

Bias Detection Report

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Dataset Analyzed: MIMIC-IV Dataset

Features Examined:

- Language (`patient_lang`)
- Treatment Type (`admission_type`)

Bias Type: Correlation

Detection Methods Used:

- Cramér's V
- Elift
- Statistical Parity and Z-scores

Results Summary:

- **Cramér's V:** 0.1018 (Minimal Bias)

- ****Elift:**** 2.371 (Significant Bias)
- ****Statistical Parity (Max Z-value):**** 0.209 (No Bias)

Conclusion:

The analysis reveals a moderate level of bias in how language may influence treatment types. While Cramér's V and statistical parity show minimal bias, the Elift result suggests significant bias, indicating that language could have a noticeable impact on treatment decisions in certain situations.

Recommendations:

Consider the potential impact of language bias in treatment decisions and explore mitigation strategies to ensure equitable treatment across language groups.

