

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 12, 2020

**Subject: Final 2021 Benefit Year Final HHS Risk Adjustment Model Coefficients**

As detailed in the HHS Notice of Benefit and Payment Parameters for 2021 final rule (2021 Payment Notice), the 2021 benefit year final HHS risk adjustment model coefficients are based on blended coefficients separately solved from the 2016, 2017 and 2018 enrollee-level EDGE data.<sup>1</sup> Due to timing constraints, we were unable to finalize the 2021 benefit risk adjustment model coefficients in the 2021 Payment Notice. Therefore, consistent with 45 CFR § 153.320(b)(1)(i), this document announces the final 2021 benefit year risk adjustment model coefficients (or factors) in accordance with the parameters established in the 2021 Payment Notice.

As detailed in the 2021 Payment Notice, the final 2021 benefit year risk adjustment models' coefficients include several changes to the hierarchical condition categories (HCCs) based on the availability of more recent diagnosis code information and the availability of more recent claims data. The tables below show the final coefficients for the 2021 benefit year for the adult risk adjustment models (Table 1), the child risk adjustment models (Table 2), and the infant risk adjustment models (Tables 3, 4, and 5). Because we are updating the data for the 2018 enrollee-level EDGE data, we are also publishing updated R-squared statistics for all models and datasets separately to verify their statistical validity. The updated R-squared statistic for each model is shown in Table 6.

---

<sup>1</sup> Patient Protection and Affordable Care Act; HHS Notice of Benefit and Payment Parameters for 2021; Final Rule, went on display on the Federal Register website on May 7, 2020 and is scheduled to publish on May 14, 2020.

**TABLE 1: Final Coefficients for 2021 Benefit Year Adult Risk Adjustment Models**

HCC or RXC No.	Factor	Platinum	Gold	Silver	Bronze	Catastrophic
<i>Demographic Factors</i>						
	Age 21-24, Male	0.121	0.083	0.055	0.018	0.017
	Age 25-29, Male	0.121	0.083	0.055	0.016	0.016
	Age 30-34, Male	0.150	0.104	0.071	0.025	0.024
	Age 35-39, Male	0.177	0.123	0.083	0.028	0.028
	Age 40-44, Male	0.211	0.150	0.105	0.043	0.042
	Age 45-49, Male	0.241	0.173	0.122	0.053	0.052
	Age 50-54, Male	0.323	0.244	0.186	0.109	0.108
	Age 55-59, Male	0.364	0.275	0.210	0.123	0.122
	Age 60-64, Male	0.410	0.311	0.238	0.141	0.140
	Age 21-24, Female	0.203	0.146	0.102	0.044	0.044
	Age 25-29, Female	0.222	0.160	0.113	0.048	0.048
	Age 30-34, Female	0.295	0.220	0.165	0.090	0.089
	Age 35-39, Female	0.364	0.276	0.213	0.130	0.129
	Age 40-44, Female	0.418	0.319	0.248	0.153	0.152
	Age 45-49, Female	0.426	0.321	0.245	0.141	0.140
	Age 50-54, Female	0.464	0.358	0.280	0.173	0.172
	Age 55-59, Female	0.437	0.331	0.251	0.143	0.142
	Age 60-64, Female	0.438	0.327	0.245	0.133	0.132
<i>Diagnosis Factors</i>						
HCC001	HIV/AIDS	1.500	1.325	1.208	1.126	1.125
HCC002	Septicemia, Sepsis, Systemic Inflammatory Response Syndrome/Shock	7.314	7.088	6.953	6.991	6.991
HCC003	Central Nervous System Infections, Except Viral Meningitis	6.103	6.005	5.936	5.951	5.951
HCC004	Viral or Unspecified Meningitis	5.275	5.032	4.893	4.777	4.775
HCC006	Opportunistic Infections	6.567	6.487	6.438	6.378	6.378
HCC008	Metastatic Cancer	23.144	22.562	22.156	22.163	22.163
HCC009	Lung, Brain, and Other Severe Cancers, Including Pediatric Acute Lymphoid Leukemia	12.978	12.548	12.257	12.193	12.192

*Final 2021 Benefit Year Risk Adjustment Coefficients 3*

<b>HCC or RXC No.</b>	<b>Factor</b>	<b>Platinum</b>	<b>Gold</b>	<b>Silver</b>	<b>Bronze</b>	<b>Catastrophic</b>
HCC010	Non-Hodgkin Lymphomas and Other Cancers and Tumors	5.646	5.364	5.173	5.064	5.063
HCC011	Colorectal, Breast (Age < 50), Kidney, and Other Cancers	3.999	3.720	3.532	3.413	3.412
HCC012	Breast (Age 50+) and Prostate Cancer, Benign/Uncertain Brain Tumors, and Other Cancers and Tumors	2.720	2.513	2.371	2.263	2.262
HCC013	Thyroid Cancer, Melanoma, Neurofibromatosis, and Other Cancers and Tumors	1.189	1.030	0.920	0.767	0.766
HCC018	Pancreas Transplant Status	2.044	1.978	1.934	1.940	1.940
HCC019	Diabetes with Acute Complications	0.443	0.365	0.310	0.240	0.239
HCC020	Diabetes with Chronic Complications	0.443	0.365	0.310	0.240	0.239
HCC021	Diabetes without Complication	0.443	0.365	0.310	0.240	0.239
HCC022	Type 1 Diabetes Mellitus, add-on to Diabetes HCCs 19-21	0.437	0.371	0.342	0.267	0.266
HCC023	Protein-Calorie Malnutrition	11.036	11.034	11.017	11.136	11.136
HCC026	Mucopolysaccharidosis	29.311	29.055	28.869	28.885	28.886
HCC027	Lipidoses and Glycogenosis	29.311	29.055	28.869	28.885	28.886
HCC029	Amyloidosis, Porphyria, and Other Metabolic Disorders	7.698	7.561	7.465	7.424	7.424
HCC030	Adrenal, Pituitary, and Other Significant Endocrine Disorders	1.841	1.732	1.659	1.582	1.581
HCC034	Liver Transplant Status/Complications	9.992	9.906	9.844	9.849	9.847

