



**Date: June 10, 2025**

**RE: 2023 Benefit Year HHS Risk Adjustment Data Validation (HHS-RADV) Results**

The Centers for Medicare & Medicaid Services (CMS) is making available summary information on issuers' 2023 benefit year HHS-RADV results. The 2023 benefit year HHS-RADV error rates will be applied to 2023 benefit year plan liability risk scores and risk adjustment State transfers.<sup>1</sup> The 2023 benefit year HHS-RADV adjustments to 2023 benefit year risk adjustment State transfers will be released by the end of July 2025.<sup>2</sup> This memo contains an overview of the 2023 benefit year HHS-RADV error rate methodology, a summary of the 2023 benefit year HHS-RADV results, and information to assist issuers in understanding their results.<sup>3</sup>

**1. Overview of the 2023 Benefit Year HHS-RADV Error Estimation Methodology**

Like the 2022 benefit year HHS-RADV error estimation methodology, the 2023 benefit year HHS-RADV error estimation methodology remains largely the same as the 2021 benefit year HHS-RADV error estimation methodology, which was finalized in the 2023 Payment Notice<sup>4</sup> and the 2024 Payment Notice.<sup>5</sup>

For further information on the 2023 benefit year HHS-RADV error estimation methodology and the incorporation of all relevant regulations and previous guidance that set the error estimation methodology, refer to the 2023 Benefit Year HHS-RADV Protocols.<sup>6</sup>

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<sup>1</sup> See the Amendments to the HHS-Operated Risk Adjustment Data Validation (HHS-RADV) Under the Patient Protection and Affordable Care Act's HHS-Operated Risk Adjustment Program Final Rule; 85 FR 76979 at 77002-77005 (December 1, 2020) (2020 HHS-RADV Amendments Rule).

<sup>2</sup> See Table 4 in the Key Dates for Calendar Year 2025 document for information on the updated timing of the Summary Report of 2023 Benefit Year Risk Adjustment Data Validation Adjustments to Risk Adjustment Transfers available at: <https://www.cms.gov/files/document/cy-25-key-dates-tablesdocx508-compliant.pdf>

<sup>3</sup> Issuers who participated in 2023 benefit year HHS-RADV will receive issuer-specific and enrollee-specific results in the HHS-RADV Audit Tool at the same time this memo is released. Issuers will also receive the 2023 benefit year issuer-specific demographic and enrollment (D&E) and specific prescription drug (RXC) letters and reports in the HHS-RADV Audit Tool in June 2025.

<sup>4</sup> See the Patient Protection and Affordable Care Act; HHS Notice of Benefit and Payment Parameters for 2023; 87 FR 27208 (May 6, 2022) (2023 Payment Notice).

<sup>5</sup> See the Patient Protection and Affordable Care Act; HHS Notice of Benefit and Payment Parameters for 2024; 88 FR 25740 (April 27, 2023) (2024 Payment Notice).

<sup>6</sup> See the 2023 Benefit Year ACA HHS Risk Adjustment Data Validation (HHS-RADV) Protocols (June 4, 2024) (2023 Benefit Year HHS-RADV Protocols) available at: [https://regtap.cms.gov/reg\\_librarye.php?i=5389](https://regtap.cms.gov/reg_librarye.php?i=5389).

## **2. Highlights of the 2023 Benefit Year HHS-RADV Results**

In this section, CMS provides a high-level summary of the major trends identified in the 2023 benefit year HHS-RADV results.

**Key Finding #1: Issuer participation was higher in 2023 benefit year HHS-RADV than 2022 benefit year HHS-RADV because relatively more issuers fell above the materiality threshold and relatively more issuers below the materiality threshold were selected for random and targeted sampling.**

In the 2023 benefit year, 471 out of 596 issuers with risk adjustment covered plans participated in HHS-RADV, while in 2022, 463 out of 606 issuers with risk adjustment covered plans participated in HHS-RADV. Thus, the proportion of issuers with risk adjustment covered plans participating in HHS-RADV again rose in 2023, reaching 79.0 percent, compared to 76.4 percent in 2022 and 71.3 percent in 2021.

**Key Finding #2: There were several highly miscoded HCCs in 2023 benefit year HHS-RADV that have also been highly miscoded in prior benefit years.**

In the 2023 benefit year SVA findings, CMS identified several HCCs that were most frequently unvalidated in issuers’ audit (IVA or SVA, as applicable) results. The most miscoded HCCs for SVA-reviewed sampled enrollees in the 2023 benefit year are noted in Table 1. Conditions such as Diabetes with Chronic Complications (HCC 20), Specified Heart Arrhythmias (HCC 142), and Chronic Obstructive Pulmonary Disease, Including Bronchiectasis (HCC 160) continued to be highly miscoded, as seen in prior HHS-RADV audit years.<sup>7</sup>

**Table 1: 2023 Benefit Year Commonly Miscoded Single HCCs Among SVA-Reviewed Sample Enrollees<sup>8</sup>**

HCC	HCC Name	EDGE HCC Frequency	IVA HCC Frequency	SVA HCC Frequency	Coding Clinic Guidance
20	Diabetes with Chronic Complications	706	718	679	Coding Clinic, 2nd Quarter, 2016, pages: 36-37 (Diabetes and associated conditions clarification)
125	Respirator Dependence/Tracheostomy Status	177	125	81	Based on the ICD-10-CM manual, both the Alphabetic Index and Tabular List must be used to locate and assign appropriate codes. Other terms such as, but not limited to, “intubated”, “sedated on vent”, “weaned from vent”, “on vent”,

<sup>7</sup> See the 2022 Benefit Year Department of Health and Human Services Risk Adjustment Data Validation (HHS-RADV) Results Memo (May 14, 2024) available at: <https://www.cms.gov/files/document/by22-hhs-radv-results-memo-appendix-pdf.pdf>.

