costs of care, especially for patients with co-morbidities.

Response: Projection factors supporting the USPCC are the same for services utilized by ESRD and non-ESRD population. Certain services, such as dialysis, are disproportionally used by ESRD population and therefore the COVID-19 projection factors for these services are largely based on ESRD experience.

Comment: Some commenters noted that the CY 2023 Advance Notice does not address CMS estimates of potential costs associated with aducanumab (brand name Aduhelm), a treatment for mild Alzheimer's Disease approved by the Food and Drug Administration (FDA) in 2021. One commenter recognized that CMS's proposed national coverage determination (NCD) for aducanumab (and similar treatments) is not expected until April, but CMS developed cost estimates for coverage when it determined Part B premiums for CY 2022. The commenter stated that is important for MA plans to have a clear understanding of CMS estimates regarding projected costs for this class of treatments to support the plans developing their CY 2023 bids and in assessing the implications of the final NCD. A second commenter asked CMS to clarify the implications for cost estimates if a final Medicare NCD allows relatively broad Medicare access to aducanumab.

Response: In both the 2023 Advance Notice and 2023 Rate Announcement, the USPCC projections are consistent with the proposed NCD issued on January 11, 2022, for Food and Drug Administration (FDA) approved monoclonal antibodies that target amyloid for the treatment of Alzheimer's disease. The projected cost associated with Aduhelm was modeled on the proposed NCD's policy to cover Aduhelm directed against amyloid for the treatment of Alzheimer's disease under Coverage with Evidence Development in CMS-approved randomized controlled trials that satisfy the coverage criteria specified in the proposed NCD and in trials supported by the National Institutes of Health (NIH). In the USPCCs supporting both the 2023 Advance Notice and 2023 Rate Announcement, the 2023 FFS spending for these treatments was estimated to be $106 million based on the proposed NCD. CMS will provide additional information if the provisions of the final NCD are significantly different from those of the proposed NCD.

Comment: Two commenters noted the increase in 2020 and 2023 FFS UPSCC projections from the CY 2022 Rate Announcement to the CY 2023 Advance Notice and asked for the specific drivers of the increases and if the differences are due to any methodological changes or data corrections.

Response: There were no meaningful changes in methodology or data sources in the modeling supporting the projection of the USPCCs for the CY 2022 Rate Announcement, the CY 2023 Advance Notice, and the CY 2023 Rate Announcement. Each subsequent exercise is based on updated economic forecasts and revisions to COVID-19 model factors to reflect emerging experience.

Comment: One commenter asked for an explanation of how each published forecast (Advance Notice and Rate Announcement) is developed, including the types/sources of data and methodologies used for each and differences among the forecasts.

Response: All recent forecasts of USPCCs are based on similar data sources and projection methodology. The primary driver of differences in the projections are due to updated historical data, related projection factors, and economic assumptions.

Comment: Some commenters acknowledged the new section in the CY 2023 Advance Notice, Data and Assumptions Supporting USPCCs, and stated their appreciation for the additional detail and descriptions regarding the development of the USPCCs and ratebook growth rates.

Response: We thank the commenters for their support.

Comment: One commenter expressed that page 9 of the CY 2023 Advance Notice states that 2019 National Claims History (NCH) data was used as the base year for projected FFS USPCCs for most services. They asked whether more recent data was not used because of COVID-19 effects or whether 2019 was the most recent data that could be compiled and analyzed for purposes of MA rate setting.

The commenter also noted that on pages 9 and 10 of the CY 2023 Advance Notice it is stated that historical MA expenditures are tabulated from Monthly Membership Report (MMR) and that projected expenditures used 2020 as the base year, while also including information from CY 2021 and CY 2022 MA bids. They read this to mean that CMS starts with CY 2020 MMR and uses CYs 2021 and 2022 MA Bid Pricing Tool (BPT) data to project CMS payments into the future.

Response: CY 2019 NCH experience represents the last year of pre-pandemic experience, which allows for a projection base excluding effects of COVID-19. Accordingly, CY 2019 experience was used as the base in the USPCC projections supporting the CY 2022 Rate Announcement, the CY 2023 Advance Notice, and the CY 2023 Rate Announcement. As stated earlier, the projections from 2019 to 2023 include factors to represent the impact of COVID-19 on program expenditures.

For the Medicare Advantage projections, 2020 was used as the base experience year since the expenditure data is mostly complete, and the results are more current than 2019. Since MA payments are capitated based in part on projected bids, the pandemic has less of an impact on MA expenditures when compared to FFS expenditures. Therefore, the commenter has the correct interpretation that the MA USPCC projection uses the CY 2020 MMR as the base year and is trended using CY 2021 and CY 2022 MA BPT data.

Comment: One commenter suggested that the growth percentage incorporate rate changes in Medicare made outside the traditional rate setting process such as Congressional increases to the Inpatient Prospective Payment System weighting factor of the assigned Diagnosis-Related Group for COVID-19, and the Physician Fee Schedule (PFS) rate increase. The commenter stated that while changes to PFS reimbursement affect FFS most directly, they also affect MA plans. For example, MA plans are required to reimburse providers at FFS rates for out-of-network services.

The commenter further stated that unexpected changes in PFS payment rates, such as the 3.75% update, which was instituted after MA benchmark amounts for CYs 2021 and 2022 were calculated, and the 3% update for CY 2022 pose operational challenges for MA plans and result in unanticipated costs that may not be captured in MA benchmarks for the given plan year. The commenter stated that changes outside of the rate setting process undermine the stability of the program, which could result in fewer benefits and higher costs for beneficiaries.

Response: CMS's longstanding practice has been to base the projected growth percentage on the law as it exists on the date of the announcement of the payment rate update. Section 1853(c)(6)(A) of the Social Security Act requires that the growth percentage reflect the Secretary's estimate of the projected per capita rate of growth in expenditures "under this title." Our longstanding position has been that the best reading of this statutory language is that the growth percentage should be based on the provisions of "this title" (Title XVIII) as of the date that the rates are announced. By using current law as the basis for the projection, any judgment

regarding the likelihood or implications of unknown possible law changes is removed. CMS has consistently used this approach, except for limited situations where assuming an expected change in the Medicare statute was a more reasonable approach in light of the totality of the circumstances. This was done in the 2014-2016 Rate Announcements where the Secretary directed the Office of the Actuary to assume that Congress would act, as it had for years 2003 through 2015, to prevent a significant reduction in Medicare physician payment rates (i.e., the statutory "sustainable growth rate" (SGR)). Subsequently, the Medicare Access and Children's Health Insurance Program Reauthorization Act of 2015 did eliminate the SGR.

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

Comment: Several commenters expressed concern that the rate prior to the enactment of the Patient Protection and Affordable Care Act (ACA) rate cap limits health plans' ability to improve coverage for enrollees including adding supplemental benefits and reducing cost sharing. One commenter stated that the caps hamper plans' ability to support equity.

Commenters suggested that we review our options for exercising discretionary, regulatory, and/or demonstration authority to eliminate the cap or to remove quality bonuses from the cap calculation and reward high performing plans. Two commenters referred to legal analyses provided to CMS in previous years regarding this issue that showed that they believed such changes were legally permissible.

Response: As we have stated in response to similar comments in prior Rate Announcements, while we appreciate the commenters' concerns, we have not identified discretion under section 1853(n)(4) of the Act to eliminate application of the pre-ACA rate cap or exclude the bonus payment from the cap calculation.

Section C. Calculation of Fee-for-Service Costs

Comment: One commenter requested that CMS carve the UCP (uncompensated care payments) out of the county benchmarks, similar to the exclusion of DGME expenditures from FFS costs used for setting MA rates. The commenter stated that plans serving duals are disadvantaged in an area with high UCP because members disproportionately rely on safety net providers.

Response: DGME is carved out of the MA rates in accordance with Section 1853(c)(1)(D)(i) of the Act. There is no statutory directive to carve out UCP from the FFS costs used to develop MA capitation rates and therefore, we have not identified discretion under the law to exclude UCP from MA rate development.

Comment: One commenter expressed concern with our proposal to limit our adjustment of the average geographic adjustments (AGAs) for Innovation Center payment and service delivery models to those listed in Table B1-1 of the CY 2023 Advance Notice, and with the proposed

exclusion of certain payments under those models (e.g., care management fees) that are funded through the Innovation Center rather than the Medicare Part A or B Trust Funds.

The commenter recommends that CMS reconsider its policy of excluding models in its adjustment of the AGAs to the extent the models involve payments such as bonuses and care management fees funded through the Innovation Center. The commenter suggests that instead, CMS should apply the "actual spending impact" of any demonstrations and payment models in its adjustment of the AGAs, including care management fees and other spending amounts not reflected in shared savings/losses. The commenter also asks that CMS publish a list of all Innovation Center models that are financed, in whole or in part, outside of the Medicare Trust Funds, including the projected annual payments made through such models that do not originate from the trust funds.

Response: As explained on page 29 of Part II of the CY 2023 Advance Notice, we considered adjusting the FFS claims experience for care management fees, per-beneficiary-per-month fees, and/or advance payment of shared savings paid using the Innovation Center appropriation instead of the Medicare Part A or B Trust Funds for other Innovation Center models conducted in the 2015–2019 period. However, in continuing prior policy, we will not take fees of this type into account in our adjustments to historical FFS experience when they were not funded under Medicare Part A or B Trust Funds.

As we discussed on page 20 of the CY 2018 Advance Notice, the fees paid from administrative accounts authorized by section 1115A of the Act are not from the Parts A and B Trust Funds, from which Medicare claims are disbursed, so we do not consider those payments to be part of FFS costs. Per section 1853(c)(1)(D)(i) and (n)(2)(F) of the Act, CMS uses the "adjusted average per capita cost for the year involved, determined under section 1876(a)(4) [of the Act]" as the base payment amount for setting MA rates. Section 1876(a)(4) indicates that FFS costs used for MA rates are based on the estimated amount that would be payable for services covered under Parts A and B, and types of expenses otherwise reimbursable under Parts A and B (including administrative costs incurred by organizations described in sections 1816 and 1842). As these costs described in section 1876(a)(4) of the Act are paid from the Trust Funds, excluding costs paid from another appropriation is appropriate to determine FFS costs. *See also* sections 1817 and 1841 of the Act. In addition, section 1853(f) of the Act indicates that payments to MA organizations shall be made from the Trust Funds "in such proportion as the Secretary determines reflects the relative weight that benefits under Part A and under Part B represents of the actuarial value of the total benefits under this title." Therefore, we will not make an adjustment to historical FFS claims to account for payments made from the funds appropriated under section 1115A.

Additionally, we appreciate the suggestion to compile a complete list of all Innovation Center models that are financed, in whole or in part, outside of the Medicare Trust Funds, including the projected annual payments made through such models that do not originate from the model

funding. A listing of all Innovation Center models and corresponding payments and funding for fiscal years 2010–2020 is contained on pages 136–143 of the 2020 Report to Congress, Center for Medicare and Medicaid Innovation

Comment: Some commenters requested CMS to consider providing in the Advance Notice more transparency in the methodology, and thus ability for feedback, for rebasing given the regional variations in pandemic impacts.

Response: We appreciate the request for transparency and believe that we have been responsive to stakeholders' interest in understanding and analyzing the rebasing methodology. Starting with the CY 2020 Advance Notice, CMS has published with each Advance Notice the latest FFS cost data by county used in the development of the non-ESRD ratebooks. For the CY 2019 Advance Notice and prior, this FFS cost data was released at the same time as the Rate Announcement on the FFS Data (2015-2020) webpage. The accelerated release of the FFS experience allows stakeholders to conduct basic analyses of the impact of recent program experience on the geographic adjustments supporting the rates.

Additionally, we will consider providing additional information supporting the impact of proposed rebasing in future Advance Notices.

Comment: Two commenters suggested that the impact of rebasing county FFS rates for CY 2023 reveals a much larger, negative impact in Florida than in most other states.

Response: We annually provide a tool and corresponding glossary, *Medicare FFS county 20XX web.xlsm*, which provides stakeholders with means to replicate the FFS rate development. This file is available on the CMS Ratebooks & Supporting Data webpage. Additionally, for the past two years, we have published in the respective Rate Announcements a demonstration of the rebasing impacts in specific counties in Florida. Using these two illustrations as an example, in conjunction with the spreadsheet *Medicare FFS county 20XX web.xlsm*, stakeholders are able to analyze the drivers of changes in FFS rates for specific counties from one ratebook to another. Finally, our analysis of the rate development for Florida counties reveals that there is not a disproportionately negative impact of changes in the AGAs from 2022 to 2023.

Comment: Many commenters requested that we calculate FFS spending using only claims and utilization data for beneficiaries enrolled in both Part A and Part B (rather than based on such data for beneficiaries in Part A and/or Part B, as is the practice today) because they believed that would be a more accurate, reasonable, appropriate, and/or equitable methodology. Some commenters cited MedPAC's support of benchmarks calculated based on FFS data for beneficiaries with both Part A and Part B.

Some commenters pointed out that in order to enroll in an MA plan, beneficiaries are required to be enrolled in both Part A and Part B. Several commenters expressed that the MA benchmark can only represent what an MA enrollee would cost in Medicare FFS, as required, if based on the

Medicare FFS costs of only beneficiaries eligible for enrollment in MA. One commenter suggested that the current approach fails to adequately determine the cost of providing a benefit to MA enrollees that is comparable to the cost of providing the benefit under FFS. One commenter expressed that an adjustment is required to have USPCCs reflective of MA beneficiaries, especially as the percentage of Part A-only enrollees continues to increase year over year.

Many commenters noted that beneficiaries enrolled only in Part A had utilization and cost patterns that differ from beneficiaries enrolled in both Part A and Part B, and requested excluding Part A-only beneficiaries from the methodology to ensure rate adequacy.

One commenter noted that Part A-only enrollment varies by county, whereby certain counties are disproportionately impacted, and expressed concern regarding the changes in MA penetration and Part A-only enrollment over time.

One commenter expressed that the use of FFS experience for those who are enrolled in both Parts A and B would improve consistency between the population from which benchmarks are primarily derived and that to which they are applied—resulting in a more accurate, more actuarially sound, and more equitable methodology than CMS currently uses.

Response: We refer commenters to the detailed response that we provided in the CY 2020 Rate Announcement regarding use of FFS data for costs of all Medicare beneficiaries, whereby CMS concluded that it finds the current ratebook methodology (our longstanding policy of considering costs of beneficiaries with Part A and/or Part B) is within our authority under the statute. We continue to believe that it is not necessary to change the methodology at this time, nor is it required as the statutory language clearly permits CMS to include Medicare beneficiaries who have Part A or Part B only. While we recognize that calculating rates based on data that excludes beneficiaries entitled only to Part A would yield different results than calculating rates based on our current methodology, that fact alone does not determine which methodology should be employed.

With respect to Puerto Rico, we have discussed in past Advance Notices and Rate Announcements that 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. As a result, we believe it is appropriate to adjust the FFS rate calculation for Puerto Rico used to determine MA rates so that it is based only on the Medicare costs for beneficiaries with both Part A and Part B. Our exercise in discretion for the data used to develop the estimate for one geographic area, based on circumstances unique to that area, illustrates how there is more than one way to develop a reasonable and reliable adjusted average per capita cost estimate for purposes of the MA statute.

We appreciate the suggestions submitted by commenters, and we will continue to analyze this issue and consider whether any adjustments to the methodology on this point may be warranted

in future years. For CY 2023 we will continue to calculate FFS spending for the purpose of establishing MA benchmarks using FFS claims and utilization data for beneficiaries in Part A and/or Part B.

