DEPARTMENT OF HEALTH & HUMAN SERVICES Centers for Medicare & Medicaid Services Center for Consumer Information and Insurance Oversight 200 Independence Avenue SW Washington, DC 20201



**Date:** May 06, 2022

Subject: 2023 Benefit Year Final HHS Risk Adjustment Model Coefficients

As detailed in the HHS Notice of Benefit and Payment Parameters for 2023 final rule (Final 2023 Payment Notice), <sup>1</sup> the 2023 benefit year final HHS risk adjustment model coefficients are based on blended coefficients separately solved from the 2017, 2018, and 2019 enrollee-level EDGE data. <sup>2</sup> Due to timing constraints, we were unable to finalize the final coefficients in the Final 2023 Payment Notice; therefore, consistent with 45 C.F.R. § 153.320(b)(1)(i), we are publishing the final coefficients for the 2023 benefit year in this document.

The proposed 2023 risk adjustment model coefficients<sup>3</sup> incorporated, among other things, three proposed model specification changes, including: (1) adding a two-stage weighted approach to the adult and child models (two-stage weighted model specification); (2) removing the current severity illness factors from the adult models and adding an interacted hierarchical condition category (HCC) count model specification to the adult and child models (interacted HCC counts model specification); and (3) replacing the current enrollment duration factors in the adult models with HCC-contingent enrollment duration factors (HCC-contingent EDFs).

In the Final 2023 Payment Notice, we finalized the interacted HCC count model specification and the HCC-contingent EDFs, but we did not finalize the proposed two-stage weighted model specification. Because we did not finalize all of the proposed model specification changes, the final coefficients are different from the proposed coefficients. This document releases the 2023 benefit year final risk adjustment model coefficients. Table 1 contains the coefficients for each factor in the adult models, including the age-sex factors, HCCs, RXCs, RXC–HCC interactions, interacted HCC counts factors, and HCC-contingent EDFs. Table 2 contains the coefficients for each factor in the child models, including the age-sex factors, HCCs, and interacted HCC counts factors. Table 3 lists the HCCs that result in the application of the interacted HCC counts factors that apply to the adult and child models. Table 4 contains the coefficients for each factor in the

<sup>1</sup> See HHS Notice of Benefit and Payment Parameters for 2023; Final Rule, 87 FR 27208 (May 6, 2022).

<sup>&</sup>lt;sup>2</sup> The 2023 benefit year final HHS risk adjustment model coefficients also include: 1) a market pricing adjustment to the plan liability associated with Hepatitis C drugs in the risk adjustment models; 2) the removal of the mapping of hydroxychloroquine sulfate to RXC 09 in the 2018 and 2019 benefit year enrollee-level EDGE data; and, 3) use of the final, fourth quarter (Q4) RXC mapping document that was applicable for each benefit year of data with the exception of the 2017 enrollee-level EDGE data year, for which we used the Q2 2018 RXC mapping document. See 87 FR 27208 at 27230 through 27235. The adult, child, and infant models have been truncated to account for the high-cost risk pool payment parameters by removing 60 percent of costs above the \$1 million threshold.

<sup>&</sup>lt;sup>3</sup> See HHS Notice of Benefit and Payment Parameters for 2023; Proposed Rule, 87 FR 584 (Jan. 5, 2022).

<sup>&</sup>lt;sup>4</sup> See 87 FR 27208 at 27221 through 27230.

infant models. Tables 5 and 6 contain the HCCs included in the infant models' maturity and severity categories, respectively. Table 7 contains the R-squared statistics for the final 2023 benefit year HHS risk adjustment models.

TABLE 1: Adult Risk Adjustment Model Factors for the 2023 Benefit Year

|                   | TABLE 1: Adult Risk Adjustme   | ent Model . | Factors for the 2023 Benefit Year |        |        |              |  |
|-------------------|--|-------------|-----------------------------------|--------|--------|--------------|--|
| HCC or<br>RXC No. | Factor   | Platinum    | Gold                              | Silver | Bronze | Catastrophic |  |
|                   | Demographic Factors  |             |                                   |        |        |              |  |
|                   | Age 21-24, Male  | 0.167       | 0.117                             | 0.077  | 0.048  | 0.047        |  |
|                   | Age 25-29, Male  | 0.170       | 0.119                             | 0.078  | 0.048  | 0.047        |  |
|                   | Age 30-34, Male  | 0.202       | 0.144                             | 0.098  | 0.062  | 0.061        |  |
|                   | Age 35-39, Male  | 0.225       | 0.161                             | 0.108  | 0.066  | 0.065        |  |
|                   | Age 40-44, Male  | 0.263       | 0.193                             | 0.134  | 0.087  | 0.085        |  |
|                   | Age 45-49, Male  | 0.292       | 0.216                             | 0.152  | 0.100  | 0.098        |  |
|                   | Age 50-54, Male  | 0.377       | 0.292                             | 0.221  | 0.162  | 0.160        |  |
|                   | Age 55-59, Male  | 0.429       | 0.335                             | 0.257  | 0.192  | 0.190        |  |
|                   | Age 60-64, Male  | 0.487       | 0.384                             | 0.297  | 0.225  | 0.223        |  |
|                   | Age 21-24, Female  | 0.256       | 0.182                             | 0.121  | 0.074  | 0.072        |  |
|                   | Age 25-29, Female  | 0.281       | 0.201                             | 0.135  | 0.083  | 0.081        |  |
|                   | Age 30-34, Female  | 0.352       | 0.263                             | 0.189  | 0.130  | 0.128        |  |
|                   | Age 35-39, Female  | 0.420       | 0.323                             | 0.243  | 0.179  | 0.177        |  |
|                   | Age 40-44, Female  | 0.474       | 0.369                             | 0.281  | 0.210  | 0.207        |  |
|                   | Age 45-49, Female  | 0.481       | 0.372                             | 0.279  | 0.200  | 0.198        |  |
|                   | Age 50-54, Female  | 0.529       | 0.418                             | 0.321  | 0.239  | 0.236        |  |
|                   | Age 55-59, Female  | 0.503       | 0.391                             | 0.293  | 0.211  | 0.209        |  |
|                   | Age 60-64, Female  | 0.517       | 0.402                             | 0.301  | 0.216  | 0.213        |  |
|                   | Diagnosis Factors  |             |                                   |        |        |              |  |
| HCC001            | HIV/AIDS   | 0.829       | 0.716                             | 0.653  | 0.616  | 0.615        |  |
| HCC002            | Septicemia, Sepsis, Systemic<br>Inflammatory Response<br>Syndrome/Shock                                    | 8.980       | 8.746                             | 8.638  | 8.584  | 8.583        |  |
| HCC003            | Central Nervous System Infections,<br>Except Viral Meningitis  | 8.324       | 8.186                             | 8.104  | 8.035  | 8.032        |  |
| HCC004            | Viral or Unspecified Meningitis  | 8.298       | 8.153                             | 8.058  | 7.974  | 7.971        |  |
| HCC006            | Opportunistic Infections   | 7.834       | 7.759                             | 7.677  | 7.583  | 7.579        |  |
| HCC008            | Metastatic Cancer  | 23.677      | 23.226                            | 23.131 | 23.140 | 23.141       |  |
| HCC009            | Lung, Brain, and Other Severe<br>Cancers, Including Pediatric Acute<br>Lymphoid Leukemia                   | 14.216      | 13.902                            | 13.805 | 13.768 | 13.767       |  |
| 1100010           | Non-Hodgkin Lymphomas and Other  | 5.054       | 5.750                             | 5 (51  | 5.502  | 5.500        |  |
| HCC010            | Cancers and Tumors   | 5.954       | 5.752                             | 5.654  | 5.582  | 5.580        |  |
| HCC011            | Colorectal, Breast (Age < 50),<br>Kidney, and Other Cancers  | 3.670       | 3.467                             | 3.358  | 3.273  | 3.270        |  |
| HCC012            | Breast (Age 50+) and Prostate<br>Cancer, Benign/Uncertain Brain<br>Tumors, and Other Cancers and<br>Tumors | 2.483       | 2.332                             | 2.238  | 2.161  | 2.159        |  |

| HCC or                | Factor                                | Platinum | Gold   | Silver | Bronze | Catastrophic |
|-----------------------|---------------------------------------|----------|--------|--------|--------|--------------|
| RXC No.               |                                       |          |        |        |        |              |
| ICIC IVO.             | Thyroid Cancer, Melanoma,             |          |        |        |        |              |
|                       | Neurofibromatosis, and Other          |          |        |        |        |              |
| HCC013                | Cancers and Tumors                    | 1.038    | 0.931  | 0.823  | 0.718  | 0.714        |
| HCC018                | Pancreas Transplant Status            | 5.932    | 5.949  | 5.984  | 6.020  | 6.021        |
| HCC019                | Diabetes with Acute Complications     | 0.305    | 0.253  | 0.205  | 0.162  | 0.160        |
| HCC020                | Diabetes with Chronic Complications   | 0.305    | 0.253  | 0.205  | 0.162  | 0.160        |
| HCC021                | Diabetes without Complication         | 0.305    | 0.253  | 0.205  | 0.162  | 0.160        |
|                       | Type 1 Diabetes Mellitus, add-on to   |          |        |        |        |              |
| HCC022                | Diabetes HCCs 19-21                   | 0.330    | 0.300  | 0.259  | 0.200  | 0.198        |
| HCC023                | Protein-Calorie Malnutrition          | 10.838   | 10.695 | 10.619 | 10.566 | 10.564       |
| HCC026                | Mucopolysaccharidosis                 | 27.297   | 27.064 | 27.000 | 26.985 | 26.986       |
| HCC027                | Lipidoses and Glycogenosis            | 27.297   | 27.064 | 27.000 | 26.985 | 26.986       |
|                       | Amyloidosis, Porphyria, and Other     |          |        |        |        |              |
| HCC029                | Metabolic Disorders                   | 7.481    | 7.364  | 7.303  | 7.253  | 7.252        |
|                       | Adrenal, Pituitary, and Other         |          |        |        |        |              |
| HCC030                | Significant Endocrine Disorders       | 1.453    | 1.360  | 1.287  | 1.216  | 1.214        |
|                       | Liver Transplant                      |          |        |        |        |              |
| HCC034                | Status/Complications                  | 6.091    | 6.067  | 5.984  | 6.020  | 6.021        |
|                       | Acute Liver Failure/Disease,          |          |        |        |        |              |
| HCC035_1 <sup>5</sup> | Including Neonatal Hepatitis          | 7.212    | 7.015  | 6.944  | 6.918  | 6.917        |
|                       | Chronic Liver Failure/End-Stage       |          |        |        |        |              |
| HCC035_2              | Liver Disorders                       | 2.688    | 2.502  | 2.429  | 2.389  | 2.388        |
| HCC036                | Cirrhosis of Liver                    | 0.831    | 0.732  | 0.665  | 0.600  | 0.598        |
| HCC037_1              | Chronic Viral Hepatitis C             | 0.636    | 0.556  | 0.490  | 0.434  | 0.432        |
|                       | Chronic Hepatitis, Except Chronic     |          |        |        |        |              |
| HCC037_2              | Viral Hepatitis C                     | 0.636    | 0.556  | 0.490  | 0.434  | 0.432        |
|                       | Intestine Transplant                  |          |        |        |        |              |
| HCC041                | Status/Complications                  | 19.388   | 19.268 | 19.200 | 19.150 | 19.147       |
| ***                   | Peritonitis/Gastrointestinal          | 44.004   |        | 10.515 | 10.500 | 10.500       |
| HCC042                | Perforation/Necrotizing Enterocolitis | 11.001   | 10.715 | 10.646 | 10.623 | 10.623       |
| HCC045                | Intestinal Obstruction                | 4.958    | 4.766  | 4.662  | 4.603  | 4.602        |
| HCC046                | Chronic Pancreatitis                  | 2.865    | 2.677  | 2.605  | 2.583  | 2.583        |
| HCC047                | Acute Pancreatitis                    | 2.670    | 2.465  | 2.360  | 2.281  | 2.280        |
| HCC048                | Inflammatory Bowel Disease            | 0.560    | 0.478  | 0.307  | 0.202  | 0.198        |
| HCC054                | Necrotizing Fasciitis                 | 9.170    | 8.984  | 8.936  | 8.926  | 8.925        |
|                       | Bone/Joint/Muscle                     |          | 4.500  |        |        |              |
| HCC055                | Infections/Necrosis                   | 4.709    | 4.508  | 4.448  | 4.436  | 4.436        |
| 1100056               | Rheumatoid Arthritis and Specified    | 1.106    | 1.000  | 0.006  | 0.010  | 0.015        |
| HCC056                | Autoimmune Disorders                  | 1.186    | 1.082  | 0.996  | 0.918  | 0.915        |
| HCCOST                | Systemic Lupus Erythematosus and      | 0.530    | 0.452  | 0.255  | 0.247  | 0.244        |
| HCC057                | Other Autoimmune Disorders            | 0.539    | 0.453  | 0.355  | 0.247  | 0.244        |
| 1100001               | Osteogenesis Imperfecta and Other     | 2.212    | 2.156  | 2.064  | 1.000  | 1.005        |
| HCC061                | Osteodystrophies                      | 2.312    | 2.156  | 2.064  | 1.988  | 1.985        |
| 1100062               | Congenital/Developmental Skeletal     | 2 2 1 2  | 2.156  | 2.064  | 1.000  | 1.005        |
| HCC062                | and Connective Tissue Disorders       | 2.312    | 2.156  | 2.064  | 1.988  | 1.985        |

