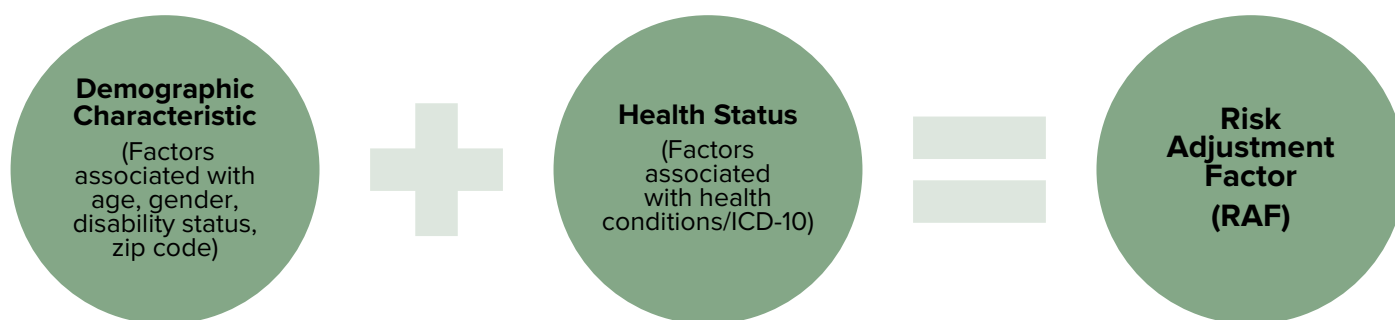


V24 vs V28 Risk Adjustment Models

What are Risk Adjustment Models?

The Centers of Medicare and Medicaid Services (CMS) utilizes the risk adjustment model to help budget for a patient's healthcare costs based on the severity of their conditions. This method is known as Hierarchical Condition Categories (HCC) and uses a patient's demographic factors and coded health conditions to assign risk. Based on the HCC category and the severity of a condition, an associated risk adjustment factor (RAF) score is assigned to an ICD-10-CM code. Not all ICD-10 codes for conditions impact funding, due to their lack of severity and acute nature. However, severe acute or chronic conditions carry a RAF score that is calculated with demographic factors to assign a budget for the patient. Coding to the highest level of specificity allows providers to communicate the true severity of a patient's disease to CMS.



The average, not chronically ill Medicare patient has a RAF score around 1.0. Scores below 1.0 RAF reflect a very healthy patient, while scores above 1.0 indicate higher expected healthcare needs and funding.

What is the difference between V24 and V28?

In past years, CMS has utilized the V24 model for their risk adjustment, which had 86 HCC categories and added a RAF score to 7,320 codes. However, in early 2023 the Department of Health and Human Services announced that a new model would be phased in, called the V28 model. This proposed change was slowly phased in, with a blending methodology that allowed the slow migration to the new model. As of 2026 CMS has fully transitioned into the new V28 model. This new model includes 115 HCC categories to better break down the conditions by severity of illness. However, **only 4,958 codes are risk adjusted** in this new model, with 2,362 previously RAF adding codes being lost.

V24 vs. V28 Sample Comparison

Diagnosis Code	V24 RAF	V28 RAF
E44.0 Moderate protein calorie malnutrition	0.549	0
J45.51 Severe persistent Asthma	0	0.818
I48.0 Paroxysmal atrial fibrillation	0.268	0.299
N18.31 Chronic kidney disease, stage 3a	0.288	0.127
I11.0 Hypertensive Heart Disease with Heart Failure	0.329	0
I70.0 Atherosclerosis of the Aorta	0.257	0
F32.0 Major depression, single episode, mild	0.388	0

What is the impact of this model change?

While this change may not feel different from a patient care perspective, there are serious implications that come with the loss of these codes. Conditions that carry a RAF score add money to the patient's budget for their care. ACOs may have a higher proportion of patients with conditions weighted lower under the V28 model compared to V24, causing a dip in RAF scores across the population and reducing the benchmark available for the patient population to spend on their care. This means that documenting and capturing every ICD-10 code yearly is now more important than ever before.

