



Date: June 12, 2020

RE: 2018 Benefit Year HHS Risk Adjustment Data Validation Results

The Centers for Medicare & Medicaid Services (CMS) is making available summary information on issuers' 2018 benefit year HHS risk adjustment data validation (HHS-RADV) results. The 2018 benefit year HHS-RADV results will be used to adjust 2019 benefit year risk adjustment plan liability risk scores, resulting in adjustments to 2019 benefit year risk adjustment transfer amounts.¹ This memo contains an overview of the HHS-RADV error rate methodology, a summary of the 2018 benefit year HHS-RADV results, and information to assist issuers in understanding their results.² In August 2020, CMS anticipates releasing a report reflecting how these results will adjust 2019 benefit year risk adjustment transfers. These adjustment amounts will be collected and distributed in the 2022 benefit year and issuers will be required to report these adjustments as part of their respective 2022 benefit year medical loss ratios. In addition, we have issued guidance as part of the federal rate filing instructions to provide states and issuers flexibility in terms of when these amounts will be considered for rate setting purposes.

Overview of the 2018 Benefit Year HHS-RADV Error Estimation Methodology

Similar to 2017 benefit year HHS-RADV, the 2018 benefit year HHS-RADV results utilize the Hierarchical Condition Category (HCC) group failure rate approach to error estimation finalized in the HHS Notice of Benefit and Payment Parameters for 2019.³ Under this approach, CMS first groups all HCCs into three failure rate groups (Low, Medium, and High) based on each HCC's failure rate as determined from the results of all issuers' initial validation audit (IVA) results (or second validation audit (SVA) results if there was insufficient pairwise means agreement between the issuer's SVA and IVA results). Next, CMS determines the weighted mean failure rate and a confidence interval for each of the three HCC failure rate groups across all issuers to assess each issuer's performance relative to the total population of issuers participating in 2018 benefit year HHS-RADV. CMS compares these national HCC failure rate group mean failure rates and confidence intervals against each issuer's HCC

¹ The one exception is for issuers who exited all markets in the state for the 2019 benefit year. For these issuers, their 2018 HHS-RADV results will apply to their respective 2018 benefit year risk scores, resulting in adjustments to risk adjustment transfer amounts in the applicable state market risk pools, if the issuer is a positive error rate outlier. As we discuss further below, there were no positive error rate outliers among exiting issuers, therefore, no adjustments will be made to 2018 benefit year risk scores and risk adjustment transfer amounts as a result of 2018 HHS-RADV.

² Issuers who participated in 2018 benefit year HHS-RADV will also receive issuer specific and enrollee specific results in the Audit Tool at the same time this memo is released. Issuers will also receive issuer specific demographic and enrollment (D&E) letters and reports, as well as issuer specific prescription drug (RXC) letters in the Audit Tool, in late June.

³ See HHS Notice of Benefit and Payment Parameters for 2019 Final Rule (2019 Payment Notice), 83 FR 16930 at 16961 – 16965 (April 17, 2018).

group failure rates to determine whether the issuer's results are outside the confidence intervals for an HCC failure rate group. CMS uses a 1.96 standard deviation cutoff to define a 95 percent confidence interval for outlier identification. An issuer's HCC group failure rate that is outside of the confidence interval for an HCC failure rate group results in an adjustment to the IVA-sampled enrollees' risk scores with HCCs in that group (or the SVA-sampled enrollees' risk scores with HCCs in that group if there was insufficient pairwise means agreement).⁴ These adjustments to affected enrollees' risk scores contribute to the development of the issuer's risk score error rate, which is ultimately applied to the outlier issuer's plan liability risk score, resulting in adjustments to transfers in the applicable state market risk pools.

Highlights of the 2018 Benefit Year HHS-RADV Results

In this section, CMS provides a high level summary of the major trends identified in the 2018 benefit year HHS-RADV results and comparisons between 2017 and 2018 HHS-RADV.

Key Finding #1: An increase in exempt issuers resulted in a significant decrease in the number of issuers participating in 2018 benefit year HHS-RADV in comparison to 2017 benefit year HHS-RADV.

The 2018 benefit year was the second year that HHS operated the risk adjustment program in all 50 states and the District of Columbia. Of the 552 issuers of risk adjustment covered plans in 2018,⁵ 361 participated in 2018 benefit year HHS-RADV, which means that 2018 benefit year HHS-RADV was conducted on approximately 65.4 percent of issuers. A total of 191 issuers of risk adjustment covered plans did not participate in 2018 benefit year HHS-RADV because they: (1) were exempt for having 500 or fewer billable member months statewide;⁶ (2) were at or below the materiality threshold of \$15 million in total annual premiums and were not selected to participate under random or targeted sampling;⁷ (3) qualified for the liquidation exemption;⁸ (4) were an exiting issuer offering only carry-over coverage in the state's small group market;⁹ or (5) were a sole market issuer in the 2018 benefit year.^{10,11} Although this level of participation reflects a 26.9 percentage point decrease from 2017 benefit

⁴ When an issuer is identified as an outlier, CMS will reduce (or increase) each of the sample enrollees' HCC coefficients by the difference between the outlier issuer's failure rate for the HCC failure rate group and the weighted mean failure rate for the HCC failure rate group. The shorthand "positive error rate outlier" captures those issuers whose HCC coefficients are reduced as a result of being identified as an outlier; while "negative error rate outlier" captures those issuers whose HCC coefficients are increased as result of being identified as an outlier.

⁵ In 2017 there were 628 issuers of risk adjustment covered plans.

⁶ 45 CFR § 153.630(g)(1).

⁷ 45 CFR § 153.630(g)(2).

⁸ 45 CFR § 153.630(g)(3). Also see the HHS Notice of Benefit and Payment Parameters for 2020 Final Rule (2020 Payment Notice), 84 FR 17454 at 17508 – 17511 (April 25, 2019).

⁹ To be considered an exiting issuer, the issuer has to exit all of the markets and risk pools in the state (that is, not selling or offering any new plans in the state). If an issuer only exits some markets or risk pools in the state, but continues to sell or offer new plans in others, it is not considered an exiting issuer. A small group market issuer with off-calendar year coverage who exits the market in a state but has only carry-over coverage that ends in the next benefit year (that is, carry-over of run out claims for individuals enrolled in the previous benefit year, with no new coverage being offered or sold) is an exiting issuer. See the 2020 Payment Notice, 84 FR at 17503 – 17504.

¹⁰ See the 2020 Payment Notice, 84 FR at 17504.

¹¹ Due to the budget neutral nature of the HHS-operated risk adjustment program, exempt issuers may still receive a transfer adjustment based on HHS-RADV results if other issuers within the same state market risk pool were identified as outliers.

year HHS-RADV, in which 580¹² out of 628 issuers (92.3%) of risk adjustment covered plans participated, issuers with 98.8 percent of billable member months in the individual and small group (or merged) markets participated in 2018 benefit year HHS-RADV, whereas issuers with 96.6 percent of billable member months participated in 2017 HHS-RADV.¹³ The difference in participation can generally be attributed to the change in applicable exemptions for the 2018 benefit year. Specifically, the application of the materiality threshold, which generally exempted issuers at or below the materiality threshold of \$15 million in total annual premiums from the 2018 benefit year HHS-RADV, resulted in issuers participating in the 2018 benefit year HHS-RADV having higher market shares on average compared to those that participated in 2017 benefit year HHS-RADV.

The 2018 benefit year HHS-RADV results saw shifts in the proportion of issuers participating in HHS-RADV that exited all markets in a state for the 2019 benefit year (exiting issuers). A total of 2 out of the 361 issuers (0.5%) that participated in the 2018 benefit year HHS-RADV and contributed to the 2018 benefit year national metrics exited all markets in a state for the 2019 benefit year and are considered exiting issuers for purposes of the 2018 benefit year HHS-RADV. This was a substantial decrease in comparison to the 2017 benefit year, where 81 out of 580 (14.0%) issuers that participated in the 2017 benefit year HHS-RADV were considered exiting issuers.

Generally, HHS-RADV results for exiting issuers are used to modify the risk scores for the same benefit year in which they participated in HHS-RADV, rather than the subsequent benefit year. However, given that the two (2) exiting issuers had either a negative or zero error rate, the 2018 benefit year HHS-RADV results for these two (2) exiting issuers will not be used to modify their 2018 benefit year risk scores or the risk adjustment transfers for the applicable state market risk pool.¹⁴ Therefore, no adjustments will be made to 2018 benefit year risk scores and risk adjustment transfer amounts as a result of 2018 benefit year HHS-RADV.

