Emergency Department Utilization (EDU)

SUMMARY OF CHANGES TO HEDIS MY 2025

- Removed gender from the *Reporting* and *Calculated* instructions and from the Data Elements Tables. Gender will still be included in the measure's risk weight models.

- Expanded the age and outlier criteria in the Observed Measurement in the *Rules for Allowable Adjustments*.

Description

For members 18 years of age and older, the risk-adjusted ratio of observed-to-expected emergency department (ED) visits during the measurement year.

Definitions

Outlier	Medicare members 18–64 years of age with six or more ED visits during the measurement year.
	Medicare members 65 years of age and older with four or more ED visits during the measurement year.
	Commercial members 18 years of age and older with four or more ED visits during the measurement year.
Nonoutlier	Medicare members 18–64 years of age with five or fewer ED visits during the measurement year.
	Medicare members 65 years of age and older with three or fewer ED visits during the measurement year.
	Commercial members 18 years of age and older with three or fewer ED visits during the measurement year.
Classification period	The year prior to the measurement year.
PPV	Predicted probability of a visit. The predicted probability of a member having an ED visit in the measurement year.
PUCV	Predicted unconditional count of visits. The unconditional count of ED visits for members during the measurement year.

Eligible Population

Product lines	Commercial, Medicare (report each product line separately).
Ages	18 years and older as of December 31 of the measurement year.
Continuous enrollment	The measurement year and the year prior to the measurement year.
Allowable gap	No more than one gap in enrollment of up to 45 days during each year of continuous enrollment.

Anchor date	December 31 of the measurement year.
Benefit	Medical.
Event/diagnosis	None.
Required exclusion	Members who use hospice services (Hospice Encounter Value Set; Hospice Intervention Value Set) or elect to use a hospice benefit any time during the measurement year. Organizations that use the Monthly Membership Detail Data File to identify these members must use only the run date of the file to determine if the member elected to use a hospice benefit during the measurement year.

Calculation of Observed Events

Step 1 Count each visit to an ED once, regardless of the intensity or duration of the visit. Count multiple ED visits on the same date of service as one visit. Identify all ED visits during the measurement year using either of the following:

- An ED Visit (ED Value Set).
- A procedure code (ED Procedure Code Value Set) **with** an ED place of service code (POS code 23).

Do not include ED visits that result in an inpatient stay (Inpatient Stay Value Set) or an observation stay (Observation Stay Value Set).

Step 2 Exclude encounters with any of the following:

- A principal diagnosis of mental health or chemical dependency (Mental and Behavioral Disorders Value Set).
- Psychiatry (Psychiatry Value Set).
- Electroconvulsive therapy (Electroconvulsive Therapy Value Set).

Step 3 For the remaining ED visits, calculate the number of visits per member and remove visits for outlier members. Report these members as outliers.

Step 4 Calculate the total using all ED visits identified after completing steps 1–3. Assign each remaining ED visit to an age and stratification category using the reporting instructions below.

Risk Adjustment Determination

For each nonoutlier member in the eligible population, use the steps in the *Risk Adjustment Comorbidity Category Determination* in the *Guidelines for Risk Adjusted Utilization Measures* to identify risk adjustment categories based on presence of comorbidities.

Risk Adjustment Weighting and Calculation of Expected Events

Calculation of risk-adjusted outcomes (counts of ED visits) uses predetermined risk weights generated by two separate regression models. Weights from each model are combined to predict how many visits each member might have during the measurement year. Weights are specific to product line (Medicare Under 65, Medicare 65 Plus and commercial). Refer to the reporting indicator column in the risk adjustment tables to ensure that weights are linked appropriately.

For each nonoutlier member in the eligible population, assign PPV risk weights.

Step 1 For each member with a comorbidity HCC Category, link the PPV weights.

Step 2 Link the age-gender PPV weights for each member.

Step 3 Sum all PPV weights associated with the member (HCC, age and gender).

Step 4 Calculate the predicted probability of each member having at least one visit based on the sum of the weights for each member using the formula below.

$$\text{PPV} = \frac{e^{(\sum \text{PPV WeightsForEachMember})}}{1 + e^{(\sum \text{PPV WeightsForEachMember})}}$$

Truncate the final PPV *for each member* to 10 decimal places. Do not truncate or round in previous steps.

For each member in the eligible population, assign PUCV risk weights.

Step 1 For each member with a comorbidity HCC Category, link the PUCV weights. If a member does not have any comorbidities to which weights can be linked, assign a weight of 1.

Step 2 Link the age-gender PUCV weights for each member.