Puerto Rico

Comment: Some commenters stated their support for CMS's continued inclusion of the zero claims adjustment in the final rate announcement to reflect the higher proportion of zero-claimants in FFS experience for Puerto Rico beneficiaries.

Response: CMS appreciates the support.

Comment: Several commenters stated their support for the CMS's interpretation of sections 1853(o)(3)(B) and 1853(c)(1)(B) of the Act with regard to Puerto Rico counties that would have had an urban floor county rate. One result of this interpretation is that more counties in Puerto Rico will continue to qualify for a double bonus. A few commenters suggested we expand criteria for certain double bonus counties. A commenter encouraged CMS to base the calculation on the entire Puerto Rico territory rather than municipalities that fall within a Metropolitan Statistical Area (MSA).

Response: CMS appreciates the support. Section 1853(o)(3)(B) of the Act sets forth the criteria for determining a qualifying county for purposes of the Quality Bonus Payment (QBP). As discussed in the CY 2018 Rate Announcement, we reevaluated our interpretation of section 1853(o)(3)(B) of the Act and how it refers to capitation rates based on "the amount specified in subsection (c)(1)(B)" for an MSA. While we were able to reevaluate whether this reference includes those counties in Puerto Rico that would have had an urban floor county rate, but for the cap established under section 1853(c)(1)(B)(iii)(II), we do not have discretion to classify a county as a qualifying county if it does not meet the statutory criteria in section 1853(o)(3)(B) of the Act. The counties in Puerto Rico that are not classified as qualifying counties do not meet the criterion that a qualifying county's MA capitation rate for CY 2004 was based on the amount specified in section 1853(c)(1)(B) of the Act for a Metropolitan Statistical Area with a population of more than 250,000.

Comment: Commenters expressed concern regarding the disparity between payment rates in Puerto Rico and payment rates in the mainland. Commenters urged us to explore all potential options to increase MA benchmark rates in Puerto Rico, to achieve greater parity with rates on the mainland.

A commenter recommended CMS consider excluding the 2020 data year from the analysis if including 2020 would result in a smaller average geographic adjustment to the MA benchmark rates for Puerto Rico in CY 2023 than prior years. A few commenters requested that we consider additional rate adjustments for Puerto Rico, including establishing an AGA minimum/floor (e.g., applying an AGA of 0.70) or applying a hold harmless minimum benchmark.

A few commenters recommended that we adjust the MA benchmarks in Puerto Rico to account for the proportion of dually-eligible beneficiaries in Puerto Rico. The commenters stated that these adjustments are needed to ensure adequate payments, particularly in light of the additional challenges created by the pandemic to avoid further exacerbating disparities. Another commenter strongly urged CMS to apply an adjustment to account for the large number of Puerto Rico beneficiaries with no Part A or B claims.

Response: We appreciate the concerns and recommendations commenters have raised regarding Puerto Rico. We will continue to analyze these issues and consider whether any refinements to the methodology may be warranted in future years. 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 costs, 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 MA benchmarks. Note that, as discussed on pages 20-21 in Part II of the CY 2022 Advance Notice, the repricing adjustments reflect the applicable geographic practice cost index (GPCI) and wage indices used in Medicare FFS, and, therefore, these factors are reflected in the development of the MA rates. Similarly, the CY 2023 repricing adjustments for Puerto Rico and other areas reflect the applicable geographic practice cost index (GPCI) and wage indices used in Medicare FFS. As we stated in the CYs 2017 and 2018 Rate Announcements, we believe that the FFS data in Puerto Rico is sufficient for establishing accurate MA benchmarks.

Section D. Direct Graduate Medical Education

Comment: A commenter supports the proposal's new methodology and believes it will result in more accurate rate-setting and also supports the delivery of high-quality care to Medicare Advantage enrollees living in areas with academic medical centers.

Response: We appreciate the support.

Section E. Organ Acquisition Costs for Kidney Transplants

Comment: Some commenters expressed support for the new methodology as detailed in the CY 2023 Advance Notice and appreciate CMS's effort to standardize the carve-out methodology and the explanation provided throughout Section C (Direct Graduate Medical Education and Organ Acquisition Costs for Kidney Transplants), pages 31-35, in Part II of the CY 2023 Advance Notice.

Response: We appreciate the support.

Comment: Some commenters expressed concern with the proposed methodology changes for the kidney acquisition cost (KAC) amounts. They believe that since the removal of kidney acquisition costs from MA benchmarks is a relatively new payment policy first implemented in 2021, plans are still gaining experience with the impact of the carve-out on ESRD payment rates. Moreover, accounting for the additional proposed changes to the DGME exclusion, as well as

county rebasing, and varying impacts of the COVID-19 pandemic on growth rates, they believe this could potentially lead to very large changes in MA benchmarks for some counties in CY 2023. These commenters strongly recommend that CMS monitor the net impact of proposed payment changes over time and take steps to limit large decreases in county benchmarks that may result from such changes. In addition, the commenters recommend that CMS monitor the impact of the KAC carve-out on MA enrollees' access to transplants to ensure that transplantation policy goals are met. Commenters support further refinements to the KAC carve-out methodology.

Response: We appreciate the concerns commenters have raised regarding the impact of the combination of several adjustments to the rates, including the methodology of estimating kidney acquisition costs, and will continue to monitor these amounts to determine the most accurate methodology for these adjustments.

Section F. MA ESRD Rates

Comment: The majority of commenters expressed concern that ESRD state rates are not sufficient to cover the cost of care of beneficiaries with ESRD. The commenters requested that CMS reexamine the methodology to improve the accuracy of MA ESRD benchmarks and payment, especially given the statutory change that allows beneficiaries with ESRD to directly enroll into MA plans.

Some commenters stated that the growing population of beneficiaries with ESRD enrolling in MA plans can be directionally positive by providing important options for care coordination and necessary supplemental benefits to treat kidney failure. However, the commenters also highlighted the potential consequences of inadequate rates, including the adoption of a less attractive network and benefit designs to discourage beneficiaries with ESRD from enrolling in MA, inhibited ability to deliver high quality care and services, increased premiums, and more burdensome prior authorization requirements. One commenter stated support for ongoing research into alternative methodologies for MA ESRD rate setting that would avoid disincentivizing MA plans from enrolling beneficiaries with ESRD.

Some commenters also noted that the potential for increased kidney damage resulting from COVID-19 necessitates another review of the current state-based MA ESRD payment benchmarks.

Response: CMS appreciates the comments regarding MA ESRD payment adequacy given the increased enrollment into MA plans by beneficiaries with ESRD. CMS continues to analyze these issues and consider whether, consistent with the statutory requirements for setting 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.

In regards to the comment that MA plans might adopt a less attractive network and benefit designs to discourage beneficiaries with ESRD from enrolling in MA plans, please refer to the

CY 2021 final rule 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 (CMS-4190-F) (85 FR 33796), which appeared in the Federal Register on June 2, 2020, which addresses dialysis provider concentration and network adequacy requirements. CMS notes that MA organizations must maintain a network of contracted providers that is sufficient to provide adequate access to covered services to meet the needs of populations served and is consistent with the prevailing community pattern of health-care delivery in the areas where the network is being offered. In accordance with the beneficiary protections under section 1852(b) and at § 422.112(a), CMS expects that MA plans will continue to ensure that their plan designs allow for adequate access to covered services.

CMS will continue to monitor and investigate complaints related to plan coverage to determine if an MA organization has designed its plan benefits to substantially discourage enrollment by certain MA eligible individuals by denying, limiting, or conditioning coverage of benefits for beneficiaries. If warranted, CMS may take compliance or enforcement actions against an MA organization for failing to meet any contract requirements, such as providing adequate access to medically necessary services. We note that, through our normal process of updating the growth percentages between the CY 2023 Advance Notice and the CY 2023 Rate Announcement, the ESRD growth percentage is now 9.59%.

Comment: A majority of commenters, citing the CMS and OACT analysis in the CY 2023 Advance Notice, questioned the potential use of core based statistical area (CBSA) MA ESRD rate setting given the possible impact on rural and medically underserved areas. Specifically, they expressed concerns that reduced payments for rural and medically underserved areas, relative to urban areas, may have negative impacts on promoting health equity. The commenters cited a need for more vetting and transparency prior to applying a new methodology for setting ESRD rates.

Many commenters stated their appreciation that CMS conducted an analysis on setting MA ESRD rates at smaller geographic areas. The commenters believe that state-level MA ESRD rate setting creates underpayment and lower quality care that is compounded by a growing MA ESRD beneficiary population. A few commenters suggested that a change in the MA ESRD payment methodology toward smaller geographic areas could reduce health disparities among beneficiaries with ESRD that live in urban or metropolitan areas relative to those that live in more rural areas of a state.

A few of the commenters, citing independent research, noted that many of the top metropolitan statistical areas (MSA) with the most beneficiaries with ESRD had FFS ESRD costs that exceeded the MA payment rate. The commenters also stated that MSA-level MA ESRD rates in some states can vary greatly relative to state-wide averages. Some of the commenters suggested that CMS update sub-state level analyses to model the implications of setting ESRD rates at the

MSA level. The commenters requested that CMS work with stakeholders on any future research and analysis on changes to the MA ESRD payment methodology.

Several commenters, citing studies by CMS and other independent entities, stated concerns that CBSA or other sub-state level MA ESRD rate setting may adversely impact rural and medically underserved areas. The commenters suggested CMS conduct an analysis that includes applying an adjustment to rural and medically underserved areas to ensure MA plans build adequate networks in those areas.

A commenter suggested CMS perform an analysis on the Kidney Care Choices Models, where CBSAs are currently used, before committing to applying this sub-state level to MA ESRD rates.

Most of the commenters supported CMS not adopting an alternative MA ESRD rate methodology based on sub-state level rate setting for CY 2023. The commenters recommended CMS continue to research using alternative geographic areas for MA ESRD rates and to work with stakeholders on any future updates to MA ESRD rate policy.

Response: CMS appreciates the comments, recommendations, and concerns regarding the analysis on developing MA ESRD rates at a sub-state level. CMS agrees with commenters that significant changes to the current methodology should be fully examined prior to implementation. Proposed changes to the MA ESRD rate methodology must be included in the Advance Notice and subject to public notice and an opportunity to comment before such changes are adopted, consistent with section 1853(b) of the Act. CMS will continue to analyze and consider alternatives to the current MA ESRD rate methodology, consistent with our authority under section 1853(a)(1)(H) of the Act, taking into consideration the commenters' concerns and recommendations.

Comment: Commenters provided additional suggestions for revisions to ESRD benchmarks and payment.

Many commenters stated concerns that the maximum out-of-pocket (MOOP) limit is a factor contributing to underpayment for beneficiaries with ESRD. Some commenters believe these higher plan costs resulting from the MOOP as applied to enrollees with ESRD will be shifted onto beneficiaries without ESRD through higher premiums for all enrollees and reduced supplemental benefits. Numerous commenters suggested that CMS revise the MOOP limits in the 2023 Rate Announcement to more fully account for the higher costs of ESRD enrollees and to establish a transition to include 100% of expected ESRD enrollee costs in the MOOP. Some of these commenters believe that CMS has the statutory authority under the 21st Century Cures Act to adjust MA ESRD rates to reflect the impact of MOOP. The commenters recommended CMS analyze adjusting benchmarks to account for the MOOP and update the BPT accordingly.

Another commenter recommended CMS quantify the impact of uncompensated care in the MA ESRD rate methodology and work with MA plans and providers to ensure the methodology accurately takes into account uncompensated care.

A commenter recommended CMS use more recent data to reflect CY 2022 wage indices and to re-tabulate physician claims with the CY 2022 GPCIs to address increases in pandemic labor costs.

Another commenter requested that CMS examine the possibility of the inclusion of QBP percentage for the ESRD benchmarks for 4+ star MA plans. The commenter stated that currently, MA plans do not receive quality bonus payments for coordinating care for this high-cost population. The commenter stated that the statute provides that the quality incentive payment should be applied at the contract or plan level, indicating that MA ESRD membership should be included when increasing benchmarks for quality. The commenter also suggested that the benchmark cap be calculated exclusively using ESRD data for ESRD benchmarks.

Response: While we appreciate the suggestions of commenters, we do not find these specific suggestions to be consistent with our interpretation of section 1853 of the Act as a whole. As explained in the CY 2012 Advance Notice and CY 2012 Rate Announcement, CMS interprets the legislative changes made by the Affordable Care Act to MA payment to indicate that all MA payment rates, including the separate rates of payment for ESRD enrollees, should closely align with fee-for-service costs.

CMS does not have authority to use the Rate Announcement to change the benefit parameters required for MA plans; please note that CMS proposed to codify its methodology, with changes, for setting the MOOP limits each year for MA plans in the proposed rule titled "Medicare and Medicaid Programs; Contract Year 2021 and 2022 Policy and Technical Changes to the Medicare Advantage Program, Medicare Prescription Drug Benefit Program, Medicaid Program, Medicare Cost Plan Program, and Programs of All-Inclusive Care for the Elderly," which appeared in the Federal Register on February 18, 2020 (85 FR 9002). CMS expects to release information regarding MOOP limits prior to CY 2023 bid submissions.

In regards to the commenter's recommendation for CMS to add a QBP percentage to MA ESRD benchmarks, section 1853(o) of the Act is clear that the QBP is applied to the applicable percentage used to calculate the applicable amount under section 1853(n) of the Act, while ESRD rates are set pursuant to section 1853(a)(1)(H) of the Act (that is, ESRD rates are not set under subsection (n)).

CMS will consider the commenters' request for CMS to ensure proper payment adequacy by reviewing how the MA ESRD rate methodology addresses uncompensated care and increased pandemic-related labor costs. CMS will continue to analyze these issues and consider whether, consistent with the statutory requirements for setting ESRD rates in section 1853(a)(1)(H) of the Act, any refinements to the methodology may be warranted in future years.

Comment: A few commenters recommended CMS make changes to the BPT so that the ESRD subsidy falls under Medicare-covered benefits instead of under Mandatory Supplemental benefits. Some commenters believe that CMS should eventually eliminate the ESRD BPT filing requirement.

Response: We appreciate the suggestions submitted by commenters. Section 1853(a)(1)(H) of the Act authorized CMS to establish "separate rates of payment" with respect to beneficiaries with ESRD enrolled in MA plans. In setting such separate rates, CMS has established an approach for paying MAOs for enrollees with ESRD that directly use the rates, rather than bids. As such, the ESRD rates are intended to be the base rate for enrollees with ESRD, and these costs cannot be paid under the rates used in the bids to determine payment for non-ESRD beneficiaries. Therefore, the ESRD subsidy that is permitted in plan bids for non-ESRD beneficiaries will remain as a Mandatory Supplemental benefit. At this time, CMS does not find it necessary to require that MA plans submit A/B bids for beneficiaries with ESRD. Regarding the commenter requesting that CMS eliminate the ESRD BPT filing requirement, CMS notes that MA plans are not required to submit ESRD BPTs (with the exception of ESRD C-SNPs).

Comment: Some commenters suggested that CMS expand access by allowing MA plans to participate in the Innovation Center's kidney demonstration models, expand the list of Chronic Condition-SNP (C-SNP) conditions to include patients with chronic kidney disease (CKD), explore ways to incentivize dialysis in multiple venues, and modernize the Conditions for Coverage (CfC) to support access to home dialysis.

Response: CMS notes that potential demonstrations are outside the scope of this document.

