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Methodology Contents

Understanding Aetna Smart Compare® methodology, 2025

Introduction

Aetna Smart Compare analyzes physician practices using Commercial plan data, so we can provide members actionable information about high-quality, efficient or effective physicians in their plan networks. To ensure designated providers are high-quality, we use a clinical quality gate before we evaluate effectiveness.

Our members will see “quality and effective care” in our digital search tools when a practice meets both clinical quality and effectiveness metrics. We communicate designated providers to members in our proactive member outreach efforts and when members contact customer service. We may also use the results of this program to select providers for our performance networks.

In California and Texas, Aetna Smart Compare designations for commercial plans are only for self-insured plans. Members excluded from the program will not see designations in the Aetna® secure member website.

This methodology describes common elements of our designations. You can also find a reference guide for some of our most common variables by visiting Aetna.com/smartcompare. In 2025, these specialties, procedures, and business lines are designated by Aetna Smart Compare under the following programs.

Programs available in 2025, Table 1

Program	Specialties	Version
Behavioral Health: Psychiatry	Psychiatry	2025
Cardiology	General Cardiology (Non-surgical)	2025
Cardiothoracic Surgery	Cardiothoracic Surgeon	2025
Endocrinology	Endocrinologists	2025
Gastroenterology	Gastroenterologists	2025
General Surgery	Surgeons	2025
Medical Oncology	Medical Oncologists	2024

Neurology	Neurologists	2025
Neurosurgery	Neurosurgeons	2025
Ob/gyn	Gynecologists and Obstetricians, as well as associated midwives, physicians' assistants and nurse practitioners	2025
Orthopedics	Orthopedists	2025
Otolaryngology	Otolaryngologist	2025
Plastic Surgery	General Surgery, Plastic Surgery	2025
PCP	Internal Medicine, General Pediatrics, and Family Medicine physicians, as well as associated physicians' assistants and nurse practitioners	2025
Pulmonary medicine	Pulmonologists	2025
Urology	Urologists	2025
Vascular Surgery	Surgeons performing surgeries related to vasculature	2025

Designation and categories of measure

Each program in Aetna Smart Compare has a quality gate to ensure physicians providing services at an exceptional level are evaluated for effectiveness in the program. The category (designation) may have one or more subcategories, and those may have many more individual measures. For instance, all effectiveness designations use episodes of care, of which there are hundreds in the primary care physician (PCP) program.

Categories and subcategory outcomes, Table 2

Quality gate earned	Your physician performance meets our benchmarks. This outcome indicates you passed the quality gate, and you were evaluated for effectiveness (Designation earned if you meet effectiveness standards.)
Quality gate not earned	Your physician performance is below our benchmarks. This outcome indicates you did not pass the quality gate, and you are not evaluated for effectiveness.
Effectiveness earned	Your physician performance is better than our benchmarks, and this result is statistically significant in our models.
Performance criteria not met	Your physician performance is below our benchmarks, and this result is statistically significant in our models.
Performance not statistically significant	Your physician performance is not statistically significant in our models.
Subcategory earned	Your physicians' performance is better than our benchmark for a specific subcategory, and this result is statistically significant in our models.

Designation earned	You are designated in Aetna Smart Compare. Members will see "quality & effective care" badge in our portals.
Designation not earned	You are not designated in Aetna Smart Compare.
Not evaluated	Your physicians did not pass the quality gate, so they are not evaluated for effectiveness. You are not designated in Aetna Smart Compare.
Volume insufficient	You did not see the amount of Aetna members our models require for evaluation. You are not designated in Aetna Smart Compare.

Program thresholds

Each specialty program designation in Aetna Smart Compare has volume criteria to ensure statistical significance. If applicable, the subcategories in each designation often have volume criterion too. Where a physician practice does not meet volume thresholds, it is not eligible for the program, designation or subcategories of the designation. For some designations, we also exclude high-cost claimants.

Minimum episode volume thresholds, Table 3

Specialty program	Episode count
Behavioral Health: Psychiatry	5
Cardiology	5
Cardiothoracic Surgery	6
Endocrinology	5
Gastroenterology	5
General Surgery	5
Medical Oncology	-
Neurology	5
Neurosurgery	5
Ob/gyn: gynecology	5
Ob/gyn: obstetrics	10
Orthopedics	5
Otolaryngology	5
Plastic Surgery	5
PCP: Adults	20
PCP: Pediatrics	20
Pulmonology	5
Urology	6
Vascular Surgery	5

Pediatric physicians

This program does not measure pediatric subspecialties for most specialty programs, so we exclude provider episodes where the majority of conditions are managed for members younger than 18 years of age. We also exclude episodes for all members younger than 18.

Except for the programs for PCP and Behavioral Health: Psychiatry, we exclude pediatric physicians from programs using machine learning and statistical techniques to identify physicians that primarily treat children and teenagers.

To identify pediatric physicians (or practitioners), we split providers into two groups: providers with strong pediatric indicators (Group A) and all other providers (Group B). Strong pediatric indicators are defined as follows (Group A):

- Providers in the practice have a primary specialty code with a pediatric keyword (e.g. "pediatric," "adolescent," etc.), and
- 100% of their claims are related to pediatric specialty codes

For physicians (or practitioners) clustered or grouped in Group B, we identify pediatric physicians as those who have:

- An average member age equal to 19 or less, and
- Where the percentage of these members is 90 percent or greater, and
- The attributed member count is equal to or greater than the 25th percentile of the total members in this practice.

For each physician (or practitioner) in each practice type (Groups A and B), we build a k-means clustering or grouping model using these features:

- Provider level average member age
- Provider level percentage of young members whose age <= 19
- Boolean index which represents whether a provider's primary specialty code is related with pediatric or not
- Provider level percentage of claims related with pediatric specialty category code
- Boolean index which represents whether a provider's name contains Peds related key words

For physicians (or practitioners) in Group A, all providers clustered using these conditions are considered pediatricians. To account for providers with very small member volumes, we apply the threshold member count greater than or equal to the 25th percentile. Providers with member counts less than the 25th percentile are not considered pediatricians to avoid low volume misidentifications.

Results of 2025 pediatric provider identification (exclusions), Table 4

Specialty program	Total physicians	Total pediatricians removed	Pediatric percentage
Behavioral Health: Psychiatry	-	-	-
Cardiology	30,040	160	0.53%
CT Surgery	4,732	46	0.97%
Endocrinology	8,018	940	11.72%
Gastroenterology	17,542	1,158	6.60%
General Surgery	29,831	378	1.27%
Neurology	22,211	1,558	7.01%
Neurosurgery	5,917	139	2.35%

OBGYN	40,291	75	0.19%
Oncology	-	39	-
Orthopedics	26,560	681	2.56%
Otolaryngology (ENT)	10,438	592	5.67%
PCP	-	-	-
Plastic Surgery	5,210	130	2.50%
Pulmonology	12,647	93	0.74%
Urology	10,332	380	3.68%
Vascular Surgery	4,830	4	0.08%

Claims years

For all effectiveness and quality measures we use most of our Commercial claims from 2022 and 2023[1]. You can see which Commercial products we exclude in the reference guide at **www.aetna.com/smartcompare**.

We exclude all claims in COVID-19 episodes flagged by Optum Symmetry®.

Common attribution

We use our own attribution logic for risk-adjusted utilization (See PCP below) and clinical quality measures (See Quality Gate below).

- If an episode contains a surgical procedure and it is also a major surgery as defined by Aetna, the episode is attributed to the physician who performed that procedure.
- If there are two major surgeries, then the episode is attributed to the physician with the greatest allowed amounts.
  - If there is not a major surgery in the episode, but a minor surgery is found, the episode is attributed to the physician who performed the minor surgery.
  - If there are two minor surgeries, the episode is attributed to the physician with the greatest allowed amounts.

- If there is no surgery present, the episode is attributed to the physician with the highest number of visits based on management records.
  - For physicians tied for highest number of visits, the episode is attributed to the physician with the most direct treatment provided.
  - If there is still more than one physician with the same number of visits and treatments, the episode is attributed to the physician with the highest allowed amount.

In addition to this attribution logic, we often use *involved episodes* in many of our programs. See sections 6-16 to learn more about involved episodes.

[1] Our Medical Oncology program is unchanged from 2024; we continue to use claims from 2021 and 2022.