Additionally, CMS notes that some markets will have new issuers in 2019 benefit year risk adjustment. New issuers entering the market who are subject to 2019 risk adjustment may see adjustments to their 2019 benefit year transfers if there were any outlier issuers in their state market risk pools in the 2018 benefit year HHS-RADV.

Key Finding #2: Demographic and Enrollment (D&E) validation improved, but Prescription Drug Category (RXC) claims validation identified areas for improvement.

For 2018 benefit year HHS-RADV, issuers continued to improve in the retrieval and submission of adequate documentation for D&E data elements compared with 2017 benefit year HHS-RADV. D&E failures (defined as a D&E HIOS ID with four (4) or more errors present for a single data element)

¹² The count of 2017 benefit year HHS-RADV participating issuers excludes 15 issuers in the state of Massachusetts for which the 2017 benefit year HHS-RADV was a pilot year. See the 2020 Payment Notice, 84 FR at 17508.

¹³ The billable member months include the individual, small group, merged and catastrophic markets and since the 2017 benefit year was a pilot year for HHS-RADV in Massachusetts, all the issuers in Massachusetts were excluded from the 2017 benefit year number.

¹⁴ For 2017 benefit year HHS-RADV, exiting issuers found to have a non-zero error rate (i.e., that were identified as positive error rate or negative error rate outliers) received adjustments to their risk scores, resulting in adjustments to risk adjustment transfers in the applicable state market risk pools. For 2018 benefit year HHS-RADV and beyond, only those exiting issuers who are identified as being positive error rate outliers will result in adjustments to risk scores and transfers. See the 2020 Payment Notice, 84 FR at 17503 – 17504.

decreased between the 2017 and 2018 benefit years, where there were 98 issuers with D&E failures out of 580 issuers (16.9% of participating issuers) in the 2017 benefit year, and 20 issuers with D&E failures out of 361 issuers (5.5% of participating issuers) in the 2018 benefit year.¹⁵ The total number of D&E errors for HIOS IDs with D&E failures also decreased substantially from 4,921 in the 2017 benefit year to 205 in the 2018 benefit year.¹⁶ Improvements in the number of errors were directly related to improvements in the audit documentation of D&E findings, and adherence to the submission format requirements for IVA Entity D&E results. As with 2017 benefit year HHS-RADV, CMS will conduct outreach to issuers with 2018 benefit year HHS-RADV D&E failures to assess the extent of the errors and adjust 2018 benefit year risk adjustment transfers as necessary.¹⁷

RXC review was new for the 2018 benefit year and was treated as a pilot year.¹⁸ Common RXC errors in the 2018 benefit year HHS-RADV were related to the following data elements:

- Claim Processed Date Time,
- Fill Date,
- Dispensing Provider ID,
- Product Service ID, and
- Service Code.

These errors were primarily driven by lack of adherence to submission format requirements for IVA Entity RXC results, as well as inconsistent and incomplete issuer provided mapping documentation. Additionally, CMS observed instances where screenshot documentation for enrollee RXC data elements was either omitted, submitted for the incorrect enrollee, or illegible. CMS will provide issuers their D&E and RXC results in a separate communication later in June. As applicable, CMS will conduct outreach in the summer of 2020 for RXC data discrepancies identified during the 2018 benefit year HHS-RADV RXC pilot.

Further guidance on findings and ways to improve RXC and D&E submissions will be communicated to affected issuers and shared in an upcoming RXC and D&E webinar in late June/early July 2020.

Key Finding #3: The highest frequency HCCs in each HCC failure group only changed slightly between the 2017 and 2018 benefit years.

Table 1 below provides the top five (5) highest frequency HCCs in each HCC failure rate group used in 2018 benefit year HCC failure rate group calculation, based on EDGE frequencies across all IVA

¹⁵ We note that due to the exemptions applicable to the 2018 benefit year HHS-RADV, the population of participating issuers is different between 2017 and 2018 benefit years. However, the observed trend of decreased D&E errors between the 2017 and 2018 benefit years is consistent among the 343 issuers that participated in both the 2017 and 2018 benefit years.

¹⁶ These values include failures found during the SVA.

¹⁷ As detailed in the 2019 Payment Notice, D&E errors will be handled in a manner similar to EDGE data discrepancies under 45 CFR § 153.710. CMS will initiate a process outside of HHS-RADV to further evaluate the impact of the D&E errors, determine whether the market needs to be made whole due to the errors, and then make the necessary adjustments to affected issuers. Any adjustments resulting from D&E errors would be treated as late filed discrepancies for the benefit year being audited. See 83 FR 16970 – 16971 for further details.

¹⁸ See 84 FR at 17498 – 17503. In an effort to give issuers and HHS more experience validating RXCs, the 2019 benefit year HHS-RADV will be a second pilot year for RXC validation. See HHS Notice of Benefit and Payment Parameters for 2021 Final Rule (2021 Payment Notice), 85 FR 29164 at 29198 – 29199.

samples (or SVA100 for issuers who fail the pairwise test¹⁹).

Table 1: HCC National Benchmark Metrics – HCC Failure Rate Group Summary

Group Summary				
HCC Group	Total HCC Frequencies	Number of Unique HCCs	Average Risk Score in Sample ²⁰	Top 5 Highest Frequency HCCs in the HCC Failure Rate Group
Low	42,886	33	5.287	161, 142, 160, 21, 56
Medium	44,508	32	7.093	8, 20, 130, 2, 75
High	46,769	63	8.527	127, 23, 156, 74, 131

Several of the highest-frequency HCCs in each HCC failure rate group remained consistent between the 2017 and 2018 benefit years, including: 161, 160, 21, and 56 in the Low Group; 8, 130, and 2 in the Medium Group; and 127, 156, 74, and 131 in the High Group. Note that sorting of HCCs into the Low, Medium and High HCC failure rate groups for HHS-RADV is conducted annually based on HHS-RADV results. See Appendix D for details on the HCC failure rate groups for the 2018 benefit year of HHS-RADV.

Key Finding #4: Comparison of 2017 benefit year frequently miscoded HCCs to 2018 benefit year frequently miscoded HCCs shows some similar results.

In the 2018 benefit year SVA, CMS identified several HCCs that were frequently miscoded on EDGE or that IVA Entities frequently abstracted incorrectly or without necessary supporting documentation. The most common miscoded HCCs as found by the SVA for SVA-reviewed sample enrollees are noted in Table 2 below. The numbers in Table 2 reflect only the enrollees reviewed during the SVA process.

¹⁹ If issuer fails pairwise test at SVA100, the SVA results are used in place of the IVA results and the EDGE HCC frequencies are reflective of the SVA subsample size.

²⁰ “Average risk score” is estimated by (total HCC risk score component) / (total HCC frequencies for that group). The numerator `total HCC risk score component` is the sum of each individual HCC’s risk score component. The individual HCC’s risk score component is used to calculate an enrollee’s overall adjustment factor taking into account all of the enrollee’s individual HCCs’ adjustment factors. The HCC risk score component is determined by the enrollee’s metal level and the HCC’s corresponding coefficient(s) in Table 9 of the HHS-Developed Risk Adjustment Model Algorithm “Do It Yourself (DIY)” Software Instructions. The HCC risk score component is weighted by enrollment duration in instances where the enrollee switches metal levels during the benefit year.

