

# Provider cost-efficiency score

## OVERVIEW OF SCORE

Efficient beneficiary care is important for reducing waste and increasing healthcare sustainability. The provider cost-efficiency score evaluates the cost of care managed by Primary Care Managers (PCM) and specialists. This score identifies providers who efficiently manage costs across episodes of care. With 755 different episode types, providers have numerous opportunities to impact their cost-efficiency. Providers are compared to their peers' case-mix adjusted performance in the same geography. Providers who perform well on their specialty-specific measure set are associated with a lower cost of care for the TRICARE population.

Scores are calculated only where Humana Military requirements are met-when there is sufficient data volume, statistical credibility, minimum peer volume, etc.

## Episode of care methodology

### APPROACH

Humana Military bundles TRICARE East beneficiaries' experiences in medical, pharmacy and lab claims into episodes of care attributed to a single responsible provider. An episode represents more than a provider's direct spending, including the total amount for clinical and resource homogenous services for which a provider is the largest contributor. The episodes are calculated through widely-used industry software as a basis to review providers' costs.

## Score process

### EVALUATED SPECIALTIES

- Advanced Practice Midwife
- Allergy & Immunology
- Anesthesiology
- Counselor
- Dermatology
- Emergency Medicine
- Family Medicine
- General Practice
- Internal Medicine
- Marriage & Family Therapist
- Midwife
- Neurological Surgery
- Nurse Practitioner
- Obstetrics & Gynecology
- Occupational Therapist
- Ophthalmology
- Optometrist
- Orthopaedic Surgery
- Otolaryngology
- Pain Medicine
- Pediatrics
- Physical Medicine & Rehabilitation
- Physical Therapist
- Physician Assistant
- Podiatrist
- Psychiatry & Neurology
- Psychologist
- Social Worker
- Speech-Language Pathologist
- Surgery
- Urology

**Note:** See appendix for specialties and associated measures

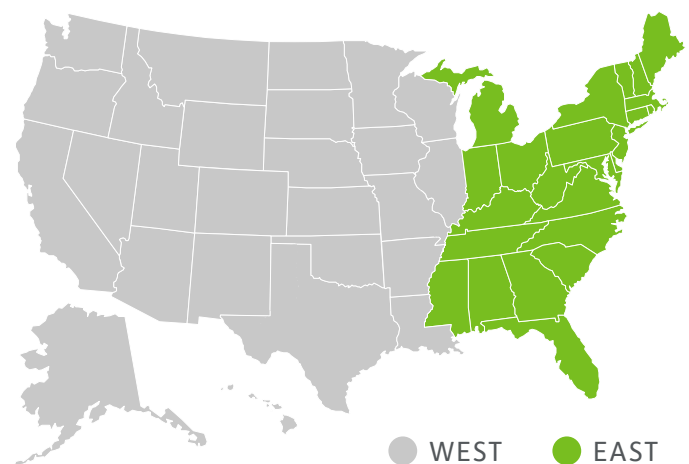
### MEASUREMENT LEVEL

TRICARE providers are identified by their Tax Identification Numbers (TIN) and National Provider Identifiers (NPI).

### GEOGRAPHIC AREAS

Geographic areas include states in the TRICARE East Region of the United States.

### MAP OF STATES COVERED



### PEER GROUPS

Peer groups include providers of the same specialty and case-mix adjusted episodes within the same state. Providers working in multiple states will be evaluated per the volume performed in each state as outlined on the following pages.

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## FREQUENCY OF EVALUATION

The cost-efficiency scores are updated on a quarterly basis.

## MINIMUM VOLUME REQUIREMENTS

The cost-efficiency score is measured for all providers in the specialty/episode target list who have a minimum of ten episodes and five beneficiaries.

Each peer group will contain at least 100 episodes for providers to be individually compared against. Providers are often in more than one peer group.

Each specialty/state must contain at least 10 providers.

## PROVIDER ATTRIBUTION

Providers who contribute the highest total allowed amount for evaluation and management and/or surgery

costs are the attributed provider. The attributed provider is considered the director of care for treating that patient's condition.

## SCORE METHODOLOGY

Humana Military scores providers for cost-efficiency only when there is sufficient volume and minimum number of peers available.

Humana Military uses a weighted average approach to create a composite score for individual providers and their peer group(s). Humana Military then compares the actual score of the individual provider over the expected score of the peer group(s) to create a performance index that exhibits individual performance versus peers.

The performance index is converted using a percentile evaluated at the provider specialty/state level. Each score is assigned points based on the percentile distribution.

