

Table VI-1. 2017 CMS-HCC Model Relative Factors for Community and Institutional Beneficiaries

Variable	Description Label	Community, NonDual, Aged	Community, NonDual, Disabled	Community, FBDual, Aged	Community, FBDual, Disabled	Community, PBDual, Aged	Community, PBDual, Disabled	Institutional
Female								
0-34 Years		-	0.244	-	0.318	-	0.344	1.031
35-44 Years		-	0.303	-	0.306	-	0.383	0.999
45-54 Years		-	0.322	-	0.338	-	0.374	1.007
55-59 Years		-	0.350	-	0.388	-	0.371	0.986
60-64 Years		-	0.411	-	0.449	-	0.395	1.028
65-69 Years		0.312	-	0.425	-	0.341	-	1.200
70-74 Years		0.374	-	0.511	-	0.406	-	1.092
75-79 Years		0.448	-	0.611	-	0.484	-	0.995
80-84 Years		0.537	-	0.739	-	0.552	-	0.860
85-89 Years		0.664	-	0.917	-	0.678	-	0.749
90-94 Years		0.797	-	1.037	-	0.817	-	0.626
95 Years or Over		0.816	-	1.094	-	0.913	-	0.456
Male								
0-34 Years		-	0.155	-	0.225	-	0.330	1.049
35-44 Years		-	0.190	-	0.204	-	0.267	1.074
45-54 Years		-	0.221	-	0.281	-	0.300	1.008
55-59 Years		-	0.271	-	0.372	-	0.307	1.055
60-64 Years		-	0.303	-	0.486	-	0.343	1.039
65-69 Years		0.300	-	0.492	-	0.334	-	1.269
70-74 Years		0.379	-	0.582	-	0.409	-	1.323
75-79 Years		0.466	-	0.692	-	0.491	-	1.331
80-84 Years		0.561	-	0.816	-	0.546	-	1.189
85-89 Years		0.694	-	1.009	-	0.679	-	1.129

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90-94 Years		0.857	-	1.186	-	0.822	-	0.964
95 Years or Over		0.976	-	1.268	-	1.038	-	0.781
Medicaid and Originally Disabled								
Medicaid		-	-	-	-	-	-	0.062
Originally Disabled, Female		0.244	-	0.172	-	0.126	-	-
Originally Disabled, Male		0.152	-	0.192	-	0.105	-	-
Disease Coefficients	Description Label							
HCC1	HIV/AIDS	0.312	0.288	0.585	0.500	0.550	0.232	1.747
HCC2	Septicemia, Sepsis, Systemic Inflammatory Response Syndrome/Shock	0.455	0.532	0.596	0.811	0.409	0.417	0.346
HCC6	Opportunistic Infections	0.435	0.704	0.548	0.919	0.482	0.765	0.580
HCC8	Metastatic Cancer and Acute Leukemia	2.625	2.644	2.542	2.767	2.442	2.582	1.143
HCC9	Lung and Other Severe Cancers	0.970	0.927	0.973	1.025	0.955	0.879	0.727
HCC10	Lymphoma and Other Cancers	0.677	0.656	0.713	0.761	0.667	0.577	0.401
HCC11	Colorectal, Bladder, and Other Cancers	0.301	0.352	0.332	0.361	0.325	0.400	0.293
HCC12	Breast, Prostate, and Other Cancers and Tumors	0.146	0.202	0.159	0.190	0.152	0.182	0.199
HCC17	Diabetes with Acute Complications	0.318	0.371	0.346	0.431	0.354	0.423	0.441
HCC18	Diabetes with Chronic Complications	0.318	0.371	0.346	0.431	0.354	0.423	0.441
HCC19	Diabetes without Complication	0.104	0.128	0.097	0.160	0.098	0.136	0.160
HCC21	Protein-Calorie Malnutrition	0.545	0.753	0.752	0.845	0.562	0.709	0.260
HCC22	Morbid Obesity	0.273	0.227	0.410	0.373	0.244	0.242	0.511
HCC23	Other Significant Endocrine and Metabolic Disorders	0.228	0.444	0.228	0.353	0.193	0.351	0.337
HCC27	End-Stage Liver Disease	0.962	1.110	1.242	1.349	0.889	0.963	0.962
HCC28	Cirrhosis of Liver	0.390	0.394	0.342	0.491	0.460	0.324	0.390
HCC29	Chronic Hepatitis	0.165	0.267	0.038	0.400	0.263	0.324	0.390
HCC33	Intestinal Obstruction/Perforation	0.246	0.524	0.369	0.503	0.324	0.510	0.335