**Table 2: 2018 Benefit Year SVA: Highly Miscoded HCCs
with Associated Coding Clinic Guidance**

HCC ID	HCC Name	EDGE Frequency	IVA Frequency	SVA Frequency	Coding Clinic Guidance
20	Diabetes with Chronic Complications	660	614	568	Coding Clinic, 2nd Quarter, 2016, pages: 36-37 (Diabetes and associated conditions clarification)
74	Disorders of the Immune Mechanism	225	110	75	Coding Clinic, 3rd Quarter 2015, pages: 21-22 (Immunocompromised)
75	Coagulation Defects and Other Specified Hematological Disorders	280	250	206	Coding Clinic, 2nd Quarter, 2006, page: 17 (Coagulopathy) and Coding Clinic, 1st Quarter, 2016, page: 14 (Bleeding caused by extrinsic circulating anticoagulants)
82	Drug Dependence	162	151	137	Coding Clinic, 2nd Quarter 2013, page 14 (Opioid dependence with continuous use)
88	Major Depressive and Bipolar Disorders	224	206	183	Coding Clinic, 3rd Quarter 2009, pages: 18-19 (Major depression)
120	Seizure Disorders and Convulsions	242	233	218	Coding Clinic, 1st Quarter, 2008, page: 17 (Seizure disorder-clarification)
137	Hypoplastic Left Heart Syndrome and Other Severe Congenital Heart Disorders	10	7	5	Coding Clinic, 4th Quarter, 2017, pages: 32-38 (Correction of congenital heart defects)
139	Atrial and Ventricular Septal Defects, Patent Ductus Arteriosus, and Other Congenital Heart/Circulatory Disorders	84	69	57	Coding Clinic, 4th Quarter, 2010, page: 136 (Repaired congenital anomaly)
156	Pulmonary Embolism and Deep Vein Thrombosis	281	216	198	Coding Clinic, 3rd Quarter, 1991, page: 16 (Thrombosis and thrombophlebitis of deep veins of the leg)
248	Other Premature, Low Birthweight, Malnourished, or Multiple Birth Newborns	27	27	23	Per the 2018 ICD-10-CM Official Guidelines for Coding and Reporting, Section I.C.16.d, "when both birth weight and gestational age are available, two codes from category P07 should be assigned, with the code for birth weight sequenced before the code for gestational age".

In the 2017 benefit year HHS-RADV, HCCs 20, 74, 75, 120, 139, and 156 were also identified as having a high rate of miscoded HCCs between IVA and SVA results. CMS attributes the substantial overlap in these highly miscoded HCCs between the two benefit years to common instances where diagnoses were incorrectly captured from the past medical history (PMH) portion of the medical record. CMS encourages use of the ICD-10-CM Official Guidelines for Coding and Reporting and the AHA Coding Clinic to assist in making final determinations when abstracting diagnoses

Key Finding # 5: Issuers’ 2018 benefit year HHS-RADV results showed lower mean HCC failure rates across HCC failure rate groups and improved national program metrics in comparison to the 2017 benefit year HHS-RADV results.

Issuers’ 2018 benefit year failure rates improved and as a result, the national program benchmarks improved. Per Table 3 below, the 2018 benefit year HHS-RADV results demonstrated lower national means, lower standard deviations, and narrower confidence intervals (thresholds). Because the reduced standard deviations of failure rates in all three HCC failure rate groups reduced the distances to the group failure rate means, the average magnitude of the issuers’ adjustment factors in each HCC failure rate group and issuers’ error rates were also generally reduced.

Table 3: National Failure Rate Statistics

	Number of Included HHS-RADV Issuers	National Failure Rate Statistics				
		Group	Mean	Standard Deviation	Lower Threshold	Upper Threshold
2018 HHS-RADV Results	361	Low	0.034	0.088	-0.140	0.207
		Medium	0.120	0.086	-0.049	0.289
		High	0.226	0.092	0.046	0.406
2017 HHS-RADV Results	580	Low	0.048	0.097	-0.143	0.238
		Medium	0.155	0.099	-0.040	0.349
		High	0.262	0.106	0.054	0.471

Key Finding #6: Compared with the 2017 benefit year, the 2018 benefit year had an overall lower number of issuers who were outliers, but the proportion of negative outliers is higher.

In the 2018 benefit year HHS-RADV, the majority of issuers had a zero error rate, while only 47 unique issuers (13.0 percent) were found to be outliers in one or more HCC failure rate groups. This represents a decrease in outlier issuers compared with the 2017 benefit year (110 unique outliers, 19.0 percent). Among outliers in 2018 benefit year HHS-RADV, 8 of 47 unique outliers were outliers in more than one HCC failure rate group, a decrease from the 2017 benefit year, where 30 of 110 unique outliers were outliers in more than one HCC failure rate group. Additionally, of the 8 issuers identified

as an outlier in more than one HCC failure rate groups²¹ in 2018, all were the same type of outlier for each HCC failure rate group, meaning there was no issuer that was a positive outlier in one HCC failure rate group and negative outlier in another HCC failure rate group.

The decrease in outlier issuers between the 2017 and 2018 benefit years was likely influenced by the application of the materiality threshold (defined as issuers that are at or below the materiality threshold of \$15 million in premiums) in 2018 benefit year HHS-RADV, given that a large proportion of outliers in the 2017 benefit year were smaller issuers (67.27%).

If the distribution of failure rates is normal, an even split between positive and negative HCC failure rate group outliers would be expected. Among outlier issuers in 2018 benefit year HHS-RADV, the number of negative HCC failure rate group outliers (32) was slightly higher than the positive HCC failure rate group outliers (25) (see Table 4). This difference in counts of positive and negative outliers was not statistically significant compared to the expected even split.

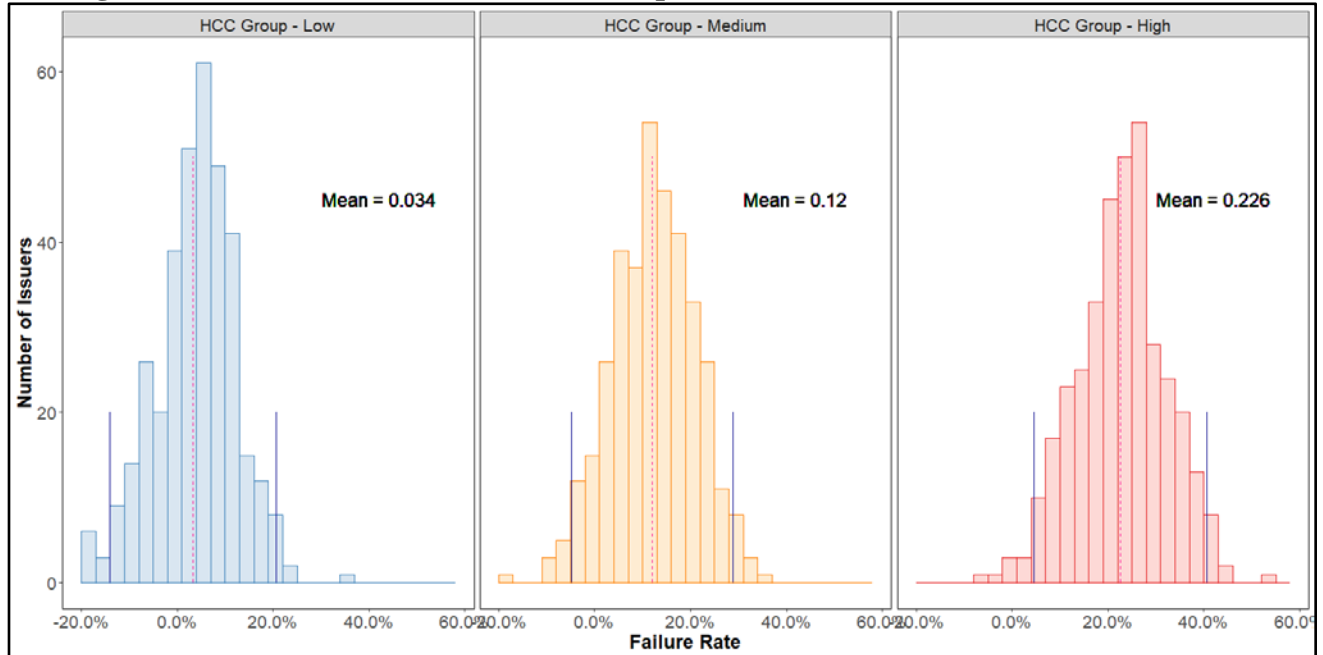
Table 4 illustrates negative HCC failure rate group outliers, positive HCC failure rate group outliers, and unique outlier issuers by HCC failure rate group across the 2017 and 2018 benefit years HHS-RADV. Figure 1 provides the distribution of outliers for each HCC failure rate group.

Table 4: Comparison of 2017, and 2018 Negative, Positive, and Unique Outlier Issuers by HCC Failure Rate Group

	Number of Included HHS-RADV Issuers	HCC Failure Rate Group	Outliers Counts			
			Negative HCC Failure Rate Group Outliers	Positive HCC Failure Rate Group Outliers	Total	Unique Outliers
2018 HHS-RADV Results	361	Low	13	6	19	47
		Medium	9	10	19	
		High	10	9	19	
		Total	32	25	57	
2017 HHS-RADV Results	580	Low	15	34	49	110
		Medium	14	34	48	
		High	19	33	52	
		Total	48	101	149	

²¹ Issuers can be an outlier in 3 HCC failure rate groups in HHS-RADV for a given benefit year.