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<sup>&</sup>lt;sup>5</sup> HCC numbers that appear with an underscore in this document will appear without the underscore in the DIY software. For example, HCC 035\_1 in this table will appear as HCC 351 in the DIY software.

|                  | Factor   | Platinum       | Gold   | Silver | Bronze         | Catastrophic    |
|------------------|--|----------------|--------|--------|----------------|-----------------|
| HCC or           |  |                |        |        |                | •               |
| RXC No.          |  |                |        |        |                |                 |
| HCC063           | Cleft Lip/Cleft Palate                               | 1.762          | 1.636  | 1.552  | 1.483          | 1.482           |
| HCC066           | Hemophilia   | 71.881         | 71.567 | 71.487 | 71.480         | 71.480          |
| 1100007          | Myelodysplastic Syndromes and                        | 12 222         | 12 000 | 12.047 | 12.012         | 12.010          |
| HCC067           | Myelofibrosis  | 12.233         | 12.099 | 12.047 | 12.013         | 12.010          |
| HCC068           | Aplastic Anemia                                      | 12.233         | 12.099 | 12.047 | 12.013         | 12.010          |
|                  | Acquired Hemolytic Anemia,                           |                |        |        |                |                 |
| HCC069           | Including Hemolytic Disease of<br>Newborn            | 12.233         | 12.099 | 12.047 | 12.013         | 12.010          |
| HCC070           | Sickle Cell Anemia (Hb-SS)                           | 2.351          | 2.242  | 2.164  | 2.096          | 12.010<br>2.093 |
| HCC070           |  | 2.351          | 2.242  | 2.164  | 2.096          | 2.093           |
| HCC0/1           | Beta Thalassemia Major Combined and Other Severe     | 2.331          | 2.242  | 2.104  | 2.096          | 2.093           |
| HCC073           | Immunodeficiencies                                   | 4.086          | 3.968  | 3.911  | 3.865          | 3.863           |
| HCC074           | Disorders of the Immune Mechanism                    | 4.086          | 3.968  | 3.911  | 3.865          | 3.863           |
| пссо/4           | Coagulation Defects and Other                        | 4.000          | 3.908  | 3.911  | 3.803          | 3.803           |
| HCC075           | Specified Hematological Disorders                    | 2.135          | 2.044  | 1.979  | 1.921          | 1.919           |
| 1100073          | Drug Use with Psychotic                              | 2.133          | 2.044  | 1.979  | 1.921          | 1.717           |
| HCC081           | Complications  | 1.993          | 1.829  | 1.698  | 1.561          | 1.556           |
| 1100001          | Drug Use Disorder,                                   | 1.773          | 1.02)  | 1.070  | 1.501          | 1.550           |
| l                | Moderate/Severe, or Drug Use with                    |                |        |        |                |                 |
| HCC082           | Non-Psychotic Complications                          | 1.993          | 1.829  | 1.698  | 1.561          | 1.556           |
| 1100002          | Alcohol Use with Psychotic                           | 11,550         | 11025  | 1.050  | 1.001          | 1,000           |
| HCC083           | Complications  | 1.005          | 0.876  | 0.779  | 0.689          | 0.687           |
|                  | Alcohol Use Disorder,                                |                |        |        |                |                 |
|                  | Moderate/Severe, or Alcohol Use                      |                |        |        |                |                 |
|                  | with Specified Non-Psychotic                         |                |        |        |                |                 |
| HCC084           | Complications  | 1.005          | 0.876  | 0.779  | 0.689          | 0.687           |
| HCC087_1         | Schizophrenia  | 2.365          | 2.179  | 2.064  | 1.971          | 1.969           |
|                  | Delusional and Other Specified                       |                |        |        |                |                 |
|                  | Psychotic Disorders, Unspecified                     |                |        |        |                |                 |
| HCC087_2         | Psychosis  | 2.365          | 2.179  | 2.064  | 1.971          | 1.969           |
|                  | Major Depressive Disorder, Severe,                   |                |        |        |                |                 |
| HCC088           | and Bipolar Disorders                                | 1.161          | 1.043  | 0.937  | 0.832          | 0.828           |
| HCC090           | Personality Disorders                                | 0.847          | 0.753  | 0.647  | 0.536          | 0.532           |
| HCC094           | Anorexia/Bulimia Nervosa                             | 2.271          | 2.138  | 2.050  | 1.971          | 1.968           |
| 1100000          | Prader-Willi, Patau, Edwards, and                    | 0.400          | 0.244  | 0.207  | 0.227          | 0.004           |
| HCC096           | Autosomal Deletion Syndromes                         | 8.408          | 8.344  | 8.287  | 8.227          | 8.224           |
|                  | Down Syndrome, Fragile X, Other                      |                |        |        |                |                 |
| 1100007          | Chromosomal Anomalies, and                           | 1 270          | 1.200  | 1 122  | 1.071          | 1.069           |
| HCC097<br>HCC102 | Congenital Malformation Syndromes                    | 1.278<br>1.034 | 0.939  | 1.133  | 1.071<br>0.739 | 0.735           |
| 1100102          | Autistic Disorder Pervasive Developmental Disorders, | 1.034          | 0.739  | 0.838  | 0.739          | 0.733           |
| HCC103           | Except Autistic Disorder                             | 0.847          | 0.753  | 0.647  | 0.536          | 0.532           |
| 1100103          | Traumatic Complete Lesion Cervical                   | 0.07/          | 0.133  | 0.04/  | 0.550          | 0.332           |
| HCC106           | Spinal Cord  | 9.171          | 8.978  | 8.882  | 8.814          | 8.812           |
| HCC107           | Quadriplegia   | 9.171          | 8.978  | 8.882  | 8.814          | 8.812           |
| 1100107          | Traumatic Complete Lesion Dorsal                     | 7.1/1          | 0.770  | 0.002  | 0.017          | 0.012           |
| HCC108           | Spinal Cord  | 6.793          | 6.624  | 6.538  | 6.469          | 6.467           |
| HCC109           | Paraplegia   | 6.793          | 6.624  | 6.538  | 6.469          | 6.467           |
| HCC110           | Spinal Cord Disorders/Injuries                       | 5.080          | 4.868  | 4.778  | 4.718          | 4.716           |
| 1100110          | primar cora Disoració/mjarico                        | 2.000          | 1.000  | 1.770  | 1.710          | 1./10           |

