Item #7: Data De-Identification Guidelines (DDG) Discussion: Approaches to Reporting Small-Number Data

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Context

- In the last HEMAC meeting, there was a discussion about balancing transparency and data privacy in regard to the high degree of data masking
  - Small numbers, small numbers for smaller/rural hospitals, which in turn affects reference group selection and limits rate ratio calculation
  - Small numbers also affect the level of perceived reporting completeness
- HCAI internally met and considered various approaches

- Current guidelines for HEM masking
  - Status of updating the DDG guidelines
  - Follow DDG guidelines for publication scoring criteria
  - During the review and approval of first year reports, a conservative approach was used for masking
    - Any numerators and/or denominator <11 and related rates
  - Currently if a stratification group is masked, it should not be included in the rate ratio calculation or used as the reference group

Key Considerations for Strategies

- Regulatory Implications
- Potential Exemptions from Agency
- Practical Value of the Data
- Statutory Constraints
- Usability and Burden on Hospitals
- Individual Privacy

Potential Strategies

- **Rates with Denominator Ranges**
- **Combining Stratification Groups**
- **Minimum Value Thresholds**
- **Three-Year Reporting**
- **Above/Below Average Rate**

Potential Strategies

Rates with Denominator Ranges | Combining Stratification Groups | Minimum Value Thresholds | Three-Year Reporting | Above/Below Average Rate

Current Approach	Potential Approach	Pros/Cons
For small numbers, both numerators and rates are masked with only the denominators being reported if >11. If both numerator and denominator are <11, both numbers and rates are masked.	Report specific rates and denominators in the form of denominator ranges while maintaining numerators masked for small numbers.	**Pro**: Decreased masking by allowing for reporting of rate and denominator range without allowing for back-calculating of numerators **Con**: Rates with denominator range can't specifically reflect the disparity.

Potential Strategies

Rates with Denominator Ranges | **Combining Stratification Groups** | Minimum Value Thresholds | Three-Year Reporting | Above/Below Average Rate

Current Approach	Potential Approach	Pros/Cons
Maintains the existing stratification groups, applying substantial masking for groups with small numbers	Develop either one uniform or different sets (small hospitals vs large hospitals) for combining stratification groups	**Pro**: Potential for decreasing masking and allowing for meaningful reporting by making the numerator and denominator more stable when combining groups **Con**: Fewer stratification groups; may not align with national standards

Potential Strategies

Rates with Denominator Ranges | Combining Stratification Groups | **Minimum Value Thresholds** | Three-Year Reporting | Above/Below Average Rate

Current Approach	Potential Approach	Pros/Cons
Follow DDG guidelines for publication scoring criteria Mask any numerators and/or denominators <11 and related rates	Modify masking thresholds: Mask numerator <11 (no change) Mask denominator <30 (change)	**Pro**: 1) Simple approach for hospitals and HCAI; 2) Avoid inconsistent interpretation of the publication scoring criteria; 3) Reduce over masking for some measures; 4) Adopted by Covered CA **Con**: 1) Agency DDG Workgroup approval is needed; 2) Maintains a masked rate

Potential Strategies

Rates with Denominator Ranges | Combining Stratification Groups | Minimum Value Thresholds | **Three-Year Reporting** | Above/Below Average Rate

Current Approach	Potential Approach	Pros/Cons
Yearly reporting	Aggregated three-year report of any masked data along with the yearly reporting	**Pro**: Potential for decreasing masking **Con**: 1) Potential risk of back-calculating masked data from the rolling three-year reports; 2) Clarification of the legislative intent is needed.

Potential Strategies

Rates with Denominator Ranges | **Combining Stratification Groups** | **Minimum Value Thresholds** | **Three-Year Reporting** | **Above/Below Average Rate**

Current Approach	Potential Approach	Pros/Cons
Report actual rates for each stratification group	Calculate the average rate and compare stratification groups to the average rate	**Pro**: Reduce number of masked rates **Con**: Above or below average doesn't allow HCAI to verify rate ratio

Potential Strategies

Rates with Denominator Ranges

Combining Stratification Groups

Minimum Value Thresholds

Three-Year Reporting

Above/Below Average Rate

HCAI Supports

Potential Strategies

Rates with Denominator Ranges

Combining Stratification Groups

Minimum Value Thresholds

Three-Year Reporting

Above/Below Average Rate

HCAI Supports

Next Steps

1. Gather input from advisory committee and stakeholders
2. Evaluate possible impacts of HEMAC and stakeholder-supported strategies on masking levels