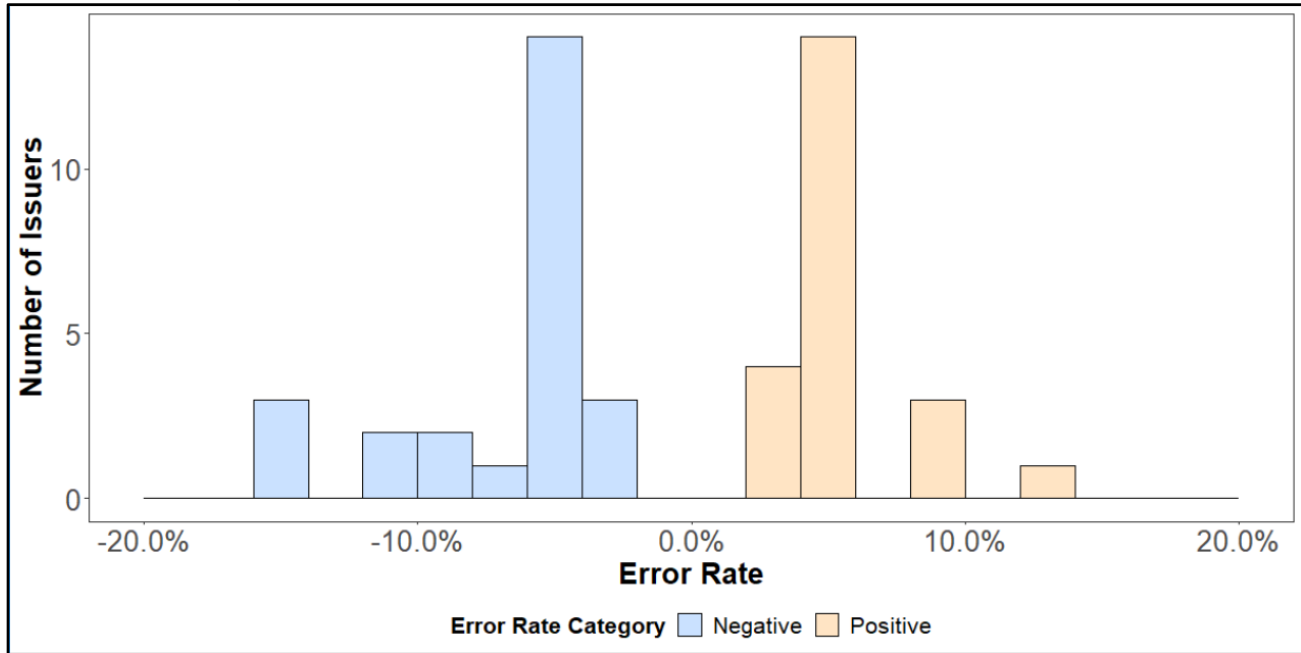
Figure 1: 2018 BY HHS-RADV HCC Group Failure Rate Distribution and Benchmarks



Based on the empirical failure rate distribution of all issuers in the 2017 benefit year HHS-RADV data, CMS expected that outliers with positive error rates would be more prevalent than outliers with negative error rates. However, in the 2018 benefit year, outliers with positive error rates (22) were slightly less prevalent than issuers with negative error rates (25). On average, positive error rates were smaller in magnitude in the 2018 benefit year (5.43%) compared with 2017 (9.78%), whereas negative error rates were slightly larger in magnitude in the 2018 benefit year (-6.92%) compared with 2017 (-5.88%).

This shift is also consistent with changes in the distribution of outliers for the 2018 benefit year (as previously seen in Figure 1). The distribution of error rates is depicted in Figure 2 below.

Figure 2: 2018 Benefit Year Error Rate Distribution by Error Rate Categories (Among Issuers with Error Rates)



Key Finding #7: Small group market risk pools continue to have more outliers and more adjustments than individual market risk pools as a result of 2018 benefit year HHS-RADV.

The small group market continued to have more outliers and more state markets being adjusted than the individual market as a result of 2018 benefit year HHS-RADV. As outlined in Figures 3 and 4 below, 20 individual non-catastrophic (including merged market) and 27 small group state market risk pools had outlier issuers and will have 2019 benefit year risk scores adjusted based on 2018 benefit year HHS-RADV results.²² There was an increase in individual non-catastrophic (including merged market) risk pools with outliers and a decrease in the small group market risk pools with outliers in comparison with the 2017 benefit year,²³ in which 18 individual non-catastrophic (including merged market) and 31 small group state market risk pools had outliers and therefore had their 2018 benefit year risk scores adjusted based on 2017 benefit year HHS-RADV results. Because there generally are more issuers in the small group market risk pools in comparison to the individual market risk pools, we expect that this trend may persist in future years.

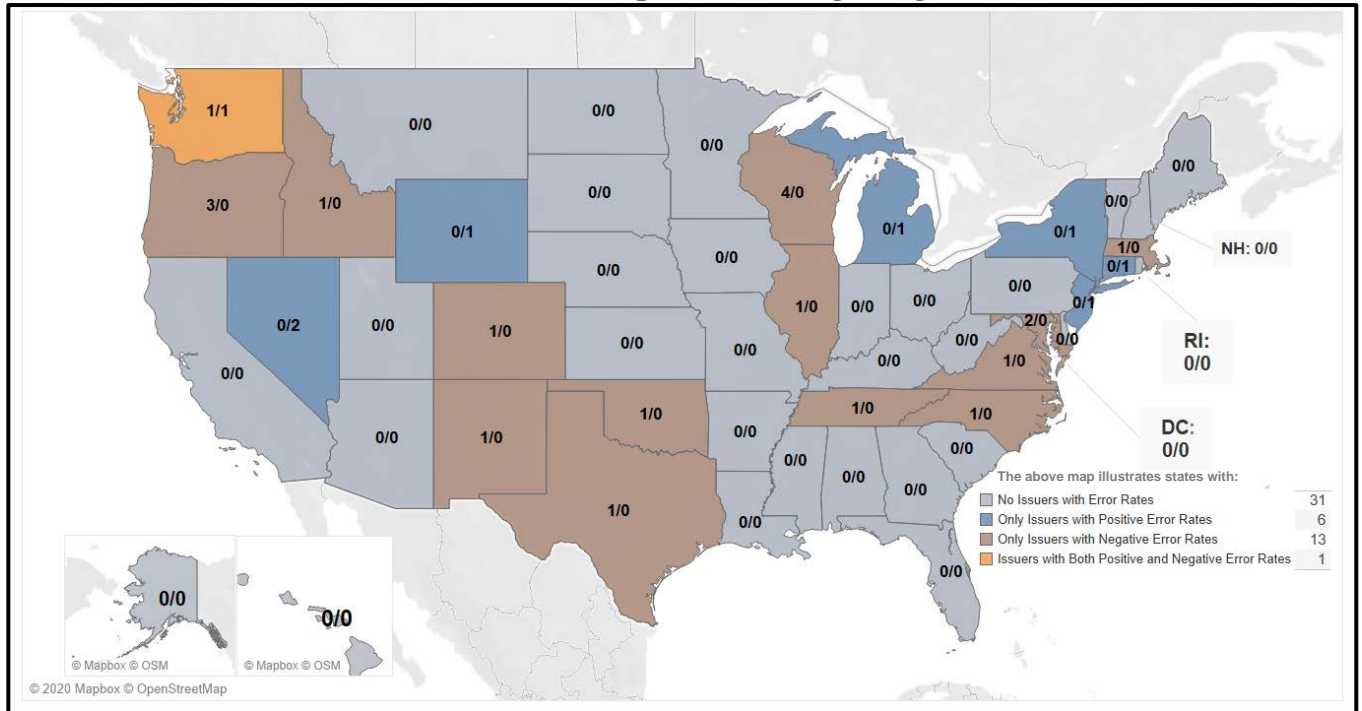
In the 2018 benefit year, the proportion of states with negative error rate outliers (14) to total outliers (20) in the individual non-catastrophic (including merged market) risk pools is higher when compared to the proportion of states with negative error rate outliers (14) to total outliers to total outliers (27) in the small group market risk pools. In the 2018 benefit year, 31 individual non-catastrophic (including

²² As noted above, there were no positive error rate outlier exiting issuers in 2018 HHS-RADV, therefore, no adjustments will be made to 2018 benefit year risk scores or transfers as a result of 2018 HHS-RADV.