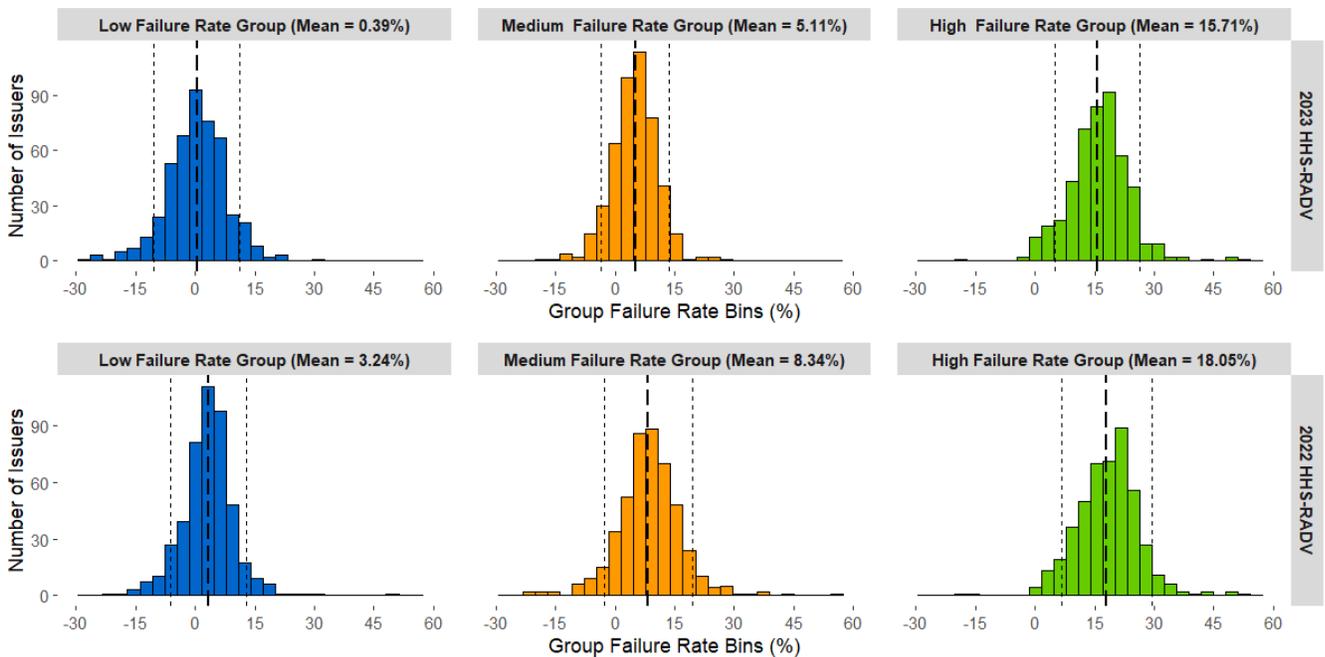
<sup>8</sup> Note that this table is provided at the single HCC level, rather than the de-duplicated Super HCC level.

HCC	HCC Name	EDGE HCC Frequency	IVA HCC Frequency	SVA HCC Frequency	Coding Clinic Guidance
					“remains on vent”, “extubated” do not lead to Respirator Dependence/Tracheostomy Status in the Alphabetic Index and Tabular List.
130	Heart Failure	654	659	617	Coding Clinic, 3rd Quarter, 2023, page: 14 (Acute on chronic right heart failure and diastolic heart failure with improved/recovered ejection fraction) <i>Effective with discharges: August 23, 2023</i>
142	Specified Heart Arrhythmias	585	575	540	<ol style="list-style-type: none"> <li>1. Official Guidelines for Coding and Reporting, Section IV., J.</li> <li>2. Coding Clinic, 4th Quarter, 2008, pages: 307-3011 (Additional Diagnoses Reporting Guidelines)</li> </ol> Coding Clinic, 4th Quarter, 2023, pages: 26-27 (Inappropriate sinus tachycardia) <i>Effective with discharges: October 1, 2023</i>
160	Chronic Obstructive Pulmonary Disease, Including Bronchiectasis	473	469	420	Coding Clinic, 3rd Quarter, 2007, pages: 13-14 (Coding of Chronic Conditions – Clarification)
161.2	Asthma, Except Severe	746	728	705	<ol style="list-style-type: none"> <li>1. Official Guidelines for Coding and Reporting, Section IV., J.</li> <li>2. Coding Clinic, 4th Quarter, 2008, pages: 307-3011 (Additional Diagnoses Reporting Guidelines)</li> </ol>

**Key Finding #3: National program benchmarks between 2023 benefit year and 2022 benefit year HHS-RADV continue to improve.**

The national weighted mean and standard deviation of the group failure rates (low, medium, and high) mostly decreased across both benefit years.<sup>9</sup> Figure 1 compares the distributions of the failure rate groups in the 2022 and 2023 benefit years of HHS-RADV. The weighted mean for all three failure rate groups experienced a decrease between the two years, making 2023 the second year in a row that all three group failure rates decreased. Specifically, the medium failure rate group experienced the largest decrease of 3.23 percent, followed by the low failure rate group with a decrease of 2.85 percent. Because the group failure rate decreased for the second year in a row for all three failure rate groups, the group failure rates are all lower for the 2023 benefit year than for any other previous benefit year. This could be attributed to the increased accuracy of EDGE-reported HCCs, which leads to improved validation outcomes in HHS-RADV. The standard deviation decreased slightly in the high and medium failure rate groups but increased slightly in the low failure rate groups. As a result, in the 2023 benefit year, there is a slightly narrower distribution of failure rates that are centered closer to the mean for the medium and high failure rate groups compared to the 2022 benefit year.

**Figure 1: Distribution of Group Failure Rates Across 2023 Benefit Year and 2022 Benefit Year HHS-RADV**



<sup>9</sup> See Appendix A for additional detail on group failure rates.

**Key Finding #4: The proportion of outlier issuers slightly increased in 2023 benefit year HHS-RADV.**

2023 benefit year of HHS-RADV had a slightly greater proportion of issuers identified as outliers than the 2022 benefit year. As shown in Table 2, 22.9 percent of issuers in the 2023 benefit year HHS-RADV are unique outliers, compared to 20.7 percent in the 2022 benefit year. The proportion of negative error rate outliers remained the same at 12.5 percent for the 2023 and 2022 benefit years of HHS-RADV. The proportion of positive error rate outliers increased to 10.4 percent in the 2023 benefit year HHS-RADV from 8.2 percent in the 2022 benefit year.