|         | Factor  | Platinum    | Gold   | Silver  | Bronze | Catastrophic |
|---------|---|-------------|--------|---------|--------|--------------|
| HCC or  | 140001  | 1 iatiliani | 3014   | Sirver  | Bronze | Симынории    |
| RXC No. |   |             |        |         |        |              |
|         | Amyotrophic Lateral Sclerosis and                         |             |        |         |        |              |
| HCC111  | Other Anterior Horn Cell Disease                          | 4.804       | 4.625  | 4.519   | 4.424  | 4.421        |
| HCC112  | Quadriplegic Cerebral Palsy                               | 1.332       | 1.150  | 1.043   | 0.950  | 0.947        |
| HCC113  | Cerebral Palsy, Except Quadriplegic                       | 0.655       | 0.574  | 0.497   | 0.419  | 0.417        |
|         | Spina Bifida and Other                                    |             |        |         |        |              |
|         | Brain/Spinal/Nervous System                               |             |        |         |        |              |
| HCC114  | Congenital Anomalies                                      | 1.381       | 1.278  | 1.199   | 1.120  | 1.118        |
|         | Myasthenia Gravis/Myoneural                               |             |        |         |        |              |
|         | Disorders and Guillain-Barre                              |             |        |         |        |              |
|         | Syndrome/Inflammatory and Toxic                           |             |        |         |        |              |
| HCC115  | Neuropathy  | 5.140       | 5.033  | 4.993   | 4.969  | 4.968        |
| HCC117  | Muscular Dystrophy  | 1.640       | 1.528  | 1.435   | 1.339  | 1.335        |
| HCC118  | Multiple Sclerosis  | 1.963       | 1.829  | 1.741   | 1.659  | 1.656        |
|         | Parkinson's, Huntington's, and                            |             |        |         |        |              |
|         | Spinocerebellar Disease, and Other                        |             |        |         |        |              |
| HCC119  | Neurodegenerative Disorders                               | 1.640       | 1.528  | 1.435   | 1.339  | 1.335        |
| HCC120  | Seizure Disorders and Convulsions                         | 1.173       | 1.061  | 0.974   | 0.892  | 0.889        |
| HCC121  | Hydrocephalus   | 9.778       | 9.651  | 9.573   | 9.507  | 9.505        |
|         | Coma, Brain Compression/Anoxic                            |             |        |         |        |              |
| HCC122  | Damage  | 10.040      | 9.859  | 9.762   | 9.685  | 9.682        |
| HCC123  | Narcolepsy and Cataplexy                                  | 5.710       | 5.551  | 5.451   | 5.363  | 5.360        |
|         | Respirator  |             |        |         |        |              |
| HCC125  | Dependence/Tracheostomy Status                            | 19.636      | 19.402 | 19.298  | 19.235 | 19.234       |
| HCC126  | Respiratory Arrest  | 8.426       | 8.201  | 8.093   | 8.029  | 8.027        |
|         | Cardio-Respiratory Failure and                            |             |        |         |        |              |
| 1100105 | Shock, Including Respiratory                              | 0.426       | 0.201  | 0.002   | 0.000  | 0.025        |
| HCC127  | Distress Syndromes  | 8.426       | 8.201  | 8.093   | 8.029  | 8.027        |
| 1100120 | Heart Assistive Device/Artificial                         | 10.001      | 10.720 | 10.647  | 10.621 | 10.624       |
| HCC128  | Heart   | 18.901      | 18.730 | 18.647  | 18.621 | 18.624       |
| 1100120 | Heart Transplant  | 10.001      | 10.720 | 10.647  | 10.621 | 10.624       |
| HCC129  | Status/Complications                                      | 18.901      | 18.730 | 18.647  | 18.621 | 18.624       |
| HCC130  | Heart Failure   | 2.157       | 2.053  | 1.998   | 1.956  | 1.955        |
| HCC131  | Acute Myocardial Infarction                               | 5.536       | 5.258  | 5.186   | 5.188  | 5.190        |
| 1100122 | Unstable Angina and Other Acute<br>Ischemic Heart Disease | 4 207       | 4.025  | 2 0 4 2 | 2 001  | 2 001        |
| HCC132  |   | 4.287       | 4.035  | 3.942   | 3.901  | 3.901        |
| HCC135  | Heart Infection/Inflammation, Except Rheumatic            | 8.954       | 8.833  | 8.741   | 8.652  | 8.649        |
| псстээ  | Hypoplastic Left Heart Syndrome                           | 8.934       | 0.033  | 8.741   | 8.032  | 8.049        |
|         | and Other Severe Congenital Heart                         |             |        |         |        |              |
| HCC137  | Disorders   | 2.292       | 2.187  | 2.109   | 2.043  | 2.041        |
| TICC137 | Major Congenital Heart/Circulatory                        | 2.292       | 2.107  | 2.109   | 2.043  | 2.041        |
| HCC138  | Disorders   | 2.292       | 2.187  | 2.109   | 2.043  | 2.041        |
| 1100136 | Atrial and Ventricular Septal                             | 2.272       | 2.10/  | 2.109   | 2.043  | 2.071        |
|         | Defects, Patent Ductus Arteriosus,                        |             |        |         |        |              |
|         | and Other Congenital                                      |             |        |         |        |              |
| HCC139  | Heart/Circulatory Disorders                               | 2.292       | 2.187  | 2.109   | 2.043  | 2.041        |
| HCC142  | Specified Heart Arrhythmias                               | 1.980       | 1.860  | 1.772   | 1.686  | 1.688        |
| HCC145  | Intracranial Hemorrhage                                   | 10.523      | 10.326 | 10.234  | 10.173 | 10.171       |
| HCC146  | Ischemic or Unspecified Stroke                            | 1.432       | 1.306  | 1.241   | 1.195  | 1.194        |
| 1100140 | Isonomic of Onspecified Shoke                             | 1.734       | 1.500  | 1.241   | 1.173  | 1.174        |

|                  | Factor   | Platinum       | Gold           | Silver         | Bronze         | Catastrophic   |
|------------------|--|----------------|----------------|----------------|----------------|----------------|
| HCC or           |  |                |                |                |                |                |
| RXC No.          |  |                |                |                |                |                |
| HCC149           | Cerebral Aneurysm and<br>Arteriovenous Malformation        | 2 2 4 0        | 2.200          | 2 114          | 2.037          | 2.025          |
| HCC149<br>HCC150 | Hemiplegia/Hemiparesis                                     | 2.340<br>3.422 | 3.280          | 2.114<br>3.238 | 3.230          | 2.035<br>3.231 |
| псстзо           | Monoplegia, Other Paralytic                                | 3.422          | 3.280          | 3.236          | 3.230          | 3.231          |
| HCC151           | Syndromes  | 2.540          | 2.419          | 2.349          | 2.287          | 2.285          |
| 1100131          | Atherosclerosis of the Extremities                         | 2.340          | 2.419          | 2.349          | 2.267          | 2.263          |
| HCC153           | with Ulceration or Gangrene                                | 7.708          | 7.537          | 7.515          | 7.546          | 7.547          |
| HCC154           | Vascular Disease with Complications                        | 5.409          | 5.242          | 5.172          | 5.129          | 5.128          |
| 1100131          | Pulmonary Embolism and Deep Vein                           | 3.109          | 3.212          | 3.172          | 3.129          | 3.120          |
| HCC156           | Thrombosis   | 7.584          | 7.470          | 7.369          | 7.258          | 7.253          |
|                  | Lung Transplant  |                |                |                |                |                |
| HCC158           | Status/Complications                                       | 11.151         | 10.965         | 10.891         | 10.876         | 10.874         |
| HCC159           | Cystic Fibrosis  | 5.579          | 5.369          | 5.265          | 5.195          | 5.193          |
|                  | Chronic Obstructive Pulmonary                              |                |                |                |                |                |
| HCC160           | Disease, Including Bronchiectasis                          | 0.703          | 0.613          | 0.523          | 0.431          | 0.428          |
| HCC161_1         | Severe Asthma  | 0.703          | 0.613          | 0.523          | 0.431          | 0.428          |
| HCC161_2         | Asthma, Except Severe                                      | 0.703          | 0.613          | 0.523          | 0.431          | 0.428          |
|                  | Fibrosis of Lung and Other Lung                            |                |                |                |                |                |
| HCC162           | Disorders  | 1.765          | 1.656          | 1.581          | 1.510          | 1.507          |
|                  | Aspiration and Specified Bacterial                         |                |                |                |                |                |
|                  | Pneumonias and Other Severe Lung                           |                |                |                |                |                |
| HCC163           | Infections   | 5.932          | 5.949          | 5.984          | 6.020          | 6.021          |
| HCC174           | Exudative Macular Degeneration                             | 1.365          | 1.229          | 1.113          | 1.003          | 1.000          |
| 1100102          | Kidney Transplant  | 6.045          | 7.000          | <b>5</b> 00 4  | 6.000          | 6.021          |
| HCC183           | Status/Complications                                       | 6.045          | 5.980          | 5.984          | 6.020          | 6.021          |
| HCC184           | End Stage Renal Disease                                    | 20.979         | 20.542         | 20.529         | 20.537         | 20.540         |
| HCC187           | Chronic Kidney Disease, Stage 5                            | 0.761          | 0.675          | 0.651          | 0.635          | 0.633          |
| HCC100           | Chronic Kidney Disease, Severe                             | 0.761          | 0.675          | 0.651          | 0.625          | 0.622          |
| HCC188<br>HCC203 | (Stage 4)  | 0.761<br>2.029 | 0.675<br>1.826 | 0.651<br>1.630 | 0.635<br>1.415 | 0.633<br>1.409 |
| HCC203           | Ectopic and Molar Pregnancy Miscarriage with Complications | 0.748          | 0.650          | 0.509          | 0.325          | 0.317          |
| HCC204           | Miscarriage with No or Minor                               | 0.746          | 0.030          | 0.309          | 0.323          | 0.517          |
| HCC205           | Complications  | 0.748          | 0.650          | 0.509          | 0.325          | 0.317          |
| 1100203          | Pregnancy with Delivery with Major                         | 0.740          | 0.030          | 0.307          | 0.323          | 0.517          |
| HCC207           | Complications  | 3.882          | 3.578          | 3.308          | 3.023          | 3.017          |
| 1100207          | Pregnancy with Delivery with                               | 3.002          | 3.576          | 3.300          | 3.023          | 3.017          |
| HCC208           | Complications  | 3.882          | 3.578          | 3.308          | 3.023          | 3.017          |
|                  | Pregnancy with Delivery with No or                         | 0.000          |                |                |                | 0.000          |
| HCC209           | Minor Complications  | 2.752          | 2.534          | 2.266          | 1.892          | 1.881          |
|                  | (Ongoing) Pregnancy without                                |                |                |                |                |                |
| HCC210           | Delivery with Major Complications                          | 0.997          | 0.868          | 0.695          | 0.496          | 0.489          |
|                  | (Ongoing) Pregnancy without                                |                |                |                |                |                |
| HCC211           | Delivery with Complications                                | 0.653          | 0.555          | 0.412          | 0.264          | 0.259          |
|                  | (Ongoing) Pregnancy without                                |                |                |                |                |                |
|                  | Delivery with No or Minor                                  |                |                |                |                |                |
| HCC212           | Complications  | 0.085          | 0.039          | 0.000          | 0.000          | 0.000          |
|                  | Chronic Ulcer of Skin, Except                              |                |                |                |                |                |
| HCC217           | Pressure   | 1.619          | 1.508          | 1.452          | 1.413          | 1.412          |
| HCC218           | Extensive Third Degree Burns                               | 22.367         | 22.109         | 22.009         | 21.957         | 21.955         |