²³ For purposes of this comparison, the 2017 benefit year HHS-RADV numbers only reflect state market risk pools where a non-exiting outlier issuer’s results were used to adjust 2018 benefit year risk scores and transfers. It does not include exiting outlier issuer 2017 benefit year HHS-RADV numbers, whose results were used to adjust 2017 benefit year risk scores and transfers.

merged market) and 22 small group market risk pools did not have outliers (compared with 33 individual non-catastrophic (including merged market) and 18 small group market risk pools in 2017) and will not have adjustments to 2019 benefit year risk adjustment transfers as a result of 2018 benefit year HHS-RADV.

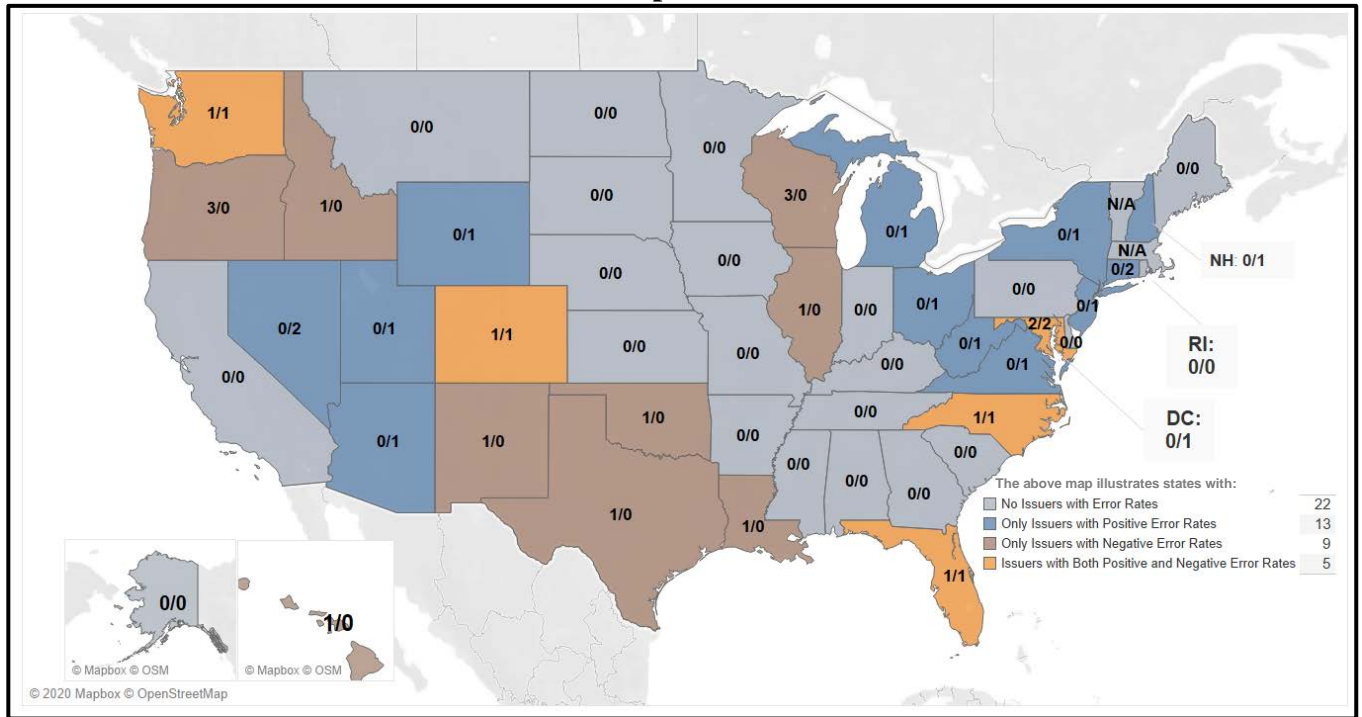
Figure 3: Overview of 2018 Benefit Year HHS-RADV Non-Exiting Error Rate Outlier Issuers by State– Individual Market, Non-Catastrophic (Including Merged Markets) Risk Pools²⁴



Note: The first number in the state text label (left-side) represents the number of outlier issuers with negative error rates. The second number in the state text label (right-side) represents the number of outlier issuers with positive error rates. The key in the bottom right of the map refers to states with the four (4) options listed.

²⁴ This individual market map reflects the results from merged market risk pools, but does not reflect the results from catastrophic risk pools. This map reflects state market risk pools that will have 2019 benefit year risk scores adjusted based on the 2018 benefit year HHS-RADV results.

Figure 4: Overview of 2018 Benefit Year HHS-RADV Non-Exiting Error Rate Outlier Issuers by State– Small Group Market Risk Pools²⁵



Note: The first number in the state text label (left-side) represents the number of outlier issuers with negative error rates. The second number in the state text label (right-side) represents the number of outlier issuers with positive error rates. The key in the bottom right of the map refers to states with the four (4) options listed.

2018 Benefit Year HHS-RADV Results: Key Metrics and Reports

The HHS-RADV Audit Tool²⁶ provides the following results documents for 2018 benefit year HHS-RADV:

1. National Program Benchmarks – 2018 Benefit Year HHS-RADV Compared to 2017 Benefit Year HHS-RADV (Appendix A): Provides the national program benchmarks for HCC failure rate group means and confidence intervals, and summary statistics based on all issuers’ results used to establish the national HCC failure rate group metrics.
2. Estimated 2019 Benefit Year RA Market Weighted Average Risk Score Adjustment Factors from 2018 Benefit Year HHS-RADV Results (Appendix B): Provides the estimated state market risk pool weighted average error rate for each state market risk pool.²⁷
3. Estimated 2018 Benefit Year RA Market Weighted Average Risk Score Adjustment Factors from 2018 Benefit Year HHS-RADV Results (Exiting Issuers) (Appendix C): Provides the

²⁵ The small group market map only reflects state market risk pools that will have 2019 benefit year risk scores adjusted based on the 2018 benefit year HHS-RADV results.

²⁶ The HHS-RADV Audit Tool can be accessed by issuers at: <https://ccrms-rari.force.com/HHSRADVAuditTool/>.

²⁷ We note that the state market risk pool estimates are subject to change as they do not take into account any adjustments for issuers receiving a default data validation charge, discrepancies or appeals.

estimated state market risk pool weighted average error rate for each state market risk pool. As noted above, there were no positive error rate outlier exiting issuers; therefore, there is no impact to 2018 benefit year risk scores as a result of 2018 benefit year HHS-RADV.

4. 2018 Benefit Year HHS-RADV HCC Group Definitions (Appendix D): Provides the list of HCCs and the HCC Failure Rate Group Level classification.
5. Issuer-Specific Metrics Report: Provides issuer-specific results on each HIOS ID's HCC group failure rates and error rate, if applicable. This is available to issuers in the History and Results tab of the Audit Tool. Issuers with more than one HIOS ID will receive separate Issuer HCC Group Metrics Reports for each HIOS ID.
6. Enrollee-Level Metrics Report: Provides issuer-specific results that provide the enrollee-level findings for each HIOS ID's HHS-RADV sampled enrollees' HCCs and applicable adjustments. This is available to issuers in the History and Results tab of the Audit Tool.²⁸
7. Issuer D&E Letters and Reports: Provides issuer-specific results of the D&E review. This will be available to issuers in late June 2020 and will be posted in the History and Results tab of the Audit Tool.
8. Issuer RXC Letters: Provides issuer-specific results of the RXC pilot review. This will be available to issuers in late June 2020 and will be posted in the History and Results tab of the Audit Tool.

The Enrollee-Level Metrics Report, along with values in the Issuer Specific Metrics Report(s), can be used by issuers receiving such reports to calculate the error rate shown in the Issuer Specific Metrics Report. Issuers should note that the HIOS ID's error rate may be a zero or a non-zero rate. CMS also provides a 2018 benefit year HHS-RADV Results Job Aid report to help issuers understand the results and includes definitions for each of the data fields in the results that will be available in the HHS-RADV Audit Tool. The 2018 benefit year HHS-RADV Results Job Aid includes an addendum, called "Error Rate Calculation Example", that provides step-by-step directions for calculating an issuer's error rate.