Comment: Commenters suggested that the underlying ESRD Prospective Payment System (PPS) does not adequately cover the costs of care for beneficiaries and leads to the development of inadequate MA ESRD rates. As noted in similar comments from prior years, a commenter reiterated the concern that MA ESRD rates are suppressed largely by policies that inappropriately constrain reimbursement under the ESRD PPS. The commenter cited examples such as application of an expanded set of case-mix adjusters and an outlier payment pool that has not achieved parity that they believe have resulted in inadequate payments. This commenter appreciated that CMS sought feedback in the CY 2022 ESRD PPS proposed rule, but noted that underpayments continue from ESRD PPS policies that flow directly into the MA rate setting process, undermining the adequacy of plan payments for beneficiaries with ESRD.

Response: CMS appreciates the feedback provided by commenters regarding the ESRD PPS and its relationship to the development of the MA ESRD rates. Section 1853(a)(1)(H) of the Act authorized CMS to establish "separate rates of payment" with respect to beneficiaries with ESRD enrolled in MA plans. In accordance with the authority provided under section 1853(a)(1)(H), and in keeping with CMS's interpretation of the ACA to more closely align MA payment rates with FFS costs, the ESRD state rates are based on FFS costs.

CMS encourages commenters to review and respond to the appropriate rulemaking for the ESRD PPS for the Medicare FFS program.

Comment: Numerous commenters expressed concern about the concentrated nature of the dialysis provider market, citing the small number of organizations operating most of the dialysis stations in the United States. These commenters indicated that the concentration of dialysis providers and network adequacy requirements affect an MA organization's ability to negotiate reasonable reimbursement for dialysis services. Several commenters cited a MedPAC analysis indicating that, on average, MA contracts are paying more than the Medicare FFS rate for dialysis treatments.

A commenter stated financial pressure from an inability to negotiate reasonable reimbursement rates may cause some MA plans to offset higher dialysis spending by reducing costs for other services provided to these enrollees (e.g. care coordination to reduce inpatient hospital and emergency room visits) or risk losses on beneficiaries with ESRD. The commenter stated their support for sub-state MA ESRD rate setting to lessen this financial pressure.

Response: CMS appreciates the feedback provided by commenters regarding this issue. Please refer to the CY 2021 final rule 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 (CMS-4190-F) (85 FR 33796), which appeared in the Federal Register on June 2, 2020, which addresses concerns regarding dialysis provider concentration, network adequacy requirements, and the challenges MA organizations face in negotiating reasonable reimbursement for dialysis services. In the final rule, CMS explained our decision not to set quantitative standards for network adequacy for outpatient dialysis centers in order to bring greater competition, which CMS believes will drive down plan and patient costs for dialysis services. We also note that CMS is prohibited from setting the payment arrangements between MA plans and their contracted providers. For Medicare-covered services furnished to an MA enrollee by a non-contracted provider, sections 1852(k)(1) and 1866(a)(1)(O) of the Act require health care providers to accept what would be paid by the FFS Medicare program for Medicare-covered services.

CMS appreciates the support of our ongoing consideration of alternative MA ESRD rate setting methodologies.

Comment: Some commenters urged CMS to ensure that payments for new and innovative products are incorporated in the MA ESRD rates in a timely fashion. The commenters stated that because MA ESRD rates are calculated using historical cost data, it may be too difficult for CMS to predict when new products will receive the Transitional Drug Add-on Payment Adjustment (TDAPA) and the Transitional Add-on Payment Adjustment for New and Innovative Equipment and Supplies (TPNIES) through the FFS ESRD prospective payment system (PPS) payment. The

commenters recommended CMS address funding new innovative technologies before they come to market in order to safeguard access to these products for MA beneficiaries with ESRD.

A commenter recommended CMS pass through TDAPA and TPNIES payments from Medicare FFS to dialysis facilities regardless if the beneficiary with ESRD is in a MA plan or has traditional Medicare FFS.

Another commenter recommended that CMS incorporate an add-on payment to the MA ESRD rate similar to the TDAPA and TPNIES used in the ESRD PPS. The commenters noted this add-on payment would have the same intention of facilitating beneficiary access to new and innovative technologies.

Response: CMS appreciates the commenters' feedback regarding adequately funding new products and innovation for beneficiaries with ESRD. CMS believes the current methodology for calculating MA ESRD rates account for products that receive TDAPA or TPNIES under the ESRD PPS. The CY 2023 dialysis-only ESRD USPCC reflects our best estimate of the national per-capita cost, including changes to the ESRD PPS bundled payments for variables such as products that would receive TDAPA or TPNIES. Further, we note that section 1851(i) of the Act prohibits payment under the FFS Medicare program for Medicare benefits furnished to MA enrollees except for limited situations that are specified in the statute.

Comment: A few commenters expressed concern that CMS underrepresents the actual cost for dialysis in Puerto Rico. A commenter stated that social determinants of health factors, a limited number of dialysis providers, and an increase in beneficiaries with ESRD in MA have created a need for CMS to take steps to stabilize funding inadequacies for beneficiaries with ESRD in Puerto Rico.

Another commenter expressed concern with the wage index data used in the ESRD PPS for Puerto Rico. The commenter recommended that CMS either increase the wage index floor or incorporate adjusted inpatient wage index data to maintain consistency in the treatment of wage index policy.

Response: CMS appreciates the concerns and suggestions that commenters have raised regarding ESRD rates in Puerto Rico. As CMS stated in the CY 2018 Rate Announcement, CMS believes that the FFS data in Puerto Rico is sufficient for establishing accurate MA rates and is consistent with the statutory requirements. CMS will continue to analyze these issues and consider whether, consistent with the statutory requirements for setting ESRD rates in section 1853(a)(1)(H) of the Act, any refinements to the methodology may be warranted in future years. Finally, the development of the ESRD PPS for payment by the FFS Medicare program is outside of the scope of this document and CMS encourages commenters to review and respond to the appropriate rulemaking for that payment system.

Section G. MA Employer Group Waiver Plans

We will continue to use the payment methodology as described in the CY 2023 Advance Notice, but the following finalized bid-to-benchmark ratios applied in calculating MA EGWP Payment Rates for 2023 are:

Table III-1. Finalized Bid-to-Benchmark Ratios

Applicable Percentage	Bid to Benchmark Ratio
0.95	80.7%
1	79.8%
1.075	79.7%
1.15	79.8%

Comment: A few commenters expressed their support for the agency's proposal to continue using the CY 2022 MA EGWP payment methodology in CY 2023. Several commenters expressed support for CMS's intent to adjust the individual plan bid-to-benchmark ratios to account for enrollment differences based on the timing of the Rate Announcement release and publishing preliminary bid-to-benchmark ratios ahead of the Rate Announcement. A commenter expressed support for CMS' policy that allows MA EGWPs to reduce beneficiary costs by buying down Part B premiums, as this provides more consistency between individual and group MA plans.

Response: We appreciate the support.

Comment: A majority of commenters on our MA EGWP payment methodology expressed concern and provided recommendations related to adjusting the bid-to-benchmark ratios to account for negative margin plans.

Response: At this time, we do not believe that there is a reasonable rationale to exclude these plans because the ratios are intended to be representative of the market. Negative margin plans are included in the non-EGWP market as well, so the bids of such plans are included when the bid-to-benchmark ratios are developed. CMS does adjust for factors which would otherwise result in significant differences between the EGWP and non-EGWP market. More specifically, while the majority of plans in the EGWP market are PPO plans, the non-EGWP market is predominantly HMO plans. EGWP individual market bid-to-benchmark ratios are calculated separately for HMO and PPO plan types by quartile. Unlike the HMO/PPO difference between EGWP and non-EGWP plans, there is no data to suggest that a similar difference exists between EGWP and non-EGWP plans regarding negative margin plans upon which CMS can judge the reasonableness of adjusting the bid-to-benchmark ratios to account for negative margin plans.

Comment: A commenter recommended a refinement to the proposed implementation of the Part B premium buy-down whereby we would establish segment IDs that correspond to different Part

B premium buy-down amounts in the plan benefit package (PBP) to reduce the number of EGWP PBPs submitted for various Part B premium buy-down amounts.

Response: As described in the CY 2022 Advance Notice, when an MA organization submits an individual market MA plan bid to us, the MA organization is permitted to use MA rebates to buy-down a portion of the Part B premiums for its enrollees in each PBP by identifying the buy-down amount in the BPT as its use of the beneficiary rebate. We then retain that rebate amount specified by the MA organization in each PBP and coordinate directly with the Social Security Administration (SSA) to ensure that each beneficiary's Part B premium is appropriately calculated and takes into account the buy-down amount. Implementing the bidding waiver as described in the Advance Notice facilitates the communication of this information throughout CMS systems by maintaining an operational structure that is similar to the one that exists for individual market MA plans. For this reason, we decline to make the recommended changes, but we appreciate the commenter's thoughts on this issue and will continue to analyze and explore suggestions for refinements to this policy in the future.

Comment: A commenter expressed concern that the published preliminary bid-to-benchmark ratios are lower than expected, and requested that CMS provide additional detail about how the ratios were calculated.

Response: Please see the 2020 and 2021 Advance Notices for additional details on the calculation of bid-to-benchmark ratios. At this time, CMS does not have additional information to share on these calculations, but we would note MedPAC's observation in its March 2021 Report to Congress that plan bids were at record low levels relative to MA benchmarks in CY 2021 (and more current evidence shows that bids have trended lower in CY 2022); this could reasonably be expected to result in lower bid-to-benchmark ratios.

Comment: A few commenters recommended calculating separate MA EGWP rates for EGWPs that are HMOs and PPOs.

Response: We appreciate this recommendation; however, we believe the current approach of a combined EGWP rate for HMO and PPO plan types is more consistent with the county rates for individual market plans, which are also not calculated separately for HMO and PPO plan types. In addition, consistent with how we have developed EGWP payments since 2019, the 2023 EGWP payment methodology takes into account the prevalence of HMO and PPO enrollment in the EGWP market by calculating 2022 individual market bid-to-benchmark ratios separately for HMO and PPO plan types by quartile. CMS then takes into account the prevalence of HMO and PPO enrollment in the EGWP market to combine the ratios by quartile.

Comment: A few commenters recommended greater access to EGWPs in rural markets Commenters noted that implementing additional flexibilities around telehealth for provider network requirements could address factors that inhibit the formation of direct contract networks and enable more EGWPs to be offered in rural markets.

Response: We believe this comment is unrelated to our proposals in the CY 2023 Advance Notice. CMS interprets this comment to be an issue related to service areas and network adequacy considerations, rather than EGWP payment policy. Therefore, this comment is outside the scope of this document. Of note, CMS has waived certain service area requirements that hinder the design of, the offering of, or the enrollment in EGWPs. To enable employers/unions to offer coordinated care plans to all their Medicare-eligible members wherever they reside, CMS has waived certain service area requirements for EGWPs; we encourage readers to review Chapter 9 of the Medicare Managed Care Manual for more information on EGWP waivers.

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

Comment: Commenters who expressed a sentiment about continuing the CY 2022 policy to use the 2020 CMS-HCC model for CY 2023 risk score calculation for organizations other than PACE were supportive, with some pleased that no significant changes were being proposed.

Response: CMS thanks commenters for their support in using the 2020 CMS-HCC risk adjustment model for CY 2023. We are finalizing the continuation of the CY 2022 policy to calculate 100 percent of the risk score using the 2020 CMS-HCC model.

Comment: Some commenters recommended different methods for updating the CMS-HCC risk adjustment model, including making updates on a more regular basis, adding drugs to the model, using more sources of data (e.g., home health and skilled nursing facilities), using a concurrent model, and calibrating a model using encounter data.

Response: CMS thanks commenters for their suggestions on updating the CMS-HCC risk adjustment model.

Comment: Many commenters stated they would like to see increased transparency around updates to the risk adjustment model, the release of sufficient details, data, and impacts for plans to adequately assess model revisions, and sufficient time to review, analyze, and provide comments on updates. Commenters expressed appreciation for the 60-day review and comment period provided when updates were being made to the CMS-HCC model over the past few years, urging us to continue our efforts to enhance transparency and engagement with stakeholders by providing at least 60 days for stakeholders to comment on future risk adjustment proposals. Commenters also expressed a desire for increased collaboration and engagement with stakeholders, with requests that we work with stakeholders to design and develop a model for use in future payment years. One commenter recommended that CMS establish a Technical Expert Panel (TEP) on the MA risk adjustment model, which would address issues such as FFS normalization and any model recalibration activities.

Response: We will continue to consider additional ways in which we can engage with stakeholders as we consider changes to the CMS-HCC risk adjustment model for future years, and appreciate commenter support. We acknowledge commenters' request to extend the

comment period. We note the proposed changes in the CY 2023 Advance Notice are based on our authority under section 1853(a)(1)(C), and for which a 30-day comment period meets the statutory requirement. The requirement for a 60-day comment period applied specifically to changes made to the CMS-HCC model stipulated in the 21st Century Cures Act. As amended by the 21st Century Cures Act, section 1853(a)(1)(I)(iii) required that CMS provide at least 60 days for public review and comment of proposed changes specifically to the Part C CMS-HCC risk adjustment model that are based on section 1853(a)(1)(I).

Comment: Many commenters requested that CMS take steps to address what the commenters believe will be a continuing negative impact of the COVID-19 pandemic on health care utilization due to delayed or foregone care during the pandemic, limiting providers' ability to accurately and completely document enrollee health care conditions. Commenters stated that this will result in risk adjusted payments that are too low because the risk scores understate beneficiary health status. Additionally, some commenters voiced their belief that the deferral of care during the pandemic will lead to increased health care costs because diagnosis and treatment will occur at a later stage of disease and that the current risk adjustment model is not likely to account for this scenario. There were various recommendations put forward for addressing the impact of the COVID-19 pandemic on risk adjusted payment including:

- Incorporating COVID-19 diagnoses and costs in future model calibrations;
- Using a hybrid model, meaning that concurrent diagnoses (those from dates of service in the payment year) are used for acute conditions like COVID-19 while prospective diagnoses (those for dates of service in the prior year) are used for chronic conditions;
- Carrying forward two to three years of diagnosis data for chronic conditions;
- Permitting the use prescription drug data to support diagnoses;
- Further extending submission deadlines;
- Allowing diagnoses from audio-only encounters be used for risk adjustment;
- Making permanent the allowance of diagnoses from audio-visual encounters for risk adjustment; and
- Providing further guidance on when diagnoses collected from an audio and visual encounter will be permitted for risk adjustment (that is, by clarifying the dates of service during which the encounter must occur) and for clarification on how these telehealth encounters should be accurately reported.

Response: We appreciate commenters' concerns about the impact of the COVID-19 pandemic on utilization and diagnoses submission and its potential effects on risk adjusted payments, as well their suggestions related to addressing the impact of the COVID-19 pandemic on risk scores. In order to address challenges to submissions, CMS has extended the deadlines for submission of risk adjustment data for payment years 2020, 2021, and 2022. We note that a risk adjustment eligible diagnosis only has to be submitted and accepted once for it to count in a beneficiary's risk score calculation.

We are not adopting policy changes to the CMS-HCC risk adjustment model or sources of diagnosis for risk-adjusted payment in this Rate Announcement. We believe that policies on this topic generally benefit from the more fulsome discussion that a description in the Advance Notice and an opportunity for public comment provide. Further, analysis of available data to understand the potential consequences of policy changes of this type is usually appropriate and necessary to ensure that our overall goals for risk adjustment are furthered by the change.

Comment: Commenters opposed CMS's proposal to utilize the 2017 CMS-HCC model for payment to PACE organizations for CY 2023, expressing concern that the model excludes dementia and other chronic conditions (such as pressure ulcer, moderate chronic kidney disease, and mental health and substance use disorders) that are prevalent in the PACE population. Commenters requested that the 2020 CMS-HCC model, which includes dementia HCCs, be used for PACE enrollees as expeditiously as possible.