Final 2021 Benefit Year Risk Adjustment Coefficients 4

HCC or RXC No.	Factor	Platinum	Gold	Silver	Bronze	Catastrophic
HCC035_1	Acute Liver Failure/Disease, Including Neonatal Hepatitis	9.786	9.718	9.658	9.697	9.696
HCC035_2	Chronic Liver Failure/End-Stage Liver Disorders	3.154	2.950	2.817	2.797	2.796
HCC036	Cirrhosis of Liver	1.068	0.942	0.858	0.779	0.778
HCC037_1	Chronic Viral Hepatitis C	0.886	0.768	0.697	0.614	0.613
HCC037_2	Chronic Hepatitis, Except Chronic Viral Hepatitis C	0.886	0.768	0.697	0.614	0.613
HCC041	Intestine Transplant Status/Complications	35.310	35.238	35.183	35.162	35.161
HCC042	Peritonitis/Gastrointestinal Perforation/Necrotizing Enterocolitis	9.183	8.927	8.752	8.757	8.757
HCC045	Intestinal Obstruction	5.552	5.288	5.126	5.080	5.079
HCC046	Chronic Pancreatitis	3.698	3.491	3.365	3.364	3.364
HCC047	Acute Pancreatitis	3.238	2.960	2.802	2.702	2.701
HCC048	Inflammatory Bowel Disease	1.293	1.150	1.053	0.939	0.938
HCC054	Necrotizing Fasciitis	10.233	10.119	10.015	10.110	10.110
HCC055	Bone/Joint/Muscle Infections/Necrosis	5.420	5.213	5.068	5.085	5.085
HCC056	Rheumatoid Arthritis and Specified Autoimmune Disorders	1.382	1.237	1.133	1.024	1.023
HCC057	Systemic Lupus Erythematosus and Other Autoimmune Disorders	0.682	0.547	0.453	0.308	0.306
HCC061	Osteogenesis Imperfecta and Other Osteodystrophies	2.549	2.333	2.190	2.084	2.083
HCC062	Congenital/Developmental Skeletal and Connective Tissue Disorders	2.549	2.333	2.190	2.084	2.083
HCC063	Cleft Lip/Cleft Palate	1.981	1.804	1.695	1.592	1.591

Final 2021 Benefit Year Risk Adjustment Coefficients 5

HCC or RXC No.	Factor	Platinum	Gold	Silver	Bronze	Catastrophic
HCC066	Hemophilia	70.482	70.029	69.705	69.715	69.715
HCC067	Myelodysplastic Syndromes and Myelofibrosis	14.302	14.164	14.071	14.057	14.056
HCC068	Aplastic Anemia	14.302	14.164	14.071	14.057	14.056
HCC069	Acquired Hemolytic Anemia, Including Hemolytic Disease of Newborn	14.302	14.164	14.071	14.057	14.056
HCC070	Sickle Cell Anemia (Hb-SS)	2.754	2.596	2.491	2.398	2.397
HCC071	Beta Thalassemia Major	2.754	2.596	2.491	2.398	2.397
HCC073	Combined and Other Severe Immunodeficiencies	4.881	4.750	4.663	4.646	4.646
HCC074	Disorders of the Immune Mechanism	4.881	4.750	4.663	4.646	4.646
HCC075	Coagulation Defects and Other Specified Hematological Disorders	2.676	2.579	2.512	2.462	2.462
HCC081	Drug Use with Psychotic Complications	2.766	2.511	2.345	2.155	2.153
HCC082	Drug Use Disorder, Moderate/Severe, or Drug Use with Non-Psychotic Complications	2.766	2.511	2.345	2.155	2.153
HCC083	Alcohol Use with Psychotic Complications	1.319	1.132	1.016	0.891	0.890
HCC084	Alcohol Use Disorder, Moderate/Severe, or Alcohol Use with Specified Non-Psychotic Complications	1.319	1.132	1.016	0.891	0.890
HCC087 1	Schizophrenia	2.753	2.495	2.337	2.198	2.197

Final 2021 Benefit Year Risk Adjustment Coefficients 6

HCC or RXC No.	Factor	Platinum	Gold	Silver	Bronze	Catastrophic
HCC087_2	Delusional and Other Specified Psychotic Disorders, Unspecified Psychosis	2.753	2.495	2.337	2.198	2.197
HCC088	Major Depressive Disorder, Severe, and Bipolar Disorders	1.451	1.269	1.148	0.990	0.988
HCC090	Personality Disorders	1.118	0.973	0.868	0.708	0.706
HCC094	Anorexia/Bulimia Nervosa	2.535	2.347	2.217	2.111	2.110
HCC096	Prader-Willi, Patau, Edwards, and Autosomal Deletion Syndromes	6.867	6.798	6.754	6.719	6.719
HCC097	Down Syndrome, Fragile X, Other Chromosomal Anomalies, and Congenital Malformation Syndromes	1.465	1.360	1.291	1.213	1.213
HCC102	Autistic Disorder	1.233	1.101	1.001	0.855	0.853
HCC103	Pervasive Developmental Disorders, Except Autistic Disorder	1.118	0.973	0.868	0.708	0.706
HCC106	Traumatic Complete Lesion Cervical Spinal Cord	11.910	11.740	11.625	11.590	11.590
HCC107	Quadriplegia	11.910	11.740	11.625	11.590	11.590
HCC108	Traumatic Complete Lesion Dorsal Spinal Cord	8.076	7.879	7.747	7.687	7.686
HCC109	Paraplegia	8.076	7.879	7.747	7.687	7.686
HCC110	Spinal Cord Disorders/Injuries	5.554	5.290	5.113	5.046	5.045
HCC111	Amyotrophic Lateral Sclerosis and Other Anterior Horn Cell Disease	3.483	3.227	3.066	2.922	2.921
HCC112	Quadriplegic Cerebral Palsy	1.228	1.023	0.896	0.793	0.792