IVA Entities will have access to this Memo and the HHS-RADV Results Job Aid, but they do not receive issuer specific results (i.e., documents #5 – #8 in the above list). Issuers may choose to share their issuer specific results with their IVA entities. For issuers who did not participate in 2018 benefit year HHS-RADV, documents # 5 – # 8 in the above list will not be provided. However, these issuers can access this Memo and documents #1 – #4 in the above list.

Impact of HHS-RADV Error Rates and Outlier Status on Risk Adjustment Transfers

The impact of a risk score error rate on an issuer's risk adjustment transfers depends on whether the issuer was identified as an outlier and whether additional outliers exist in the state market risk pool.

- Exempt Issuers: Exempt issuers will receive a zero error rate.
 - These issuers did not participate in HHS-RADV and will not have adjustments made to their respective plan liability risk scores.
 - Due to the budget neutral nature of the HHS-operated risk adjustment program, exempt issuers' transfer amounts may change if other issuers in the same state market

²⁸ In the 2018 HHS-RADV Protocols in Section 11.3.3 - Calculation of Error Rates to Adjust Issuer Plan Risk Scores, we describe the calculation of issuers' HCC group failure rates and error rates, particularly as those rates apply to newly identified HCCs by the IVA (or SVA as applicable) that are not reflected in the enrollee metrics. The HHS-RADV Protocols can be accessed at: https://www.regtap.info/uploads/library/HRADV_2018Protocols_070319_5CR_070519.pdf.

risk pool are identified as outliers.

- **Non-Outlier Issuers:** Non-outlier issuers will receive a zero error rate.
 - The majority of participating issuers' 2018 HHS-RADV results are within the confidence intervals of the national HCC group failure rates. As non-outliers, these issuers will not have adjustments made to their respective plan liability risk scores.
 - Due to the budget neutral nature of the HHS-operated risk adjustment program, these issuers' transfer amounts may change if other issuers in the state market risk pool are identified as outliers.
- **Outlier Issuers:** Outlier issuers will receive non-zero error rates.²⁹ These non-zero error rates could be positive or negative.
 - If the error rate is positive, the issuer's plan liability risk scores are adjusted downward by the error rate. Assuming no adjustments to other issuers' risk scores in the same state market risk pool, this would result in a higher 2019 benefit year risk adjustment charge or lower risk adjustment payment, or shift the transfer amount from a payment to a charge.
 - If the error rate is negative, the issuer's plan liability risk scores are adjusted upwards by the error rate. Again assuming no adjustments to other issuers' risk scores in the same state market risk pool, this would result in a lower 2019 benefit year risk adjustment charge or higher risk adjustment payment, or shift the transfer amount from a charge to a payment.

The application of error rates to outlier issuers' risk scores affects the state average risk score for a state market risk pool, which in turn affects other issuers' risk adjustment transfer calculations in that state market risk pool, even if those issuers had a zero error rate for 2018 benefit year HHS-RADV. This includes new issuers entering a state market risk pool in 2019 in which outlier issuers were identified in 2018 benefit year HHS-RADV. As a result, exempt issuers, non-outlier issuers, and new market entrants may receive adjustments to their 2019 benefit year transfers due to any non-zero 2018 benefit year error rates from other issuers in their state market risk pools.

We have provided the estimated weighted average risk score adjustment factors by state market risk pool in Appendix B (for 2019 benefit year transfers) so that issuers can compare this information to the data that will be released in the Summary Report on Permanent Risk Adjustment Transfers for the 2019 Benefit Year.^{30,31} In Appendix B, the estimated weighted average risk score adjustment factors represent the weighted average risk score adjustment factor for each state market risk pool based on the 2018 benefit year HHS-RADV results applied to the statewide average risk score for the 2019 benefit year. Issuers can use this data in conjunction with issuer-specific 2019 benefit year risk adjustment data, the state tables, and the payment transfer denominator amounts that will be included in the Summary Report on Permanent Risk Adjustment Transfers for the 2019 Benefit Year to estimate the impact of 2018 benefit year HHS-RADV error rates and their HHS-RADV adjusted 2019 benefit year risk adjustment

²⁹ Issuers with failure rates that lie outside of one or more of the HCC group confidence intervals are considered outliers.

³⁰ CMS anticipates releasing the Summary Report on Permanent Risk Adjustment Transfers for the 2019 Benefit Year no later than July 16, 2020. For more information, see https://www.regtap.info/ann_view.php?id=268 (login required).

³¹ CMS also released Appendix C (for 2018 benefit years transfers) to provide the estimated weighted average risk score adjustment factors by state market risk pool reflecting exiting issuer outlier 2018 benefit year HHS-RADV results. However, because there were no positive error rate outlier exiting issuers, there are no estimated adjustments for 2018 benefit year risk scores as a result of the 2018 benefit year HHS-RADV.

transfers. Information on the 2018 benefit year HHS-RADV adjustments to 2019 benefit year risk adjustment transfers will be available when the Summary Report of 2018 Benefit Year Risk Adjustment Data Validation Adjustments to Risk Adjustment Transfers is released in August 2020. Please note that the numbers provided in Appendix B are estimates and the magnitude of the estimated values shown in Appendix B are subject to change³² and should not be relied upon for purposes of financial projections or forecasting. These estimated numbers are only intended to give issuers a general sense of the estimated change in risk score expected in a state market risk pool.

To further explain Appendix B, issuers in state market risk pools with a “zero” estimated weighted average risk score adjustment factor can generally expect no change to their 2019 benefit year risk adjustment transfer amount(s) as a result of 2018 benefit year HHS-RADV. For issuers in state market risk pools with a non-zero estimated weighted average risk score adjustment factor, the estimated weighted average risk score adjustment factor will be applied to the state average risk scores in the same manner that issuers’ risk score error rates are applied to issuers’ risk scores – that is, a negative estimated weighted average risk score adjustment factor will increase a state average risk score, while a positive estimated weighted average risk score adjustment factor will decrease a state average risk score. For “zero” error rate issuers in state risk pools³³ with a “non-zero” estimated weighted average risk score adjustment factor:

- In states with a negative estimated weighted average risk score adjustment factor, “zero” error rate issuers can generally expect their charge to increase, or their payment to decrease, or a shift in the transfer amount from a payment to a charge, due to the state average risk score increasing.
- In states with a positive estimated weighted average risk score adjustment factor, “zero” error rate issuers can generally expect their charge to decrease, or their payment to increase, or a shift in the transfer amount from a charge to a payment, due to the state average risk score decreasing.

Next Steps

Based on these results, issuers in state market risk pools with HHS-RADV error rates will see these risk score adjustments applied to 2019 benefit year risk adjustment transfers in a separate report to be released in August 2020.³⁴ These adjustment amounts will be collected and distributed in the 2022 benefit year.³⁵

Error Rate Calculation Attestation and Discrepancy Reporting Process: All issuers participating in 2018 benefit year HHS-RADV³⁶ are required to attest to the error rate calculation, or qualify the attestation by filing a discrepancy (see 45 C.F.R. § 153.630(d)(2)). Beginning on June 12, 2020, issuers have thirty (30) calendar days, until July 13, 2020, to attest to findings or qualify that attestation with a discrepancy related to the 2018 benefit year HHS-RADV risk score error rate calculation. Issuers must complete the Error Rate Attestation and Discrepancy Reporting Process in the HHS-RADV Audit Tool. A separate communication will be distributed to issuers with instructions for completing the HHS-RADV Error Rate Attestation and Discrepancy Form.

³² The state market risk pool estimates in Appendix B are subject to change as they do not take into account adjustments for issuers receiving a default data validation charge, discrepancies or appeals.

³³ Exempt issuers, non-outlier issuers and new market entrant issuers have zero error rates.

³⁴ As previously noted, there were no positive error rate outlier exiting issuers in 2018 benefit year HHS-RADV, therefore, no adjustments will be made to 2018 benefit year risk scores or transfers as a result of 2018 benefit year HHS-RADV.

³⁵ See 2020 Payment Notice, 84 FR at 17506.

³⁶ Both outlier and non-outlier issuers are required to attest to their respective error rate calculation or qualify the attestation by filing a discrepancy. Exempt issuers are not subject to this requirement.