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HCC34	Chronic Pancreatitis	0.276	0.678	0.333	0.875	0.412	0.849	0.241
HCC35	Inflammatory Bowel Disease	0.294	0.483	0.334	0.613	0.209	0.496	0.244
HCC39	Bone/Joint/Muscle Infections/Necrosis	0.425	0.474	0.552	0.713	0.418	0.491	0.345
HCC40	Rheumatoid Arthritis and Inflammatory Connective Tissue Disease	0.423	0.377	0.370	0.345	0.390	0.290	0.329
HCC46	Severe Hematological Disorders	1.388	3.188	1.219	4.256	1.226	3.529	0.680
HCC47	Disorders of Immunity	0.625	0.848	0.529	0.589	0.449	0.690	0.529
HCC48	Coagulation Defects and Other Specified Hematological Disorders	0.221	0.339	0.268	0.378	0.225	0.382	0.151
HCC54	Drug/Alcohol Psychosis	0.383	0.569	0.706	0.919	0.388	0.613	0.102
HCC55	Drug/Alcohol Dependence	0.383	0.285	0.522	0.366	0.377	0.286	0.102
HCC57	Schizophrenia	0.608	0.395	0.612	0.432	0.547	0.366	0.271
HCC58	Major Depressive, Bipolar, and Paranoid Disorders	0.395	0.209	0.444	0.178	0.413	0.163	0.271
HCC70	Quadriplegia	1.314	1.053	1.098	1.056	1.274	1.328	0.497
HCC71	Paraplegia	1.007	0.704	0.920	1.019	0.958	0.908	0.467
HCC72	Spinal Cord Disorders/Injuries	0.528	0.456	0.552	0.407	0.556	0.384	0.229
HCC73	Amyotrophic Lateral Sclerosis and Other Motor Neuron Disease	0.970	1.082	1.230	1.219	0.570	0.814	0.224
HCC74	Cerebral Palsy	0.280	0.132	-	-	0.158	0.052	-
HCC75	Myasthenia Gravis/Myoneural Disorders and Guillain-Barre Syndrome/Inflammatory and Toxic Neuropathy	0.457	0.528	0.436	0.465	0.364	0.331	0.369
HCC76	Muscular Dystrophy	0.505	0.457	0.553	0.512	0.429	0.168	0.104
HCC77	Multiple Sclerosis	0.441	0.540	0.687	0.794	0.407	0.459	-
HCC78	Parkinson's and Huntington's Diseases	0.674	0.585	0.751	0.516	0.629	0.394	0.145
HCC79	Seizure Disorders and Convulsions	0.309	0.227	0.357	0.195	0.349	0.245	0.088
HCC80	Coma, Brain Compression/Anoxic Damage	0.584	0.302	0.946	0.324	0.508	0.155	0.042