|         | Factor                               | Platinum | Gold     | Silver | Bronze  | Catastrophic |
|---------|--------------------------------------|----------|----------|--------|---------|--------------|
| HCC or  |                                      |          |          |        |         |              |
| RXC No. | Mi di D                              | 2.502    | 2 (50    | 2.555  | 0.515   | 2.512        |
| HCC219  | Major Skin Burn or Condition         | 2.792    | 2.658    | 2.577  | 2.515   | 2.513        |
| HCC223  | Severe Head Injury                   | 17.057   | 16.879   | 16.774 | 16.689  | 16.686       |
| HCC226  | Hip and Pelvic Fractures             | 8.033    | 7.753    | 7.679  | 7.672   | 7.672        |
| 1100220 | Vertebral Fractures without Spinal   | 4.501    | 4.212    | 4.206  | 4.117   | 4.117        |
| HCC228  | Cord Injury                          | 4.501    | 4.312    | 4.206  | 4.117   | 4.115        |
| 1100001 | Traumatic Amputations and            | 7.020    | 4.050    | 4.500  | 4 555   | 4.555        |
| HCC234  | Amputation Complications             | 5.039    | 4.853    | 4.792  | 4.777   | 4.777        |
| 1100251 | Stem Cell, Including Bone Marrow,    | 21.110   | 21 111   | 21.064 | 21.027  | 21.026       |
| HCC251  | Transplant Status/Complications      | 21.119   | 21.111   | 21.064 | 21.027  | 21.026       |
| 1100252 | Artificial Openings for Feeding or   | 7.040    | 5.015    | 5 772  | 5.756   | 5.756        |
| HCC253  | Elimination                          | 5.948    | 5.817    | 5.773  | 5.756   | 5.756        |
| 1100054 | Amputation Status, Upper Limb or     | 1 454    | 1 2 45   | 1.004  | 1 2 4 4 | 1.044        |
| HCC254  | Lower Limb                           | 1.474    | 1.347    | 1.284  | 1.244   | 1.244        |
|         | Interacted HCC Counts Factors        |          |          |        |         |              |
|         | Severe illness, 1 payment HCC        | -5.932   | -5.949   | -5.984 | -6.020  | -6.021       |
|         | Severe illness, 2 payment HCCs       | -5.403   | -5.470   | -5.504 | -5.531  | -5.531       |
|         | Severe illness, 3 payment HCCs       | -4.343   | -4.388   | -4.335 | -4.244  | -4.240       |
|         | Severe illness, 4 payment HCCs       | -3.631   | -3.615   | -3.460 | -3.243  | -3.234       |
|         | Severe illness, 5 payment HCCs       | -2.997   | -2.890   | -2.640 | -2.326  | -2.314       |
|         | Severe illness, 6 payment HCCs       | -2.707   | -2.501   | -2.162 | -1.768  | -1.754       |
|         | Severe illness, 7 payment HCCs       | -2.013   | -1.634   | -1.189 | -0.714  | -0.698       |
|         | Severe illness, 8 payment HCCs       | -1.879   | -1.457   | -0.988 | -0.496  | -0.479       |
|         | Severe illness, 9 payment HCCs       | -0.126   | 0.494    | 1.070  | 1.639   | 1.657        |
|         | Severe illness, 10 or more payment   |          |          |        |         |              |
|         | HCCs                                 | 7.926    | 8.961    | 9.734  | 10.435  | 10.457       |
|         | Transplant severe illness, 4 payment |          |          |        |         |              |
|         | HCCs                                 | 4.203    | 4.122    | 4.061  | 3.946   | 3.942        |
|         | Transplant severe illness, 5 payment |          |          |        |         |              |
|         | HCCs                                 | 7.562    | 7.470    | 7.421  | 7.321   | 7.317        |
|         | Transplant severe illness, 6 payment |          |          |        |         |              |
|         | HCCs                                 | 13.706   | 13.624   | 13.586 | 13.503  | 13.499       |
|         | Transplant severe illness, 7 payment |          |          |        |         |              |
|         | HCCs                                 | 18.666   | 18.561   | 18.522 | 18.439  | 18.435       |
|         | Transplant severe illness, 8 or more |          |          |        |         |              |
|         | payment HCCs                         | 33.829   | 33.853   | 33.886 | 33.855  | 33.852       |
|         | Enrollment Duration Factors          |          |          |        |         |              |
|         | Enrolled for 1 month, at least one   |          |          |        |         |              |
|         | payment HCC                          | 9.348    | 7.984    | 6.959  | 6.027   | 5.995        |
|         | Enrolled for 2 months, at least one  | 1.5.10   | ,,,,,,,, | 0.707  | 5.027   | 2.575        |
|         | payment HCC                          | 4.521    | 3.808    | 3.265  | 2.807   | 2.792        |
|         | Enrolled for 3 months, at least one  | 1.521    | 2.000    | 3.203  | 2.007   | 2.172        |
|         | payment HCC                          | 2.949    | 2.471    | 2.098  | 1.796   | 1.787        |
|         | Enrolled for 4 months, at least one  | 2.7.17   | 2.1/1    | 2.070  | 1.750   | 1.707        |
|         | payment HCC                          | 1.837    | 1.504    | 1.234  | 1.017   | 1.010        |
|         | Enrolled for 5 months, at least one  | 1.057    | 1.501    | 1.23   | 1.017   | 1.010        |
|         | payment HCC                          | 1.348    | 1.100    | 0.893  | 0.722   | 0.717        |
|         | Enrolled for 6 months, at least one  | 1.540    | 1.100    | 0.075  | 0.722   | 0./1/        |
|         | payment HCC                          | 0.952    | 0.767    | 0.607  | 0.471   | 0.466        |
|         | payment free                         | 0.932    | 0.707    | 0.007  | U.7/I   | 0.400        |

|                  | Factor                                    | Platinum | Gold   | Silver | Bronze | Catastrophic |
|------------------|---|----------|--------|--------|--------|--------------|
| HCC or           |   |          |        |        |        | 1            |
| RXC No.          |   |          |        |        |        |              |
|                  | Prescription Drug Factors                 |          |        |        |        |              |
| RXC01            | Anti-HIV Agents                           | 8.080    | 7.445  | 7.089  | 6.763  | 6.756        |
| RXC02            | Anti-Hepatitis C (HCV) Agents,            |          |        |        |        | c = 0.1      |
| DYCOO            | Direct Acting Agents                      | 7.337    | 6.835  | 6.703  | 6.727  | 6.731        |
| RXC03            | Antiarrhythmics                           | 0.103    | 0.094  | 0.086  | 0.063  | 0.039        |
| RXC04            | Phosphate Binders                         | 1.490    | 1.607  | 1.567  | 1.642  | 1.630        |
| RXC05            | Inflammatory Bowel Disease Agents         | 1.700    | 1.574  | 1.367  | 1.157  | 1.149        |
| RXC06            | Insulin                                   | 1.537    | 1.340  | 1.141  | 0.952  | 0.945        |
| RXC07            | Anti-Diabetic Agents, Except Insulin      |          |        |        |        |              |
|                  | and Metformin Only                        | 0.812    | 0.706  | 0.582  | 0.432  | 0.427        |
| RXC08            | Multiple Sclerosis Agents                 | 22.766   | 21.760 | 21.387 | 21.195 | 21.194       |
| RXC09            | Immune Suppressants and                   |          |        |        |        |              |
|                  | Immunomodulators                          | 16.493   | 15.865 | 15.676 | 15.713 | 15.715       |
| RXC10            | Cystic Fibrosis Agents                    | 16.685   | 16.283 | 16.191 | 16.197 | 16.200       |
| RXC01 x          | Additional effect for enrollees with      | • 005    | 2.10-  |        |        |              |
| HCC001           | RXC 01 and HCC 001                        | 2.996    | 3.107  | 3.389  | 3.774  | 3.785        |
| RXC02 x          |   |          |        |        |        |              |
| HCC037_1,        | Additional effect for enrollees with      |          |        |        |        |              |
| 036, 035_2,      | RXC 02 and (HCC 037_1 or 036 or           | 0.626    | 0.556  | 0.400  | 0.410  | 0.417        |
| 035_1,034        | 035_2 or 035_1 or 034)                    | -0.636   | -0.556 | -0.490 | -0.419 | -0.417       |
| RXC03 x          | Additional effect for enrollees with      | 0.000    | 0.000  | 0.000  | 0.000  | 0.000        |
| HCC142           | RXC 03 and HCC 142                        | 0.000    | 0.000  | 0.000  | 0.000  | 0.000        |
| RXC04 x          | A 11'4' 1 CC 4 C 11 '41                   |          |        |        |        |              |
| HCC184,          | Additional effect for enrollees with      |          |        |        |        |              |
| 183, 187,<br>188 | RXC 04 and (HCC 184 or 183 or 187 or 188) | 0.000    | 0.000  | 0.000  | 0.000  | 0.000        |
| RXC05 x          | 18/01/188)                                | 0.000    | 0.000  | 0.000  | 0.000  | 0.000        |
| HCC048,          | Additional effect for enrollees with      |          |        |        |        |              |
| 041              | RXC 05 and (HCC 048 or 041)               | -0.529   | -0.478 | -0.307 | -0.202 | -0.198       |
| RXC06 x          | KAC 03 and (11CC 048 01 041)              | -0.329   | -0.478 | -0.307 | -0.202 | -0.176       |
| HCC018,          | Additional effect for enrollees with      |          |        |        |        |              |
| 019, 020,        | RXC 06 and (HCC 018 or 019 or             |          |        |        |        |              |
| 021              | 020 or 021)                               | 0.396    | 0.447  | 0.524  | 0.571  | 0.574        |
| RXC07 x          | 020 01 021)                               | 0.000    | 01117  | 0.02.  | 0.071  | 0.07.        |
| HCC018,          | Additional effect for enrollees with      |          |        |        |        |              |
| 019, 020,        | RXC 07 and (HCC 018 or 019 or             |          |        |        |        |              |
| 021              | 020 or 021)                               | -0.305   | -0.253 | -0.205 | -0.162 | -0.160       |
| RXC08 x          | Additional effect for enrollees with      |          |        |        |        |              |
| HCC118           | RXC 08 and HCC 118                        | 0.324    | 0.804  | 1.157  | 1.490  | 1.497        |
| RXC09 x          |   |          |        |        |        |              |
| HCC056 or        | Additional effect for enrollees with      |          |        |        |        |              |
| 057 and 048      | RXC 09 and (HCC 048 or 041) and           |          |        |        |        |              |
| or 041           | (HCC 056 or 057)                          | 0.898    | 0.993  | 0.857  | 0.920  | 0.922        |
| RXC09 x          | Additional effect for enrollees with      |          |        |        |        |              |
| HCC056           | RXC 09 and HCC 056                        | -1.186   | -1.082 | -0.996 | -0.918 | -0.915       |
| RXC09 x          | Additional effect for enrollees with      |          |        |        |        |              |
| HCC057           | RXC 09 and HCC 057                        | -0.539   | -0.453 | -0.355 | -0.247 | -0.244       |

|         | Factor                               | Platinum | Gold   | Silver | Bronze | Catastrophic |
|---------|--------------------------------------|----------|--------|--------|--------|--------------|
| HCC or  |                                      |          |        |        |        |              |
| RXC No. |                                      |          |        |        |        |              |
| RXC09 x |                                      |          |        |        |        |              |
| HCC048, | Additional effect for enrollees with |          |        |        |        |              |
| 041     | RXC 09 and (HCC 048 or 041)          | 0.529    | 0.598  | 1.021  | 1.122  | 1.125        |
| RXC10 x |                                      |          |        |        |        |              |
| HCC159, | Additional effect for enrollees with |          |        |        |        |              |
| 158     | RXC 10 and (HCC 159 or 158)          | 48.995   | 49.045 | 49.149 | 49.264 | 49.267       |