Issuers are encouraged to review their results and contact CMS with any questions at:
CCIIOACARADatavalidation@cms.hhs.gov

Appendix A: National Program Benchmarks – 2018 Benefit Year HHS-RADV Compared to 2017 Benefit Year HHS-RADV

Data Element	2017 Benefit Year Value	2018 Benefit Year Value
HIOS ID Count	580	361
HCC Failure Rate Group Detail	Low HCC Group	Low HCC Group
HCC Failure Rate Group Lower Threshold (for Low HCC Group)	-14.30%	-13.96%
HCC Failure Rate Group Upper Threshold (for Low HCC Group)	23.82%	20.70%
HCC Failure Rate Group Weighted Avg Failure Rate (for Low HCC Group)	4.75%	3.37%
HCC Failure Rate Group Detail	Medium HCC Group	Medium HCC Group
HCC Failure Rate Group Failure Lower Threshold (for Medium HCC Group)	-3.95%	-4.90%
HCC Failure Rate Group Failure Upper Threshold (for Medium HCC Group)	34.92%	28.87%
HCC Failure Rate Group Weighted Avg Failure Rate (for Medium HCC)	15.48%	11.98%
HCC Failure Rate Group Detail	High HCC Group	High HCC Group
HCC Failure Rate Group Failure Lower Threshold (for High HCC Group)	5.35%	4.61%
HCC Failure Rate Group Failure Upper Threshold (for High HCC Group)	47.05%	40.62%
HCC Failure Rate Group Weighted Avg Failure Rate (for High HCC Group)	26.20%	22.62%
Total # Issuers Receiving an Error Rate (+ or -) Under the HCC Failure Rate Method	110	47
Percentage of Issuers with Error Rate	18.96%	13.02%
Number of Outliers In All HCC Failure Rate Groups	149	57
Count of Issuers with Final Negative Error Rate	41	25
Percentage of Issuers with Final Negative Error Rate	7.06%	6.93%
Average National Negative Error Rate	-5.88%	-6.92%
Count of Issuers with Final Positive Error Rate	69	22
Percentage of Issuers with Final Positive Error Rate	11.89%	6.09%
Average National Positive Error Rate	9.77%	5.43%
Negative Error Rate (Max)	-13.17%	-15.30%
Positive Error Rate (Max)	29.13%	12.22%

Appendix B: Estimated 2019 Benefit Year RA Market Weighted Average Risk Score Adjustment Factors from 2018 Benefit Year HHS-RADV Results

Appendix B demonstrates how 2018 benefit year HHS-RADV results are applied to 2019 benefit year risk adjustment. These estimates show the weighted average risk score³⁷ adjustment factor for each state market risk pool based on the 2018 benefit year HHS-RADV results applied to the state-wide average risk score for the 2019 benefit year risk adjustment transfers.³⁸ Information on the 2018 HHS-RADV adjustments to 2019 benefit year risk adjustment transfers will be available when the Summary Report of 2018 Benefit Year Risk Adjustment Data Validation Adjustments to Risk Adjustment Transfers is released in August 2020. For more information on these estimates, see “Impact of HHS-RADV Error Rates and Outlier Status on Risk Adjustment Transfers” section of this document.

State	Individual (Excluding Catastrophic)	Small Group	Catastrophic	State	Individual (Excluding Catastrophic)	Small Group	Catastrophic	State	Individual (Excluding Catastrophic)	Small Group	Catastrophic
AK	0.00%	0.00%	N/A	KY	0.00%	0.00%	0.00%	NY	0.19%	2.89%	0.02%
AL	0.00%	0.00%	0.00%	LA	0.00%	-0.47%	N/A	OH	0.00%	0.49%	0.00%
AR	0.00%	0.00%	0.00%	MA	-0.52%	N/A	0.00%	OK	-8.41%	-6.82%	-5.01%
AZ	0.00%	0.07%	0.00%	MD	-3.86%	-2.77%	-5.17%	OR	-3.20%	-2.17%	-0.38%
CA	0.00%	0.00%	0.00%	ME	0.00%	0.00%	0.00%	PA	0.00%	0.00%	0.00%
CO	-1.35%	1.87%	-1.57%	MI	0.04%	0.02%	0.01%	RI	0.00%	0.00%	N/A
CT	0.86%	2.86%	0.00%	MN	0.00%	0.00%	0.00%	SC	0.00%	0.00%	0.00%
DC	0.00%	0.69%	0.00%	MO	0.00%	0.00%	0.00%	SD	0.00%	0.00%	0.00%
DE	0.00%	0.00%	0.00%	MS	0.00%	0.00%	N/A	TN	-1.58%	0.00%	0.00%
FL	0.00%	-0.08%	0.00%	MT	0.00%	0.00%	0.00%	TX	-1.94%	-3.90%	-3.27%
GA	0.00%	0.00%	0.00%	NC	-4.91%	0.55%	-5.07%	UT	0.00%	0.15%	0.00%
HI	0.00%	-0.91%	0.00%	ND	0.00%	0.00%	0.00%	VA	-1.70%	0.11%	0.00%
IA	0.00%	0.00%	0.00%	NE	0.00%	0.00%	0.00%	VT	0.00%	N/A	0.00%
ID	-5.82%	-6.85%	-7.89%	NH	0.00%	0.21%	0.00%	WA	0.51%	0.56%	-0.33%
IL	-9.79%	-9.55%	-10.91%	NJ	0.06%	1.43%	0.00%	WI	-3.24%	-2.46%	-4.35%
IN	0.00%	0.00%	0.00%	NM	-0.37%	-1.34%	-0.32%	WV	0.00%	1.01%	0.00%
KS	0.00%	0.00%	0.00%	NV	4.00%	4.75%	2.11%	WY	8.82%	5.76%	N/A

³⁷ The weighted average risk score adjustment factor is calculated by taking the weighted average of issuers’ error rates among all issuers within the state market risk pool. The weight for an issuer is equal to the total risk of the issuer within the state market risk pool, which is calculated as the summation of the plan liability risk score multiplied by the plan-level billable member months among all plans for the issuer within the state market risk pool.

³⁸ See Appendix C for information on estimated 2018 benefit year RA weighted average risk score adjustment factors from 2018 benefit year HHS-RADV results for exiting issuers.

³⁹ NA represents states with no issuers operating in that state market risk pool and are therefore grayed out. Results for merged market states (Massachusetts and Vermont) are displayed in the individual (excluding catastrophic) column with an NA in the small group column. The single issuer risk pools have numerical values and the value equals the error rate of the single issuer.

Appendix C: Estimated 2018 Benefit Year RA Market Weighted Average Risk Score Adjustment Factors from 2018 Benefit Year HHS-RADV Results (Exiting Issuers)

As described above, because no exiting issuers had 2018 benefit year HHS-RADV positive error rates, no adjustments will be made to 2018 benefit year risk scores or transfers based on 2018 benefit year HHS-RADV results.

Appendix D: 2018 Benefit Year HHS-RADV HCC Group Definitions

Appendix D provides the list of HCCs and the HCC Group Level classification for the 2018 benefit year HHS-RADV.

HCC	HCC Group	HCC Label
1	Low HCC Group	HIV/AIDS
2	Medium HCC Group	Septicemia, Sepsis, Systemic Inflammatory Response Syndrome/Shock
3	High HCC Group	Central Nervous System Infections, Except Viral Meningitis
4	High HCC Group	Viral or Unspecified Meningitis
6	High HCC Group	Opportunistic Infections
8	Medium HCC Group	Metastatic Cancer
9	High HCC Group	Lung, Brain, and Other Severe Cancers, Including Pediatric Acute Lymphoid Leukemia
10	Low HCC Group	Non-Hodgkin's Lymphomas and Other Cancers and Tumors
11	High HCC Group	Colorectal, Breast (Age < 50), Kidney, and Other Cancers
12	Medium HCC Group	Breast (Age 50+) and Prostate Cancer, Benign/Uncertain Brain Tumors, and Other Cancers and Tumors
13	High HCC Group	Thyroid Cancer, Melanoma, Neurofibromatosis, and Other Cancers and Tumors
18	Low HCC Group	Pancreas Transplant Status/Complications
19	High HCC Group	Diabetes with Acute Complications
20	Medium HCC Group	Diabetes with Chronic Complications
21	Low HCC Group	Diabetes without Complication
23	High HCC Group	Protein-Calorie Malnutrition
26	Medium HCC Group	Mucopolysaccharidosis