Final 2021 Benefit Year Risk Adjustment Coefficients 7

HCC or RXC No.	Factor	Platinum	Gold	Silver	Bronze	Catastrophic
HCC113	Cerebral Palsy, Except Quadriplegic	0.790	0.669	0.591	0.485	0.484
HCC114	Spina Bifida and Other Brain/Spinal/Nervous System Congenital Anomalies	1.440	1.291	1.195	1.104	1.103
HCC115	Myasthenia Gravis/Myoneural Disorders and Guillain-Barre Syndrome/Inflammatory and Toxic Neuropathy	5.206	5.076	4.990	4.968	4.968
HCC117	Muscular Dystrophy	1.822	1.661	1.557	1.422	1.420
HCC118	Multiple Sclerosis	3.067	2.846	2.697	2.581	2.579
HCC119	Parkinson's, Huntington's, and Spinocerebellar Disease, and Other Neurodegenerative Disorders	1.822	1.661	1.557	1.422	1.420
HCC120	Seizure Disorders and Convulsions	1.127	0.966	0.864	0.743	0.742
HCC121	Hydrocephalus	8.550	8.413	8.312	8.283	8.283
HCC122	Coma, Brain Compression/Anoxic Damage	8.106	7.940	7.820	7.815	7.815
HCC123	Narcolepsy and Cataplexy	5.493	5.278	5.126	4.993	4.991
HCC125	Respirator Dependence/Tracheostomy Status	22.579	22.543	22.502	22.636	22.637
HCC126	Respiratory Arrest	6.860	6.690	6.578	6.673	6.675
HCC127	Cardio-Respiratory Failure and Shock, Including Respiratory Distress Syndromes	6.860	6.690	6.578	6.673	6.675
HCC128	Heart Assistive Device/Artificial Heart	27.909	27.681	27.528	27.553	27.555
HCC129	Heart Transplant Status/Complications	27.909	27.681	27.528	27.553	27.555
HCC130	Heart Failure	2.504	2.392	2.319	2.293	2.294

Final 2021 Benefit Year Risk Adjustment Coefficients 8

HCC or RXC No.	Factor	Platinum	Gold	Silver	Bronze	Catastrophic
HCC131	Acute Myocardial Infarction	6.734	6.432	6.229	6.269	6.269
HCC132	Unstable Angina and Other Acute Ischemic Heart Disease	5.072	4.742	4.547	4.501	4.501
HCC135	Heart Infection/Inflammation, Except Rheumatic	5.894	5.760	5.672	5.631	5.631
HCC137	Hypoplastic Left Heart Syndrome and Other Severe Congenital Heart Disorders	2.659	2.526	2.431	2.351	2.350
HCC138	Major Congenital Heart/Circulatory Disorders	2.659	2.526	2.431	2.351	2.350
HCC139	Atrial and Ventricular Septal Defects, Patent Ductus Arteriosus, and Other Congenital Heart/Circulatory Disorders	2.659	2.526	2.431	2.351	2.350
HCC142	Specified Heart Arrhythmias	2.377	2.219	2.113	2.010	2.013
HCC145	Intracranial Hemorrhage	6.968	6.683	6.503	6.435	6.435
HCC146	Ischemic or Unspecified Stroke	1.699	1.539	1.449	1.389	1.388
HCC149	Cerebral Aneurysm and Arteriovenous Malformation	2.680	2.482	2.357	2.254	2.252
HCC150	Hemiplegia/Hemiparesis	4.341	4.222	4.143	4.185	4.186
HCC151	Monoplegia, Other Paralytic Syndromes	3.096	2.952	2.860	2.793	2.793
HCC153	Atherosclerosis of the Extremities with Ulceration or Gangrene	8.982	8.883	8.804	8.930	8.932
HCC154	Vascular Disease with Complications	6.871	6.713	6.603	6.596	6.596
HCC156	Pulmonary Embolism and Deep Vein Thrombosis	3.641	3.471	3.362	3.268	3.267



Final 2021 Benefit Year Risk Adjustment Coefficients 9

HCC or RXC No.	Factor	Platinum	Gold	Silver	Bronze	Catastrophic
HCC158	Lung Transplant Status/Complications	22.929	22.771	22.660	22.709	22.708
HCC159	Cystic Fibrosis	4.510	4.210	4.008	3.895	3.894
HCC160	Chronic Obstructive Pulmonary Disease, Including Bronchiectasis	0.822	0.690	0.597	0.468	0.467
HCC161 1	Severe Asthma	0.822	0.690	0.597	0.468	0.467
HCC161 2	Asthma, Except Severe	0.822	0.690	0.597	0.468	0.467
HCC162	Fibrosis of Lung and Other Lung Disorders	1.959	1.836	1.757	1.683	1.683
HCC163	Aspiration and Specified Bacterial Pneumonias and Other Severe Lung Infections	6.747	6.743	6.732	6.790	6.790
HCC174	Exudative Macular Degeneration	1.677	1.475	1.353	1.194	1.192
HCC183	Kidney Transplant Status/Complications	6.265	6.026	5.875	5.769	5.772
HCC184	End Stage Renal Disease	24.144	23.811	23.568	23.761	23.793
HCC187	Chronic Kidney Disease, Stage 5	0.990	0.934	0.898	0.916	0.916
HCC188	Chronic Kidney Disease, Severe (Stage 4)	0.990	0.934	0.898	0.916	0.916
HCC203	Ectopic and Molar Pregnancy	2.255	1.919	1.730	1.409	1.405
HCC204	Miscarriage with Complications	0.884	0.729	0.606	0.352	0.348
HCC205	Miscarriage with No or Minor Complications	0.884	0.729	0.606	0.352	0.348
HCC207	Pregnancy with Delivery with Major Complications	4.389	3.861	3.610	3.162	3.157
HCC208	Pregnancy with Delivery with Complications	4.389	3.861	3.610	3.162	3.157
HCC209	Pregnancy with Delivery with No or Minor Complications	3.124	2.721	2.521	1.996	1.989