Response: We acknowledge concerns from commenters that the 2017 CMS-HCC model does not include the dementia HCCs and the request by some commenters to expeditiously implement the 2020 CMS-HCC model for payment to PACE organizations.

The 2020 CMS-HCC model was calibrated using FFS diagnoses that were selected using the filtering method that is used for encounter data. For this reason, the 2020 CMS-HCC model is intended to calculate risk scores using diagnoses submitted on encounter data records and FFS claims (for beneficiaries who switch from FFS to MA) filtered in the same manner as encounter data records. Since we are not calculating PACE beneficiary risk scores using diagnoses solely from encounter data and FFS claims (in contrast to our approach to calculating non-PACE beneficiary risk scores for CY 2023), we cannot implement the 2020 CMS-HCC model for PACE at this time. CMS will continue to work closely with PACE organizations to develop further guidance and provide technical assistance with regard to encounter data submissions in anticipation of implementing the risk adjustment model used for MA for PACE payment in the future. In the meantime, we note the 2017 CMS-HCC model is an improvement in predicting costs relative to the model previously used for payment to PACE organizations; it is based on more current data years and, in particular, improves the predictive accuracy of risk scores for dually eligible beneficiaries. CMS reiterates our intention to use the 2020 CMS-HCC model to pay PACE organizations as soon as it is practicable.

Comment: Commenters commended and were supportive of CMS's focus on promoting and reducing barriers to health equity in MA and our commitment to continuously explore ways to revise the risk adjustment model in order to more appropriately pay for subgroups of Medicare beneficiaries. While commenters were generally in agreement about the conceptual benefit of including social determinants of health (SDoH) in a future CMS-HCC model, commenters were not in agreement about how to do that.

Enhancements to the CMS-HCC Risk Adjustment Model to Advance Health Equity: A large majority of commenters expressed support for enhancements to the CMS-HCC risk adjustment model to address the impacts of SDoH on beneficiary health status. Many commenters offered recommendations on ways to improve the risk adjustment model by incorporating additional factors that could improve prediction of the relative costs of MA enrollees by accounting for social risks; however, there was no consensus on how to do so.

A few commenters voiced concern about adding SDoH to the CMS-HCC risk adjustment model, requesting that CMS consider whether risk adjustment is the most appropriate way to support activities promoting health equity. One commenter posited that investment in the healthcare delivery system will be required to address health equity concerns and observed that the intent of CMS adjusting risk scores to account for SDoH impacts on healthcare would seem to be to provide the additional funds that could be used to improve delivery system effectiveness, but the commenter noted, there is no guarantee that the additional funds would be used for such purposes. A couple of commenters highlighted that care coordination across a patient population is challenging because the necessary information technology infrastructures that allow for feedback loops and analysis of outcomes are often not available.

Several commenters made the point that clinical and social risks should be weighed together, with one commenter cautioning that when controlling for clinical risk, variables that serve as a proxy for access to care can perpetuate structural inequities. Another commented that the correlation between SDoH and future costs has not been studied to the degree necessary to include such factors in the risk adjustment model in the near term. Regardless of whether they supported or opposed adding SDoH to the CMS-HCC risk adjustment model, most commenters recommended CMS proceed slowly and with caution on this endeavor so as not to inadvertently cause greater disparity. Commenters requested that the process be collaborative, well researched, transparent, and tested in advance, and that any future changes to the model be phased in slowly.

Data to be Collected and Improvements in Data Collection to Address the Impacts of SDoH: A large majority of commenters agreed that complete, reliable, and standardized data on SDoH is currently unavailable, but there was no consensus on who should collect the data, what the best data is to collect, or how to collect it. There was general agreement that a comprehensive and standardized data collection strategy will be needed and that any data collected for use in the risk adjustment model must be verified as accurate. Several commenters asked that CMS or its partners assist in the standardization and/or interoperability of any data sets collected for risk adjustment based on SDoH to ensure a more complete and consistent data source. One commenter recommended that CMS strengthen and clarify guidance and create new standards for the collection of SDoH information where there has been some uncertainty over who can document social needs.

Some commenters were supportive of using beneficiary-level data collected by providers and sometimes directly from beneficiaries for risk adjustment purposes, viewing these data as more

accurate. They suggested that these data could also be used to identify patients who may need additional services. However, other commenters were concerned that collecting beneficiary-level SDoH data from providers through, for example, screening, health risk assessments, or ICD-10 Z-codes, could be burdensome and introduce bias because data collected by providers is impacted by provider resources and a beneficiary's access to care. Many individual level factors were mentioned by commenters as being important to assess health equity including: race/ethnicity, social connections/isolation, physical inactivity, food insecurity, tobacco use, income, education, marital status, language, home ownership, and access to technology, medical care, pharmacies, and services like public transportation and food pantries. However, some commenters noted that self-reported SDoH data may not be reliably reported across populations and cautioned against using algorithms for data like race/ethnicity because both have the potential to introduce bias into the model and have unintended consequences. A couple of commenters expressed concerns about the use of survey data because they, too, are burdensome and are challenged by selection and response bias.

Many commenters supported the use of ICD-10 Z-codes codes in the CMS-HCC model, but acknowledged that at this time, Z-codes are not reliably used and caution against using them until they are more reliably and uniformly used. Some commenters recommended that CMS encourage health care providers to use ICD-10-Z codes. Other commenters expressed concern for the possibility of gaming with Z-codes and the additional burden that would be placed on providers. A couple of commenters suggesting that Z-codes be used for compliance rather than payment.

Some commenters were supportive of using administrative data (e.g., an annual beneficiary self-attestation during enrollment) or a national level data set already in existence, believing that it would limit the potential for gaming, which can undercut the goal of advancing health equity. However, several commenters voiced concerns about the timing and availability of national level data sets in that they can become outdated. Commenters suggested a number of data sources that could be used as a proxy for SDoH, including: the Area Deprivation Index (ADI), the Childhood Opportunity Index, the Social Vulnerability Index (SVI), the Health Professional Shortage Area (HPSA), Medically Underserved Area (MUAs), Medically Underserved Populations (MUPs), the Unite Us Social Needs System (SNS), or learning lessons from a model already in existence at the state level, the Massachusetts Medicaid neighborhood stress scores. A couple of commenters suggested that CMS consider using the Health Equity Index that is being developed for Star Ratings in risk adjustment, the same way Hierarchical Condition Categories are used. Many of these specific data sources were presented as also having limitations and drawbacks.

Many commenters stressed the importance of considering geographic variation in efforts to address health equity in the risk adjustment model and were supportive of incorporating factors like zip code or census block group factors into the risk adjustment model, while other commenters encouraged CMS to explore geographic breakdowns other than zip code because zip codes are set by the Postal Service and do not adequately reflect social needs. A couple of

commenters voiced concern that using zip codes or other group level geographic data entails making broad assumptions about a group of people living in a similar geographic area, which may not be an effective proxy for individual level social risks, and that the use of zip codes in the risk adjustment model could have unintended consequences of exacerbating health inequities.

Other suggestions made by commenters include: permanently authorizing the CMMI Medicare Advantage Value-Based Insurance Design Model to promote greater efforts to address SDoH, taking uncompensated care payments out of the county benchmarks, using diagnostic codes that can be upweighted based on published research that indicates impact of social risk factors on health, increasing risk scores for the enrollees of interest on an ad hoc basis, and making upward adjustments to the spending data used to fit the risk adjustment model for enrollees in the targeted group in combination with adding socioeconomic predictor variables.

Response: We thank the commenters for their positive comments and support of future SDoH enhancements that could be made to the CMS-HCC risk adjustment model. We appreciate all the feedback given and plan to conduct a thorough review of comments to examine further actions CMS might take to reduce barriers to health equity. CMS will take commenters' suggestions into careful consideration as we develop any methodological changes to the risk adjustment model for future years and will consider additional ways in which we can engage with stakeholders in this effort.

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

Comment: The majority of commenters supported CMS's proposal to implement the new 2023 ESRD models to calculate ESRD risk scores for CY 2023. Some commenters also expressed appreciation for CMS's transparency in explaining the model updates and the considerations contemplated for the population of beneficiaries with ESRD.

Response: CMS appreciates the comments. For CY 2023, we will calculate risk scores for payment of beneficiaries with ESRD in MA plans and certain demonstrations by implementing the CY 2023 ESRD models as proposed in the CY 2023 Advance Notice.

Comment: A few commenters expressed concern about specific aspects of the model calibration (e.g., the supplementation of the dialysis new enrollee segment with continuing enrollees on dialysis for up to 3 years, the grouping of non-dual and partial duals for some segments / variables, and the adequacy of the transplant factors) and requested modifications to the ESRD risk adjustment models, including that we:

- Evaluate the adequacy of the model in predicting costs for beneficiaries who are newly starting dialysis.
- Consider using multiple years of partial-dual data to address the small sample size, rather than using merged partial dual and non-dual segments / variables.

- Consider the implications of the increasing use of high kidney profile index (KDPI) kidneys for months beyond the first month after the transplant for model calibration.

Response: CMS appreciates the comments and recommendations for updates to the ESRD risk adjustment models. CMS is not adopting these commenters' recommendations for modifying the ESRD models that we proposed to use to calculate risk scores for purposes of adjusting payments in CY 2023, as we believe that the proposed updates to the new CY 2023 ESRD models will improve risk adjusted payments for beneficiaries with ESRD. Specifically, the CY 2023 ESRD models are calibrated on more recent data, use more recent diagnosis-to-HCC mappings (already used for the CMS-HCC model), account for differences in cost patterns for dual eligible beneficiaries, and include adjustments to correct for the under-prediction and over-prediction of costs for small subpopulations. We note, consistent with the risk score calculation approach stipulated in § 422.310(g), that CMS uses diagnoses from the data collection period prior to the prediction year to calibrate the model. Using multiyear data as recommended for partial dual beneficiaries would be inconsistent with that regulation. CMS will continue to evaluate the ESRD risk adjustment models, including the commenters recommendations, and consider whether any refinements to the methodology for the ESRD model calibration may be warranted in future years.

New enrollee risk scores are scores that we use when a beneficiary does not have adequate diagnoses in the data collection year to calculate a full risk score (operationalized as having fewer than 12 months of Part B enrollment in the data collection year). Because prior year data is insufficient to predict risk in the payment year for these beneficiaries, we use a combination of demographic factors (age, sex, Medicaid eligibility, and factors related to the original reason for Medicare entitlement) to determine the risk score of a new enrollee.

As previously discussed in the 2021 and 2022 Rate Announcements, for all model segments it is necessary to have a large enough model sample to achieve sufficient sample sizes for each variable in order to generate coefficients for each variable in the model.[1] Thus, the proposed ESRD dialysis new enrollee model segment for 2023 is calibrated using a combined modeling sample of dialysis new enrollees and continuing enrollees who have been on dialysis for 3 years or less.

Further, we want to note that true new enrollees have lower overall costs than the continuing enrollees included in the dialysis new enrollee model sample, indicating that the average cost of the continuing enrollees is increasing the average cost of the entire dialysis new enrollee model sample (i.e., combined true new enrollee and supplemental continuing enrollees) that we used to calibrate the new enrollee model. These higher costs are driven by a large group of beneficiaries

[1] Refer to Section H of the 2021 Rate Announcement and Section H of the 2022 Rate Announcement.

among the continuing enrollees in the new enrollee model sample who are within the first 12 months of dialysis.

We would also like to clarify that the dialysis new enrollee relative factors are applied in payment only to enrollees who do not have 12 months of Part B enrollment in the data collection period. Enrollees who are newly enrolled in an MA plan or newly on dialysis, but who have 12 months of Part B enrollment in the data collection period, are "continuing enrollees" for the purpose of risk adjustment and we calculate their risk scores using the continuing enrollee dialysis segment, which includes HCCs. CMS calibrates the continuing enrollee dialysis component of the ESRD model using diagnoses and expenditure data for beneficiaries in FFS who are in dialysis status and have 12 months of Part B in the data collection period.

Comment: A few commenters expressed concern that the $470 million in net savings to the Medicare Trust Funds in 2023 through the revised ESRD risk adjustment model is a significant amount given the small population and the commenters' view that payment to MA organizations for MA enrollees with ESRD is currently inadequate to properly manage these complex patients. One commenter noted MA plans that currently serve ESRD patients have experienced significant swings in payment rates over the last several years that have a direct impact on beneficiaries by making it challenging to design stable benefit packages that limit year-to-year changes.

Response: The impact provided in the Economic Section (see Attachment VII, Section A4) is the isolated 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 and risk adjustment model impact offset each other.

Comment: A few commenters expressed concern that CMS proposed significant changes to the ESRD risk adjustment models for CY 2023, but did not provide sufficient opportunity for plans to evaluate the impacts. The commenters requested that CMS release future risk adjustment model updates at least 60 days in advance of the comment deadline. They also requested that CMS release additional information and necessary technical specifications about changes to the ESRD models to ensure stakeholders have the opportunity to review, evaluate, and comment on the impacts of model changes. A few commenters recommended that CMS engage with stakeholders to ensure risk model updates are developed collaboratively.

Response: CMS appreciates the comments and will consider ways to engage with stakeholders, share additional information, and provide sufficient time for public feedback for model changes as we continue to explore methods to improve ESRD risk adjustment. We acknowledge the commenters' request to extend the comment period. We note the proposed changes in the 2023

Advance Notice are based on our authority under section 1853(a)(1)(C) of the Act, for which a 30-day comment period meets the statutory requirement in section 1853(b) of the Act. The requirement for a 60-day comment period applies to proposals to implement certain changes to the CMS-HCC model stipulated in the 21st Century Cures Act. As amended by the 21st Century Cures Act, section 1853(a)(1)(I)(iii) requires that CMS provide at least 60 days for public review and comment of proposed changes specifically to the Part C CMS-HCC risk adjustment model that are based on section 1853(a)(1)(I).

Section J. Medicare Secondary Payer (MSP)

There were no comments received in relation to the proposed updates to the MSP factors.

For CY 2023, CMS is finalizing the MSP factors as proposed. The CY 2023 MSP factor for working aged/disabled and ESRD functioning graft beneficiaries is 0.136, and the MSP factor for ESRD dialysis/transplant beneficiaries is 0.135. CMS will continue to apply the MSP adjustment to beneficiary-level payments.

Section K. Frailty Adjustment for PACE Organizations and FIDE SNPs

Comment: Commenters expressed concern that the frailty factors associated with the 2017 CMS-HCC risk adjustment model do not fully account for the level of dementia diagnosed in PACE participants and the costs associated with their care. Commenters also believed that the frailty factors are not representative of the PACE population because response rates to the Modified Health Outcomes Survey (HOS-M) are low among PACE participants and are likely even lower among participants with dementia. To this end, the commenters requested flexibility in the administration of the HOS-M survey for patients with dementia if the 2020 CMS-HCC model cannot be implemented for PACE enrollees in 2023. Commenters requested that CMS allow PACE organizations to proactively offer their participants with dementia assistance in completing the survey.

Response: Because the CMS-HCC risk adjustment model predicts total expenditures for Part A and Part B benefits, for beneficiaries with conditions such as dementia that are not directly incorporated into the 2017 CMS-HCC model, the associated costs can be predicted by comorbid conditions and demographic factors that are included in the model. Since CMS estimates frailty factors to explain additional costs not explained by diagnoses in the CMS-HCC model, to the extent that these costs are not predicted by the model, they are likely to be reflected in the frailty factors. CMS calibrates the frailty factors by regressing the residual, or unexplained costs from the CMS-HCC risk adjustment model, on counts of activities of daily living (ADLs). Although total costs are included in the calibration of the 2017 CMS-HCC risk adjustment model, and the associated frailty factors help predict overall costs where diagnoses are not fully predictive, results for individual organizations may differ due to differences between the sample used for model calibration and the populations enrolled in individual plans.