V28 Categories Most Impacted

Cancers and Neoplasms	Diabetes with Complications	Vascular Disease	Major Depression
Dementia	Psychiatric and other Neurological Diseases	Blood and Immune Disorders	Metabolic Diseases

V28 Model Best Practices

While the V28 model is not ideal, there are ways to promote success with the model:

1. Educate clinical staff on how to document and code to the highest level of specificity (this is essential for financial success).
2. Allocate staff to scrubbing charts and prioritize accurate coding corrections by establishing a query process between providers and coders. Encourage and support coders in providing education on omissions and/or errors based on chart review findings.
3. Promote interdepartmental communications between providers and coders to answer questions and build strong collaboration and understanding.
4. Have providers and coders meet quarterly to discuss coding practices and to provide HCC data and education.
5. Create a provider compliance program to incentivize providers for good performance in risk adjustment.
6. Utilize data to risk-stratify patient outreach based on the severity of illness and open HCC opportunities.
7. Maintain a clinic-wide culture around the importance of coding and promote the same level of coding intensity throughout the year, rather than waiting until the end of the year.
8. Provide clinical staff with data on their performance for their populations at least quarterly.
9. Ensure that HCC gap suspecting logic in EMR systems and coding software is up to date with V28 model methodology to ensure opportunities presented by V28 are not missed.

V28 HCC Categories

HCC Category	Category Type	Approximate RAF	Estimated Average Budget for Patient Care
HCC1	HIV/AIDS	0.301	~ \$3,000
HCC2	Septicemia, Sepsis, Systemic Inflammatory Response Syndrome/Shock	0.5	~ \$5,200
HCC6	Opportunistic Infections	0.381	~ \$5,000
HCC17	Cancer Metastatic to Lung, Liver, Brain, and Other Organs; Acute Myeloid Leukemia Except Promyelocytic	4.209	~\$1,900 - \$43,000 *depends on type and severity of cancer.
HCC18	Cancer Metastatic to Bone, Other and Unspecified Metastatic Cancer; Acute Leukemia Except Myeloid	2.341	
HCC19	Myelodysplastic Syndromes, Multiple Myeloma, and Other Cancers	1.798	
HCC20	Lung and Other Severe Cancers	1.136	
HCC21	Lymphoma and Other Cancers	0.671	