Standard attribution

We attribute one responsible specialist for each episode of care, using these rules:

- If an episode has a surgical procedure as defined by Symmetry and is also a major surgery as defined by Aetna, we attribute the episode to the physician who performed that procedure.
- If there are two major surgeries, we attribute the episode to the physician with the most allowed amounts.
- If there is a minor surgery (not a major surgery) in the episode, we attribute the episode to the physician who performed the minor surgery.
- If there are two minor surgeries, we attribute the episode to the physician with the most allowed amounts.
- If there is no surgery present, we attribute the episode to the physician with the highest number of visits based on management records as defined by Symmetry.
- If there is still more than one physician with the same number of visits and treatments, we attribute the episode to the physician with the highest allowed amount.

The applicable specialties following this logic are cardiology, cardiothoracic surgery, gastroenterology, general surgery, endocrinology, pulmonary, neurological surgery, orthopedic surgery, otolaryngology, plastic surgery, urology, and vascular surgery.

Primary care physician (PCP) attribution

In the PCP program, we use the following attribution logic for risk-adjusted utilization (see the PCP section below). Episodes of care are attributed using the common attribution method outlined above.

Member attribution is set each calendar quarter using the most recent 24 months of data. The most recent data is available in our data warehouse records one month prior to the start of the calendar quarter. For example, in the calendar quarter starting January 1, members are attributed based on the most recent 24 months of data available in our warehouse as of December. This data will include all claims received and paid through November 30.

If a member has selected a PCP and there is a cap payment made to that PCP, then we attribute to the selected PCP (this will only occur in markets with PCP capitation); or

We look for claims that must contain an outpatient place of service and one of the evaluation and management codes listed below:

- Office or other outpatient visit for evaluation and management: 99201-05; 99211-15
- Home visit for evaluation and management of a new patient: 99341-45; 99347-50
- Prolonged physician service in the office or other outpatient setting requiring direct (face-to-face) patient contact beyond the usual service's first hour: 99354-55
- Prolonged evaluation and management service before and/or after direct (face-to-face) patient care: 99358-59
- Initial comprehensive preventive medicine evaluation and management: 99381-87
- Periodic comprehensive preventive medicine reevaluation and management: 99391-97
- Counseling and/or risk factor reduction intervention: 99401-04; or G-codes 0344, 0402, 0438, 0439

And the rendering physician specialty is equal to Family Practice, Internal Medicine, Pediatrics; or

- If no Primary Care Physician (PCP) visits are found, then we use any claims for physician assistants or nurse practitioners, and
- We use the most recent 12 months of claims for physician assistants and nurse practitioners:
  - If the member has only one visit, then the member will be attributed to the rendering physician's group as defined by tax identification number.
  - If the member has more than one visit and the treating physicians are all with the same group, the member will be attributed to that group.
  - If the member has two or more visits in the current year, and the visits are treated by physicians of two different groups, the member will be attributed to the group with the most recent visit (if the member at least two visits

with that group). Otherwise, we attribute to the group with the greatest number of visits, and if there is a tie, we attribute to the group with the most recent visit; or
- If a member has no PCP claims in the most recent 12 months, we include an additional 12 months of claims prior to the current year and we retry the previous three steps.

Quality gate

Aetna Smart Compare designation program applies a quality gate to ensure consistent evaluation. Where a physician practice does not meet quality gate volume thresholds, it is not eligible for the program, designation or subcategories of the designation.

Quality volume thresholds used in the program are listed in the table below. These volume thresholds ensure that each provider group evaluated has treated enough patients for comparative purposes, while allowing for adequate provider group coverage.

Quality volume thresholds in Aetna Smart Compare 2025, Table 5

Specialty program	Minimum denominator per measure	Minimum measure count per practice
Behavioral Health: Psychiatry	2	2
Cardiology	3	2
Cardiothoracic Surgery	3	2
Endocrinology	3	2
Gastroenterology	3	2
General Surgery	3	2
Medical Oncology	2	1
Neurology	3	2
Neurosurgery	3	2
OBGYN	3	2
Orthopedics	3	2
Otolaryngology	3	2
Plastic Surgery	3	2
PCP	3	2
Pulmonology	2	2
Urology	3	2
Vascular Surgery	3	2
Behavioral Health: Psychiatry	2	2

Clinical Quality measures

The clinical quality gate uses a variety of measures. Most of the measures we use are from Healthcare Effectiveness Data and Information Set (HEDIS). Below is a summary of the measure types available in this guide. We summarize HEDIS and surgical measures below, while measures specific to specialty programs are defined under each specialty program's section below.

We use these measure types in Aetna Smart Compare

- Surgical measures modeled on CMS Merit-Based Incentive Payment System (MIPS) measures[2]
  - Surgical Site Infection (SSI)
  - Surgical Site Complication (RSCR)
- Healthcare Effectiveness Data and Information Set (HEDIS) measures[3]
- Care Considerations® measures from ActiveHealth Management
  - These measures can be found in their respective specialty programs at the end of this guide.
- Other measures informed by national medical societies
  - These measures can be found in their respective specialty programs at the end of this guide.

Surgical measures

In programs that focus on surgical episodes (Orthopedics, General surgery, etc.), we consistently use two measures modeled from CMS Merit-Based Incentive Payment System (MIPS) measures. We summarize these measures below.

Surgical measures in Aetna Smart Compare (2025), Table 6

Measure name	Measure description
Surgical Site Infection	The percentage of members 18 years or older who have an infection within 30 days of a major surgical procedure. We exclude cases with trauma, transplants, fasciotomy, multiple major surgical procedures in the same 30-day timeframe, and any member where the infection was present upon admission.
Surgical Site Complication	The percentage of members 18 years or older who have a complication within 30 days of a major surgical procedure. We exclude cases with trauma, transplants, fasciotomy, multiple major surgical procedures in the same 30-day timeframe, and any member where the complication was present upon admission.

HEDIS

The National Committee for Quality Assurance (NCQA) creates HEDIS measures. We us these to evaluate the quality of preventive care, the outcomes of curative care, and the management of chronic conditions. We code our HEDIS measures using NCQA's HEDIS specifications to align with industry accepted standards.

In addition to HEDIS measures, we are using measures that have been created by Aetna around surgical site infections and complications. These measures are developed in consultation with Aetna Medical Directors to identify the surgical procedures and the complications and infections associated with those procedures.

HEDIS measures in Aetna Smart Compare (2025), Table 7

HEDIS measures	Program	Populations
Advance Care Planning (COA)	PCP, Pulmonary Medicine	Adult
Appropriate testing for pharyngitis (CWP)	PCP	Pediatrics

[2] **https://qpp.cms.gov/mips/explore-measures?tab=qualityMeasures&py=2024**
[3] They are available for purchase at **store.ncqa.org/index.php**

Appropriate treatment for upper respiratory infection (URI)	PCP, Pulmonary Medicine	Adult, Pediatrics
Asthma Medication Ratio (AMR)	PCP, Pulmonary Medicine	Adult, Pediatrics
Avoidance of Antibiotic Treatment for Acute Bronchitis/Bronchiolitis (AAB)	PCP, Pulmonary Medicine	Adult, Pediatrics
Blood Pressure Control for Patients with Diabetes (BPD)	PCP, Endocrinology, Cardiology, Neurology, Vascular Surgery	Adult, Pediatrics
Breast cancer screening (BCS-E)	PCP, Ob/gyn	Adult
Cardiac rehabilitation: Engagement 1 (CRE)	PCP, Cardiology	Adult
Cardiac rehabilitation: Engagement 2 (CRE)	PCP, Cardiology	Adult
Cardiac rehabilitation: Achievement (CRE)	PCP, Cardiology	Adult
Cardiac rehabilitation: Initiation (CRE)	PCP, Cardiology	Adult
Cervical cancer screening (CCS)	PCP, Ob/gyn	Adult
Child and adolescent well-care visits (WCV)	PCP	Pediatrics
Childhood Immunization Status (CIS)	PCP	Pediatrics
Chlamydia screening in women (CHL)	PCP, Ob/gyn	Adult, Pediatrics
Colorectal cancer screening (COL)	PCP, Gastroenterology	Adult
Comprehensive Diabetes Care: Eye exam (retinal) performed (CDC)	Neurology	Adult
Comprehensive Diabetes Care: Hemoglobin A1c (HbA1c) testing (CDC)	PCP	Adult
Controlling high blood pressure (CDC)	PCP, Cardiology, Endocrinology, Neurology, Vascular Surgery	Adult
Eye Exam for Patients With Diabetes (EED)	PCP, Endocrinology	Adult