**Table 2: Outlier Issuers Across 2023 and 2022 Benefit Years**

<b>RADV Year</b>	<b>All Issuers Participating in HHS-RADV</b>	<b>Number of Issuers with Zero Error Rates</b>	<b>Number of Issuers with non-Zero Error Rates</b>	<b>Number of Issuers with Negative Error Rates</b>	<b>Number of Issuers with Positive Error Rates</b>	<b>Percent of Issuers with Zero Error Rates</b>	<b>Percent of Issuers with Negative Error Rates</b>	<b>Percent of Issuers with Positive Error Rates</b>
<b>2023 HHS-RADV Results</b>	471	363	108	59	49	77.1%	12.5%	10.4%
<b>2022 HHS-RADV Results</b>	463	367	96	58	38	79.3%	12.5%	8.2%

**Key Finding #5: Between 2022 benefit year HHS-RADV and 2023 benefit year HHS-RADV, the dispersion of outliers slightly increased.**

Table 3 provides a closer look at how outlier issuers were dispersed around the national mean in each failure rate group in the 2022 and 2023 benefit years of HHS-RADV. In the 2022 benefit year, 90.8 percent of outliers fell between 1.645 and 3 standard deviations of the weighted mean failure rate for the failure rate group, and 9.2 percent of outliers fell outside of 3 standard deviations of the weighted mean failure rate for the failure rate group. In the 2023 benefit year of HHS-RADV, a slightly lower proportion of outliers (90.3 percent) fell within 1.645 and 3 standard deviations of the weighted mean failure rate for the failure rate group and a slightly higher proportion of outliers (9.7 percent) fell outside of 3 standard deviations of the weighted mean failure rate for the failure rate group.

**Table 3: 2022 and 2023 Benefit Years Outlier Counts<sup>10</sup> by Outlier Identification Threshold (Number of Outliers)**

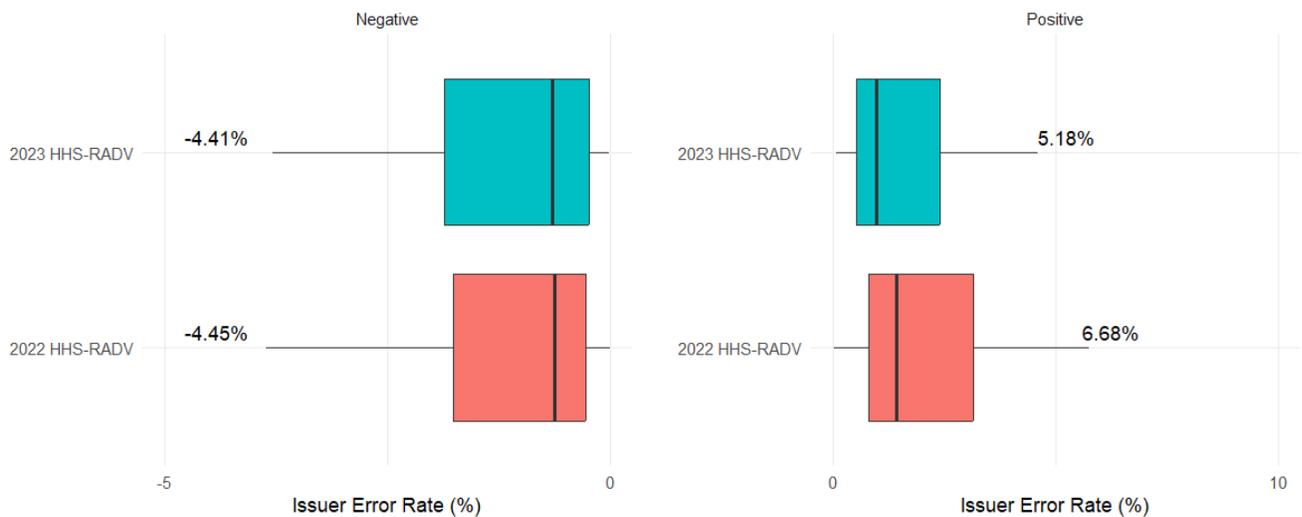
<b>Failure Rate Group</b>	<b>Within 1.645 and 3 SD – BY22</b>	<b>Outside 3 SD – BY22</b>	<b>Total – BY22</b>	<b>Within 1.645 and 3 SD – BY23</b>	<b>Outside 3 SD – BY23</b>	<b>Total – BY23</b>
Low	43	4	47	41	4	45
Medium	45	5	50	42	6	48
High	40	4	44	47	4	51
<b>Total</b>	<b>128 (90.8%)</b>	<b>13 (9.2%)</b>	<b>141</b>	<b>130 (90.3%)</b>	<b>14 (9.7%)</b>	<b>144</b>

<sup>10</sup> An issuer can be an outlier in up to three different Failure Rate Groups.

**Key Finding #6: The magnitude of positive error rates for issuers with high error rate values has decreased.**

Figure 2 illustrates the distribution of error rates for the 2022 and 2023 benefit years of HHS-RADV. Compared to the 2022 benefit year, the left tail of the negative error rate distribution decreased slightly and the right tail of the positive error rate distribution decreased substantially in 2023 benefit year HHS-RADV. This is also consistent with the comparison of the 2022 and 2021 benefit years and indicates a greater decrease in the magnitude of error rates for issuers with high values on the positive end of the distribution than for issuers with high values on the negative end.

**Figure 2: Distribution of Error Rates Across 2022 and 2023 HHS-RADV Benefit Years<sup>11</sup>**



**Key Finding #7: The number of State market risk pools impacted in 2023 benefit year HHS-RADV is similar to the number impacted in 2022 benefit year HHS-RADV, and the States impacted are largely the same.**

In 2023 benefit year HHS-RADV, the identification of outliers impacted 36 States’ individual market non-catastrophic risk pools, 35 States’ small group market risk pools, and 20 States’ catastrophic risk pools. The majority of State market risk pools impacted in 2023 benefit year HHS-RADV were also impacted in 2022 benefit year HHS-RADV. In the individual market, 30 out of 36 States received a HHS-RADV adjustment to risk adjustment transfers in the 2022 benefit year, 26 out of 35 States received adjustments in the small group market and 12 out of 20 States received adjustments in the catastrophic risk pools.

<sup>11</sup> Figure 2 illustrates the distribution of error rate values using a boxplot. The whiskers, which extend from the edge of the boxes, depict the range of error rate values excluding any extreme outliers. The tip of each whisker, as annotated in the figure, is calculated as  $Q3 + 1.5 \times IQR$  for positive error rate values and calculated as  $Q1 - 1.5 \times IQR$  for negative error rate values. IQR represents the interquartile range and is calculated as  $Q3 - Q1$ .