TABLE 2: Child Risk Adjustment Model Factors for the 2023 Benefit Year

| TABLE 2. Clina Risk Aujust                 | ment wiouc | Tactors | JI tile 2023 | Denent | ı cai        |
|--|------------|---------|--------------|--------|--------------|
| Factor                                     | Platinum   | Gold    | Silver       | Bronze | Catastrophic |
| Demographic Factors                        |            |         |              |        |              |
| Age 2-4, Male                              | 0.269      | 0.195   | 0.144        | 0.105  | 0.104        |
| Age 5-9, Male                              | 0.192      | 0.130   | 0.091        | 0.064  | 0.063        |
| Age 10-14, Male                            | 0.227      | 0.165   | 0.122        | 0.096  | 0.095        |
| Age 15-20, Male                            | 0.266      | 0.200   | 0.148        | 0.111  | 0.110        |
| Age 2-4, Female                            | 0.210      | 0.147   | 0.107        | 0.080  | 0.079        |
| Age 5-9, Female                            | 0.142      | 0.087   | 0.055        | 0.034  | 0.033        |
| Age 10-14, Female                          | 0.211      | 0.151   | 0.112        | 0.086  | 0.086        |
| Age 15-20, Female                          | 0.295      | 0.215   | 0.150        | 0.102  | 0.101        |
| Diagnosis Factors                          |            |         |              |        |              |
| HIV/AIDS                                   | 6.079      | 5.588   | 5.395        | 5.284  | 5.282        |
| Septicemia, Sepsis, Systemic Inflammatory  |            |         |              |        |              |
| Response Syndrome/Shock                    | 14.363     | 14.145  | 14.018       | 13.928 | 13.927       |
| Central Nervous System Infections, Except  |            |         |              |        |              |
| Viral Meningitis                           | 13.069     | 12.896  | 12.804       | 12.743 | 12.741       |
| Viral or Unspecified Meningitis            | 10.692     | 10.648  | 10.612       | 10.582 | 10.581       |
| Opportunistic Infections                   | 16.437     | 16.372  | 16.290       | 16.199 | 16.196       |
| Metastatic Cancer                          | 30.906     | 30.616  | 30.514       | 30.467 | 30.467       |
| Lung, Brain, and Other Severe Cancers,     |            |         |              |        |              |
| Including Pediatric Acute Lymphoid         |            |         |              |        |              |
| Leukemia                                   | 8.469      | 8.204   | 8.060        | 7.951  | 7.948        |
| Non-Hodgkin Lymphomas and Other Cancers    |            |         |              |        |              |
| and Tumors                                 | 7.068      | 6.837   | 6.698        | 6.583  | 6.580        |
| Colorectal, Breast (Age < 50), Kidney, and |            |         |              |        |              |
| Other Cancers                              | 4.676      | 4.522   | 4.409        | 4.305  | 4.301        |
| Breast (Age 50+) and Prostate Cancer,      |            |         |              |        |              |
| Benign/Uncertain Brain Tumors, and Other   |            |         |              |        |              |
| Cancers and Tumors                         | 4.676      | 4.522   | 4.409        | 4.305  | 4.301        |
| Thyroid Cancer, Melanoma,                  |            |         |              |        |              |
| Neurofibromatosis, and Other Cancers and   | 0.001      |         | 0.660        |        | 0.774        |
| Tumors                                     | 0.886      | 0.771   | 0.663        | 0.557  | 0.554        |
| Pancreas Transplant Status                 | 11.147     | 10.995  | 10.948       | 10.906 | 10.905       |
| Diabetes with Acute Complications          | 2.582      | 2.320   | 2.054        | 1.777  | 1.771        |
| Diabetes with Chronic Complications        | 2.582      | 2.320   | 2.054        | 1.777  | 1.771        |
| Diabetes without Complication              | 2.582      | 2.320   | 2.054        | 1.777  | 1.771        |
| Protein-Calorie Malnutrition               | 18.256     | 18.124  | 18.055       | 18.009 | 18.007       |
| Mucopolysaccharidosis                      | 38.265     | 37.987  | 37.895       | 37.857 | 37.856       |
| Lipidoses and Glycogenosis                 | 38.265     | 37.987  | 37.895       | 37.857 | 37.856       |

| Factor                                      | Platinum | Gold   | Silver | Bronze | Catastrophic |
|---|----------|--------|--------|--------|--------------|
| Congenital Metabolic Disorders, Not         |          |        |        |        | -            |
| Elsewhere Classified                        | 5.543    | 5.422  | 5.343  | 5.278  | 5.276        |
| Amyloidosis, Porphyria, and Other Metabolic | 3.3 13   | 3.122  | 3.313  | 3.270  | 3.270        |
| Disorders                                   | 5.543    | 5.422  | 5.343  | 5.278  | 5.276        |
| Adrenal, Pituitary, and Other Significant   | 3.0.13   | 3.122  | 3.3.13 | 3.270  | 3.270        |
| Endocrine Disorders                         | 6.756    | 6.490  | 6.385  | 6.334  | 6.332        |
| Liver Transplant Status/Complications       | 11.147   | 10.995 | 10.948 | 10.906 | 10.905       |
| Acute Liver Failure/Disease, Including      | 11111,   | 10,550 | 101910 | 10.500 | 10.500       |
| Neonatal Hepatitis                          | 10.003   | 9.845  | 9.793  | 9.778  | 9.778        |
| Chronic Liver Failure/End-Stage Liver       |          |        |        |        |              |
| Disorders                                   | 9.665    | 9.506  | 9.431  | 9.379  | 9.378        |
| Cirrhosis of Liver                          | 2.894    | 2.843  | 2.779  | 2.709  | 2.710        |
| Chronic Viral Hepatitis C                   | 1.659    | 1.500  | 1.437  | 1.434  | 1.435        |
| Chronic Hepatitis, Except Chronic Viral     |          |        |        |        |              |
| Hepatitis C                                 | 0.000    | 0.000  | 0.000  | 0.000  | 0.000        |
| Intestine Transplant Status/Complications   | 13.630   | 13.519 | 13.424 | 13.326 | 13.321       |
| Peritonitis/Gastrointestinal                |          |        |        |        |              |
| Perforation/Necrotizing Enterocolitis       | 17.595   | 17.294 | 17.189 | 17.156 | 17.155       |
| Intestinal Obstruction                      | 4.137    | 3.943  | 3.818  | 3.707  | 3.703        |
| Chronic Pancreatitis                        | 11.253   | 11.043 | 10.971 | 10.944 | 10.944       |
| Acute Pancreatitis                          | 4.564    | 4.321  | 4.183  | 4.074  | 4.072        |
| Inflammatory Bowel Disease                  | 10.154   | 9.737  | 9.568  | 9.461  | 9.458        |
| Necrotizing Fasciitis                       | 3.304    | 3.091  | 2.970  | 2.884  | 2.882        |
| Bone/Joint/Muscle Infections/Necrosis       | 3.304    | 3.091  | 2.970  | 2.884  | 2.882        |
| Rheumatoid Arthritis and Specified          |          |        |        |        |              |
| Autoimmune Disorders                        | 5.379    | 5.113  | 4.982  | 4.898  | 4.895        |
| Systemic Lupus Erythematosus and Other      |          |        |        |        |              |
| Autoimmune Disorders                        | 0.765    | 0.649  | 0.532  | 0.408  | 0.404        |
| Osteogenesis Imperfecta and Other           |          |        |        |        |              |
| Osteodystrophies                            | 1.169    | 1.054  | 0.966  | 0.888  | 0.885        |
| Congenital/Developmental Skeletal and       |          |        |        |        |              |
| Connective Tissue Disorders                 | 1.169    | 1.054  | 0.966  | 0.888  | 0.885        |
| Cleft Lip/Cleft Palate                      | 1.070    | 0.917  | 0.790  | 0.667  | 0.664        |
| Hemophilia                                  | 72.571   | 72.059 | 71.903 | 71.851 | 71.851       |
| Myelodysplastic Syndromes and               |          |        |        |        |              |
| Myelofibrosis                               | 12.140   | 11.969 | 11.883 | 11.825 | 11.823       |
| Aplastic Anemia                             | 12.140   | 11.969 | 11.883 | 11.825 | 11.823       |
| Acquired Hemolytic Anemia, Including        |          |        |        |        |              |
| Hemolytic Disease of Newborn                | 12.140   | 11.969 | 11.883 | 11.825 | 11.823       |
| Sickle Cell Anemia (Hb-SS)                  | 4.829    | 4.619  | 4.494  | 4.397  | 4.394        |
| Beta Thalassemia Major                      | 4.829    | 4.619  | 4.494  | 4.397  | 4.394        |
| Combined and Other Severe                   |          |        |        |        |              |
| Immunodeficiencies                          | 4.861    | 4.707  | 4.618  | 4.546  | 4.544        |
| Disorders of the Immune Mechanism           | 4.861    | 4.707  | 4.618  | 4.546  | 4.544        |
| Coagulation Defects and Other Specified     | 2.012    | 2.50.5 | 2.500  | 2.50.  | 2.505        |
| Hematological Disorders                     | 3.813    | 3.685  | 3.589  | 3.504  | 3.502        |
| Drug Use with Psychotic Complications       | 2.384    | 2.215  | 2.087  | 1.965  | 1.962        |
| Drug Use Disorder, Moderate/Severe, or Drug | 2.204    | 2 21 5 | 2.007  | 1.045  | 1.0.0        |
| Use with Non-Psychotic Complications        | 2.384    | 2.215  | 2.087  | 1.965  | 1.962        |
| Alcohol Use with Psychotic Complications    | 0.910    | 0.760  | 0.622  | 0.527  | 0.524        |

