

# Bias Detection Report

## Bias Detection and Analysis Report

Dataset Analyzed: MIMIC-IV

Relevant Features: Categorical Feature - patient\_insurance, Numerical Feature - hospital\_expire\_flag

Bias Type: Correlation

Cohen's d: Unable to evaluate as the categorical feature must have exactly two categories.

Standardized Difference (SD): The value returned was infinity, indicating an extreme bias.

Causal Inference (Average Causal Effect - ACE): The ACE value was approximately -0.0011, indicating a minimal effect.

Hilbert-Schmidt Independence Criterion (HSIC): The HSIC value was 1.4937e-12, indicating no bias.

Conclusion: The `patient\_insurance` feature exhibits an extreme level of bias with `hospital\_expire\_flag` based on standardized difference. However, other methods suggest minimal or no bias.

Recommendation: Further investigation is advised due to conflicting results, especially the extreme standardized difference.