**Table 4: State Market Risk Pools Being Impacted Across 2022 and 2023 Benefit Years**

HHS-RADV Year	Individual (Excluding Catastrophic)	Small Group	Catastrophic
2023 HHS-RADV Results	36	35	20
2022 HHS-RADV Results	34	35	20

### **3. 2023 Benefit Year HHS-RADV Results: Key Metrics and Reports**

The HHS-RADV Audit Tool<sup>12</sup> provides the following documents for 2023 benefit year HHS-RADV results:<sup>13</sup>

- 1. “National Program Benchmarks – 2023 Benefit Year HHS-RADV (Appendix A)”**  
Provides the national program benchmarks for failure rate group means and confidence intervals, and summary statistics based on all issuers’ results used to establish the national failure rate group metrics for the 2023 benefit year HHS-RADV results.
- 2. “2023 Benefit Year Risk Adjustment State Market Risk Pool Weighted Average HHS-RADV Error Rates (Appendix B)”**  
Provides information that shows which State market risk pools are impacted by 2023 benefit year HHS-RADV error rates.<sup>14</sup> State market risk pools will have 2023 benefit year risk adjustment State transfers impacted if there is at least one error rate outlier in the State market risk pool in the 2023 benefit year of HHS-RADV.
- 3. “2023 Benefit Year HHS-RADV Failure Rate Group Definitions (Appendix C)”**  
Provides a listing of HCCs, the associated Super HCC, and the group detail (i.e., Low Failure Rate Group, Medium Failure Rate Group, and High Failure Rate Group) for the 2023 benefit year.
- 4. 2023 Benefit Year “Issuer Metrics” Report**  
Provides issuer-specific results for the 2023 benefit year HHS-RADV 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 HHS-RADV Audit Tool. Issuers with more than one HIOS ID will receive separate Issuer HCC Group Metrics Reports for each HIOS ID.
- 5. 2023 Benefit Year “Enrollee Metrics” Report**

<sup>12</sup> The HHS-RADV Audit Tool can be accessed by issuers (Issuer SO, Back-up SO, and RADV coordinators) at: <https://ccrms-rari.force.com/HHSRADVAuditTool/>.

<sup>13</sup> IVA Entities will have access to this memo and the HHS-RADV Results Job Aid, but they will not receive issuer specific results (i.e., documents 4 and 5 in the list). Issuers may choose to share their issuer specific results with their IVA Entities.

<sup>14</sup> We note that the state market risk pool weighted average risk score error rates account for all risk adjustment EDGE discrepancies to date. The information on impacted state market risk pools is subject to change as it does not take into account any adjustments for any potential actionable HHS-RADV discrepancies or successful HHS-RADV appeals.

Provides issuer-specific, enrollee-level findings for each HIOS ID's HHS-RADV sampled enrollees' HCCs and applicable adjustments for the 2023 benefit year HHS-RADV.<sup>15</sup> This is available to issuers in the History and Results tab of the HHS-RADV Audit Tool.

To help issuers understand the results, CMS is also providing a 2023 Benefit Year HHS-RADV Results Job Aid, which includes definitions for each of the data fields in the results that will be available in the HHS-RADV Audit Tool. The 2023 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 2023 HHS-RADV error rate.

#### **4. Impact of HHS-RADV Error Rates and Outlier Status on 2023 Benefit Year Risk Adjustment State Transfers**

The impact of a risk score error rate on an issuer's risk adjustment State transfers depends on whether the issuer was identified as an outlier and whether additional outliers exist in the state market risk pool. As previously mentioned, issuers' 2023 benefit year HHS-RADV error rates will be used to adjust 2023 benefit year plan liability risk scores and risk adjustment State transfers.<sup>16</sup>

- **Zero Error Rate Issuers:** Exempt and non-outlier issuers will receive a zero error rate.
  - The majority of participating issuers' 2023 benefit year HHS-RADV results are within the confidence intervals of the national group failure rates and thus will receive a zero error rate.
  - Zero error rate issuers will not have an adjustment made to their 2023 benefit year plan liability risk scores. However, the application of the 2023 benefit year HHS-RADV non-zero error rates to outlier issuers' 2023 benefit year plan liability risk scores affects the State average risk score for a State market risk pool. Due to the budget neutral nature of the HHS-operated risk adjustment program, non-outlier and exempt issuers' 2023 benefit year risk adjustment state transfers may still be subject to HHS-RADV adjustments if other issuers in their State market risk pool are identified as outliers in the 2023 benefit year of HHS-RADV.
- **Non-Zero Error Rate Issuers:** Outlier issuers will receive non-zero error rates that could be positive or negative.<sup>17,18</sup>
  - If the outlier issuer's error rate is positive, the issuer's 2023 benefit year plan liability risk scores will be 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 2023 benefit year risk adjustment charge or lower risk adjustment payment or shift the transfer amount from a payment to a charge for the outlier issuer.
  - If the outlier issuer's error rate is negative, the issuer's 2023 benefit year plan

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<sup>15</sup> The HIOS ID's error rate may be a zero or a non-zero rate.

<sup>16</sup> See supra note 1.

<sup>17</sup> Issuers with failure rates that fall outside of one or more of the failure group confidence intervals and have at least 30 Super de-duplicated HCCs in the applicable failure rate group are considered outliers.

<sup>18</sup> As finalized in the 2024 Payment Notice, issuers who exited all markets in a state after the 2023 benefit year and who are identified as error rate outliers in 2023 benefit year HHS-RADV will have their 2023 benefit year HHS-RADV error rates applied to adjust 2023 benefit year risk scores and transfers, regardless of whether the exiting issuer is a negative or positive error rate outlier issuer. See the 2024 Payment Notice, 88 FR at 25790.

liability risk scores will be 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 2023 benefit year risk adjustment charge or higher risk adjustment payment or shift the transfer amount from a charge to a payment for the outlier issuer.<sup>19</sup>

- As described below, we note that the magnitude and direction of 2023 benefit year transfer adjustments may change if other issuers in the State market risk pool are identified as outliers in the 2023 benefit year of HHS-RADV.

We provide the weighted average risk score error rates by State market risk pool in Appendix B so that issuers can compare this information to the data that was released in the Summary Report on Individual and Small Group Market Risk Adjustment Transfers for the 2023 Benefit Year.<sup>20</sup> The weighted average risk score error rates are calculated by taking the weighted average of issuers' 2023 benefit year HHS-RADV error rates for each State market risk pool, weighted by each issuer's billable member months and plan liability risk scores. To estimate the impact of averaged error rates and their HHS-RADV adjusted 2023 benefit year risk adjustment transfers, issuers can use the Appendix B data in conjunction with issuer-specific 2023 benefit year risk adjustment data, the State tables, and the payment transfer denominator amounts that were included in the Summary Report on Individual and Small Group Market Risk Adjustment Transfers for the 2023 Benefit Year.