| Factor   | Platinum | Gold   | Silver | Bronze | Catastrophic |
|--|----------|--------|--------|--------|--------------|
| Alcohol Use Disorder, Moderate/Severe, or      |          |        |        |        | •            |
| Alcohol Use with Specified Non-Psychotic       |          |        |        |        |              |
| Complications                                  | 0.910    | 0.760  | 0.622  | 0.527  | 0.524        |
| Schizophrenia                                  | 4.245    | 3.948  | 3.771  | 3.630  | 3.626        |
| Delusional and Other Specified Psychotic       | 7.273    | 3.740  | 3.771  | 3.030  | 3.020        |
| Disorders, Unspecified Psychosis               | 3.409    | 3.158  | 2.980  | 2.816  | 2.812        |
| Major Depressive Disorder, Severe, and         | 3.407    | 3.136  | 2.700  | 2.010  | 2.012        |
| Bipolar Disorders                              | 2.512    | 2.306  | 2.145  | 1.993  | 1.988        |
| Personality Disorders                          | 0.381    | 0.293  | 0.194  | 0.102  | 0.099        |
| Anorexia/Bulimia Nervosa                       | 2.458    | 2.287  | 2.172  | 2.070  | 2.067        |
| Prader-Willi, Patau, Edwards, and Autosomal    | 2.436    | 2.207  | 2.172  | 2.070  | 2.007        |
| Deletion Syndromes                             | 11.422   | 11.316 | 11.236 | 11.163 | 11.160       |
| Down Syndrome, Fragile X, Other                | 11.722   | 11.510 | 11.230 | 11.103 | 11.100       |
| Chromosomal Anomalies, and Congenital          |          |        |        |        |              |
| Malformation Syndromes                         | 0.988    | 0.860  | 0.765  | 0.673  | 0.669        |
| Autistic Disorder                              | 2.512    | 2.306  | 2.145  | 1.993  | 1.988        |
| Pervasive Developmental Disorders, Except      | 2.312    | 2.300  | 2.113  | 1.773  | 1.500        |
| Autistic Disorder                              | 0.381    | 0.293  | 0.194  | 0.102  | 0.099        |
| Traumatic Complete Lesion Cervical Spinal      | 0.501    | 0.273  | 0.191  | 0.102  | 0.077        |
| Cord   | 9.418    | 9.174  | 9.066  | 9.004  | 9.003        |
| Quadriplegia                                   | 9.418    | 9.174  | 9.066  | 9.004  | 9.003        |
| Traumatic Complete Lesion Dorsal Spinal        | 2.110    | 7.171  | 7.000  | 7.001  | 7.005        |
| Cord   | 8.841    | 8.595  | 8.497  | 8.441  | 8.440        |
| Paraplegia                                     | 8.841    | 8.595  | 8.497  | 8.441  | 8.440        |
| Spinal Cord Disorders/Injuries                 | 4.080    | 3.879  | 3.737  | 3.594  | 3.588        |
| Amyotrophic Lateral Sclerosis and Other        | 4.000    | 3.077  | 3.737  | 3.374  | 3.300        |
| Anterior Horn Cell Disease                     | 47.933   | 47.676 | 47.564 | 47.478 | 47.476       |
| Quadriplegic Cerebral Palsy                    | 1.729    | 1.489  | 1.373  | 1.302  | 1.300        |
| Cerebral Palsy, Except Quadriplegic            | 0.406    | 0.270  | 0.164  | 0.080  | 0.077        |
| Spina Bifida and Other Brain/Spinal/Nervous    | 0.400    | 0.270  | 0.104  | 0.000  | 0.077        |
| System Congenital Anomalies                    | 1.702    | 1.571  | 1.480  | 1.395  | 1.392        |
| Myasthenia Gravis/Myoneural Disorders and      | 1.702    | 1.571  | 1.100  | 1.373  | 1.372        |
| Guillain-Barre Syndrome/Inflammatory and       |          |        |        |        |              |
| Toxic Neuropathy                               | 9.779    | 9.592  | 9.530  | 9.508  | 9.507        |
| Muscular Dystrophy                             | 5.811    | 5.647  | 5.539  | 5.440  | 5.437        |
| Multiple Sclerosis                             | 12.054   | 11.613 | 11.489 | 11.464 | 11.465       |
| Parkinson's, Huntington's, and Spinocerebellar | 12.00    | 111015 | 111105 | 111101 | 111.00       |
| Disease, and Other Neurodegenerative           |          |        |        |        |              |
| Disorders                                      | 5.811    | 5.647  | 5.539  | 5.440  | 5.437        |
| Seizure Disorders and Convulsions              | 1.867    | 1.718  | 1.581  | 1.444  | 1.439        |
| Hydrocephalus                                  | 10.434   | 10.456 | 10.471 | 10.490 | 10.491       |
| Coma, Brain Compression/Anoxic Damage          | 10.434   | 10.456 | 10.471 | 10.490 | 10.491       |
| Narcolepsy and Cataplexy                       | 5.192    | 5.010  | 4.876  | 4.742  | 4.736        |
| Respirator Dependence/Tracheostomy Status      | 27.991   | 27.740 | 27.642 | 27.591 | 27.589       |
| Respiratory Arrest                             | 15.409   | 15.142 | 15.014 | 14.936 | 14.935       |
| Cardio-Respiratory Failure and Shock,          | 15.40)   | 13.172 | 15.017 | 11.750 | 11.733       |
| Including Respiratory Distress Syndromes       | 15.409   | 15.142 | 15.014 | 14.936 | 14.935       |
| Heart Assistive Device/Artificial Heart        | 13.630   | 13.519 | 13.424 | 13.326 | 13.321       |
| Heart Transplant Status/Complications          | 13.630   | 13.519 | 13.424 | 13.326 | 13.321       |
| Heart Failure                                  | 5.079    | 4.957  | 4.879  | 4.815  | 4.812        |
| 11cuit I ulluic                                | 5.013    | T./J/  | т.0/Э  | -1.01€ | 7.012        |

| Factor  | Platinum | Gold   | Silver | Bronze | Catastrophic                          |
|---|----------|--------|--------|--------|---------------------------------------|
| Acute Myocardial Infarction                   | 0.514    | 0.454  | 0.421  | 0.401  | 0.401                                 |
| Unstable Angina and Other Acute Ischemic      | 0.00     | 7.10   | ****   |        | , , , , , , , , , , , , , , , , , , , |
| Heart Disease                                 | 0.514    | 0.454  | 0.421  | 0.401  | 0.401                                 |
| Heart Infection/Inflammation, Except          |          |        |        |        |                                       |
| Rheumatic                                     | 16.066   | 15.931 | 15.841 | 15.760 | 15.758                                |
| Hypoplastic Left Heart Syndrome and Other     |          |        |        |        |                                       |
| Severe Congenital Heart Disorders             | 3.678    | 3.511  | 3.379  | 3.262  | 3.258                                 |
| Major Congenital Heart/Circulatory Disorders  | 1.168    | 1.058  | 0.941  | 0.839  | 0.836                                 |
| Atrial and Ventricular Septal Defects, Patent |          |        |        |        |                                       |
| Ductus Arteriosus, and Other Congenital       |          |        |        |        |                                       |
| Heart/Circulatory Disorders                   | 0.667    | 0.568  | 0.475  | 0.401  | 0.399                                 |
| Specified Heart Arrhythmias                   | 2.887    | 2.721  | 2.615  | 2.526  | 2.523                                 |
| Intracranial Hemorrhage                       | 12.012   | 11.831 | 11.719 | 11.625 | 11.621                                |
| Ischemic or Unspecified Stroke                | 1.179    | 1.016  | 0.918  | 0.831  | 0.828                                 |
| Cerebral Aneurysm and Arteriovenous           |          |        |        |        |                                       |
| Malformation                                  | 1.578    | 1.375  | 1.247  | 1.134  | 1.131                                 |
| Hemiplegia/Hemiparesis                        | 4.980    | 4.848  | 4.766  | 4.691  | 4.688                                 |
| Monoplegia, Other Paralytic Syndromes         | 2.963    | 2.811  | 2.710  | 2.614  | 2.611                                 |
| Atherosclerosis of the Extremities with       |          |        |        |        |                                       |
| Ulceration or Gangrene                        | 12.005   | 11.753 | 11.638 | 11.570 | 11.567                                |
| Vascular Disease with Complications           | 6.543    | 6.389  | 6.331  | 6.296  | 6.295                                 |
| Pulmonary Embolism and Deep Vein              |          |        |        |        |                                       |
| Thrombosis                                    | 20.060   | 19.901 | 19.803 | 19.721 | 19.718                                |
| Lung Transplant Status/Complications          | 13.630   | 13.519 | 13.424 | 13.326 | 13.321                                |
| Cystic Fibrosis                               | 53.970   | 53.425 | 53.285 | 53.267 | 53.268                                |
| Chronic Obstructive Pulmonary Disease,        |          |        |        |        |                                       |
| Including Bronchiectasis                      | 2.042    | 1.884  | 1.760  | 1.641  | 1.637                                 |
| Severe Asthma                                 | 1.236    | 1.070  | 0.911  | 0.755  | 0.749                                 |
| Asthma, Except Severe                         | 0.340    | 0.260  | 0.173  | 0.100  | 0.097                                 |
| Fibrosis of Lung and Other Lung Disorders     | 1.407    | 1.263  | 1.126  | 0.998  | 0.994                                 |
| Aspiration and Specified Bacterial            |          |        |        |        |                                       |
| Pneumonias and Other Severe Lung Infections   | 10.492   | 10.456 | 10.471 | 10.490 | 10.491                                |
| Kidney Transplant Status/Complications        | 11.147   | 10.995 | 10.948 | 10.906 | 10.905                                |
| End Stage Renal Disease                       | 35.177   | 34.921 | 34.865 | 34.867 | 34.867                                |
| Chronic Kidney Disease, Stage 5               | 0.992    | 0.898  | 0.814  | 0.728  | 0.724                                 |
| Chronic Kidney Disease, Severe (Stage 4)      | 0.992    | 0.898  | 0.814  | 0.728  | 0.724                                 |
| Ectopic and Molar Pregnancy                   | 2.000    | 1.798  | 1.591  | 1.373  | 1.365                                 |
| Miscarriage with Complications                | 0.697    | 0.574  | 0.403  | 0.202  | 0.194                                 |
| Miscarriage with No or Minor Complications    | 0.697    | 0.574  | 0.403  | 0.202  | 0.194                                 |
| Pregnancy with Delivery with Major            |          |        |        |        |                                       |
| Complications                                 | 3.397    | 3.083  | 2.773  | 2.395  | 2.383                                 |
| Pregnancy with Delivery with Complications    | 3.397    | 3.083  | 2.773  | 2.395  | 2.383                                 |
| Pregnancy with Delivery with No or Minor      |          |        |        |        |                                       |
| Complications                                 | 2.352    | 2.125  | 1.829  | 1.386  | 1.369                                 |
| (Ongoing) Pregnancy without Delivery with     |          |        |        |        |                                       |
| Major Complications                           | 0.603    | 0.472  | 0.306  | 0.136  | 0.131                                 |
| (Ongoing) Pregnancy without Delivery with     |          |        |        |        |                                       |
| Complications                                 | 0.603    | 0.472  | 0.306  | 0.136  | 0.131                                 |
| (Ongoing) Pregnancy without Delivery with     |          |        |        |        |                                       |
| No or Minor Complications                     | 0.384    | 0.282  | 0.162  | 0.056  | 0.052                                 |

