**Equity of Emergency Care Capacity and Quality (ECCQ) Electronic Clinical Quality Measure (eCQM), for Hospital Outpatient Quality Reporting Program: Current Draft Measure Specifications**

## Title

Equity of Emergency Care Capacity and Quality Electronic Clinical Quality Measure (eCQM)

## Measurement Period

January 1 – December 31, one calendar year

## Measure Type

Intermediate outcome

## Measure Description

This measure's main objectives are to capture variation in equity of emergency care and measure capacity and quality of emergency care to support hospital quality improvement. The measure aims to reduce patient harm and improve outcomes for patients requiring emergency care in an emergency department (ED). Emergency care capacity is inclusive of several concepts pertaining to boarding and crowding in an ED. This measure will be designed to align with incentives to promote improved care both in EDs and the broader health system to help identify where patients do not receive equitable access to emergency care.

The measure intends to capture established outcome metrics that quantify capacity and access of care in an ED and intends to positively impact millions of patients who seek treatment in the ED and help address long standing disparities in emergency care, including for patients with mental health disorders. Additional disparities in ED care are well documented for patients of older age, by race and ethnicity, primary language, and insurance status; such documented disparities include significantly longer ED wait times, higher left without being seen rates, longer boarding times, and longer total length of stay in the ED.

The target population includes patients of all ages and all visits that occur at an ED. There are four separate cohorts for this measure, stratified by age and principal diagnosis of a mental health disorder. The measure intends to address equity in emergency care through collection and stratification by race, ethnicity, primary language, and insurance status. This measure design will support potential confidential reporting of measure scores or public reporting to advance and improve health equity.

## Data Sources

This measure will be calculated using data from electronic health records (EHRs) from individual EDs, including standalone EDs and those associated with a hospital and/or health system.

## Denominator

Includes all ED visits associated with patients of all ages, for all-payers, during the performance period. Patients can have multiple visits during a performance period; each visit is eligible to contribute to the outcome.

## Exclusion Criteria

This measure has no denominator exclusions.

## Numerator

The numerator is comprised of any ED visit in the denominator with any quality gap in access; if the patient experiences any of the following during a visit, the visit is included in the numerator:

1. The patient waited longer than **1 hour** to be placed in a treatment room or dedicated treatment area that allows for audiovisual privacy during history-taking and physical examination; or
2. The patient left the ED without being evaluated by a physician/advanced practice nurse/physician’s assistant, or
3. The patient boarded (time from Decision to Admit (order) to ED departure for admitted patients) in the ED for longer than **4 hours**, or
4. The patient had an ED length of stay (LOS) (time from ED arrival to ED physical departure as defined by the ED depart timestamp) of longer than **8 hours**.

## Numerator Exclusions

ED observation stays, defined as an observation encounter where the patient remains physically in an area under control of the emergency department and under the care of an emergency department clinician inclusive of observation in a hospital bed, will be excluded from criteria #3 (boarding), and #4 (ED LOS). To clarify, patients who have a ‘decision to admit’ after an ED observation stay remain excluded from criteria #3 (boarding) calculations.

Transfers out to a facility will be excluded from criteria #4 (ED LOS).

## Stratification

Four cohorts of the measure will be calculated, stratified by age and mental health visits. The measure's outcome will be stratified by race and ethnicity, primary language, and insurance status to best address equity of emergency care.

A history of mental health disorders does not automatically exclude or include patients in the strata; the principal diagnosis defines inclusion in the appropriate strata. The principal diagnosis will be used to define strata inclusion; a history of mental health disorders will not automatically exclude or include patients in either stratum. For the purpose’s of this measure, mental health disorders do not include substance use disorders.

Stratification by age will be reported for patients less than 18 years of age and patients 18 years of age and older, for both mental health and non-mental health cohorts.

Total score and score for the following strata will be reported:

Stratification 1: all patients aged less than 18 years seen in the ED who do not have an ED encounter principal diagnosis consistent with psychiatric/mental health disorders. Patients who have an ED encounter principal diagnosis consistent with substance use disorders will be included in this stratification.

Stratification 2: all patients aged 18 years and older seen in the ED who do not have an ED encounter principal diagnosis consistent with psychiatric/mental health disorders. Patients who have an ED encounter principal diagnosis consistent with substance use disorders will be included in this stratification.

Stratification 3: all patients aged less than 18 years seen in the ED who have an ED encounter principal diagnosis consistent with psychiatric/mental health disorders.

Stratification 4: all patients aged 18 years and older seen in the ED who have an ED encounter principal diagnosis consistent with psychiatric/mental health disorders.