Hemoglobin A1c Control for Patients with Diabetes: Good Control (HBD)	Endocrinology	Adult
Hemoglobin A1c Control for Patients with Diabetes: Poor Control (HBD)	PCP, Endocrinology	Adult
Immunizations for Adolescents (IMA)	PCP	Pediatrics
Kidney health evaluation for patients with diabetes (KED)	PCP, Endocrinology	Adult
Non-Recommended Cervical Cancer Screening in Adolescent Females (NCS)	Ob/gyn	Peds
Osteoporosis Screening in Older Women (OSW)	PCP	Adult
Persistence of beta-blocker treatment after a heart attack (PBH)	PCP, Cardiology	Adult
Pharmacotherapy management of COPD Exacerbation: Bronchodilators (PCE)	PCP, Pulmonary medicine	Adult
Pharmacotherapy Management of COPD Exacerbation: Systemic Corticosteroids (PCE)	Pulmonary medicine	Adult
Prenatal and Postpartum care (PPC)	Ob/gyn	Adult
Statin therapy for patients with cardiovascular disease: received statin care (SPC)	PCP, Cardiology	Adult
Statin therapy for patients with cardiovascular disease: statin adherence 80% (SPC)	PCP, Cardiology, Vascular Surgery	Adult
Statin therapy for patients with diabetes: received statin therapy (SPD)	Endocrinology, PCP, Cardiology, Vascular Surgery	Adult
Statin therapy for patients with diabetes: statin adherence 80% (SPD)	PCP, Endo, Cardiology, Vascular Surgery	Adult
Timeliness of Prenatal Care (PPC)	Ob/gyn	Adult
Use of spirometry testing in the assessment and diagnosis of COPD (SPR)	PCP, Pulmonary medicine	Adult
Weight assessment and counseling for nutrition and physical activity for children and adolescents (WCC)	PCP	Pediatrics
Well-child visits in the first 30 months of life (W30)	PCP	Pediatrics

Clinical quality: outlier detection model and measures adjustment

We adjust the clinical quality measures with a risk-adjusted and/or physician practice size-adjusted transformation. We transform our quality measures by calculating the physician practice level average risk score for the measure population and physician practice size score, we accomplish this as follows:

- We average risk for members in the denominator of the measure.
- We capture TIN size by the number of associated Aetna members.
- We create a risk factor for some groups that lowers extreme risk toward average risk curves.
- We create an adjusted rate by dividing the actual rate by the average risk adjustment per measure per TIN. If applicable, the risk factor will be added to the risk adjustment formula.
- We scale the adjusted rate using the minimum and maximum adjusted rate per measure for all groups measured from 0 to 1.
- The isolation forest model uses this data to determine outliers.

Isolation forest, a tree-based outlier detection model that evaluates the likeliness of a data point to be unlike others by calculating the number of steps needed for isolating a data point, was selected as the base model to identify outlier practices compared to peers. Similar data points (or non-outliers) travel deeper into the tree-based model based on their likeliness to the normal population, while anomalies (or outliers) get separated early on. Risk/size adjusted clinical quality measures are used as features for this Isolation Forest. The outlier population has a statistically significant difference with a confidence interval of 95% in quality measure scores in most of their measures compared to the non-outlier population.

Practices identified as outliers from the model are labeled “Quality gate not earned” and are removed from further evaluation of Effectiveness. All other practices are deemed “Quality gate earned” and move into Effectiveness evaluation.

NCQA recognition alternative

In our PCP program, we value the recognition by NCQA’s Patient-Centered Medical Home (PCMH) Recognition program[4]. For those groups where 75 percent of the practice’s primary care physicians and practitioners are recognized by NCQA PCMH and 75 percent of Aetna members are seen by those primary care physicians and practitioners, we use the NCQA PCMH recognition as an enhancement for those practices not meeting the quality measures of the PCP program.

The program addresses several PCMH concepts:

- Team-based care and practice organization helps structure a practice’s leadership, care team responsibilities and how the practice partners with patients, families and caregivers.
- Knowing and managing your patients sets standards for data collection, medication reconciliation, evidence-based clinical decision support and other activities.
- Patient-centered access and continuity: guides practices to provide patients with convenient access to clinical advice and helps ensure continuity of care.
- Care management and support help clinicians set up care management protocols to identify patients who need more closely managed care.
- Care coordination and care transitions ensures that primary and specialty care clinicians are effectively sharing information and managing patient referrals to minimize cost, confusion and inappropriate care.
  Performance measurement and quality improvement: improvement helps practices develop ways to measure performance, set goals and develop activities that will improve performance.

[4] ncqa.org/programs/health-care-providers-practices/patient-centered-medical-home-pcmh/

Under these concepts the program contains different criteria and total measures. When we observe practices meeting the threshold, we evaluate “quality gate earned,” where a PCP practice does not otherwise pass the standard quality gate.

Effectiveness designation: episodes of care

Introduction to episodes of care

Programs in Aetna Smart Compare contain various subcategories. For unique subcategories, please see our designation guides at Aetna.com/smartcompare. This section provides an overview of the episodes of care subcategory, common to all programs.

“Episode of care” methodology analyzes medical cost and utilization. An episode of care for a member represents diagnostic and treatment services over time for a specific health condition. All relevant costs and utilization of services for the specific condition are part of a single grouping for analysis. An episode of care spans services from the onset of symptoms until treatment is complete. For chronic conditions, the episode lasts one year.

Episode treatment groups (ETG)

We use Optum Symmetry® Episode Treatment Groups® (ETG®) software version 10.1, an illness classification system, to build episodes of care. The ETG technology is a kind of "grouper" software. The software accepts health care claims (service line detail) and returns the ETG value, along with other patient details. The software combines all relevant doctor, hospital, pharmacy and ancillary testing claims data together.

An ETG ends when there is no treatment of the condition for a specific number of days. This interval is the “clean period.” For example, ETG 438300 (acute bronchitis) has a 30-day clean period. We consider any claims for this diagnosis within a 30-day period a recurrence of the same condition. When an episode starts for this ETG, all clinically consistent claims activity for the acute bronchitis group is added to this episode until the point where 30 days pass without any corresponding clinically consistent treatment. If we receive a claim for this condition after 30 days, a new episode starts.

We only use complete episodes in the evaluations of Aetna Smart Compare. Complete episodes are those that meet the clean periods before and after the measure, or episodes where a chronic condition lasts 365 days. (We look at multi-year conditions in episodes no greater than one year). There is a claims lag of three months in the episodes of care measurement.

Risk adjustment: Case-mix-adjusted expected allowed amounts, and episode severity

There are many variables that impact the use of health care resources such as the severity of illness, patient age, and comorbid conditions. To account for these variations in resource use, a case-mix adjusted “expected allowed amount” is created for each member assigned an ETG that is attributed to a physician group. This case-mix-adjusted, expected, allowed amount is compared to the actual, allowed amount for that episode of care. There can be variation in efficiency indexes over time for practices with low attribution numbers. To avoid attributing random variation to a practice pattern, the statistical significance of a provider group’s efficiency score is evaluated at $P \leq 0.10$.

Episode severity describes the intensity of a member’s condition. When determining an episode’s severity, we look at the relevant complication and comorbidity factors, indicating a sicker member who may require more extensive treatment for a related condition. The result is a severity score and severity level for episodes. Typically, the higher the severity score, the more costly the condition.

Severity-adjusting episodes provides a powerful unit of analysis for comparing provider performance when different providers care for members with the same condition but different severity levels.

When comparing the allowed cost to the expected cost of an episode, the expected cost reflects the case-mix-adjusted value for episodes. We also apply outlier logic at the case-mix category level. For case-mix categories, episodes of care are outliers if that episode is outside of two median absolute deviations away from the median in that case-mix category. We exclude these outliers from analysis.

Below we refer to all case-mix adjusted allowed amounts as "expected" allowed amounts.

Machine learning and market adjustment

We use machine learning models featuring the variables in Table 8 to risk-adjust case mix. These models allow us to compare similar episodes, outputting risk adjustments expressed in our expected allowed amounts.