Final 2021 Benefit Year Risk Adjustment Coefficients 10

HCC or RXC No.	Factor	Platinum	Gold	Silver	Bronze	Catastrophic
HCC210	(Ongoing) Pregnancy without Delivery with Major Complications	1.290	1.071	0.902	0.607	0.603
HCC211	(Ongoing) Pregnancy without Delivery with Complications	0.849	0.692	0.550	0.332	0.329
HCC212	(Ongoing) Pregnancy without Delivery with No or Minor Complications	0.350	0.266	0.188	0.099	0.098
HCC217	Chronic Ulcer of Skin, Except Pressure	1.972	1.849	1.771	1.738	1.737
HCC218	Extensive Third Degree Burns	20.152	19.796	19.554	19.486	19.486
HCC219	Major Skin Burn or Condition	2.998	2.836	2.727	2.645	2.644
HCC223	Severe Head Injury	15.904	15.755	15.643	15.589	15.588
HCC226	Hip and Pelvic Fractures	8.839	8.537	8.330	8.346	8.346
HCC228	Vertebral Fractures without Spinal Cord Injury	5.124	4.891	4.739	4.633	4.632
HCC234	Traumatic Amputations and Amputation Complications	5.650	5.457	5.331	5.344	5.345
HCC251	Stem Cell, Including Bone Marrow, Transplant Status/Complications	25.463	25.453	25.438	25.471	25.471
HCC253	Artificial Openings for Feeding or Elimination	7.551	7.462	7.394	7.445	7.446
HCC254	Amputation Status, Upper Limb or Lower Limb	2.117	1.967	1.878	1.843	1.842
<i>Severity Factors</i>						
SEVERE x HCC006	Severe illness x Opportunistic Infections	6.378	6.609	6.741	6.928	6.930
SEVERE x HCC008	Severe illness x Metastatic Cancer	6.378	6.609	6.741	6.928	6.930

Final 2021 Benefit Year Risk Adjustment Coefficients 11

HCC or RXC No.	Factor	Platinum	Gold	Silver	Bronze	Catastrophic
SEVERE x HCC009	Severe illness x Lung, Brain, and Other Severe Cancers, Including Pediatric Acute Lymphoid Leukemia	6.378	6.609	6.741	6.928	6.930
SEVERE x HCC010	Severe illness x Non-Hodgkin Lymphomas and Other Cancers and Tumors	6.378	6.609	6.741	6.928	6.930
SEVERE x HCC115	Severe illness x Myasthenia Gravis/Myoneural Disorders and Guillain-Barre Syndrome/Inflammatory and Toxic Neuropathy	6.378	6.609	6.741	6.928	6.930
SEVERE x HCC135	Severe illness x Heart Infection/Inflammation, Except Rheumatic	6.378	6.609	6.741	6.928	6.930
SEVERE x HCC145	Severe illness x Intracranial Hemorrhage	6.378	6.609	6.741	6.928	6.930
SEVERE x G06A	Severe illness x HCC group G06A (HCC 67 Myelodysplastic Syndromes and Myelofibrosis or HCC 68 Aplastic Anemia or HCC 69 Acquired Hemolytic Anemia, Including Hemolytic Disease of Newborn)	6.378	6.609	6.741	6.928	6.930
SEVERE x G08	Severe illness x HCC group G08 (HCC 73 Combined and Other Severe Immunodeficiencies or HCC 74 Disorders of the Immune Mechanism)	6.378	6.609	6.741	6.928	6.930

Final 2021 Benefit Year Risk Adjustment Coefficients 12

HCC or RXC No.	Factor	Platinum	Gold	Silver	Bronze	Catastrophic
<i>Enrollment Duration Factors</i>						
	1 month of enrollment	0.277	0.235	0.214	0.195	0.195
	2 months of enrollment	0.265	0.222	0.202	0.184	0.183
	3 months of enrollment	0.265	0.221	0.198	0.180	0.180
	4 months of enrollment	0.215	0.175	0.153	0.138	0.138
	5 months of enrollment	0.202	0.166	0.144	0.129	0.129
	6 months of enrollment	0.168	0.137	0.117	0.103	0.103
	7 months of enrollment	0.127	0.103	0.087	0.075	0.075
	8 months of enrollment	0.087	0.070	0.058	0.049	0.049
	9 months of enrollment	0.048	0.037	0.029	0.022	0.022
	10 months of enrollment	0.003	0.001	0.000	0.000	0.000
	11 months of enrollment	0.001	0.000	0.000	0.000	0.000
<i>Prescription Drug Category (RXC) Factors</i>						
RXC 01	Anti-HIV Agents	8.253	7.440	6.913	6.439	6.435
RXC 02	Anti-Hepatitis C (HCV) Agents, Direct Acting Agents	7.412	6.748	6.336	6.304	6.306
RXC 03	Antiarrhythmics	0.118	0.108	0.105	0.070	0.051
RXC 04	Phosphate Binders	1.905	1.914	1.905	1.854	1.788
RXC 05	Inflammatory Bowel Disease Agents	2.277	2.061	1.925	1.685	1.682
RXC 06	Insulin	1.678	1.459	1.291	1.038	1.035
RXC 07	Anti-Diabetic Agents, Except Insulin and Metformin Only	0.829	0.679	0.576	0.377	0.375
RXC 08	Multiple Sclerosis Agents	22.240	21.033	20.257	19.972	19.972
RXC 09	Immune Suppressants and Immunomodulators	13.852	13.222	12.786	12.825	12.825
RXC 10	Cystic Fibrosis Agents	16.999	16.546	16.256	16.295	16.297
<i>Prescription Drug Interaction Factors</i>						
RXC 01 x HCC001	Additional effect for enrollees with RXC 01 and HCC 001	1.925	2.174	2.308	2.899	2.906
RXC 02 x HCC037_1, 036, 035_2, 035_1, 034	Additional effect for enrollees with RXC 02 and (HCC 037_1 or 036 or 035_2 or 035_1 or 034)	-0.682	-0.506	-0.405	-0.242	-0.241