CMS acknowledges the concerns related to responses for the HOS-M for PACE participants with dementia. The responses from this survey are used to determine a beneficiary's limitations in ADLs that are accounted for in the calculation of a contract's frailty score. We collect survey data in a consistent manner for all PACE organizations, as this helps to ensure equitable frailty results for payment. Permitting variation in how the survey is administered for participants with specific conditions may disproportionately affect frailty scores for certain organizations, depending on what proportion of an organization's participants has that condition. For the HOS-M, a proxy response will remain at the discretion of the beneficiary, but PACE staff may check with a family member or caregiver to determine if participants with dementia need assistance completing the survey.

Comment: Several commenters asked CMS to consider applying frailty adjustment to additional plans or study the impact of expanding the policy to include MA plans more broadly (e.g., Highly Integrated Dual Eligible Special Needs Plans (HIDE SNPs) that provide the Long-Term Services and Supports benefit, or certain Chronic Condition SNPs (C-SNPs), such as ESRD SNPs.

Response: By law, CMS must use the same payment methodology for non-ESRD enrollees in MA plans, including Special Needs Plans (SNPs), except as explicitly provided for in statute. Section 1853(a)(1)(B)(iv) of the Act authorizes CMS to make frailty-adjusted payments only to certain dual SNPs – those with fully integrated, capitated contracts with states for Medicaid benefits, including long term care, and which have similar average levels of frailty as the PACE program. Thus, CMS cannot make frailty payments to any SNP that does not meet these criteria without implementing frailty payments program-wide.

CMS has explored ways of incorporating frailty into the risk adjustment model in order to account for frailty when making risk adjusted payments to all plans and found challenges with a number of approaches (see the "Evaluation of the CMS-HCC Risk Adjustment Model," published March 2011).[2] In addition, under the 21st Century Cures Act, the Government Accountability Office issued a report on issues related to incorporating functional status into MA risk adjustment in 2018.[3] This study found a number of challenges with incorporating frailty into the model, including that "stakeholders could face substantial challenges if the risk adjustment model were revised to account for beneficiary functional status, in part because this information is not readily available." The CMS-HCC model uses demographic factors and diagnoses to predict relative costs for subpopulations, with the frailty adjustment used to predict expenditures for community beneficiaries with functional impairments that are unexplained by the risk adjustment model alone. Because the frailty factors are calibrated using the residual of the CMS-

[2] Pope, Gregory C.; Kautter, John; Ingber, Melvin J.; Freeman, Sara; Sekar, Rishi; and Newhart, Cordon. (March 2011). Evaluation of the CMS-HCC Risk Adjustment Model.

[3] GAO Medicare Advantage Benefits and Challenges of Payment Adjustments Based on Beneficiaries' Ability to Perform Daily Tasks.

HCC model (the difference between the predicted expenditure amounts and the actual expenditure amounts), and frailty scores have an average value of zero, the application of a frailty adjustment to all MA plans would result in many plans receiving a negative frailty adjustment.

Comment: Some commenters asked that CMS consider different approaches for estimating frailty adjustments. Two commenters suggested that a frailty adjustment be applied to all enrollees who have a certified nursing facility level of care. One commenter asked CMS to identify and consider additional methods for calculating frailty scores not based on population-level surveys like the HOS/HOS-M.

Response: The HOS has had considerable validation of its ability to accurately capture functional limitations and other health related characteristics. For example, see "Patients' Self-report of Diseases in the Medicare Health Outcomes Survey Based on Comparisons with Linked Survey and Medical Data from the Veterans Health Administration" (Journal of Ambulatory Care Management, 2008) by Miller, Rogers and colleagues. While we understand that surveys can have operational challenges in administration, as noted in prior Rate Announcements (e.g., 2019), we believe that the HOS and HOS-M continue to provide an accurate and representative measurement of frailty at the plan level because ADL data are collected to calculate frailty scores in the same manner that are collected and used to calculate frailty factors for model calibration (i.e., limitations in activities of daily living collected from self-reported surveys). In addition, data are collected consistently across respondents, such that frailty scores are calculated using data collected in the same manner across plans, thereby allowing survey results to be compared across plans (a requirement for determining whether FIDE SNPs receive a frailty adjustment in payment) and thus resulting in frailty payments that are comparable.

Section L. Medicare Advantage Coding Pattern Adjustment

Comment: Many commenters supported CMS's proposed 5.9 percent 2023 coding pattern adjustment.

Response: CMS appreciates the support of the commenters. CMS is finalizing the proposed adjustment of 5.9 percent for CY 2023.

Comment: Many commenters provided alternative recommendations to the statutory minimum coding pattern adjustment of 5.9 percent, as summarized below:

- *Higher adjustment factor*: Several commenters recommended a higher adjustment factor than the statutory minimum, which they state is inadequate to adjust for differential patterns of coding between MA and FFS. Commenters expressed concern that the statutory minimum does not account for the full impact of coding intensity, and multiple commenters highlighted analyses from MedPAC that the coding adjustment factor should be several percentage points higher. These commenters stated their belief that excess spending is

accelerating the depletion of the Medicare Trust Funds and the potential savings from fully accounting for the coding pattern differential would increase solvency of the Trust Funds. A few commenters that recommended a higher coding pattern adjustment expressed concern that the current application of the minimum adjustment and the risk adjustment model incentivizes plan sponsors to code their enrollees with as many conditions as possible, driving up payment rates. One commenter expressed concern that CMS's current methodology does not address the underlying causes of coding intensity, thereby undermining the goal of plans competing on the basis of quality and costs. Another commenter noted their belief that increased payments to MA plans do not result in better care. Other commenters that recommended a higher coding pattern adjustment expressed concern about the implications of perverse political incentives, and questioned whether CMS has fulfilled its statutory obligation to implement what they perceived as an adjustment that should be larger than the statutory minimum and whether the application of the minimum adjustment is consistent with current law, as the Deficit Reduction Act of 2005 states that in applying risk adjustment to payments for MA plans "the Secretary shall ensure that such adjustment reflects changes in treatment and coding practices in the fee-for-service sector and reflects differences in coding patterns between Medicare Advantage plans and providers under part A and B to the extent that the Secretary has identified such differences."

- *Specific Methodological Recommendations*:
    - Demographic Estimate of Coding Intensity (DECI). A few commenters recommended the incorporation of the DECI method to calculate the coding intensity factor.[4] The recommended DECI method controls for demographics, and under the assumption that MA does not receive adverse or favorable selection, the DECI method estimates the coding intensity adjustment by comparing the MA risk relative to FFS risk using the CMS-HCC diagnostic model, and comparing that relationship against the MA risk versus FFS risk using the Adjusted Average Per Capita Cost (AAPCC) model that is based on demographics only and was used in payment prior to 2000.
    - Targeted approaches:
        - General targeted comments. Several commenters expressed concern that coding patterns across the MA landscape are heterogeneous and that failure to recognize these differences across plans by applying an across-the-board coding pattern adjustment could result in an inequitable outcome. A few commenters recommended targeted approaches, because of their concern that certain MA organizations code much more aggressively than others with higher levels of coding intensity due to

[4] Committee for a Responsible Federal Budget, Reducing Medicare Advantage Overpayments, Reducing Medicare Advantage Overpayments.

various structural payment incentives, including payments between MAOs and their contracted providers. Other commenters stated their concern about the current application of the factor because it does not adequately adjust for risk score increases above the average, and disadvantages plans serving primarily low-income and historically underserved communities that have less administrative resources to focus on diagnosis coding.

- Segmented approach. A few commenters suggested a segmented approach to coding pattern adjustments that recognizes different levels of coding patterns among plans, such that the lowest coding factor is applied to lower coding plans while the highest factor is applied to higher coding plans.

- Contract-specific approach. A few commenters recommended tailoring the MA coding pattern adjustment to the relative level of coding intensity seen in individual MA contracts – rather than the across-the-board coding intensity adjustment that CMS applies today to all MA contracts. One commenter recommended using contract-specific coding intensity factors in 2023 to return risk scores to the differential they had versus FFS Risk Scores in 2019. This commenter also recommended gradually increasing the sponsor-specific coding intensity adjustment factors for a period of five years.

A few commenters had recommendations to calibrate the model using different data or consider additional variables when estimating the MA coding pattern factor. One commenter encouraged CMS to study the use of MA data for model calibration so that CMS can eliminate the use of a coding pattern adjustment in the immediate future. Another commenter asked CMS to incorporate public health measures, such as the Area Deprivation and Childhood Opportunity indices, to calculate the coding intensity adjustment for 2023 and beyond. One commenter suggested a number of factors to consider when determining the appropriate level of the coding pattern adjustment, including which data to use, enrollment patterns, adjustments for benefits differences between MA and FFS, and impact of demographics and morbidity on MA versus FFS coding.

One commenter recommended a multipronged approach to addressing coding pattern differences in MA and FFS. Their recommendation included three parts: 1) develop a risk adjustment model that uses two years of FFS and MA diagnostic data; 2) exclude diagnoses that are documented only on health risk assessments from either FFS or MA; and then 3) apply a coding adjustment that fully accounts for the remaining differences in coding between FFS Medicare and MA plans.

A few commenters noted that if CMS reassesses how the adjustment should be calculated or modified in future years, they encourage the agency to provide a meaningful opportunity – prior to the Advance Notice process – for plans to evaluate and consider any potential changes to the methodology, along with potential impacts of proposed changes to help inform analysis and

feedback, especially as they navigate COVID-19. The commenters recommended that CMS avoid potential changes to the coding pattern adjustment methodology until at least 2025, after providing significantly more details and transparency about any updates, including potential impacts, and a meaningful opportunity for MA plans to evaluate and comment on updates to the methodology. One commenter stated they are concerned that the information provided in previous Advance Notices for contemplated coding pattern adjustment methodology updates is now outdated, insufficient, or both. A few commenters noted CMS has not published detailed information on its methodology for calculating the coding pattern adjustment in over a decade. One commenter stated that if CMS has analytic results to support the conclusion that 5.9% is an adequate adjustment, it would serve the public well if those results were shared.

Response: We appreciate commenters' feedback. CMS determines the coding pattern adjustment factor for each payment year based on an assessment of coding trends.

Section 1853(a)(1)(C)(ii) of the Act establishes a minimum MA coding pattern adjustment. Congress continued to increase the coding pattern adjustment and ultimately set the adjustment for 2019 and each subsequent year so as to reduce all MA risk scores by 5.90 percent. We have found the minimum adjustment, as established and updated in statute over the years, sufficient to reflect the differences in coding patterns between MA plans and providers under Parts A and B that are indicated in our annual analysis. This is sufficient to meet the statutory requirement to update our data and reassess the appropriate adjustment factor. Using the framework established in the 2010 Advance Notice and Announcement,[5] our annual assessment has led to the conclusion that the statutory minimum is a reasonable estimate of the impact on MA risk scores of the difference in coding patterns between MA and FFS. CMS believes that applying a uniform adjustment is an appropriate approach for CY 2023 payments and is consistent with statutory requirements. Therefore, we are implementing our proposed MA coding pattern adjustment factor for CY 2023.

While we consider our long-standing approach appropriate for 2023, we appreciate the extensive and thoughtful comments we received on this proposal. These included recommendations that CMS apply a higher coding pattern adjustment than the statutory minimum, as well as discussions of other assessments that have been conducted, and recommended that CMS consider approaches to take into account differences in coding patterns across MA plans. Ensuring that the coding pattern adjustment policy appropriately addresses differential coding in MA is essential and we will consider these recommendations in the development of future coding pattern adjustment proposals.

[5] CMS's MA coding pattern adjustment calculation methodology is discussed in the Payment Year 2010 Advance Notice and Rate Announcement at CMS's Announcements and Documents webpage.

Comment: A few commenters believed that it is fundamentally incorrect to assume any observed coding differentials between the FFS and MA populations are driven by inappropriate coding on the part of MA plans and requested that CMS recognize that higher coding does not necessarily equate to wrong coding. One commenter stated that CMS should take into account that differences in coding stem from the fact that FFS is unmanaged and under-coded, and that the differences actually demonstrate the value of MA plans in diagnosing and appropriately managing members' conditions.

Response: The MA coding pattern adjustment is not intended to adjust for inaccurate coding, but it is intended to account for program-wide differences in coding patterns between MA and FFS. As required by section 1853(a)(1)(C)(ii) of the Act, CMS applies the MA coding pattern adjustment to adjust for the impact on MA risk scores of coding patterns that differ from FFS coding, which is the basis of the CMS-HCC model.

Section M. Normalization Factors

CMS did not receive comments on the methodology proposed to calculate the RxHCC model normalization factors for CY 2023. CMS is finalizing the RxHCC normalization factor methodology as proposed.

Comment: Several commenters were in support of the methodology proposed to calculate the CMS-HCC and CMS-HCC ESRD model normalization factors for CY 2023 and appreciated the transparency and detailed explanation of the factors considered when determining the best approach to calculate them, acknowledging the difficulty in projecting risk scores due to the ongoing pandemic and an understanding as to why CMS chose to not use 2021 risk scores based on 2020 dates of service for the normalization factor calculation. One commenter indicated that they were pleased to see that the CMS-HCC ESRD model normalization factors have been reduced for CY 2023.

Response: CMS appreciates the support of the commenters. We are finalizing the normalization methodology for the CMS-HCC and CMS-HCC ESRD risk adjustment models as proposed.

Comment: About half of the commenters opposed the proposed methodology to exclude the 2021 risk score (based on 2020 dates of service) from the calculation of the CMS-HCC risk adjustment model normalization factors for CY 2023. Many commenters requested more data and additional information to justify excluding the 2021 risk score from the normalization factor calculation, a couple of whom requested that CMS explain its assumption that the 2023 risk score is going to rebound. A couple of commenters also questioned how demographic changes caused by higher death rates affect the FFS risk score trend and resulting normalization factors. One commenter raised the same questions with CMS's proposal to exclude the 2021 risk score from the calculation of the CMS-HCC ESRD model normalization factors.

Commenters that were opposed to updating the methodology generally believed use of the 2021 risk score data would improve the accuracy of the 2023 normalization factor and maintain consistency with CMS's longstanding methodology. Some commenters stated that removing the 2021 risk score data from the normalization methodology increases the negative normalization adjustment, which they believe will translate to fewer benefits, increased costs for enrollees, and a reduction in an MA plan's ability to address health disparities. A couple of commenters stated that removing a year of data sets a bad precedent and raises questions about how the methodology will be adjusted in the future, while another suggested using a period of time longer than five years to calculate the normalization factor. One commenter noted that including 2021 risk score data into the 2023 normalization factor would be a self-correcting mechanism to support actuarially sound payments if the 2022 normalization factor overestimated the 2022 FFS risk score.

Response: CMS appreciates commenters' concerns regarding the calculation of the CMS-HCC and CMS-HCC ESRD normalization factors for CY 2023. We believe, however, the proposed methodology –using a linear approach with the same five years of data used to calculate the CY 2022 normalization factors (2016–2020) – will produce an appropriate estimate of the applicable 2023 average risk score for the CMS-HCC and CMS-HCC ESRD models. The goal of the normalization factor is to accurately predict the FFS risk score in the payment year, thereby maintaining an average FFS risk score of 1.0.

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. The proposed approach maintains the stability of using our longstanding five-year linear slope methodology (using 2016–2020 FFS risk scores for the CY 2023 calculations) while balancing 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.