Machine learning variables for expected allowed amounts, Table 8

Expected variables	All specialties (exceptions adjacent)	Exceptions
Age	18 year of age or older	All ages (PCP program only)
ETG code	ETG Codes	
Episode days	Length of an episode in days	
Episode volume minimum	200 or more episodes per ETG to generate expected values	
ERG risk score	Optum Symmetry® Episode Risk Groups® (ERG®)	
Gender	Female or male	
Hospital referral region (HRR)	HRR number level (See Appendix)	
ICD10 group codes	Frequency of ICD10 groups codes in an episode	
Pharmacy usage	With or without an Aetna pharmacy plan	
Severity level	As indicated on the episode based on Optum Symmetry® (severity increases from 0 to 4)	
Social Determinants of Health (SDoH)	Variables that impact health care cost in a census tract area: income, poverty, diversity, disability, education, physical inactivity, marital status, public transportation (CDC and US Census)	
Practice type	Gynecologists or Obstetricians	Ob/gyn

Timing of entry into an episode	Percentage of allowed amount that occurs in the episode before the practice's first claim
Year of episodes (2025) program) (2024) program)	 2 years: January 1, 2022 – December 31, 2023 2 years: January 1, 2021 – December 31, 2022

We make an additional adjustment to actual allowed amounts to ensure we are capturing economic differences across hospital referral regions. We refer to this adjustment as a market-adjusted allowed amount.

In Table 9 below, we describe the variables for market adjustment by program.

Market adjustment variables, Table 9

Programs	Episodes or Population	Practice risk tier	Practice size
Cardiology		Low if practice average risk score is less than or equal to the 80th percentile, All others are high risk	Small if episode count is less than or equal to the 80th percentile, all others are not small
Endocrinology		Low if practice average risk score is less than or equal to the 80th percentile, All others are high risk	Small if episode count is less than or equal to the 80th percentile, all others are not small
Gastroenterology		Low if practice average risk score is less than or equal to the 80th percentile, All others are high risk	Small if episode count is less than or equal to the 80th percentile, all others are not small
General Surgery		Low if practice average risk score is less than or equal to the 80th percentile, All others are high risk	Small if episode count is less than or equal to median, all others are not small
Neurology		Low if practice average risk score is less than or equal to the 80th percentile, All others are high risk	Small if episode count is less than or equal to the 50th percentile, all others are not small
Neurosurgery	Central nervous system	Low if practice average risk score is less than or equal to median Threshold: 0.5 All others are high risk	Small if episode count is less than or equal to median Threshold: 0.8 All others are not small
Ob/gyn	Gynecology	Low if practice average risk score is less than or equal to the median All others are high risk	Small if episode count is less than or equal to the median All others are not small
	Obstetrics	Low if practice average risk score is less than or equal to the median All others are high risk	Small if episode count is less than or equal to the median All others are not small
Orthopedics		Low if practice average risk score is less than or equal to the median All others are high risk	Small if episode count is less than or equal to the median All others are not small

Plastic Surgery		Low if practice average risk score is less than or equal to the 80th percentile, All others are high risk	Small if episode count is less than or equal to the 80th percentile, all others are not small
PCP	Adult, Chronic & Non-Chronic	Low if practice average risk score is less than or equal to the 80th percentile All others are high risk	Small if episode count is less than or equal to the 80th percentile All others are not small
Pulmonary medicine		Low if practice average risk score is less than or equal to the 40th percentile, All others are high risk	Small if episode count is less than or equal to the 40th percentile, all others are not small
Urology		Low if practice average risk score is less than or equal to the 80th percentile, All others are high risk	Small if episode count is less than or equal to the 80th percentile, all others are not small
Vascular Surgery		Low if practice average risk score is less than or equal to the 50th percentile, All others are high risk	Small if episode count is less than or equal to the 80th percentile, all others are not small

Below is an example of the data you might find in our reporting packages. We use the market adjustment variables to create the market adjusted allowed (C; Table 9). We use this amount to create the practice's performance index per ETG ($\frac{C}{D} = E$; Table 10).

Practice performance example for episodes of care, Table 10

A	B	C	D	E
ETG Description	**Actual Allowed Per Episode**	**Market Adjusted Allowed Per Episode**	**Expected Allowed Per Episode**	**Performance Index**
Diabetes, with complication, with comorbidity, w/o surgery	$9,165.97	$9,461.07	$12,481.41	0.76
Rhinitis, allergic & non-allergic, w/o surgery	$131.88	$129.98	$127.14	1.02
Tonsillitis, adenoiditis or pharyngitis, w/o complication, w/o comorbidity, w/o surgery	$139.73	$137.72	$111.76	1.23

The practice's overall performance index (all ETGs) is calculated as the weighted average of E, where the expected allowed amounts in D weight E ($\frac{(E_2 \times D_2)+(E_3 \times D_3)\ldots}{D_2 + D_3 + \ldots}$).

To evaluate performance, we conduct a two-sample weighted t-test. We weight using mean allowed amounts from the relevant machine learning nodes. For the first sample, we weight the practice's market-adjusted performance by the mean of the practice node's allowed amounts. For the second sample, we weight the market's average market-adjusted performance index (from the relevant decision tree node) with the mean of the market node's allowed amounts. Both weighted samples are compared in the t-test:

- If the test has a p-value greater than 0.10, the practice results are not statistically significant, and the practice outcome will be "performance not statistically significant."
- If the practice's market-adjusted performance index is statistically significant and less than the average market-adjusted performance index, the practice will receive the outcome "subcategory earned."

- If the practice market-adjusted performance index is statistically significant and greater than the average market-adjusted performance index, the practice outcome will be “criteria not met.”

Effectiveness: other subcategories

We use subcategories under the effectiveness designation. Effectiveness evaluation is performed for episodes in each subcategory and combined to a summary level designation result. Summary results are created using a weighted average which allows for the right populations to be represented in a physician group's designation result. For Effectiveness - Episodes of care, a weighted allowed amount is used to combine subcategories into summary designation results. For Effectiveness - Utilization, member count is used as the weighting factor while combining the subcategories.

For OB/GYN program, if a physician group performs both obstetrics and gynecology procedures, a weighted allowed amount approach will correctly represent the dominant procedure type in the summary result for the group.

Similarly for the PCP program, a weighted allowed amount (episodes of care) or weighted member count (utilization) summary allows for a proper representation of the populations seen by a physician group.

Effectiveness subcategories in Aetna Smart Compare (2025), Table 11

Programs	Effectiveness - Episodes of care	Effectiveness - Utilization
PCP	<18 years of age, and ≥18	<18 years of age, and ≥18
OB/GYN	Gynecology, and Obstetrics	

Behavioral Health: Psychiatry

Our Behavioral Health program focuses on psychiatrists in 2025. We measure quality with 13 HEDIS measures that address medication management and adherence, as well as follow-ups and treatment initiation. We also use 33 Care Considerations® measures from ActiveHealth Management, a CVS Health company. These measures focus on medication management, adherence, interactions, and other widely accepted treatment guidelines.

Episode Treatment Groups (ETG) for Behavioral Health: Psychiatry can be found in the reference guide at **www.aetna.com/smartcompare**.

HEDIS measures in Behavioral Health: Psychiatry, Table 12

Measure Name	Measure Description
Adherence to Antipsychotic Medications for Individuals With Schizophrenia (SAA)	The percentage of members who maintain a portion of days covered (PDC) of 80% or more for antipsychotic medications.
Antidepressant Medication Management: Effective acute phase treatment	The percentage of members who remained on an antidepressant medication for at least 180 days
Antidepressant Medication Management: Effective continuation phase treatment	The percentage of members who remained on an antidepressant medication for at least 84 days
Follow-Up After Emergency Department Visit for Mental Illness: 30-day follow-up	The percentage of members that receive a follow-up visit no more than 30 days after an emergency department visit

Follow-Up After Emergency Department Visit for Mental Illness: 7-day follow-up	The percentage of members that receive a follow-up visit no more than 7 days after an emergency department visit.
Follow-Up After High-Intensity Care for Substance Use Disorder: 30-day follow-up	The percentage of members that receive a follow-up visit no more than 30 days after an episode for substance use disorder
Follow-Up After High-Intensity Care for Substance Use Disorder: 7-day follow-up	The percentage of members that receive a follow-up visit no more than 7 days after an episode for substance use disorder
Follow-Up After Hospitalization for Mental Illness: 30 day follow up	The percentage of members who receive a follow-up visit no more than 30 days after hospitalization
Follow-Up After Hospitalization for Mental Illness: 7 day follow up	The percentage of members who receive a follow-up visit no more than 7 days after hospitalization
Initiation and Engagement of Alcohol and Other Drug Abuse or Dependence Treatment: Engagement	The percentage of members who start a substance use disorder (SUD) episode that includes treatment initiation within 14 days.
Initiation and Engagement of Alcohol and Other Drug Abuse or Dependence Treatment: Initiation	The percentage of members who start a substance use disorder (SUD) episode that includes treatment within 14 days.
Metabolic Monitoring for Children and Adolescents on Antipsychotics	The percentage of members who start a substance use disorder (SUD) episode that includes treatment engagement within 34 days of treatment initiation.
Pharmacotherapy for Opioid Use Disorder	The percentage of members with 180 or more days of pharmacotherapy without more than 8 days of treatment gap.