Step 3 Calculate the predicted unconditional count of visits in the measurement year, by multiplying all PUCV weights (HCC, age and gender). Use the following formula:

PUCV = Age/Gender Weight * HCC Weight

Note: *Multiply by each HCC associated with the member. For example, assume a member with HCC-2, HCC-10, HCC-47. The formula would be:*

   *PUCV = Age/gender Weight * HCC-2 * HCC-10 * HCC-47*

Truncate the final PUCV *for each member* to 10 decimal places. Do not truncate or round in previous steps.

Expected Count of ED Visits Calculate the final member-level expected count of ED visits for each category using the formula below:

Expected Count of ED Visits = PPV x PUCV

Round the member-level results to 4 decimal places using the .5 rule and sum over all members in the category.

Step 4 Use the formula below to calculate the covariance of the predicted outcomes for each category. For categories with a single member (n_c=1), set the covariance to zero. Do not round the covariance before using it in step 5.

$$COV_c = \frac{\sum_{m=1}^{n_c}(PPV_m - mean(PPV)_c) \times (PUCV_m - mean(PUCV)_c)}{n_c - 1}$$

Where:

c denotes an individual category

n_c is the number of members in the category indicated by c

m is an individual member within the category indicated by c

PPV_m is the truncated PPV for the member denoted by m

$mean(PPV)_c$ is the unrounded/untruncated mean PPV in the category indicated by c

$mean(PUCV)_c$ is the unrounded/untruncated mean PUCV

$PUCV_m$ is the truncated PUCV for the member denoted by m in the category indicated by c

Step 5 Once the covariance between PPV and PUCV for a given category is calculated, it can be used as indicated in the formula below to calculate the variance for that category.

$$Variance_c = \sum_{m=1}^{n_c} (PPV_m \times PUCV_m)^2 \times \left(1 + (1 - PPV_m)^2 + \left(\frac{2 \times COV_c}{PPV_m \times PUCV_m} \right) \right)$$

Where:

c denotes an individual category

n_c is the number of members in the category indicated by c

m is an individual member within the category indicated by c

PPV_m is the truncated PPV for the member denoted by m

$PUCV_m$ is the truncated PUCV for the member denoted by m

n_c is the number of members in the category indicated by c

Round the variance for reporting to 4 decimal places using the .5 rule.

Reporting: **Number of Nonoutliers**

The number of nonoutlier members for each age group, reported as the NonOutlierMemberCount.

Reporting: **Number of Outliers**

The number of outlier members for each age group, reported as the OutlierMemberCount.

Calculated: **Number of Members in the Eligible Population**

The number of members in the eligible population (including outliers) for each age group and totals. Calculated by IDSS as the MemberCount.

Calculated: **Outlier Rate**

The number of outlier members (OutlierMemberCount) divided by the number of members in the eligible population (MemberCount), displayed as permillage (multiplied by 1,000), for each age group and totals. Calculated by IDSS as the OutlierRate.

Reporting: **Number of Observed Events Among Nonoutlier Members**

The number of observed ED visits for each age group, reported as the ObservedCount.

Calculated: **Observed Visits per 1,000 Nonoutlier Members**

The number of observed ED visits (ObservedCount) divided by the number of nonoutlier members in the eligible population (NonOutlierMemberCount), multiplied by 1,000 for each age group and totals. Calculated by IDSS as the ObservedRate.

Reporting: **Number of Expected Events Among Nonoutlier Members**

The number of expected ED visits for each age group, reported as the ExpectedCount.

Calculated: **Expected Visits per 1,000 Nonoutlier Members**

The number of expected ED visits (ExpectedCount) divided by the number of nonoutlier members in the eligible population (NonOutlierMemberCount), multiplied by 1,000 for each age group and totals. Calculated by IDSS as the ExpectedRate.

Reporting: **Variance Among Nonoutlier Members**

The variance (from Risk Adjustment Weighting and Calculation of Expected Events, PUCV, step 5) for each age group, reported as the CountVariance.

Calculated: **O/E Ratio**

The number of observed events among nonoutlier members (ObservedCount) divided by the number of expected events among nonoutlier members (ExpectedCount) for each age group and totals. Calculated by IDSS as the OE.