To further explain Appendix B, issuers in State market risk pools with zero weighted average risk score error rates can generally expect no change to their 2023 benefit year risk adjustment transfer amount(s) as a result of HHS-RADV.<sup>21</sup> For issuers in State market risk pools with non-zero weighted average risk score error rates, issuers may apply the weighted average risk score error rate to the State average risk score to help understand the HHS-RADV impact in the same manner that issuers' risk score error rates are applied to issuers' risk scores – that is, a negative weighted average risk score error rate will increase a State average risk score, while a positive average risk score error rate will decrease a State average risk score. For zero error rate issuers in State risk pools with a non-zero weighted average risk score error rate:

- In State market risk pools with a negative weighted average risk score error rate, zero error rate issuers can generally expect their charge to increase, 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 State market risk pools with a positive weighted average risk score error rate, zero error rate issuers can generally expect their charge to decrease, 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.

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<sup>19</sup> If an issuer operates in both a single issuer market risk pool and another market risk pool with multiple issuers within the same state, and does not meet any other exemption requirements, then this issuer may be selected to participate in HHS-RADV and receive a positive or negative error rate. In the single issuer market risk pool, however, the risk adjustment transfer amount remains zero after applying the error rate.

<sup>20</sup> This report is available at <https://www.cms.gov/ccio/programs-and-initiatives/premium-stabilization-programs/downloads/ra-report-by2023pdf>.

<sup>21</sup> In Appendix B below, there are instances in individual, small group, and catastrophic market risk pools where Appendix B shows 0.00% but a risk adjustment transfer amount change will occur. This is a result of the small non-zero value of the weighted average risk score error rate rounding to 0.00% at two decimal places. These values read as 0.00%. Values which read as “—” and are grayed out are represent values of zero out to the ninth decimal place, in which there will be no HHS-RADV adjustments to 2023 benefit year risk adjustment state transfer amounts.

## **5. Next Steps**

Information on the HHS-RADV adjustments to 2023 benefit year risk adjustment State transfers will be available when the Summary Report of 2023 Benefit Year Risk Adjustment Data Validation Adjustments to Risk Adjustment Transfers is released in July 2025.<sup>22</sup>

**Error Rate Calculation Attestation and Discrepancy Reporting Process:** All issuers subject to 2023 benefit year HHS-RADV are required to attest to the 2023 benefit year error rate calculation or qualify the attestation by filing a discrepancy.<sup>23</sup> Beginning on June 11, 2025, issuers have 30 calendar days (that is, until July 10, 2025) to attest to findings or qualify their attestation with a discrepancy related to the 2023 benefit year HHS-RADV risk score error rate calculation. Issuers will need to attest by completing 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.

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

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<sup>22</sup> See supra note 2.

<sup>23</sup> 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. See 45 CFR 153.630 (d)(2).

**Appendix A. National Program Benchmarks – 2023 Benefit Year HHS-RADV**

**Table A1: National Failure Rate Group Summary Statistics for 2023 Benefit Year HHS-RADV**

Failure Rate Group	Lower 99.7% CI Threshold*	Lower 90% CI Threshold*	National Weighted Mean*	Upper 90% CI Threshold*	Upper 99.7% CI Threshold*	Weighted Standard Deviation of GFR	Number of Outliers
Low	-0.191431210	-0.103209241	0.003894182	0.110997605	0.199219574	0.065108464	45
Medium	-0.105022683	-0.034519956	0.051071915	0.136663787	0.207166514	0.052031533	48
High	-0.036883808	0.050743233	0.157124402	0.263505571	0.351132613	0.064669403	51

\*Please note, these values indicate National Confidence Interval Point Values.

**Table A2: National Error Rate Summary Statistics**

Metric	2023
HIOS ID Count	471
Total # Issuers Receiving an Error Rate (+ or -)	108
Count of Issuers with Final Negative Error Rate	59
Average National Negative (Total) Error Rate	-0.011803404
Negative (Total) Error Rate (Max)	-0.058944866
Count of Issuers with Final Positive Error Rate	49
Average National Positive (Total) Error Rate	0.022010568
Positive (Total) Error Rate (Max)	0.162586909

## Appendix B. 2023 Benefit Year Risk Adjustment State Market Risk Pool Weighted Average HHS-RADV Error Rates

Appendix B provides comparison information that shows which State market risk pools are impacted by 2023 benefit year HHS-RADV error rates due to the presence of at least one error rate outlier in the State market risk pool and the associated average error rates.<sup>24,25</sup> Issuers' 2023 benefit year HHS-RADV error rates will be used to calculate HHS-RADV adjustments to 2023 benefit year risk adjustment State transfers. For more information on interpreting this table, refer to Section 4. Impact of HHS-RADV Error Rates and Outlier Status on 2023 Benefit Year Risk Adjustment Transfers on page 8.

State	Individual (Excluding Catastrophic)	Small Group	Catastrophic
AK	--	--	N/A
AL	--	--	--
AR	--	--	N/A
AZ	-0.29%	-0.29%	--
CA	0.05%	0.09%	0.05%
CO	-0.91%	-0.78%	-0.58%
CT	0.31%	0.04%	0.44%
DC	0.05%	1.34%	2.29%
DE	--	--	--
FL	-0.03%	0.00%	--
GA	-0.63%	0.00%	--
HI	--	--	--
IA	--	--	--
ID	-0.12%	-0.11%	-0.21%
IL	0.01%	0.00%	0.01%
IN	-0.22%	-0.34%	N/A
KS	1.01%	2.87%	--
KY	--	-0.11%	--
LA	0.02%	0.01%	N/A
MA	0.37%	N/A	0.59%
MD	-0.39%	-0.07%	-0.11%
ME	0.02%	N/A	--
MI	0.03%	0.13%	0.12%
MN	--	0.00%	--
MO	-0.02%	-0.01%	--