The Care Considerations® measures we use are triggered by different event dates, often pharmacy claims. These dates are available per member in our reporting packages. In the measure descriptions below, you often see references to look back periods (e.g. “past three months”). These lookback periods are measured from these event dates.

Care Considerations® measures in Behavior Health: Psychiatry, Table 13

Measure Name	Measure Description
Atypical Antipsychotics: Consider Baseline Diabetes and Lipid Panel Screening	The percentage of members starting an atypical antipsychotic who also have a screening for diabetes and a lipid panel in the past 6 months.
Atypical Antipsychotics: Consider Screening for Diabetes	The percentage of members taking an atypical antipsychotic who have a yearly screening for diabetes in the past 12 months.
Avoid Benzodiazepines in Older Adults with Certain Conditions	The percentage of members that do not have pharmacy claim for a benzodiazepine in the past two months, and who have a diagnosis for fall, hip fracture, dementia or cognitive impairment.
Avoid Certain Antidepressants in Older Adults	The percentage of members 65 years and older who are not taking paroxetine or tricyclic antidepressants (TCAs).
Avoid Citalopram > 20mg in Older Adults	The percentage of members 60 or older who are not taking a citalopram dosage greater than 20mg.
Avoid Multiple CNS Active Drugs in Older Adults	The percentage of members 65 years old or greater who are not taking three or more central nervous system (CNS) active drugs for the past 6 months.

Bipolar Disorder with a Recent Manic or Mixed Episode: Avoid Antidepressants	The percentage of members 18 or older with bipolar disorder who experience manic or mixed episodes in the last two months and who are not taking antidepressants in the past three months.
Bipolar Disorder: Consider Adding a Mood Stabilizer	The percentage of members with bipolar disorder taking a mood stabilizer.
Bupropion: Contraindicated in Seizure Disorder	The percentage of members with diagnosis claims for seizure disorders who do not have a pharmacy claim for bupropion in the past three months.
Citalopram >20 mg: Avoid with CYP2C19 Inhibitors	The percentage members with pharmacy claims for citalopram dosage greater than 20mg abd a CYP2C19 inhibitor in the past three months.
Citalopram: Avoid in Certain Conditions	The percentage of members without citalopram pharmacy claims in the last three months, who have lab data indicating hypokalemia or hypomagnesemia or who have lab data in the last four months for bradycardia, uncompensated heart failure or recent myocardial infarction.
Citalopram: Avoid with QT-Prolonging Drugs	The percentage of members without pharmacy claims in the last three months for both citalopram and drugs that prolong QT interval.
Duloxetine or Milnacipran: Caution with Alcohol Use	The percentage of members with a diagnosis of alcohol dependence who are not taking duloxetine or milnacipran in the past four months.
Duloxetine or Milnacipran: Caution with Liver Disease	The percentage of members with a diagnosis of liver disease or elevated alanine transaminase (ALT) who are not taking duloxetine or milnacipran in the past three months.
Elevated Lithium Level: Consider Dose Adjustment or Follow-up Level	The percentage of members with pharmacy claims for lithium greater than 1.5 mEq/L in the past four months who stops taking lithium or receives a follow-up level equal to or less than 1.5 mEq/L.
Hyperglycemia: Caused or Exacerbated by Atypical Antipsychotics	Percentage of members in the last 2 months with glucose values >200 mg/dL or HbA1c >8.0 who no longer has pharmacy or procedure claim for atypical antipsychotic.
Lithium: Consider Kidney Function Monitoring	The percentage of members taking lithium who had kidney function monitoring in the past 15 months.
Lithium: Consider Thyroid Function Monitoring	Percentage of members taking lithium who had thyroid function monitoring in the past 15 months.
Long-Acting Benzodiazepines: Drug Interactions	The percentage of members who do not have pharmacy claims for a long-acting benzodiazepine and a strong CYP3A4 inhibitor in the past three months.
Lurasidone: Contraindicated with Enzyme Inducers	The percentage of members who do not have pharmacy claims for both lurasidone and a strong CYP3A4 inhibitor in the past three months.
Major Depression: Consider Treatment	The percentage of members who have a diagnosis of depression in the past three months and a pharmacy claim for an antidepressant in the past six months.
MAOI: Avoid with SSRIs or SNRIs	The percentage of members who do not have pharmacy claims for both an MAOI/MAO-B and either an SSRI/SNRI in the past three months.
Medication Adherence: Antipsychotic	The percentage of members with a proportion of days covered (PDC) greater than or equal to 80% for an antipsychotic over 12 months.

Medication Adherence: Bupropion	The percentage of members with a proportion of days covered (PDC) greater than or equal to 80% for bupropion over 12 months.
Medication Adherence: Lithium	The percentage of members with a proportion of days covered (PDC) greater than or equal to 80% for lithium over 12 months.
Medication Adherence: Mirtazapine	The percentage of members with a proportion of days covered (PDC) greater than or equal to 80% for mirtazapine over 12 months.
Medication Adherence: SNRI	The percentage of members with a proportion of days covered (PDC) greater than or equal to 80% for SNRI over 12 months.
Medication Adherence: SSRI	The percentage of members with a proportion of days covered (PDC) greater than or equal to 80% for SSRI over 12 months.
Medication Adherence: TCAs	The percentage of members with a proportion of days covered (PDC) greater than or equal to 80% for tricyclic anti-depressents (TCAs) over 12 months.
Paliperidone: Avoid with QT Prolonging Drugs	The percentage of members without pharmacy claims in the last three months for both citalopram and drugs that prolong QT interval.
Potential for Lithium Toxicity: Consider Lithium Level Monitoring	The percentage of members who have a pharmacy claim for lithium and a lab or procedure for testing lithium level in the last nine months.
SSRI and NSAIDs: Potential to Increase GI Bleeding	The percentage of members who do not have pharmacy claims for both SSRI and NSAIDs in the past nine months.

Cardiology program

The Cardiology program includes measures of episodes related to the diagnosis and treatment of the heart and blood vessels. This program includes all subspecialties of cardiology. In this program, we measure cardiology practices who treat general cardiac episodes of care.

Episode Treatment Groups (ETG) for Cardiology can be found in the reference guide at **www.aetna.com/smartcompare**.

We evaluate fifteen (15) quality measures for the cardiology quality gate. The measures come from two (2) sources, HEDIS and AHRQ.

You can find a full list of our HEDIS measures above in the section **Clinical quality measures**.

We attribute AHRQ measures by identifying the cardiologist managing the inpatient stay.

AHRQ Measures in Cardiology[5]

- Acute Myocardial Infarction (AMI) Mortality Rate (IQI 15)
- Heart Failure Mortality Rate (IQI 16)
- Iatrogenic Pneumothorax Rate (PSI 06)
- Percutaneous Coronary Intervention (PCI) Mortality Rate (IQI 30)

HEDIS Measures in Cardiology

[5] You can find AHRQ measures by visiting **https://qualityindicators.ahrq.gov/** and referencing the measure code in our guide (parentheses after the measures.)

- Blood Pressure Control for Patients With Diabetes
- Cardiac Rehabilitation: Initiation
- Cardiac Rehabilitation: Engagement 1
- Cardiac Rehabilitation: Engagement 2
- Cardiac Rehabilitation: Achievement
- Controlling High Blood Pressure
- Persistence of Beta-Blocker Treatment After a Heart Attack
- Statin Therapy for Patients with Cardiovascular Disease: Received Statin Therapy
- Statin Therapy for Patients with Cardiovascular Disease: Statin Adherence 80%
- Statin Therapy for Patients With Diabetes: Received Statin Therapy
- Statin Therapy for Patients With Diabetes: Statin Adherence 80%

Cardiothoracic Surgery program

The Cardiothoracic surgery program includes measures related to episodes managed by cardiothoracic surgeons.

Episode Treatment Groups (ETG) for Cardiothoracic Surgery can be found in the reference guide at **www.aetna.com/smartcompare**.

We evaluate two (2) surgical quality measures for the cardiothoracic surgery quality gate. The measures come from Aetna. You can find more about them in the section **Clinical quality measures**.

Endocrinology program

The Endocrinology program includes measures related to all episodes of endocrinologist care.

Episode Treatment Groups (ETG) for Endocrinology can be found in the reference guide at **www.aetna.com/smartcompare**.

We reviewed eight (8) HEDIS measures for the endocrinology quality gate.