Final 2021 Benefit Year Risk Adjustment Coefficients 13

HCC or RXC No.	Factor	Platinum	Gold	Silver	Bronze	Catastrophic
RXC 03 x HCC142	Additional effect for enrollees with RXC 03 and HCC 142	0.000	0.000	0.000	0.000	0.000
RXC 04 x HCC184, 183, 187, 188	Additional effect for enrollees with RXC 04 and (HCC 184 or 183 or 187 or 188)	0.000	0.000	0.000	0.000	0.000
RXC 05 x HCC048, 041	Additional effect for enrollees with RXC 05 and (HCC 048 or 041)	-1.115	-1.020	-0.953	-0.887	-0.886
RXC 06 x HCC018, 019, 020, 021	Additional effect for enrollees with RXC 06 and (HCC 018 or 019 or 020 or 021)	0.314	0.313	0.357	0.407	0.407
RXC 07 x HCC018, 019, 020, 021	Additional effect for enrollees with RXC 07 and (HCC 018 or 019 or 020 or 021)	-0.443	-0.365	-0.310	-0.240	-0.239
RXC 08 x HCC118	Additional effect for enrollees with RXC 08 and HCC 118	-0.442	0.232	0.619	1.125	1.128
RXC 09 x HCC056 or 057 and 048 or 041	Additional effect for enrollees with RXC 09 and (HCC 048 or 041) and (HCC 056 or 057)	0.611	0.740	0.815	0.927	0.928
RXC 09 x HCC056	Additional effect for enrollees with RXC 09 and HCC 056	-0.809	-0.695	-0.614	-0.492	-0.491
RXC 09 x HCC057	Additional effect for enrollees with RXC 09 and HCC 057	-0.682	-0.547	-0.453	-0.308	-0.306
RXC 09 x HCC048, 041	Additional effect for enrollees with RXC 09 and (HCC 048 or 041)	-0.178	-0.130	-0.100	-0.052	-0.052
RXC 10 x HCC159, 158	Additional effect for enrollees with RXC 10 and (HCC 159 or 158)	43.974	44.070	44.079	44.259	44.259

**TABLE 2: Final Coefficients for 2021 Benefit Year Child Risk Adjustment Models**

<b>Factor</b>	<b>Platinum</b>	<b>Gold</b>	<b>Silver</b>	<b>Bronze</b>	<b>Catastrophic</b>
<i>Demographic Factors</i>					
Age 2-4, Male	0.220	0.163	0.124	0.075	0.075
Age 5-9, Male	0.157	0.110	0.078	0.044	0.044
Age 10-14, Male	0.186	0.137	0.102	0.068	0.067
Age 15-20, Male	0.229	0.172	0.130	0.080	0.080
Age 2-4, Female	0.166	0.119	0.089	0.055	0.055
Age 5-9, Female	0.108	0.068	0.043	0.016	0.016
Age 10-14, Female	0.175	0.129	0.097	0.065	0.065
Age 15-20, Female	0.252	0.182	0.131	0.068	0.067
<i>Diagnosis Factors</i>					
HIV/AIDS	5.603	5.033	4.666	4.493	4.492
Septicemia, Sepsis, Systemic Inflammatory Response Syndrome/Shock	13.484	13.246	13.108	13.078	13.078
Central Nervous System Infections, Except Viral Meningitis	8.290	8.094	7.963	7.965	7.965
Viral or Unspecified Meningitis	2.773	2.518	2.375	2.170	2.168
Opportunistic Infections	15.261	15.218	15.186	15.159	15.159
Metastatic Cancer	36.724	36.405	36.165	36.174	36.174
Lung, Brain, and Other Severe Cancers, Including Pediatric Acute Lymphoid Leukemia	9.371	9.048	8.828	8.706	8.705
Non-Hodgkin Lymphomas and Other Cancers and Tumors	7.314	7.010	6.806	6.653	6.651
Colorectal, Breast (Age < 50), Kidney, and Other Cancers	4.361	4.154	4.012	3.867	3.866
Breast (Age 50+) and Prostate Cancer, Benign/Uncertain Brain Tumors, and Other Cancers and Tumors	4.361	4.154	4.012	3.867	3.866
Thyroid Cancer, Melanoma, Neurofibromatosis, and Other Cancers and Tumors	0.989	0.834	0.731	0.583	0.580
Pancreas Transplant Status	8.948	8.708	8.557	8.447	8.445
Diabetes with Acute Complications	2.867	2.442	2.226	1.815	1.811
Diabetes with Chronic Complications	2.867	2.442	2.226	1.815	1.811
Diabetes without Complication	2.867	2.442	2.226	1.815	1.811
Protein-Calorie Malnutrition	14.038	13.923	13.835	13.878	13.878