| Factor   | Platinum | Gold    | Silver  | Bronze  | Catastrophic |
|--|----------|---------|---------|---------|--------------|
| Chronic Ulcer of Skin, Except Pressure         | 2.095    | 1.988   | 1.905   | 1.842   | 1.840        |
| Extensive Third Degree Burns                   | 19.980   | 19.736  | 19.623  | 19.551  | 19.548       |
| Major Skin Burn or Condition                   | 2.016    | 1.858   | 1.737   | 1.632   | 1.628        |
| Severe Head Injury                             | 19.980   | 19.736  | 19.623  | 19.551  | 19.548       |
| Hip and Pelvic Fractures                       | 4.053    | 3.817   | 3.674   | 3.575   | 3.573        |
| Vertebral Fractures without Spinal Cord        |          |         |         |         |              |
| Injury   | 4.037    | 3.829   | 3.673   | 3.526   | 3.521        |
| Traumatic Amputations and Amputation           |          |         |         |         |              |
| Complications                                  | 3.982    | 3.758   | 3.604   | 3.454   | 3.449        |
| Stem Cell, Including Bone Marrow,              |          |         |         |         |              |
| Transplant Status/Complications                | 13.630   | 13.519  | 13.424  | 13.326  | 13.321       |
| Artificial Openings for Feeding or Elimination | 7.194    | 7.002   | 6.944   | 6.925   | 6.926        |
| Amputation Status, Upper Limb or Lower         |          |         |         |         |              |
| Limb   | 3.982    | 3.758   | 3.604   | 3.454   | 3.449        |
| Interacted HCC Counts Factors                  |          |         |         |         |              |
| Severe illness, 1 payment HCC                  | -10.434  | -10.456 | -10.471 | -10.490 | -10.491      |
| Severe illness, 2 payment HCCs                 | -10.347  | -10.401 | -10.435 | -10.468 | -10.469      |
| Severe illness, 3 payment HCCs                 | -8.328   | -8.390  | -8.323  | -8.235  | -8.231       |
| Severe illness, 4 payment HCCs                 | -7.945   | -7.994  | -7.890  | -7.708  | -7.701       |
| Severe illness, 5 payment HCCs                 | -5.724   | -5.636  | -5.381  | -5.071  | -5.060       |
| Severe illness, 6 or 7 payment HCCs            | -1.370   | -1.098  | -0.702  | -0.265  | -0.251       |
| Severe illness, 8 or more payment HCCs         | 15.108   | 15.916  | 16.635  | 17.322  | 17.344       |
| Transplant severe illness, 4 or more payment   |          |         |         |         |              |
| HCCs   | 17.558   | 17.665  | 17.716  | 17.749  | 17.750       |

TABLE 3: HHS HCCs Selected for the HCC Interacted Counts Variables for the Adult and Child Models for the 2023 Benefit Year

| and Child Florens for the 2020 Denent Tear                  |                            |                      |  |  |
|---|----------------------------|----------------------|--|--|
| Payment HCC   | Severity Illness Indicator | Transplant Indicator |  |  |
| HCC 2 Septicemia, Sepsis, Systemic Inflammatory             | X                          |                      |  |  |
| Response Syndrome/Shock                                     | Λ                          |                      |  |  |
| HCC 3 Central Nervous System Infections, Except Viral       | X                          |                      |  |  |
| Meningitis  |                            |                      |  |  |
| HCC 4 Viral or Unspecified Meningitis                       | X                          |                      |  |  |
| HCC 6 Opportunistic Infections                              | X                          |                      |  |  |
| HCC 18 Pancreas Transplant Status                           | X                          | X                    |  |  |
| HCC 23 Protein-Calorie Malnutrition                         | X                          |                      |  |  |
| HCC 34 Liver Transplant Status/Complications                | X                          | X                    |  |  |
| HCC 41 Intestine Transplant Status/Complications            | X                          | X                    |  |  |
| HCC 42 Peritonitis/Gastrointestinal Perforation/Necrotizing | X                          |                      |  |  |
| Enterocolitis   | Λ                          |                      |  |  |
| HCC 96 Prader-Willi, Patau, Edwards, and Autosomal          | X                          |                      |  |  |
| Deletion Syndromes  |                            |                      |  |  |
| HCC 121 Hydrocephalus                                       | X                          |                      |  |  |
| HCC 122 Coma, Brain Compression/Anoxic Damage               | X                          |                      |  |  |
| HCC 125 Respirator Dependence/Tracheostomy Status           | X                          |                      |  |  |
| HCC 135 Heart Infection/Inflammation, Except Rheumatic      | X                          |                      |  |  |
| HCC 145 Intracranial Hemorrhage                             | X                          |                      |  |  |
| HCC 156 Pulmonary Embolism and Deep Vein Thrombosis         | X                          |                      |  |  |
| HCC 158 Lung Transplant Status/Complications                | X                          | X                    |  |  |

| Payment HCC   | Severity Illness Indicator | Transplant Indicator |  |
|---|----------------------------|----------------------|--|
| HCC 163 Aspiration and Specified Bacterial Pneumonias       | X                          |                      |  |
| and Other Severe Lung Infections                            |                            |                      |  |
| HCC 183 Kidney Transplant Status/Complications              | X                          | X                    |  |
| HCC 218 Extensive Third Degree Burns                        | X                          |                      |  |
| HCC 223 Severe Head Injury                                  | X                          |                      |  |
| HCC 251 Stem Cell, Including Bone Marrow, Transplant        | X                          | Y                    |  |
| Status/Complications  | Λ                          | Α                    |  |
| G13 (Includes HCC 126 Respiratory Arrest and HCC 127        |                            |                      |  |
| Cardio-Respiratory Failure and Shock, Including Respiratory | X                          |                      |  |
| Distress Syndromes)   |                            |                      |  |
| G14 (Includes HCC 128 Heart Assistive Device/Artificial     | v                          | Y                    |  |
| Heart and HCC 129 Heart Transplant Status/Complications)    |                            | Λ                    |  |

TABLE 4: Infant Risk Adjustment Model Factors for the 2023 Benefit Year

| TADLE 4. Illiant Risk Aujust           | ment Mode | Tactors | i the 2025 | Denent  | ı caı        |
|--|-----------|---------|------------|---------|--------------|
| Group                                  | Platinum  | Gold    | Silver     | Bronze  | Catastrophic |
| Extremely Immature * Severity Level 5  |           |         |            |         |              |
| (Highest)                              | 211.847   | 210.261 | 209.774    | 209.658 | 209.658      |
| Extremely Immature * Severity Level 4  | 148.695   | 146.920 | 146.268    | 145.994 | 145.989      |
| Extremely Immature * Severity Level 3  | 33.466    | 32.026  | 31.446     | 31.173  | 31.167       |
| Extremely Immature * Severity Level 2  | 33.466    | 32.026  | 31.446     | 31.173  | 31.167       |
| Extremely Immature * Severity Level 1  |           |         |            |         |              |
| (Lowest)                               | 33.466    | 32.026  | 31.446     | 31.173  | 31.167       |
| Immature * Severity Level 5 (Highest)  | 114.344   | 112.652 | 112.106    | 111.935 | 111.932      |
| Immature * Severity Level 4            | 68.725    | 67.061  | 66.501     | 66.299  | 66.296       |
| Immature * Severity Level 3            | 33.466    | 32.026  | 31.446     | 31.173  | 31.167       |
| Immature * Severity Level 2            | 30.548    | 29.122  | 28.536     | 28.242  | 28.234       |
| Immature * Severity Level 1 (Lowest)   | 25.486    | 24.146  | 23.553     | 23.234  | 23.225       |
| Premature/Multiples * Severity Level 5 |           |         |            |         |              |
| (Highest)                              | 101.851   | 100.439 | 99.973     | 99.813  | 99.810       |
| Premature/Multiples * Severity Level 4 | 28.535    | 27.102  | 26.509     | 26.228  | 26.222       |
| Premature/Multiples * Severity Level 3 | 13.748    | 12.735  | 12.109     | 11.610  | 11.594       |
| Premature/Multiples * Severity Level 2 | 7.676     | 6.953   | 6.337      | 5.695   | 5.672        |
| Premature/Multiples * Severity Level 1 |           |         |            |         |              |
| (Lowest)                               | 5.767     | 5.141   | 4.569      | 4.022   | 4.004        |
| Term * Severity Level 5 (Highest)      | 78.540    | 77.274  | 76.768     | 76.528  | 76.523       |
| Term * Severity Level 4                | 15.369    | 14.386  | 13.770     | 13.291  | 13.278       |
| Term * Severity Level 3                | 5.921     | 5.324   | 4.752      | 4.173   | 4.154        |
| Term * Severity Level 2                | 3.667     | 3.171   | 2.610      | 2.020   | 2.000        |
| Term * Severity Level 1 (Lowest)       | 1.898     | 1.532   | 1.094      | 0.779   | 0.769        |
| Age1 * Severity Level 5 (Highest)      | 63.543    | 62.814  | 62.526     | 62.389  | 62.386       |
| Age1 * Severity Level 4                | 12.611    | 12.090  | 11.788     | 11.574  | 11.568       |
| Age1 * Severity Level 3                | 2.978     | 2.696   | 2.472      | 2.291   | 2.285        |
| Age1 * Severity Level 2                | 1.969     | 1.733   | 1.508      | 1.303   | 1.296        |
| Age1 * Severity Level 1 (Lowest)       | 0.573     | 0.489   | 0.433      | 0.392   | 0.391        |
| Age 0 Male                             | 0.534     | 0.491   | 0.451      | 0.386   | 0.384        |
| Age 1 Male                             | 0.112     | 0.096   | 0.077      | 0.058   | 0.058        |
|  |           |         |            |         |              |

**TABLE 5: HHS HCCs Included in Infant Model Maturity Categories** 

| Maturity Category   | HCC/Description   |
|---------------------|---|
| Extremely Immature  | Extremely Immature Newborns, Birth weight < 500 Grams                       |
| Extremely Immature  | Extremely Immature Newborns, Including Birth weight 500-749 Grams           |
| Extremely Immature  | Extremely Immature Newborns, Including Birth weight 750-999 Grams           |
| Immature            | Premature Newborns, Including Birth weight 1000-1499 Grams                  |
| Immature            | Premature Newborns, Including Birth weight 1500-1999 Grams                  |
| Premature/Multiples | Premature Newborns, Including Birth weight 2000-2499 Grams                  |
| Premature/Multiples | Other Premature, Low Birth weight, Malnourished, or Multiple Birth Newborns |
| Term                | Term or Post-Term Singleton Newborn, Normal or High Birth weight            |
| Age 1               | All age 1 infants   |