State	Individual (Excluding Catastrophic)	Small Group	Catastrophic
MS	-0.16%	--	N/A
MT	--	--	--
NC	0.00%	0.02%	--
ND	--	--	--
NE	--	--	--
NH	0.04%	0.02%	--
NJ	-0.04%	-0.04%	-0.03%
NM	--	--	N/A
NV	-0.03%	0.00%	--
NY	-0.06%	-0.14%	-0.01%
OH	-0.54%	-0.96%	-0.97%
OK	0.04%	0.06%	0.19%
OR	-0.50%	-0.41%	0.19%
PA	-0.03%	-0.02%	-0.05%
RI	--	0.06%	N/A
SC	-0.41%	-0.39%	-0.59%
SD	--	--	--
TN	-1.35%	-1.90%	--
TX	0.01%	0.01%	--
UT	-0.09%	--	N/A
VA	-0.38%	-0.16%	-0.46%
VT	--	--	--
WA	-0.51%	-0.23%	-2.48%
WI	-0.02%	-0.08%	-0.02%
WV	-0.62%	-0.60%	-0.71%
WY	0.13%	0.12%	N/A

- Notes:** (1) "N/A" represents States with no issuers operating in that state market risk pool and are therefore grayed out.  
(2) Values for the merged market States (Massachusetts and Maine) are displayed in the Individual (Excluding Catastrophic) column with an "N/A" in the small group column.  
(3) Values which read "--" and are grayed out are values of zero out to the ninth decimal place; values which read "0.00%" and are not grayed out are very small values that round to 0.00%.

<sup>24</sup> The state market risk pool weighted average risk score error rate 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 score 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.

<sup>25</sup> We note that the state market risk pool weighted average risk score error rates account for all risk adjustment EDGE discrepancies to date. The information on impacted state market risk pools in this appendix is subject to change as it does not take into account any adjustments for any potential actionable HHS-RADV discrepancies or successful HHS-RADV appeals.

## Appendix C. 2023 Benefit Year HHS-RADV Failure Rate Group Definitions

Appendix C provides a listing of HCCs, the associated Super HCC, and the group detail for the 2023 benefit year HHS-RADV.

Super HCC	RA Age Group Model(s)	Failure Rate Group	HCC	HCC Label <sup>26</sup>
1	Adult, Child	Low Failure Rate Group	1	HIV/AIDS
2	Adult, Child	Medium Failure Rate Group	2	Septicemia, Sepsis, Systemic Inflammatory Response Syndrome/Shock
3	Adult, Child	High Failure Rate Group	3	Central Nervous System Infections, Except Viral Meningitis
4	Adult, Child	Low Failure Rate Group	4	Viral or Unspecified Meningitis
6	Adult, Child	High Failure Rate Group	6	Opportunistic Infections
8	Adult, Child	High Failure Rate Group	8	Metastatic Cancer
9	Adult, Child	High Failure Rate Group	9	Lung, Brain, and Other Severe Cancers, Including Pediatric Acute Lymphoid Leukemia
10	Adult, Child	High Failure Rate Group	10	Non-Hodgkin Lymphomas and Other Cancers and Tumors
11	Adult, Child	High Failure Rate Group	11	Colorectal, Breast (Age < 50), Kidney, and Other Cancers
12	Adult, Child	High Failure Rate Group	12	Breast (Age 50+) and Prostate Cancer, Benign/Uncertain Brain Tumors, and Other Cancers and Tumors
13	Adult, Child	High Failure Rate Group	13	Thyroid Cancer, Melanoma, Neurofibromatosis, and Other Cancers and Tumors
18	Adult, Child	Low Failure Rate Group	18	Pancreas Transplant Status
G01	Adult, Child	Medium Failure Rate Group	19	Diabetes with Acute Complications
			20	Diabetes with Chronic Complications
			21	Diabetes without Complication
22	Adult	High Failure Rate Group	22	Type 1 Diabetes Mellitus, add-on to Diabetes HCCs 19-21
23	Adult, Child	Low Failure Rate Group	23	Protein-Calorie Malnutrition
G02B	Adult, Child	High Failure Rate Group	26	Mucopolysaccharidosis
			27	Lipidoses and Glycogenosis
G02D	Child	High Failure Rate Group	28	Congenital Metabolic Disorders, Not Elsewhere Classified
			29	Amyloidosis, Porphyria, and Other Metabolic Disorders
			29	Amyloidosis, Porphyria, and Other Metabolic Disorders
29	Adult	High Failure Rate Group	29	Adrenal, Pituitary, and Other Significant Endocrine Disorders
30	Adult, Child	Low Failure Rate Group	30	Liver Transplant Status/Complications
34	Adult, Child	High Failure Rate Group	34	Acute Liver Failure/Disease, Including Neonatal Hepatitis
35_1	Adult, Child	High Failure Rate Group	35_1	Chronic Liver Failure/End-Stage Liver Disorders
35_2	Adult, Child	Low Failure Rate Group	35_2	Cirrhosis of Liver
36	Adult, Child	Low Failure Rate Group	36	Chronic Viral Hepatitis C
37_1	Adult, Child	High Failure Rate Group	37_1	Chronic Hepatitis, Except Chronic Viral Hepatitis C
37_2	Adult, Child	Medium Failure Rate Group	37_2	Intestine Transplant Status/Complications
41	Adult, Child	High Failure Rate Group	41	Peritonitis/Gastrointestinal Perforation/Necrotizing Enterocolitis
42	Adult, Child	High Failure Rate Group	42	

<sup>26</sup> For information regarding which Infant HCCs map to the Infant Super HCCs in this table, see DIY Table 8: Additional Infant Variables located at <https://www.cms.gov/files/document/cy2023-diy-tables-04102024.xlsx>. See also the 2023 HHS-RADV Protocols, Appendix E, available at: [https://regtap.cms.gov/reg\\_librarye.php?i=5389](https://regtap.cms.gov/reg_librarye.php?i=5389).