The CY 2023 normalization factor for the 2020 CMS-HCC model that uses CMS's typical methodology projects a 2023 FFS risk score that is only 0.76% higher than the actual 2021 risk score. While there is inherent uncertainty with any prediction of future values, CMS believes utilization will begin to rebound and that it is unlikely that risk scores will increase this slowly over two years. The current estimate of the FFS USPCCs, which are indicative of future utilization and expenditures, reflect an increase of more than 27 percent from 2020 to 2023, or an annual increase of more than 8 percent over the 3-year period. In addition, as stated in the CY 2023 Advance Notice, 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. In all of the years used to identify the trend in risk scores prior to 2021, risk scores progressively increased; the decreases in utilization in 2020 were irregular due to the pandemic. The objective of the normalization factor is to project the payment year risk scores as accurately as possible to maintain the 1.0, given the information known at the time the projected scores are calculated. Given this objective, CMS believes that the decreases in utilization in 2020 due to the pandemic

are not reflective of future health care utilization and should not be included in the calculation of the normalization factors. We will continue to monitor and analyze underlying risk score trends and their drivers.

Comment: Many commenters requested further rationale for CMS's proposal to include 2020 utilization and data for development of the MA benchmarks and growth rates but not for the CMS-HCC and CMS-HCC ESRD CY 2023 normalization factors.

Response: We understand that commenters are concerned about the treatment of 2020 data in some of its MA payment policies. CMS carefully considered the appropriateness of 2020 data and made a determination based on how the data is being used (e.g., as part of an average versus part of a trend), and the reasonableness of the impact of the data on what is being measured. As described in more detail below, the impact of an anomalous data point differs when used to calculate an average versus a projected value.

Prior to establishing MA benchmarks for CY 2023, the trends in the 2020 FFS data were analyzed. Some specific regions did experience decreased per-capita costs while other regions experienced increased per-capita costs when compared to the 2019 national average per-capita costs. However, because the ratebook FFS average geographic adjustments (AGAs) use data to develop a relative index that averages out to 1.0, the level of the 2020 FFS claims is not impactful for this measure. Furthermore, for ratebook development, CMS uses an average of five years of FFS experience for each county, so annual fluctuations and anomalies in the data that may occur for a variety of reasons are mitigated. Calculating and using a five-year average provides 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.

Distinct from calculating the benchmarks, normalization factors are calculated using five years of historical data to create a trend that is projected out to a future payment year. As described in the CY 2023 Advance Notice, when calculating a trend, one anomalous data point can have a large impact on the projected value, particularly when that data point is a value at the tails (first or last data point), which can pull the slope up or down significantly and lead to a projection that does not reasonably estimate a future value. This trending issue does not apply with rebasing where, as previously noted, historical data are used to calculate a five-year rolling average 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.

Prior to proposing the CY 2023 normalization factors for the CMS-HCC and CMS-HCC ESRD risk adjustment models, CMS carefully considered the impact of using the 2021 risk score (2020 dates of service) in the calculation of the slope used to project the 2023 FFS risk score (i.e., the normalization factor). CMS believes that the decreases in utilization in 2020 due to the pandemic were irregular and not reflective of future health care utilization, and, if the data were used to project a future risk score, would result in an underestimate of the normalization factor. The

policy of excluding the 2021 risk score (2020 dates of service) from the normalization factor calculation is consistent with the approach used to project FFS spending for 2023 in that 2020 data are excluded. Like the methodology used to calculate normalization factors, the methodology used to estimate national FFS spending projects a future value based on a trend. For both estimates, which rely on trending and projecting using historical data, CMS consistently excluded the 2020 data.

CMS has excluded a year of data from the normalization factor calculation in the past out of concern that its inclusion would lead to an unreasonable estimate of the payment year risk score. As described in the 2022 Rate Announcement,[6] the 2022 normalization factors for the RxHCC models were calculated using the linear slope methodology with four years of data (2016–2019) instead of five years (2015–2019). The reason for this was that the increase in risk scores from 2015 to 2016 was, in part, influenced by the introduction of encounter data into risk score calculations. CY 2015 was the first year that encounter data was incorporated into risk score calculations and it was not used in a blend but as an additional data source. As a result, in addition to a general increase in the reporting of diagnoses between 2015 and 2016, the increase in the encounter data-based risk score over this same time period reflected increases in reporting as the encounter data-based score gained more prominence in payment. Because CMS believed the inclusion of the 2015 risk score to calculate the RxHCC normalization factor resulted in an overestimate of what the average 2022 Part D risk score was likely to be, CMS finalized the policy to exclude it, leading to a lower normalization factor than would otherwise have been calculated.

Comment: The majority of commenters expressed concern that the impact of COVID on healthcare utilization is ongoing. Several commenters requested more detail about CMS's plans to evaluate and incorporate 2020 data (2021 risk scores), and other data years that may be impacted by the pandemic, in the calculation of the normalization factors for 2024 and beyond. One commenter requested that CMS continue to exclude CY 2021 risk scores for normalization factor calculation for CY 2024 and beyond.

Response: CMS appreciates commenters' concerns about the impact of the COVID-19 pandemic on utilization and diagnoses submission, and the potential effects on risk adjusted payments. While CMS understands the uncertainty surrounding the future impact of the COVID-19 pandemic and the use of the 2020 utilization data, every year CMS re-evaluates the data and bases policy decisions on the information available. The public will have an opportunity to comment on future proposed policies.

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[6] Refer to CMS's Announcement of Calendar Year (CY) 2022 Medicare Advantage (MA) Capitation Rates and Part C and Part D Payment Policies.

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

Comment: The majority of commenters supported the proposal of continuing to calculate MA risk scores using only risk adjustment-eligible diagnoses from encounter data and FFS claims.

Response: CMS appreciates the support for the proposal to calculate risk scores for payment to MA organizations[7] using only risk adjustment-eligible diagnoses from encounter data and FFS claims, and we are finalizing the methodology as proposed.

Comment: A few commenters mentioned operational and technical submission concerns (e.g., duplicate edits, and rejection edits) for encounter data. The commenters noted appreciation for software improvements to the risk adjustment submission systems and CMS's efforts to resolve encounter data challenges. They emphasized the importance of resolving all technical and operational issues to ensure encounters are captured accurately.

Response: We appreciate the feedback. CMS maintains an MA encounter data integrity plan, which includes a range of activities aimed at improving the completeness and validity of encounter data. Core activities include submission outreach, technical assistance, data analysis, and monitoring. These activities continue to improve the completeness and validity of encounter data. We will take this feedback into account as we develop additional technical assistance efforts. CMS remains committed to our partnership with the industry on encounter data submissions, and will continue to work with plans who have specific operational issues.

Comment: A few commenters recommended specific modifications to the currently allowed sources of diagnosis data, flexibility in the data collection period, and changes to the data source used to calibrate the model. These commenters encouraged the use of more sources of data in the model, such as home health and Skilled Nursing Facility data, requested that diagnoses from audio-only visits be considered for risk adjustment, and that CMS allow for a 24-month lookback period for diagnoses. One commenter requested that CMS move to a risk adjustment model based on encounter data, and mistakenly believed this would eliminate the need for the normalization trend adjustment.

Response: CMS appreciates commenters feedback and the request for more flexibility. While we understand the request for more data sources and data collection period applicability, we would like to note that a risk adjustment eligible diagnosis only has to be submitted and accepted once for it to count in a beneficiary's risk score calculation. We appreciate the recommendation to move to an encounter-data based model. We note the function of the normalization factor is to account for the trend in the average risk score between the denominator year risk score (1.0) and the payment year. Trend adjustment will be necessary regardless of the model calibration data source.

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

Attachment IV. Responses to Public Comments on Part D Payment Policy

Section A. RxHCC Risk Adjustment Model

Comment: Of the commenters that expressed a specific sentiment about the proposed model, the majority expressed support for the proposed changes that include a clinical update to the RxHCCs based on ICD-10-CM diagnosis codes, and an update to the data years used to calibrate the model. One commenter expressed concern that recent congressional proposals may significantly increase direct-subsidy portion of payments and requested that CMS ensure the model is accurately calibrated to capture such changes.

Response: CMS thanks the commenters for supporting the proposed recalibration of the RxHCC risk adjustment model, which was developed using more current diagnosis and cost data and a revised clinical classification based on ICD-10-CM diagnosis codes. For CY 2023, CMS is finalizing the policy to calculate non-PACE Part D risk scores using the recalibrated RxHCC model as proposed. We will take any legislative changes to the Part D benefit design into consideration after enactment.

Comment: A couple of commenters asked that CMS consider the impact of the public health emergency related to COVID-19 and the potential for its impact on risk scores during the payment years. Another suggested that COVID-19 diagnoses and costs be included to recalibrate future models.

Response: CMS thanks the comments for sharing these concerns. We note, the risk adjustment model being finalized is calibrated using diagnoses from 2018 services to predict drug costs for 2019, and does not include data from periods affected by the public health emergency. CY 2023 risk scores will utilize diagnoses from 2022 dates of service, and we expect that utilization in 2022 will rebound. We also note that a risk adjustment eligible diagnosis only has to be submitted and accepted once during the applicable data collection period for it to count in a beneficiary's risk score calculation. We appreciate the commenters' suggestions. CMS continuously considers and evaluates ways to improve the model.

Comment: A couple of commenters recommended that CMS examine other methods where the underlying data and structure of the RxHCC model could be modified, such as adding concurrent data markers for certain drug classes similar to the HHS-HCC model. These commenters believed including data markers for drug classes and specific drugs in a concurrent manner could improve the model's accuracy in predicting relative costs, by distinguishing enrollees who were prescribed certain medications from others with the same medical condition who were not, and enhancing the predictive power of the model overall and for specific diseases.

Response: We understand that in certain programs such as the Marketplace where a combined medical and drug model is utilized, there may be methodological differences in the approach for predicting relative costs that are population specific. CMS uses the RxHCC risk adjustment

model to adjust the direct subsidy payments for Part D benefits offered by stand-alone prescription drug plans and MA-Part D plans. Having the RxHCC model used to predict drug costs separate from the CMS-HCC model used to predict medical costs enables a single model – the RxHCC model – to account for differences in predicted plan liability for prescription drugs among distinct subgroups of Part D eligible beneficiaries. We consistently look for ways to improve our models and thank the commenters for their thoughts.

Comment: Several commenters noted the early release and 60-day comment period for changes to the CMS-HCC model in Part I of the Advance Notice for several years, and asked that CMS allow for a 60-day comment period for the RxHCC model so that plans have more time to evaluate the methodological changes. They also asked that CMS release additional information (e.g., model diagnoses to RxHCC mappings) for proposed models in a timelier manner (i.e., at the same time as the Advance Notice) to provide more time for review.

Response: We acknowledge the commenters' request to extend the comment period. We note the proposed changes in the 2023 Advance Notice are based on our authority under section 1853(a)(1)(C) of the Act, for which we must provide 30 days to comment. The requirement for a 60-day comment period applies to proposals to implement the certain changes to the CMS-HCC model stipulated in the 21st Century Cures Act. As added by the 21st Century Cures Act, section 1853(a)(1)(I)(iii) requires that CMS provide at least 60 days for public review and comment of proposed changes specifically to the Part C CMS-HCC risk adjustment model that are based on section 1853(a)(1)(I).

Comment: A couple of commenters expressed concern about specific RxHCCs that were removed from the proposed model and requested the RxHCCs be retained. One commenter specifically expressed concern about the removal of the RxHCC for morbid obesity from the model. Another commenter expressed concern about the removal of any RxHCCs from the model and felt there was insufficient information provided in the Advance Notice to fully assess changes to the RxHCC model. The commenters asked that these RxHCCs be maintained in the model due to the impacts they have in population health status and the role obesity plays as a major risk factor for a broad range of chronic diseases. One commenter asked for clarification of the hierarchy for the Neoplasm group of RxHCCs.

Response: The information presented in the CY 2023 Advance Notice included a description of how the model was calibrated, and why certain RxHCCs were added, removed, or reconfigured. In addition to providing the recalibrated model coefficients, CMS separately released a comparison of the RxHCCs in the current and revised models, along with the diagnoses incorporated into each RxHCC in each model.

As noted in the 2023 Advance Notice, the changes to the RxHCCs are a result of changes underlying the transition from ICD-9 to ICD-10 diagnosis 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 diagnoses 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).

RxHCCs were added, removed, or reconfigured based on clinical rationality and cohesion, updated prescription drugs and drug regimens in relation to the disease conditions and severity, and their implications for predicted costs. For example, RxHCC 45 Morbid Obesity was removed because it had varying predicted costs in recent model calibrations and the condition is not primarily treated with prescription drugs. For the Neoplasm RxHCCs, as displayed in Table VI-8 in the 2023 Advance Notice, RxHCCs were added to distinguish blood cancers from solid tumor cancers and to better distinguish secondary, or metastatic, cancers from primary cancers.[8] RxHCC 15 Chronic Myeloid Leukemia no longer excludes RxHCC 16 Multiple Myeloma and Other Hematologic Cancers in the hierarchy, but both RxHCC 15 and RxHCC 16 remain in the neoplasm hierarchy and exclude all other neoplasm RxHCCs. Greater clinical detail and coherence among the new and reconfigured RxHCCs allow the model to better capture current differences in drug expenditure risk, which are reflected in the recalibrated model.

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

Comment: Please refer to Section N in Attachment III, above, for comments and responses on the use of encounter data as a diagnosis source in 2023.

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

Comment: One commenter supported our policy of paying prospective reinsurance amounts to Part D EGWPs and recommended that CMS add a trend adjustment to the methodology so that prospective reinsurance payments take into account the amount by which reinsurance is projected to increase in the current payment year relative to the most recently reconciled payment year.

Response: We thank the commenter for their support and recommendation. We do not believe it would be appropriate to adjust prospective reinsurance payments for CY 2023 by a trend factor when we did not propose to do so in the Advance Notice. Although we decline to add a trend factor at this time, we will consider this recommendation as we continue to refine our methodology for future years.

[8] Table VI-8. RxHCC Model with Disease Hierarchies: as shown in CMS's Advance Notice of Methodological Changes for Calendar Year (CY) 2023 for Medicare Advantage (MA) Capitation Rates and Part C and Part D Payment Policies.

Section D. Part D Risk Sharing

Comment: One commenter urged CMS to be more transparent with our risk corridor analyses and explain why the analytic work does not include more recent years with completed payment reconciliations.

Response: We appreciate the commenter's suggestion and concern. We will consider providing more detail on methods used to examine risk corridor trends for future years. We note that our analysis of risk sharing trends for the CY 2023 Advance Notice evaluated risk sharing amounts for CYs 2008–2020; the CY 2023 Advance Notice inaccurately indicated that we only evaluated payment reconciliation data for CYs 2008–2018 as a result of a typographical error. We confirm here that our analysis took into account all available payment reconciliation data since 2008. We appreciate the commenter identifying this.

Attachment V. Final Updated Part D Benefit Parameters for Defined Standard Benefit, Low-Income Subsidy, and Retiree Drug Subsidy

Table V-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%

Table V-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
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

	2022	2023
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), and is not eligible for the 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 no 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. See the HPMS memorandum titled, 2022 Resource and Cost-Sharing Limits for Low-Income Subsidy (LIS).

Section A. Annual Percentage Increase in Consumer Price index

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

Section 1860D-14(a)(4) of the Act requires CMS to 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 copayments 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.[9]

Section B. Calculation Methodology

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

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 2023 benefit parameters reflect the 2022 annual percentage trend. Based on updated NHE prescription per capita costs and PDE data, the annual percentage trends are now calculated as summarized by Table V-3.

