Hospital Equity Report Cell Suppression Procedures

This document describes the Hospital Quality Institute's cell suppression procedures used for the HCAI Hospital and System Equity Reports.

In accordance with Health and Safety Code Section 127373, subdivision (d), the data and information included in annual equity reports must be disclosed in a manner that protects the personal information of patients pursuant to state and federal privacy laws, including the Confidentiality of Medical Information Act (Part 2.6 (commencing with Section 56) of Division 1 of the Civil Code) and the federal Health Insurance Portability and Accountability Act of 1996 (Public Law 104-191).

This is defined in Sections 95303 and 95304 as being consistent with the California Health and Human Services Agency's "Data De-Identification Guidelines (DDG)," dated September 23, 2016, which include using complementary suppression when necessary to prevent back-calculation of suppressed cells. For the purposes of this requirement, CCR, Title 22, Division 7, Chapter 8.4 Sections 95303 and 95304 indicate that reports shall include the numerator, denominator, and rate of each core measure broken down by each stratification category, to the extent the data is available and consistent with the DDG. If the stratification group is prohibited from being reported due to the DDG, select "*suppressed.*"

The Hospital Equity Measures Submission Guide (HEMSG) clarifies that if the data is not readily available, including when data is not collected for *one* stratification group (e.g., Middle Eastern or North African) or *none* of the stratification groups (e.g., disability status), the category values should be left blank (i.e., the numerator, denominator, and rate treated as missing, rate *excluded* from use as a numerator or denominator for purposes of calculating rate ratios, and rate ratio left blank for the stratification group or groups).

The HEMSG specifies that rate ratios should be calculated *after* applying the DDG procedures. In the case of measures for which low rates are preferred (e.g., readmissions), the rate ratios are calculated as the rate for each stratification group divided by the rate of the reference group (i.e., the group with the lowest rate), resulting in the rate ratio for the reference group being **1.0**. However, if the rate of the reference group is zero (e.g., 0% readmissions), the rate ratios are calculated as the rate for each stratification group divided by *half of the lowest non-zero rate* (the rate ratio for the true reference group should be *reported* as **0.0** in such cases). In the case of measures for which high rates are preferred (e.g., breastfeeding), the rate ratios are calculated as the rate of the reference group (i.e., the group with the highest rate) divided by the rate for each stratification group, resulting in the rate ratio for the reference group being **1.0**.

The cell suppression procedures used by the Hospital Quality Institute for generating HCAI Hospital and System Equity Reports in accordance with the above law, regulations, and DDG guidelines are as follows.

1. **The numerator, denominator, and rate for a measure stratification are all replaced with the word "*suppressed*" (without the quotation marks), the rate is treated as *missing* and *excluded* from use as a numerator or denominator for purposes of calculating rate ratios,**

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and the rate ratio is left blank for the stratification group, if at least one of the following conditions is true:

    a. The numerator or the denominator for the stratification group is a value from 1 to 10, inclusive.

        i. Because zero rates can be valid (e.g., 0% readmission rate), values of zero in the numerator are *only* suppressed if their corresponding denominators are values from 0 to 10, inclusive (e.g., 0 readmissions / 100 index discharges = 0% readmission rate).

        ii. If the denominator is zero, then there are no cases associated with the stratification group. Hence, the cells will be blank instead of suppressed.

2. **The following rules are used for each stratification of a measure to determine whether complementary cell suppression is necessary and, if so, how to implement complementary suppression to prevent back calculation of the suppressed cells:**

    a. If a measure has *no* stratification groups suppressed based on the procedures above, no action is taken, as there is no need for complementary suppression.

    b. If a measure has *more than one* stratification group suppressed based on the procedures above, no action is needed for complementary suppression.

    c. **If a measure has *only one* stratification group suppressed based on the procedures above, then one of the following actions is taken for complementary suppression:**

        i. If Other, Unknown, Other/Unknown, or Choose Not to Disclose *is* one of the stratification groups (i.e., for all stratifications *except* race/ethnicity, age, and disability status), **AND** the data is readily available to calculate the rate for this stratification group, **AND** this stratification group *is not* the one that is already suppressed, **THEN** the numerator, denominator, and rate for this stratification group are all replaced with the word "suppressed" (without the quotation marks). The rate is treated as missing and *excluded* from use as a numerator or denominator for purposes of calculating rate ratios, and the rate ratio is left blank.

        ii. If Other, Unknown, Other/Unknown, or Choose Not to Disclose *is not* one of the stratification groups (i.e., for race/ethnicity, age, and disability status,), **OR** if the data *is not* readily available to calculate the rate for this stratification group, **OR** if this stratification group *is* the one that is already suppressed, **THEN** the numerator, denominator, and rate for the stratification group for which data is readily available to calculate the rate **AND** that has the *smallest denominator* are all replaced with the word "suppressed" (without the quotation marks). The rate is treated as missing and *excluded* from use as a numerator or denominator for purposes of calculating rate ratios, and the rate ratio is left blank.