You can find a full list of our HEDIS measures above in the section **Clinical quality measures**.

HEDIS Measures in Endocrinology

- Blood Pressure Control for Patients With Diabetes
- Controlling High Blood Pressure
- Eye Exam for Patients With Diabetes
- Hemoglobin A1c Control for Patients With Diabetes: Good Control
- Hemoglobin A1c Control for Patients With Diabetes: Poor Control
- Kidney Health Evaluation for Patients With Diabetes
- Statin Therapy for Patients With Diabetes: Received Statin Therapy
- Statin Therapy for Patients With Diabetes: Statin Adherence 80%

Gastroenterology program

In the Gastroenterology program, we evaluate episodes of care in the effectiveness related to treatment managed by gastroenterologists.

Episode Treatment Groups (ETG) for Gastroenterology can be found in the reference guide at **www.aetna.com/smartcompare**.

We reviewed six (6) quality measures for the gastroenterology quality gate. One (1) measure comes from HEDIS and five measures (5) are developed in collaboration with the American Gastroenterological Association (AGA).

You can find a full list of our HEDIS measures above in the section **Clinical quality measures**.

HEDIS Measures in Gastroenterology

- Colorectal Cancer Screening (COL_E)

Gastroenterology measures modeled after measures from the American Gastroenterological Association (AGA)

Measure name	Measure description
Inpatient Admission or ER Visit within 7 days of outpatient screening colonoscopy	Percentage of members experiencing inpatient admission or ER visit within 7 days of an outpatient colonoscopy, where procedure codes indicate admission or ER visit is indicative of a complication from outpatient colonoscopy.
Crohn's 90-day steroids on biologics	Percentage of members prescribed 90-day supplies of steroids who are starting biologics in the same measurement year.
H. Pylori testing after Peptic ulcer disease (PUD)	Percentage of members who have testing for H. pylori within 180 days of PUD diagnosis
H. Pylori testing without Peptic ulcer disease (PUD)	Percentage of members who repeat H. pylori test within 270 days of the first test that diagnosed H. pylori.
Inflammatory bowel disease (IBD) monitor for anemia.	Percentage of members diagnosed with IBD who have a test for complete blood cell count (CBC) or a hemoglobin (Hgb) and Hematocrit (Hct) test.

General surgery program

In the General surgery program, we evaluate surgery episodes of care treated by general surgeons in the effectiveness category.

Episode Treatment Groups (ETG) for Gastroenterology can be found in the reference guide at **www.aetna.com/smartcompare**.

We reviewed eight (8) measures in the quality gate. The measures come from two (2) sources, Aetna and AHRQ.

We evaluate two (2) surgical quality measures for the general surgery quality gate from Aetna. You can find more about them in the section **Clinical quality measures**.

AHRQ Measures in the General surgery program

- Postoperative acute kidney injury requiring dialysis rate (PSI 10)
- Postoperative hemorrhage or hematoma rate (PSI 09)
- Postoperative respiratory failure rate (PSI 11)
- Postoperative pulmonary embolism or deep vein thrombosis rate (PSI 12)
- Postoperative sepsis rate (PSI 13)
- Postoperative wound dehiscence rate (PSI 14)

Medical Oncology program

In the Medical Oncology program for oncologists, we evaluate physicians' cancer medication regime derived from Novologix® drug regime compliance algorithms compliance rate based on NCCN guidelines. We currently measure claims from January 2021- December 2022. Episodes with COVID indication flag are not included in the study.

To be included in the program, we evaluated the physician group compliance to a nationally recognized compliance program. There cannot be a gap between treatment greater than 7 days. There must have at least two members in the measurement period. The program evaluates cancer patients' single cancer diagnosis. We also exclude stem cell/bone marrow transplant, low volume, or low compliance rate.

The aggregated score is based on the physician group tax ID number (TIN). Compliance rate was aggregated on a patient-cancer level. The model score adjustment for TIN size. It also adjusts for member risk based on TIN average member risk for cancer. We use isolation forest to select outliers for low compliance rate.

The ten (10) cancers in the quality outlier detection model are:

- Breast cancer
- Rectal cancer
- Colon cancer
- Ovarian cancer
- Fallopian tube cancer
- Primary peritoneal cancer
- Multiple myeloma
- Pancreatic adenocarcinoma
- B-cell lymphoma
- Head and neck cancers

The exclusions for the medical oncology program are:

- Filgrastim
  - Drop all periods (across all members and cancers) when drug combo is only filgrastim by itself
- CART cell therapy
  - Use claims to identify therapy using procedure codes: 0537T, 0538T, 0539T, 0540T
  - Drop the periods belonging to member that have CART related claims if date of the period is any time after or 6 months prior to the first claim for that member
- Individuals
  - We undertake clinical review of individuals, where the data is a significant outlier.
- Compliance update
  - Through clinical review, we create up-to-date algorithms for newer drug combinations to meet current compliance standards.

Neurology program

In the Neurology program, we evaluate episodes of care for conditions affecting the central, peripheral and autonomic nervous system treated by neurologists.

Episode Treatment Groups (ETG) for Neurology can be found in the reference guide at **www.aetna.com/smartcompare**.

We reviewed ten (10) quality measured for the neurology quality gate. The quality measures come from four (4) sources: Care Considerations® measures from ActiveHealth Management (2), AHRQ (1), CMS (4) and HEDIS (3).

You can find a full list of our HEDIS measures above in the section **Clinical quality measures**.

HEDIS measures in Neurology

- Blood Pressure Control for Patients with Diabetes
- Comprehensive Diabetes Care: Eye exam (retinal) performed
- Controlling High Blood Pressure

CMS Stroke measures are stewarded by The Joint Commission. You can find a general summary of the measures here at **https://data.cms.gov/provider-data/topics/hospitals/timely-effective-care#stroke-care**. More detailed descriptions of the measures can be found at **https://ecqi.healthit.gov/**, using the CMS measure codes below. We identify managing providers in these hospital measures.

CMS Stroke measures in Neurology

- Anticoagulation Therapy for Atrial Fibrillation/Flutter (CMS 71)
- Antithrombotic Therapy by End of Hospital Day 2 (CMS 72)
- Discharged on Antithrombotic Therapy (CMS 104)
- Discharged on Statin Medication (CMS 105)

AHRQ measures in the Neurology program[6]

- Acute Stroke Mortality Rate (IQI 17)

Care Considerations® measures in Neurology, Table 14

Measure name	Measure description
Medication Adherence: Epilepsy	The percentage of members with seizures on epilepsy medication with a portion of days covered (PDC) equal to or greater than 80% for epilepsy medication in the past 12 months.
Recurrent Migraines: Consider Adding Prophylactic Medication	The percentage of members with recurrent migraines who are prescribed migraine prophylactic therapy

Neurological surgery program

In this program, we evaluate episodes of care for central nervous system related conditions treated by neurosurgeons.

Episode Treatment Groups (ETG) for Neurological surgery can be found in the reference guide at **www.aetna.com/smartcompare**.

The quality measures come from two (2) sources, Aetna and AHRQ.

We evaluate two (2) surgical quality measures from Aetna for the quality gate in Neurological surgery. You can find more about them in the section **Clinical quality measures**.

[6] You can find AHRQ measures by visiting **https://qualityindicators.ahrq.gov/** and referencing the measure code in our guide (parentheses after the measures.)

AHRQ measures in Neurological surgery program[7]
- Postoperative hemorrhage or hematoma rate (PSI 09)
- Perioperative pulmonary embolism or deep vein thrombosis rate (PSI 12)
- Postoperative sepsis rate (PSI 13)

Ob/gyn program

The Ob/gyn program measures practices that focus on obstetrics and/or gynecology. Measures are split into either specialty, which serve as the subcategories in this program, where we include all physicians practicing as obstetricians and/or gynecologists. We also include midlevel owned episodes sharing the same tax identification number (TIN) as the Ob/gyn.

Episode Treatment Groups (ETG) for Neurological surgery can be found in the reference guide at **www.aetna.com/smartcompare**.

We evaluated eleven (11) quality measures for the obstetrics quality gate. The quality measures come from two sources, AHRQ (4) and HEDIS (6).

You can find a full list of our HEDIS measures above in the section **Clinical quality measures**.