*Final 2021 Benefit Year Risk Adjustment Coefficients 15*

<b>Factor</b>	<b>Platinum</b>	<b>Gold</b>	<b>Silver</b>	<b>Bronze</b>	<b>Catastrophic</b>
Mucopolysaccharidosis	40.874	40.528	40.287	40.269	40.269
Lipidoses and Glycogenosis	40.874	40.528	40.287	40.269	40.269
Congenital Metabolic Disorders, Not Elsewhere Classified	5.675	5.530	5.429	5.353	5.353
Amyloidosis, Porphyria, and Other Metabolic Disorders	5.675	5.530	5.429	5.353	5.353
Adrenal, Pituitary, and Other Significant Endocrine Disorders	6.602	6.310	6.104	6.053	6.053
Liver Transplant Status/Complications	8.948	8.708	8.557	8.447	8.445
Acute Liver Failure/Disease, Including Neonatal Hepatitis	18.668	18.625	18.588	18.712	18.713
Chronic Liver Failure/End-Stage Liver Disorders	14.304	14.162	14.079	14.050	14.049
Cirrhosis of Liver	4.147	4.050	3.993	3.937	3.938
Chronic Viral Hepatitis C	2.762	2.565	2.434	2.433	2.433
Chronic Hepatitis, Except Chronic Viral Hepatitis C	0.138	0.084	0.048	0.001	0.000
Intestine Transplant Status/Complications	17.547	17.482	17.438	17.455	17.454
Peritonitis/Gastrointestinal Perforation/Necrotizing Enterocolitis	12.266	11.922	11.693	11.675	11.675
Intestinal Obstruction	5.212	4.977	4.819	4.690	4.688
Chronic Pancreatitis	12.734	12.493	12.331	12.344	12.345
Acute Pancreatitis	7.448	7.170	6.999	6.869	6.867
Inflammatory Bowel Disease	9.111	8.611	8.276	8.121	8.119
Necrotizing Fasciitis	3.741	3.486	3.313	3.206	3.204
Bone/Joint/Muscle Infections/Necrosis	3.741	3.486	3.313	3.206	3.204
Rheumatoid Arthritis and Specified Autoimmune Disorders	4.962	4.653	4.437	4.328	4.326
Systemic Lupus Erythematosus and Other Autoimmune Disorders	0.690	0.537	0.426	0.268	0.265
Osteogenesis Imperfecta and Other Osteodystrophies	1.381	1.244	1.149	1.052	1.051
Congenital/Developmental Skeletal and Connective Tissue Disorders	1.381	1.244	1.149	1.052	1.051
Cleft Lip/Cleft Palate	1.322	1.114	0.987	0.824	0.822
Hemophilia	72.647	71.996	71.537	71.491	71.490

Final 2021 Benefit Year Risk Adjustment Coefficients 16

<b>Factor</b>	<b>Platinum</b>	<b>Gold</b>	<b>Silver</b>	<b>Bronze</b>	<b>Catastrophic</b>
Myelodysplastic Syndromes and Myelofibrosis	15.732	15.527	15.389	15.351	15.351
Aplastic Anemia	15.732	15.527	15.389	15.351	15.351
Acquired Hemolytic Anemia, Including Hemolytic Disease of Newborn	15.732	15.527	15.389	15.351	15.351
Sickle Cell Anemia (Hb-SS)	5.357	5.072	4.881	4.742	4.741
Beta Thalassemia Major	5.357	5.072	4.881	4.742	4.741
Combined and Other Severe Immunodeficiencies	5.948	5.765	5.638	5.578	5.578
Disorders of the Immune Mechanism	5.948	5.765	5.638	5.578	5.578
Coagulation Defects and Other Specified Hematological Disorders	4.683	4.534	4.433	4.336	4.335
Drug Use with Psychotic Complications	3.091	2.844	2.690	2.528	2.527
Drug Use Disorder, Moderate/Severe, or Drug Use with Non-Psychotic Complications	3.091	2.844	2.690	2.528	2.527
Alcohol Use with Psychotic Complications	1.188	0.981	0.850	0.697	0.696
Alcohol Use Disorder, Moderate/Severe, or Alcohol Use with Specified Non-Psychotic Complications	1.188	0.981	0.850	0.697	0.696
Schizophrenia	4.812	4.415	4.164	3.968	3.966
Delusional and Other Specified Psychotic Disorders, Unspecified Psychosis	3.165	2.866	2.670	2.460	2.457
Major Depressive Disorder, Severe, and Bipolar Disorders	2.812	2.539	2.353	2.147	2.144
Personality Disorders	0.477	0.362	0.266	0.119	0.117
Anorexia/Bulimia Nervosa	2.255	2.026	1.862	1.728	1.726
Prader-Willi, Patau, Edwards, and Autosomal Deletion Syndromes	1.693	1.535	1.436	1.345	1.344
Down Syndrome, Fragile X, Other Chromosomal Anomalies, and Congenital Malformation Syndromes	1.458	1.293	1.186	1.075	1.074
Autistic Disorder	2.812	2.539	2.353	2.147	2.144