## Risk Adjustment

The measure will utilize volume standardization to address differences in patient population between hospitals. Volume-standardization is harmonized with other existing measures and accommodates a “like to like” comparison among hospitals. Large volume EDs will always be compared to large volume EDs, while smaller volume EDs will always be compared to EDs of similar size.

## Measure Score Calculation

The score for public display will be an adjusted percentage of access failures. This score is first calculated at the individual ED level as the proportion of ED visits where any one of the four outcomes occurred. Scores will be standardized z-scores by ED case volume strata (defined in ED visit volume bands of 20,000 visits). For CCN’s with more than one ED, volume-adjusted z-scores are then combined as a weighted average for that CCN. This volume-adjusted z-score is then multiplied by the national average to display an adjusted percentage, consistent with other measures currently displayed on Care Compare. A higher score means worse performance, compared to like CCNs. Individual hospitals will receive additional score information. See [Appendix C](#Bookmark3) for a mock score presentation and additional details.

## Appendix A: Measure Data Elements

* Denominator Encounter Data, ED setting
* Total Daily Arrivals (calculated for volume standardization): ED\_arrival\_date
* Minutes in waiting room: [ed\_roomed\_ts] - [ed\_arrival\_time]
* Waiting time in treatment room: [ed\_departure\_time]-[ed\_roomed\_ts]
* ED Length of stay (total waiting time in the ED): [ed\_departure\_time] - [ed\_arrival\_time]
* ED Departure Date: [ed\_departure\_date]
* Boarding Time: [ed\_departure\_time]-[ed\_bed\_requested\_ts]
* Mental Health: ICD-10 codes identified by ED encounter principal diagnosis (stratification as per prior measure(s))
* Left without being seen: ‘lwbs\_flag’
* Location: ED Observation status

## Appendix B: Social and Demographic Risk Factors

We will collect the following demographic data elements to explore score variation by social and demographic risk factors:

* Age or date of birth
* Gender
* Ethnicity
* Race
* Primary language
* Payer status
* Patient state

## Appendix C: Mock Scoring Presentation

All scores and data in this Appendix are hypothetical and for illustrative purposes only.

Narrative**:**

For hospital X with 100,000 ED visits (volume band Y) in a CCN with 3 other facilities, we assume 25% of their total ED visits qualify as an access failure based on numerator definition (visits that fall into any one of the four numerator categories). After volume standardization within the volume band, this score becomes 20%.

Public View\*:

\*Presentation of this information is consistent with what is shown on Care Compare for current measures

\*\*Example language, subject to change throughout

Private View (for hospitals only):

For Adult, Non-Mental Health:

1. Numerator 1: Waited > 1hr
   * **Observed percentage: 8%**
2. Numerator 2: Left the ED without being evaluated
   * **Observed percentage: 4%**
3. Numerator 3: Boarded > 4hrs
   * **Observed percentage: 20%**
4. Numerator 4: ED length of stay (LOS) > 8hrs
   * **Observed percentage: 5%**

*\*Some visits may result in multiple access failures in multiple numerator categories, therefore percentages listed above may not equal the total listed above.*

For Adult, Mental Health:

1. Numerator 1: Waited > 1hr
   * **Observed percentage: 1%**
2. Numerator 2: Left the ED without being evaluated
   * **Observed percentage: 0%**
3. Numerator 3: Boarded > 4hrs
   * **Observed percentage: 70%**
4. Numerator 4: ED length of stay (LOS) > 8hrs
   * **Observed percentage: 70%**

*\*Some visits may result in multiple access failures in multiple numerator categories, therefore percentages listed above may not equal the total listed above.*

For Pediatric, Mental Health:

1. Numerator 1: Waited > 1hr
   * **Observed percentage: 1%**
2. Numerator 2: Left the ED without being evaluated
   * **Observed percentage: 0%**
3. Numerator 3: Boarded > 4hrs
   * **Observed percentage: 70%**
4. Numerator 4: ED length of stay (LOS) > 8hrs
   * **Observed percentage: 70%**

*\*Some visits may result in multiple access failures in multiple numerator categories, therefore percentages listed above may not equal the total listed above.*

For Pediatric, Non-Mental Health:

1. Numerator 1: Waited > 1hr
   * **Observed percentage: 2%**
2. Numerator 2: Left the ED without being evaluated
   * **Observed percentage: 0%**
3. Numerator 3: Boarded > 4hrs
   * **Observed percentage: 5%**
4. Numerator 4: ED length of stay (LOS) > 8hrs
   * **Observed percentage: 1%**

*\*Some visits may result in multiple access failures in multiple numerator categories, therefore percentages listed above may not equal the total listed above.*