## SCORING OUTPUT EXAMPLE

Example: Provider A – Internal medicine – Jacksonville, Florida

Specialty	State	ETG full description	Severity level	Provider total episodes	Average provider amount	Average peer amount
Internal medicine	FL	Septicemia, w/o complication, with surgery	2	10	\$3,600.00	\$3,400.00
Internal medicine	FL	Septicemia, with complication, w/o surgery	3	2	\$3,100.00	\$3,150.00
Internal medicine	FL	Bacteria; lung infections, with complication, w/o comorbic	3	25	\$1,200.00	\$900.00
Internal medicine	FL	Infection of upper genitourinary system, w/o surgery	1	13	\$745.00	\$950.00
Internal medicine	FL	Infection of upper genitourinary system, with surgery	2	4	\$1,780.00	\$1,875.00
Internal medicine	FL	Total weighted cost			\$1,648.24	\$1,530.56
<b>Performance index</b>					<b>1.08</b>	

Actual performance <sup>1</sup>	Expected performance <sup>2</sup>	Performance index <sup>3</sup>
\$1,648.24	\$1,530.56	1.08

<sup>1</sup> Actual performance: provider's individual performance rate

<sup>2</sup> Expected performance: provider's peer group performance rate weighted by the number of provider episodes

<sup>3</sup> Performance index: >1 = low score, 1.0 = average score, <1 = high score (i.e. equals 8% higher costs than peers)

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## Appendix

Covers brief descriptions of the episode types assigned to each specialty.

Specialty description	Episode types
Advanced practice midwife	contraceptive management, pregnancy
Allergy and immunology	acute sinusitis, asthma, chronic sinusitis, conjunctivitis, contact dermatitis, environmental trauma, immunodeficiencies, isolated signs, poisonings and toxic effects of drugs, rhinitis
Anesthesiology	joint degeneration
Counselor	alcohol dependence, anxiety disorder or phobias, attention deficit disorder, autism spectrum disorders, mood disorder
Dermatology	acne, autoimmune rheumatologic diseases, bacterial infection of skin, chronic skin ulcers, contact dermatitis, dermatological signs and symptoms, fungal skin infection, malignant neoplasm of skin, non-malignant neoplasm of skin, parasitic skin infection, psoriasis, viral skin infection
Emergency medicine	acute bronchitis, acute renal failure, acute sinusitis, alcohol dependence, asthma, bacterial infection of skin, bacterial lung infections, brain trauma, cerebral vascular disease, chronic pancreatitis, chronic sinusitis, congestive heart failure, exposure to infectious diseases, gastroenterology diseases signs and symptoms, hypertension, infection of lower genitourinary system, infection of upper genitourinary system, inflammation of esophagus, inflammation of genitourinary system, ischemic heart disease, joint degeneration, kidney stones, low back pain syndrome, migraine headache, minor orthopedic injury - foot and ankle, minor orthopedic injury - hand, mood disorder, open wound - head and face, opioid or barbiturate dependence, orthopedic signs and symptoms - knee and lower leg, other drug dependence, other infectious diseases, otitis media, otolaryngology diseases signs and symptoms, pulmonary embolism, rhinitis, skin trauma, spinal trauma, tonsillitis, viral pneumonia
Family medicine	acne, acute bronchitis, acute renal failure, acute sinusitis, alcohol dependence, anxiety disorder or phobias, asthma, attention deficit disorder, autoimmune rheumatologic diseases, bacterial infection of skin, bacterial lung infections, brain trauma, cerebral vascular disease, chronic obstructive pulmonary disease, chronic pancreatitis, chronic sinusitis, conditions associated with menstruation, congenital disorders of central nervous system, congestive heart failure, conjunctivitis, contact dermatitis, contraceptive management, diabetes, exposure to infectious diseases, gastroenterology diseases signs and symptoms, hereditary and degenerative diseases of central nervous system, hypertension, hypo-functioning thyroid gland, immunization encounter, infection of lower genitourinary system, inflammation of esophagus, ischemic heart disease, isolated signs, joint degeneration, low back pain syndrome, migraine headache, minor orthopedic injury - foot and ankle, minor orthopedic injury - hand, mood disorder, multiple sclerosis, neonatal prematurity, non-malignant neoplasm of skin, non-routine inoculation, nutritional deficiency, obesity, obstructive sleep apnea, opioid or barbiturate dependence, orthopedic signs and symptoms - back, orthopedic signs and symptoms - knee and lower leg, other drug dependence, other infectious diseases, otitis media, otolaryngology diseases signs and symptoms, pulmonary embolism, rhinitis, routine exam, tonsillitis, viral pneumonia

Measures generated with Optum Episode Treatment Groups (ETG) software.