Super HCC	RA Age Group Model(s)	Failure Rate Group	HCC	HCC Label <sup>26</sup>
45	Adult, Child	High Failure Rate Group	45	Intestinal Obstruction
46	Adult, Child	Medium Failure Rate Group	46	Chronic Pancreatitis
47	Adult, Child	Medium Failure Rate Group	47	Acute Pancreatitis
48	Adult, Child	Medium Failure Rate Group	48	Inflammatory Bowel Disease
54	Adult	High Failure Rate Group	54	Necrotizing Fasciitis
55	Adult	Medium Failure Rate Group	55	Bone/Joint/Muscle Infections/Necrosis
G03	Child	High Failure Rate Group	54	Necrotizing Fasciitis
			55	Bone/Joint/Muscle Infections/Necrosis
56	Adult, Child	Low Failure Rate Group	56	Rheumatoid Arthritis and Specified Autoimmune Disorders
57	Adult, Child	High Failure Rate Group	57	Systemic Lupus Erythematosus and Other Autoimmune Disorders
G04	Adult, Child	Medium Failure Rate Group	61	Osteogenesis Imperfecta and Other Osteodystrophies
			62	Congenital/Developmental Skeletal and Connective Tissue Disorders
63	Adult, Child	High Failure Rate Group	63	Cleft Lip/Cleft Palate
66	Adult, Child	Medium Failure Rate Group	66	Hemophilia
G06A	Adult, Child	High Failure Rate Group	67	Myelodysplastic Syndromes and Myelofibrosis
			68	Aplastic Anemia
			69	Acquired Hemolytic Anemia, Including Hemolytic Disease of Newborn
G07A	Adult, Child	Medium Failure Rate Group	70	Sickle Cell Anemia (Hb-SS)
			71	Beta Thalassemia Major
G08	Adult, Child	Low Failure Rate Group	73	Combined and Other Severe Immunodeficiencies
			74	Disorders of the Immune Mechanism
75	Adult, Child	Medium Failure Rate Group	75	Coagulation Defects and Other Specified Hematological Disorders
G09A	Adult, Child	High Failure Rate Group	81	Drug Use with Psychotic Complications
			82	Drug Use Disorder, Moderate/Severe, or Drug Use with Non-Psychotic Complications
G09C	Adult, Child	Low Failure Rate Group	83	Alcohol Use with Psychotic Complications
			84	Alcohol Use Disorder, Moderate/Severe, or Alcohol Use with Specified Non-Psychotic Complications
87_1	Adult, Child	Low Failure Rate Group	87_1	Schizophrenia
87_2	Adult, Child	Low Failure Rate Group	87_2	Delusional and Other Specified Psychotic Disorders, Unspecified Psychosis
88	Adult, Child	High Failure Rate Group	88	Major Depressive Disorder, Severe, and Bipolar Disorders
90	Adult, Child	High Failure Rate Group	90	Personality Disorders
94	Adult, Child	High Failure Rate Group	94	Anorexia/Bulimia Nervosa
96	Adult, Child	Low Failure Rate Group	96	Prader-Willi, Patau, Edwards, and Autosomal Deletion Syndromes
97	Adult, Child	High Failure Rate Group	97	Down Syndrome, Fragile X, Other Chromosomal Anomalies, and Congenital Malformation Syndromes
102	Adult, Child	High Failure Rate Group	102	Autistic Disorder
103	Adult, Child	High Failure Rate Group	103	Pervasive Developmental Disorders, Except Autistic Disorder
G10	Adult, Child	Low Failure Rate Group	106	Traumatic Complete Lesion Cervical Spinal Cord
			107	Quadriplegia
G11	Adult, Child	Medium Failure Rate Group	108	Traumatic Complete Lesion Dorsal Spinal Cord
			109	Paraplegia
110	Adult, Child	Medium Failure Rate Group	110	Spinal Cord Disorders/Injuries
111	Adult, Child	High Failure Rate Group	111	Amyotrophic Lateral Sclerosis and Other Anterior Horn Cell Disease

Super HCC	RA Age Group Model(s)	Failure Rate Group	HCC	HCC Label <sup>26</sup>
112	Adult, Child	Low Failure Rate Group	112	Quadriplegic Cerebral Palsy
113	Adult, Child	Medium Failure Rate Group	113	Cerebral Palsy, Except Quadriplegic
114	Adult, Child	Low Failure Rate Group	114	Spina Bifida and Other Brain/Spinal/Nervous System Congenital Anomalies
115	Adult, Child	Low Failure Rate Group	115	Myasthenia Gravis/Myoneural Disorders and Guillain-Barre Syndrome/Inflammatory and Toxic Neuropathy
G12	Adult, Child	High Failure Rate Group	117	Muscular Dystrophy
			119	Parkinson's, Huntington's, and Spinocerebellar Disease, and Other Neurodegenerative Disorders
118	Adult, Child	Low Failure Rate Group	118	Multiple Sclerosis
120	Adult, Child	Medium Failure Rate Group	120	Seizure Disorders and Convulsions
121	Adult, Child	Medium Failure Rate Group	121	Hydrocephalus
122	Adult, Child	Low Failure Rate Group	122	Nontraumatic Coma, Except Diabetic, Hepatic, or Hypoglycemic; Nontraumatic Brain Compression/Anoxic Damage
123	Adult, Child	High Failure Rate Group	123	Narcolepsy and Cataplexy
125	Adult, Child	High Failure Rate Group	125	Respirator Dependence/Tracheostomy Status
G13	Adult, Child	Low Failure Rate Group	126	Respiratory Arrest
			127	Cardio-Respiratory Failure and Shock, Including Respiratory Distress Syndromes
G14	Adult, Child	High Failure Rate Group	128	Heart Assistive Device/Artificial Heart
			129	Heart Transplant Status/Complications
130	Adult, Child	Medium Failure Rate Group	130	Heart Failure
131	Adult	High Failure Rate Group	131	Acute Myocardial Infarction
132	Adult	High Failure Rate Group	132	Unstable Angina and Other Acute Ischemic Heart Disease
G23	Child	Low Failure Rate Group	131	Acute Myocardial Infarction
			132	Unstable Angina and Other Acute Ischemic Heart Disease
135	Adult, Child	Low Failure Rate Group	135	Heart Infection/Inflammation, Except Rheumatic
137	Child	High Failure Rate Group	137	Hypoplastic Left Heart Syndrome and Other Severe Congenital Heart Disorders
138	Child	High Failure Rate Group	138	Major Congenital Heart/Circulatory Disorders
139	Child	Low Failure Rate Group	139	Atrial and Ventricular Septal Defects, Patent Ductus Arteriosus, and Other Congenital Heart/Circulatory Disorders
G21	Adult	High Failure Rate Group	137	Hypoplastic Left Heart Syndrome and Other Severe Congenital Heart Disorders
			138	Major Congenital Heart/Circulatory Disorders
			139	Atrial and Ventricular Septal Defects, Patent Ductus Arteriosus, and Other Congenital Heart/Circulatory Disorders
142	Adult, Child	Medium Failure Rate Group	142	Specified Heart Arrhythmias
145	Adult, Child	High Failure Rate Group	145	Intracranial Hemorrhage
146	Adult, Child	High Failure Rate Group	146	Ischemic or Unspecified Stroke
149	Adult, Child	High Failure Rate Group	149	Cerebral Aneurysm and Arteriovenous Malformation
150	Adult, Child	Low Failure Rate Group	150	Hemiplegia/Hemiparesis
151	Adult, Child	High Failure Rate Group	151	Monoplegia, Other Paralytic Syndromes
153	Adult, Child	Low Failure Rate Group	153	Atherosclerosis of the Extremities with Ulceration or Gangrene
154	Adult, Child	High Failure Rate Group	154	Vascular Disease with Complications
156	Adult, Child	High Failure Rate Group	156	Pulmonary Embolism and Deep Vein Thrombosis
158	Adult, Child	High Failure Rate Group	158	Lung Transplant Status/Complications