HEDIS measures in the Ob/gyn program
- Breast cancer screening
- Cervical cancer screening
- Chlamydia screening in women
- Non-recommended cervical cancer screening in adolescent females (reverse scored)
- Postpartum care
- Timeliness of prenatal care

AHRQ measures in the Ob/gyn program[8]
- Primary Cesarean delivery rate, uncomplicated (IQI 33)
- Postoperative hemorrhage or hematoma rate (PSI 09)
- Obstetric trauma rate – vaginal delivery with instrument (PSI 18)
- Obstetric trauma rate – vaginal delivery without instrument (PSI 19)

High-cost claimants

We remove high-cost claimants (HCC) from the analysis. If a member has claim costs (total allowed amount) per year greater than the 99th percentile in either 2022 or 2023, the member is excluded from analysis (the entirety of the member's claims; not only the claims that meet the threshold). Below is the HCC threshold by claim year and population.

High-cost claimants in 2022-23, Table 15

Population	Year	HCC threshold (99th percentile)
Adults	2022	$74,379

[7] You can find AHRQ measures by visiting **https://qualityindicators.ahrq.gov/** and referencing the measure code in our guide (parentheses after the measures.)

[8] You can find AHRQ measures by visiting **https://qualityindicators.ahrq.gov/** and referencing the measure code in our guide (parentheses after the measures.)

Adults	2023	$75,381

General Ob/gyns

Only general Ob/gyn practices are eligible for this designation. Physicians classified as general Ob/gyns are identified using a machine learning technique called clustering.

After we aggregate and weight provider data, we input this data into a density-based, hierarchical clustering algorithm. This algorithm is used to identify groupings of providers who have similar diagnosis and procedure group clusters based on similar scores (i.e., low distance from cluster averages). The following table shows the clusters identified by this algorithm. All providers appearing in "General Ob/gyn" were included in this program.

Clusters from machine learning analysis of Ob/gyn claims, Table 16

Specialty Clusters	**Reproductive endocrinology and infertility**	**Female pelvic medicine and reconstructive surgery**	**Maternal-fetal medicine**	**Gynecologic oncology**	**General Ob/gyn**	**All others**
Total provider count	1,666 (4%)	1,111 (3%)	5,977 (16%)	575 (1%)	28,761 (75%)	249 (1%)
Claim count (K)	1,348 (15%)	119 (1.5%)	961 (11%)	34 (0.5%)	6,233 (71%)	49 (0.1%)
Allowed Amount ($M)	338 (19%)	25 (2%)	192 (10%)	15 (1%)	1,345 (68%)	5 (0.1%)

Orthopedic program

The orthopedic program includes measures related to all episodes of orthopedic care. In this program, we measure orthopedic practices who treat orthopedic episodes of care.

Episode Treatment Groups (ETG) for Neurological surgery can be found in the reference guide at **www.aetna.com/smartcompare**.

We evaluate six quality measures for the orthopedic quality gate.

There are two (2) surgical quality measures from Aetna for the quality gate in the Orthopedic program. You can find more about them in the section **Clinical quality measures**.

AHRQ measures in the Orthopedic program[9]

- Postoperative hemorrhage or hematoma rate (PSI 09)
- Postoperative respiratory failure rate (PSI 11)
- Perioperative pulmonary embolism or deep vein thrombosis rate (PSI 12)
- Postoperative sepsis rate (PSI 13)

Otolaryngology program

In the Otolaryngology program, we evaluate episodes of care for related conditions of the head and neck treated by otolaryngologists.

Episode Treatment Groups (ETG) for Otolaryngology can be found in the reference guide at **www.aetna.com/smartcompare**.

[9] You can find AHRQ measures by visiting **https://qualityindicators.ahrq.gov/** and referencing the measure code in our guide (parentheses after the measures.)

We reviewed three (3) quality measures for the otolaryngology quality gate.

There are two (2) surgical quality measures from Aetna for the quality gate in the Otolaryngology program. You can find more about them in the section **Clinical quality measures**.

Care Considerations® measures in the Otolaryngology program, Table 17

Measure name	Measure description
Head and Neck Cancer: Consider Thyroid Function Monitoring	The percentage of members that have head or neck cancer who have received thyroid function monitoring in the past 15 months.

Plastic Surgery program

The Plastic surgery program includes measures related to all episode of managed by plastic surgeons.

Episode Treatment Groups (ETG) for Otolaryngology can be found in the reference guide at **www.aetna.com/smartcompare**.

We reviewed six (6) quality measures for the plastic surgery quality gate.

The measures come from two (2) sources, Aetna and AHRQ.

There are two (2) surgical quality measures from Aetna for the quality gate in the Otolaryngology program. You can find more about them in the section **Clinical quality measures**.

AHRQ measures in the Plastic Surgery program[10]
- Postoperative Hemorrhage or Hematoma Rate (PSI 09)
- Postoperative Respiratory Failure Rate (PSI 11)
- Perioperative Pulmonary Embolism or Deep Vein Thrombosis Rate (PSI 12)
- Postoperative Sepsis Rate (PSI 13)

Primary care physician (PCP) program

The PCPs program evaluates episodes of care and risk-adjusted utilization measures in its effectiveness category, and HEDIS measures in the clinical quality category. We measure family practice, internal medicine, and pediatric practices, including physicians' assistants and nurse practitioners managed by these physicians.

Episode Treatment Groups (ETG) for the PCP program can be found in the reference guide at **www.aetna.com/smartcompare**.

Our PCP program includes are broad range of HEDIS measures. You can find a full list of our HEDIS measures above in the section **Clinical quality measures**.

Effectiveness: risk-adjusted utilization

We include risk-adjusted utilization measures in our Primary care physician (PCP) program. These measures assess either the use of specific resources or the outcomes associated with population management. Primary care practices play an important role in improving the health of the populations they manage. For instance, inpatient utilization and

[10] You can find AHRQ measures by visiting **https://qualityindicators.ahrq.gov/** and referencing the measure code in our guide (parentheses after the measures.)

emergency room trends decline as the health of a population improves through the better management of chronic conditions. Also, as primary care practices coordinate care for members and provide education to members on treatment guidelines, the overuse or misuse of high-tech radiology declines. Our three utilization measures focus on these observations:

- Inpatient admission (IP) per 1,000 members
- Emergency room (ER) visits per 1,000 members
- MRI & CT scan utilization per 1,000 members

We risk-adjust our utilization measures by creating expected rates per 1,000. Expected rates assume the following variables in Table 18.

Variables for calculating expected rates for risk-adjusted utilization, Table 18

Expected variables	PCP features
Age	≥ 18 for adults and; <18 for Pediatrics
Practice risk tier	High or low
Practice size	Large or small
Geography	Urban and suburban compared to rural

Physician practices evaluated by our risk-adjusted utilization measures may request reports like the following.

Practice performance example for risk-adjusted utilization, Table 19

A	B	C	D	E	F
Measure	**Average member risk score**	**Actual rate per 1,000**	**Adjusted rate per 1,000**	**Expected rate per 1,000**	**Performance index**
Emergency room visits per 1,000	1.503	101.89	101.90	113.92	0.89
Inpatient admits per 1,000	1.503	21.39	21.41	24.42	0.88
MRI/CT scan utilization per 1,000	1.503	57.62	57.65	68.19	0.85

The three utilization measures are listed on the far left (A). The average member risk score (B) is derived from the Optum Symmetry® Episode Risk Groups® (ERG®): $\frac{\sum(ERG\ scores\ per\ member\ per\ month)}{all\ member\ months}$. The actual rate per 1,000 (C) is $\frac{\frac{event\ count}{(\frac{average\ member\ count}{1000})}}{average\ member\ risk\ score}$. The adjusted rate per 1,000 (D) is a Bayesian transformation (see below for an explanation of our most common transformations in section 5.1.) The expected value is calculated as the average adjusted rate per 1,000 within the peer groups defined by the variables in table 10. The performance index is calculated as $\frac{D}{E}$. We weight each measure according to its overall contribution to medical spend, and aggregate performance indices as a weighted average (see the weights in table 18).

We run a t-test to identify practices that are statistically significant to award designation. The t-test indicates whether there is a statistically significant difference between the practice's index and the expected performance index.

- If the test result is P>.05, the practice results are not statistically significant, so the practice will receive the subcategory result "performance not statistically significant."
- If the test result is P<.05, and the practice's weighted performance index is <1.0, the practice will receive the subcategory result "subcategory earned."
- If the test result is P<.05, and the practice's weighted performance index is >1.0, the practice will receive the subcategory result "criteria not met."