[9] 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.

Table V-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 reflect the 2022 annual percentage trend of 5.80 percent and a multiplicative update of -0.68 percent for prior year revisions. In summary, the 2022 outlined in Section A are updated by 5.08 percent for 2023, as summarized by Table V-4.

Table V-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 for Out-of-Pocket Threshold

In accordance with section 1860D-2(b)(4)(B), we calculated the change in the out-of-pocket threshold using the 2022 threshold value of $7,050 as our starting point. To calculate the 2023 value, we applied the 2023 API described above and rounded to the nearest $50. The resulting 2023 out-of-pocket threshold value is $7,400.

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

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 V-5 below.

Table V-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.

Section C. 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 "annual percentage increase":

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.

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[10] 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.

Table V-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)	

[10] 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.

(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.

Section D. Estimated Total Covered Part D Spending at Out-of-Pocket Threshold for Applicable Beneficiaries

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 drugs (brand drugs and biologics, including biosimilars) 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:

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

- *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.

Table V-7. 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.

Section E. 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.

Table V-8 Updated Retiree Drug Subsidy Amounts in 2023

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

Attachment VI. 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's 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 provided 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). We appreciate the feedback we received on potential future measures and concepts for the Star Ratings. We reviewed the comments and will consider them as we identify future enhancements to the Star Ratings program.

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, 202211 (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.

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[11] Refer to Medicare Program; Contract Year 2023 Policy and Technical Changes to the Medicare Advantage and Medicare Prescription Drug Benefit Programs available on the Federal Register website.

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 Medical Appeal Search website. 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 VI-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 VI-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**

Part C or D	Measure	Measure Type	Weight	Improvement Measure	Included in the 2023 CAI Values
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 who had a Fracture	Process Measure	1	**Yes**	**Yes**
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**

Part C or D	Measure	Measure Type	Weight	Improvement Measure	Included in the 2023 CAI Values
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**
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**

Part C or D	Measure	Measure Type	Weight	Improvement Measure	Included in the 2023 CAI Values
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**
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 CMS's Part C and D Star Ratings website. 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 VI-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 on CMS's Part C and D Star Ratings website.

Most commenters supported continuing the CAI. There were suggestions for adding additional measures and eliminating the negative adjustment. We will take these suggestions into consideration; however, Star Ratings methodological changes must be adopted through rulemaking.

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(g)(1) 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.

Most commenters support the rating adjustments made under the extreme and uncontrollable circumstances policy. Some commenters suggested an expanded policy, such as continuing the COVID-19 adjustments (implemented for the 2020 measurement year for the 2022 Star Ratings) to the 2021 measurement year for the 2023 Star Ratings, and expanding adjustments across multiple years and to disasters that have occurred but are not declared as a public health emergency by the Secretary. Changes to the extreme and uncontrollable circumstances policy would have to be implemented through rulemaking. We will take these comments into consideration as we develop future policies for the ratings program beyond the 2023 Star Ratings.

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

Table VI-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, 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 measure updates through the annual Advance Notice and Rate Announcement process. 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 be added or updated through rulemaking, and 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 described a number of measure concepts and changes in the Advance Notice and summarize significant comments here. We encourage stakeholders to provide comments directly to measure developers during their public comment periods. For example, NCQA and PQA regularly solicit public comments on new measures, changes to existing measures, and measure retirements.

Diabetes Care – Kidney Disease Monitoring (Part C). NCQA has announced the retirement of the Diabetes Care – Kidney Disease Monitoring (Part C) measure after measurement year 2021. Since NCQA will no longer be collecting data for this HEDIS measure beginning with measurement year 2022, CMS will not have data for this measure to be included in the 2024 Star Ratings. The measure will be included in the 2023 Star Ratings using data from measurement year 2021. As announced in the 2022 Rate Announcement,[12] we began reporting the Kidney Health Evaluation for Patients with Diabetes (Part C) measure (which replaces the Diabetes Care – Kidney Disease Monitoring (Part C) measure) for the display page for the 2022 Star Ratings and are considering adding it to the Star Ratings through future rulemaking as we retire the existing Kidney Disease Monitoring measure. We are submitting the new kidney measure through the Measures Under Consideration process for review by the Measures Application Partnership, which is a multi-stakeholder partnership that provides recommendations to HHS on the selection of quality and efficiency measures for CMS programs.

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 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-

[12] Announcement of Calendar Year (CY) 2022 Medicare Advantage (MA) Capitation Rates and Part C and Part D Payment Policies (cms.gov)

> 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 are 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.

Overall, commenters were supportive of the PQA updates to remove dapagliflozin and empagliflozin single ingredient from the SUPD measure. A few commenters suggested that the SUPD measure drug exclusions should also be applied to the Medication Adherence for Diabetes Medications measure or the Medication Adherence for Cholesterol (Statins) measure as applicable for consistency. Some commenters also expressed concern with refining the liver disease exclusion to include only a diagnosis of cirrhosis since other forms of severe liver disease with diabetes comorbidity can be progressive leading to hepatotoxicity with statin use and therefore may be inappropriate. PQA is the measure steward for the SUPD measure and Medication Adherence measures. Therefore, CMS will share specification comments received with the PQA.

CMS will implement the narrowing of the liver disease exclusion and the removal of the dapagliflozin and empagliflozin single ingredient from the measure NDC medication list 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 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 medication Value Sets.

These changes are 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.

All commenters supported the removal of the RxHCC codes from these measures. Some commenters requested that CMS accept supplemental data sources to identify appropriate exclusions, but we do not accept supplemental data. CMS will continue to use the Common

Working File (CWF) and Encounter Data System (EDS) to identify diagnoses based on ICD-10 codes. 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 as inaccurate drug prices in those instances where the actual prescription drug event (PDE) cost exceeds the rounded MPF cost by at least a cent ($0.01). (PDE costs equal to or below the MPF cost do not count against the contract's score.)

Plan sponsors have previously raised concerns that rounding may negatively impact measure scores; therefore, we solicited feedback on 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.

All commenters agreed with making this update to change the threshold. A couple of commenters suggested alternative thresholds, but we believe that a $0.02 threshold adequately addresses the rounding concerns while still achieving the measure's intent to assess accuracy. A larger allowable threshold would move away from that goal. Some commenters suggested that CMS allow plan sponsors to submit MPF display data more frequently to align with how often prices changes at the pharmacies; that CMS should only use the designated or proxy NDCs as defined by the CMS Formulary Reference File (FRF) and stop using related NDCs; and lastly, that all pharmacy types should be used in this measure. We will carefully consider these suggestions for the future and will implement the threshold 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. 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 solicited 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. It is important for plans to help ensure clear and accurate information is provided to beneficiaries, and that beneficiaries are not confused or misled. 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 when 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 contracts (76 percent) and all PDP contracts remained the same using the specification change.

Most commenters did not support the inclusion of category 1.30 in the measure. Some commenters raised concerns about the nature of these complaints, suggested that all of these complaints should not be attributed to the plans, and noted that low enrollment plans may be disproportionately impacted. Other commenters supported this update to hold sponsors accountable for complaints resulting from marketing misrepresentation.

This change would be a substantive update under §§ 422.184(d)(2) and 423.184(d)(2) because it expands the numerator. We will take the comments into consideration; substantive updates must be proposed through the rulemaking process.

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 solicited 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. We also sought comment on additional changes. 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 discontinue use of member-years of enrollment. Instead, we would align with the PQA 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 is 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. The PQA specifications do not include the IP/SNF stay adjustments.

A majority of the commenters supported SDS risk adjustment for the medication adherence measures. However, some commenters also requested information on how the CAI will be affected by this update. Additionally, commenters requested clarification on the update from member-years to continuous enrollment. We received a few comments expressing concern with the proposal to remove the SNF/IP stay adjustment and its impacts to the medication adherence measures. We appreciate the feedback. We are still undergoing testing of the SDS risk adjustment, discontinuing member-years of enrollment and using continuous enrollment, and removing the IP/SNF stay adjustment. If CMS decides to propose these changes to fully align with the PQA-endorsed specifications, additional information from the testing would be provided through the rulemaking process.

Colorectal Cancer Screening (Part C). For measurement year 2022, NCQA is 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 include adults 45-75 years of age, from 50-75 years of age. Adding an age group is considered a substantive measure specification change as described at § 422.164(d)(2); thus, the updated measure will be on the display page for two or more years and proposed through rulemaking prior to adding it to the Part C Star Ratings. We will still have information to calculate the legacy measure while the new measure is on display. NCQA is also removing the hybrid reporting method in measurement year 2024 and transitioning the measure to electronic clinical data systems (ECDS) reporting only beginning in measurement year 2024.

Commenters supported expanding colorectal cancer screening to adults age 45 to 49 years. Most requested that CMS delay the transition from hybrid reporting to exclusively ECDS reporting, and some considered the removal of hybrid reporting a substantive change.

Because the legacy measure is critical to measuring and reflecting an important area of clinical care and the data will remain available, we will include it in the Star Ratings until the updated measure has been adopted through rulemaking and has been on the display page for 2 years; as a result, the legacy measure will be used in the Star Ratings until the new measure reflecting the expanded age range is available for use in the Star Ratings.

Changes in the reporting method would be non-substantive updates as described at § 422.164(d)(1) and, as such, we will implement this change for the 2024 measurement year (2026 Star Ratings). The HEDIS ECDS Reporting Standard provides health plans a method to collect and report structured electronic clinical data for HEDIS quality measures. ECDS reporting allows plans to use administrative claims and clinical data that may come from a variety of

sources that plans use to report the measure as it is currently specified. The key difference from traditional HEDIS reporting methods is that the ECDS method has specific guidelines for reporting data to NCQA using four data source categories: EHR, health information exchanges/clinical registries, case management system, and administrative claims/enrollment. Removing hybrid reporting and transitioning to ECDS will not change the eligible population for the measure or the data sources that contracts can use; the change is to the reporting method only. Contracts will no longer be able to assess performance based on a sample of members when the hybrid method is removed, but they can continue to use data from chart reviews if it is standardized upon abstraction and included in an electronic database. They can perform year-round chart review and have it audited as non-standard supplemental data, and use it to report the measure. NCQA has delayed the removal of hybrid reporting and transition to ECDS reporting for Colorectal Cancer Screening to measurement year 2024, which will give contracts three more years of parallel reporting, allowing them to gain additional experience with ECDS reporting. For more information about ECDS reporting, please see the ECDS Frequently Asked Questions website.

Statin Therapy for Patients with Cardiovascular Conditions (Part C). Based on a review of the latest evidence and guideline recommendations related to PCSK9 inhibitors, exploration of potential approaches for coding statin intolerance, and feedback from the Cardiovascular Measure Applications Partnership (MAP), NCQA has decided not to pursue changes to this measure at this time. They will continue to monitor the evidence around use of PCSK9 inhibitors for future measure development opportunities.

Breast Cancer Screening (Part C). NCQA is removing 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.

While commenters support the move to ECDS reporting, some commenters believe transitioning to ECDS is a substantive change that should go through the rulemaking process. ECDS reporting allows plans to use administrative claims and clinical data that may come from a variety of sources that plans use today to report the measure as it is currently specified. The ECDS method has specific guidelines for reporting data to NCQA using four data source categories: EHR, health information exchanges/clinical registries, case management system, and administrative claims/enrollment. The measure specification and data sources have not changed from prior years. Therefore, this is not a substantive change. The change in reporting mechanism only may not be specifically listed as an example in § 422.164(d)(1), but it is like those examples in that the intent and scope of the measure have not changed. The data sources have not been limited or narrowed, but have been expanded to allow additional data sources. For Medicare health plans that reported using both the administrative method and ECDS method for HEDIS measurement year 2020, results demonstrated that performance rates were nearly identical and on average differed by less than one percentage point.

CMS will apply the update to this measure beginning with the 2023 measurement year (2025 Star Ratings). Thus, contracts have two more years to do parallel reporting and gain further experience using ECDS reporting before this change goes into effect.

Cross-Cutting: Frailty & Advanced Illness Exclusions in Various Measures (Part C). NCQA is updating the Frailty Symptom and Frailty Device value sets to remove several non-specific codes. These value sets are used to identify individuals who have an indication of frailty for the purposes of exclusion from specific measures when combined with either advanced age or a diagnosis of advanced illness. NCQA is also updating the exclusion to look for at least two indications of frailty, on different dates of service, during the measurement year instead of just one. Both updates will decrease potential overidentification of people as frail. 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 will begin with measurement year 2023 and are non-substantive under § 422.164(d)(iv) because they add 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). Commenters expressed mixed feedback on potential changes around frailty and advanced illness codes with some in favor and others strongly against the changes. Some commenters have specific recommendations about how to define and measure frailty. We have shared this feedback with NCQA for their consideration as they make future updates to these exclusions.

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 standardized electronic clinical data to better assess diabetes outcomes, including HbA1c control over time. NCQA plans to explore incorporating information from continuous glucose monitoring (CGM) data, such as glucose management indicator (GMI), into future specifications.

Most commenters requested more information about how eye exams and blood sugar will be measured. Some commenters were concerned about relying on electronic clinical records because such records may have gaps in information. Although most commenters supported moving toward HbA1c measurements over time to develop a new diabetes measure, they wanted NCQA to consider the complexities of obtaining data from continuous glucose monitoring devices in developing a measure. We have shared this feedback with NCQA for their consideration as they continue to explore this topic.

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 regarding blood pressure control and replace it with this new measure.

Commenters asked for more information and clarity around how blood pressure will be measured, how frequently it will be measured, and whether measurements taken at home will count. Some expressed concerns about the availability of electronic clinical data, especially for rural patients. We have shared this feedback with NCQA for their consideration as they continue to explore this topic.

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 in the Star Ratings of any changes to one or all of the indictors would be pending rulemaking.

Commenters supported NCQA's efforts to conduct an environmental scan and assess potential updates to this measure. Commenters expressed concern that it may be premature to move to a digital format. We have shared this feedback with NCQA for their consideration as they continue to explore updates to this measure.

Adult Immunization Status (Part C and/or D). 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 January 2022, 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 vaccination is also assessed for a sample of Medicare members through the Medicare CAHPS survey and reported on the display page.

Some commenters supported replacing the current CAHPS influenza vaccination measure with the HEDIS indicator of adult immunization status, suggesting that it would be more reliable than self-reported CAHPS data. Other commenters noted that the electronic data sources would have

incomplete vaccination status data since patients can receive vaccines in community settings with or without an insurance claim. Many commenters cited discrepancies between HEDIS immunization data with self-reported CAHPS data. Some commenters suggested supplementing electronic data sources with other data sources to have more complete information. Some commenters expressed support for a more robust Star Rating immunization measure that captures more than influenza and pneumococcal vaccines. We have shared this feedback with NCQA for their consideration as they continue to explore updates to this measure. CMS will also take this feedback into consideration as we explore updates to our immunization measures. Any changes to the current influenza vaccination measure or the addition of a more comprehensive immunization measure would need to be proposed through rulemaking.

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 the availability of COVID-19 vaccines under emergency use authorization and 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 asked for feedback again in the 2023 Advance Notice on the utility and feasibility of a vaccination measure for MA plans. Commenters raised concerns about rapidly evolving clinical guidelines for the appropriate dosing schedule which could vary based on patient characteristics such as age and health status, as well as issues around the availability of accurate data due to a unique situation of mass vaccination sites and some providers providing the vaccinations “free of charge”. We will take this feedback into consideration and also share this feedback with NCQA for their consideration as they continue to explore updates to the Adult Immunization Status measure.