HCC	HCC Group	HCC Label
27	High HCC Group	Lipidoses and Glycogenosis
28	High HCC Group	Congenital Metabolic Disorders, Not Elsewhere Classified
29	High HCC Group	Amyloidosis, Porphyria, and Other Metabolic Disorders
30	Medium HCC Group	Adrenal, Pituitary, and Other Significant Endocrine Disorders
34	Medium HCC Group	Liver Transplant Status/Complications
35	Low HCC Group	End-Stage Liver Disease
36	Low HCC Group	Cirrhosis of Liver
37_1	Medium HCC Group	Chronic Viral Hepatitis C
37_2	Low HCC Group	Chronic Hepatitis, Except Chronic Viral Hepatitis C
38	High HCC Group	Acute Liver Failure/Disease, Including Neonatal Hepatitis
41	High HCC Group	Intestine Transplant Status/Complications
42	High HCC Group	Peritonitis/Gastrointestinal Perforation/Necrotizing Enterocolitis
45	High HCC Group	Intestinal Obstruction
46	Medium HCC Group	Chronic Pancreatitis
47	High HCC Group	Acute Pancreatitis/Other Pancreatic Disorders and Intestinal Malabsorption
48	Low HCC Group	Inflammatory Bowel Disease
54	High HCC Group	Necrotizing Fasciitis
55	Medium HCC Group	Bone/Joint/Muscle Infections/Necrosis
56	Low HCC Group	Rheumatoid Arthritis and Specified Autoimmune Disorders
57	Low HCC Group	Systemic Lupus Erythematosus and Other Autoimmune Disorders

HCC	HCC Group	HCC Label
61	Low HCC Group	Osteogenesis Imperfecta and Other Osteodystrophies
62	Medium HCC Group	Congenital/Developmental Skeletal and Connective Tissue Disorders
63	Medium HCC Group	Cleft Lip/Cleft Palate
64	High HCC Group	Major Congenital Anomalies of Diaphragm, Abdominal Wall, and Esophagus, Age < 2
66	Medium HCC Group	Hemophilia
67	High HCC Group	Myelodysplastic Syndromes and Myelofibrosis
68	High HCC Group	Aplastic Anemia
69	High HCC Group	Acquired Hemolytic Anemia, Including Hemolytic Disease of Newborn
70	Low HCC Group	Sickle Cell Anemia (Hb-SS)
71	High HCC Group	Thalassemia Major
73	High HCC Group	Combined and Other Severe Immunodeficiencies
74	High HCC Group	Disorders of the Immune Mechanism
75	Medium HCC Group	Coagulation Defects and Other Specified Hematological Disorders
81	Medium HCC Group	Drug Psychosis
82	High HCC Group	Drug Dependence
87	Medium HCC Group	Schizophrenia
88	Medium HCC Group	Major Depressive and Bipolar Disorders
89	High HCC Group	Reactive and Unspecified Psychosis, Delusional Disorders
90	High HCC Group	Personality Disorders
94	High HCC Group	Anorexia/Bulimia Nervosa

HCC	HCC Group	HCC Label
96	Low HCC Group	Prader-Willi, Patau, Edwards, and Autosomal Deletion Syndromes
97	High HCC Group	Down Syndrome, Fragile X, Other Chromosomal Anomalies, and Congenital Malformation Syndromes
102	Medium HCC Group	Autistic Disorder
103	Low HCC Group	Pervasive Developmental Disorders, Except Autistic Disorder
106	High HCC Group	Traumatic Complete Lesion Cervical Spinal Cord
107	High HCC Group	Quadriplegia
108	High HCC Group	Traumatic Complete Lesion Dorsal Spinal Cord
109	Medium HCC Group	Paraplegia
110	High HCC Group	Spinal Cord Disorders/Injuries
111	High HCC Group	Amyotrophic Lateral Sclerosis and Other Anterior Horn Cell Disease
112	Medium HCC Group	Quadriplegic Cerebral Palsy
113	Low HCC Group	Cerebral Palsy, Except Quadriplegic
114	Low HCC Group	Spina Bifida and Other Brain/Spinal/Nervous System Congenital Anomalies
115	Low HCC Group	Myasthenia Gravis/Myoneural Disorders and Guillain-Barre Syndrome/Inflammatory and Toxic Neuropathy
117	Medium HCC Group	Muscular Dystrophy
118	Low HCC Group	Multiple Sclerosis
119	Medium HCC Group	Parkinson's, Huntington's, and Spinocerebellar Disease, and Other Neurodegenerative Disorders
120	Medium HCC Group	Seizure Disorders and Convulsions
121	Medium HCC Group	Hydrocephalus

HCC	HCC Group	HCC Label
122	High HCC Group	Non-Traumatic Coma, Brain Compression/Anoxic Damage
125	Low HCC Group	Respirator Dependence/Tracheostomy Status
126	High HCC Group	Respiratory Arrest
127	High HCC Group	Cardio-Respiratory Failure and Shock, Including Respiratory Distress Syndromes
128	High HCC Group	Heart Assistive Device/Artificial Heart
129	Medium HCC Group	Heart Transplant
130	Medium HCC Group	Congestive Heart Failure
131	High HCC Group	Acute Myocardial Infarction
132	High HCC Group	Unstable Angina and Other Acute Ischemic Heart Disease
135	High HCC Group	Heart Infection/Inflammation, Except Rheumatic
137	High HCC Group	Hypoplastic Left Heart Syndrome and Other Severe Congenital Heart Disorders
138	High HCC Group	Major Congenital Heart/Circulatory Disorders
139	High HCC Group	Atrial and Ventricular Septal Defects, Patent Ductus Arteriosus, and Other Congenital
142	Low HCC Group	Specified Heart Arrhythmias
145	High HCC Group	Intracranial Hemorrhage
146	High HCC Group	Ischemic or Unspecified Stroke
149	High HCC Group	Cerebral Aneurysm and Arteriovenous Malformation
150	Low HCC Group	Hemiplegia/Hemiparesis
151	Medium HCC Group	Monoplegia, Other Paralytic Syndromes
153	High HCC Group	Atherosclerosis of the Extremities with Ulceration or Gangrene

HCC	HCC Group	HCC Label
154	High HCC Group	Vascular Disease with Complications
156	High HCC Group	Pulmonary Embolism and Deep Vein Thrombosis
158	Medium HCC Group	Lung Transplant Status/Complications
159	Medium HCC Group	Cystic Fibrosis
160	Low HCC Group	Chronic Obstructive Pulmonary Disease, Including Bronchiectasis
161	Low HCC Group	Asthma
162	Medium HCC Group	Fibrosis of Lung and Other Lung Disorders
163	High HCC Group	Aspiration and Specified Bacterial Pneumonias and Other Severe Lung Infections
183	Low HCC Group	Kidney Transplant Status
184	High HCC Group	End Stage Renal Disease
187	High HCC Group	Chronic Kidney Disease, Stage 5
188	Low HCC Group	Chronic Kidney Disease, Severe (Stage 4)
203	Medium HCC Group	Ectopic and Molar Pregnancy, Except with Renal Failure, Shock, or Embolism
204	High HCC Group	Miscarriage with Complications
205	High HCC Group	Miscarriage with No or Minor Complications
207	High HCC Group	Completed Pregnancy With Major Complications
208	High HCC Group	Completed Pregnancy With Complications
209	Low HCC Group	Completed Pregnancy with No or Minor Complications
217	Low HCC Group	Chronic Ulcer of Skin, Except Pressure
226	High HCC Group	Hip Fractures and Pathological Vertebral or Humerus Fractures

HCC	HCC Group	HCC Label
227	High HCC Group	Pathological Fractures, Except of Vertebrae, Hip, or Humerus
242	High HCC Group	Extremely Immature Newborns, Birthweight < 500 Grams
243	High HCC Group	Extremely Immature Newborns, Including Birthweight 500-749 Grams
244	Low HCC Group	Extremely Immature Newborns, Including Birthweight 750-999 Grams
245	High HCC Group	Premature Newborns, Including Birthweight 1000-1499 Grams
246	Low HCC Group	Premature Newborns, Including Birthweight 1500-1999 Grams
247	Low HCC Group	Premature Newborns, Including Birthweight 2000-2499 Grams
248	Medium HCC Group	Other Premature, Low Birthweight, Malnourished, or Multiple Birth Newborns
249	High HCC Group	Term or Post-Term Singleton Newborn, Normal or High Birthweight
251	Low HCC Group	Stem Cell, Including Bone Marrow, Transplant Status/Complications
253	Low HCC Group	Artificial Openings for Feeding or Elimination
254	Low HCC Group	Amputation Status, Lower Limb/Amputation Complications