*Final 2021 Benefit Year Risk Adjustment Coefficients 17*

<b>Factor</b>	<b>Platinum</b>	<b>Gold</b>	<b>Silver</b>	<b>Bronze</b>	<b>Catastrophic</b>
Pervasive Developmental Disorders, Except Autistic Disorder	0.477	0.372	0.285	0.157	0.156
Traumatic Complete Lesion Cervical Spinal Cord	12.232	12.027	11.887	11.887	11.888
Quadriplegia	12.232	12.027	11.887	11.887	11.888
Traumatic Complete Lesion Dorsal Spinal Cord	9.538	9.245	9.056	8.972	8.971
Paraplegia	9.538	9.245	9.056	8.972	8.971
Spinal Cord Disorders/Injuries	4.126	3.883	3.719	3.573	3.571
Amyotrophic Lateral Sclerosis and Other Anterior Horn Cell Disease	31.975	31.651	31.415	31.321	31.319
Quadriplegic Cerebral Palsy	3.779	3.550	3.420	3.412	3.412
Cerebral Palsy, Except Quadriplegic	0.722	0.549	0.439	0.291	0.290
Spina Bifida and Other Brain/Spinal/Nervous System Congenital Anomalies	2.283	2.128	2.027	1.947	1.945
Myasthenia Gravis/Myoneural Disorders and Guillain-Barre Syndrome/Inflammatory and Toxic Neuropathy	11.290	11.112	10.986	11.014	11.014
Muscular Dystrophy	4.593	4.373	4.232	4.100	4.100
Multiple Sclerosis	12.636	12.134	11.789	11.775	11.775
Parkinson's, Huntington's, and Spinocerebellar Disease, and Other Neurodegenerative Disorders	4.593	4.373	4.232	4.100	4.100
Seizure Disorders and Convulsions	2.135	1.947	1.812	1.641	1.639
Hydrocephalus	4.775	4.653	4.565	4.528	4.528
Coma, Brain Compression/Anoxic Damage	4.751	4.600	4.495	4.439	4.438
Narcolepsy and Cataplexy	4.851	4.625	4.463	4.279	4.276
Respirator Dependence/Tracheostomy Status	32.716	32.625	32.545	32.756	32.759
Respiratory Arrest	10.845	10.562	10.389	10.357	10.357
Cardio-Respiratory Failure and Shock, Including Respiratory Distress Syndromes	10.845	10.562	10.389	10.357	10.357
Heart Assistive Device/Artificial Heart	17.547	17.482	17.438	17.455	17.454

*Final 2021 Benefit Year Risk Adjustment Coefficients 18*

<b>Factor</b>	<b>Platinum</b>	<b>Gold</b>	<b>Silver</b>	<b>Bronze</b>	<b>Catastrophic</b>
Heart Transplant Status/Complications	17.547	17.482	17.438	17.455	17.454
Heart Failure	6.118	5.990	5.900	5.851	5.850
Acute Myocardial Infarction	2.680	2.584	2.533	2.525	2.524
Unstable Angina and Other Acute Ischemic Heart Disease	2.680	2.584	2.533	2.525	2.524
Heart Infection/Inflammation, Except Rheumatic	12.197	12.075	11.987	11.972	11.972
Hypoplastic Left Heart Syndrome and Other Severe Congenital Heart Disorders	3.968	3.764	3.605	3.473	3.471
Major Congenital Heart/Circulatory Disorders	1.255	1.125	1.015	0.888	0.887
Atrial and Ventricular Septal Defects, Patent Ductus Arteriosus, and Other Congenital Heart/Circulatory Disorders	0.810	0.695	0.605	0.511	0.510
Specified Heart Arrhythmias	3.626	3.433	3.291	3.194	3.193
Intracranial Hemorrhage	10.790	10.577	10.441	10.421	10.422
Ischemic or Unspecified Stroke	2.863	2.770	2.718	2.712	2.712
Cerebral Aneurysm and Arteriovenous Malformation	3.432	3.208	3.061	2.954	2.953
Hemiplegia/Hemiparesis	6.584	6.441	6.347	6.295	6.293
Monoplegia, Other Paralytic Syndromes	4.034	3.859	3.747	3.658	3.656
Atherosclerosis of the Extremities with Ulceration or Gangrene	12.742	12.479	12.307	12.234	12.234
Vascular Disease with Complications	10.610	10.513	10.434	10.472	10.473
Pulmonary Embolism and Deep Vein Thrombosis	17.069	16.940	16.853	16.872	16.872
Lung Transplant Status/Complications	17.547	17.482	17.438	17.455	17.454
Cystic Fibrosis	45.538	44.907	44.453	44.456	44.456
Chronic Obstructive Pulmonary Disease, Including Bronchiectasis	2.953	2.772	2.647	2.506	2.505
Severe Asthma	0.868	0.640	0.484	0.249	0.246
Asthma, Except Severe	0.328	0.242	0.171	0.076	0.075
Fibrosis of Lung and Other Lung Disorders	1.729	1.626	1.545	1.453	1.452

*Final 2021 Benefit Year Risk Adjustment Coefficients 19*

<b>Factor</b>	<b>Platinum</b>	<b>Gold</b>	<b>Silver</b>	<b>Bronze</b>	<b>Catastrophic</b>
Aspiration and Specified Bacterial Pneumonias and Other Severe Lung Infections	6.659	6.603	6.558	6.581	6.582
Kidney Transplant Status/Complications	8.948	8.708	8.557	8.447	8.445
End Stage Renal Disease	42.547	42.360	42.214	42.350	42.352
Chronic Kidney Disease, Stage 5	4.723	4.566	4.462	4.327	4.325
Chronic Kidney Disease, Severe (Stage 4)	4.723	4.566	4.462	4.327	4.325
Ectopic and Molar Pregnancy	2.094	1.759	1.571	1.261	1.258
Miscarriage with Complications	0.787	0.620	0.484	0.218	0.215
Miscarriage with No or Minor Complications	0.787	0.620	0.484	0.218	0.215
Pregnancy with Delivery with Major Complications	3.787	3.280	3.025	2.487	2.480
Pregnancy with Delivery with Complications	3.787	3.280	3.025	2.487	2.480
Pregnancy with Delivery with No or Minor Complications	2.590	2.223	2.018	1.446	1.437
(Ongoing) Pregnancy without Delivery with Major Complications	0.697	0.519	0.375	0.156	0.154
(Ongoing) Pregnancy without Delivery with Complications	0.697	0.519	0.375	0.156	0.154
(Ongoing) Pregnancy without Delivery with No or Minor Complications	0.340	0.236	0.140	0.012	0.011
Chronic Ulcer of Skin, Except Pressure	2.919	2.803	2.714	2.629	2.628
Extensive Third Degree Burns	16.817	16.560	16.374	16.346	16.345
Major Skin Burn or Condition	2.168	1.974	1.851	1.712	1.710
Severe Head Injury	16.817	16.560	16.374	16.346	16.345
Hip and Pelvic Fractures	4.702	4.418	4.217	4.090	4.089
Vertebral Fractures without Spinal Cord Injury	4.092	3.834	3.657	3.474	3.471
Traumatic Amputations and Amputation Complications	4.791	4.509	4.334	4.163	4.161
Stem Cell, Including Bone Marrow, Transplant Status/Complications	17.547	17.482	17.438	17.455	17.454
Artificial Openings for Feeding or Elimination	10.632	10.491	10.398	10.506	10.508