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.gov. We anticipate all 2022 display measures will continue to be shown on CMS.gov in 2023 unless noted below.

Cardiac Rehabilitation (Part C). We solicited feedback on 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.

Most commenters supported adding this measure to the display page. Some commenters supported proposing this measure in the future as a Star Ratings measure, while other commenters noted some challenges due to differences in referrals, access to, and compliance with cardiac rehabilitation programs by race and ethnicity, rural status, and dual eligibility. CMS will plan on posting this measure on the 2023 display page (based on the 2021 measurement year) and will take this feedback into consideration regarding proposing it as a future Star Ratings 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. In response to the CY 2021 Advance Notice, one commenter recommended CMS consider replacing the Physical Health measure with the PFADL measure, and most commenters requested additional information before the measure is proposed as an addition to the Star Ratings program. 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 at that time said we would provide additional information about the measure as it became available. Based on feedback received since 2021, 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.

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.

Most commenters supported CMS's efforts to adjust the PFADL results for age and other social determinants of health, and several commenters recommended considering replacing the current Improving or Maintaining Physical Health measure with the PFADL measure. Other commenters suggested we consider revisions to the HOS survey to shorten it, update the sampling, and ensure survey items are sensitive to differences across Medicare enrollees related to culture, ethnicity, and disability. A few commenters recommended additional variables be added to the case-mix adjustment for HOS measures. We will take these comments into consideration as we continue to update the PFADL measure and consider future updates to the HOS survey.

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. Among the handful of commenters that provided input regarding potential updates to this measure, a couple of commenters provided support, while others requested more information or suggested to retire the measure. We have shared this feedback with NCQA for their consideration as they continue to explore updates to this measure.

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's negative SUD history period. 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). These changes apply for the 2022 measurement year (2024 display page).

Commenters appreciated the updates to the measure. One commenter noted that the measure does not address enrollees with SUDs who never use services and therefore do not receive a diagnosis. A couple of commenters made various suggestions, including adding age bands for stratification and expanding the numerator to include enrollees who participate in faith and community-based treatment programs. We have shared this feedback with NCQA for their consideration as they make future updates to this measure.

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 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. Commenters were supportive of the palliative care exclusion. A commenter requested clarification on how palliative care will be identified for these measures when managed outside of hospice care. CMS uses the PQA Value Sets for the measures, including the palliative care ICD-10 code. CMS will share comments regarding the palliative care exclusion with the PQA. Palliative care will be added as an exclusion to the opioid display page measures for the 2022 measurement year (2024 display page).

Likewise, as mentioned earlier, PQA removed 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 ICD-10 diagnosis codes in the PQA Value Sets for the cancer exclusions. All commenters supported the removal of the RxHCC codes from these measures. CMS will continue to use the CWF and EDS to identify diagnoses based on ICD-10 codes. 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 Long Duration (IOP-LD) in the Part D Patient Safety reports. We plan to add the IOP-LD 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. We appreciate the comments received suggesting which opioid measures should be added to the Star Ratings. These comments will be carefully considered; adding measures to the Star Ratings must be proposed through the rulemaking process.

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 PQA

measure manual updates, we will no longer use the RxHCC codes in APD and APD- LTNH for identifying dementia diagnosis, similar to the code changes discussed above for other Part D Patient Safety measures. However, CMS will continue to use the CWF and EDS to identify the diagnosis of dementia based on the PQA Value Set ICD-10 codes. All comments received supported the removal of the RxHCC codes from these measures. The RxHCC codes will be removed 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[13] 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 13985 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 related to DE/LIS and disability status. Below we describe our efforts related to stratified reporting and the development of a health equity index to further drive efforts to reduce disparities.

[13] 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).

There was unanimous support for CMS's efforts to advance health equity. Some commenters urged CMS to allow plans adequate time to implement necessary changes and to use a transition period for implementation of changes that will require significant operational adjustments or new resources. Many of the commenters supported CMS's proposals to bridge the equity gap through future stratification of additional quality measures in the Star Ratings program, and the addition of important screening and referral measures. Commenters mentioned additional social risk factors for CMS to consider.

We appreciate the support from commenters and will take the comments into consideration as we continue to work to advance health equity.

Stratified Reporting (Part C and D). We are 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. 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. We will stratify by LIS/DE/disability status for both process and outcome measures, as well as CAHPS measures when appropriate. For example, CAHPS measures are not good candidates for stratification by LIS or DE status because they are already case-mix adjusted for these factors. Stratifying process 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.

Nearly all commenters supported confidential stratified reporting, with some citing that it would provide useful insights to identify performance gaps and facilitate quality improvement, drive health equity, reduce health disparities, support increased transparency of plan accountability, incentivize plan improvement, inform allocation of resources, and support plan choice for beneficiaries with social risk factors. A few commenters requested a preview period if the stratified reports are made public so plans can gain experience and confidence in the data before

the data are used by beneficiaries for plan selection. Some commenters expressed reservations about making stratified reporting results public, although several said they would support if information is clear, meaningful, and can be easily understood. Commenters also recommended additional variables for stratification.

We appreciate the support for stratified reporting and will begin sharing confidential stratified reports with contracts through HPMS this spring. We plan to start by stratifying scores for a subset of Star Ratings measures by LIS/DE versus non-LIS/DE and disabled versus non-disabled. National performance scores will be provided for comparison. This information can be used by contracts to inform and target their quality improvement efforts. We will continue to explore additional variables for stratification and consider including stratified reporting as part of the display measures on CMS's Part C and D Star Ratings webpage and 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.

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. Currently, we intend to combine data over two years to increase measure-level reliability. 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 by adding a value ranging from 0 to 0.4 based on the mean and variance of all of the contract's measure-level stars to a contract's overall and/or summary ratings. The health equity index reward factor could replace the current reward factor to further 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 want to note, as some of the plans may be aware, that CMS's 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. (The HESS is not currently used in the Star Ratings.)

The majority of commenters supported including a health equity index in the Star Ratings. Many commenters would like more details related to the methodology and simulations of the impact of adding a health equity index to the Star Ratings. Some commenters also requested the index be implemented slowly to allow for time to review the methodology and allow plans time to adjust and prepare for the implementation of a health equity index. Commenters also suggested possible changes to the methodology for calculating the health equity index mostly focused around additional SRFs to include in the index.

There was mixed support for implementing a health equity index in place of the current reward factor since it could reduce Star Ratings for some contracts. A few commenters asked for a phased approach to implementing a health equity index and removing the current reward factor. A few commenters asked for clarification around how a health equity index would differ from the CAI and asked whether it would be appropriate to replace the CAI with a health equity index. A small number of commenters addressed including ADI in a health equity index. While a few commenters supported including ADI, most did not. There were several concerns raised including that ADI does not distinguish between areas that have both extreme poverty and

extreme wealth; and that is not fully representative of systemic disparities for historically marginalized communities.

CMS appreciates the support for including a health equity index in the Star Ratings. We will take the comments into consideration as we continue its development.

A health equity index has different goals and methodology from the CAI and therefore it would not be an appropriate replacement for the CAI. The CAI adjusts for within-group SRFs that are outside of a plan's control. A health equity index would focus on between-contract differences in performance for groups with SRFs capturing differences in performance across contracts. Thus, a health equity index would reward contracts for performing well among groups with SRFs with the goal of incentivizing improved performance for these populations, leading to reductions in disparities.

To provide Part C and D sponsors with information about how their contracts perform on the health equity index, we plan to make contract-specific index information available in HPMS later this year. The addition of a health equity index to the Part C and D Star Ratings would need to be adopted through the rulemaking process.

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.

Please note in the 2023 Part C and D proposed rule, CMS proposed 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.

Most commenters supported the development of a measure assessing health-related social needs. Some commenters suggested that CMS use the NCQA measure being developed versus developing a new measure or one that has not yet been tested in the plan setting. There was very mixed input on whether there should be a standardized tool or flexibility to use multiple tools.

CMS appreciates the support for the development of a measure assessing health-related social needs. We will take the comments into consideration as we consider adding such a measure to the Star Ratings. The addition of a measure assessing health-related social needs to the Part C Star Ratings would need to go through the rulemaking process.

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 specified for the ECDS reporting method 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.

The vast majority of commenters supported the use of NCQA's screening and referral to services for social needs measure. A few commenters supported eventually going beyond this measure to include not just screening and referrals but also access to appropriate services. A commenter requested more details on how the referral component of the measure will be defined, and another commenter requested clarification that the measure would be required for both SNP and non-SNP plans. A commenter expressed concern around assessing social needs across plans and geographies given that there is variation in prevalence of social needs depending on where plans operate. We have shared this feedback with NCQA for their consideration as they finish their development of this measure. For this measure to be added to the Star Ratings, it would need to be adopted through rulemaking.

Value-based Care (Part C). As CMS continues 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 sought comment on the potential development of 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.

There was mixed reaction to CMS developing a measure related to VBC arrangements. Some commenters asked for more information about the purpose of collecting this information and how it will be comparable across plans. Some commenters noted a measure should use the existing Learning & Action Network (LAN) categories and should focus on percent of members in high-value arrangements and not percent of providers in these arrangements. Other commenters raised concerns, challenges, and potential unintended consequences of including a VBC measure in Star Ratings, in particular concerns about the impact in rural and underserved areas and ensuring we are creating incentives for high quality care.

CMS will take these comments under consideration as we consider the feasibility of developing such a measure for use on the display page or to adopt through rulemaking for the Star Ratings.

Kidney Health (Part C). NCQA is exploring new measure concepts to assess appropriate kidney health evaluation and management. Potential concepts include kidney health testing among patients at risk of chronic kidney disease (CKD), management of patients with CKD (e.g., blood pressure control, blood sugar control, access to medical nutrition therapy services, access to kidney disease education, preparedness for kidney failure), and management of patients with end stage kidney disease (ESKD) (shared decision making, person driven outcomes). The majority of commenters support the development of new kidney health measures that could become part of both the display page and the Star Ratings program. There were multiple suggestions for possible kidney care measures. Commenters suggested exploring measures related to testing patients at risk of CKD, managing patients with CKD (e.g., blood pressure control, blood sugar control, cholesterol control, management of ESA, access to medical nutrition therapy services, preparedness for kidney failure), and managing patients with ESKD (person driven outcomes, patient experience, quality of life). The commenters had differing opinions as to whether medical nutritional therapy should be part of a measure. We have shared this feedback with NCQA for their consideration as they continue to explore measures in this area.

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 beneficiaries with a prescription claim for insulin. 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.

PST-INS is a new Part D measure included in the Patient Safety reports provided to sponsors. CMS will fully align with PQA's PST-INS measure specifications. CMS solicited comment on use of PQA's continuous enrollment specification, not member-years adjustment in the Patient Safety reports. 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 ESRD, 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 VI-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%

Commenters were generally supportive with the intent of the PST-INS measure, but some commenters expressed concerns.

A few commenters strongly disagreed with the PST-INS measure. Commenters requested that measure results be fully tested and validated prior to adding the measure to the Star Ratings. Commenters acknowledged the importance of improving insulin use among the Part D Medicare population however, concerns were expressed with the measure's methodology since insulin therapy is complex and response can be variable. Some commenters suggested developing a measure based on glycemic control of hemoglobin A1C regardless of medication regimen. Commenters also requested the following changes be considered for PST-INS: denominator require two or more fills rather than a single fill; include social risk factors; stratify data by age and consider limiting the age to 65 since older adults with multiple co-morbidities should have different targets and less medications per Standards of Medical Care in Diabetes; exclude beneficiaries in palliative care or hospice care; consider adjustments for SNF/IP stays; and account for discontinuations or dose reductions made by a provider. Additionally, commenters were concerned with how the Reference Table was developed and requested further information on how it was derived. Commenters encouraged CMS to use caution when selecting the representative or comprehensive dataset to develop the Reference Table. We remind stakeholders that CMS will refer to the PQA measure specifications and the NDC Value Sets developed by PQA to calculate the contract-level rates for the PST-INS measure. CMS will share specification related comments and concerns received with the PQA.

CMS will begin reporting the PST-INS measure in the Patient Safety reports for the 2022 measurement year. This measure will be added to the display page for 2024 (2022 data) and 2025 (2023 data). CMS appreciates the comments received and will be carefully considered; adding measures to the Star Ratings must be proposed through the rulemaking process.

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 beginning with 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 solicited feedback regarding re-introducing the BAPP measure as a Star Ratings measure, pending rulemaking, and asked for feedback about any potential suggested revisions to the current display page measure and about what enforcement actions should be included in the measure.

While a handful of commenters supported adding the BAPP measure back into the Star Ratings program, most commenters were opposed. They raised a variety of different concerns, including only a subset of contracts are audited each year, the belief that enforcement actions and sanctions are not member-centric so should not be included in the Star Ratings program, plan performance issues are already addressed through civil monetary penalties and sanctions, and the belief that Star Ratings should focus on quality and not plan compliance issues. We will take this feedback into consideration. Reintroducing the BAPP measure into the Star Ratings program would require rulemaking.

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.

Commenters overwhelmingly supported the addition of a web mode for the MA and PDP CAHPS survey as part of the mixed mode data collection protocol. There was also support for adding questions related to telehealth and discrimination to the survey, as long as consideration is given to survey length. Support was mixed regarding collecting information around sexual orientation and gender identity on this survey. We appreciate all of the comments received and will continue to evaluate them as we consider changes to the MA and PDP CAHPS survey. 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 VII. Economic Information for the CY 2023 Rate Announcement

Below, we provide the economic information for significant provisions in the Rate Announcement. 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. Comments related to the economic information presented in Parts I and II of the Advance Notice have been summarized and addressed in the applicable sections above with the remainder of the comments.

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 4.89 percent, and the MA growth percentage for the 2023 MA non-ESRD rates is estimated to be 4.75 percent. As a result, the effective growth rate for 2023 MA non-ESRD rates is estimated to be 4.88 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 $17.3 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 4.75 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 $70 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 Sections C1 and C2 of the 2023 Advance Notice is $650 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 9.59 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 $2.3 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 implementing 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 the CY 2022, is estimated to be $500 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.

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 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 implementing updated MSP factors for working aged/disabled and beneficiaries with ESRD. 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 finalizing the methodology proposed in the 2023 Advance Notice, 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 and the same five

years of historical risk scores that were used to calculate the slope for developing the CY 2022 normalization factor (2016-2020). 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 implementing the updated version of the RxHCC risk adjustment model, as proposed in the 2023 Advance Notice. 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.

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Table VIII-1. 2023 CMS-HCC 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-HCC 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 VIII-2. 2023 CMS-HCC 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-HCC 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 VIII-3. 2023 CMS-HCC ESRD Kidney Transplant 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-HCC ESRD Dialysis Denominator value used was $87,250.85.

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

Table VIII-4. 2023 CMS-HCC 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 VIII-5. 2023 CMS-HCC 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 VIII-6. 2023 CMS-HCC 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 VIII-7. Disease Hierarchies in the 2023 CMS-HCC 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 VIII-8. Comparison of Current (2022 V05) and Revised (2023 V08) RxHCC Risk Adjustment Models

Current RxHCC Risk Adjustment Model RxHCCs		Revised 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		Revised 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		Revised 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		Revised 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		Revised 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 revised RxHCC model represent disease groups that were either added or split out from current model RxHCCs.
2. Italicized RxHCCs in the revised 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 revised 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 VIII-9. 2023 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 VIII-10. 2023 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 VIII-11. 2023 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 VIII-12. 2023 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 VIII-13. 2023 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
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

Rx Hierarchical Condition Category (RxHCC)	If the Disease Group is listed in this column…	…Then drop the RxHCC(s) listed in this column
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