**TABLE 6: HHS HCCs Included in Infant Model Severity Categories** 

| Severity Category          | HCC/Description  |
|----------------------------|--|
| Severity Level 5 (Highest) | Metastatic Cancer  |
| Severity Level 5           | Pancreas Transplant Status   |
| Severity Level 5           | Liver Transplant Status/Complications  |
| Severity Level 5           | Intestine Transplant Status/Complications  |
| Severity Level 5           | Peritonitis/Gastrointestinal Perforation/Necrotizing Enterocolitis                 |
| Severity Level 5           | Respirator Dependence/Tracheostomy Status  |
| Severity Level 5           | Heart Assistive Device/Artificial Heart  |
| Severity Level 5           | Heart Transplant Status/Complications  |
| Severity Level 5           | Heart Failure  |
| Severity Level 5           | Hypoplastic Left Heart Syndrome and Other Severe Congenital Heart Disorders        |
| Severity Level 5           | Lung Transplant Status/Complications   |
| Severity Level 5           | Kidney Transplant Status/Complications   |
| Severity Level 5           | End Stage Renal Disease  |
| Severity Level 5           | Stem Cell, Including Bone Marrow, Transplant Status/Complications                  |
| Severity Level 4           | Septicemia, Sepsis, Systemic Inflammatory Response Syndrome/Shock                  |
| Severity Level 4           | Lung, Brain, and Other Severe Cancers, Including Pediatric Acute Lymphoid Leukemia |
| Severity Level 4           | Mucopolysaccharidosis  |
| Severity Level 4           | Adrenal, Pituitary, and Other Significant Endocrine Disorders                      |
| Severity Level 4           | Acute Liver Failure/Disease, Including Neonatal Hepatitis                          |
| Severity Level 4           | Chronic Liver Failure/End-Stage Liver Disorders                                    |
| Severity Level 4           | Major Congenital Anomalies of Diaphragm, Abdominal Wall, and Esophagus, Age < 2    |
| Severity Level 4           | Myelodysplastic Syndromes and Myelofibrosis  |
| Severity Level 4           | Aplastic Anemia  |
| Severity Level 4           | Combined and Other Severe Immunodeficiencies                                       |
| Severity Level 4           | Traumatic Complete Lesion Cervical Spinal Cord                                     |
| Severity Level 4           | Quadriplegia   |
| Severity Level 4           | Amyotrophic Lateral Sclerosis and Other Anterior Horn Cell Disease                 |
| Severity Level 4           | Quadriplegic Cerebral Palsy  |
| Severity Level 4           | Myasthenia Gravis/Myoneural Disorders and Guillain-Barre Syndrome/Inflammatory     |
| •                          | and Toxic Neuropathy   |
| Severity Level 4           | Coma, Brain Compression/Anoxic Damage  |
| Severity Level 4           | Respiratory Arrest   |
| Severity Level 4           | Cardio-Respiratory Failure and Shock, Including Respiratory Distress Syndromes     |
| Severity Level 4           | Acute Myocardial Infarction  |
| Severity Level 4           | Heart Infection/Inflammation, Except Rheumatic                                     |
| Severity Level 4           | Major Congenital Heart/Circulatory Disorders                                       |
| Severity Level 4           | Intracranial Hemorrhage  |

| Severity Category                  | HCC/Description   |
|------------------------------------|---|
| Severity Category Severity Level 4 | Ischemic or Unspecified Stroke  |
|                                    |   |
| Severity Level 4                   | Vascular Disease with Complications   |
| Severity Level 4                   | Pulmonary Embolism and Deep Vein Thrombosis   |
| Severity Level 4                   | Aspiration and Specified Bacterial Pneumonias and Other Severe Lung Infections        |
| Severity Level 4                   | Chronic Kidney Disease, Stage 5   |
| Severity Level 4                   | Artificial Openings for Feeding or Elimination  |
| Severity Level 3                   | HIV/AIDS  |
| Severity Level 3                   | Central Nervous System Infections, Except Viral Meningitis                            |
| Severity Level 3                   | Opportunistic Infections  |
| Severity Level 3                   | Non-Hodgkin Lymphomas and Other Cancers and Tumors                                    |
| Severity Level 3                   | Colorectal, Breast (Age < 50), Kidney, and Other Cancers                              |
| Severity Level 3                   | Breast (Age 50+) and Prostate Cancer, Benign/Uncertain Brain Tumors, and Other        |
| •                                  | Cancers and Tumors  |
| Severity Level 3                   | Lipidoses and Glycogenosis  |
| Severity Level 3                   | Intestinal Obstruction  |
| Severity Level 3                   | Necrotizing Fasciitis   |
| Severity Level 3                   | Bone/Joint/Muscle Infections/Necrosis   |
| Severity Level 3                   | Osteogenesis Imperfecta and Other Osteodystrophies                                    |
| Severity Level 3                   | Cleft Lip/Cleft Palate  |
| Severity Level 3                   | Hemophilia  |
| Severity Level 3                   | Disorders of the Immune Mechanism   |
| Severity Level 3                   | Coagulation Defects and Other Specified Hematological Disorders                       |
| Severity Level 3                   | Drug Use with Psychotic Complications   |
| Severity Level 3                   | Drug Use Disorder, Moderate/Severe, or Drug Use with Non-Psychotic Complications      |
| Severity Level 3                   | Alcohol Use with Psychotic Complications  |
|                                    | Alcohol Use Disorder, Moderate/Severe, or Alcohol Use with Specified Non-Psychotic    |
| Severity Level 3                   | Complications   |
| Severity Level 3                   | Prader-Willi, Patau, Edwards, and Autosomal Deletion Syndromes                        |
| Severity Level 3                   | Traumatic Complete Lesion Dorsal Spinal Cord  |
| Severity Level 3                   | Paraplegia  |
| Severity Level 3                   | Spinal Cord Disorders/Injuries  |
| Severity Level 3                   | Cerebral Palsy, Except Quadriplegic   |
| Severity Level 3                   | Spina Bifida and Other Brain/Spinal/Nervous System Congenital Anomalies               |
| Severity Level 3                   | Muscular Dystrophy  |
|                                    | Parkinson's, Huntington's, and Spinocerebellar Disease, and Other Neurodegenerative   |
| Severity Level 3                   | Disorders   |
| Severity Level 3                   | Hydrocephalus   |
| Severity Level 3                   | Unstable Angina and Other Acute Ischemic Heart Disease                                |
|                                    | Atrial and Ventricular Septal Defects, Patent Ductus Arteriosus, and Other Congenital |
| Severity Level 3                   | Heart/Circulatory Disorders   |
| Severity Level 3                   | Specified Heart Arrhythmias   |
| Severity Level 3                   | Cerebral Aneurysm and Arteriovenous Malformation                                      |
| Severity Level 3                   | Hemiplegia/Hemiparesis  |
| Severity Level 3                   | Cystic Fibrosis   |
| Severity Level 3                   | Extensive Third Degree Burns  |
| Severity Level 3                   | Severe Head Injury  |
| Severity Level 3                   | Hip and Pelvic Fractures  |
| Severity Level 3                   | Vertebral Fractures without Spinal Cord Injury  |
| Severity Level 2                   | Viral or Unspecified Meningitis   |
|                                    |   |
| Severity Level 2                   | Thyroid Cancer, Melanoma, Neurofibromatosis, and Other Cancers and Tumors             |

| Severity Category         | HCC/Description   |
|---------------------------|---|
| Severity Level 2          | Diabetes with Acute Complications                                     |
| Severity Level 2          | Diabetes with Chronic Complications                                   |
| Severity Level 2          | Diabetes without Complication   |
| Severity Level 2          | Protein-Calorie Malnutrition  |
| Severity Level 2          | Congenital Metabolic Disorders, Not Elsewhere Classified              |
| Severity Level 2          | Amyloidosis, Porphyria, and Other Metabolic Disorders                 |
| Severity Level 2          | Cirrhosis of Liver  |
| Severity Level 2          | Chronic Pancreatitis  |
| Severity Level 2          | Acute Pancreatitis  |
| Severity Level 2          | Inflammatory Bowel Disease  |
| Severity Level 2          | Rheumatoid Arthritis and Specified Autoimmune Disorders               |
| Severity Level 2          | Systemic Lupus Erythematosus and Other Autoimmune Disorders           |
| Severity Level 2          | Congenital/Developmental Skeletal and Connective Tissue Disorders     |
| Severity Level 2          | Acquired Hemolytic Anemia, Including Hemolytic Disease of Newborn     |
| Severity Level 2          | Sickle Cell Anemia (Hb-SS)  |
| Severity Level 2          | Down Syndrome, Fragile X, Other Chromosomal Anomalies, and Congenital |
| Severity Level 2          | Malformation Syndromes  |
| Severity Level 2          | Seizure Disorders and Convulsions                                     |
| Severity Level 2          | Monoplegia, Other Paralytic Syndromes                                 |
| Severity Level 2          | Atherosclerosis of the Extremities with Ulceration or Gangrene        |
| Severity Level 2          | Chronic Obstructive Pulmonary Disease, Including Bronchiectasis       |
| Severity Level 2          | Severe Asthma   |
| Severity Level 2          | Fibrosis of Lung and Other Lung Disorders                             |
| Severity Level 2          | Chronic Kidney Disease, Severe (Stage 4)                              |
| Severity Level 2          | Chronic Ulcer of Skin, Except Pressure                                |
| Severity Level 2          | Major Skin Burn or Condition  |
| Severity Level 1 (Lowest) | Chronic Viral Hepatitis C   |
| Severity Level 1          | Chronic Hepatitis, Except Chronic Viral Hepatitis C                   |
| Severity Level 1          | Beta Thalassemia Major  |
| Severity Level 1          | Autistic Disorder   |
| Severity Level 1          | Pervasive Developmental Disorders, Except Autistic Disorder           |
| Severity Level 1          | Multiple Sclerosis  |
| Severity Level 1          | Asthma, Except Severe   |
| Severity Level 1          | Traumatic Amputations and Amputation Complications                    |
| Severity Level 1          | Amputation Status, Upper Limb or Lower Limb                           |

**TABLE 7: R-Squared Statistics for Final HHS Risk Adjustment Models** 

| Model               | 2017 Enrollee-<br>Level EDGE Data | 2018 Enrollee-<br>Level EDGE Data | 2019 Enrollee-<br>Level EDGE Data |
|---------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| Platinum Adult      | 0.4505                            | 0.4471                            | 0.4480                            |
| Gold Adult          | 0.4443                            | 0.4404                            | 0.4413                            |
| Silver Adult        | 0.4410                            | 0.4371                            | 0.4378                            |
| Bronze Adult        | 0.4382                            | 0.4342                            | 0.4349                            |
| Catastrophic Adult  | 0.4381                            | 0.4341                            | 0.4348                            |
| Platinum Child      | 0.3489                            | 0.3535                            | 0.3546                            |
| Gold Child          | 0.3456                            | 0.3503                            | 0.3512                            |
| Silver Child        | 0.3432                            | 0.3479                            | 0.3487                            |
| Bronze Child        | 0.3407                            | 0.3454                            | 0.3462                            |
| Catastrophic Child  | 0.3406                            | 0.3453                            | 0.3461                            |
| Platinum Infant     | 0.3311                            | 0.3112                            | 0.3146                            |
| Gold Infant         | 0.3272                            | 0.3073                            | 0.3107                            |
| Silver Infant       | 0.3252                            | 0.3053                            | 0.3087                            |
| Bronze Infant       | 0.3237                            | 0.3037                            | 0.3073                            |
| Catastrophic Infant | 0.3236                            | 0.3037                            | 0.3072                            |