*Final 2021 Benefit Year Risk Adjustment Coefficients 20*

<b>Factor</b>	<b>Platinum</b>	<b>Gold</b>	<b>Silver</b>	<b>Bronze</b>	<b>Catastrophic</b>
Amputation Status, Upper Limb or Lower Limb	4.791	4.509	4.334	4.163	4.161

**TABLE 3: Final Coefficients for 2021 Benefit Year Infant Risk Adjustment Models**

<b>Group</b>	<b>Platinum</b>	<b>Gold</b>	<b>Silver</b>	<b>Bronze</b>	<b>Catastrophic</b>
Extremely Immature * Severity Level 5 (Highest)	234.247	232.335	230.986	230.901	230.901
Extremely Immature * Severity Level 4	147.335	145.263	143.835	143.511	143.508
Extremely Immature * Severity Level 3	33.631	32.115	31.090	30.663	30.658
Extremely Immature * Severity Level 2	33.631	32.115	31.090	30.663	30.658
Extremely Immature * Severity Level 1 (Lowest)	33.631	32.115	31.090	30.663	30.658
Immature *Severity Level 5 (Highest)	135.262	133.350	132.009	131.845	131.843
Immature *Severity Level 4	70.934	69.161	67.926	67.603	67.599
Immature *Severity Level 3	33.631	32.115	31.090	30.663	30.658
Immature *Severity Level 2	26.462	25.052	24.092	23.617	23.611
Immature *Severity Level 1 (Lowest)	26.462	25.052	24.092	23.617	23.611
Premature/Multiples * Severity Level 5 (Highest)	112.502	110.869	109.723	109.524	109.521
Premature/Multiples * Severity Level 4	29.635	28.130	27.115	26.667	26.663
Premature/Multiples * Severity Level 3	14.762	13.614	12.860	12.196	12.188
Premature/Multiples * Severity Level 2	8.408	7.584	7.016	6.270	6.261
Premature/Multiples * Severity Level 1 (Lowest)	5.942	5.325	4.859	4.280	4.273
Term *Severity Level 5 (Highest)	84.755	83.345	82.363	82.082	82.078
Term *Severity Level 4	16.579	15.456	14.735	14.121	14.115
Term *Severity Level 3	6.264	5.608	5.128	4.471	4.463
Term *Severity Level 2	3.711	3.206	2.797	2.148	2.140
Term *Severity Level 1 (Lowest)	1.798	1.515	1.228	0.920	0.917
Age1 *Severity Level 5 (Highest)	65.111	64.236	63.619	63.463	63.461
Age1 *Severity Level 4	12.842	12.225	11.821	11.520	11.517
Age1 *Severity Level 3	3.216	2.892	2.669	2.428	2.426
Age1 *Severity Level 2	2.019	1.758	1.565	1.306	1.303
Age1 *Severity Level 1 (Lowest)	0.556	0.495	0.454	0.406	0.406
Age 0 Male	0.633	0.575	0.538	0.464	0.463
Age 1 Male	0.110	0.090	0.075	0.051	0.050

**TABLE 4: HHS-HCCs Included in Infant Models Maturity Categories for 2021 Benefit Year**

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

**TABLE 5: HHS-HCCs Included in Infant Models Severity Categories for 2021 Benefit Year**

Severity Levels	
Severity Level 5	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 Level 4	Ischemic or Unspecified Stroke
Severity Level 4	Vascular Disease with Complications

*Final 2021 Benefit Year Risk Adjustment Coefficients 24*

<b>Severity Levels</b>	
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
Severity Level 3	Alcohol Use Disorder, Moderate/Severe, or Alcohol Use with Specified Non-Psychotic 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
Severity Level 3	Parkinson`s, Huntington`s, and Spinocerebellar Disease, and Other Neurodegenerative Disorders
Severity Level 3	Hydrocephalus
Severity Level 3	Unstable Angina and Other Acute Ischemic Heart Disease
Severity Level 3	Atrial and Ventricular Septal Defects, Patent Ductus Arteriosus, and Other Congenital Heart/Circulatory Disorders
Severity Level 3	Specified Heart Arrhythmias
Severity Level 3	Cerebral Aneurysm and Arteriovenous Malformation
Severity Level 3	Hemiplegia/Hemiparesis



*Final 2021 Benefit Year Risk Adjustment Coefficients 25*

<b>Severity Levels</b>	
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 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 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	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 6: R-Squared Statistic for Final HHS Risk Adjustment Models**

<b>R-squared</b>			
	<b>2016 Enrollee- level EDGE</b>	<b>2017 Enrollee- level EDGE</b>	<b>2018 Enrollee- level EDGE</b>
Platinum Adult	0.4390	0.4361	0.4220
Gold Adult	0.4320	0.4285	0.4142
Silver Adult	0.4268	0.4228	0.4084
Bronze Adult	0.4232	0.4190	0.4041
Catastrophic Adult	0.4231	0.4189	0.4040
Platinum Child	0.3175	0.3361	0.3359
Gold Child	0.3123	0.3310	0.3307
Silver Child	0.3085	0.3273	0.3268
Bronze Child	0.3045	0.3233	0.3228
Catastrophic Child	0.3044	0.3232	0.3228
Platinum Infant	0.3269	0.3271	0.2895
Gold Infant	0.3228	0.3229	0.2851
Silver Infant	0.3200	0.3199	0.2820
Bronze Infant	0.3180	0.3179	0.2800
Catastrophic Infant	0.3180	0.3179	0.2799