Note

- *Supplemental data may not be used for this measure, except for required exclusions.*

Table EDU-2/3: Data Elements for Emergency Department Utilization

Metric	Age	Data Element	Reporting Instructions
EmergencyDepartmentUtilization	18-44	NonOutlierMemberCount	For each Stratification
	45-54	OutlierMemberCount	For each Stratification
	55-64	MemberCount	NonOutlierMemberCount + OutlierMemberCount
	18-64	OutlierRate	OutlierMemberCount / MemberCount (Permille)
	65-74	ObservedCount	For each Stratification
	75-84	ObservedRate	1000 * ObservedCount / NonOutlierMemberCount
	85+	ExpectedCount	For each Stratification
	65+	ExpectedRate	1000 * ExpectedCount / NonOutlierMemberCount
	Total	CountVariance	For each Stratification
		OE	ObservedCount / ExpectedCount

Rules for Allowable Adjustments of HEDIS

The "Rules for Allowable Adjustments of HEDIS" (the "Rules") describe how NCQA's HEDIS measure specifications can be adjusted for other populations, if applicable. The Rules, reviewed and approved by NCQA measure experts, provide for expanded use of HEDIS measures without changing their clinical intent.

Adjusted HEDIS measures may not be used for HEDIS health plan reporting.

The following table is for the Rules for Allowable Adjustments for **Risk-Adjusted Measurement** of the Emergency Department Utilization measure (Observed ED Visits, Risk Adjustment Determination, Risk Adjustment Weighting, Expected ED Visits, Observed to Expected, Variance).

NONCLINICAL COMPONENTS		
Eligible Population	**Adjustments Allowed (Yes/No)**	**Notes**
Product lines	No	Organizations may not adjust product lines.
Ages	No	The age determination dates may not be changed. *Note: The denominator age may not be expanded. The ages for the risk weights may not be changed.*
Continuous enrollment, allowable gap, anchor date	No	For risk adjusted rates organizations are required to use enrollment criteria; adjustments are not allowed.
Benefits	Yes	Organizations are not required to use a benefit; adjustments are allowed.
Other	Yes, with limits	Organizations may only adjust the eligible population criteria to focus on an area of interest defined by gender, sociodemographic characteristics or geographical region. *Note: NCQA recommends evaluating risk model performance and validity within adjusted populations.* Organizations may not adjust for a clinical subpopulation (e.g., members with a diabetes diagnosis).
CLINICAL COMPONENTS		
Calculation of Observed Events	**Adjustments Allowed (Yes/No)**	**Notes**
Emergency Department Visits	Yes, with limits	Only events or diagnoses that contain (or map to) codes in value sets may be used to identify visits. The value sets and logic may not be changed. *Note: Organizations may include denied claims to calculate observed events.*
Outlier	Yes, with limits	Organizations may not adjust the outlier logic. *Note: Organizations may include denied claims to calculate these events.*

Exclusions	Adjustments Allowed (Yes/No)	Notes
Required exclusions	No	The hospice exclusion is required. The value sets and logic may not be changed.

Risk Adjustment and Calculation of Expected Events	Adjustments Allowed (Yes/No)	Notes
• Risk Adjustment Determination • Risk Adjustment Weighting • Expected count of ED Visits • Variance	Yes, with limits	Risk adjustment determinations, weighting and calculations (including PPV and PUCV) of expected events logic may not be changed. ***Note:*** *Organizations may include denied claims to calculate these events.*

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The following table is for the Rules for Allowable Adjustments for **<u>Observed Measurement</u>** of the Emergency Department Utilization Observed Events Measure (Observed ED Visits).

NONCLINICAL COMPONENTS		
Eligible Population	**Adjustments Allowed (Yes/No)**	**Notes**
Product lines	Yes	When adjusting this measure to assess for observed events only, organizations are not required to use product line criteria; product lines may be combined and all (or no) product line criteria may be used.
Ages	Yes	The denominator age may be expanded. The age determination dates may be changed (e.g., select, "age 50 months as of June 30").
Continuous enrollment, allowable gap, anchor date	Yes	Organizations are not required to use enrollment criteria; adjustments are allowed.
Benefits	Yes	Organizations are not required to use a benefit; adjustments are allowed.
Other	Yes	Organizations may adjust the eligible population criteria to focus on an area of interest defined by gender, race, ethnicity, socioeconomic or sociodemographic characteristics, geographic region or another characteristic.
CLINICAL COMPONENTS		
Calculation of Observed Events	**Adjustments Allowed (Yes/No)**	**Notes**
Emergency Department Visits	Yes, with limits	Only events or diagnoses that contain (or map to) codes in value sets may be used to identify visits. The value sets and logic may not be changed. *Note: Organizations may include denied claims to calculate observed events.*
Outlier	Yes	Organizations may adjust the outlier logic. Organizations may choose not to apply the outlier logic. Organizations may expand or reduce the outlier threshold. *Note: Organizations may include denied claims to calculate these events.*

Exclusions	Adjustments Allowed (Yes/No)	Notes
Required exclusions	Yes	The hospice exclusion is not required. Refer to *Exclusions* in the *Guidelines for the Rules for Allowable Adjustments*.