Specifications for risk-adjusted utilization measures, Table 20

Eligibility specifications	**IP admits per 1,000[11]**	**ER visits per 1,000[12]**	**MRI & CT scans per 1,000[13]**
Age	≥ 18 for adults; <18 for Pediatrics	≥ 18 for adults ; <18 for Pediatrics	≥ 18 for adults ; <18 for Pediatrics
Continuous enrollment	Not applicable	Not applicable	Not applicable
Measurement period	12 months	12 months	12 months
Benefit	Full medical	Full medical	Full medical
Measure specifications	**IP admits per 1,000[11]**	**ER visits per 1,000[12]**	**MRI & CT scans per 1,000[13]**
Numerator	Count of acute IP hospitalizations	Count of ER visits to an acute care facility	Count of outpatient MRI and CT scan studies
Denominator	All attributed members	All attributed members	All attributed members
Performance index weights	3	2	1

Populations and thresholds

To be included in the program, physician practices must see enough members for us to perform a statistically valid evaluation. We evaluate adult and pediatric populations separately. (Pediatric populations are less than 18 years of age.) We measure family practice and internal medicine physicians on each population, where the practice meets the minimum member criteria.

To measure episodes of care, we require no less than 20 adult valid inlier episodes and no less than 20 pediatric valid inlier episodes. To measure risk-adjusted utilization, we require 20 attributed, valid Aetna members.

Here are the rules for attribution and member inclusion:

[11] This measure calculates the number of acute inpatient admissions per 1,000 members per year.
[12] This measure calculates the rate of ER visits per 1,000 members per year.
[13] This measure calculates the rate of MRI and CT scan utilization per 1,000 members per year.

i. Valid members are members not attributed to any other practices during calendar year. They also have at least six months of medical benefit eligibility in calendar year. For risk-adjusted utilization and quality measures, we include only members attributed to a primary care practice at the end of 2023.

ii. Attribution methodology uses our standard attribution logic, which considers both volume and recency of claims. We do measure members receiving care from nurse practitioners and physician assistants managed by primary care practices.

Involved episodes

In addition to standard episodes, we add involved episodes for episodes of care measures in effectiveness. Here are the rules we use to identify involved episodes:

1. The episode's responsible provider is not a PCP (or nurse practitioner, or physician assistant managed by a PCP), and
2. At least one of the episode's claims are serviced by PCP (or nurse practitioner, or physician assistant managed by a PCP), and
3. The PCP (or nurse practitioner or physician assistant) enters the episode before 10 percent of the episode's allowed amounts are spent.

High-cost claimants

High-cost claimants (HCC) are removed from the analysis. If a member has claim costs (total allowed amount) per year greater than the 99th percentile in either 2022 or 2023, we exclude them from analysis (the entirety of the member's claims, not only the claims that meet the threshold). Below is the HCC threshold by claim year and population.

High-cost claimants in 2022-23, Table 21

Population	Year	HCC threshold (99th percentile)
Adults	2022	$74,379
Pediatrics	2022	$42,374
Adults	2023	$75,381
Pediatrics	2022	$43,644

Pulmonary medicine program

In the Pulmonary medicine program, we measure episodes of care in the diagnosis and treatment of the respiratory system in the effectiveness category.

We reviewed eight (8) quality measures for the pulmonary medicine quality gate. The quality measures come from two (2) sources, AHRQ (1) and HEDIS (7).

HEDIS Measures in the Pulmonary medicine program
- Advance care planning
- Appropriate treatment for upper respiratory infection
- Asthma medication ratio

- Avoidance of antibiotic treatment for acute bronchitis/bronchiolitis
- Pharmacotherapy Management of COPD exacerbation-systemic corticosteroids
- Pharmacotherapy Management of COPD exacerbation-bronchodilators
- Use of spirometry testing in the assessment and diagnosis of COPD

AHRQ Measures in Pulmonary medicine[14]
- Pneumonia mortality rate (IQI 20)

Physicians classified as general pulmonologist are identified using a machine learning technique called clustering. This technique involves inputting variables into clustering or grouping algorithms to find similarities in large datasets. Using January 2022 to December 2023 claims data, we apply this technique to all pulmonology claims.

After we aggregate and weight provider data, we input this data into a density-based, hierarchical clustering algorithm. This algorithm is used to identify groupings of providers who have similar diagnosis and procedure group clusters based on similar scores (i.e., low distance from cluster averages). The following table shows the clusters identified by this algorithm. All providers appearing in "General" (Cluster 5) were included in this pulmonology program.

Clusters from machine learning analysis of Pulmonary Medicine Table 22

Specialty	Sleep Medicine		Critical care	Allergy/Immunology
Cluster sets	Cluster 1	Cluster 2	Cluster 3	Cluster 4
Total provider count	58 (0.6%)	49 (0.5%)	33 (0.3%)	33(0.3%)
Claim count (K)	24.4(2%)	47.6 (5%)	0.25 (~0%)	8.09 (1%)
Allowed Amount ($M)	3.23 (2.3%)	5.38 (3.8%)	0.04 (~0%)	1.39 (1%)

Specialty	General	Lung transplant		Cystic Fibrosis	
Cluster sets	Cluster 5	Cluster 6	Cluster 7	Cluster 8	Cluster 9
Total provider count	9976	71 (0.7%)	53 (0.5%)	86 (0.8%)	32 (0.3%)
Claim count (K)	892.12 (91%)	3.17 (~0%)	2.08 (~0%)	3.007 (~0%)	0.97 (~0%)
Allowed Amount ($M)	130 (91.5%)	0.82 (0.6%)	0.57 (0.4%)	0.44 (0.3%)	0.19 (0.1%)

Urology program

In the Urology program, we evaluate episodes of care related to the urinary system and reproductive organs.

Episode Treatment Groups (ETG) for the PCP program can be found in the reference guide at **www.aetna.com/smartcompare**.

The quality measures come from two (2) sources, AHRQ and Aetna.

There are two (2) surgical quality measures from Aetna for the quality gate in the Urology program. You can find more about them in the section **Clinical quality measures**.

[14] You can find AHRQ measures by visiting **https://qualityindicators.ahrq.gov/** and referencing the measure code in our guide (parentheses after the measures.)

AHRQ Measures in the Urology program[15]

- Perioperative Pulmonary Embolism or Deep Vein Thrombosis Rate (PSI 12)
- Postoperative Hemorrhage or Hematoma Rate (PSI 09)
- Postoperative Respiratory Failure Rate (PSI 11)
- Postoperative Sepsis Rate (PSI 13)
- Postoperative Wound Dehiscence Rate (PSI 14)

Other Aetna measures in the Urology program, Table 23

Measure name	Measure description
PSA within 4 months, post-prostatectomy	The percentage of members receiving a prostate-specific antigen (PSA) test within the 4 months following their prostatectomy (in the first 8 months of the measurement year)
Repeat procedure within 6 to 12 months of TURP or sub-total prostatectomy for BPH©	The percentage of members who receive a transurethral resection of the prostate (TURP) or a sub-total prostatectomy for benign prostatic hyperplasia (BPH) who undergo either procedure again, within 6 to 12 months of the original procedure.

Vascular surgery program

In the Vascular surgery program for vascular surgeons, we evaluate episodes of care for vascular surgeons performing surgeries related to vasculature surgeries.

Episode Treatment Groups (ETG) for the PCP program can be found in the reference guide at **www.aetna.com/smartcompare**.

We reviewed fifteen (15) measures in the quality gate from AHRQ and HEDIS.

There are two (2) surgical quality measures from Aetna for the quality gate in the Urology program. You can find more about them in the section **Clinical quality measures**.

AHRQ measures in the Vascular surgery program

- Aggregated AHRQ measures:
- Carotid Endarterectomy Mortality Rate (IQI 31)
- Postoperative Hemorrhage or Hematoma Rate (PSI 09)
- Postoperative Acute Kidney Injury Requiring Dialysis Rate (PSI 10)
- Postoperative Respiratory Failure Rate (PSI 11)
- Perioperative Pulmonary Embolism or Deep Vein Thrombosis Rate (PSI 12)
- Postoperative Sepsis Rate (PSI 13)

HEDIS measures in the Vascular surgery program

- Blood Pressure Control for Patients with Diabetes Controlling High Blood Pressure
- Statin Therapy for Patients with Cardiovascular Disease: Received Statin Therapy
- Statin Therapy for Patients with Cardiovascular Disease: Statin Adherence 80%
- Statin Therapy for Patients with Diabetes: Received Statin Therapy
- Statin Therapy for Patients with Diabetes: Statin Adherence 80%
- Controlling High Blood Pressure

[15] You can find AHRQ measures by visiting **https://qualityindicators.ahrq.gov/** and referencing the measure code in our guide (parentheses after the measures.)