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HCC82	Respirator Dependence/Tracheostomy Status	1.055	1.024	2.304	1.575	0.914	0.676	1.631
HCC83	Respiratory Arrest	0.658	0.781	1.033	0.484	0.704	0.429	0.727
HCC84	Cardio-Respiratory Failure and Shock	0.302	0.578	0.471	0.484	0.301	0.429	0.297
HCC85	Congestive Heart Failure	0.323	0.412	0.355	0.415	0.320	0.367	0.191
HCC86	Acute Myocardial Infarction	0.233	0.306	0.473	0.618	0.280	0.438	0.497
HCC87	Unstable Angina and Other Acute Ischemic Heart Disease	0.218	0.306	0.336	0.618	0.280	0.438	0.497
HCC88	Angina Pectoris	0.140	0.121	0.068	0.205	0.175	0.220	0.497
HCC96	Specified Heart Arrhythmias	0.268	0.284	0.369	0.377	0.283	0.258	0.224
HCC99	Cerebral Hemorrhage	0.263	0.282	0.474	0.690	0.278	0.280	0.114
HCC100	Ischemic or Unspecified Stroke	0.263	0.195	0.474	0.357	0.270	0.232	0.114
HCC103	Hemiplegia/Hemiparesis	0.538	0.324	0.548	0.435	0.603	0.401	0.031
HCC104	Monoplegia, Other Paralytic Syndromes	0.395	0.258	0.374	0.381	0.559	0.401	0.031
HCC106	Atherosclerosis of the Extremities with Ulceration or Gangrene	1.461	1.506	1.744	1.740	1.452	1.601	0.884
HCC107	Vascular Disease with Complications	0.400	0.486	0.540	0.756	0.443	0.549	0.321
HCC108	Vascular Disease	0.298	0.333	0.324	0.319	0.316	0.326	0.094
HCC110	Cystic Fibrosis	0.620	2.538	0.985	3.365	0.358	2.861	0.305
HCC111	Chronic Obstructive Pulmonary Disease	0.328	0.262	0.422	0.354	0.358	0.293	0.305
HCC112	Fibrosis of Lung and Other Chronic Lung Disorders	0.209	0.262	0.134	0.322	0.172	0.174	0.057
HCC114	Aspiration and Specified Bacterial Pneumonias	0.599	0.530	0.707	0.490	0.666	0.373	0.067
HCC115	Pneumococcal Pneumonia, Empyema, Lung Abscess	0.221	0.128	0.162	0.049	0.302	0.220	0.067
HCC122	Proliferative Diabetic Retinopathy and Vitreous Hemorrhage	0.217	0.171	0.223	0.284	0.276	0.195	0.460
HCC124	Exudative Macular Degeneration	0.499	0.385	0.278	0.090	0.336	0.115	0.228
HCC134	Dialysis Status	0.422	0.500	0.672	0.637	0.435	0.512	0.462
HCC135	Acute Renal Failure	0.422	0.500	0.672	0.637	0.435	0.512	0.462

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HCC136	Chronic Kidney Disease, Stage 5	0.237	0.141	0.244	0.167	0.184	0.147	0.436
HCC137	Chronic Kidney Disease, Severe (Stage 4)	0.237	0.141	0.244	0.079	0.184	0.035	0.202
HCC157	Pressure Ulcer of Skin with Necrosis Through to Muscle, Tendon, or Bone	2.163	2.203	2.879	2.626	2.274	2.655	0.924
HCC158	Pressure Ulcer of Skin with Full Thickness Skin Loss	1.204	1.393	1.576	1.559	1.074	1.237	0.295
HCC161	Chronic Ulcer of Skin, Except Pressure	0.535	0.636	0.757	0.631	0.586	0.620	0.294
HCC162	Severe Skin Burn or Condition	0.321	0.348	0.003	0.537	0.525	0.119	0.076
HCC166	Severe Head Injury	0.584	0.302	0.946	0.324	1.065	0.155	0.042
HCC167	Major Head Injury	0.191	0.044	0.274	0.171	0.133	0.049	-
HCC169	Vertebral Fractures without Spinal Cord Injury	0.495	0.456	0.552	0.407	0.516	0.384	0.209
HCC170	Hip Fracture/Dislocation	0.418	0.513	0.520	0.668	0.383	0.484	-
HCC173	Traumatic Amputations and Complications	0.266	0.340	0.412	0.383	0.233	0.232	0.267
HCC176	Complications of Specified Implanted Device or Graft	0.597	0.871	0.721	1.156	0.584	0.876	0.502
HCC186	Major Organ Transplant or Replacement Status	1.000	0.618	0.816	1.075	0.795	0.655	0.962
HCC188	Artificial Openings for Feeding or Elimination	0.571	0.785	0.775	0.870	0.579	0.867	0.500
HCC189	Amputation Status, Lower Limb/Amputation Complications	0.588	0.455	0.787	1.065	0.737	0.696	0.407
Disease Interactions								
HCC47_gCancer	Immune Disorders*Cancer Group	0.893	0.675	0.815	0.652	0.776	0.808	-
HCC85_gDiabetesMellit	Congestive Heart Failure*Diabetes Group	0.154	0.096	0.205	0.160	0.178	0.139	0.154
HCC85_gCOPdCF	Congestive Heart Failure*Chronic Obstructive Pulmonary Disease Group	0.190	0.174	0.240	0.217	0.186	0.181	0.164
HCC85_gRenal	Congestive Heart Failure*Renal Group	0.270	0.493	0.271	0.711	0.299	0.609	-