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Specialty description	Episode types
General practice	acne, acute bronchitis, acute sinusitis, alcohol dependence, anxiety disorder or phobias, asthma, attention deficit disorder, autoimmune rheumatologic diseases, bacterial infection of skin, chronic sinusitis, conditions associated with menstruation, conjunctivitis, diabetes, exposure to infectious diseases, gastroenterology diseases signs and symptoms, hypertension, hypo-functioning thyroid gland, infection of lower genitourinary system, isolated signs, joint degeneration, low back pain syndrome, migraine headache, mood disorder, neurological diseases signs and symptoms, non-malignant neoplasm of breast, nutritional deficiency, obesity, orthopedic signs and symptoms - back, otitis media, otolaryngology diseases signs and symptoms, rhinitis, routine exam, tonsillitis, viral pneumonia
Internal medicine	acne, acute bronchitis, acute renal failure, acute sinusitis, adult rheumatoid arthritis, alcohol dependence, anxiety disorder or phobias, arterial inflammation, asthma, atrial fibrillation and flutter, autoimmune rheumatologic diseases, bacterial lung infections, cardiac congenital disorder, cardiovascular diseases signs and symptoms, cerebral vascular disease, chronic obstructive pulmonary disease, chronic pancreatitis, chronic renal failure, chronic sinusitis, cirrhosis, congenital disorders of central nervous system, congestive heart failure, diabetes, diverticulitis and diverticulosis, exposure to infectious diseases, gastroenterology diseases signs and symptoms, hemorrhoids, hereditary and degenerative diseases of central nervous system, hypertension, hypo-functioning thyroid gland, immunization encounter, infection of lower genitourinary system, inflammation of esophagus, inflammatory bowel disease, iron deficiency anemia, irritable bowel syndrome, ischemic heart disease, joint degeneration, leukemia, low back pain syndrome, lymphoma, malignant neoplasm of breast, malignant neoplasm of large intestine, malignant neoplasm of pulmonary system, malignant neoplasm of rectum or anus, migraine headache, mood disorder, multiple myeloma, multiple sclerosis, non-malignant neoplasm of intestines and abdomen, non-routine inoculation, nutritional deficiency, obesity, obstructive sleep apnea, other drug dependence, other infectious diseases, otitis media, pulmonary embolism, rhinitis, routine exam, septicemia, spinal trauma, tonsillitis, ulcer, valvular disorder, viral pneumonia
Marriage and family therapist	anxiety disorder or phobias, mood disorder
Midwife	contraceptive management, pregnancy
Neurological surgery	brain trauma, carpal tunnel syndrome, cerebral vascular disease, congenital disorders of central nervous system, inflammation of non-cranial nerves, joint degeneration, mood disorder, non-malignant neoplasm of central nervous system, spinal trauma

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Specialty description	Episode types
Nurse practitioner	acne, acute bronchitis, acute renal failure, acute sinusitis, alcohol dependence, anxiety disorder or phobias, arterial inflammation, asthma, atrial fibrillation and flutter, attention deficit disorder, autoimmune rheumatologic diseases, bacterial infection of skin, cardiovascular diseases signs and symptoms, cerebral vascular disease, chronic sinusitis, conditions associated with menstruation, congenital disorders of central nervous system, conjunctivitis, diabetes, environmental trauma, exposure to infectious diseases, gastroenterology diseases signs and symptoms, hypertension, hypo-functioning thyroid gland, immunization encounter, infection of lower genitourinary system, inflammation of esophagus, ischemic heart disease, isolated signs, joint degeneration, low back pain syndrome, migraine headache, minor orthopedic injury - foot and ankle, minor orthopedic injury - hand, mood disorder, multiple sclerosis, neonatal prematurity, neurological diseases signs and symptoms, non-malignant neoplasm of breast, non-routine inoculation, nutritional deficiency, obesity, obstructive sleep apnea, orthopedic signs and symptoms - back, orthopedic signs and symptoms - knee and lower leg, other drug dependence, other infectious diseases, otitis media, otolaryngology diseases signs and symptoms, rhinitis, routine exam, tonsillitis, viral pneumonia
Obstetrics and gynecology	conditions associated with infertility, conditions associated with menstruation, contraceptive management, endometriosis, exposure to infectious diseases, gynecological signs and symptoms, infection of lower genitourinary system, infection of vagina except monilial, inflammatory condition of female genital tract, mood disorder, non-malignant neoplasm of female genital tract, obesity, pregnancy, routine exam, urinary incontinence
Occupational therapist	attention deficit disorder, autism spectrum disorders, cerebral vascular disease, chromosomal anomalies, congenital disorders of central nervous system, development disorder, hereditary and degenerative diseases of central nervous system, isolated signs, neurological diseases signs and symptoms
Ophthalmology	cataract, congenital anomaly of eye, conjunctivitis, diabetic retinopathy, external eye infection, glaucoma, inflammatory eye disease, macular degeneration, non-diabetic vascular retinopathy, non-macular degeneration, other degenerative disorders of eye, routine exam, trauma of eye, visual disturbances
Optometrist	cataract, conjunctivitis, external eye infection, glaucoma, inflammatory eye disease, non-macular degeneration, other degenerative disorders of eye, routine exam, trauma of eye, visual disturbances