Super HCC	RA Age Group Model(s)	Failure Rate Group	HCC	HCC Label <sup>26</sup>
159	Adult, Child	Low Failure Rate Group	159	Cystic Fibrosis
160	Child	Medium Failure Rate Group	160	Chronic Obstructive Pulmonary Disease, Including Bronchiectasis
161_1	Child	High Failure Rate Group	161_1	Severe Asthma
161_2	Child	Medium Failure Rate Group	161_2	Asthma, Except Severe
G15A	Adult	Low Failure Rate Group	160	Chronic Obstructive Pulmonary Disease, Including Bronchiectasis
			161_1	Severe Asthma
			161_2	Asthma, Except Severe
162	Adult, Child	Medium Failure Rate Group	162	Fibrosis of Lung and Other Lung Disorders
163	Adult, Child	High Failure Rate Group	163	Aspiration and Specified Bacterial Pneumonias and Other Severe Lung Infections
174	Adult	High Failure Rate Group	174	Exudative Macular Degeneration
183	Adult, Child	Medium Failure Rate Group	183	Kidney Transplant Status/Complications
184	Adult, Child	High Failure Rate Group	184	End Stage Renal Disease
G16	Adult, Child	Medium Failure Rate Group	187	Chronic Kidney Disease, Stage 5
			188	Chronic Kidney Disease, Severe (Stage 4)
203	Adult, Child	High Failure Rate Group	203	Ectopic and Molar Pregnancy
G17A	Adult, Child	Medium Failure Rate Group	204	Miscarriage with Complications
			205	Miscarriage with No or Minor Complications
G18A	Adult, Child	High Failure Rate Group	207	Pregnancy with Delivery with Major Complications
			208	Pregnancy with Delivery with Complications
209	Adult, Child	Low Failure Rate Group	209	Pregnancy with Delivery with No or Minor Complications
210	Adult	High Failure Rate Group	210	(Ongoing) Pregnancy without Delivery with Major Complications
211	Adult	High Failure Rate Group	211	(Ongoing) Pregnancy without Delivery with Complications
G19B	Child	Low Failure Rate Group	210	(Ongoing) Pregnancy without Delivery with Major Complications
			211	(Ongoing) Pregnancy without Delivery with Complications
212	Adult, Child	High Failure Rate Group	212	(Ongoing) Pregnancy without Delivery with No or Minor Complications
217	Adult, Child	Low Failure Rate Group	217	Chronic Ulcer of Skin, Except Pressure
218	Adult, Child	High Failure Rate Group	218	Extensive Third Degree Burns
219	Adult, Child	High Failure Rate Group	219	Major Skin Burn or Condition
223	Adult, Child	High Failure Rate Group	223	Severe Head Injury
226	Adult, Child	High Failure Rate Group	226	Hip and Pelvic Fractures
228	Adult, Child	High Failure Rate Group	228	Vertebral Fractures without Spinal Cord Injury
234	Adult	High Failure Rate Group	234	Traumatic Amputations and Amputation Complications
G22	Child	Low Failure Rate Group	234	Traumatic Amputations and Amputation Complications
			254	Amputation Status, Upper Limb or Lower Limb
251	Adult, Child	Low Failure Rate Group	251	Stem Cell, Including Bone Marrow, Transplant Status/Complications
253	Adult, Child	Low Failure Rate Group	253	Artificial Openings for Feeding or Elimination
254	Adult	Low Failure Rate Group	254	Amputation Status, Upper Limb or Lower Limb
AGE1_X_SE VERITY1	Infant	Low Failure Rate Group		
AGE1_X_SE VERITY2	Infant	Low Failure Rate Group		
AGE1_X_SE VERITY3	Infant	Low Failure Rate Group		

Super HCC	RA Age Group Model(s)	Failure Rate Group	HCC	HCC Label <sup>26</sup>
AGE1_X_SEVERITY4	Infant	Medium Failure Rate Group		
AGE1_X_SEVERITY5	Infant	High Failure Rate Group		
EXTREMELY_IMMATURE_X_SEVERITY1	Infant	High Failure Rate Group		
EXTREMELY_IMMATURE_X_SEVERITY3	Infant	Low Failure Rate Group		
EXTREMELY_IMMATURE_X_SEVERITY4	Infant	High Failure Rate Group		
EXTREMELY_IMMATURE_X_SEVERITY5	Infant	Low Failure Rate Group		
IMMATURE_X_SEVERITY1	Infant	Low Failure Rate Group		
IMMATURE_X_SEVERITY2	Infant	Low Failure Rate Group		
IMMATURE_X_SEVERITY3	Infant	High Failure Rate Group		
IMMATURE_X_SEVERITY4	Infant	High Failure Rate Group		
IMMATURE_X_SEVERITY5	Infant	High Failure Rate Group		
PREMATURE_MULTIPLE_X_SEVERITY1	Infant	Low Failure Rate Group		
PREMATURE_MULTIPLE_X_SEVERITY2	Infant	Low Failure Rate Group		
PREMATURE_MULTIPLE_X_SEVERITY3	Infant	High Failure Rate Group		
PREMATURE_MULTIPLE_X_SEVERITY4	Infant	Medium Failure Rate Group		
PREMATURE_MULTIPLE_X_SEVERITY5	Infant	High Failure Rate Group		
TERM_X_SE	Infant	Medium Failure Rate Group		

Super HCC	RA Age Group Model(s)	Failure Rate Group	HCC	HCC Label <sup>26</sup>
VERITY1				
TERM_X_SE VERITY2	Infant	High Failure Rate Group		
TERM_X_SE VERITY3	Infant	Medium Failure Rate Group		
TERM_X_SE VERITY4	Infant	High Failure Rate Group		
TERM_X_SE VERITY5	Infant	High Failure Rate Group		