HCC Category	Category Type	Approximate RAF	Estimated Average Budget for Patient Care
HCC22	Bladder, Colorectal, and Other Cancers	0.363	~ \$9,800
HCC23	Prostate, Breast, and Other Cancers and Tumors	0.186	
HCC35	Pancreas Transplant Status	0.949	
HCC36	Diabetes with Severe Acute Complications	0.166	~ \$1,700
HCC37	Diabetes with Chronic Complications	0.166	
HCC38	Diabetes with Glycemic, Unspecified, or No Complications	0.166	
HCC48	Morbid Obesity	0.186	~ \$1,900
HCC49	Specified Lysosomal Storage Disorders	9.256	~ \$92,000-\$97,000
HCC50	Amyloidosis, Porphyria, and Other Specified Metabolic Disorders	0.648	~ \$6,700
HCC51	Addison's and Cushing's Diseases, Acromegaly, and Other Specified Endocrine Disorders	0.51	~ \$5,300
HCC62	Liver Transplant Status/Complications	0.376	~ \$3,900
HCC63	Chronic Liver Failure/End-Stage Liver Disorders	0.962	~ \$10,000
HCC64	Cirrhosis of Liver	0.447	~ \$4,000
HCC65	Chronic Hepatitis	0.185	~ \$1,800
HCC68	Cholangitis and Obstruction of Bile Duct Without Gallstones	0.388	~ \$4,000
HCC77	Intestine Transplant Status/Complications	1.172	~ \$12,000
HCC78	Intestinal Obstruction/Perforation	0.326	~ \$3,200
HCC79	Chronic Pancreatitis	0.357	~ \$3,700
HCC80	Crohn's Disease (Regional Enteritis)	0.55	~ \$5,700
HCC81	Ulcerative Colitis	0.244	~ \$2,500
HCC92	Bone/Joint/Muscle/Severe Soft Tissue Infections/Necrosis	0.479	~ \$4,900
HCC93	Rheumatoid Arthritis and Other Specified Inflammatory Rheumatic Disorders	0.617	~ \$6,400
HCC94	Systemic Lupus Erythematosus and Other Specified Systemic Connective Tissue Disorders	0.268	~ \$2,700
HCC107	Sickle Cell Anemia (Hb-SS) and Thalassemia Beta Zero	0.457	~ \$4,700
HCC108	Sickle Cell Disorders, Except Sickle Cell Anemia (Hb-SS) and Thalassemia Beta Zero; Beta Thalassemia Major	0.146	~ \$1,500
HCC109	Acquired Hemolytic, Aplastic, and Sideroblastic Anemias	1.144	~ \$11,900
HCC111	Hemophilia, Male	4.639	~ \$48,000
HCC112	Immune Thrombocytopenia and Specified Coagulation Defects and Hemorrhagic Conditions	0.45	~ \$4,600
HCC114	Common Variable and Combined Immunodeficiencies	2.262	~ \$23,500
HCC115	Specified Immunodeficiencies and White Blood Cell Disorders	0.565	~ \$5,800
HCC125	Dementia, Severe	0.341	~ \$3,500
HCC126	Dementia, Moderate	0.341	
HCC127	Dementia, Mild or Unspecified	0.341	
HCC135	Drug Use with Psychotic Complications	0.424	~ \$4,400
HCC136	Alcohol Use with Psychotic Complications	0.424	
HCC137	Drug Use Disorder, Moderate/Severe, or Drug Use with Non-Psychotic Complications	0.424	
HCC138	Drug Use Disorder, Mild, Uncomplicated, Except Cannabis	0.423	~ \$4,300
HCC139	Alcohol Use Disorder, Moderate/Severe, or Alcohol Use with Specified Non-Psychotic Complications	0.242	~ \$2,500
HCC151	Schizophrenia	0.511	~ \$5,300
HCC152	Psychosis, Except Schizophrenia	0.484	~ \$5,000
HCC153	Personality Disorders; Anorexia/Bulimia Nervosa	0.396	~ \$4,100
HCC154	Bipolar Disorders without Psychosis	0.351	~ \$3,600
HCC155	Major Depression, Moderate or Severe, without Psychosis	0.299	~ \$3,100
HCC180	Quadriplegia	1.125	~ \$11,700
HCC181	Paraplegia	0.942	~ \$9,700
HCC182	Spinal Cord Disorders/Injuries	0.478	~ \$4,900
HCC190	Amyotrophic Lateral Sclerosis and Other Motor Neuron Disease, Spinal Muscular Atrophy	1.175	~ \$12,200
HCC191	Quadriplegic Cerebral Palsy	0.855	~ \$8,800
HCC192	Cerebral Palsy, Except Quadriplegic	0.314	~ \$3,200