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Specialty description	Episode types
Orthopedic surgery	bursitis and tendinitis - elbow and upper arm, bursitis and tendinitis - foot and ankle, bursitis and tendinitis - shoulder, bursitis and tendinitis - thigh, carpal tunnel syndrome, closed fracture or dislocation of lower extremity - foot and ankle, closed fracture or dislocation of upper extremity - hand, joint degeneration, joint derangement - hand, joint derangement - knee and lower leg, joint derangement - shoulder, major trauma, minor joint inflammation - elbow and upper arm, minor joint inflammation - foot and ankle, minor joint inflammation - shoulder, minor joint inflammation - thigh, minor orthopedic injury - foot and ankle, minor orthopedic injury - shoulder, minor orthopedic trauma - foot and ankle, minor orthopedic trauma - shoulder, orthopedic deformity - back, orthopedic deformity - foot and ankle, orthopedic signs and symptoms - knee and lower leg, orthopedic signs and symptoms - shoulder, spinal trauma
Otolaryngology	acute sinusitis, chronic sinusitis, congenital and acquired anomalies of ear/nose/throat, hearing disorders, inflammation of esophagus, obstructive sleep apnea, otitis media, otolaryngology diseases signs and symptoms, rhinitis, tonsillitis, trauma to ear/nose/throat
Pain medicine	bursitis and tendinitis - thigh, inflammation of non-cranial nerves, joint degeneration, migraine headache, opioid or barbiturate dependence
Pediatrics	acne, acute bronchitis, acute renal failure, acute sinusitis, anxiety disorder or phobias, asthma, attention deficit disorder, autism spectrum disorders, bacterial infection of skin, bacterial lung infections, brain trauma, cardiac congenital disorder, cerebral vascular disease, chromosomal anomalies, chronic sinusitis, congenital disorders of central nervous system, conjunctivitis, development disorder, diabetes, exposure to infectious diseases, gastroenterology diseases signs and symptoms, hereditary and degenerative diseases of central nervous system, immunization encounter, inflammation of esophagus, isolated signs, leukemia, low back pain syndrome, minor orthopedic injury - foot and ankle, minor orthopedic injury - hand, mood disorder, neonatal prematurity, neurological diseases signs and symptoms, non-routine inoculation, obesity, obstructive sleep apnea, orthopedic signs and symptoms - knee and lower leg, other infectious diseases, otitis media, otolaryngology diseases signs and symptoms, rhinitis, routine exam, routine inoculation, tonsillitis, uncomplicated neonatal management, viral pneumonia
Physical medicine and rehabilitation	brain trauma, cerebral vascular disease, hereditary and degenerative diseases of central nervous system, joint degeneration, spinal trauma