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gRespDepandArre_gCpdCF	Cardiorespiratory Failure Group*Chronic Obstructive Pulmonary Disease Group	0.336	0.256	0.564	0.524	0.460	0.449	0.423
HCC85_HCC96	Congestive Heart Failure*Specified Heart Arrhythmias	0.105	0.285	0.200	0.405	0.116	0.318	-
gSubstanceAbuse_gPsychiatric	Substance Abuse Group*Psychiatric Group	-	0.191	-	0.233	-	0.230	-
SEPSIS_PRESSURE_ULCER	Sepsis*Pressure Ulcer	-	-	-	-	-	-	0.252
SEPSIS_ARTIF_OPENINGS	Sepsis*Artificial Openings for Feeding or Elimination	-	-	-	-	-	-	0.568
ART_OPENINGS_PRESSURE_ULCER	Artificial Openings for Feeding or Elimination*Pressure Ulcer	-	-	-	-	-	-	0.331
gCpdCF_ASP_SPEC_BACT_PNEUM	Chronic Obstructive Pulmonary Disease*Aspiration and Specified Bacterial Pneumonias	-	-	-	-	-	-	0.254
ASP_SPEC_BACT_PNEUM_PRES_ULC	Aspiration and Specified Bacterial Pneumonias*Pressure Ulcer	-	-	-	-	-	-	0.366
SEPSIS_ASP_SPEC_BACT_PNEUM	Sepsis*Aspiration and Specified Bacterial Pneumonias	-	-	-	-	-	-	0.321
SCHIZOPHRENIA_gCpdCF	Schizophrenia*Chronic Obstructive Pulmonary Disease	-	-	-	-	-	-	0.363
SCHIZOPHRENIA_CHF	Schizophrenia*Congestive Heart Failure	-	-	-	-	-	-	0.173
SCHIZOPHRENIA_SEIZURES	Schizophrenia*Seizure Disorders and Convulsions	-	-	-	-	-	-	0.483
Disabled/Disease Interactions								
DISABLED_HCC85	Disabled, Congestive Heart Failure	-	-	-	-	-	-	0.321
DISABLED_PRESSURE_ULCER	Disabled, Pressure Ulcer	-	-	-	-	-	-	0.608
DISABLED_HCC161	Disabled, Chronic Ulcer of the Skin, Except Pressure Ulcer	-	-	-	-	-	-	0.369
DISABLED_HCC39	Disabled, Bone/Joint Muscle Infections/Necrosis	-	-	-	-	-	-	0.567
DISABLED_HCC77	Disabled, Multiple Sclerosis	-	-	-	-	-	-	0.425

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DISABLED_HCC6	Disabled, Opportunistic Infections	-	-	-	-	-	-	0.277

NOTES:

1. The denominator is \$9,185.29
2. In the “disease interactions” and “disabled interactions,” the variables are defined as follows:

Immune Disorders = HCC 47

Cancer = HCCs 8-12

Congestive Heart Failure = HCC 85

Diabetes = HCCs 17-19

Chronic Obstructive Pulmonary Disease = HCCs 110-112

Renal = HCCs 134 – 137

Cardiorespiratory Failure = HCCs 82-84

Specified Heart Arrhythmias = HCC 96

Substance Abuse = HCCs 54-55

Psychiatric = HCCs 57-58

Sepsis = HCC 2

Pressure Ulcer = HCCs 157-158

Artificial Openings for Feeding or Elimination = HCC 188

Aspiration and Specified Bacterial Pneumonias = HCC 114

Schizophrenia = HCC 57

Seizure Disorders and Convulsions = HCC 79

Chronic Ulcer of Skin, except Pressure = HCC 161

Bone/Joint/Muscle Infections/Necrosis = HCC 39

Multiple Sclerosis = HCC 77

Opportunistic Infections = HCC 6

SOURCE: RTI International analysis of 2013-2014 Medicare 100% data and RTI International analysis of 2013-2014 Medicare 100% institutional sample.