HCC Category	Category Type	Approximate RAF	Estimated Average Budget for Patient Care
HCC193	Chronic Inflammatory Demyelinating Polyneuritis and Multifocal Motor Neuropathy	1.692	~ \$17,600
HCC195	Myasthenia Gravis with (Acute) Exacerbation	2.909	~ \$30,200
HCC196	Myasthenia Gravis without (Acute) Exacerbation and Other Myoneural Disorders	0.516	~ \$5,300
HCC197	Muscular Dystrophy	0.426	~ \$4,400
HCC198	Multiple Sclerosis	0.647	~ \$6,700
HCC199	Parkinson and Other Degenerative Disease of Basal Ganglia	0.615	~ \$6,300
HCC200	Friedreich and Other Hereditary Ataxias; Huntington Disease	0.279	~ \$2,900
HCC201	Seizure Disorders and Convulsions	0.245	~ \$2,500
HCC202	Coma, Brain Compression/Anoxic Damage	0.543	~ \$5,600
HCC211	Respirator Dependence/Tracheostomy Status/Complications	0.879	~ \$9,100
HCC212	Respiratory Arrest	0.37	~ \$3,800
HCC213	Cardio-Respiratory Failure and Shock	0.37	~ \$3,800
HCC221	Heart Transplant Status/Complications	1.053	~ \$10,900
HCC222	End-Stage Heart Failure	2.505	~ \$26,000
HCC223	Heart Failure with Heart Assist Device/Artificial Heart	2.505	
HCC224	Acute on Chronic Heart Failure	0.36	~ \$3,700
HCC225	Acute Heart Failure (Excludes Acute on Chronic)	0.36	
HCC226	Heart Failure, Except End-Stage and Acute	0.36	
HCC227	Cardiomyopathy/Myocarditis	0.189	~ \$1,900
HCC228	Acute Myocardial Infarction	0.252	~ \$2,600
HCC229	Unstable Angina and Other Acute Ischemic Heart Disease	0.24	~ \$2,400
HCC238	Specified Heart Arrhythmias	0.299	~ \$3,100
HCC248	Intracranial Hemorrhage	0.239	~ \$2,400
HCC249	Ischemic or Unspecified Stroke	0.239	
HCC253	Hemiplegia/Hemiparesis	0.387	~ \$4,000
HCC254	Monoplegia, Other Paralytic Syndromes	0.321	~ \$3,300
HCC263	Atherosclerosis of Arteries of the Extremities with Ulceration or Gangrene	1.118	~ \$11,600
HCC264	Vascular Disease with Complications	0.455	~ \$4,700
HCC267	Deep Vein Thrombosis and Pulmonary Embolism	0.294	~ \$3,000
HCC276	Lung Transplant Status/Complications	2.531	~ \$26,300
HCC277	Cystic Fibrosis	0.998	~ \$10,300
HCC278	Idiopathic Pulmonary Fibrosis and Lung Involvement in Systemic Sclerosis	0.818	~ \$8,500
HCC279	Severe Persistent Asthma	0.818	
HCC280	Chronic Obstructive Pulmonary Disease, Interstitial Lung Disorders, and Other Chronic Lung Disorders	0.319	~ \$3,300
HCC282	Aspiration and Specified Bacterial Pneumonias	0.44	~ \$4,500
HCC283	Empyema, Lung Abscess	0.204	~ \$2,100
HCC298	Severe Diabetic Eye Disease, Retinal Vein Occlusion, and Vitreous Hemorrhage	0.336	~ \$3,400
HCC300	Exudative Macular Degeneration	0.596	~ \$6,100
HCC326	Chronic Kidney Disease, Stage 5	0.815	~ \$8,400
HCC327	Chronic Kidney Disease, Severe (Stage 4)	0.514	~ \$5,300
HCC328	Chronic Kidney Disease, Moderate (Stage 3B)	0.127	~ \$1,300
HCC329	Chronic Kidney Disease, Moderate (Stage 3, Except 3B)	0.127	
HCC379	Pressure Ulcer of Skin with Necrosis Through to Muscle, Tendon, or Bone	1.965	~ \$20,400
HCC380	Chronic Ulcer of Skin, Except Pressure, Through to Bone or Muscle	1.078	~ \$11,200
HCC381	Pressure Ulcer of Skin with Full Thickness Skin Loss	1.075	~ \$11,100
HCC382	Pressure Ulcer of Skin with Partial Thickness Skin Loss	0.838	~ \$8,700
HCC383	Chronic Ulcer of Skin, Except Pressure, Not Specified as Through to Bone or Muscle	0.646	~ \$6,700
HCC385	Severe Skin Burn	1.291	~ \$13,400
HCC387	Pemphigus, Pemphigoid, and Other Specified Autoimmune Skin Disorders	0.406	~ \$4,200
HCC397	Major Head Injury with Loss of Consciousness > 1 Hour	0.199	~ \$2,000

HCC Category	Category Type	Approximate RAF	Estimated Average Budget for Patient Care
HCC398	Major Head Injury with Loss of Consciousness < 1 Hour or Unspecified	0.199	
HCC399	Major Head Injury without Loss of Consciousness	0.199	
HCC401	Vertebral Fractures without Spinal Cord Injury	0.522	~ \$5,400
HCC402	Hip Fracture/Dislocation	0.467	~ \$4,800
HCC405	Traumatic Amputations and Complications	0.598	~ \$6,000- \$8,000
HCC409	Amputation Status, Lower Limb/Amputation Complications	0.598	
HCC454	Stem Cell, Including Bone Marrow, Transplant Status/Complications	1.068	~ \$11,100
HCC463	Artificial Openings for Feeding or Elimination	0.673	~ \$7,000

References

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2. [Understanding The Changes In The CMS-HCC Model V28 - AGS Health](#)
3. [New V28 CMS-HCC model may impact 2023 ACO priorities and 2024 decisions | VBCExhibitHall Library](#)
4. [How to calculate revenue from RAF scores](#)