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Specialty description	Episode types
Physical therapist	bursitis and tendinitis - elbow and upper arm, bursitis and tendinitis - foot and ankle, bursitis and tendinitis - knee and lower leg, bursitis and tendinitis - shoulder, bursitis and tendinitis - thigh, cerebral vascular disease, chromosomal anomalies, congenital disorders of central nervous system, development disorder, hereditary and degenerative diseases of central nervous system, isolated signs, joint degeneration, joint derangement - foot and ankle, joint derangement - hand, joint derangement - knee and lower leg, joint derangement - shoulder, joint derangement - thigh, low back pain syndrome, minor joint inflammation - elbow and upper arm, minor joint inflammation - foot and ankle, minor joint inflammation - knee and lower leg, minor joint inflammation - shoulder, minor joint inflammation - thigh, minor orthopedic injury - back, minor orthopedic injury - foot and ankle, minor orthopedic injury - knee and lower leg, minor orthopedic injury - neck, minor orthopedic injury - shoulder, minor orthopedic injury - thigh, minor orthopedic trauma - back, minor orthopedic trauma - foot and ankle, minor orthopedic trauma - knee and lower leg, minor orthopedic trauma - neck, minor orthopedic trauma - shoulder, minor orthopedic trauma - thigh, multiple sclerosis, neurological diseases signs and symptoms, orthopedic deformity - back, orthopedic deformity - foot and ankle, orthopedic deformity - head and face, orthopedic signs and symptoms - back, orthopedic signs and symptoms - knee and lower leg, orthopedic signs and symptoms - neck, orthopedic signs and symptoms - shoulder, orthopedic signs and symptoms - thigh
Physician assistant	acne, acute bronchitis, acute renal failure, acute sinusitis, adult rheumatoid arthritis, alcohol dependence, anxiety disorder or phobias, arterial inflammation, asthma, atrial fibrillation and flutter, attention deficit disorder, autoimmune rheumatologic diseases, cardiovascular diseases signs and symptoms, cerebral vascular disease, chronic obstructive pulmonary disease, chronic sinusitis, congenital disorders of central nervous system, diabetes, diverticulitis and diverticulosis, exposure to infectious diseases, gastroenterology diseases signs and symptoms, hemorrhoids, hypertension, hypo-functioning thyroid gland, immunization encounter, infection of lower genitourinary system, inflammation of esophagus, inflammatory bowel disease, irritable bowel syndrome, ischemic heart disease, joint degeneration, low back pain syndrome, migraine headache, minor orthopedic injury - foot and ankle, minor orthopedic injury - hand, mood disorder, multiple sclerosis, neurological diseases signs and symptoms, non-malignant neoplasm of breast, non-malignant neoplasm of intestines and abdomen, non-malignant neoplasm of skin, non-routine inoculation, nutritional deficiency, obesity, obstructive sleep apnea, orthopedic signs and symptoms - knee and lower leg, other drug dependence, other infectious diseases, otitis media, otolaryngology diseases signs and symptoms, rhinitis, routine exam, tonsillitis, viral pneumonia
Podiatrist	bacterial infection of skin, bursitis and tendinitis - foot and ankle, closed fracture or dislocation of lower extremity - foot and ankle, diabetes, fungal skin infection, inflammation of non-cranial nerves, joint degeneration, minor joint inflammation - foot and ankle, minor orthopedic injury - foot and ankle, orthopedic deformity - foot and ankle, viral skin infection

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Specialty description	Episode types
Psychiatry and neurology	alcohol dependence, anxiety disorder or phobias, attention deficit disorder, autism spectrum disorders, brain trauma, cerebral vascular disease, congenital disorders of central nervous system, epilepsy, hereditary and degenerative diseases of central nervous system, inflammation of non-cranial nerves, isolated signs, joint degeneration, mental disorders, migraine headache, mood disorder, multiple sclerosis, neurological diseases signs and symptoms, obesity, obstructive sleep apnea, opioid or barbiturate dependence, other drug dependence, psychotic and schizophrenic disorders
Psychologist	alcohol dependence, anxiety disorder or phobias, attention deficit disorder, autism spectrum disorders, mood disorder, neurological diseases signs and symptoms, obesity
Social worker	alcohol dependence, anxiety disorder or phobias, attention deficit disorder, autism spectrum disorders, mood disorder, obesity, psychotic and schizophrenic disorders
Speech-language pathologist	autism spectrum disorders, chromosomal anomalies, development disorder, hereditary and degenerative diseases of central nervous system, isolated signs
Surgery	appendicitis, arterial inflammation, bowel obstruction, cholelithiasis, diverticulitis and diverticulosis, gastroenterology diseases signs and symptoms, hemorrhoids, hernias, inflammation of esophagus, ischemic heart disease, malignant neoplasm of breast, malignant neoplasm of large intestine, malignant neoplasm of rectum or anus, non-malignant neoplasm of breast, non-malignant neoplasm of skin, obesity, routine exam, varicose veins of lower extremity
Urology	gynecological signs and symptoms, infection of lower genitourinary system, inflammation of genitourinary system, kidney stones, male sex gland disorders, malignant neoplasm of genitourinary system, malignant neoplasm of prostate, non-malignant neoplasm of female genital tract, non-malignant neoplasm of prostate, urinary incontinence, urological diseases signs and symptoms

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